CPP Investments

ANNUAL REPORT 2021

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How to read this report

This annual report describes the strategy, performance and governance of Canada Pension Plan Investment Board (CPP Investments™) over the fiscal 2021 year ended March 31, 2021.

The Strategy section includes a description of our purpose, investment approach and who we are. The report then describes our investment performance in the Management's Discussion and Analysis section, attributing our results to various activities and operations during the fiscal year. This is followed by additional information on the way we pay employees and executives, our governance and detailed Consolidated Financial Statements. An overview of this report and supplementary information including previous annual reports is available at www.cppinvestments.com.

Our Sustainable Investing Report can be found at www.cppinvestments.com/sustainable-investing. The next report will be released in November 2021.

Forward-looking statements

This annual report contains forward-looking information and statements. Forward-looking information and statements include all information and statements regarding CPP Investments' intentions, plans, expectations, beliefs, objectives, future performance, and strategy, as well as any other information or statements that relate to future events or circumstances and which do not directly and exclusively relate to historical facts. Forward-looking information and statements often but not always use words such as "trend," "potential," "opportunity," "believe," "expect," "anticipate," "current," "intention," "estimate," "position," "assume," "outlook," "continue," "remain," "maintain," "sustain," "seek," "achieve," and similar expressions, or future or conditional verbs such as "will," "would," "should," "could," "may" and similar expressions. The forward-looking information and statements are not historical facts but reflect CPP Investments' current expectations regarding future results or events. The forward-looking information and statements are subject to a number of risks and uncertainties that could cause actual results or events to differ materially from current expectations, including available investment income, intended acquisitions, regulatory and other approvals and general investment conditions. Although CPP Investments believes that the assumptions inherent in the forward-looking information and statements are reasonable, such statements are not guarantees of future performance and, accordingly, readers are cautioned not to place undue reliance on such statements due to the inherent uncertainty therein. CPP Investments does not undertake to publicly update such statements to reflect new information, future events, and changes in circumstances or for any other reason.

People. Purpose. Performance.

CPP Investments is a global investment management organization.

We were established to help ensure the Canada Pension Plan (CPP) is strong and sustainable for the long term, safeguarding the best interests of CPP beneficiaries for generations.

Our experienced and knowledgeable teams invest around the world in public and private assets.

Investments are diversified by asset class and geography so that the Fund remains resilient as it achieves growth in global markets over time.

Our Performance

Net assets

$497.2 B

Net return

20.4%

Net income

$83.9 B

For fiscal year ended March 31, 2021

Dear fellow Canada Pension Plan contributors and beneficiaries

Our fiscal 2020 annual report was published soon after the onset of the COVID-19 pandemic. At that time, I wrote that its full effects were yet to be seen.

Dr. Heather Munroe-Blum, Chairperson

A year on, the impact is clear: people everywhere have experienced hardship, economies were disrupted and businesses were forced to adapt swiftly to unprecedented challenges. Today, we are certain of two things: first, we owe a great deal to those who have risked their own safety to help us manage through this crisis; and second, the pandemic will continue to shape our lives far into the future.

I commend our employees for their extraordinary efforts during this difficult year. We went from having nine offices to more than 1,900 offices virtually overnight. Our colleagues have had to balance family responsibilities and safety concerns with their work to manage the Fund. This has required agility, resilience and adaptation to radically different work and personal environments. Our people have risen to the challenge.

Oversight of the organization's operations and risk management became ever more important this past year. Throughout the crisis, our Board of Directors engaged regularly with Management, meeting more often, and receiving enhanced briefings and reports on the health of our people and our investment portfolio.

Two factors are critical to our performance as a global investment manager and consistent with our mission: a world-class governance model and public accountability. The organization's independence from political interference since its inception has been key in safeguarding the Fund and instilling public trust.

In that context, I am pleased to report that the organization's strategy remains on track with a 10-year net return of 10.8%.

Stewardship of the long-term investment strategy

Succession planning

Succession planning is an ongoing activity, not an event. Key members of the Senior Management Team (SMT) are identified and prepared for potential appointment as chief executive. This ongoing process enabled the Board of Directors' clarity and conviction in appointing a new President & CEO, John Graham, when Mark Machin stepped down at the end of February.

Since joining CPP Investments in 2008, John has established a successful track record as an innovator and builder of leading global investment businesses. A highly regarded member of the SMT, John has been instrumental in helping shape and execute our organization's strategy. John's commitment to the organization, to his colleagues and to CPP Investments' unique mandate is unequalled. The Board of Directors unanimously agreed that he is ideally suited to lead the organization forward.

I thank Mark Machin for his leadership and very significant contributions to the growth and success of CPP Investments during his tenure as CEO. My fellow Directors and I wish Mark the best in his future endeavours.

Risk management

The Board of Directors has remained focused on risk management and approved a new Integrated Risk Policy effective for fiscal 2022. It is a timely, world-class standard in risk systems and governance.

Undoubtedly one of the greatest challenges to business is climate change. This past fiscal year, the Board of Directors approved an addition to our Proxy Voting Principles and Guidelines to address the impacts of climate change. For those companies that have palpably failed to address climate risks and have thereby impaired the value of the company, we will vote against the reappointment of their directors involved in risk oversight.

Engagement with business activities

In fiscal 2021, an ad hoc Board committee was established to review the mandate and function of the Investment Committee of the Board to further its focus on investment strategy and performance. Updated Terms of Reference were approved for the renamed Investment Strategy Committee effective for fiscal 2022.

Board oversight activities also include the annual review of the operating budget. In fiscal 2021, the operating expense ratio of 31.4 basis points was flat compared to the five-year average of 31.5.

CPP Investments held public meetings across Canada in 2020, allowing CPP contributors and beneficiaries to hear directly from, and ask questions of, the organization – this time, virtually. I provided an introductory message at each meeting and was very pleased to see the level of engagement by Canadians.

The Board of Directors holds a meeting in one of the organization's key markets around the globe on a regular basis. For fiscal 2021, the focus was on Asia Pacific and due to safety considerations and travel restrictions, the meeting was conducted virtually, during which the Board met with peers, partners and employees in the region.

Board of Directors renewal

Over the years, the Board of Directors has recruited new directors in a process consistent with our commitment to achieving global best-in-class standards of corporate governance, independence and diversity, commensurate with our public purpose. Consequently, our Board of Directors today is even more diverse vis-à-vis age, gender, leadership and global business experience.

The distinguished U.S. National Association of Corporate Directors awarded our efforts by choosing CPP Investments, the first Canadian company to be so recognized, as one of three recipients of its 2020 NACD NXT Award, which "applauds boards for their excellence in utilizing board diversity and innovation as a strategy for building long-term value."

This past July, we welcomed Boon Sim to the Board of Directors, replacing retired Director Jackson Tai. Mr. Sim brings with him an impressive array of global experience in finance, technology and health care.

Ashleigh Everett, John Montalbano, Mary Phibbs and I have all been reappointed to the Board of Directors.

In closing

It is difficult to find words that fully express my thanks and pride in the work done by our employees, Senior Management and my fellow Directors this past year. Throughout this crisis, they never faltered in their efforts on behalf of the 20 million CPP contributors and beneficiaries, demonstrating their deep commitment to this organization and its public purpose.

Heather Munroe-Blum OC, OQ, PhD, FRSC
Chairperson

Dear fellow contributors and beneficiaries,

I'm honoured to share my first annual update with you.

John Graham, President & CEO

It is impossible to discuss the last 12 months without first recognizing the pervasive impact of COVID-19. The pandemic tested the physical and mental health, spirits and financial security of Canadians in ways we couldn't previously imagine. It also tested the ability of human ingenuity and innovation to solve the world's most pressing issues. We have come far together over this time.

Against the backdrop of these extreme conditions, I'm pleased to report that the Fund and our organization stood resilient, delivering our strongest-ever net return of 20.4%, after all costs. Canada Pension Plan (CPP) benefits continued to be paid and the long-term sustainability of the CPP was protected and reinforced. We continued to take a long-horizon perspective on markets, build globally diversified portfolios and rely on our governance and risk management structures to weather the pandemic.

Since inception, we have operated with a defining purpose: to help protect the sustainability of the CPP, the base layer of retirement savings for most Canadians, through our investments. I witnessed that sense of mission and energy first-hand this year on computer screens from Toronto to Sydney to Mumbai. This sense of purpose is why our organization has not paused during this exceptionally challenging period.

This purpose is also what drew me here from a career in science more than a decade ago. And shortly before our fiscal year end, after a variety of roles at CPP Investments, I became President & CEO. Our organization has always sought to develop a deep pool of talent and I was honoured to step into the role.

My commitment to you is that our diligence in helping to protect the Fund will not waver. The values, culture and Investment Beliefs that have propelled us this far will be everlasting.

Most importantly, I'd like you to know the Fund is moving from strength to strength, by using an even sharper lens to monitor our long-term strategy as we move deeper into its execution and closer to becoming a trillion-dollar Fund. We are entering this new fiscal year with the mindset and the ability to be the best investor of our type in the world.

10-year net rate of return	Net investment income since inception (after all costs)	Compounded DVA since inception of active management strategy
10.8%	$343.7 billion	$28.4 billion

Our performance

The challenges of the last year tested the Fund like never before. This experience strengthened our belief that working together across our distinct investment departments and across markets to act as one Fund will continue to allow us to surface compelling opportunities to grow and safeguard the Fund.

The Fund performed well in fiscal 2021 and these results indicate that our strategy is on track. We saw the Fund grow to $497.2 billion, based on $83.9 billion in net income and $3.7 billion in net contributions received. The half-trillion-dollar mark is a significant milestone for the Fund and underscores the strength of our active management strategy. When CPP Investments was first created in 1999, it was estimated that we would not reach this point until 2028. Now, here we are, about seven years and $175 billion ahead of schedule, with a global footprint and diversified investment programs that could scarcely have been imagined back then.

To hold our strategy of active investment management accountable, we report a dollar value-added (DVA) comparison of our investment returns, after all costs, to our aggregated Reference Portfolio, which represents a passive portfolio of public-market stocks and bonds that the Fund might otherwise hold had CPP Investments not pursued active management.

The Reference Portfolio for the base CPP is made up of 85% global equities and the Reference Portfolio for the additional CPP is made up of 50% global equities. These Reference Portfolios outperformed this year after global equity markets soared amid fiscal stimulus flooding the market in response to COVID-19. Our Investment Portfolios' growth was less dramatic, but well above the range required to maintain the Fund's sustainability over the long term. Both the Reference Portfolios and the Fund ultimately behaved as we would expect them to this year, as they did at the end of our last fiscal year when our private market investments cushioned against a dramatically different falling market backdrop. Our DVA compared with our aggregated Reference Portfolio this fiscal year was negative $35.3 billion, or negative 10.0%, and our Reference Portfolios returns for the base CPP and additional CPP were 30.5% and 17.0%, respectively.

This year's return should be viewed in the context of our generational investment horizon. Short-term pressures can have a striking influence on yearly results but may be barely visible when viewed over the course of a generation. In fiscal 2015, for example, we achieved an annual net return of 18.2%, which was then our highest ever (until this year's results). Yet, just six years earlier, in fiscal 2009, we suffered our largest loss of 18.6% as the world entered the global financial crisis. This stark contrast of yearly results is an expected part of the process for long-term, diversified investors. As I have assured my friends and neighbours, we are built to withstand these annual fluctuations. We continue to far exceed returns projected to be needed to sustain the CPP over the long term. Our five-year and 10-year net returns of 11.0% and 10.8%, respectively, begin to demonstrate the wisdom of this strategic approach.

Why we remain a diversified, global investor

COVID-19 led to rapid acceleration in select sectors, bringing many of our long-term investment theses to fruition earlier than expected, to the benefit of the Fund. Telemedicine, virtual education and logistics fulfilment centres, for example, all experienced increased adoption, even as we entered global recessionary territory.

While risks abound in the world today, our strategy of diversifying across currencies, countries and asset classes enables us to manage those risks. We seek to ensure that the Fund is appropriately rewarded for risks we take, including geopolitical, climate change and reputation-related considerations, which is a unique approach that helps set us apart when analyzing investments and executing our strategy. For example, we rely on our regional expertise to deeply understand the risk characteristics of an intensifying capital and technology race between the Eastern and Western Hemispheres – an ability few investors can claim. (For more on our approach to Risk Management see page 97.)

The halfway milestone of our 2025 strategy

Four years ago, it was my privilege to help develop our enterprise-wide strategy. Now as President & CEO, I remain committed to its continued implementation.

Our priorities remain, including:

- Building our data and analytics capabilities;
- Continuing to grow and diversify as a global investor into emerging markets; and
- Further developing our talent and culture evolution.

To deliver on these priorities, in fiscal 2021 we established a Chief Investment Officer role, appointing Edwin Cass, to address the growing size, scale and complexity of our Fund. We also welcomed Frank Ieraci, Senior Managing Director & Global Head of Active Equities to our senior leadership team. Frank and Ed are both champions of using data-driven research and advanced analytics to improve long-term performance. In addition, Deborah Orida took on a new role as Senior Managing Director & Global Head of Real Assets, bringing her depth of investment experience to an additional part of the Fund. And at the beginning of fiscal 2022, Andrew Edgell became Senior Managing Director & Global Head of Credit Investments, adding his technical expertise to the senior team.

Three notable achievements this year:

First, we believe that the most rewarding investment opportunities in the global economy over the coming decades will be found among businesses that truly understand the risks, opportunities and impacts of climate change. Our investment strategy ensures we identify such businesses. Our Climate Change Program is more deeply embedded into our investment processes and operations, including tools for assessing the economic damage associated with different Energy Transition and Climate Change (ETCC) paths as we select securities and design our portfolio. By acting as a long-term and engaged capital partner, we expect to see continued reduction of the Fund's exposure to greenhouse gas emissions over time.

Second, we continued to enhance our approach to risk management. This year, we built on our Integrated Risk Framework with a new and extended policy that provides the safeguards needed to manage a crisis while protecting the financial stability and operations of the Fund. Our approach worked as intended during the pandemic by prioritizing employee health and safety, the ability to meet our obligations to the CPP and other counterparties, and adherence to Board-approved investment and non-investment risk tolerances. We were able to act decisively this year because we had risk management mechanisms in place before COVID-19, including a structure to quickly gather and assess information in a crisis.

Third, we started to realize an increase in innovation across the Fund through a focused effort to harness the power of our San Francisco office's proximity to cutting-edge technology. We now regularly expose our global colleagues to the expertise and relationships we've built in the Valley. For example, we hosted a private discussion for select portfolio-company Chief Financial Officers and organized an investment pitch event focused on solving complex societal problems. We have reimagined how collaboration can happen by acting as a convener between our investment professionals, external investment managers and Bay Area thought leaders and entrepreneurs.

Having now spent over a decade at CPP Investments, I'm convinced our organization has unparalleled potential. We operate at a rare nexus in the financial world and possess knowledge and perspective that is only attainable by managing a multi-asset class, global and diverse portfolio. This powerful combination makes us the sought-after capital partner we are today.

We plan to use this standing to bring increased rigour to how we integrate various elements of our portfolio and use new tools. Three elements of particular interest include: building our talent strategy to attract the highest performing individuals from a multitude of disciplines who want to work for a purpose-driven organization; identifying and removing unconscious biases from investment decisions by bringing to bear all the talents and wisdom of a diverse workplace; and continuing to seek rewarding investment opportunities among businesses that understand the risks, opportunities and impacts of climate change.

In gratitude

There are many lessons to be drawn from this difficult year. One of the most important for me is the importance of culture, by which I mean the beliefs, practices and actions of the people who make up an organization. My colleagues displayed extraordinary character and courage this past year, surmounting difficult personal and professional challenges, looking out for one another with empathy, and never losing sight of the importance of their work for you. Their resilience gives me confidence that we will continue to excel, whatever the future might bring. They, along with their families who supported the many evenings and weekends of relentless work to secure the Fund this past year, have my heartfelt gratitude. I thank them on behalf of all Canadians.

I was extremely fortunate to take the helm of an organization that has more than proven its mettle, and for that, I also thank my predecessor, Mark Machin. Our Board of Directors has demonstrated unwavering support of the organization over the past year. I am grateful for that, and for the support the Board has shown me personally as I transition into my new role.

Most of all, I would like to thank our CPP contributors and beneficiaries, the working people of Canada, for the confidence they have placed in us. I can promise that we will continue to work hard every day to earn that trust and manage the Fund in the best interests of you and generations to come.

Sincerely,

John Graham
President & CEO

Our resilience through the COVID-19 pandemic

CPP Investments began its fiscal 2021 year as the pandemic was only just taking hold. Now, more than one year later, we have demonstrated our ability to preserve and create value through this challenging time. We continue to maintain our long-term perspective, along with a responsive approach to the situation.

Sustainability of the Fund

The Fund's sustainability over generations remains strong. We are committed to our investment strategy, including long-term objectives and risk targets, and also retain the flexibility to act on short-term opportunities that may arise. The core principles of our investment approach, such as diversification, are paying off.

Employee success and well-being

Ensuring our employees are engaged and well informed was a priority as the organization largely worked remotely through the entire fiscal year. Support for employee health and remote working arrangements was offered. And, amid individual challenges, the organization never paused as global teams found new ways to collaborate and deliver value for the Fund.

Risk management, liquidity and governance

We maintained a strong liquidity position throughout the COVID-19 stress periods. We also continue to monitor all pandemic-related developments and their potential impacts to our liquidity and capital deployment targets. We applied insights from the COVID-19 pandemic to enhance crisis management governance and processes to further improve our ability to respond effectively to future crises.

How we view current reduced CPP contribution inflows

The financial consequences associated with the COVID-19 pandemic have resulted in lower-than-expected contribution inflows. CPP Investments manages short-term liquid assets to ensure there is no danger of disruption to CPP benefit payments, despite temporarily lower contribution inflows. Moreover, the 75-year period used in the triennial actuarial assessments for the CPP moderates the impact on the financing and stability of the CPP not only of occasional severe market downturns, but also of variations in the level of employment and pensionable earnings.

Long-term economic views

The pandemic plunged the global economy into its deepest contraction in decades, as government restrictions and social distancing hampered economic activity across the globe. Policy responses were relatively quick to follow, with dramatic increases in government spending and monetary stimulus. Investors reacted to this stimulus and global equity markets posted record gains in the fiscal year.

We expect the recovery will vary widely across industries and countries, influenced by their prevailing economic structures, capacity for additional policy responses and vaccine rollout schedules.

Despite the magnitude and scope of the recent global health crisis and economic shock, other fundamental long-term trends that underpin our investment strategy remain in place. For instance, we still project emerging markets will account for a higher share of total global economic activity over the coming decade, with the share of world GDP accounted for by emerging economies expected to surpass 50% during this time.

CPP Investments has a critical mission: to help ensure Canadians have a strong foundation of financial security in retirement.

Our defining purpose is to manage Canada Pension Plan (CPP) funds in the best interests of contributors and beneficiaries. Our experienced professionals invest globally to maximize returns without undue risk of loss, with consideration of the factors that may affect funding of the CPP. We take a disciplined, long-term approach to managing the Fund.

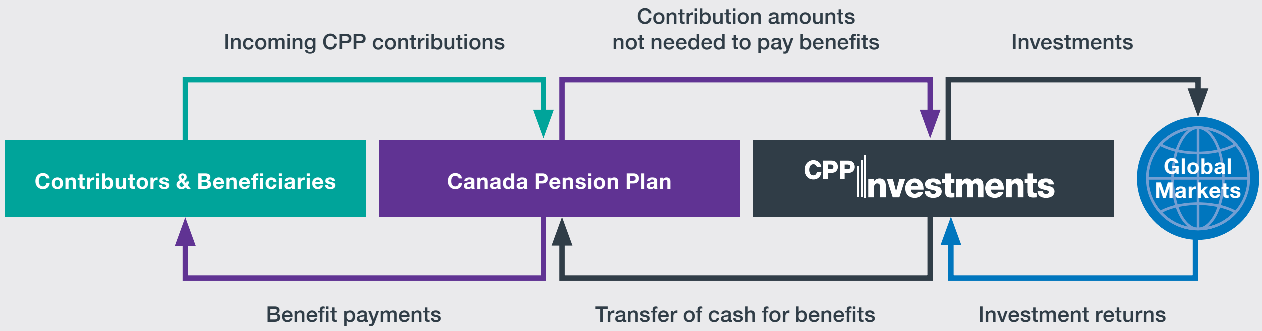
Building long-term value

When we first began to operate in 1999, the Fund was not expected to reach the half-trillion-dollar mark for another seven years – in 2028.

As we enter our 22nd year managing the Fund, CPP Investments is now about $175 billion ahead of those projections.

How we serve the Canada Pension Plan:

> Workers in Canada and their employers jointly contribute to the Canada Pension Plan.
> Contributions are first used to pay CPP benefits.
> We invest the contributions not needed to pay benefits and create global, diversified investment portfolios.
> Assets are managed to maximize returns, without taking undue risk, to help sustain the CPP for future generations.



We are on track to help maintain the sustainability of the Canada Pension Plan.

Sustainability highlights

CPP Sustainability

75+ Years

Contributors and beneficiaries

20+ M

10-year net income

$303.9 B

10-year return (net nominal)

10.8%

The CPP is designed to provide a stable source of retirement income to Canadians today and across multiple generations. Returns earned on our investments support its endurance.

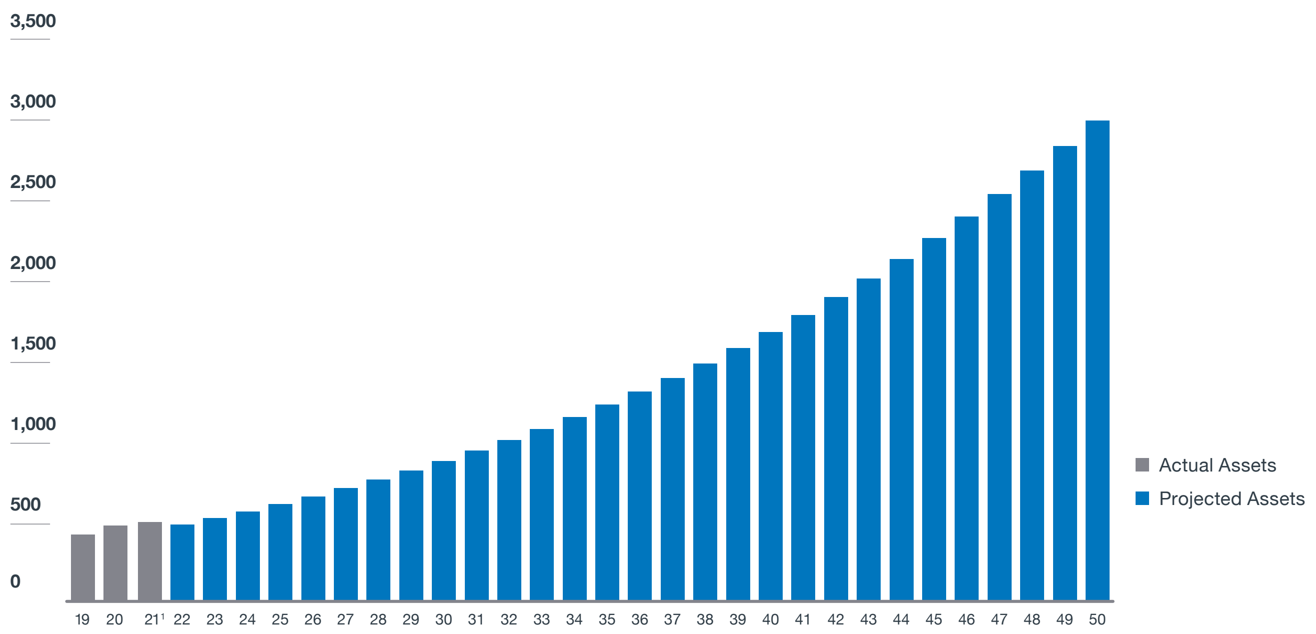
The Office of the Chief Actuary monitors the long-term sustainability of each part of the Plan. Every three years, the Chief Actuary reports on the financial state of the base CPP and additional CPP over the next 75 years.

The most recent report, released in December 2019, reconfirmed that both parts of the CPP are sustainable at the legislated contribution rates as of December 31, 2018.

The chart below illustrates the combined projections of assets from the Chief Actuary's 30th Report, which considers future changes in demographics, the economy and investment environments. The Fund has two sources of growth: net contributions from CPP participants and net income earned from investments.

By 2050, the total Fund is projected to reach $3 trillion ($1.6 trillion when value is adjusted for expected inflation).

Projection of Fund Assets As at December 31 ($ Billions)



1. Represents actual total assets as at March 31, 2021.

We search globally for the best possible investment opportunities.

Our Fund is designed to capture global growth while also demonstrating resilience during periods of market uncertainty. Our team of professionals collaborate across nine global offices to apply their deep expertise and local knowledge to source investment opportunities, engage with world-class partners and build value in our existing assets.

Investment highlights

Countries where we hold investments

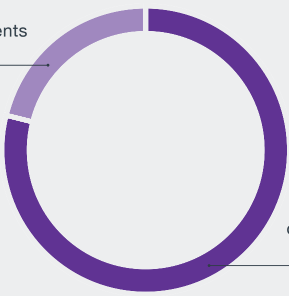
56

Global investment partners

292

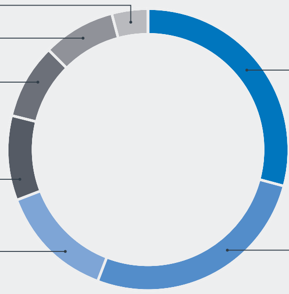
Total Fund Market Classification

For fiscal year ended March 31, 2021



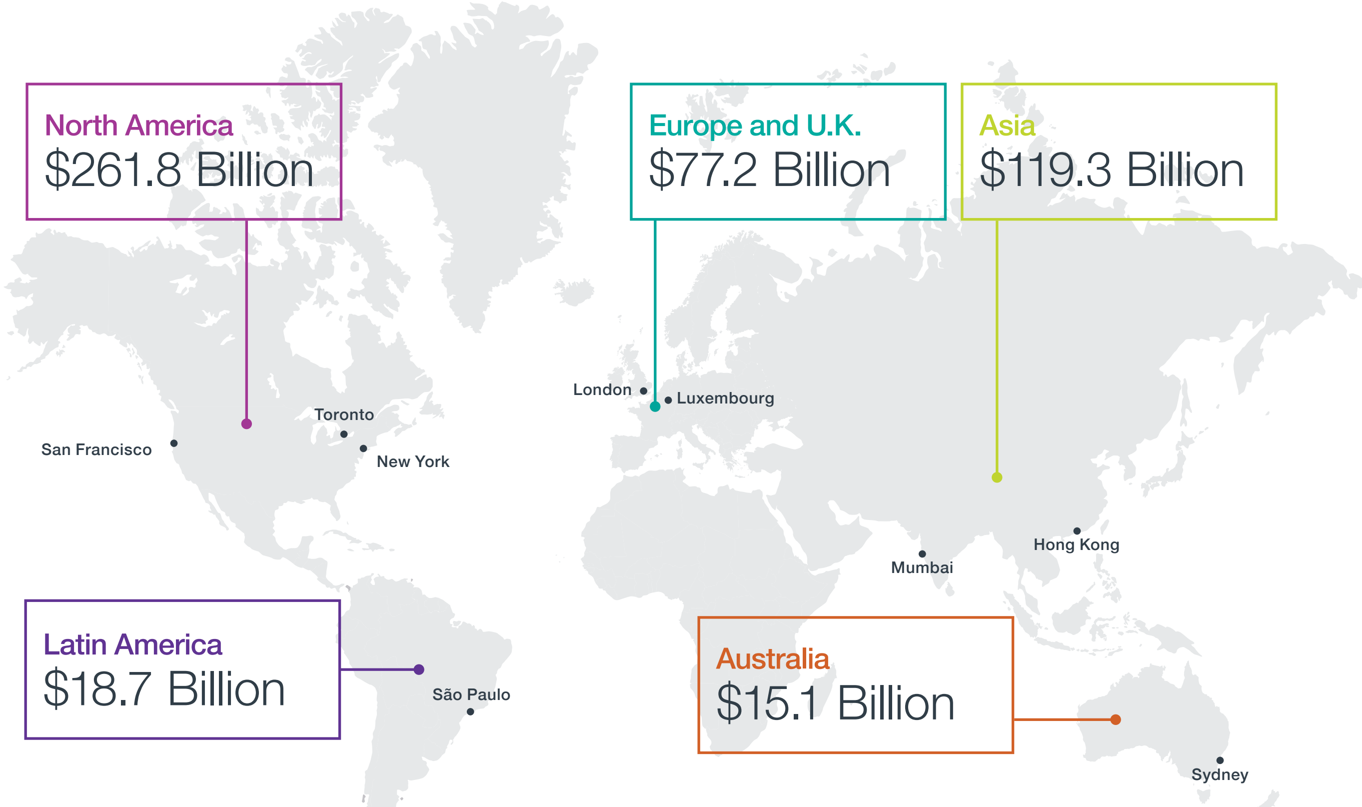
Asset Mix

As at March 31, 2021



1. Net of external debt issuances

Regional investment highlights



Intact Financial
Canada | C$1.2 billion

Cornerstone financing to support Intact Financial Corporation in its acquisition of RSA's Canada and U.K. & International operations

Wolf Carbon Solutions
Canada | C$315 million

Supported the construction of the Alberta Carbon Trunk Line, a 240-kilometre CO_2 transportation pipeline in Alberta

insitro
United States | US$150 million

Investment in insitro, a machine-learning driven drug discovery and development company

Transurban Chesapeake
United States | US$624 million

15% interest in Transurban Chesapeake, a toll-road business comprising the 495, 95 and 395 Express Lanes located in the Greater Washington Area

TOTVS
Brazil | C$103 million

2.7% stake in TOTVS, a leading provider of business software solutions

Embracer
Sweden | €499 million

5.4% ownership in Sweden-listed Embracer Group, Europe's largest developer and publisher in the global video game industry

Galileo Global Education
France | €550 million equity investment

Completed the acquisition of a significant minority stake in Galileo Global Education, a leading international provider of higher education and Europe's largest higher education group

Kuaishou Technology
China | US$150 million

Cornerstone investor in the IPO of Kuaishou Technology, a mobile short video sharing and live streaming platform in China

GLP Japan Income Fund
Japan | C$412 million

Complemented our successful development partnership with GLP through the launch of the largest private open-ended logistics fund in Japan

Virtusa
India | US$300 million

24.99% stake in Virtusa Corporation, a global provider of a full spectrum of IT services

Green Bond
Australia | A$150 million

Issued our first Australian-dollar green bond, adding a fourth currency to our green bond issuance

Our talented and experienced teams source diverse investments and partnerships around the world.

Employees

Our purpose-driven culture is powered by our global workforce. Our employees uphold our Guiding Principles of Integrity, Partnership and High Performance, driving the Fund forward to meet its investment objectives.

Full-time

1,936

Number of global offices

9

Gender diversity

46% women

Private Equity: Direct Private Equity

GlobalLogic Sale

US$3.8 billion net proceeds

Agreed to sell our interest in GlobalLogic Worldwide Holdings, Inc. (GlobalLogic), a leader in design-led digital engineering services that develops next-generation software platforms for enterprises worldwide

Held our 45% ownership equity stake in GlobalLogic since 2017, during which time we supported meaningful initiatives that drove GlobalLogic's rapid revenue growth and operational scaling

The all-cash transaction is expected to complete in the third quarter of calendar 2021

United States

Team members:
Hafiz Lalani, Austin Locke, Nikki Papadopoulos, Nathaniel Goulbourne, Shannon Whitaker

"GlobalLogic generated exceptional investment returns, including during the COVID-19 pandemic when the need for digital transformation only accelerated."

Hafiz Lalani, Managing Director, Head of Europe, Direct Private Equity

Active Equities: Relationship Investments

Premium Brands

C$92 million

Completed two follow-on investments in Premium Brands Holdings Corporation (Premium Brands) during fiscal 2021, a leading producer, marketer and distributor of specialty food products in Canada and the U.S., through private placements of common shares

The second investment supported the company's joint acquisition of Clearwater Seafoods Incorporated with a Mi'kmaq First Nations coalition

Combined with our existing position in Premium Brands, we have invested an aggregate of $292 million for an ownership stake of approximately 8.3%

Canada

Team members:
Sean Cheah, Pablo Vallejo, Catherine Bell, Kelly Li

Real Assets: Infrastructure

Iguá Saneamento

C$270 million

Signed an agreement to acquire a 45% aggregate stake in Iguá Saneamento S.A. (Iguá), a water and sewage service holding company in Brazil

Operates 18 concessions and contracts across five Brazilian states, providing sanitation services for more than six million people

Brazil

Team members:
Ricardo Szlejf, Sebastian Berardi, Joao Possamai, Gabriel Montagnini, Allan Lusor, Carolina Sa

Real Assets: Power & Renewables

Renewable Power Capital
€245 million-plus in committed capital

Established a new, U.K.-based platform, Renewable Power Capital (RPC) to invest in solar, onshore wind and battery storage, among other onshore renewable technologies, across Europe

Committed to acquire a 171 MW portfolio of onshore wind projects in Finland

Entered into a joint venture to develop 3.4 GW across 14 solar energy projects in Spain

Europe

Team members:
Bill Rogers, Batiste Ogier, Bianca Ziccarelli, Ola Okarmus, Ali Lodi

Credit Investments: APAC Credit

Baring Private Equity Asia's India Credit Fund III
Up to US$250 million commitment

Committed as a cornerstone investor to the Credit Fund III, and to a Credit Fund III overflow vehicle

The fund strategy is focused on Indian rupee-denominated secured lending to performing mid-market Indian companies

India

Team members:
Andrew Schantz, Chris Liu, Lulu Chen

Inclusion and diversity

We are committed to fostering a truly inclusive and diverse organization, where every employee can feel free to be themselves. Our employee resource groups are motivated to effect change within our own culture, and in our communities, through a range of programs and activities.

Go Green
Raises employee awareness to improve collective environmental efficiency and reduce CPP Investments' internal environmental footprint.

MindMatters
Promotes mental health and a psychologically healthy workplace for each of us.

Mosaic
Builds awareness of the rich cultural diversity at CPP Investments.

OUT
Contributes to a diverse and inclusive culture through building awareness of and engagement with the LGBTQ + community.

WIN (Women's Initiative)
Aims to improve organizational culture by attracting, developing and retaining high-performing female professionals.

We are one Fund with six investment departments that build and manage our assets.

Our teams identify investment opportunities and evolve our investment strategies around the world. Working together, they help maximize returns for the total Fund in a cost-effective way, taking various risks into account.

Assets under management by investment department (as at March 31, 2021)

Total Fund Management

Focuses on design of the Investment Portfolios over the long, medium and short term, as well as ongoing implementation of the Total Portfolio Investment Framework and management of the Balancing Portfolio.

$222.3 Billion

Credit Investments

Manages CPP Investments' public and private credit investments globally, investing in credit and credit-like products across the capital structure.

$43.8 Billion

Capital Markets and Factor Investing[1]

Ensures CPP Investments has the flexibility to efficiently gain access to multiple different sources of return in public equities, fixed income securities, currencies, commodities, derivatives and externally managed funds on a global basis.

$50.1 Billion

Private Equity

Invests in global private equity, both directly and with partners, suitable for large, patient and knowledgeable investors.

$125.1 Billion

Active Equities[1]

Invests in common equity of publicly traded companies across sectors, geographies and sizes.

$82.2 Billion

Real Assets

Consists of investments in real estate, infrastructure, power and renewables, and energy and resources sectors.

$104.4 Billion

1. For Capital Markets and Factor Investing and Active Equities, Assets Under Management (AUM) represents the sum of long investments and the net value of derivatives in each of these programs. AUM differs from Net Investments, which factors in offsetting systematic exposures through short investments.

We continue to advance our long-term strategy, develop leading capabilities and accomplish our objectives.

In fiscal 2021, we made progress on a number of multi-year priorities, as well as achieving our objectives for the year.

1. Continue to scale investment programs and increase our global presence.

> Grew investments in emerging markets from $87.6 billion to $104.2 billion, representing 21.0% of our total assets.

> Expanded the employee base outside Canada from 449 to 486 people.

2. Drive alpha-generating capabilities to enhance the quality of investment analysis and decision-making.

> Bolstered efforts to capture and leverage data from our assets and embed data science skill sets into our investment teams.

> Enhanced our ability to develop and scale machine-learning forecasting capabilities using traditional and alternative datasets including the creation of dedicated 'pods' (teams) across asset classes.

3. Further develop key technology infrastructure and data analysis capabilities.

> Made significant headway on building our new end-to-end public markets technology platform, including configuration of requirements, interface development, user training and testing.

> Fully operationalized the Enterprise Data Fabric, CPP Investments' strategic ecosystem of well-governed and trusted data, to support a wide range of business needs.

4. Build on our risk framework to deliver world-class risk management and risk governance.

> Made enhancements to the Integrated Risk Framework and Policy, which takes effect for fiscal 2022, to improve risk governance.

> Established a new risk limits framework spanning all investment departments and created a process to systematically calculate relevant measures on a timely basis.

> Leveraged learnings from the COVID-19 pandemic to update internal mechanisms to inform decision-making during a financial crisis and horizontally integrate financial concerns across all areas of crisis management.

5. Foster a culture that promotes innovation, ambition, agility and inclusiveness.

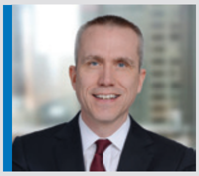
> Introduced cross-functional team initiatives to achieve ambitious goals in a 90-day sprint and serve as incubators for experimentation, while accelerating measurable business results. Topics included: enhancing climate change due diligence in investment selection and asset management, driving new insights for our real estate program, and de-biasing investment decision-making.

> Gained momentum through the 'Evolve Squad', a global employee-based network focused on driving awareness, new ways of working, and action to achieve meaningful business outcomes.

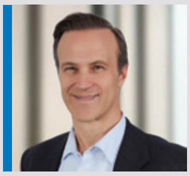
Global leadership

Our Senior Management Team brings a broad range of experience to the organization.

John Graham
President & Chief Executive Officer



Neil Beaumont
Senior Managing Director & Chief Financial and Risk Officer

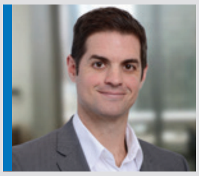


Alain Carrier
Senior Managing Director & Head of International, Head of Europe

Edwin Cass
Senior Managing Director & Chief Investment Officer

Andrew Edgell
Senior Managing Director & Global Head of Credit Investments

Shane Feeney
Senior Managing Director & Global Head of Private Equity

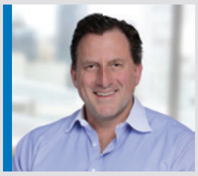


Frank Ieraci
Senior Managing Director & Global Head of Active Equities

Suyi Kim
Senior Managing Director & Head of Asia Pacific

Michel Leduc
Senior Managing Director & Global Head of Public Affairs and Communications

Deborah Orida
Senior Managing Director & Global Head of Real Assets



Geoffrey Rubin
Senior Managing Director & Chief Investment Strategist

Kelly Shen
Senior Managing Director & Chief Technology and Data Officer

Mary Sullivan
Senior Managing Director & Chief Talent Officer

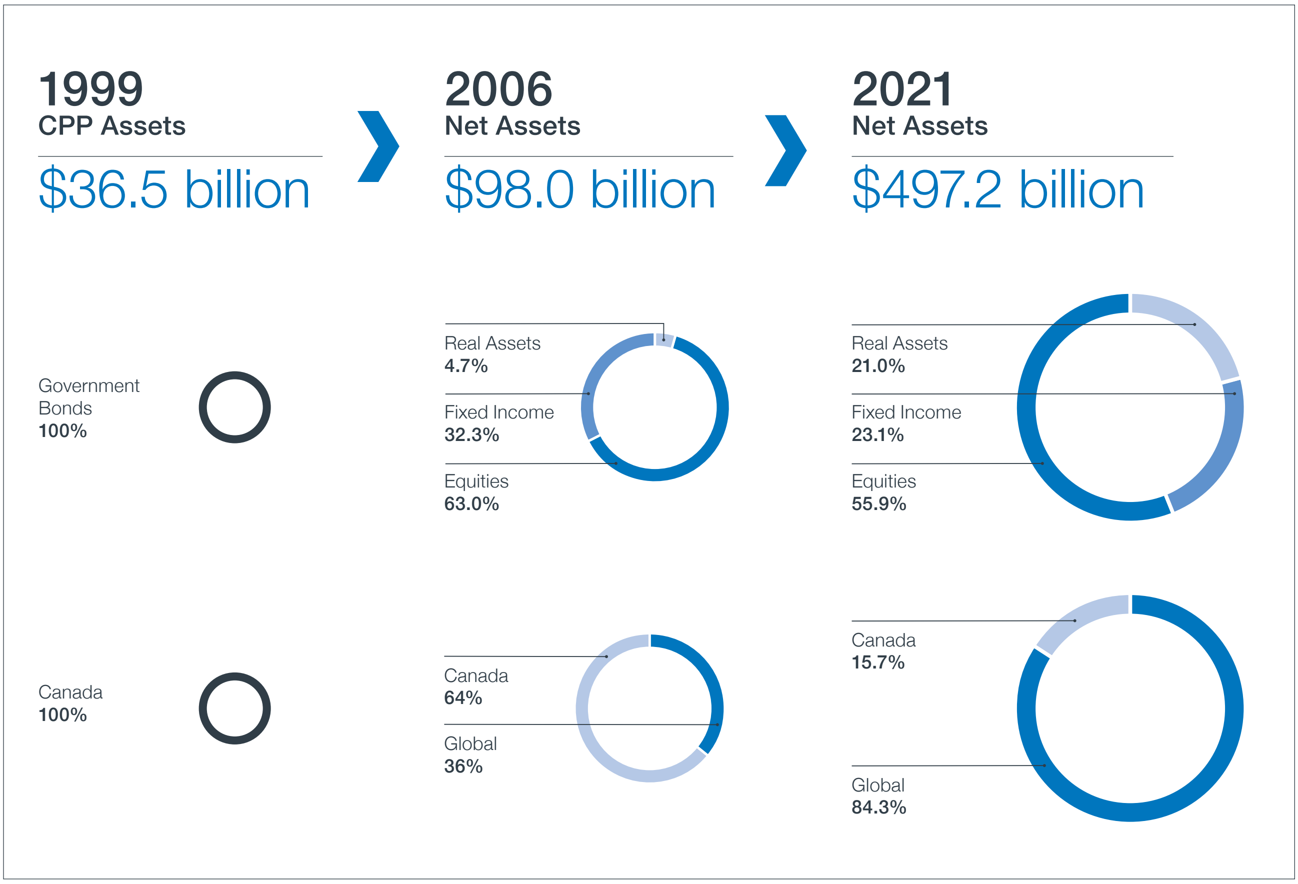
Patrice Walch-Watson
Senior Managing Director, General Counsel & Corporate Secretary

Poul Winslow
Senior Managing Director & Global Head of Capital Markets and Factor Investing

Learn more about the CPP Investments Senior Management Team at **cppinvestments.com/about-us**

Our Purpose and Investment Strategy

This section provides an overview of how CPP Investments manages the Fund.



Strategy

How CPP Investments manages the Fund

Our investment objectives

The *Canada Pension Plan Investment Board Act* directs Canada Pension Plan Investment Board (CPP Investments) to manage the amounts transferred to it by the Canada Pension Plan (CPP) in the best interests of CPP contributors and beneficiaries.

Under the Act, CPP Investments has the objective to "invest its assets with a view to achieving a maximum rate of return, without undue risk of loss, having regard to the factors that may affect the funding of the Canada Pension Plan."

CPP Investments is a professional investment organization and is independent from any government. The Act sets no expectations on economic development, social objectives or politically based directives. The federal and provincial governments have oversight of CPP Investments, but CPP Investments is governed by an independent and professional Board of Directors, not by any government. As a result, we are able to invest and manage the Fund with an unambiguous focus on the best interests of CPP contributors and beneficiaries.

When we refer to the Fund, it means the total assets managed by CPP Investments, net of their related liabilities.

Our purpose

Our purpose is to help sustain the CPP by prudently investing the Fund's assets, as a foundation on which Canadians can build financial security in retirement.

When the CPP began in 1966, the contribution rate was set low with the clear expectation that it would rise over the years. Despite several increases in the required contribution rate, there was growing concern about the financial viability of the CPP. In response, the federal and provincial governments worked together in 1997 to place the CPP on a more secure financial footing. They made two major changes. First, they introduced a funding approach to set contribution rates at a long-term, stable level. Second, they directed the Fund to invest broadly in the global capital markets to seek higher long-term returns. For this purpose, they established CPP Investments as a Crown corporation to independently manage investment of the Fund.

Until March 1999, the Fund was invested only in non-marketable Canadian federal, provincial and territorial bonds (known as CPP Bonds). At that time, CPP Investments became responsible for investing all CPP contributions that were not needed for CPP payments and administration expenses. The Fund also became responsible for reinvesting all net income generated. Since then, the total Fund has grown to its current value of $497.2 billion. Of that, CPP Investments received net transfers of $153.5 billion from the CPP, including the CPP Bonds and net cash inflows.

In January 2019, CPP Investments also took on responsibility for managing funds related to the additional Canada Pension Plan (additional CPP). The additional CPP account within the Fund reached $6.3 billion at March 31, 2021 and will grow rapidly with its anticipated substantial net cash inflows. (See page 20 for more details.)

It is critical that we manage the Fund in a way that offsets the risks and non-investment factors that the CPP itself faces. These factors include an aging population in Canada, future levels of fertility, employment and immigration, and the real rate of growth in employment earnings on which CPP contributions are based. To offset the risks related to future Canadian economic and demographic conditions, our investments are prudently diversified across the world, with 84.3% currently invested outside Canada.

Independence with accountability

All Fund assets are owned by CPP Investments and are entirely separate from any government's assets. Contributions to the CPP by individuals and employers that are not needed to pay current CPP benefits are transferred to CPP Investments, which invests the contributions according to its legislative mandate. These contributions should be thought of as savings invested to generate future retirement benefits.

Unlike Old Age Security, CPP benefits do not come from general tax revenues. The money required to pay CPP benefits comes from only two sources:

- Contributions from individual contributors and their employers based on employment earnings up to the maximum amount covered by the CPP; and
- Investment returns earned by CPP Investments.

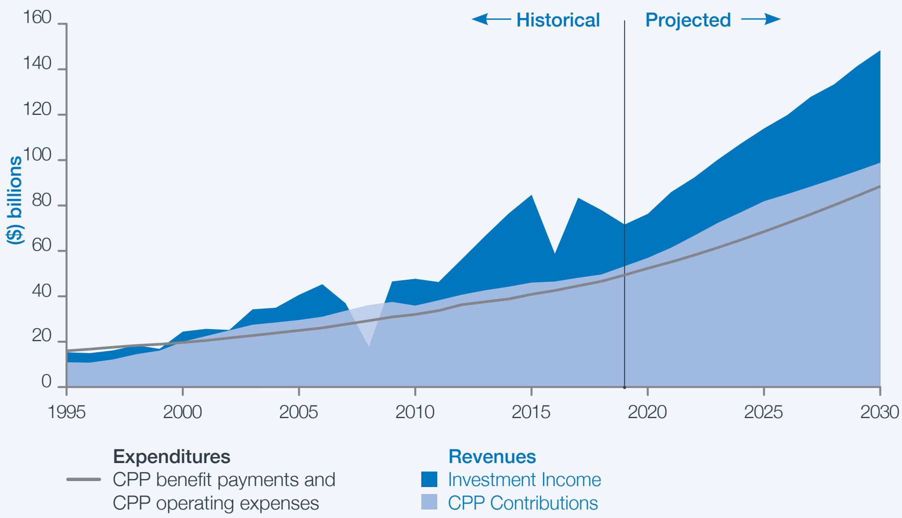
Most importantly, unlike taxes that go into the federal government's consolidated revenue fund, CPP contributions and Fund assets may only be applied to serve the CPP.

Under the 1997 CPP reforms, the federal and provincial finance ministers enshrined the independence from government of CPP Investments with carefully written legislation, ensuring that we can, and do, operate at arm's length, free from political influence. To maintain public trust, we operate in a highly transparent and open way, consistently demonstrating our commitment to accountability in our practices and actions. This includes:

- Using multiple channels of public outreach to explain who we are, what we do and how we invest;
- Disclosing our investment activities including major transactions in a timely manner;
- Issuing regular reports about our assets, portfolio holdings and performance results;
- Holding public meetings every two years in participating provinces (all provinces except Quebec, which maintains a parallel Quebec Pension Plan);
- Undergoing an external special examination every six years;
- Delivering speeches and making presentations on a wide range of subjects related to key insights, risks, challenges, opportunities and events affecting our strategy and investments; and
- Actively engaging with stakeholders, pensions experts, news media and other interested parties.

CPP Annual Revenues and Expenditures

As projected at December 31, 2018 ($ billions)



From the 30th Actuarial Report as at December 31, 2018:

> The total Fund assets are expected to grow continuously over the projection period. Within the total, however, the base and additional CPP show different patterns.

> For the base CPP, from 2022 on, a portion of investment income is required to fund expenditures. Investment income, which represented 26% of base CPP total revenues in 2019, is projected to represent 34% in 2030 and to stabilize at about 41% in 2075.

> For the additional CPP, contributions are expected to exceed expenditures until 2057. By 2075, investment income is projected to represent about 70% of additional CPP total revenues, illustrating the greater importance of investment income to its financing.

> Based on Table 11 – Financial Projections for the base CPP, and Table 21 – Financial Projections for the additional CPP.

CPP Investments is accountable to the stewards of the CPP, who are the federal and provincial finance ministers. The Governor in Council appoints our Board of Directors on the recommendation of the federal Minister of Finance, following consultation with the participating provinces.

Amendments to the legislation that governs CPP Investments, as well as certain amendments to the legislation that governs the CPP, require agreement by the federal government plus two-thirds of the provinces representing two-thirds of the population. This is a higher requirement than for changes to the Canadian Constitution. In safeguarding the Fund's independence, these strong checks and balances protect the best interests of CPP contributors and beneficiaries, as well as the independence of the Fund and CPP Investments.

A key aspect of our overall governance framework is our highly skilled, diverse and professional Board of Directors. Several organizations and experts have cited this framework as a leading example in the management of public pension funds.

Current and future status of the CPP and the Fund

Every three years, the Office of the Chief Actuary conducts an independent review of the sustainability of the CPP over the next 75 years. In addition to expectations for net returns of the Fund, this review takes into account many factors, including:

- The growing base of contributors and employment earnings;
- The rising ratio of those receiving pension benefits relative to those contributing; and
- Anticipated increases in life expectancy.

The most recent actuarial review of the Canada Pension Plan – the 30th Actuarial Report – was conducted as of December 31, 2018 and was released in December 2019. It covered both parts of the CPP – the base CPP, and the additional CPP introduced on January 1, 2019, prospectively.

The report concluded that the CPP is sustainable for at least the next 75 years. It showed that investment income in the base CPP account was 107% – or $39 billion – higher than expected over the three years since the previous review. Such favourable results, however, should not be expected to repeat in every three-year period. The financial consequences associated with the COVID-19 pandemic are an example of possible impacts on future performance, including lower-than-expected contribution inflows and volatile investment income during the current three-year period. While we generally expect economic and market recovery from COVID-19 over time, there are likely to be lasting impacts on individual sectors and companies. CPP Investments manages short-term liquid assets such that there is no danger of disruption to CPP benefit payments, despite temporarily lower contribution inflows.

Base and additional Canada Pension Plan

In December 2016, following federal and provincial agreement, Royal Assent was given to Bill C-26, *An Act to Amend the Canada Pension Plan,* the *Canada Pension Plan Investment Board Act* and the *Income Tax Act*. This Act increased the amount of retirement pensions and other benefits that will be paid for contributions made after 2018. It also increased both the rate of contributions required on earnings covered by the CPP and the upper limit on covered earnings. These increases began in January 2019 and are being phased in over seven years.

With this amendment, the Canada Pension Plan has two parts:

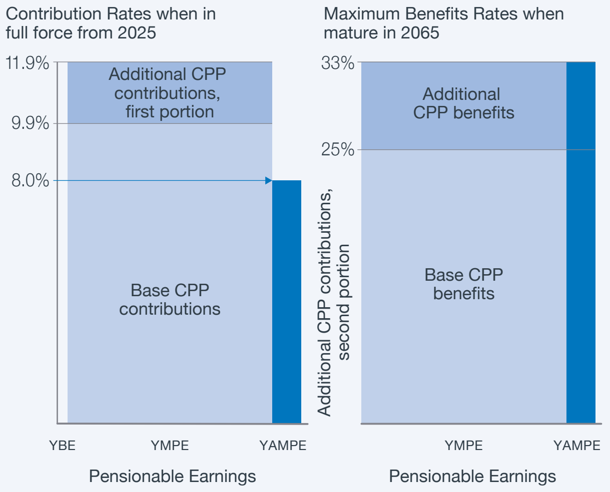
- The "base" Canada Pension Plan (base CPP) refers to the portion of benefits and contributions continuing at the rates used before January 2019.
- The "additional" CPP refers to the additional benefits and the additional contributions that started in January 2019.

The contributions, benefits and resulting assets for the additional CPP must be accounted for jointly and separately from those for the base CPP. Investment of the Fund assets are treated fairly by CPP Investments between the two accounts, notwithstanding the difference in their size.

Contribution rates for the additional CPP are set at levels so that, together with investment income, they are expected to be sufficient to fully fund the additional benefits as they accrue (see the call-out box on page 21). Contributors will gradually earn additional benefits as they make additional contributions. Full additional benefits will be paid out only after 40 years of contributions. The diagrams below illustrate the following:

- **The levels of contribution rates after 2025, at the end of the phase-in period.** Increased contributions for the additional CPP come from two sources:
  - An increase in the contribution rate on earnings that were already covered by base CPP, up to the Year's Maximum Pensionable Earnings (YMPE) and
  - A new contribution rate that applies only to the additional covered earnings;
- **The level of earnings covered by CPP after 2025,** following a 14% increase in covered earnings from the YMPE up to the Year's Additional Maximum Pensionable Earnings (YAMPE). This means a higher level of earnings will be subject to CPP contributions for those affected;
- **The maximum level of CPP annual retirement benefits** rising from 25% to 33% of pensionable earnings following 40 years of contributions; and
- **The amount of pensionable earnings** on which no CPP contributions are made. This is known as the year's basic exemption (YBE) and remains unchanged.

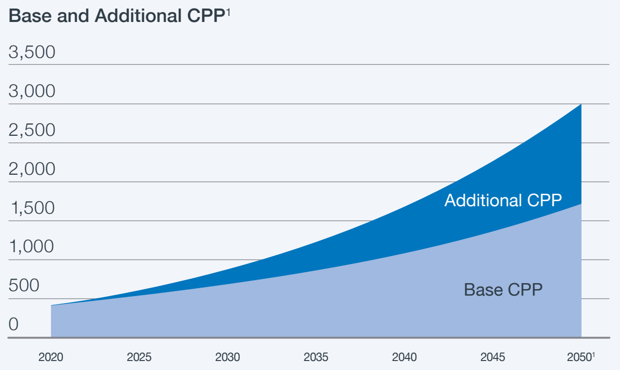
Increase in Maximum Benefits, Covered Earnings and Contribution Rates



YBE – Year's Basic Exemption from contributions
YMPE – Year's Maximum Pensionable Earnings
YAMPE – Year's Additional Maximum Pensionable Earnings

Growth of the Fund

($ billions)



Office of the Chief Actuary Projections – 30th Actuarial Report as at December 31, 2018

1. In 2050, the equivalent value in constant 2019 dollars for base CPP is $930 billion and for additional CPP is $695 billion.

CPP financial projections

The charts at right show expected growth in contributions and expenditures for the base CPP and the additional CPP until 2050. Expenditures include CPP benefits paid, plus CPP operating expenses. These figures are projections from the 30th Actuarial Report.

Both the base CPP and additional CPP accounts have two sources of growth: cash inflows from the CPP when contributions exceed benefits, and net investment income. According to the 30th Actuarial Report, annual benefits from the base CPP were expected to begin exceeding contributions in the 2022 calendar year. However, because of the decrease in employment earnings due to the COVID-19 pandemic, that is now expected to happen sooner. While there will be a net outflow of assets from the base CPP, the account is expected to grow as net investment income is expected to exceed the annual net payment to the CPP. For the additional CPP, contributions are projected to exceed benefits payments until at least 2057. As a result, the assets in the additional CPP account will grow at a much faster rate than those in the base CPP account.

For the partially funded base CPP (see call-out box), the percentage of total revenues from investment income is expected to grow slowly from 26% in 2020 to 41% in 2080. However, for the fully funded additional CPP, investment income will grow steadily as a percentage of total revenues, stabilizing at about 70% of its total revenues by 2080.

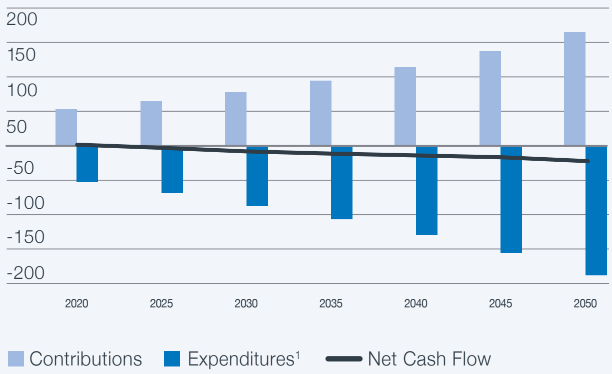
A key assumption in the 30th Actuarial Report is that, over the 75 years from 2018, the base CPP account will earn an average annual net real rate of return of 3.95%. This return is over and above the rate of Canadian consumer price inflation, after all costs. The corresponding assumption for the more conservatively invested additional CPP account is an average annual net real rate of return of 3.38%. The next actuarial review will be performed in the calendar year 2022 and will cover the status of both base and additional CPP as at December 31, 2021.

Projected Growth of Base and Additional CPP

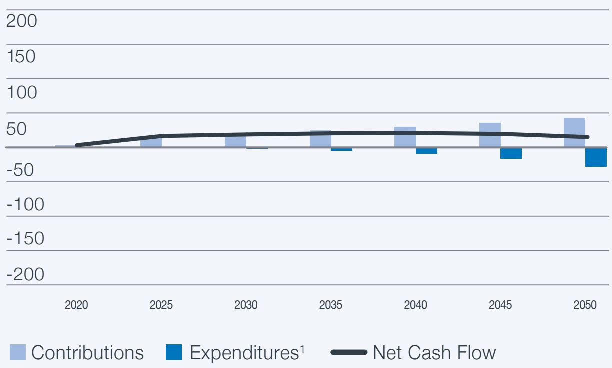
From the 30th Actuarial Report as at December 31, 2018

($ billions)

Base CPP Contributions, Expenditures[1] and Net Cash Flow



Additional CPP Contributions, Expenditures[1] and Net Cash Flow



1. CPP benefits plus CPP operating expenses.

Fully funded versus partially funded pension plans

The financing of a social insurance program may be characterized by the importance of investment income in the program's total revenues over the projection period.

The additional CPP is required to be a *fully funded* pension plan. As such, assets are always targeted to equal or exceed the present value of benefits. This includes payments to beneficiaries as well as benefits contributors have accrued to date. When such a plan is in its mature state, investment income is expected to represent about 70% of total revenues (investment income plus contributions). As a result, a fully funded plan is directly sensitive to:

- Any changes in the assumed rate of return on investments; and
- Any difference in the returns achieved, compared to those expected.

At the other end of the funding spectrum, a completely unfunded (or "pay-as-you-go") plan holds a relatively small amount of assets. It must balance total contributions paid in and total benefits paid out each year. It is most sensitive to demographics – life expectancy, birth rate, immigration rates – and economic changes, including the level of employment and rate of real wage growth.

The base CPP is a *partially funded* plan. To maintain a stable contribution rate, the Chief Actuary estimates that the base CPP's investment income will represent about 40% of total revenues in time. A partially funded plan is sensitive to all risks discussed above in differing amounts, depending on the relative size of investment income and contributions. Most important, it is less sensitive to investment returns than a fully funded plan. However, for both the base CPP and the additional CPP, contributions are set such that current investments plus future contributions are expected to fully pay for all accrued and future benefits, while maintaining a stable contribution rate for current and future contributors.

Our Investment Strategy

Our approach to meet the Fund's investment objectives is designed to:

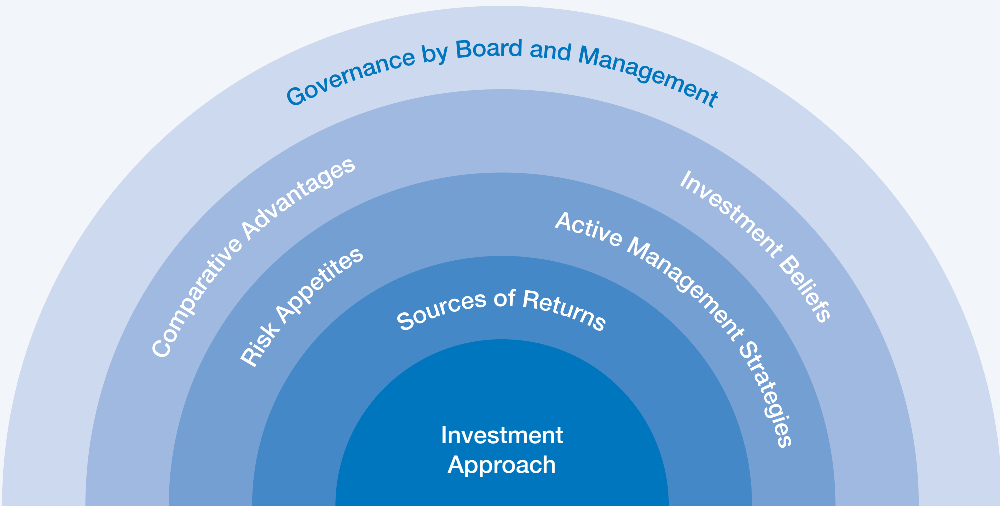
1. Earn long-term total returns that will best sustain the CPP and pay pensions; and
2. Generate returns through time that are materially above what could be achieved through a low-cost, passive investment strategy.

We then employ a total portfolio investment framework designed to optimally achieve the dual goals, guided by the key considerations outlined below.

Key considerations that drive how CPP Investments manages the Fund

CPP Investments has the scale to engage in almost every capital market and investment opportunity across the world. The unique characteristics of the CPP and the Fund, together with the circumstances that we can benefit from or control, drive our investment strategy. The diagram below outlines these key considerations, which are described in greater detail in the sections below.

Key Considerations Driving Our Investing Approach



Our differentiated investment approach

CPP Investments is different from many other large institutional investors because of the enduring nature of the CPP and the Fund, our governance, our culture and the strategic choices we make. Together, these drive our global competitiveness and determine the strategies we employ to maximize long-term Fund returns.

To succeed in highly competitive global financial markets over the long term, an investor must first have – and make good use of – significant comparative advantages.

Our inherent comparative advantages

The nature of the Fund itself carries three distinct investing advantages:

Long horizon – The CPP must serve Canadians for many generations to come. As a result, the Fund has a much longer investment horizon than most investors. We can assess the prospects of our strategies and opportunities over decades, not just over quarters or years. We can withstand short-term downturns to create value over the long run. Most investors take a shorter-term approach, whether by choice or because business pressures or regulation force them to do so. As such, they are more limited than CPP Investments in their ability to access or retain long-payoff investments.

Certainty of assets to invest – The Fund's future asset base is largely predictable and its pattern of cash flows into the future is generally stable. Combined contributions from both parts of the CPP are expected to exceed combined benefits paid for many years to come. As a result, we are not forced to sell assets to pay benefits and we can build investment programs in reliable anticipation of future investment needs. This certainty of assets and cash flows underpins our ability to act as a trusted financial partner in major transactions and ongoing relationships.

Scale – As the CPP is one of the largest retirement funds in the world, we can access opportunities globally for which only the largest institutional investors in the world can compete. We are able to make major investments in private markets, and to engage in public market strategies that are not readily accessible to many investors. In addition, our size enables us to maintain highly skilled in-house teams and to access world-class external partners. Scale also allows us to develop the investment technology and operational capabilities needed to support our teams as they execute our wide range of strategies. By handling many investment and operational activities ourselves, we achieve a cost-effective global investing platform.

Our developed comparative advantages

In addition to our inherent advantages, the strategic choices we make as an organization afford us three further key advantages:

Internal expertise and brand – Our expertise, local knowledge and reputation allow us to source and develop the best opportunities across the globe, in both private and public markets. Headquartered in Toronto, Canada, we employ professionals working across nine international centres. This global team creates enduring value by combining best practices, depth, skill, experience and expertise to manage assets both internally and with external partners. Our respected brand allows us to attract, motivate and retain high-calibre executives, investment professionals and operational specialists from around the world. It also helps differentiate the organization in hotly contested markets for select investments.

Expert partners – Through our scale and other advantages we are able to engage the specialized resources and expertise of many top-tier external partners globally. Our internal expertise allows us to work as equals with these long-term partners to maximize benefit for the Fund. Through them, we gain additional access to major investment opportunities. We participate in co-investments and other joint efforts that are beyond the reach of many investors. Our external partners provide rigorous research and on-the-ground knowledge of the local environment, as well as supplying ongoing asset management services.

Total Portfolio Approach – We believe that broad asset class labels such as "real estate" or "equities" do not sufficiently capture the more complex variety of factors that influence the risks and returns of investments. Accordingly, we take into account the fundamental and more independent return-risk factors that underlie each asset class, strategy and type of investment. This allows us to better understand and quantify the distinct return-risk characteristics of each asset and investment program. Armed with this understanding, we can create a truly diversified total portfolio that more accurately achieves our targeted market risk and preferred mix of global exposures designed to maximize returns at our targeted risk level.

Investment Beliefs

CPP Investments has eight Investment Beliefs, which are foundational judgments that each provides a compass as CPP Investments navigates global capital markets to carry out its mandate. They provide clarity and consistency in the decisions we make and help us stay the course as a long-term investor. Details on our Investment Beliefs can be found on our website at www.cppinvestments.com/investmentbeliefs.

Capital markets – the factor investing approach

Capital markets provide the opportunity for investors to participate in economic growth, both locally and globally – whether through income (for example: interest payments, dividends, rents and infrastructure user fees), or through growth (such as appreciation in stock prices, real estate or other assets, and in the rising income they can generate). CPP Investments can and does make use of almost all these opportunities.

Careful investors need to look beyond asset class labels, as returns on different types of assets are largely driven by a limited number of underlying and more independent factors. We analyze thoroughly the basic long-term sources and natures of systematic returns – to each area of exposure, each type of asset, each investment program and each single investment. Once these drivers – the "reward-risk factors" – are well understood, we then use them as building blocks in the construction of our diversified portfolios in total and in its components.

Participation in private investments substantially broadens the range of investable assets and sectors beyond public markets. CPP Investments has built the access and skills to successfully invest more than 50% of the Fund's assets in private markets around the world. Critically, diversifying assets and currency exposures on a global basis is both appropriate and necessary to offset the purely domestic inherent risks to the sustainability of the CPP. We now maintain offices in seven countries outside Canada to gain local market access, expertise and asset management.

Long-term investors such as CPP Investments can resist the pressures of short-term market events, stay the course with soundly conceived strategies and reap the benefits of patience. We can profit from opportunities that shorter-term investors create, such as in times of distress. We can act on investments those investors are unable or unwilling to take on. We can also use a longer-term perspective to better evaluate opportunities and assess emerging potentials such as climate change. In 2016, CPP Investments, along with McKinsey & Company, BlackRock, Dow Chemical and Tata Sons founded FCLTGlobal. This non-profit organization is dedicated to developing practical tools and approaches that encourage long-term behaviours in business and investment decision-making. Today, the organization comprises more than 40 leading asset managers, asset owners, corporations and professional services firms. For more information, see fcltglobal.org.

Market risk appetite

The targeted overall level of market risk is the single most important decision when building any long-term investment portfolio. It directly affects the level, volatility and extremes of expected and realized returns. CPP Investments expresses the market risk target for the long-term Investment Portfolio for each of the additional CPP and base CPP accounts as being equivalent to that of its Reference Portfolio. (See page 32 for details about the role of the Reference Portfolios.) The higher the risk target, the higher the long-term expected returns, but also the greater the shorter-term volatility and potential for losses.

The additional CPP is fully funded (see call-out box on page 21), whereas the base CPP is only partially funded. As shown on page 21, the two parts of the CPP thus differ significantly in terms of their future proportions of contributions and investment income as a percentage of total revenues. This key difference directly influences the appropriate level of risk for each account.

For the base CPP, since April 2018, we have adopted a Reference Portfolio of 85% global equity and 15% Canadian governments nominal bonds. While we are mindful not to take on undue risk, this 85%/15% portfolio is set at a risk level that we deem to be both prudent and also deliberately higher than the minimum risk (approximately 50% global equity and 50% Canadian bonds), based on CPP Investments' assumptions that would generate long-term expected returns only just sufficient to sustain the base CPP. Our chosen higher equity approach is expected to generate higher long-term returns that will strengthen the sustainability of the base CPP.

As previously noted, investment income will perform a much larger role in sustaining the fully funded additional CPP than it does for the partially funded base CPP. As a result, additional CPP has a lower risk target, with a Reference Portfolio effective April 1, 2021, of 55% global equity and 45% Canadian governments nominal bonds. Previously, the ratio was 50%/50%.

Each of the two parts of the CPP benefits equitably from all of our comparative advantages, operational capabilities and the investment programs we have built. To ensure this, we must:

- Account for the base CPP and the additional CPP separately, including their respective cash flows, assets and economic interests in shared investments;
- Invest the assets and weekly net cash flows of both accounts in a fair manner; and
- Manage each account cost-effectively.

Systematic risks and non-systematic risks

Investment returns cannot be earned without accepting some form of risk. Investors face two general types of risk: systematic and non-systematic.

- Systematic risks stem from common factors that affect all investments of a particular type. These risks can be reduced through diversification, but not eliminated. We believe that, over sufficiently long periods, market asset prices and income will adjust to deliver the returns investors require, thereby justifying exposure to systematic risks. The market returns earned over time from systematic risk factors are often called "beta."
- Non-systematic risks, also called idiosyncratic or active risks, are those that are unique to a particular asset, investment or strategy. The excess returns, beyond beta, that arise from intentional exposure to non-systematic risks are often called "alpha." These returns rely on the skills and experience of our internal and external managers. Non-systematic risk can be substantially reduced through diversification of holdings within specific investment types.

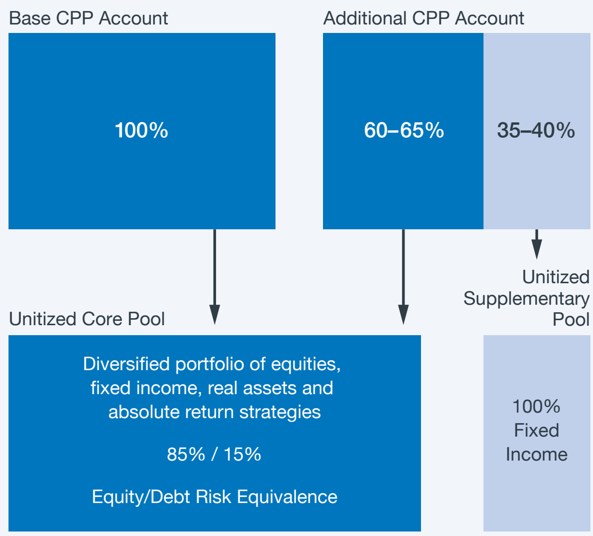
Two-account, two-pool investment structure

To enable each of the base CPP and additional CPP accounts to have different overall market-risk levels, we maintain two unitized investment pools, each divided into units that are valued daily. This structure allows the base and additional CPP Investment Portfolios to benefit proportionately from all the investment programs and individual holdings in the Core Pool. Each of the base CPP and additional CPP accounts invest their long-term Investment Portfolios through holdings of these units as follows:

- The base CPP Investment Portfolio is entirely allocated to the "Core Pool". This pool is broadly diversified across asset classes, regions and management strategies. It is managed to the risk level appropriate for the base CPP. Also, a substantial proportion of additional CPP cash inflows – 60% to 65% in fiscal 2021 – are allocated to the Core Pool.
- To maintain the lower-risk target of the additional CPP, the remaining assets in its Investment Portfolio are invested in the lower-risk "Supplementary Pool." This pool presently consists entirely of fixed-income securities. When the Supplementary Pool is combined in the right proportion with the additional CPP account's investments in the Core Pool, the resulting overall risk, and the underlying market and currency exposures, are appropriate for the additional CPP.

Because returns in the Core and Supplementary Pools will differ, the proportions of the two pools held by the additional CPP account will change over time. We rebalance the proportions primarily by adjusting how much of the weekly incoming cash flow from the additional CPP goes into each pool.

Two-Account, Two-Pool Investment Structure



The two-pool structure allows CPP Investments to apportion all opportunities, individual investments and investment programs fairly, continuously and efficiently between the base and additional CPP accounts. The structure respects the distinct risk targets of the base and additional CPP Investment Portfolios. It also avoids the significant costs and complexity that would be associated with managing each account separately.

Active management: How we create additional value for the Fund

In 2006, we made the strategic decision to actively manage the Fund to a much greater extent than before through increased deployment of our comparative advantages to seek additional returns over the long term. The combined value of the total Fund now stands at $497.2 billion. That is $28.4 billion higher than the Fund value would be if the assets at April 1, 2006 (plus all subsequent cash flows) had earned rates of return equivalent to the passive benchmark Reference Portfolios (see page 94).

While the Reference Portfolios provide a comparable measure of the level of risk required to fulfil the Fund's mandate, CPP Investments has deliberately and prudently constructed a portfolio that is significantly more diversified, including by asset type, region and sector, and includes considerable weightings in private equity and real assets. This is designed to minimize short-term volatility and generate more consistent returns compared with a portfolio that is mainly exposed to public equity markets. Our active management strategy has resulted in the Fund not only outperforming the Reference Portfolio since inception, but also demonstrating lower volatility and serving a safe harbour during periods of stress.

We recognize that many active investors seek above-market, risk-adjusted net returns; few consistently achieve them. Active management is not a low-cost approach. It increases complexity and resource requirements as we deal with additional sources of risk and return. Not all strategies will ultimately succeed. But we believe that applying our comparative advantages to actively managing the Fund in diverse ways is prudent and consistent with our statutory objectives. We remain confident that our active management approach will generate sustained value-added over the long term.

Success in active management requires not only deep investment insights but also well-structured processes to capitalize on them. It means having the right resources to access and negotiate large, often complex deals in private markets and to manage and grow these assets over time. And it requires staff expertise to identify and execute the best strategies in public markets. The leading long-term investors in the world's marketplaces will be those with the most talented and disciplined investment teams.

As we coordinate our value-creating investment programs, we allocate our resources and skills where they will have the greatest impact in diversifying risks and maximizing long-term returns after all costs. Our stature as a global investor also enables us to engage constructively with governments, corporations and like-minded investors to improve public policy and promote best practices, with a view to better long-term returns for all stakeholders. This includes engaging as an active owner or lender in the companies in which we invest. Our approach to active ownership through constructive engagement is outlined in more detail on page 38.

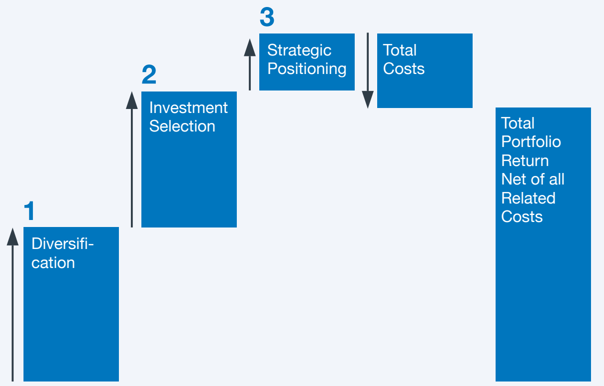
The three sources of total portfolio return and added value

Our previously described choice of market risk target is the most important, but not the only, driver of portfolio returns. Through active investment decision-making, we seek to maximize both absolute returns and net value-added returns above those of the benchmark Reference Portfolios. Beyond the returns from simple, low-cost exposures to the foundational building blocks of equity and debt investments, three basic sources contribute to total added value on the Investment Portfolios:

1. Diversification

Diversification across risk/return factor exposures is the most powerful way to mitigate market downturns and to enhance long-term investment returns without increasing total portfolio risk. Broad diversification also enables our active management strategies to make best use of our comparative advantages. We use a prudent degree of leverage to achieve optimal diversification at the chosen level of overall market risk, as described on page 34. To diversify soundly, we use the Total Portfolio Approach, one of our developed advantages (see page 23). Our operating principle is that only those investment areas and programs that have fundamentally distinct sources of value creation offer true diversification. The risk and absolute return of the total portfolio will depend primarily on how we combine exposures to systematic and non-systematic risks to meet our investment goal (see page 24 for additional detail).

The Three Sources of Total Portfolio Return



Each passive Reference Portfolio is a simple, two-asset portfolio. One asset is investment in an index referencing the publicly traded common stocks of large- and mid-capitalization corporations across the world (i.e., global equities). The other asset is investment in an index referencing the universe of nominal bonds issued by Canadian governments, both federal and provincial (i.e., Canadian governments' debt).

Our decision to diversify very broadly beyond the Reference Portfolios, without increasing market risk, provides the most reliable source of additional long-term returns. We maintain significant investments in almost all primary asset classes, both public and private, and in both developed and emerging markets around the world. There are three broad types of these investments:

- **Public market investments –** The Fund profits from global economic growth through equity ownership and credit investments in public companies around the world. To help diversify exposures and sustain necessary liquidity, the Fund also maintains meaningful holdings of government bonds in developed and emerging markets.
- **Private company investments –** We invest in the equity and debt of privately held companies, both directly and through funds and partnerships. These investments generate returns from underlying corporate earnings in the same way as comparable public companies. As a group, however, they generate additional returns to compensate for their complexity and illiquidity. Additional returns also come from investment selection skill. These extra returns more than cover the higher costs and additional risks associated with these investments. Further, these assets provide additional diversification into smaller companies that benefits the total Fund.
- **Real assets –** These investments generate returns from tangible assets through diverse fundamental sources, such as property income, facility-user fees and other revenues from investments in real estate, infrastructure, renewable energy and natural resources. We access and hold real assets primarily through private corporations, partnerships or other entities, in the form of both equity and debt interests.

The chart below shows the growth of our public market and private investments.

Growth of Investment Programs

($ billions)	**2021**	2020	2016	2011	2006
Balancing Programs and Financing	**222.3**	179.7	131.7	97.5	88.9
Active Public Programs[1]	**9.9**	4.8	14.5	2.6	0.2
Private Credit	**35.6**	32.9	21.1	5.1	–
Private Equity	**125.1**	94.6	51.5	22.4	4.4
Real Estate	**43.0**	46.5	36.7	10.9	4.2
Energy and Resources	**10.0**	7.3	1.4	0.3	–
Infrastructure	**41.2**	35.1	21.3	9.5	0.3
Power and Renewables	**10.2**	8.7	0.9	–	–
Total Net Investments	**497.3**	409.6	279.1	148.3	98.0

1. Absolute Return Strategies within Active Public Programs hold offsetting systematic exposures through long and short investments. As a result, their net asset values understate their size and impact on the portfolio.

To deliver desired asset allocations in a diversified way, we have developed 20 distinct actively managed investment programs in both private and public markets and allocated assets to each. At year end, this active portfolio constitutes 64.6% of our gross assets under management. Our total assets are completed by the Balancing Portfolio, used to maintain the overall exposures that we target. Together, the active portfolio and Balancing Portfolio deliver the factor and asset class diversification of the Fund.

To capitalize on our comparative advantages, we have successfully committed a major portion of the Fund – approximately 50% – to very broadly diversified investments in private markets. Our reputation gives us access to private market opportunities around the world, especially in places where public markets are less well developed. With their potential for large transactions, private markets leverage our advantages of scale and certainty of assets. As previously noted, private investments generally offer a higher return, in part to compensate for their illiquidity. CPP Investments carefully manages this risk within Board-approved overall liquidity requirements. We also use management controls on total portfolio liquidity that continuously take into account planned investments and realizations. Most importantly, the special expertise that we and our partners bring increases the likelihood of success in these markets.

Our view on foreign currency

Changes in foreign exchange rates on our non-Canadian investments have a substantial impact on short-term investment performance expressed in Canadian dollars. Some investors manage this risk with currency hedging, which reduces the shorter-term impact of foreign exchange rate changes on their returns. Hedging carries a significant execution cost, however, and requires setting aside cash or at times generating it quickly to meet currency hedging contract obligations.

As well as its cost, we believe extensive hedging of foreign investments is not appropriate for the Fund for the following reasons:

- For a Canadian global investor, hedging foreign equity returns tends to increase, rather than reduce, overall return volatility. The Canadian dollar tends to strengthen when global equity markets are rising and weaken when they are falling. This is partly due to the Canadian dollar's status as a commodity currency. We believe that the Canadian dollar will continue to behave in this way.
- When the Canadian dollar strengthens against other currencies as a result of higher commodity prices, especially oil, the Canadian economy is also likely to be stronger. This in turn should lead to increased aggregate earnings for CPP contributors. As earnings rise, so will contributions into the Fund. Accordingly, this represents a natural hedge for the CPP finances and reduces the need for explicit currency hedging of the Fund's foreign investments.
- The cost of hedging currencies of many developing countries is high. If these countries continue to experience higher productivity and economic growth as their economies mature, their currencies should tend to strengthen over time. That would make a hedging program a long-term drag on returns.
- We substantially mitigate the volatility of individual exchange rates by holding a broadly diversified set of currency exposures across the world, as shown on page 58.

Accordingly, for the most part, we do not hedge foreign currency exposures to the Canadian dollar.

In the short term, the decision not to hedge currency can impact Fund returns in either direction. For example, when the Canadian dollar strengthened along with global equities and commodity prices in this fiscal year, this led to a $35.5 billion loss in the Canadian dollar value of our foreign holdings. Despite this, the net income for fiscal 2021 was $83.9 billion or 20.4%, both record levels for the Fund. By contrast, in fiscal 2020 the Fund experienced currency gains of $14.0 billion, with the combined effect of the two years being a smaller net loss of $21.5 billion. In years of major strengthening or weakening of the Canadian dollar, total performance of the Fund may differ materially from other funds that have a standing policy of greater hedging.

Long and short investing

A "long" investment generates a return when the underlying asset increases in value. An example is a price increase following a traditional stock purchase. A "short" investment is a means to generate a return when the underlying asset decreases in value. In short selling, the investor sells a stock they have borrowed and buys it back later to pay off the stock loan. If the stock's price then is lower, the investor buys it for less and makes a profit. Taking both kinds of positions simultaneously can be structured to reduce the impact of overall market movements. The results of the long/short strategy then depend almost entirely on the selection of individual long and short positions.

2. Investment selection

Investment selection means how we select, buy, weight and sell specific securities, investments and sectors. This activity offers the widest set of opportunities to the skilled internal or external manager, in both private and select public markets.

Seeking to outperform a market index through active selection requires both covering costs and achieving better returns than the average. Moreover, as markets mature, they become more "efficient" and harder to outperform. Clearly, however, over any given period within a particular market there will be both winning and losing active managers, with wide variation between their returns. That is why successful investment selection requires employing the most skilful professionals, internally and externally.

Several of our comparative advantages increase the long-term likelihood of investment selection success. First, our scale and brand enable us to identify and attract appropriate talent, both internal and external. Second, our long horizon provides an advantage in selecting investments. Because of the shorter-term investing pressures and practices found in many markets, individual asset prices and current valuations often diverge significantly from long-term intrinsic value and earnings potential. This divergence creates opportunities for patient investors. We believe that investment selection focused on the long term can succeed in most asset classes, particularly so in less-developed markets. Skilled management using long/short strategies in public markets can add value whether markets are rising or falling.

Outperforming competitive markets is a challenging task and doing so sustainably is even more so. We diversify investment selection skills across our active investment programs, which invest in private markets of various kinds and in public markets using both long-only and long/short strategies (see explanation on page 27).

We regularly review the underlying premise for all investment selection programs, as well as the demonstrated skill of their execution. This enables our assessment of whether each of the programs remains likely to deliver meaningful and sustained value relative to the costs and risks associated with it. If our conclusion changes, we adjust or curtail the strategies concerned.

Balancing internal and external expertise

Because of our size and professional environment, we can maintain expert internal teams to manage large parts of the Fund. Internal management avoids external fees and lowers other external management costs. In many areas we have the skills to carry out investing activities similar to those of external management firms with comparable expertise, but we can do so at a materially lower cost. As examples:

- Our Relationship Investments group within the Active Equities department has the management experience to contribute to the corporate growth and operational strategies of selected public companies in which we take a substantial stake.
- Our Capital Markets and Factor Investing department can draw on specialized strategies, trading and structuring capabilities. Our Quantitative Strategies & Risk Premia group, for instance, can bring to bear the advantage of using insights based on various time horizons combined with analytical and modelling capabilities.
- Our Real Assets, Private Equity and Credit Investments departments each have the ability to invest directly in many types of investments around the world, and also to co-invest cost-effectively with well-aligned external partners.
- Our international offices are a critical component in maintaining valuable expertise, insights and partnerships in all international markets.

In addition to our own skills, we recognize the enormous breadth of external expertise that can benefit the Fund. We will consider engaging an external manager in desired strategies that we cannot execute as effectively, net of all costs, on our own or that complements existing programs. These strategies must be relevant, distinct and meaningful. Expert external managers not only provide specialist strategies, but often share valuable knowledge with us as long-term partners.

The Investment Committee of the Board of Directors has approved a framework for engaging external managers. The manager must demonstrate expertise and, equally important, must be judged capable of providing risk-adjusted value that will more than offset the cost of external fees. Broadly speaking, investment manager fees have two parts – a base rate applied to assets under management, and performance fees paid if net realized returns over a specified period exceed a specified hurdle rate. We are mindful of potential conflicts between the interests of external managers and the interests of the Fund. Accordingly, we structure external contracts and mandates with great care to align our partners with the interests of the Fund. We strongly favour the use of performance-based fee structures that have three key features:

- Sharing gains only beyond threshold performance levels;
- Increasing performance fees only with progressively demonstrated skill levels; and
- Partially deferring conditional payouts.

Our teams from the Funds & Secondaries, Private Equity Asia and External Portfolio Management groups have the depth and knowledge to successfully evaluate strategies and managers in public and private markets around the world. The skills required to select, mandate, monitor, manage and replace external organizations are quite different from those required to select individual investments. The experience and insights of our teams enable us to identify solid, sustainable external management capabilities.

3. Strategic positioning

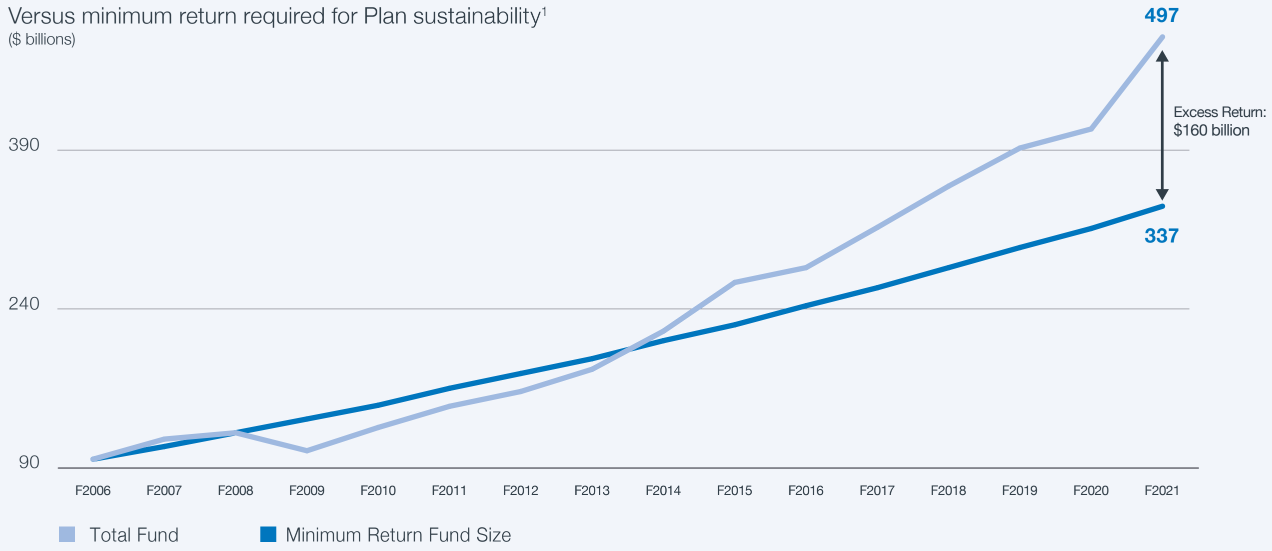
Strategic positioning is a deliberate, meaningful but temporary shift of asset allocations and/or exposures away from the portfolio's established targets or normal mix. We can achieve appropriate strategic positions by exploiting gaps between current market prices and long-term fundamental values. We may do this to seek additional returns, to protect assets against potential losses, or to preserve necessary liquidity under stress conditions. It can take place across the total portfolio or within a specific asset class or program.

While strategic positioning is typically not as powerful in the long run as diversification, strategy selection and investment selection, it can at times add materially to total returns, or protect portfolio asset values and Fund liquidity.

Excess Return since Inception of Active Management

Versus minimum return required for Plan sustainability[1]

($ billions)



1. CPP Investments' calculation of the minimum required rate of return is derived using triennial Actuarial Report long-term return assumptions and the minimum contribution rate's sensitivity to investment returns. This measure is not equivalent to dollar value-added.

Adding resilience to the CPP through excess returns

Under normal volatility in global capital markets, the funding of the CPP and the risk positioning of the Fund provide a measure of resilience for sustaining the existing CPP benefits and contribution rates. The following provides a high-level explanation of how that resiliency emerges if CPP Investments succeeds in generating returns higher than those required to sustain the CPP.

The Excess Return chart above shows how the Fund has grown under our active management strategy since April 1, 2006, relative to the lower cumulative Fund growth had returns simply matched the long-term minimum net real returns required for CPP sustainability[1].

While the chart illustrates the realized cumulative effects on Fund size, in practice the triennial Actuarial Reports immediately recognize all investment gains and losses as they occur. Excess returns are not held in reserve as a buffer. Rather, at the time of each Actuarial Report, the Office of the Chief Actuary will re-compute the Minimum Contribution Rates (the lowest percentages of covered earnings needed to sustain both the base and additional CPP). The calculations will reflect the actual outcomes that have occurred since the previous report. All else being equal, any investment gains that were higher than had been assumed in the prior Actuarial Report would reduce the Minimum Contribution Rate required to sustain the CPP. The opposite would be true if returns were lower than required for sustainability.

1. Estimates derived by CPP Investments from Actuarial Reports

If CPP Investments continues to outperform the required rates of return, then – all else being equal – the positive gap between the legislated contribution rates and the Minimum Contribution Rates will widen over time. Should the CPP experience adverse outcomes for investment returns, the margin will tend to narrow. The larger the positive gap between the two rates at the start of each three-year period, the more resilient the CPP is to an adverse experience in that period. If the Minimum Contribution Rate exceeds the current legislated rate, the contribution rates or benefits may need to be adjusted. This is called a "plan adjustment."

Realized investment returns are only one factor related to the potential for an adjustment to CPP contributions and benefits. The likelihood and size of adjustments are also dependent on many other factors. These include changes in future return expectations, real earnings growth, mortality rates and population growth. As such, even in periods where the Fund outperforms the long-term minimum net real returns required for CPP sustainability, the contribution rate or benefits may have to be adjusted if the impact of these other factors is sufficiently large.

How the Board governs investment strategy

Board governance of the investment strategy has four main approval elements:

1. **Risk Framework and Policy –** The Board annually approves internal documents governing our risk management framework and appetites (including targets, limits and statements) for our key investment and non-investment risks. These governance documents define and formalize risk appetites. They also set risk-related constraints on the Investment Portfolios for the base and additional CPP accounts, and identify measures that the Board and Management will use to monitor and control risks.

   The Board approves market risk targets for the Investment Portfolio of each of the base and additional CPP accounts as equivalent to that of its simple, low-cost, two-asset Reference Portfolio (see page 32); as well as range limits expressed in equity/debt equivalent terms, dictating how far the market risk of each Investment Portfolio can stray from that of its Reference Portfolio without specific Board approval.

   A new Board-approved Integrated Risk Policy is in effect for fiscal 2022. The policy will incorporate key elements of the existing Integrated Risk Framework and Investment Risk Management Policy. See page 97 in the Management's Discussion and Analysis.

2. **Business Plan –** This document annually sets out the current and longer-term investment and operating plans for each department, including operating and capital budgets. The plan includes confirmation or adjustment of the Strategic Portfolios, which express the five-year expected asset class composition of each Investment Portfolio.

3. **Investment Statements –** These documents are approved by the Board annually and are required by the Regulations to the *Canada Pension Plan Investment Board Act* (CPPIB Act) and published on our website. They set out the investment objectives, policies, long-term return expectations and risk management for the long-term Investment Portfolios of each account and their short-term Cash for Benefits Portfolios.

4. **Sustainable Investing Policy –** This policy recognizes the significance of environmental, social and governance (ESG) factors, including climate change, as drivers of longer-term risks or opportunities for the sustainability of corporate profitability and shareholder value. The policy emphasizes integration of ESG factors throughout our investment analysis and asset management activities. It also sets principles for our active ownership and engagement of companies to influence productive change, and predisclosed voting of shareholdings.

The Board also approves:

- Specific investments that are above authorized size thresholds or that are either strategically important or have material investment or other risks; and
- As required under the CPPIB Act, the appointments of external managers, delegating to the President & CEO those appointments where assets under management will be below a defined level and meet other conditions.

Oversight of the Fund's development and performance is a critical element of Board governance. The Board receives comprehensive quarterly reports on the Fund to monitor:

- Growth and composition of the Investment Portfolios;
- Management's progress against the year's Business Plan;
- Investment Portfolios' market risk, and other risk measures including stress tests;
- Total returns and contributions of individual departments and programs; and
- Dollar value-added, net of all costs, versus the Reference Portfolios and other benchmarks.

How Management is accountable for risk-taking and performance

Successful investing requires clear decision-making, accountability and informed risk-taking. It also requires competitive compensation and carefully aligned performance-based incentives. The diagram on page 32 shows how we align all our activities throughout the organization. A thorough review was undertaken in fiscal 2021 to enhance management governance and clarify authorities and accountabilities, resulting in a new management committee structure, which was put in place in the first quarter of the fiscal year.

Investment Strategy and Risk Committee

The Investment Strategy and Risk Committee (ISRC) comprises the Senior Management Team, with the President & CEO as Chair. Since its formation in April 2020, the ISRC and its subcommittees have been helping make informed and timely portfolio, risk – which includes investment and non-investment risk – as well as investment execution decisions across the organization. As previewed in last year's annual report, the ISRC is the successor to the Investment Planning Committee. It holds an expanded mandate to oversee all key risks under our Integrated Risk Framework. The ISRC and its subcommittees are required to consider formal guidance or recommendations on certain matters to ensure that accountable executives and approval bodies factor diverse perspectives into the decision-making process.

The ISRC is accountable for overseeing the strategy, design, management and governance of the Investment Portfolios. It also oversees:

- Our approach to strategic risks;
- Approval of our Total Portfolio Investment Framework (see page 32);
- Our formal statement of Investment Beliefs; and
- Our crisis management framework.

The ISRC also provides guidance on the design of our reputation management program and our approach to managing other broad factors, such as climate change and sustainable investing practices.

The ISRC receives the following targeted support from its subcommittees:

- **Investment Strategy Committee** (ISC) supports the ISRC in its oversight of design, delivery and management of the Investment Portfolios. Chaired by the Chief Investment Officer, the ISC provides guidance on matters including the total portfolio strategy. It functions as a key connection between that strategy and program-level coordination and execution.
- **Investment Risk Committee** (IRC) supports the ISRC in its oversight of market, credit, liquidity and leverage risks. Chaired by the Chief Financial & Risk Officer, the IRC provides guidance on matters including Board and Management investment risk limits and appetite. It plays an active role in monitoring investment risk exposures.
- **Operational and Legal Risk Committee** (OLRC) supports the ISRC in its oversight of the organization's operational, legal and regulatory risks. Chaired by the General Counsel, the OLRC provides guidance on matters including Board and Management non-investment risk appetite. It also oversees CPP Investments' approach to managing non-investment risk.
- **Investment Decision Committee** (IDC) supports ISRC oversight of investment-related accountabilities. Its role is to approve or decline specific investments or dispositions within previously approved investment programs and to approve or decline follow-on transactions to existing investments. The Head of International chairs the IDC.

Transaction approvals

The CEO establishes Investment Management Authorities that set out the authorities of investment departments to make specific transactions for the Fund. The Investment Management Authorities also set the transaction approval authorities held by the IDC and other investment committees at the department and group level. In addition, the Investment Committee of the Board must approve transactions above certain amounts.

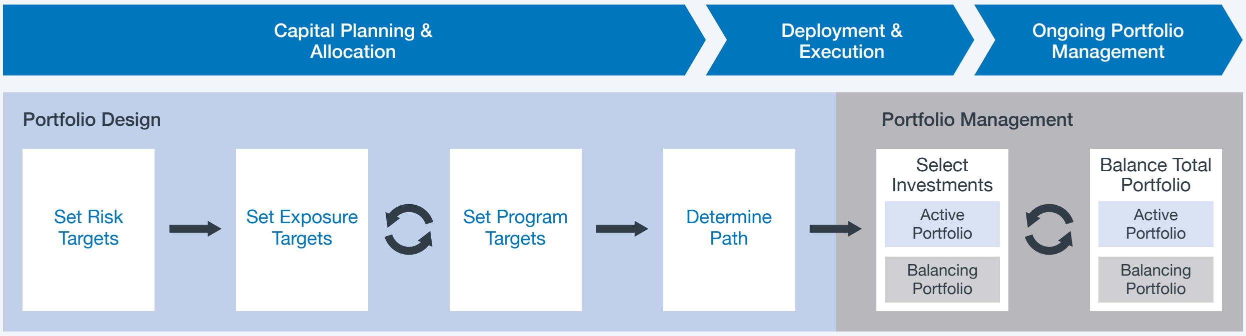
Risk management

The Risk group within the Finance, Analytics and Risk department, and overseen by the Chief Financial and Risk Officer (CFRO), independently measures and monitors key risks and provides reports to the Board, the ISRC and its subcommittees on a regular basis. The ISRC oversees our portfolio design and structure and the risks specified in the Integrated Risk Framework. (The Integrated Risk Framework is further described on page 99.)

Our decision-making process

Our decision-making process strives to successfully maximize investment returns from all three sources – diversification, investment selection and strategic positioning (see page 26) – while controlling a variety of risks. We call our decision-making process the Total Portfolio Investment Framework, and it encompasses our capital planning, deployment and management activities as outlined in the diagram below and described in detail in the following sections.

Stages in the Total Portfolio Investment Framework



Setting Risk Targets – CPP sustainability and market risk

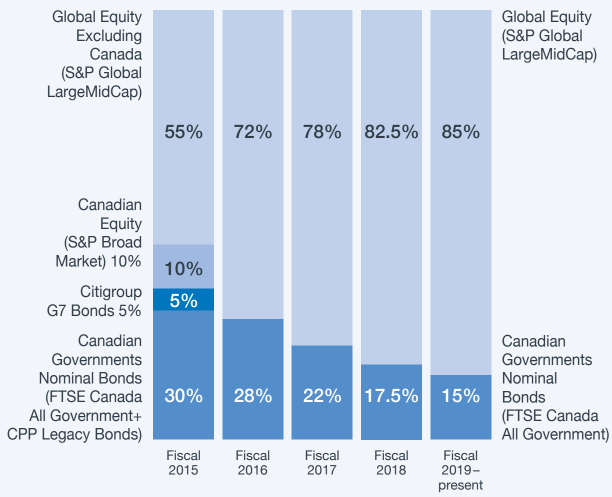
The foundation of overall investment strategy for any portfolio is to determine a prudent and appropriate overall risk appetite. At a minimum, we must accept a level of risk for the Fund that would be expected to generate the net real return required to sustain the CPP (all other assumptions being met).

Depending on long-term return assumptions, we believe that the base CPP cannot ultimately be sustained at a risk-return level below that of a portfolio with approximately 50% global public equities and 50% Canadian governments nominal bonds. For the additional CPP, the corresponding minimum level is that of a portfolio comprising 40% global public equities and 60% Canadian governments nominal bonds. However, there are significant potential benefits to achieving better long-term returns, and better sustaining the CPP, by undertaking a higher – but still prudent – overall risk level.

We express the appropriate market risk targets for the base CPP and additional CPP by means of their Reference Portfolios. Both Reference Portfolios comprise only public-market global equities and fixed-payment bonds issued by Canadian governments. Each class is represented by broad market indexes that could be passively invested in at minimal expense. The chart at right shows the progression of the Reference Portfolio for the base CPP since fiscal 2015, after the Board and Management decided to take on a progressively higher level of risk.

The Reference Portfolios also serve as the published benchmarks for the return performance of each CPP account, net of all investment costs and CPP Investments operating expenses (see page 61 in the Management's Discussion and Analysis).

Reference Portfolio – A Shift Along the Return-Risk Spectrum (base CPP)



CPP Investments' Management and the Board of Directors review the Reference Portfolios at least once every three years following the triennial report of the Chief Actuary and revise them as necessary. The most recent review was in fiscal 2021. The review takes into account the increasing maturity of the CPP, the evolving funded status of each part of the Plan, and CPP Investments' best estimates for long-term economic and capital markets factors. Our methodology uses a simulation model. It estimates both the likelihood and potential size of the impacts of investment returns on the CPP for a specified market risk level, year-by-year over 75 years.

The analysis focuses directly on the future sustainability of the CPP, by quantifying the potential range of positive and negative impacts of investment returns on future CPP contributions and benefits. We calculate these over successive future actuarial review periods and multiple economic/investment scenarios. When evaluating alternative Reference Portfolios, we give more weight to adverse impacts than we do to favourable impacts. We also discount more distant events relative to nearer-term ones.

In fiscal 2021, we analyzed these simulations for each account, recognizing our legislated mandate to invest with a view to maximizing investment returns without undue risk, having regard to the factors that may affect the funding of the CPP. We have concluded that the asset class weights and indexes below are appropriate for the Reference Portfolios with effect from April 1, 2021.

Asset Class Weights for Additional CPP and Base CPP Reference Portfolios

	Base CPP Reference Portfolio		Additional CPP Reference Portfolio	
	F2019–2021	F2022–2024	F2019–2021	F2022–2024
Global Equities (S&P Global Equities LargeMidCap Index)	85%	85%	50%	55% (transitioning from 50% during fiscal 2022)
Canadian Bonds (FTSE Canada All Government Bond Index)	15%	15%	50%	45% (transitioning from 50% during fiscal 2022)

To achieve these distinct market risk targets:

- 100% of the Investment Portfolio for the base CPP is invested in units of the Core Pool, which is maintained close to 85%/15% equity/debt risk equivalence.
- Following transition in fiscal 2022, 65% to 70% of the Investment Portfolio for the additional CPP will be invested in units of the Core Pool. The remainder will be invested in units of the low-risk Supplementary Pool, which is currently composed entirely of Canadian federal and provincial governments nominal bonds (see diagram of the two-account, two-pool structure on page 25).

Global equities

"Global equities" includes both developed and emerging markets and takes into account the evolving market capitalization in each country. Because we do not make a separate allocation to Canadian equities, the composition of the S&P Global LargeMidCap equity index effectively determines the weighting of Canadian equities in the Reference Portfolios. As of March 31, 2021, this weighting was approximately 2.8%. However, the actual Investment Portfolios will likely continue to contain a higher percentage of effective exposure to Canadian equities as we take advantage of our home country knowledge and access.

Setting exposure targets – the Strategic Exposures and Strategic Portfolio

We manage each of the Investment Portfolios to closely match its market risk with that of the associated Reference Portfolio while extending to a much more broadly diversified blend of investments and strategies that fit CPP Investments' comparative advantages. As noted on page 23, we do this by looking through the various types of available assets to the underlying factors that drive their returns, and then building our portfolio to deliver the optimal blend of exposures to these factors.

As the diagram above shows, we can invest in a higher proportion of bonds than the 15% in the base CPP Reference Portfolio and also add major asset classes with stable and growing income. These include investments in corporate credit, real estate, infrastructure and other real assets, which lower the risk of the overall portfolio. This risk-saving then allows us to add a wide variety of higher return-risk strategies, such as:

- Replacing allocations to publicly traded companies with privately held ones;
- Substituting government bonds with higher-yielding credits in public and private debt;
- Using leverage in our real estate and infrastructure investments, along with investment in development projects;
- Increasing participation in selected emerging markets; and
- Making use of pure alpha investment strategies, which rely on the skills and experience of our internal and external managers. (See page 24 for more on alpha.)

However, even with these additions, the resulting diversified portfolio would have a lower risk level than targeted. To raise the risk level to the targeted level and increase expected returns, we introduce a carefully calibrated degree of leverage that is financed by issuing short- and medium-term debt and using derivatives.

Leverage enables us to:

- Increase our gross holdings of all asset classes, thereby maximizing return potential at the targeted overall risk;
- Enhance overall diversification and downside protection, particularly by greater allocations to fixed income investments; and
- Maintain sufficient liquidity at all times.

Using the factor investing approach, we design the optimal strategic mix of key return-risk factor exposures and leverage. These "Strategic Exposures" are tailored to meet each Investment Portfolio's long-term objectives at the same market risk as its associated Reference Portfolio.

Characteristics of Investment Portfolio with Enhanced Return-Risk Profile

Simple Passive Portfolio in Two Asset Classes		Illustrative Portfolio in Multiple Asset Classes and Programs
85/15	Equity/Debt Risk Equivalence	85/15
None	Active Programs Contribution	High
Higher	Public Equity Allocation	Moderate
Lower	Diversification	Higher
Lower	Comparative Advantage Alignment	Higher
Higher	Potential Loss due to Market Risk	Moderate
No	Best Return-Risk Profile	Yes

Factor investing – Implementing the Total Portfolio Approach

By themselves, asset class labels do not fully convey the highly diverse nature of the investments within each class. For example, real assets such as property and infrastructure investments clearly have attributes of both equities and fixed income in addition to their own specific attributes. Private and public investments may appear fundamentally similar, but their liquidity is very different, as is their internal financial leverage or debt level. Debt securities carry a wide range of durations and credit risk. Equities vary in their country, sector and financial leverage exposures.

Because of all these variables, we have identified five underlying key return-risk factors that are relatively independent of each other and can be recognized throughout the decision-making process. We model and map each investment and program based on the extent to which each risk factor affects it. The key factors identified in our risk model address the returns, risks and correlations of:

- Economic growth, which drives equity investment returns over the long term. We distinguish between developed and emerging markets;
- Government bond yields. Again, we separate developed and emerging markets;
- Returns on publicly traded real estate;
- Credit spreads over government bond yields; and
- Firm size (i.e., the excess of small cap versus large/mid-cap equity returns).

When we construct portfolios, we develop desired exposure to each factor, as well as to currencies, leverage, illiquidity, and developed and emerging markets. We also factor in the expected additional risk and net return of active programs. We use these characteristics to analyze how major new investments or divestments might affect the exposures of the total portfolio. As markets, security prices and investment values change, the Total Portfolio Approach drives how we rebalance our portfolios and avoid unintended risk exposures. For example, it has enabled us to prevent equity-like risk from accumulating unduly through private assets.

We then translate these strategic factor exposures into long-term weightings of six distinct public and private asset classes, as shown on page 35. This aspirational Strategic Portfolio represents planned asset allocations for each Investment Portfolio in five years' time, and beyond. It also conveys our long-term expectations for allocating assets to three geographic regions – Canada, developed markets excluding Canada, and emerging markets. The result is a very broadly diversified, aspirational portfolio, which has higher expected return than the Reference Portfolio and greater resilience to extreme downturns.

Strategic Portfolio Asset Class and Geographic Classifications and Percentage Weights

Asset Class[1]	base CPP % Weight	additional CPP % Weight
Public Equity	23%	14%
Private Equity	23%	14%
Fixed Income	32%	39%
Credit Investments (private debt and public fixed income excluding high-quality governments)	17%	31%
Real Assets (public and private, including real estate, infrastructure, energy and resources)	31%	19%
Cash and Absolute Return Strategies[2]	(27%)	(16%)
	100%	**100%**

Geographic Region	% Weight	% Weight
Canada	8%	44%
Developed Markets excluding Canada	59%	37%
Emerging Markets	33%	19%
	100%	**100%**

1. Figures do not add due to rounding.
2. Sustained explicit and implicit financing of the investment holdings of the Investment Portfolio, partially offset by net assets in Absolute Return Strategies and short-term holdings. The controlled use of such financing enables the optimal diversification of the portfolio at the targeted market risk level and helps maintain necessary liquidity.

Setting targets for active and balancing programs

To deliver desired factor exposures into the Fund, and to diversify across many active strategies and managers, we design specific investment programs in each of our five active investment departments – Capital Markets and Factor Investing, Active Equities, Credit Investments, Private Equity, and Real Assets. We conduct extensive research within each program to identify strategies in which internal or external specialists can be expected to deliver sustainable returns and added value from skilful management. Each of these departments is described in more detail in the overview starting on page 43.

Each year, the Total Fund Management department reviews our current and anticipated active investment programs to determine the appropriate portion that each should target in the Core Pool. The allocations are structured to ensure that the active investment programs collectively contribute sufficiently to:

- the desired factor, regional and sector exposures for the pool; and
- the additional net "alpha" returns expected to be generated through their managers' skills.

While active programs represent approximately 65% of the Fund's gross assets (before netting out liabilities), we also structure a set of requisite balancing programs. Each is invested in liquid, publicly traded securities representing a major investment area. These include developed market equities, emerging market equities, global government bonds and global credit investments. Knowing the exposures being delivered at any time in the active portfolio, along with the on- and off-balance sheet financing that we employ, we can make the necessary purchases and sales of securities in the balancing and financing portfolios that enable us to maintain: (i) the targeted overall market risk, and (ii) the targeted overall exposure to each return/risk factor, region and sector.

Mandates and guidance for management of programs

All investment programs must have a written mandate approved by the Chief Investment Officer. It specifies the permissible scope of investments, comparative advantages that support the program, strategies expected to be employed, and measures of success. External manager appointments have similar written mandates, along with commercial compensation arrangements designed to align our goals with those of the manager to minimize agency conflicts.

Each investment department and group receives clear annual guidance called the Investment Department signals. The signals are based on our program selection and allocation process and take into account the practical business and investment plans, as well as preservation of necessary total portfolio liquidity. These signals specify:

- The intended portfolio risk and other characteristics of each investment program, including geographic region, sectors and types of investments;
- Intended contributions to total portfolio exposures;
- Targeted size of assets and/or risk allocation in five years' time;
- Short-term deployment targets to achieve the path determined each year toward longer-term exposures;
- Long-term, steady-state expected returns; and
- Targeted return spreads over benchmark indexes.

Selecting Investments – Active Programs

Our Active Portfolio comprises the collective holdings that directly result from the specific investment selections of the investment departments, as influenced by their programs' top-down guidance. Each active investment department, or group within the department, is accountable for:

- Decisions to propose or reject new strategies and to resize or reposition existing strategies, within the overall ISRC approvals and management limits;
- Identifying, accessing, selecting, sizing and exiting from investment opportunities and external partnerships;
- Individual investment selections to build and manage portfolios, as guided by the applicable signals and return/risk expectations over the anticipated holding period;
- Effectively managing the assets we own, as well as the investments in companies or partnerships in which we have a major stake, in order to sustain and enhance returns; and
- Timely and cost-effective execution of active portfolio or Balancing Portfolio transactions within their mandates.

While seeking to deliver targeted exposures through time, our individual investment groups will only make an investment when there is sufficient prospect of an appropriate risk-adjusted return. We never make an active investment simply because it fills a gap in a particular asset class, exposure, sector or geographic region.

Measures of investment success for each department or group include both absolute returns and the value-added, after all costs, relative to the appropriate risk-comparable performance benchmarks.

Selecting Investments – Balancing Programs

The Total Fund Management department is accountable for:

- Maintaining sufficient liquidity to cover CPP net outflows, meet all contractual obligations, execute required balancing trades, and provide cash to purchase committed investments;
- Implementing cost-efficient and flexible external financing arrangements and facilities to support active and balancing programs; and
- Management of the balancing process through the Balancing Portfolio, which comprises the remainder of total assets not actively held, and financing contracts. Within the portfolio, distinct blocks of assets are maintained that facilitate the transactions needed to cost-effectively rebalance factor exposures.

Sources of liquidity

CPP Investments has the ability to raise funds through several channels and instruments. We use the funds both to maintain our liquidity targets and enable our investment strategies. We optimize our funding mix on competitive terms by leveraging our teams' capabilities, our relationships with financial market participants, our scale and our "AAA" credit rating. Our primary means of generating cash funding include:

- Issuing debt securities to investors through our unsecured debt issuance programs (short-, medium- and long-term);
- Obtaining and managing desired investment exposures using derivatives in place of physical holdings in certain instances; and
- Borrowing and lending securities through our:
  - prime broker accounts;
  - direct bilateral arrangements with leading financial institutions; and
  - repurchase agreements.

The balancing process is designed to maintain the overall exposures of the Core Pool sufficiently close to their targets at all times. Each day, the process starts with a daily aggregation of the ever-moving risk, factor, currency and geographic exposures of the active portfolio and Balancing Portfolio. When these aggregate exposures have diverged too far from the intended Core Pool allocations, or total risk varies unduly from its target, we execute trades within the Balancing Portfolio to bring the Core Pool exposures back into line.

We complete the balancing process by periodically rebalancing the additional CPP Investment Portfolio's mix of unit holdings in the Core and Supplementary Pools. We do this primarily through allocation of incoming additional CPP cash flows towards restoring the targeted mix.

Strategic positioning

We do not engage in short-term market timing. However, the Management-level Investment Strategy Committee regularly receives several inputs on market conditions and prospects. As described on page 45, we also maintain a specialist group dedicated to analyzing short-to-medium-term market conditions, risks and opportunities. This helps us develop strategic shifts in exposures that are expected to materially enhance returns or reduce downside risks. If executing a repositioning would take an Investment Portfolio materially outside its Board-approved risk or exposure limits, prior approval of the Investment Committee of the Board is required.

Attribution and evaluation

CPP Investments is relentlessly focused on investment management and enhancing Fund returns in the best interests of CPP contributors and beneficiaries. In fiscal 2021, we enhanced our methods of attributing performance and risk through the addition of new analyses that help to provide a reliable and consistent base of Management information, support the evaluation of results and to point to possible opportunities for improvement.

How we assess and determine fair value

Both accounting standards and appropriate performance attribution demand reliable valuation of all investments. CPP Investments has in place valuation processes to measure the fair values of our investments. International Financial Reporting Standards define fair value as "the price that would be received to sell an asset, or paid to transfer a liability, in an orderly transaction between market participants at the measurement date." Establishing reliable fair values is critical to reporting on our assets and performance, as well as managing our Investment Portfolios and risks.

Our approach for determining fair value differs for public and private investments:

- Public investments: The fair values of investments in public stocks, bonds and other securities that are traded in active markets are determined using quoted prices from stock exchanges and other market data providers. These prices are sourced and reviewed daily by multiple groups across the organization. Valuation controls for these investments focus on the integrity of the processes that source data, update positions and generate the valuation.

- Private investments: The fair values of investments in private equity, real estate, infrastructure and other similar asset classes are determined through valuation techniques that include inputs observed in public markets, such as a multiple of earnings derived from a set of publicly traded comparable companies used to inform the valuation of a private equity investment. Additional techniques include the use of recent transactions, the current fair value of another investment that is substantially the same, discounted cash flow analysis, pricing models and other industry-accepted valuation methods.

Since estimating the fair value of private investments requires the application of judgment alongside data, we employ several layers of checks and controls:

- The Finance group is responsible for the oversight of valuation processes, controls and results, independent from investment departments. The group comprises certified valuation professionals with extensive experience valuing private assets at accounting firms, asset managers and other large, sophisticated pension funds.
- We use third-party appraisers and external valuation experts in a risk-based manner to provide independent views on the most subjective fair values.
- The fair values reflected in our Consolidated Financial Statements are also periodically subject to external review and audit.

In instances where fair values are obtained directly from external investment managers, such as for the Funds & Secondaries and External Portfolio Management investment strategies, we regularly review the quality of our partners' valuation practices.

Both Management (through the Valuation Committee) and the Board of Directors (through the Audit Committee) provide governance over valuation processes and controls, with an additional governance layer provided by internal and external auditors.

Valuation practices are continuously reviewed to ensure that we maintain high-quality risk management and governance standards that are required to uphold and sustain the confidence and trust of our stakeholders.

More information on valuations and fair-value measurements can be found on page 107 of this report, as well as in Note 3 of the Consolidated Financial Statements on page 154.

How we measure and compensate performance

Each year, the Human Resources and Compensation Committee (HRCC) of the Board of Directors approves the compensation structure for all levels of employees. The structure ties incentive compensation to the following three elements:

1. Total Fund investment results, with equal weighting given to total return and dollar value-added relative to the Reference Portfolios. Both are calculated over five-year periods, aligning with our long-term perspective;
2. Department and group performance, judged against a variety of financial and non-financial objectives set in annual business plans; and
3. Individual performance.

Full details of our compensation system appear in the Compensation Discussion and Analysis section, beginning on page 109.

All returns used to inform incentive compensation are calculated after deducting all costs.

How we set performance benchmarks and value-added targets

At the Investment Portfolio level, the benchmarks are the returns of the associated Reference Portfolios. At the investment group level, the Finance, Analytics and Risk department recommends and measures specific benchmarks and long-term competitive value-added targets for each program. The recommended value-added targets above the performance benchmarks tie directly back to the steady-state return assumptions that are used in determining the allocations to the relevant investment programs. These target spreads reflect the broad investment characteristics of each program, its risk exposures and its inherent opportunities. The targets are then used as part of the annual assessment of each investment group's success.

Our external auditors examine the methods and results we use to determine the actual and benchmark returns at the total Fund level.

The specific benchmarks for individual investment programs are summarized below:

- **Public markets absolute return strategies:** Cash return benchmark on net cash deployed, except zero-return benchmark for pure risk premium strategies, and net dollar return targets for each program.
- **Private equity:** For investments excluding Asia, developed markets large/mid-cap public equity index. For Asia investments, a weighted blend of developed and emerging markets Asia-Pacific All Country large/mid-cap public equity indexes.
- **Credit investments:** For multi-asset strategies, a weighted blend of four indexes – global aggregate investment-grade corporate bonds, global high-yield corporate bonds, U.S. leveraged loans, and emerging market bonds. For a major single asset holding: U.S. large/mid-cap equity index.
- **Private real estate equity:** IPD Global Fund Manager Property Index.
- **Energy and resources:** Developed Energy large/mid-cap public equity index.
- **Infrastructure and power generation:** A weighted blend of indexes of global large/mid-cap public equities and G7 government bonds.
- **Balancing Portfolio:** Custom benchmark representing the evolving systematic risk-return of each component in its programs. This reflects its ever-changing composition and its focus on delivering factor exposures rather than alpha.

Sustainable investing

The nature of business risk and opportunity has fundamentally changed in this century. Meeting the demands of almost eight billion people in an increasingly competitive and connected landscape has heightened expectations of stakeholders, bringing environmental, social and governance (ESG) issues to the fore. Companies and investors that anticipate and manage these risks and opportunities are in the best position to drive enduring financial performance. This requires recognition that ESG factors can directly impact a company's profitability. And we believe those companies that effectively manage ESG factors are more likely to preserve and create long-term value for their investors, beneficiaries and broader stakeholder constituencies. We consider relevant ESG matters when evaluating opportunities, making investment decisions, managing our investments and engaging with companies to seek improvements in business practices and disclosure.

Our sustainable investing strategy is supported by a formal governance structure and a dedicated Sustainable Investing group (see page 45). This strategy includes the integration of ESG considerations through the life cycle of an investment – from due diligence, to ownership, to a portfolio company's preparation for a public stock market listing. It also includes active ownership through direct or collaborative engagement with companies.

ESG integration in investment decisions and asset management

We evaluate and incorporate risks and opportunities from potentially material ESG factors into both investment decision-making processes and asset-management activities. These embedded ESG considerations can significantly affect our assessment of a company's risk profile and value, so they are critical in determining the attractiveness of a potential investment and how best to manage an asset once acquired. Our Sustainable Investing group works closely with investment and asset management teams on all major transactions across the organization to ensure an integrated approach to incorporating ESG considerations into our decision-making.

Active ownership

The boards of our portfolio companies are expected to provide oversight and counsel to management. They should ensure that all material business risks and opportunities are considered and reflected in strategy, operations and financial reporting. We believe this is wholly consistent with a board's responsibility to act in the company's best interests for long-term value creation, as well as its accountability to shareholders.

Environmental, Social and Governance (ESG) Factors

CPP Investments is an active and engaged owner, but not an adversarial activist. We respect the triad of owners, boards and executives. As an owner, we do not seek to encroach onto the responsibilities of boards, supervise executives or prescribe solutions. However, where it is not clear that boards or management teams are acting in the best interests of our portfolio company we will engage and, where necessary, reflect this in our voting decisions for public companies. Selling our shares and walking away achieves very little; we can be a patient provider of capital and work with companies to bring about change.

Our active ownership involves engagements with our portfolio companies through proxy voting, meetings and formal correspondence and collaboration with like-minded organizations. We do this where we believe it will create better long-term outcomes on ESG matters and generate more sustainable value for the Fund. We focus most of our sustainable investing-related engagements on five issues: climate change, water, human rights, executive compensation and board effectiveness.

Our approach to climate change

We view climate change as a significant physical, social, technological and economic challenge. Specifically addressing climate change in our investment activities better positions us to make more informed long-term decisions.

Our efforts to understand the impacts of climate change – and to integrate this into our investment decisions – started more than a decade ago. Those efforts were accelerated in 2018 with the launch of our Climate Change Program. This is a cross-departmental, multi-year initiative designed to enhance capital allocation, deepen investment acumen and strengthen external communications and transparency related to climate change.

Today, the assessment of climate change impacts is embedded in our investment processes and operations. This includes tools to assess the economic damages associated with different Energy Transition and Climate Change (ETCC) paths. It also includes risk measures such as Carbon Footprint and Climate Value-at-Risk to identify and quantify the climate risks the Fund faces. As well, our Climate Change Security Selection Framework requires consideration of the financial impacts of both high-physical and high-transition scenarios (our "bookend scenarios") where climate change impacts are deemed to be material to the investment decision and asset management strategy.

High-physical risk scenarios are those resulting in more than 4°C of temperature warming, while high-transition risk scenarios are those resulting in less than 2°C warming over pre-industrial levels. In these scenarios, the framework must be applied to any transaction requiring Investment Decision Committee approval. This year, we also started applying this framework to existing investments in our portfolio. This will allow us to engage with management teams to consider developing action plans to mitigate identified risks and/or realize opportunities related to climate change in our existing portfolio companies.

We make clear to our portfolio companies our expectations of boards and executives to support better climate-change practices and disclosure. We believe companies have a responsibility to their stakeholders to be transparent about the challenges posed by climate change. Starting in fiscal 2021, boards of all our portfolio companies with intrinsic climate exposures must identify and quantify these risks and reflect them in their strategy, operations and disclosure to the market. Where this is not done, we take action through our voting practices adopted during this fiscal year. We will vote against the reappointment of the chair of the risk committee (or an equivalent committee) of companies that contribute the largest climate change risks in our public equities portfolio, and where boards have failed to demonstrate adequate consideration of physical and transition-related impact from climate change.

While our role as an investor is to identify mispricing of securities, it is the responsibility of the boards of these issuers to ensure the long-term viability of these businesses in what we believe will be a future net-zero emissions world. We also respect that companies we invest in determine their own specific climate-related transition strategies. As a shareholder, we do not support shareholder proposals, climate-related or otherwise, that are overly prescriptive, seek to direct corporate strategy and/or are designed to diminish the power of the board of directors of a company, or place arbitrary or artificial constraints on a company.

Our interests are aligned with efforts to slow the pace of global warming in many ways. For example, successfully navigating the global energy transition towards the greater use of renewable power and a more efficient conventional energy sector will make the Fund more resilient due to its diverse scope, global exposure, size and investment horizon. For more information on the Power & Renewables group, see page 48.

Our gender diversity voting practices

Companies with diverse boards are more likely to achieve superior financial performance. Having directors with a range of experiences, views and backgrounds helps ensure the board as a whole applies more diverse perspectives to meaningfully and appropriately evaluate management and company performance.

CPP Investments is committed to advancing gender representation on boards. We first introduced our board gender diversity voting practice in Canada in 2017 and have continued to evolve our practices each year. For example, we introduced our global voting practice in the 2019 voting season. Our goal is to improve the gender balance and overall effectiveness of public company boards worldwide. (See page 79 for our recent gender diversity voting.)

Disclosure of ESG factors

We expect our portfolio companies to disclose financially relevant, potentially material ESG factors. We ask that companies explain why they have identified these risks, how they manage them, and how they have adjusted their performance and targets to improve them. We support issuers aligning ESG and climate reporting with the Sustainability Accounting Standards Board (SASB) and the Task Force on Climate-related Financial Disclosures (TCFD). Our own latest disclosures in alignment with the TCFD's recommendations are on page 40.

Reporting in accordance with the TCFD Recommendations

Governance

The Board of Directors oversees enterprise-wide efforts to understand and manage climate-related risks and opportunities. At least once a year, Management reports to the Board about our activities related to climate change, including the most material investment risks and opportunities. Our Chief Financial and Risk Officer (CFRO) and our Risk group report regularly to the Risk Committee of the Board on climate-related risks, including updates on carbon footprint metrics and scenario analysis results. The Investment Committee of the Board also reviews and approves our most significant investments. This approval process includes an assessment of climate-related risks and opportunities if these are deemed to be material to the investment decision.

In 2018, we launched the Climate Change Program, a cross-departmental, multi-year initiative designed to position us as a leader in understanding the investment risks and opportunities presented by climate change. The Program was overseen by the Climate Change Steering Committee (CCSC), made up mostly of Senior Managing Directors who lead our various investment and operations departments.

The CCSC oversaw our Climate Change Management Committee (CCMC), which in turn guided and supported the Program's work streams. The CCMC comprises managers from across investment and operations departments. Beyond March 2021, the Program will evolve to a steady state with its work embedded in our investment processes and operations.

We want to ensure the continuity of our strategic direction, cross-departmental collaboration, oversight and stakeholder communication relating to climate change efforts. To achieve this, the Head of Sustainable Investing will coordinate climate activities across the departments. This includes quarterly reporting on climate change to the Investment Strategy and Risk Committee, the highest-level Management committee at the Fund. Finally, the CCSC and CCMC, along with the Green Bond Committee, have been consolidated into the Sustainable Investing Committee. This committee will be the central forum for the monitoring and guidance of issues related to ESG, including climate change.

Specific members of the senior leadership team involved with climate change initiatives, as well as employees elsewhere in the organization, have part of their variable pay tied to progress on climate change-related objectives.

Strategy

CPP Investments has dedicated resources to understand, top-down and bottom-up, the risks and opportunities brought on by climate change from a financial point of view. Our enterprise-wide approach integrates climate change considerations into all relevant investment activities and into our risk framework. This helps us build and protect long-term investment values.

In the last 12 months, we continued to refine a climate-related scenario analysis framework. It enables us to identify climate-related risks and opportunities, assess the impact and resilience of our investments, and inform strategy and business planning. Scenario analysis is carried out across investment and non-investment departments as an integral part of portfolio design, investment due diligence and stress-testing processes.

Total Portfolio Design

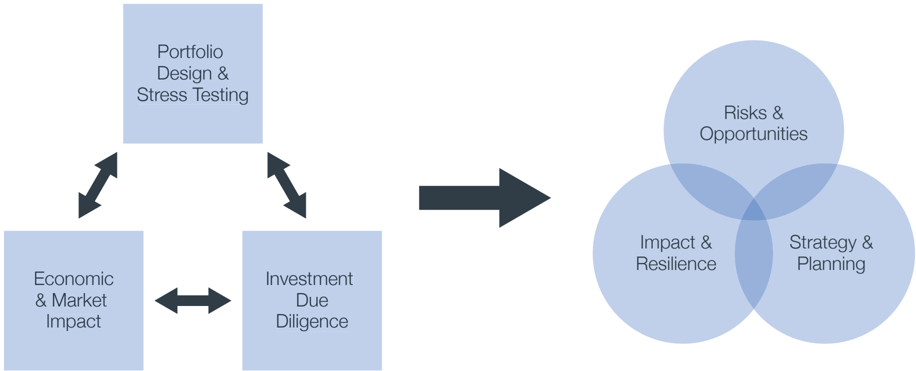
Total Fund Management (TFM) takes a top-down approach. The department seeks to factor in a full range of climate-related risks and opportunities as part of our investment strategy and total portfolio design. TFM works to understand potential climate change and energy transition pathways for various countries, along with the resulting economic and financial market impacts. These tools are already incorporated into security selection and portfolio design.

Physical risks are captured using our internally estimated damage function, which maps rising temperatures to GDP growth. Transition risks arise from the potential shift to a low-carbon economy, which is dependent on factors including extensive policy changes, technology and the development of carbon markets. We quantify the range of potential transition-risk impacts using models and scenarios from the UN Intergovernmental Panel on Climate Change.

TFM also develops Energy Transition and Climate Change (ETCC) scenarios to assess the risks and opportunities related to climate change and the energy transition. These focus on the impact on long-term returns and asset allocation. These scenarios are already helping investment departments determine the impact of energy transition and climate change for potential investment returns. In addition, we started tracking an initial set of key indicators, or "signposts," to better understand which energy transition and climate change scenarios are most likely. These indicators include energy demand, technology, policy and physical effects.

Taken together, recent trends suggest that the ETCC's current trajectory is most consistent with a mid-high warming outcome, although this trajectory can be changed with sufficient global effort. TFM plans to continue refining our signpost framework. This will help us dig deeper into the evolution of key indicators at the global or country level and look more comprehensively at the risks and opportunities surrounding the ETCC.

Scenario Analysis Framework



Climate Change Stress Testing

CPP Investments uses stress testing to independently assess the impact and resilience of the investments under a range of plausible climate change scenarios. These include extreme events that have a low probability of happening, but which could have devastating impact. Stress-testing results and attribution allow us to quantify the potential financial impact and assess compliance with our risk appetite statements.

For risk management purposes, we explore different pathways resulting in a range of temperature outcomes – for example, scenarios of 1.5°C, 2°C, 3°C and 4°C futures. We also look at different emissions pathways – for example, changes in emission trajectories. In addition, we use stress-testing guidelines from regulators and other authoritative agencies such as the Network of Central Banks and Supervisors for Greening the Financial System (NGFS) and the Prudential Regulation Authority (PRA).

The top-down approach estimates the systemic impact of climate-change risk to the GDP and broad market at the country and sector level. Those impact estimates are further translated into potential shocks to financial variables consistent with our investment risk stress-testing methodologies.

The bottom-up approach estimates the valuation impact at the portfolio company level due to its exposure to a range of transition and physical risks and opportunities. Examples are carbon pricing and extreme weather events. The company-level results are then aggregated to the portfolio level. The two approaches are complementary, and both provide important insights for decision-making. See page 100 for a summary of impacts of climate change on our portfolio along different warming scenarios.

These estimates are highly sensitive to the assumptions we make. The range of possible outcomes can be very wide with an average impact that is significantly lower than the extremes. We will continue to refine the views and assumptions underlying the assessment. We will also continue to evolve our climate-change stress-testing capabilities by working collaboratively with other organizations and regulators.

Climate Change Security Selection Framework and Opportunities

Our Climate Change Security Selection Framework requires consideration of the financial impacts of both high-physical and high-transition risk scenarios (our "bookend scenarios"), where climate change impacts are deemed to be material to the investment decision, or asset management, or both. The framework must be applied to any transaction requiring Investment Decision Committee approval. This year, we also started applying this framework to existing investments in our portfolio. This will allow us to develop action plans to mitigate identified risks, or realize opportunities related to climate change, or both.

For CPP Investments, climate change is not only about addressing risks – it is also about identifying opportunities. In 2017, we created the Power & Renewables (P&R) group to better position the Fund to invest in energy transition-related opportunities. Since then, the P&R group has made significant investments in renewable energy projects globally. The combined value of these assets in the group's portfolio is now about $7.1 billion, or 1.4% of the Fund. As of fiscal 2022, the P&R group combined with the Energy & Resources group to create the new Sustainable Energy Group to pursue investment opportunities across the full spectrum of energy sources and along the energy value chain as the energy sector evolves and global power demand grows. See page 90 for more details.

CPP Investments was the world's first pension fund manager to issue a green bond to help support our investments in opportunities as pursued by Power & Renewables and other groups. Green bonds provide CPP Investments with additional funding as we pursue acquisitions, including renewable energy producers and LEED Platinum certified buildings. Green bond financing expands our investor base as we invest in assets that are resilient to the energy transition (see page 90).

In 2019, we launched an Innovation, Technology & Services strategy, with a mandate to seek early-stage investments that are aligned with the energy transition. These investments are within the traditional energy production, transport and storage industry. For details, see page 47. Our Thematic Investing group has also launched a new Climate Change Opportunities investment strategy.

Risk Management

Given our legislative objectives, managing risk is central to our work at CPP Investments. Climate change has been identified as a key risk in CPP Investments' Integrated Risk Framework (IRF) as described on page 99. Climate-change investment risks relate to a broad array of complex interrelated risks, including physical and transition risks.

The IRF promotes clear lines of accountability across three complementary levels (see page 98 for our Risk Management Structure):

- **First line of defence:** The leaders of each department are responsible for managing the risks assumed within their areas of responsibility. As it relates to climate change, our Climate Change Security Selection Framework requires investment teams to include descriptions of relevant climate change-related risks and opportunities. They must do this at the initial screening and final investment-approval stages for our most material individual investments.
- **Second line of defence:** The CFRO and Risk group are accountable for setting risk policies, standards and guidelines, independently assessing risks, and challenging the first line's management of risks. Our Risk Group uses various approaches to assess climate-change risk, including scenario analysis.
- **Third line of defence:** Assurance and Advisory is accountable for providing independent assurance over the adequacy of risk governance and internal controls. This group supported a preliminary assessment of our internally developed carbon footprint tool.

Disclosure by our portfolio companies is critical to helping us assess climate change-related risks, so we work actively with companies to improve climate change-related disclosures.

Over time, we have pressed large greenhouse gas emitters in utilities, energy and other sectors for improved disclosure. CPP Investments also uses its voting power to support shareholder proposals that encourage companies to improve disclosure of climate change-related risks.

Targets and Metrics

Targets

We believe active ownership and engagement with the boards of our public and private investments is the more effective way to proactively reduce climate-change risk in the Fund. Supporting the decarbonizing of our economic system requires fundamental change in the real economy. Commitments to have specific fund exposures by specific dates may lead us to sell holdings too quickly or overpay for investments. Such targets may also not align with the trajectory companies have underway to become more sustainable, and thus more valuable over time. This would erode returns to CPP beneficiaries as the world transitions to a net-zero future.

We actively assess companies' risk and opportunity profiles against specific scenarios that consider physical and transition-related impacts from climate change, as discussed on page 38.

We actively engage on climate change with companies in our portfolio that contribute the most to the Fund's climate-change risks and opportunities. As shareholders, we respect that companies we invest in determine their own specific climate-related transition strategies. However, we seek to ensure that they have identified, quantified and integrated these factors into their strategy.

Furthermore, through our proxy voting practice on climate change, we will vote against the reappointment of the chair of the risk committee (or an appropriate equivalent committee), where boards have failed to demonstrate adequate consideration of physical and transition-related impacts from climate change. Going forward, we will report on the number of companies we have actively voted against.

Metrics

The recommendations of the Task Force on Climate-related Financial Disclosures are widely recognized as the global standard for climate change disclosure. We use a range of metrics to measure and monitor climate-related risks, both quantitatively and qualitatively. Our in-house carbon footprint metrics and tools provide relevant benchmarks and the insights into greenhouse gas emissions associated with all CPP Investments' holdings. We use scenario analysis and forward-looking metrics such as Climate Value-at-Risk to assess the potential financial impact to our investments.

Investment departments overview

This section provides an overview of the responsibilities of our investment departments:

- Total Fund Management
- Capital Markets and Factor Investing
- Active Equities
- Credit Investments
- Private Equity
- Real Assets

Details about the fiscal 2021 and longer-term performance for each investment department begin on page 66.

Total Fund Management

The Total Fund Management (TFM) department, led by the Chief Investment Officer, focuses on design of the Investment Portfolios considering short, medium and long horizons, and ongoing implementation of the Total Portfolio Investment Framework (see page 32). TFM coordinates and guides the organization's investing activities for the base CPP and additional CPP accounts, managing each account to maximize its long-term returns without undue risk as appropriate to each account. TFM has the following broad responsibilities:

- Develop the recommended Reference Portfolios (see page 32), and the long-term return-risk factor allocations leading to the Strategic Exposures (as described on page 33), for each of the Investment Portfolios.
- Develop the construction of the Core Pool in which both Investment Portfolios invest, in terms of the targeted sizing and roles of its active and balancing investment programs.
- Develop the construction of the Supplementary Pool in which only the additional CPP Investment Portfolio invests, and the proportions with the Core Pool that will deliver its targeted risk.
- Develop the current-year target exposures, and the asset and geographic range expectations, for the composition of each of the Investment Portfolios.
- Guide the Investment Portfolios' overall foreign currency exposures (with the exception of any active tactical currency allocation).
- Align the investment activities of other investment departments and groups so that each one contributes appropriately to the Investment Portfolios in a coherent way.
- Manage the components of the Balancing Portfolio to achieve and maintain intended total portfolio exposures, liquidity and leverage on a day-to-day basis.

In fiscal 2021, TFM was organized into the following six investing groups:

Active Portfolio Management

The Active Portfolio Management group aligns active program activities with their targeted allocations. Applying its ongoing research into investment strategies, the group annually provides anticipated factor, geographic and sector characteristics that guide each of the active investment management groups on the types and amounts of assets and long-term returns they should target in their specific portfolios. This guidance fosters the optimal overall diversification benefits of factor exposures and active management strategies across the organization's 20 distinct investment programs.

Balancing & Collateral

The Balancing & Collateral group is responsible for the implementation and delivery of the balancing program portfolios (excluding credit) through appropriate public security selections to deliver the intended types of exposures. The group is also responsible for the efficient delivery of required financial leverage, the optimization of the Fund's collateral, and the maintenance and management of the Fund's liquidity.

Balancing Portfolio Management

The Balancing Portfolio Management group is responsible for the day-to-day management of the Balancing Portfolio. Its objective is to ensure that the Core Pool has the desired exposures when the active portfolio and Balancing Portfolio are combined. Monitoring the evolving overall exposures and risk of the Core Pool, the group determines when, to what extent and by what means rebalancing is required to adjust exposures. This group works with the Balancing & Collateral and Public Credit groups to design and execute appropriate and cost-efficient rebalancing trades. The Balancing Portfolio Management group is also responsible for the day-to-day management of the Core and Supplementary Pool weights in the additional CPP account.

Portfolio Engineering

The Portfolio Engineering group designs and builds systematized processes that effect the design of CPP Investments' investment strategy and the management of the Investment Portfolios. Its ongoing research also provides analytics and insights to support total Fund management decision-making.

Portfolio Design

The Portfolio Design group identifies and analyzes the return-risk factors it believes sufficiently characterize the behaviours of the global markets in which CPP Investments invests. This group determines the targeted allocation of the Investment Portfolios to each of the investment programs in a systematic and well-diversified manner, within the specific risk appetites set by the Board and Management and subject to liquidity requirements and other constraints. The group is also responsible for the asset/liability modelling of the CPP and the Fund that informs the choice of target market risk, in the periodic review of the Board-approved Reference Portfolios.

Strategy

The Strategy group is responsible for integrating the department's work into our Total Portfolio Investment Framework, and for advancing the attribution of returns, risk and value-added to the key elements within our portfolio management activities. The group also oversees project management, and the execution of key strategic initiatives, for the Chief Investment Officer (CIO) and TFM.

TFM's annual portfolio design process is integral to the ongoing development of the Investment Portfolios. In conjunction with other investment departments and the Risk group, TFM determines the full range of potentially attractive investment areas in each active program over one- and five-year periods. TFM works with each of the other investment departments, narrowing down the potential investment opportunity areas and potentials to each program's preferred five-year deployment range. The benefits, risks and costs of each program are efficiently and equitably delivered to each Investment Portfolio through its risk-balanced participation in the Core and Supplemental pools (see diagram on page 25).

Since September 2020, TFM, under the CIO, has operated with an expanded mandate that includes driving total Fund activities across all investment horizons, covering short-, medium- and long-term portfolio construction and management; capital allocation between investments programs; medium- and near-term portfolio guidance; and balance sheet management, including leverage and liquidity. In April of calendar 2021, the TFM groups were realigned to focus resources more effectively to deliver on these new accountabilities. These groups will report in the fiscal 2022 annual report.

Capital Markets and Factor Investing

The primary goal of the Capital Markets and Factor Investing (CMF) department is to ensure that CPP Investments has the flexibility to efficiently gain access to multiple different sources of return. These include global passive and active returns from public equities, fixed income securities, currency, commodities and derivatives. CMF is active with internal strategies and also engages investment managers and makes co-investments in public market securities. These exposures complement and extend the sources of returns that the Fund can achieve through other investment programs, based primarily on security selection.

CMF's activities cover three broad categories to:

1. Use our comparative advantages to generate alpha in various systematic (or "rules based") and discretionary investment programs. This includes external investment management partners.
2. Generate sustainable and scalable investment income from risk premia programs, which earn returns from a diversified portfolio of systematic risk factors.
3. Execute the Fund's financing, collateral and trading needs.

To carry out these activities, CMF is organized into five investment groups:

External Portfolio Management

External Portfolio Management (EPM) oversees a portfolio of externally managed funds and separate accounts that complement CPP Investments' internal investment programs. The group has relationships with more than 60 asset managers globally. Fund mandates include public market equities, credit, interest rates, currencies and commodities. EPM forms long-term partnerships, irrespective of whether the underlying fund strategy is short- or long-term in nature. The group also makes co-investments alongside external managers.

Financing, Collateral & Trading

Financing, Collateral & Trading (FCT) is responsible for execution of CPP Investments' financing activities, management of the global term debt program and trading. The group works closely with the Total Fund Management department to manage the Fund's liquidity, leverage and exposure. In addition, the group is responsible for managing collateral optimization and sourcing liquidity for the Fund with secured financing as well as alternative vehicles such as synthetic financing. Lastly, FCT oversees global trading and execution of all public assets (excluding credit) across all major markets on behalf of all investment teams and the Balancing Portfolio.

Macro Strategies

Macro Strategies (MS) manages discretionary investment programs for CMF, including strategic positioning programs (see page 36). It invests across multiple asset classes in major developed and emerging markets. The group uses CPP Investments' inherent advantages of scale, a long time horizon and developed expertise to generate returns in excess of market benchmarks.

Quantitative Strategies & Risk Premia

The Quantitative Strategies & Risk Premia (QSRP) group delivers returns by building and maintaining a portfolio that spans both systematic alpha and risk premia factors across global asset classes. The group manages mathematical and statistical modelling (quantitative strategies) to combine sources of return from alpha and risk premia into a portfolio with an attractive risk-return profile. The portfolio is also designed to be diversifying over time to broad market indexes.

Research & Innovation Group

The Research & Innovation Group (RIG) focuses on defining and leading global research in CMF. They develop the research agenda in partnership with the department's other groups. RIG has a focus on innovation. It actively pursues unique approaches to the development and application of novel forecasting, analysis and portfolio construction techniques. RIG also focuses on data sourcing and data engineering. The group works on data discovery as part of its research, identifying valuable new sources of information and incorporating them into investment programs.

Active Equities

Active Equities (AE) primarily invests in common equity of publicly traded companies across sectors, geographies, and sizes, with a few notable additions detailed below. The department is made up of three core strategies: Active Fundamental Equities, Relationship Investments and Thematic Investing. These strategies are deployed across five investment teams spanning the Americas, Europe and Asia. The department also provides firm-wide thought leadership on environmental, social and governance (ESG) factors, including climate change through the Sustainable Investing group.

AE is organized into six investment groups:

Active Fundamental Equities

Active Fundamental Equities (AFE) invests in large cap public equities in the developed markets of North America and Europe. The strategy employs bottom-up fundamental research to identify mispriced securities. These company-specific insights are used to create a concentrated market-neutral portfolio of high-conviction investments.

Direct Equity Investments Latin America

Direct Equity Investments Latin America (DEILA) invests in public and private equities across Latin America. The group employs a combination of the AFE and Relationship Investments strategies (see below) as well as a private equity strategy that makes direct investments and external fund allocations.

Fundamental Equities Asia

Fundamental Equities Asia (FEA) invests in the developed and emerging public equity markets across Asia. The group employs both the AFE and Relationship Investments strategies.

Relationship Investments

Relationship Investments (RI) makes significant, direct minority ownership investments in public or soon-to-be public (pre-IPO) companies in developed markets of North America and Europe. RI invests in companies where capital from CPP Investments can catalyze transformative growth opportunities or significant shareholder transitions, and where the team can align with management and the board of directors on long-term value creation initiatives.

Sustainable Investing

The Sustainable Investing (SI) group contributes both directly and indirectly to the Fund's performance and legislative objective by ensuring that environmental, social and governance (ESG) factors are integrated into our investment decision-making process. The group partners with investment teams across the firm and across the investment life cycle to conduct independent research on companies, industries and assets in which ESG factors, including climate-related considerations, are material to an investment's risk and value. The SI group supports our role as an active, engaged owner by carrying out all proxy voting activities. The group also leads engagement with our portfolio companies to address ESG risks and opportunities to enhance the long-term sustainability of the Fund. Lastly, the group also helps foster our relationships with like-minded industry peers to maximize the impact of our collaborative engagements on ESG.

Thematic Investing

Thematic Investing (TI) primarily invests in public equities and select early-stage private companies globally. The strategy employs proprietary top-down research to identify long-term structural trends that cut across sectors and geographies. These insights are used to construct a set of individual "thematic" portfolios, where each portfolio comprises companies meaningfully exposed to the underlying theme.

Credit Investments

Credit Investments (CI) manages CPP Investments' public and private credit investments globally. CI invests in all credit and credit-like products across the capital structure, in multiple sectors and along the rating spectrum, with the exception of local currency sovereign bonds (see page 58). The department focuses on liquid/syndicated and direct investing in both investment and sub-investment grade corporate, real estate and consumer credit. CI invests in both physical and synthetic financial instruments.

CI makes direct investments in many areas, including corporate debt, consumer credit, structured credit, real asset-backed financing and royalty-related income streams. The department sources these through participation in event-driven opportunities such as acquisitions, refinancings, restructurings and recapitalizations. In select cases, CI also commits to debt funds to access manager expertise or existing strategic benefits such as origination or due-diligence capabilities. To achieve scale and efficient access to certain markets, CI invests in platforms and other capital deployment vehicles and may gain this exposure through an equity investment.

The CI department is organized into six investment groups:

Americas Leveraged Finance

Americas Leveraged Finance (ALF) invests in sub-investment grade corporate credit or credit-like opportunities in both primary and secondary markets across the Americas. The group focuses on liquid and illiquid debt across the capital structure. Typical investments include leveraged loans, high-yield bonds, unitranche loans, bridge financings, convertible bonds, mezzanine debt and preferred equity. ALF's portfolio also includes Antares Capital, a leading provider of financing solutions to middle-market private equity sponsors in North America.

Americas Structured Credit & Financials

Americas Structured Credit & Financials (ASCF) invests in sub-investment grade structured credit and debt capital solutions for financial institutions. Typical investments include purchasing or financing whole loan portfolios, residential mortgages, consumer credit, other smaller-scale credit and collateralized loan obligations and other asset-backed securities. ASCF also invests in intellectual property with royalty-related income streams backed by tangible and intangible assets globally.

APAC Credit

APAC Credit (APAC) is focused on sub-investment grade corporate, structured and real asset credit in the Asia-Pacific region, in both primary and secondary markets. The group invests both at the asset and corporate level using a variety of instruments including leveraged loans, high-yield bonds, convertible bonds, senior and mezzanine loans, as well as structured credit products including non-performing loan assets. APAC invests primarily in China, India and Australia, as well as other developed and emerging markets in the region. The strategy is largely sector agnostic and can provide both U.S. dollar and local currency solutions. The group also engages selectively in strategic partnerships in core local markets to achieve scale and gain local access.

European Credit

European Credit (EC) is focused on all types of sub-investment grade corporate and structured credit in Europe. The group invests in liquid and illiquid credit instruments in both primary and secondary markets. It invests across Europe in any sector, with the flexibility to fund in multiple European currencies. Typical investments include leveraged loans, high-yield bonds, convertible bonds, structured products, and both performing and non-performing loan portfolios.

Public Credit

Public Credit (PC) invests in investment and sub-investment grade, public, single-name credits (such as corporate credits in an individual company) and credit indexes globally across all sectors. The group invests in liquid credit products across the capital structure with a focus on products with higher credit ratings. Instruments include corporate bonds, hard-currency sovereign debt, credit exchange-traded funds, credit derivatives, asset-backed securities, residential mortgage-backed securities and collateralized loan obligations. PC manages the balancing credit portfolio to maintain the total Fund's credit exposure to the desired level. See page 27 for more details about the Fund's Balancing Portfolio. The group also executes public trades for all strategies in CI.

Real Assets Credit

Real Assets Credit (RAC) invests in both public and private markets. The focus is on opportunities to lend against high-quality real asset projects. Asset classes include real estate, infrastructure, energy and resources, and renewables. Within real estate, products include first mortgages, B-notes, mezzanine debt, preferred equity and single-asset commercial mortgage-backed securities. In the infrastructure, energy and resources, and renewables sectors, investments include project financing, loan financing, bond financing, senior debt, subordinated debt, preferred equity and mineral royalties.

Private Equity

The Private Equity (PE) department makes private equity investments globally, both directly and with partners. These investments are well suited for large, patient and knowledgeable investors. PE focuses on close alignment of interests between shareholders and management, delivering attractive risk-adjusted returns over extended time horizons. PE maintains relationships with 160 private equity fund managers and other specialized partners. It seeks to generate scalable investment opportunities that will add incremental returns efficiently.

The PE department is organized into three investment groups:

Direct Private Equity

Direct Private Equity (DPE) focuses on making direct investments in private companies across North America and Europe. DPE considers investments across a spectrum of ownership structures and invests in all sectors except real assets, focusing on sizable investments alongside aligned partners. These partners include private equity funds, family offices, like-minded long-term investors, corporations, entrepreneurs and management teams.

Funds & Secondaries

Funds & Secondaries (F&S) pursues investments in North America and Europe that are expected to outperform public benchmarks and create partnership opportunities across CPP Investments. The group commits to Limited Partnership (LP) interests in private equity funds through both the primary and secondary markets. The group also makes minority, passive direct investments, up to $100 million, alongside our private equity fund partners.

F&S has a diverse and well-established portfolio of investments. These include multi-year commitments to established large and middle-market buyout and growth equity funds, as well as select emerging managers with limited track records or institutional history. In addition, the Venture Capital (VC) program, based out of the San Francisco office, seeks to make fund commitments with and co-invest alongside top-tier VC managers with the mandate to bring the best of VC returns, innovation and growth to the broader organization.

Private Equity Asia

Private Equity Asia pursues private equity investments in the Asia-Pacific region across the full spectrum of the PE market, including commitments to private equity and VC funds, LP interests in secondary markets and direct investments in private companies alongside private equity fund partners and other aligned partners.

Real Assets

Real Assets (RA) is focused on building a globally diversified portfolio that delivers stable and growing income to the Fund. The RA portfolio consists of investments in the following sectors: real estate, infrastructure, power and renewables, and energy and resources. Investments in these sectors typically focus on long-term, capital-intensive businesses. These businesses generate relatively predictable cash flows that increase with inflation over time. Exposure to real assets, which is generally underrepresented in the public markets, also provides significant diversification benefits to the Fund.

RA comprised five investment groups in fiscal 2021:

Energy & Resources

The Energy & Resources (E&R) group makes diversified investments in oil and gas, energy midstream, merchant power, liquefied natural gas, refining and petrochemicals and energy-related technology. The E&R group focuses on key investment themes related to the global energy transition through investments in gas, electrification and energy infrastructure assets around the world.

E&R pursues investments in companies with experienced management teams and long-term value creation potential. The energy sector is undergoing significant changes as part of the energy transition. As a result, new, earlier-stage technology companies are creating new processes and technologies and improving existing ones. E&R's Innovation, Technology and Services strategy seeks early-stage investments in such companies to further expand its range of opportunities, in alignment with the group's broad, subsector strategies.

Infrastructure

The Infrastructure group invests globally in large-scale infrastructure companies. These companies provide essential services within the utilities, transport, telecommunications and energy sectors. The group focuses on investing in lower-risk, asset-intensive businesses with stable and predictable long-term returns. These businesses typically operate within strong regulatory or contracted frameworks. They provide significant shareholding stakes and meaningful governance rights.

The Infrastructure group targets equity investment opportunities in both developed and emerging markets and often invests with other like-minded partners. The group can also deploy additional capital to support growth opportunities in its existing portfolio companies. It works alongside management teams to proactively drive operational and financial improvements for the benefit of multiple stakeholders.

Portfolio Value Creation

Working closely with investment teams, deal partners and portfolio company management, Portfolio Value Creation (PVC) is responsible for supporting asset management initiatives across CPP Investments' global portfolio of material direct equity investments. The group works across all sectors and geographies and in every phase of the deal life cycle to promote the sharing of asset management best practices across the organization. PVC assists in due diligence, enhances governance, actively monitors portfolio companies and drives operational change through both value creation planning and targeted execution of initiatives. In addition, PVC continues to drive efforts to systematically increase the value of CPP Investments' portfolio companies in private investments through digital and data-driven transformations, and applying learnings within the Fund itself.

Power & Renewables

The Power & Renewables (P&R) group invests globally in companies, joint ventures or platforms that own, operate and manage portfolios of wind, solar, hydro and other assets. The group is building a balanced portfolio composed of projects that are under development, under construction or already operational. It has a mix of lower-risk, longer-term contracts and power market exposure. P&R often targets opportunities to gain significant influence or control. This approach typically results in diversified regional or global portfolios.

The decreasing cost of renewable energy, combined with global and regional climate change policies, is creating new and significant investment opportunities as the energy ecosystem evolves towards a sustainable future. Greater electrification and energy intensity in emerging markets is increasingly being delivered through renewable energy.

Real Estate

The Real Estate (RE) group invests globally in high-quality commercial properties through both the private and public markets. The group takes a targeted approach by focusing on investing with experienced, well-capitalized real estate companies. This is typically done through joint ventures. Furthermore, RE actively assesses investments within the portfolio to identify opportunities for disposition and for recycling capital into higher-return investments. RE is focused on the developed markets of Canada, the U.S., the U.K. and Australia, as well as emerging markets of Brazil, Greater China and India.

In addition, the Listed Real Estate (LRE) program further enhances the risk-return characteristics of the portfolio by investing in public real estate. The LRE program broadens RE's opportunity set and allows the group to gain exposure to countries and sectors that are absent or underrepresented in the private real estate portfolio. It also provides a tool to invest in companies and sectors where public valuations and forward returns are more compelling than in private markets. The investments are focused on companies with strong platforms, well-respected management teams as well as disciplined capital management and strong balance sheets.

Sustainable Energy Group

As of fiscal 2022, CPP Investments created the Sustainable Energy Group (SEG), a new investment group that combines the organization's expertise in renewables, conventional energy and new technology and service solutions. Through the combination of the Energy & Resources and Power & Renewables groups, the new SEG is a highly competitive and flexible player in the large and dynamic global energy sector. Reporting of the new group will begin in fiscal 2022.

Purpose and people drive performance

The challenges of a global pandemic heightened our compelling mission of helping Canadians achieve financial security in retirement. CPP Investments' purpose-driven culture continues to be a critical driver of our success and reputation as we grow and evolve.

Our global team of 1,936 full-time professionals seamlessly switched to working remotely. Despite the personal challenges of a global health crisis, the team remained highly motivated to do their best work to help support the safety, stability and sustainability of a national retirement plan serving more than 20 million contributors and beneficiaries in Canada. This public purpose fuels high performance and connects employees across all global offices.

During an unprecedented time, ensuring the physical and mental health of our employees became a top priority as we collectively responded to the pandemic, evolved our working styles and continued to drive investing priorities.

Anchors of our efforts include the organization's Guiding Principles of Integrity, Partnership and High Performance, as well as our Code of Conduct. These encompass the organization's core values and provide guidance and inspiration to our team in everyday – and extraordinary – situations.

Our 2025 strategy is driving an evolution in how employees work, encouraging them to strive for even more agility, ambition, innovation and inclusion. This year, work arrangements accelerated our focus on becoming a truly global enterprise in which all colleagues feel fully included, collaborate and have a consistent employee experience. In support of these objectives, led by our Chief Talent Officer, with the full support of the Senior Management Team, we are making progress on evolving how we sustain and strengthen our culture. Our programs emphasize a shared global mindset, fostering even higher levels of engagement and a consistent employee experience wherever our people work.

Recognizing the importance of culture and the workplace environment in motivating good performance, we consider all the factors that have an impact on our people's engagement and their ability to work to their full potential. We have made a concerted effort this past year to better inform and engage employees. Examples of new or enhanced communications include senior leadership videos and blogs, a speaker-series program and an internal portal dedicated to knowledge-sharing and collaboration. As most of our people worked from home as a result of the COVID-19 pandemic, the employee experience at CPP Investments also evolved. Engagement activities, such as virtual town halls, increased. A dedicated mobile employee information hub was also implemented to facilitate cross-enterprise learnings and safeguard enterprise-wide cohesion.

Long-term global mindset

Our talent strategy has a long-term, global perspective to align with our investment approach. It calls for important changes to how we work, building on the strength of our Guiding Principles. The strategy cuts across programs, policies and activities, including enterprise-wide forecasting and planning for global growth. Employees are fully engaged in efforts to instil and support a more innovative mindset in the organization. There is also a deep commitment to foster a truly inclusive and diverse organization, where every employee can feel free to be themselves.

Our global orientation and diversity are aligned with the continued growth of CPP Investments' presence outside Canada. With one quarter of our employee population based outside of Toronto, our global profile requires consideration and accommodation for cultural and geographic differences while ensuring a consistent, compelling employee experience for all. The pandemic impacted global regions differently and we place an emphasis on ensuring a consistent employee experience with tailored support to safeguard the well-being of our team wherever they work. Even as we practiced physical distancing, we continued to deliver immersive, in-market leadership development programs to enhance understanding of local business and geopolitical issues.

Strong cultural foundation

One of the foundational elements of our culture is the annual *Living our Guiding Principles* day, a program that consistently generates positive feedback among employees. Senior leaders moderate the interactive sessions and unite the entire CPP Investments workforce on the same day to engage in candid, focused dialogue about how our Guiding Principles apply in very practical ways based on real events. Delivered virtually for the first time, the day continued to serve as an important reinforcement of our ethical commitment and public accountability. Digital delivery of the program also enabled our colleagues from different time zones to meet each other virtually and at times that fit their schedule making this year's program truly global. Our annual employee performance review process also includes an assessment of how each employee has demonstrated these Principles in their daily work. We evaluate an employee's performance not only on their results, but also on how those results were achieved.

Our Code of Conduct outlines the ethical and regulatory framework under which employees are expected to act. It is regularly reinforced and refined to ensure our people uphold the organization's high standards for behaviour and transparency. In addition, our President & CEO, Board Chairperson and General Counsel host regular new employee meetings with CPP Investments' external Conduct Review Advisor. These meetings reinforce the importance of the Code of Conduct, while encouraging employees to speak up when they see or hear something that does not represent who we are or how we behave.

Formal surveys, pulse checks, informal polls and feedback meetings regularly measure employees' alignment with these cultural priorities, and their broader satisfaction and engagement with the organization. In an extraordinary year, there were notable year-over-year gains in areas related to team and manager dynamics, as well as inclusion and diversity. We expanded the focus of our Upward Feedback program to include feedback on manager and leadership competencies. The most highly rated competencies for managers related to being positive culture carriers for the organization. We continue to apply this valuable employee feedback to prioritize and improve the workplace and development programs, further strengthen our core cultural tenets and continue to enhance the employee experience. We have invested in more well-being and mental health supports for our global team including meeting-free days, flexible work hours as well as systemic changes to how we operate. Notably, our technology investments in providing a more seamless digital experience enabled our global workforce to easily connect and work virtually. We continually strive to improve areas employees identified through the annual engagement survey.

High-performing teams

As a leading global investor in a competitive marketplace, we are relentlessly focused on attracting, developing and retaining the best global talent. These efforts span all talent dimensions. Specifically, we continue to prioritize three critical areas: inclusion and diversity, talent acquisition and talent development.

Inclusion and diversity are central to the organization's strategic goals and efforts to distinguish our organization as the employer of choice for high-performing, diverse talent. This year, we continued to take important steps to drive measurable and meaningful improvement in key performance indicators. These include increasing overall diversity, and improvement in specific, underrepresented groups such as LGBTQ+, persons with disabilities and visible minorities. For example, in fiscal 2022 we are targeting 28% of the organization's leadership team identifying as belonging to a minority group.

In fiscal 2021, we emphasized inclusive leadership by building the understanding and capabilities of our managers through training, measurement and evaluation. We applied enhanced diversity metrics from employee surveys to identify opportunities and track progress. This data-driven approach will help identify areas for improvement and track efforts compared to other leading organizations.

CPP Investments joined leading Canadian businesses as signatories to the BlackNorth Pledge committing to delivering anti-racism training and hiring at least 5% of students from the Black community. A delegation of 17 Senior Managing Directors (SMD) and Managing Directors (MD) attended the virtual BlackNorth Initiative Summit to commit to ending racism in all its forms and take a leadership role to create opportunities for traditionally underrepresented groups.

CPP Investments also continues to make concerted efforts to increase gender representation. As of March 31, 2021, 46% of global employees are women. Women also make up 36% of the Senior Management Team, 38% of our investment professionals and 58% of our Board of Directors.

Employee resource groups – GoGreen, MindMatters, Mosaic, OUT and WIN (see page 50) – encourage employees to champion causes through a range of programs and activities. These include industry panels, social events and information sessions. The resource groups are sponsored by members of the Senior Management Team and help build understanding and inform programs on issues ranging from cultural differences to sustainability, gender equity and LGBTQ+ inclusion. Global participation in these grassroots teams is robust and growing. Membership for established groups, including allies, ranges from 200 to well over 500. We will evolve our inclusion and diversity work by continuing to assess programs and ensuring best practices to drive positive outcomes. We also remain committed to removing unconscious bias in the hiring processes.

During a year of remote work, the campus recruitment program continued to deliver its program adding 43 full-time hires and 108 interns; 30 interns accepted future full-time positions.

Employee resource groups

Go Green

Raises employee awareness to improve collective environmental efficiency and reduce CPP Investments' internal environmental footprint.

MindMatters

Promotes mental health and a psychologically healthy workplace for each of us.

Mosaic

Builds awareness of the rich cultural diversity at CPP Investments.

OUT

Contributes to a diverse and inclusive culture through building awareness of and engagement with the LGBTQ+ community.

WIN (Women's Initiative)

Aims to improve organizational culture by attracting, developing and retaining high-performing female professionals.

Investing in our people

Our focus this year was to ensure the ongoing development and growth of our talented, global employee base was not impacted by the global crisis. We pivoted and expanded many of our leadership and professional development programs to digital experiences as we support careers at every level at CPP Investments.

We held more than 300 development sessions, encompassing 170 courses and achieved more than 3,500 completions. This year our "Gigs" (optional short-term assignments) programs offered colleagues opportunities for exposure and experience during unprecedented financial and operational disruptions and expanded the mentorship program, in which 93 employees participated.

New opportunities continue to be an important aspect of career development at CPP Investments. This year, 312 colleagues were promoted, 62 took secondment opportunities and 55 grew their career with lateral role changes. While we continue to emphasize global mobility, travel restrictions impacted our ability to provide these opportunities this year. We were, however, able to coordinate 10 international assignments and transfers.

To thrive in an era of disruption, industry leaders must share insights and learn from one another and this past year offered uniquely different opportunities for thought-provoking conversation, both professional and personal. Over the past year, external leaders visited our organization including senior leaders from our partner firms, companies in which we invest, and leaders from Flagship Pioneering, Socos Labs, Kingsdale Advisors, Deloitte and L1 Energy. The enterprise guest speaker program also provided more than 45 forums on employee mental health and well-being as well as strategic topics such as data and analytics and venture capital investing. Our Board of Directors also took time to engage directly with employees, sharing their perspectives on topics of interest with our team.

Our enterprise-wide learning focus this year included delivery of development programs aligned to key elements of our CPP Investments 2025 strategy. This includes the Global Investor Curricula, a program for early career talent to apprentice and acquire knowledge of other investment groups through immersive case study, as well as continued investment in building data and advanced analytics capabilities enterprise wide.

Senior appointments

The Board of Directors announced the appointment of John Graham as the new President & CEO of CPP Investments as of February 2021. He was most recently Senior Managing Director & Global Head of Credit Investments. John has been instrumental in helping to shape and execute CPP Investments' strategy over the last decade as a long-standing employee and member of the Senior Management Team. With a successful track record of building and leading global investment businesses, the Board unanimously agreed on his appointment.

In September, we further strengthened our investment governance framework by introducing a dedicated, built for purpose, Chief Investment Officer (CIO) role. Since inception, our CEO also served as CIO; an investment governance structure that served us well for many years. The new CIO is responsible for making allocation decisions between investment programs, enhancing governance in relation to program performance and total Fund composition, and furthering the execution of our 2025 strategy as we scale towards becoming a trillion-dollar Fund. With this change, three senior appointments were announced:

- Ed Cass was appointed Chief Investment Officer (CIO) leading Total Fund Management (TFM). He is accountable for the management of total Fund activities across all investment horizons, including long-term investment department signals, capital allocation between investments programs, medium- and near-term portfolio guidance and balance sheet management.
- Deborah Orida was appointed Senior Managing Director & Global Head of Real Assets. Her Senior Management Team experience as Global Head of Active Equities is a strength to our Real Assets program, which encompasses developed and emerging markets exposures in Energy & Resources, Infrastructure, Power & Renewables and Real Estate, as well as Portfolio Value Creation.
- Frank Ieraci was promoted to Senior Managing Director & Global Head of Active Equities. Frank has made a significant impact on both our performance and culture in each of his progressively senior roles at CPP Investments. Frank has been instrumental in building, overseeing and executing on long-term business and portfolio strategies in Active Equities and delivering value to the Fund. He is a sponsor and innovator of data-driven research and the incremental alpha that alternative data and advanced analytics can drive in active security selection.
- Andrew Edgell was promoted to Senior Managing Director & Global Head of Credit Investments at the beginning of fiscal 2022. Andrew, who joined CPP Investments in 2008, brings to the role a deep technical expertise in credit, along with his extensive understanding of the organization and reputation for driving innovation. In addition to running a Credit Investments group, Andrew recently served as interim head of credit strategy, driving forward credit portfolio construction globally.

Furthering operational capabilities

In fiscal 2021, we continued the transformational work to enhance our operational capabilities as we grow and scale our investment programs globally. We moved ahead on the multi-year effort to advance our processes and controls to protect our assets and increase operational efficiency. We improved how we work and commenced the development of key tools to support various business needs across the firm to transform our core services functions.

Critical to our advancement was the implementation of a new business architecture. After thoughtful and comprehensive work to review, develop and refine the optimal investment governance framework for the next phase of our evolution and growth, we replaced the Investment Planning Committee with the Investment Strategy and Risk Committee (ISRC) and certain subcommittees, which collectively cover all risks in CPP Investments' Integrated Risk Framework and ensure integration in the consideration of risk and investment strategy. (See page 31 for further details on the ISRC.) The business architecture work also led to the introduction of the Chief Investment Officer role.

During the year, the Integrated Risk Framework continued to evolve, making significant progress in all areas. We completed the multi-year roadmap and initial design to modernize and enhance the technology and data capabilities required to support risk management; implementation will commence in fiscal 2022. We also enhanced our investment risk limits by cascading Board limits to management-level limits for each investment department. In fiscal 2022, we will implement more granular limits and thresholds. Further, we completed the implementation of several additional risk initiatives, such as a new valuation framework for all geographies and investments. We leveraged insights from the COVID-19 pandemic to enhance crisis management governance and processes to help ensure the organization can respond effectively to future crises.

We made considerable headway on the implementation of our Technology & Data strategy developed in fiscal 2020. We commenced a multi-year strategic initiative to streamline processes, strengthen the controls and modernize the suite of technologies that enable our public markets trading and collateral management. In parallel, we operationalized a state-of-the-art cloud-based data ecosystem that accelerates data ingestion, enhances our data governance and data quality, and serves as the foundation for our new data science and advanced analytics capabilities. And, we are well underway in our cloud journey to become nearly 100% cloud-based within the next year.

These modernization efforts were essential to our ability to quickly move to a fully remote workforce at the start of the pandemic and receive timely data to navigate the financial downturn. As part of our commitment to cybersecurity, we proactively trained our colleagues to identify cyber-scams, enhanced our threat detection and prevention capabilities, and rigorously assessed the effectiveness of our technology and data controls.

We continued to focus on the health, safety and overall well-being of our employees as a key priority and introduced additional employee support options, including several virtual health resources and COVID-19 support days, available to all staff globally. At each of our offices, we have established safety protocols that meet the requirements of the jurisdictions in which we operate. These safety measures include encouraging employees to work from home, mask wearing, physical distancing, hand hygiene and respiratory etiquette, enhanced cleaning and disinfecting and collaboration through virtual meetings.

Accountability

CPP Investments is accountable to Parliament and to the federal and provincial finance ministers who serve as the joint stewards of the CPP. However, we are governed and managed independently from the CPP itself, and operate at arm's length from governments.

We report to Parliament through the federal finance minister, who tables our annual report in Parliament. We share quarterly financial statements with the federal and provincial finance ministers, publish them on our website in both official languages and disseminate related news releases publicly, along with announcements and updates on a range of relevant subjects through social media networks. We engage with news organizations, reaching millions of stakeholders. We also meet regularly with stakeholder groups representing business, labour, retirees, financial literacy advocates and other parts of civil society, as well as think tanks and pension experts. We communicate in a clear, transparent and timely manner.

In addition, we hold public meetings every two years in the provinces that participate in the CPP. These meetings offer Canadians the opportunity to ask questions and learn more about CPP Investments. In October 2020, we hosted 10, one-hour virtual public meetings broadcast to participants across Canada, including the territories, and internationally in both official languages.

We received many questions during the meetings, including regarding environmental, social and governance (ESG) efforts, particularly our investments in renewable energy, as well as our investments in Asia – both areas of growth for the Fund. Recordings of our 2020 virtual public meetings are posted on www.cppinvestments.com. The next series of public meetings will take place in fiscal 2023.

CPP Investments has committed to appearing annually before the House of Commons Standing Committee on Finance to deliver an update on our activities and results and respond to questions from Members of Parliament.

As required under the CPPIB Act, every six years we undergo an external special examination of our records, systems and practices. The most recent special examination was completed in early 2016 and validated our approach to governance and compliance; strategy and planning; investments; risk management and operations; talent and IT infrastructure. A copy of the report is available on our website. The next special examination will be in fiscal 2022.

All public financial reports issued by CPP Investments are subject to review by the Audit Committee of our Board of Directors, which then recommends their approval to the full Board. This includes the financial statements and the other financial information within the annual report.

We seek to meet or exceed both legislated requirements and industry norms in maintaining high standards of conduct and business practice, including our commitment to ethical conduct and disclosure practices. Our comprehensive governance and accountability framework includes measures designed to preserve public trust.

One of these measures is our Code of Conduct for the Board of Directors and employees. This Code, which is available on our website, requires everyone at CPP Investments to act as whistleblowers if they become aware of a suspected breach. They can report confidentially to an external Conduct Review Advisor who is not part of Management or the Board of Directors. Sheila Block, an internationally recognized litigation and dispute resolution lawyer, has served as Conduct Review Advisor for CPP Investments since January 2018. The advisor submits a report and meets with the Board at least once a year to discuss the advisor's activities.

In addition to the Conduct Review Advisor, our whistleblower hotline allows employees to report wrongdoing or unethical behaviour related to CPP Investments anonymously and securely.

We also have internal standards and policies to ensure that we always act responsibly as a major capital markets participant.

Disclosure

We believe in transparency as the foundation of public trust, which is the lifeblood of any national financial system.

Our disclosure policy reflects the level of information that will help inform CPP contributors and beneficiaries about how we are making investments and managing the Fund in their best interests. This policy is designed to foster a better understanding of what drives performance, stability and sustainability of the Fund over time. In fiscal 2021, the Board-approved policy was updated to reflect the ongoing evolution of the communications landscape and investment industry while maintaining our commitment to transparency.

We are committed to timely and continuous disclosure of significant new investments, asset dispositions and corporate developments. We disseminate performance results quarterly and publish annual reports, which contain extensive information about our strategy, Fund performance, investment activities, governance, costs, key risks and compensation.

We strive for consistent disclosure at the organizational level and within investment programs, recognizing that each program has unique legal, competitive and practical requirements.

Our website contains information about how we operate. This includes details of our investments and partners. It also provides access to CPP Investments' governing legislation and regulations, by-laws and policies. These policies include the investment statements that guide us in managing the long-term Investment Portfolios, including our Investment Beliefs described on page 23. We also maintain digital social channels to widely communicate new developments.

Beyond statutory disclosure, CPP Investments continues to undertake programs to directly reach CPP contributors and beneficiaries, to help them better understand how management of the Fund is intended to work for them. New programs this year included national outreach and information-sharing to promote financial literacy with Canadians across a range of demographic groups and levels of financial understanding. From digital and traditional media to integrated partnerships, CPP Investments provided fact-based and relevant information supported by our Commitment to Canadians website.

The strategic direction for CPP Investments

CPP Investments 2025 Strategy

The CPP Investments 2025 strategy was developed by Management and the Board of Directors and approved in 2018. It positions the firm as a world-class investment organization in terms of its governance, talent, partnerships and financial returns. The 2025 strategy also prepares the organization to scale into 2025 and beyond, improving its competitiveness. It enhances the Fund's resilience to a major market downturn, such as we saw last year, and to the impacts from forces such as disruptive technology, climate change and geopolitical shifts.

We are executing on the four areas of focus in the strategy implementation plan and roadmap:

- Our Investing Strategy – scaling our private and public investment programs, creating investment agility and investing up to one-third of the Fund in emerging markets;
- Putting technology and data at the core of everything we do;
- Developing core services that are increasingly efficient, agile and scalable, which add even greater value to our investment process and international competitiveness; and
- Evolving our culture to be even more innovative, ambitious and agile, as well as more inclusive and diverse.

Fiscal 2022 Objectives for CPP Investments

The objectives for fiscal 2022 are:

- Continue to scale our investment programs and increase global presence.
- Review opportunities to further optimize the portfolio design and construction process.
- Expand capabilities and use of complex data, advanced analytics, innovation and technology.
- Begin to onboard asset classes onto the new end-to-end public markets technology platform.
- Further enhance our integrated risk governance and management practices for investment risks (including climate change) and non-investment risks.

Management's Discussion and Analysis

This annual report contains forward-looking statements reflecting Management's objectives, outlook and expectations as at May 13, 2021. These statements involve risks and uncertainties. Therefore, our future investment activities may vary from those described here.

Fiscal 2021

Net assets

$497.2 billion

Net income

$83.9 billion

Net Return

20.4%

Operating expenses

$1.4 billion

Net Return (annualized)

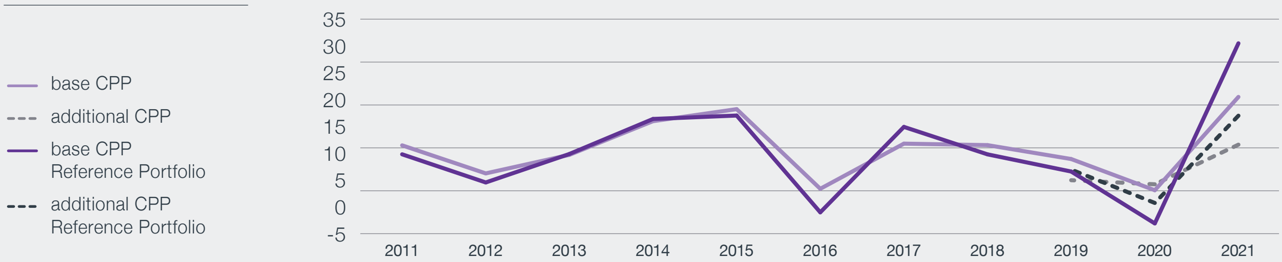
5-year	10-year
11.0%	10.8%

Net Income

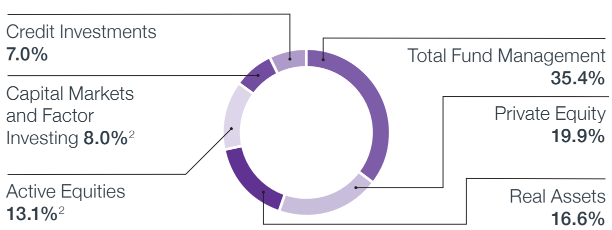
5-year	10-year
$198.2B	$303.9B

	1-Year	5-Year	10-Year
Base CPP	20.5%	11.0%	10.8%
Base CPP Reference Portfolio[1]	30.5%	11.2%	10.2%
Additional CPP	11.6%	–	–
Additional CPP Reference Portfolio[1]	17.0%	–	–

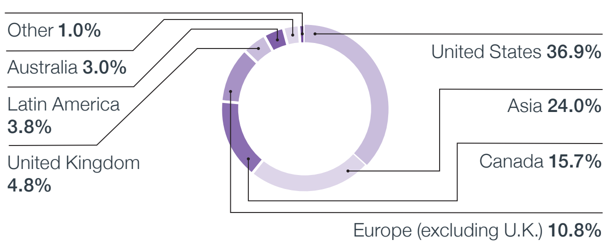
Net Annual Returns



Assets Under Management by Investment Department



Global Diversification by Region



1. See page 93 for more information about our Reference Portfolios.
2. For Capital Markets and Factor Investing and Active Equities, Assets Under Management (AUM) represents the sum of long investments in each of these programs. AUM differs from Net Investments, which factors in offsetting systematic exposures through short investments.

Management's Discussion and Analysis

The following information provides analysis of the operations and financial position of Canada Pension Plan Investment Board (CPP Investments) and should be read in conjunction with the Consolidated Financial Statements (Financial Statements) and accompanying Notes for the year ended March 31, 2021. The Financial Statements have been prepared in accordance with International Financial Reporting Standards (IFRS).

The disclosure of certain non-IFRS measures in this section is intended to provide readers with supplemental information that reflects Management's perspective on the Fund's performance and may not be comparable to similar measures disclosed by other institutions. Definitions of non-IFRS measures and a reconciliation to their comparable IFRS measures can be found on page 108.

Fiscal 2021 total Fund performance

CPP Investments ended the fiscal year with $497.2 billion in net assets, an increase of $87.6 billion over the end of fiscal 2020. This increase represents $83.9 billion in net income after CPP Investments costs and $3.7 billion in net Canada Pension Plan (CPP) contributions. In fiscal 2021, the Fund generated a net rate of return of 20.4%, or $83.9 billion, after deducting CPP Investments costs.

Base CPP and additional CPP

Since January 2019, the Canada Pension Plan has been made up of two parts, base CPP and additional CPP, as described on page 20.

The base CPP and additional CPP accounts each consist of holdings in units of two investment pools (the "Core" and "Supplementary" Pools) that are valued daily. Both Core and Supplementary Pools were established in January 2019. Initially, the Core Pool consisted of all assets managed by CPP Investments prior to January 2019, while the Supplementary Pool consisted of new domestic fixed income investments based on contributions from the additional CPP.

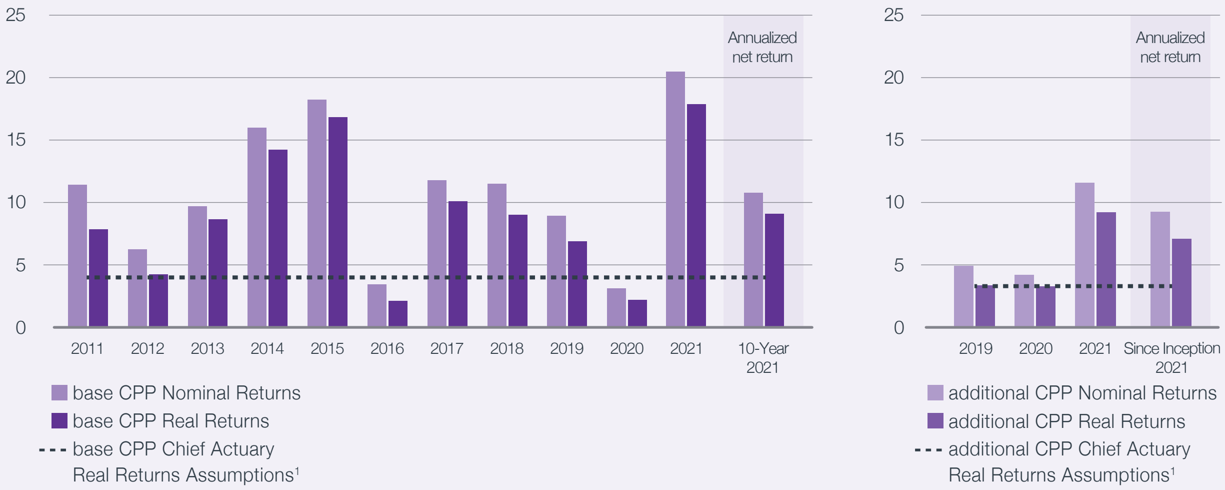
Over the fiscal year, the base CPP account, which made up 98.7% of Fund assets at year end, grew by $83.6 billion to $490.9 billion. This growth in net assets consisted of net contributions of $0.1 billion and net income of $83.5 billion, after all costs.

The additional CPP account grew by $4.0 billion to $6.3 billion. This growth in net assets consisted of contributions of $3.6 billion and net income of $408 million, after all costs.

The base CPP account, which is fully invested in the Core Pool, delivered a net return of 20.5%, mainly driven by the performance of public and private equities. The additional CPP account delivered a net return of 11.6%, combining Core Pool participation with the performance of the Supplementary Pool's investments in Canadian government bonds. The additional CPP account return was lower as a result of its greater allocation to fixed income investments that did not perform as well as equities this year.

The following chart provides the rates of return for each of the accounts, for fiscal 2021 and the previous 10 years, in nominal and real (excluding inflation) terms. These are compared with the 75-year prospective real rates of return assumed for each of the accounts in the applicable Actuarial Report that was in publication at each fiscal year-end date.

Rate of Return (Net) For the years ended March 31 (%)

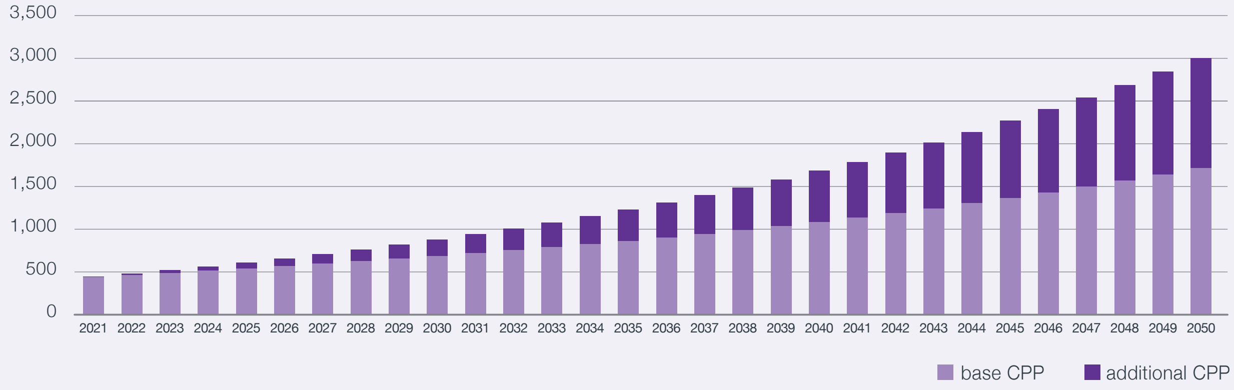


1. Chief Actuary Real Returns Assumptions do not represent a benchmark.

Growth of the CPP – Base CPP and Additional CPP Accounts (as at December 31)

Office of the Chief Actuary projections – 30th Actuarial Report

($ billions)



Longer-term performance

CPP Investments aims to build a Fund that contributes to the sustainability of the CPP. Our Investment Portfolios are designed to achieve a maximum rate of return without undue risk of loss, taking into account the factors that may affect the funding of the CPP and the CPP's ability to meet its financial obligations. The CPP is meant to serve today's contributors and beneficiaries while looking ahead to future decades and across multiple generations. Accordingly, as a long-term investor, five- and 10-year periods are more meaningful for the evaluation of our strategy and performance.

For the five-year period ending March 31, 2021, the Fund generated total net income of $198.2 billion, or an annualized nominal return of 11.0%, after deducting all CPP Investments costs. All departments contributed positively to the five-year results, led by Total Fund Management (TFM), Private Equity (PE) and Real Assets (RA). TFM and PE's results during the five-year period reflected the rally in public equity markets of the past two fiscal years, alongside higher valuations of the private funds in the period. Contributions from most investment programs drove the RA department's net income for the Fund in the last five years. This was partially offset in fiscal 2021 by the impact of the COVID-19 pandemic on select programs, such as real estate. For the 10-year period, the Fund generated $303.9 billion or an annualized nominal return of 10.8% after all CPP Investments costs.

As discussed on page 19, every three years, the Office of the Chief Actuary conducts an independent review of the sustainability of the base and additional CPP over the next 75 years. In the most recent triennial review, the Chief Actuary reaffirmed that, as at December 31, 2018, both the base and additional CPP continue to be sustainable over the 75-year projection period at the current legislated contribution rates.

The Chief Actuary's projections are based on the assumption that, over the 75 years following 2018, the base CPP account will earn an average annual real rate of return of 3.95%. This rate of return, which is net of all costs, is above the rate of Canadian consumer price inflation. The corresponding assumption is that the additional CPP account will earn an average annual real rate of return of 3.38%.

The Fund's longer-term returns, combining both the base CPP and additional CPP accounts, achieved both 10-year and five-year annualized net real returns of 9.1%. These returns are above the projected 3.95% and 3.38% for the base CPP and additional CPP accounts, respectively.

Total Fund Returns

	Fiscal 2021		Fiscal 2020	
Net Returns	**% (annualized)**	**$ billions (cumulative)**	% (annualized)	$ billions (cumulative)
base CPP				
1-year net return	**20.5**	**83.5**	3.1	12.1
5-year net return	**11.0**	**197.8**	7.7	123.4
10-year net return	**10.8**	**303.5**	9.9	235.2
additional CPP				
1-year net return	**11.6**	**0.4**	4.2	0.0
Since inception net return[1]	**9.3**	**0.4**	7.4	0.0

1. Return is since inception of additional CPP in January 2019 and excludes $9 million in start-up expenses.

Overview of performance by asset class

CPP Investments' fiscal year was punctuated by significant economic, fiscal policy and market reactions related to the global COVID-19 pandemic, which had a wide range of impacts on the Fund.

Public and private equities were the main drivers behind the Fund's net income of $83.9 billion. This reflects the record gains in global equity markets during the fiscal year. Several other asset classes also generated returns for the Fund in the fiscal year, but not to the same degree as equities. Government bond returns were negatively impacted by fiscal and monetary policies, particularly in developed markets. Credit market returns rebounded this year, sustained by quantitative easing programs introduced by central banks. Finally, real assets experienced mixed results, influenced by both improved commodities pricing and sectors negatively impacted by the COVID-19 pandemic, such as commercial real estate. The Fund's net income was partially offset by foreign exchange losses of $35.5 billion, as the U.S. dollar, which accounted for more than 40% of the Fund's currency exposure as at year end, depreciated by 11.7% against the Canadian dollar. A more detailed account of CPP Investments' performance drivers is detailed below.

Public equities, which accounted for 29.2% of the Fund at fiscal year end, generated returns of 31.7% (or 45.8% in local currency terms). Following a sharp market sell-off in the last quarter of the previous fiscal year, equity markets recovered and continued to increase significantly in fiscal 2021 as investors reacted to governments responding to the COVID-19 pandemic with fiscal and monetary stimulus. Many global equity markets ultimately delivered double-digit returns in the fiscal year. The S&P 500 Index gained 56.4% in local currency terms, its highest single-year return over the past 50 years. Equity market gains, in local currency terms, were generated across both developed markets, at 51.3%, and emerging markets, at 50.2%.

The performance of global equity markets also benefited private equities, which returned 34.4% (or 50.2% in local currency terms). Foreign private equities totalled $131.7 billion in net assets at the end of the fiscal year. The weakening of the U.S. dollar against the Canadian dollar led to a return of 34.0% on foreign private equities, as compared to 49.7% in local currency terms. This performance compares to the reverse situation in fiscal 2020, when the overall return of private equities was negatively affected by the economic downturn from the onset of the COVID-19 pandemic but were mitigated by favourable foreign currency gains.

Government bonds in fiscal 2021 returned negative 8.3% (or negative 2.3% in local currency terms), primarily caused by the low returns on U.S. government bonds representing 41% of the total. Optimism for a vaccine-driven economic recovery and concerns of rising inflation, which drove bond yields up (and bond prices down), reduced the returns on these investments. This was in significant contrast to fiscal 2020, when government bonds returned 13.5% due to investors seeking lower-risk assets and bidding up their prices, coupled with a reversal in the interest rate outlook across major markets.

Credit had a return of 2.4% (or 13.5% in local currency terms) this fiscal year, as net gains in local terms were partially offset by foreign currency losses. The positive returns in local currency were due to the tightening of credit spreads, a result of the same factors that influenced equities' performance. However, the depreciation of the U.S. dollar negatively impacted these gains given the Fund's 67% exposure to the U.S. dollar in credit investments. In the fourth quarter of the prior fiscal year, the uncertainty and unfavourable economic conditions due to the COVID-19 pandemic caused credit spreads to widen, which negatively impacted corporate yields.

Real assets contributed returns of 7.5% (or 12.5% in local currency terms) as a collective asset class, but experienced mixed results from some of the individual investment programs. This reflects the variable impact of, and recovery from, the COVID-19 pandemic. For example, physical-distancing dynamics had an influence on demand for office and retail space, impacting commercial real estate prices. However, certain other sectors were resilient due to investor demand and anticipated recovery amid historically low global interest rates and inflation targets. Infrastructure's performance in fiscal 2021, for instance, reflected the essential and long-lived nature of the businesses, despite being impacted by reduced economic activity. Energy and resources delivered a return of 45.8% in fiscal 2021 compared to negative 23.4% in the previous fiscal year, as energy markets recovered throughout this fiscal year.

Currency and market diversification

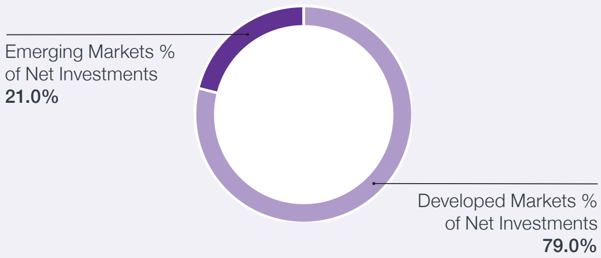
The Canadian dollar appreciated against the U.S. dollar and other major currencies during the fiscal year. This shift was influenced by recovering energy prices and monetary and fiscal policies in the U.S.

The charts at right show the overall foreign currency diversification, and its return and income impact for each of the past five fiscal years. The strengthening Canadian dollar drove a foreign currency loss of $35.5 billion in fiscal 2021. Foreign currency exposures represented 85.4% of the Fund and totalled $424.5 billion. Currency diversification, also charted at right, is based on the underlying currency exposure of our investments, whereas market diversification, also charted at right, is based on the exposure to various countries' equity and debt markets.

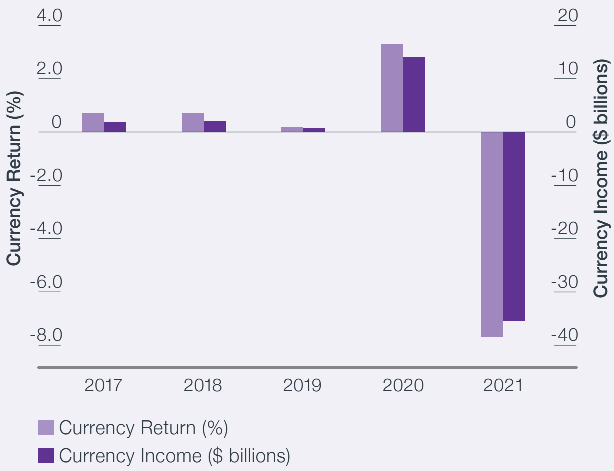
The Fund continued to progress towards our multi-year 2025 strategy objectives, including to scale private and public investment programs and invest up to one-third of the Fund in emerging markets. During the fiscal year, the Fund increased its emerging markets exposures to $104.2 billion with contributions from several investment departments. Emerging markets accounted for 21.0% of the Fund at the end of fiscal 2021, compared to 21.4% in the previous year. The Fund's emerging markets holdings returned 25.9% this fiscal year.

Market Classification

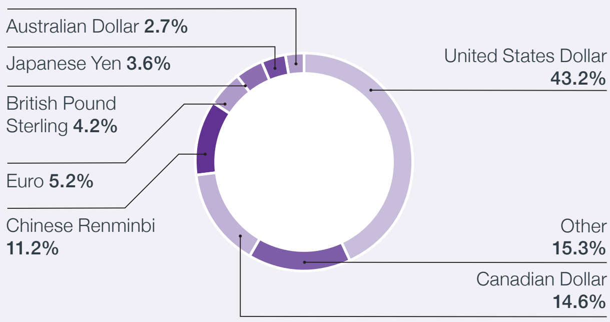
As at March 31, 2021



Currency Impact 5-Years



Currency Diversification



Asset Mix

Asset Class	As at March 31, 2021 ($ billions)	(%)	As at March 31, 2020 ($ billions)	(%)
Public Equities				
Canadian	9.5	1.9%	7.1	1.7%
Foreign	84.9	17.1%	70.5	17.2%
Emerging	50.6	10.2%	38.1	9.3%
	145.0	29.2%	115.7	28.2%
Private Equities				
Canadian	1.2	0.2%	1.1	0.3%
Foreign	113.2	22.8%	86.4	21.1%
Emerging	18.5	3.7%	13.4	3.3%
	132.9	26.7%	100.9	24.7%
Government Bonds				
Non-marketable	20.8	4.2%	21.1	5.2%
Marketable	75.4	15.2%	76.6	18.7%
	96.2	19.4%	97.7	23.9%
Credit	67.4	13.5%	50.8	12.4%
Real Assets				
Real estate	43.0	8.7%	46.5	11.3%
Infrastructure	41.2	8.3%	35.1	8.6%
Energy and resources	10.0	2.0%	7.3	1.8%
Power and renewables	10.2	2.0%	8.7	2.1%
	104.4	21.0%	97.6	23.8%
External Debt Issuance	(36.4)	(7.3%)	(38.4)	(9.4%)
Cash and Absolute Return Strategies[1]	(12.2)	(2.5%)	(14.7)	(3.6%)
NET INVESTMENTS	497.3	100.0%	409.6	100.0%
Non-Investment Assets[2]	(0.1)		–	
NET ASSETS[3]	497.2		409.6	

1. The negative balance of $12.2 billion in Cash and Absolute Return Strategies represents the net amount of financing through derivatives and repurchase agreements, and the current net position from Absolute Return Strategies.
2. Includes assets such as premises and equipment and non-investment liabilities.
3. Includes $490.9 billion of base CPP and $6.3 billion of additional CPP.

Total Fund Returns[1]

ASSET CLASS	Fiscal 2021	Fiscal 2020
Public Equities		
Canadian	**40.8%**	(12.2%)
Foreign	**29.1%**	1.6%
Emerging	**34.0%**	(9.1%)
	31.7%	(2.6%)
Private Equities		
Canadian	**22.8%**	(5.1%)
Foreign	**34.0%**	6.0%
Emerging	**38.5%**	8.0%
	34.4%	6.2%
Government Bonds		
Non-marketable	**1.0%**	4.7%
Marketable	**(10.9%)**	16.1%
	(8.3%)	13.5%
Credit	**2.4%**	0.5%
Real Assets		
Real estate	**(4.1%)**	5.1%
Infrastructure	**12.9%**	(1.0%)
Energy and resources	**45.8%**	(23.4%)
Power and renewables	**14.1%**	4.4%
	7.5%	0.0%
Total Fund[2]	**20.4%**	3.1%

1. Returns by asset class are inclusive of both the base and additional CPP accounts, before CPP Investments operating expenses. Subtotals are not arithmetically derived, since performance metrics are reported using time-weighted returns.
2. The total Fund net return is after all costs, including operating expenses of $1.4 billion ($1.3 billion in fiscal 2020). The total Fund return includes the results of certain investment activities that are not attributed to an asset class return reported in this table, such as the performance of $6.2 billion from currency management activities ($(3.0) billion in fiscal 2020), $(0.5) billion from cash and liquidity management activities ($(0.3) billion in fiscal 2020), and $7.6 billion from absolute return strategies ($0.9 billion in fiscal 2020).

Managing costs

Building CPP Investments today and for the future

In accordance with our legislated mandate, CPP Investments seeks to maximize investment returns without undue risk of loss, having regard to the factors that may affect the funding of the Canada Pension Plan. This objective guides all decisions, whether it is creating a new investment program, investing in technology systems or opening a new office. As a result, we only incur internal or external costs when we are sufficiently confident of enhanced long-term returns for the Fund, net of all costs. Any decision to either carry out activities with internal resources, or to do so through external partners, is an economic calculation in the best interest of the Fund. If we can achieve higher returns using internal resources, we will do so. If the program requires more unique capabilities and it is not cost-effective to provide them internally, we will seek external partners.

In 2006, CPP Investments made the decision to adopt an active management strategy seeking to build value and generate investment returns that will exceed passive management in the long run after all costs. Our decision to manage the Fund actively was not made lightly. This approach presents significant complexity and comes with costs. It requires resources to build an enduring, skills-based organization with diverse, internationally competitive investment programs designed to maximize long-term, risk-adjusted returns after all costs.

To evaluate active management, we measure results relative to risk against available alternatives. This serves to check whether we are on track to deliver enhanced returns over numerous economic cycles and multiple generations. Ultimately, the benefits of our active management can be distilled down to one word: sustainability. Generating above-market returns over time can help cushion the impact of other factors affecting the sustainability of the CPP in the long term. These other factors include employment earnings growth, demographics, fertility rates, immigration and longevity, all of which are outside the control of CPP Investments.

Consistent with the growth of the Fund and the development of our active management strategy, CPP Investments costs have also grown accordingly over the years. We continue to invest in our in-house capabilities required to operate as a top-tier global investment organization. These capabilities include investment skills, expertise in critical corporate functions, new systems and the establishment of a local presence in key regions to access investment opportunities and closely manage our investments over the ownership period. We believe it is in the Fund's best interest, from both cost and competitive perspectives, to further develop internal investment expertise and capabilities where CPP Investments has comparative advantages. Infrastructure investing is a case in point. We estimate that the costs for an externally managed $28.6 billion pool of committed capital would range on average from $1.2 billion to $1.3 billion per year. By contrast, the fully costed internal management of our infrastructure portfolio is approximately $95 million.

To obtain the diversification and skills we require, it is not practical to build all capabilities in-house. As a result, we use external managers to complement our internal programs. To ensure we derive the appropriate value from managers, we seek to partner with top-tier managers. Fee arrangements are structured to ensure our interests are aligned. See page 63 for more details.

Growth of CPP Investments

	Fiscal 2021	Fiscal 2006[1]
Net assets[2]	**$497.2 billion**	$98.0 billion
% foreign investments	**84.3%**	35.7%
Total employees (full-time)	**1,936**	164
Number of offices	**Nine**	One
Number of investment programs	**23**	Six
Number of external partners	**292**	62

1. Current year results are compared to fiscal 2006, the year prior to implementing our active management programs.
2. Includes net assets of $490.9 billion for base CPP and $6.3 billion for additional CPP in fiscal 2021.

Our global scale allows us to attract and retain professionals from around the world and compete for investments. Scale also allows us to establish and effectively manage more distinct investment programs. This enables us to diversify across different managers' approaches and skills, and to use insights from one program to enhance others.

CPP Investments seeks to realize the financial benefits of spreading costs over an increasing amount of assets under management. We seek to generate further operational efficiencies as we move toward 2025 through continued investment in technology and data. One measure that will demonstrate such efficiency is the net assets managed per full-time employee. While the assets we manage and oversee have grown over the years in size, location and complexity, on a rolling five-year basis we now manage $237 million in net assets per employee, an increase of over 3% from the prior year.

We regularly assess our cost-effectiveness against peers by participating in external benchmarking studies, such as those conducted by CEM Benchmarking. This independent company provides objective and actionable benchmarking information for pension funds, sovereign wealth funds and other long-term asset owners. Results from the fiscal 2020 CEM Benchmarking study (the most recent data available) indicate that CPP Investments costs were aligned with our peers relative to the assets under management and diversity of investments. Our staffing levels also continue to be at or lower than the peer benchmark developed by CEM. We monitor these relationships closely and ensure this level of staffing provides us with the resources necessary to support investment activities and properly govern and administer the assets we manage.

While we benchmark our costs to ensure they are appropriate, CPP Investments also participates in benchmarking of our net returns through CEM. For the five-year period ending March 31, 2020 (the most recent data available), our net annualized return of 7.7% after all costs was 1.5% higher than the median of our global peer group and 2.7% higher than the Canadian median.

Cost governance framework

We apply the resources that we believe are needed to deliver above-market returns for the Fund over the long term. Our cost governance framework includes expense management policies and authorities as well as expense reporting to the Senior Management Team and the Board of Directors. This ensures that we pursue growth in a responsible and cost-effective manner, consistent with the Board-approved business plan and operating budget. Our employee travel and expense policy requires that the expenses incurred be appropriate for the needs of our business.

Fiscal 2021 costs

CPP Investments directly incurred $2,186 million of investment-related expenses and $1,417 million of operating expenses for fiscal 2021, as reported on page 144 in the Consolidated Statement of Comprehensive Income. Investment-related expenses include $968 million in investment management fees paid to external managers and $182 million in transaction costs. Borrowing costs of $1,036 million were incurred as part of the Fund's management of leverage. (See page 65 for details on CPP Investments total financing costs associated with managing leverage.)

Through investment holding subsidiaries, CPP Investments indirectly incurred $1,755 million of investment management fees paid to external managers and $109 million of transaction costs. CPP Investments, together with its investment holding subsidiaries, incurred a total of $2,723 million in investment management fees and $291 million in transaction costs. This compares to the prior year's costs of $1,808 million in total investment management fees and $390 million in total transaction costs.

Management and the Board of Directors govern the costs of CPP Investments and its investment holding subsidiaries on a holistic basis. The costs illustrated in the diagram below reflect resources required to invest, manage and govern CPP Investments' Investment Portfolios, excluding the costs associated with the Fund's use of leverage.

Costs to Invest the Fund

INVESTMENT MANAGEMENT FEES

PAID ON COMMITMENTS & ASSETS INVESTED

Management fees
$1,419 million

What does it pay for?
Payments to external fund managers to pay for their operating costs and basic profit margins.

Why do we incur the costs?
To seek high performance net of all costs, while diversifying the Fund through different strategies and regions.

PAID ON RETURNS GENERATED BY EXTERNAL PARTNERS

Performance fees
$1,304 million

What does it pay for?
A form of profit sharing when returns exceed a predetermined hurdle.

Why do we incur the costs?
Enhanced fund performance through alignment of interests between CPP Investments and the external fund managers.

Transaction costs
$291 million

What does it pay for?
Legal and tax advisors, consultants and trading commissions.

Why do we incur the costs?
Pursuing complex, large investment opportunities in public and private markets requires us to conduct greater due diligence including complying with international regulatory and tax regimes.

Operating expenses
$1,417 million

What does it pay for?
Personnel, technology, data, global offices and other operating costs.

Why do we incur the costs?
To maximize the Fund's risk-adjusted returns, we employ top-tier talent and have offices in key markets to access and manage investment opportunities.

All costs defined above are incurred directly by CPP Investments or indirectly through its investment holding subsidiaries.

Investment management fees

In order to obtain broad diversification of active management skills, we seek exposure to a wide range of asset classes, geographic markets and strategies. In some cases, it would not be practical or cost efficient to build a dedicated in-house team. As a result, we seek well-aligned external managers with demonstrated capabilities, net of all costs incurred. In addition to delivering attractive returns on our fund investments, many of our external manager partners generate investment opportunities for our direct investment programs.

Investment management fees include payments to external managers who invest and manage capital committed by CPP Investments, whether directly or through funds. They also include performance fees paid when CPP Investments earns a return above a predetermined hurdle.

Investment management fees of $2,723 million in fiscal 2021 reflect $1,419 million in management fees paid primarily to private equity funds and hedge funds, and $1,304 million related to investment performance. Investment management fees increased by 51% or $915 million in the fiscal year, as a result of greater assets under management by fund managers, growth of funds in emerging markets and higher performance fees paid to external fund managers in public market strategies and real estate. Hedge fund performance fees are driven by manager performance. Real estate performance fees were driven by dispositions during the year which triggered the performance fee payments.

Use of external fund managers

Over the most recent five-year period, external fund managers for both Capital Markets and Factor Investing (CMF) and Private Equity (PE) programs delivered $39.2 billion of net investment income relative to $4.9 billion in management fees, as well as $3.1 billion in performance rewards once certain return hurdles were achieved. Our private equity fund partners also generated a large number of direct investment opportunities resulting in $41.7 billion of invested capital since inception and $26.0 billion of net investment income over the last five years with no associated fees.

CMF's External Portfolio Management group invests through managers who are expected to generate attractive, sustainable results on a risk-adjusted basis, net of all costs. When negotiating fees and other terms, our primary focus is achieving alignment between the manager's incentives and our investment goals. Some examples of our approach to improve alignment, reduce costs and increase net returns include:

- Trading lower management fees for higher performance fees;
- Considering longer commitment periods in exchange for lower fee structures;
- Structuring some management fees as an advance on performance fees;
- Making co-investments, which generally incur lower fees than co-mingled vehicles;
- Instituting performance hurdles; and
- Investing in emerging managers, where we can usually achieve lower fees and secure scarce investment capacity.

Fee arrangements are reviewed regularly and we negotiated more favourable fees with several of our managers in fiscal 2021.

The PE Funds & Secondaries group invests in funds managed by private equity partners that we expect will outperform public alternatives on a risk-adjusted basis. PE Funds & Secondaries achieves cost-effectiveness by:

- Securing direct investment opportunities with no fees, by being a large investor in the funds that we select;
- Using our scale to secure larger allocations at reduced fees; and
- Making commitments early in the fundraising process when this allows us to obtain lower fee structures.

We can be limited in our ability to negotiate lower fees when managers are unable to accept significant new commitments. However, we decline allocations to potential target managers when we are unable to negotiate acceptable terms.

Transaction costs

Transaction costs for fiscal 2021 totalled $291 million compared to $390 million in the prior year, a decrease of 25% (or $99 million), as we pursued fewer private market investments than in the prior year. This year, we completed 15 transactions (24 in fiscal 2020) valued at more than $500 million, each involving complex due diligence and negotiations.

Transaction costs include expenses such as due diligence on potential investments and legal and tax advisory fees required to support acquisitions. They also include disposition of private market assets, or, in the case of public markets, commissions paid when trading securities.

Given their nature, these costs will vary from year to year according to the number, size and complexity of our investing activities in any given period. These costs are expected to increase over time as we continue to increase our private asset holdings and dispositions, as well as our public markets trading activities, in both developed and emerging markets.

Further details on transaction costs are included in the investment department performance sections starting on page 66.

Operating expenses

Total operating expenses were $1,417 million this year representing 31.4 cents for every $100 of invested assets compared to $1,254 million, or 30.6 cents, in fiscal 2020. In fiscal 2021, the operating expense ratio of 31.4 basis points was flat compared to the five-year average of 31.5.

Total operating expenses increased 13% or $163 million year-over-year primarily due to our continued investment in international operations, an increase in full-time employees, and higher information technology, data and professional services costs to support our Technology & Data strategy. These increases were partially offset by lower than usual travel, training and facilities costs as a result of the pandemic.

To support the growing Fund, as well as continued diversification of assets across sectors and geographies, CPP Investments continues to invest in international operations in key markets. Today, there are 486 employees (25% of our workforce) located in our international offices, which will continue to grow in the future as we look to manage a higher percentage of assets in emerging markets. Operating expenses for our international offices have increased by 11% (or $52 million) over fiscal 2020 including $50 million in higher personnel costs.

Total personnel costs were $938 million in fiscal 2021, an increase of 12% (or $101 million) over $837 million in the prior year. The higher personnel costs reflect a 6% increase in full-time staffing in the current year, from 1,824 in fiscal 2020 to 1,936 employees in fiscal 2021, as well as the full-year cost of 163 full-time employees added in fiscal 2020. The additional staff is required to support the Fund's growth and manage its international reach and complexity. Awarded incentive compensation for the current year was 3% lower than the prior year as the total Fund multiplier was lower. This was driven by below target value-added performance, offset by above target absolute performance.

Information technology and data costs of $158 million and professional service costs of $124 million combined were 22% (or $50 million) higher on a year-over-year basis and reflect the continued investment in our 2025 Technology & Data strategy. The increased spend of $50 million reflects our ongoing efforts to build CPP Investments' data analytics capability, support our strategic priorities, modernize our infrastructure and invest in additional tools and datasets. We made significant investments this year in the multi-year initiative to build an integrated platform for public market trades across the entire trading life cycle and operationalized the enterprise data fabric, a data ecosystem to support data services and storage. We developed machine-learning forecasting capabilities using traditional and alternative datasets and launched a program to partner with external companies to identify, develop and use differentiating technology and data capabilities. We are also on a journey to become nearly 100% cloud-based within the next year. These modernization efforts were essential in our ability to operate as a fully remote workforce during the pandemic.

The impact of the COVID-19 pandemic resulted in travel restrictions, reduced attendance at training sessions and industry conferences and lower facilities costs. As a result, operating expenses related to these costs were reduced by $30 million during the year.

Financing costs

CPP Investments uses leverage as part of an integrated strategy in seeking to maximize the rate of return for the Fund over the long term. Leverage enables CPP Investments to obtain a more diversified investment portfolio, while maintaining the Investment Portfolios' target for market risk. (For more details, see page 24.)

CPP Investments' balance sheet, measured by a "AAA" credit rating, has increasingly provided access to a range of cost-effective financing options.

For the purposes of monitoring the costs associated with all forms of leverage used across the Fund, Management and the Board track financing costs, which includes borrowing costs as well as the costs associated with the leverage-generating elements of derivative transactions. This measure is consistent with the "Total Financing Liabilities" measure described in the Risk Management section on page 103.

As reported in Note 6 of the Financial Statements, borrowing costs are composed of expenses from debt financing liabilities, securities sold under repurchase agreements, prime brokerage and other securities borrowing transactions as well as securities lending transactions where cash is received. Gains and losses associated with certain interest rate derivatives used as part of financing activities are also included in borrowing costs.

In fiscal 2021, CPP Investments incurred total financing costs of $1,217 million, comprised of $1,036 million in borrowing costs and $181 million in additional derivative transaction costs. Current year financing costs are almost 50% lower than the prior year, which was in large part the result of lower effective market interest rates. Prior year financing costs of $2,429 million included $1,523 million in borrowing costs and $906 million in additional derivative transaction costs. The Fund's return is reported net of financing costs.

Allocation of costs between the base CPP and the additional CPP

CPP Investments costs consist of investment-related expenses and operating expenses. We attribute investment-related expenses to the investment programs that directly incur those costs. Operating expenses arising from investment activities are attributed to programs based on the underlying cost drivers. We allocate operating expenses arising from overall oversight of the Fund to programs based primarily on assets under management. Oversight includes organizational processes (and costs) that inform, direct, manage and monitor the activities of the organization toward the achievement of its objectives for the benefit of the stakeholders.

This cost allocation process results in allocations to each of the Core and Supplementary investment pools, based on the investment programs within that pool. Therefore, costs are allocated to the base CPP and the additional CPP based on the proportion of their holdings in the two pools. As a result, each account is allocated its proportionate share of costs on a fair and consistent basis. For more details on the actual costs allocated to each account in fiscal 2021, see Note 19 of the Financial Statements on page 182.

Costs by Investment Department

The table below illustrates the adjusted investment income and the associated costs incurred by each investment department to support their activities. Adjusted investment income includes net investment income, as reported in the Consolidated Statement of Comprehensive Income but excludes the investment management fees and transaction costs incurred by investment holding subsidiaries and the difference between financing costs and borrowing costs. Further details on the difference between financing costs and borrowing costs can be found on page 108. Refer to Note 7 of the Financial Statements on page 168 for a reconciliation of adjusted investment income to investment income as reported in the Consolidated Statement of Comprehensive Income.

Adjusted Income Statement by Investment Department

	Fiscal 2021							Fiscal 2020	5-year
($ millions)	Total Fund Management	Capital Markets and Factor Investing	Active Equities	Credit Investments	Private Equity	Real Assets	Total	Total	Total
Adjusted Investment Income	**34,933**	**6,406**	**2,823**	**2,730**	**35,036**	**7,664**	**89,592**	17,978	222,229
Financing Costs	**1,217**	**–**	**–**	**–**	**–**	**–**	**1,217**	2,429	6,961
Investment Management Fees	**–**	**1,556**	**15**	**22**	**754**	**376**	**2,723**	1,808	9,319
Transaction Costs	**50**	**37**	**63**	**33**	**51**	**57**	**291**	390	1,870
Net Investment Income	**33,666**	**4,813**	**2,745**	**2,675**	**34,231**	**7,231**	**85,361**	13,351	204,079
Operating Expenses	**212**	**216**	**225**	**168**	**263**	**333**	**1,417**	1,254	5,850
Net Income	**33,454**	**4,597**	**2,520**	**2,507**	**33,968**	**6,898**	**83,944**	12,097	198,229

Performance of the investment departments

We conduct all investment activity in accordance with our Investment Beliefs discussed on page 23. These Investment Beliefs, as well as Board-approved policies, are available on our website at www.cppinvestments.com. Responsibilities of investment departments begin on page 43. What follows is a review of how each investment department performed during fiscal 2021.

The table below shows the year-end composition of total Fund net investments:

($ millions)	Total Fund Management	Capital Markets and Factor Investing	Active Equities	Credit Investments	Private Equity	Real Assets	Total
Public Equities	142,850	1,842	–	20	264	–	144,976
Private Equities	–	–	–	7,299	125,552	–	132,851
Government Bonds	96,152	–	–	107	–	–	96,259
Credit	29,582	–	–	37,832	–	–	67,414
Real Assets	–	–	–	–	–	104,393	104,393
External Debt Issuance	(36,448)	–	–	–	–	–	(36,448)
Cash and Absolute Return Strategies[1]	(9,797)	376	(569)	(1,497)	(676)	(16)	(12,179)
Net Investments	222,339	2,218	(569)	43,761	125,140	104,377	497,266
Absolute Return Strategies – Assets[2]		*50,067*	*82,163*				
Absolute Return Strategies – Liabilities[3]		*(47,849)*	*(82,732)*				

1. Absolute Return Strategies hold offsetting systematic exposures through long and short investments. As a result, their net asset values understate their size and impact on the portfolio.
2. To calculate the size of Absolute Return Strategies on a comparable basis with long-only programs, we calculate Assets (or Assets Under Management) as the sum of the long investments in each of the programs.
3. Includes short positions and hedges of systematic risks arising in Absolute Return Strategies.

The table on page 67 shows the contributions of each investment department to net income, after CPP Investments costs, for the current fiscal year. It also shows the historical five-year period.

All investment departments contributed positively to the Fund's net return in fiscal 2021. This was primarily caused by the record gains in global equity markets during the early recovery phase of the COVID-19 pandemic. Our actively managed programs delivered $50.5 billion in net income, compared to $4.4 billion in the previous year, while the Balancing Portfolio returned $33.5 billion in net income compared to $7.7 billion last year.

Total Fund Management (TFM) generated a net income of $33.5 billion and net return of 18.5% in fiscal 2021, mainly through the management of the Balancing Portfolio. TFM was a significant contributor to net income of the Fund, partly because of the size of its portfolio but also because of its composition, of which 58% is in public equities. These benefited from the significant rebound in the global equity markets. The Balancing Portfolio's exposure to government bonds and credit delivered negative results in this fiscal year. U.S. government bond returns were negative as a result of bond prices falling as yields rose. Returns from Canadian government bonds and corporate credit were better, with Canadian bond yield trends trailing the U.S. and credit spreads tightening. Foreign currency detracted $16.3 billion from TFM's net income, primarily due to the Fund's exposure to the declining U.S. dollar.

Capital Markets and Factor Investing (CMF) delivered a net income of $4.6 billion in fiscal 2021, with External Portfolio Management and Risk Premia strategies delivering the most significant contributions. In contrast to the challenging market conditions in the fourth quarter of fiscal 2020, CMF made gains this fiscal year that outpaced the losses from the last year, resulting in its best performing year since inception. CMF benefited from renewed investor risk appetite, market normalization and a strong market recovery. The volatility and market dislocations in this environment provided investment opportunities for CMF.

Active Equities (AE) earned $2.5 billion in net income during the fiscal year. Behind this result was the outperformance of active investments relative to the broader market, particularly in emerging markets. The department's gains also benefited from investments in companies in the automobility and health care sectors.

Credit Investments (CI) delivered net income of $2.5 billion and net return of 6.4% in fiscal 2021, due to a combination of income flows, realizations of gains, and valuation gains. This performance is inclusive of currency losses of $4.3 billion as a result of the portfolio's exposure to the U.S. dollar and the appreciation of the Canadian dollar. Credit spreads tightened throughout the year following a recovery in credit markets globally on the back of unprecedented monetary and fiscal stimulus.

Private Equity (PE) generated net income of $34.0 billion and net return of 36.3% in fiscal 2021, as valuation gains were recorded across all groups. This more than offset currency losses of $11.3 billion. The valuation gains were driven by portfolio companies' higher market multiples, improved earnings outlooks, better-than-expected operational results, as well as higher fund valuations provided by general partners.

Real Assets (RA) earned net income of $6.9 billion and net return of 7.1% in the fiscal year. The department's programs had mixed performance results, largely reflecting the variable impact of and recovery from COVID-19. The positive results were attributed to the oil and energy market rebound, resilience of the long-life infrastructure investments in essential businesses and services, and the increased global demand for power and renewable investments. On the other hand, real estate suffered losses as sectors such as retail and office experienced declining occupancies and expectations of lower future rental income.

Net Income by Investment Department

($ millions)	1-Year	5-Year
Total Fund Management	33,454	84,967
Capital Markets and Factor Investing	4,597	3,062
Active Equities	2,520	7,857
Credit Investments	2,507	9,276
Private Equity	33,968	68,044
Real Assets	6,898	25,023
TOTAL	**83,944**	**198,229**

Total Fund Management

Investment Department

Fiscal 2021 Net Return (Balancing Portfolio and Other Allocations)

$33.5 billion
18.5%

Net Investments

$222.3 billion

Key Focus this Year

- **Extended guidance to investment departments, including more comprehensive monitoring and management of capital usage and liquidity needs**
- **Strengthened Balancing Portfolio management processes and trading capabilities**
- **Enhanced the integrated management of exposures, leverage and liquidity**
- **Contributed to the development and implementation of the Integrated Risk Framework and enhanced our methods of analyzing and attributing performance**
- **Executed rebalancing trades in volatile capital markets**

The primary focus of the Total Fund Management (TFM) department is the design of the Investment Portfolios over all time horizons, and ongoing implementation of the Total Portfolio Investment Framework. TFM's mission is to coordinate and guide the Fund's investing activities for both the base CPP and additional CPP accounts to manage their Investment Portfolios with a view to maximize long-term returns without undue risk, while ensuring sufficient liquidity at all times to promptly pay CPP cash flow requirements and other obligations as they arise.

Summary

TFM contributes to total Fund investment performance in two major ways:

1. Designing and directing the construction of the long-term Investment Portfolios given CPP Investments' objectives. The impacts of these activities are captured in the total portfolio performance reported on page 54 and following.
2. Managing the Balancing Portfolio to achieve the desired set of investment exposures in the Core Pool (see page 25), used by the Investment Portfolios of both the base CPP and additional CPP.

Total Fund Management

(%)	Fiscal 2021	Fiscal 2020
Returns		
1-year	**18.6%**	4.9%
1-year net	**18.5%**	4.8%

TFM contributions to total Fund value-added

Two key decisions have a significant impact on total Fund performance:

- The diversification of assets beyond the two asset classes and proportions in the Reference Portfolio; and
- The selection of active investment programs through a capital allocation process.

Diversification

TFM determines and implements the effective diversification of the Investment Portfolios, which includes the appropriate leverage target for each. An enhanced balancing process, designed to ensure effective control of the exposures of the Core Pool, was implemented in fiscal 2019. Although a five-year period has not been completed for evaluation, its exposure control and the impact on investment results have so far been consistent with expectations.

Program selection

TFM also directs the allocation to active and balancing programs that deliver the targeted exposures of the Investment Portfolios. In this fiscal year, 64.6% of the gross Fund assets under management was allocated to active management – absolute return strategies, other public markets strategies, and private investments; while the remaining 35.4% was allocated and managed in the Balancing Portfolios.

These two basic areas of decision-making are not the only factors that affect overall Investment Portfolio returns. Other decisions – such as the selection of individual investments within each of the programs and the strategic positioning of the Fund – also have an impact, as do the overall targeted market risk levels.

Balancing Portfolio fiscal 2021 performance

The Balancing Portfolio does not itself have targeted asset class or factor weights. Rather, it acts as a completion portfolio of public securities that brings the actual exposures of the Core Pool into alignment with its targeted exposures, once the contributions of the active investment programs have been considered.

During the fiscal year, the Balancing Portfolio experienced a net return of 18.5% and net income of $33.5 billion. These results stemmed from a surge in global stock markets, following the March 2020 lows when the financial market fallout from the COVID-19 pandemic was most severe. Equity markets recovered from the initial weakness as investors began to anticipate a vaccine-driven path to recovery. The largest portion of the Balancing Portfolio is invested in global equities, and the S&P Global LargeMidCap Index rose 36.7% this year in Canadian dollar terms. Gains were led by technology-focused companies where businesses withstood and in some cases benefited from the pandemic environment. Consumer businesses also contributed to gains as investors expected a demand-led recovery. Not all components of the equity market did well, however, with businesses in the real estate sector, for example, lagging as investors expected slower recoveries or even permanent reductions in future demand.

Fixed income detracted from performance as government bond yields rose over the course of the fiscal year. Canadian bond returns were relatively stronger than other jurisdictions – given narrowing spreads between provincial and federal bond yields, and Canadian governments bond yields not experiencing the rise seen in the U.S. – leading the FTSE Canada All Government Bond Index to a return of negative 0.5%.

Foreign currency movements were a significant influence on the Balancing Portfolio this year. In particular, the strengthening of the Canadian dollar relative to the U.S. dollar, as investor sentiment improved through the course of the year, reduced returns expressed in Canadian dollars. The U.S. dollar steadily weakened against the Canadian dollar, ending the year down 11.7%, and reducing returns in the Balancing Portfolio by 8.2% equivalent to $10.6 billion. Overall, foreign exchange contributed a loss of 9.2% or $16.3 billion.

Returns are net of TFM's $1,479 million of costs which include financing costs, transaction costs and operating expenses. Costs have decreased year-over-year, due primarily to $1,212 million lower financing costs resulting from the significant decrease in the level of interest rates in the U.S. and Canada. Both the Federal Reserve and Bank of Canada cut rates to near zero in response to the COVID-19 pandemic. TFM absorbs all of the Fund's financing costs of $1,217 million (for more information on financing costs, see page 65).

Transaction costs of $50 million, including public market commissions and trade settlement costs, are consistent with the prior year. Operating expenses of $212 million for the year include TFM's departmental expenses as well as its allocation of expenses from other departments such as trading execution teams, technology and finance. Operating expenses were lower than the prior year relative to assets under management.

Net Income for Total Fund Management

($ millions)	Fiscal 2021	Fiscal 2020	5-Year
Adjusted Investment Income	**34,933**	10,395	93,234
Financing Costs	**1,217**	2,429	6,961
Transaction Costs	**50**	53	209
Net Investment Income	**33,666**	7,913	86,064
Operating Expenses	**212**	200	1,097
Net Income	**33,454**	7,713	84,967

TFM contributions to Fund value-added

This fiscal year, TFM contributed a negative dollar value-added of $11.7 billion. See page 93 for more on relative performance.

Balancing Portfolio composition and trading activity

TFM's net investments of $222.3 billion consist of the Core Pool balancing program, the management of the Supplementary Pool, non-marketable bonds and the Fund's leverage balances. The year-end composition by asset class of the Balancing Portfolio is shown below.

In mid-fiscal 2021, to rebalance to targeted exposures, TFM sold public market equities to increase holdings of credit and developed market fixed income. In the final quarter TFM executed a similar trade, again selling equities and buying credit and emerging market fixed income. In both cases equity market exposures had risen substantially due to rising public market equity prices.

The total market value of unsecured leverage was relatively unchanged in fiscal 2021. Commercial paper activity was reduced and replaced with term debt in order to lengthen the maturity profile of the issuance program and take advantage of low borrowing rates. Term debt was issued in five different currencies over the course of the fiscal year, including the Fund's inaugural Australian dollar issuance, as the program continued to expand and diversify its investor base.

Fiscal 2021 activities

At the end of fiscal 2021, TFM's team comprised 115 professionals located in Toronto, London and Hong Kong. The department was created in September 2020 as the combination of the previous Total Portfolio Management department and the Balancing & Collateral group, which was previously in the Capital Markets and Factor Investing department. During the year, the team advanced work on enhancing short-term guidance to active investment programs, more fully integrating liquidity management into department processes, and deepening Board engagement on portfolio construction. Key aspects of TFM's activities in fiscal 2021 are described on page 68.

Balancing Portfolio Asset Class Weights

	March 31, 2021	March 31, 2020
Public Equities	**58%**	55%
Government Bonds	**31%**	37%
Credit	**11%**	8%
Total	**100%**	100%

Enhancing liquidity management across the Fund

In fiscal 2021, TFM worked with colleagues across the organization to refine the sizing and management of our total Fund liquidity target. The Core Pool strategic allocation establishes a liquidity target that ensures safety to meet stressed cash outflows, and flexibility to capitalize on investment opportunities, minimizing the possibility of disrupting planned activities of the active investment departments.

Refining capital allocation and governance

TFM introduced short-term (fiscal 2021 and fiscal 2022) investment department signals to put the investment departments on a more predictable path to their long-term signals. (See page 35 for a description of the signals.) The short-term signals ensure feasible sequencing of investment activity at the department level in alignment with the long-term signals and include deployment budgets with a flexibility buffer for the less liquid private programs.

TFM also updated the Capital Management Standard to govern capital allocated through the short-term investment department signals, long-term liquidity target, and capital reserves. The Standard establishes the process that TFM will follow to achieve the reallocation of capital if the Core Pool's capital and liquidity position is altered in response to circumstances outside of the annual strategic allocation.

Piloting active management in the Balancing Portfolio

In fiscal 2021, TFM partnered with Active Fundamental Equities (AFE) to establish a process for implementing AFE's fundamental views in the Balancing Portfolio, while maintaining the necessary flexibility to allow TFM to manage the exposure, leverage, and liquidity of the Fund. We completed the build phase and launched a six-month proof of concept to implement this element of active management within the Balancing Portfolio in the future.

Providing forward-looking insights for short-term portfolio management

TFM launched a dashboard reporting initiative that will provide more comprehensive information and enhanced tools necessary for the Chief Investment Officer (CIO) and TFM to better exercise their short-term portfolio management authorities regarding:

- Exposures management,
- Capital management including liquidity management, and
- Leverage management.

Looking ahead

As part of the creation of the extended TFM department under direction of the CIO and realignment of groups starting in fiscal 2022, there are five priorities that will guide our work over the coming one to three years, including:

- Review the fundamentals of our long-term portfolio design and construction process to enhance their effectiveness in guiding portfolio construction and management;
- Further develop our approach to investment department signals implementation, evaluation and engagement, and integrate attribution insights into our long- and short-term capital allocation processes;
- Refine our approach to managing the balance sheet across three dimensions: exposure, leverage and liquidity. This will enhance efficiency, the short-term management of excess liquidity, and the ongoing allocation of capital;
- Design short- and mid-term portfolio positioning that can incorporate views on current economic and financial conditions and relative value considerations to enhance returns and mitigate risks; and
- Enhance and streamline information needed by the CIO and TFM to ensure that investment processes are effective and systematic, while being flexible enough to adapt to changing circumstances.

Capital Markets and Factor Investing

Investment Department

Fiscal 2021 Net Return

Absolute Return Strategies

$4.6 billion

Net Investments

$2.2 billion

Assets Under Management

$50.1 billion

Key Focus this Year

- Played a key role during the market volatility relating to the COVID-19 pandemic including leadership of the Financial Crisis Management Team and contribution to the management of the Fund's liquidity
- Launched the department's first long-only program through the Emerging Markets Directional strategy, delivered by the External Portfolio Management team
- Continued to enhance our systems and operational efficiency through the multi-year public markets' Investment Lifecycle Technology & Data project

The primary goal of the Capital Markets and Factor Investing (CMF) department is to ensure that CPP Investments has the flexibility to efficiently gain access to a broad array of sources of return in public equities, fixed income securities, currency, commodities and derivatives on a global basis.

Summary

CMF's total assets under management at fiscal year end were $50.1 billion, representing a decline of $5.9 billion compared to last year. The decrease primarily reflects reduced exposure in the Quantitative Strategies program, increased capital efficiency in the execution of the External Portfolio Management and Macro Strategies programs, as well as a return of capital to the Fund. The Quantitative Equities Strategy was temporarily unwound while the team retools its models and builds an enhanced program that can evolve in line with the future needs of the Fund and the changing systematic investment landscape. Additionally, a new Emerging Market Directional program was launched by External Portfolio Management, which seeks to generate above-average returns from key emerging market countries. Overall, CMF has 170 professionals located across four global offices.

The distribution and decrease in CMF's assets under management are shown below at the current and prior year ends. The Quantitative Strategies & Risk Premia program is reported with relatively minimal assets this year, reflecting the temporary unwinding of the Quantitative Equities program and no contribution from the Risk Premia program, which is executed solely through derivatives. An equivalent asset value for Risk Premia was $4.4 billion at year end. This approach scales the derivative positions by an assumed risk level to provide a comparable amount of physical assets under management that would generate the equivalent amount of risk.

The following chart shows CMF's Absolute Return Strategies, which contributed to dollar value-added in fiscal 2021. See page 93 for more on relative performance. As in prior years, the returns are reported only in dollar amounts because activities are conducted on a market-neutral or long/short basis. In such cases, there is no generally accepted and appropriate underlying asset base for measuring returns in percentage terms.

Capital Markets and Factor Investing

($ billions)	March 31, 2021	March 31, 2020
Absolute Return Strategies (ARS) – Assets		
Emerging Market Directional	**1.8**	–
External Portfolio Management	**41.7**	40.9
Macro Strategies	**6.1**	11.5
Quantitative Strategies & Risk Premia	**0.5**	3.6
ARS Assets Under Management (AUM)[1]	**50.1**	56.0
ARS Liabilities[2]	**47.9**	(58.7)
Net Investments	**2.2**	(2.7)

1. Absolute Return Strategies (ARS) hold offsetting systematic exposures through long and short investments (see page 27 for more on long and short investing). As a result, their net asset values understate their size and impact on the portfolio. To calculate the size of Absolute Return Strategies on a comparable basis with long-only programs, we calculate Assets Under Management, which represents the sum of the long investments and the net value of derivative holdings in each of the programs.
2. Includes short positions and hedges of systematic risks arising in Absolute Return Strategies.

CMF delivered net income of $4.6 billion in fiscal 2021 driven by the returns of external hedge fund managers with contributions from all strategies, as well as the recovery in the Risk Premia programs as market conditions improved from the volatile and dislocated environment seen at the end of fiscal 2020. In its best performing year since inception, CMF's gains during the year exceeded losses incurred in the fourth quarter last year, when the fallout from the COVID-19 pandemic roiled financial markets. CMF programs are generally structured as long/short absolute return portfolios, with the exception of the Emerging Market Directional program. As such, their net income represents dollar value-added as a relative measure of performance.

CMF's net income is after $1,809 million of costs, which include $1,556 million of investment management fees, $216 million of operating costs and $37 million of transaction costs. Investment management fees, which represent $1,076 million for performance fees and $480 million for management fees paid to external fund managers, were higher than the prior year reflecting the year's broad-based investment returns (see page 63 on the use of external fund managers). Operating expenses were slightly higher than the prior year, primarily reflecting trading infrastructure costs to support the public market life cycle.

The COVID-19 pandemic remained a focal point and driver of financial markets throughout fiscal 2021. At the end of fiscal 2020, the initial reaction from financial markets to the pandemic led to increased volatility, disruption and dislocation, which was detrimental to the department's performance. In contrast, financial markets experienced renewed investor risk appetite, market normalization and a strong recovery in fiscal 2021. These events benefited our strategies overall, and the team was able to capitalize on the opportunities that emerged from the market dislocations.

Net Income (Loss) for Capital Markets and Factor Investing

($ millions)	Fiscal 2021	Fiscal 2020	5-Year
Adjusted Investment Income (Loss)	**6,406**	(1,910)	9,333
Investment Management Fees	**1,556**	1,010	5,162
Transaction Costs	**37**	45	166
Net Investment Income (Loss)	**4,813**	(2,965)	4,005
Operating Expenses	**216**	205	943
Net Income (Loss)	**4,597**	(3,170)	3,062

Fiscal 2021 activities

In fiscal 2021, CMF played a key role during the market volatility relating to the COVID-19 pandemic and the subsequent financial crisis, contributing leadership across three important areas: contribution of insights on market dynamics, liquidity and capital positioning; leadership of the Financial Crisis Management Team; and contribution to the management of the Fund's liquidity.

CMF benefited from renewed investor risk appetite, market normalization and a strong market recovery. Under this environment, the department was able to take advantage of the market dislocations provided by the volatility. For example, External Portfolio Management (EPM) identified opportunities to generate income by adding to strategies and co-investments that benefited from temporary mispricing.

During the year, CMF displayed its resiliency through program diversification, liquidity and its ability to quickly adjust risk in its direct programs, while effectively managing capital.

CMF streamlined its investment focus to enable stronger alignment between CMF's investment programs and delivery of strategic portfolio characteristics. Additionally, the department launched its first long-only program, Emerging Markets Directional through EPM, which seeks to generate above-average returns from key emerging markets.

The department focused on delivering three key projects to advance its infrastructure, operating efficiency and ability to scale, in line with our technology and data strategy. CMF partnered with Technology & Data, to:

- Initiate and advance the multi-year foundational Investment Lifecycle Technology & Data project which will deliver an integrated technology and data platform for the Fund to support trading across the entire public markets' investment life cycle;
- Implement a cloud-based research platform for systematic investment strategies; and
- Lead cross-department efforts to continue to enable compliance with evolving global markets regulations including preparedness for uncleared margin rules, central clearing and Interbank Offered Rate transition.

External Portfolio Management

External Portfolio Management (EPM) delivered $4.4 billion in net income this year with outperformance across all strategies, driving results at the department level. Top contributions were from the Fundamental Equity, Multi-Strategy, and Global Macro programs. Assets under management were $41.7 billion, increasing from last year primarily due to increases in fund valuations. Additionally, EPM transferred assets internally to the newly launched Emerging Market Directional program. The program was launched with four existing externally managed mandates focused on the Greater China equities market, which were valued at $1.8 billion at the end of the year.

Notable highlights for the fiscal year:

- Selectively added to strategies of existing managers to take advantage of market dislocations;
- Continued to focus on fee reduction by negotiating better aligned terms with fund managers and co-investment partners; and
- Continued to scale the Co-Investment program with both existing and new fund managers.

Macro Strategies

Macro Strategies (MS) underperformed this year with a net loss of $0.2 billion mainly caused by short exposure to equity markets at the beginning of the fiscal year when markets began to rally. MS assets under management were $6.1 billion this year, representing a decline from last year as the portfolio was able to increase its capital efficiency and return capital to the Fund while executing its strategy. MS launched a new strategic positioning program through a partnership with an external fund manager, which seeks to generate excess returns across asset classes from a process that is complementary to overall Fund exposures.

Notable highlights for the fiscal year:

- Leadership of the cross-department Financial Crisis Management team;
- Made a significant contribution to the advancement of the Investment Lifecycle Technology & Data project to support trading across the entire public markets' investment life cycle; and
- Developed and shared macro insights including comprehensive economic fundamentals addressing market conditions and asset pricing across the Fund.

Quantitative Strategies & Risk Premia

Quantitative Strategies & Risk Premia (QSRP) produced net income of $0.4 billion this year, driven by the recovery of the Dynamic Carry and Volatility Risk Premia programs. Both programs benefited from improved market sentiment and a normalization in market conditions relative to the crisis environment that concluded the previous fiscal year.

Gains were reduced by the Quantitative Equities (QE) program where value-oriented equity factors in the U.S. and Europe continued to underperform while the portfolio was scaled back and eventually unwound by mid-year. Assets under management declined from the previous year as a result of the temporary unwind of the QE strategy, while the group retools its systematic framework and builds an enhanced program that can evolve in line with the future needs of the Fund and the changing systematic investment landscape.

Notable highlights for the fiscal year:

- Continued to research and evolve the Risk Premia models with a focus on reducing tail risk to deliver a more balanced return profile;
- Partnered with Technology & Data to implement a cloud-based research platform for systematic investment strategies that will increase capabilities and decrease operating overhead by enabling self-service data ingestion, providing a flexible self-service analytical workbench, and creating a platform for sharing and re-using research and analytics; and
- Collaborated with the Research & Innovation Group to rebuild the Quantitative Equities Strategy to deliver a scalable systematic equity platform that can evolve as the needs of the Fund change.

Financing, Collateral & Trading

Financing, Collateral & Trading (FCT) manages the liability requirements and centralized trade execution for the Fund. Responsibility for delivering the Balancing Portfolios and managing the Fund's leverage and liquidity was transferred to the Total Fund Management (TFM) department. As part of this transition, FCT continues to work closely with TFM to optimize the trade-offs between total Fund liquidity, financing and execution costs. Additionally, FCT continued to further develop its financing toolkit, which includes the term debt issuance program and capabilities across global markets. A strategic focus for FCT has been the development of the group's analytical and data capabilities which serve as the backbone of data-driven financing and execution activities across all active investment programs. The group also prioritized the enhancement of global execution capabilities through global expansion and implementation of key platforms.

Notable highlights for the fiscal year:

- Completed 14 debt issuances in five currencies totalling $12.6 billion, including $5.5 billion settled in April in response to strong investor demand due to COVID-19-related market volatility.
- Continued to demonstrate our commitment to Sustainable Investing by expanding the Green Bond program through the inaugural issuance of an Australian dollar-denominated 20-year bond;
- Successfully established virtual investor meetings and conferences, in response to travel constraints due to the pandemic. Meetings were held with more than 100 investors across five different continents, resulting in the addition of numerous investors in the Term Debt program;
- Continued to implement evolving global markets regulations with a focus on preparedness for uncleared margin rules, central clearing and the transition from the Interbank Offered Rates. FCT is expanding central clearing capabilities for derivative trades, implementing processes for uncleared margin rules and operationalizing the ability to transact using the new alternative reference rates that will replace the Interbank Offered Rates.
- Made a significant contribution to the leadership and advancement of the Investment Lifecycle Technology & Data project to support trading across the entire public markets' investment life cycle.

Looking ahead

Building on the progress made in fiscal 2021, CMF will continue to strengthen and scale its portfolio and transform its systems to advance the operational efficiency of its global investment activities. CMF will focus its efforts in fiscal 2022 to:

- Operationalize and scale our new and evolving investment programs of Emerging Markets Directional, Macro Strategies and Quantitative Equities;
- Align to the Fund's 2025 strategy through the continuation of FCT's global expansion and delivering scalable long-only exposure via the Emerging Markets Directional program;
- In partnership with Technology & Data, continue the multi-year process of transforming and strengthening the Fund's integrated technology and data infrastructure via the Investment Lifecycle Technology & Data project to support trading across the entire public markets' investment life cycle; and
- Actively support talent development by fostering an environment that enables cross-functional collaboration and innovation, promoting an inclusive and diverse workplace, and improving employee experience.

Active Equities

Investment Department

Fiscal 2021 Net Return

Absolute Return Strategies

$2.5 billion

Net Investments

$(0.6) billion

Assets Under Management

$82.2 billion

Key Focus this Year

- Increased allocations to emerging markets, particularly Asia
- Accelerated the advancement of the Climate Change Security Selection Framework to assess the potential impact of climate change across new investment opportunities and the Fund overall
- Integrated data-driven research capabilities in our investment decision processes across the Fund

Active Equities (AE) primarily invests in common equity of publicly traded companies across sectors, geographies and sizes. AE comprises five investment groups, as well as a Research & Portfolio Strategy group and the Fund's dedicated Sustainable Investing group.

Summary

AE's total assets under management were $82.2 billion at the end of the fiscal year, representing an increase of $20.8 billion compared to last year. The increase primarily reflects rising valuations given the strong recovery in global equity markets from the lows in March 2020. From a deployment standpoint, AE had net sales of $2.6 billion, realizing profits from recent successful investments. AE has 149 professionals located across seven offices.

The distribution and growth of AE's assets under management, which indicates the size of each program's gross exposure, appear at the current and prior year ends.

AE also contributed to dollar value-added in fiscal 2021. The returns are reported in dollar amounts only, because activities are conducted on a market-neutral or long/short basis. See page 93 for more on relative performance. Net income is equivalent to dollar value-added for long/short strategies. Net income represents both market return and dollar value-added for long-only strategies.

Active Equities

($ billions)	March 31, 2021	March 31, 2020
Absolute Return Strategies (ARS) – Assets		
Active Fundamental Equities	**31.2**	21.9
Direct Equity Investments Latin America	**1.9**	1.6
Fundamental Equities Asia	**25.2**	20.3
Relationship Investments	**15.0**	11.7
Thematic Investing	**8.9**	5.9
ARS Assets Under Management (AUM)[1]	**82.2**	61.4
ARS Liabilities[2]	**(82.8)**	(61.0)
Net Investments	**(0.6)**	0.4

1. Absolute Return Strategies (ARS) hold offsetting systematic exposures through long and short investments (see page 27 for more on long and short investing). As a result, their net asset values understate their size and impact on the portfolio. To calculate the size of Absolute Return Strategies on a comparable basis with long-only programs, we calculate Assets Under Management, which represents the sum of the long investments and the net value of derivative holdings in each of the programs.
2. Includes short positions and hedges of systematic risks arising in Absolute Return Strategies.

AE delivered net income of $2.5 billion in fiscal 2021. This result stemmed from the outperformance of active investments relative to the broader market, especially in emerging markets and investments in health care and automobility. AE programs are structured as long/short absolute return portfolios; therefore, their net income represents dollar value-added as a relative measure of performance.

AE's net income is after $303 million in costs which include $15 million in investment management fees, $63 million in transaction costs and $225 million in operating expenses. AE's investment management fees and transaction costs were higher than prior year but consistent with the year-over-year growth in assets. Operating expenses were higher than prior year both in dollars and relative to assets managed due to higher cost allocations from technology, data, and financing, collateral and trading as the department's scale increased.

Trends in portfolio companies, and public markets more generally, continued to be dominated by the COVID-19 pandemic this year. Previously hard-hit sectors such as travel and leisure-related businesses and energy investments performed well this year. This came as market conditions normalized and investor sentiment improved with support from both monetary and fiscal policies around the world, as well as progress in the global vaccination effort. The portfolio also benefited directly from investments in vaccine producers in the health care sector. More broadly, the AE portfolio continued to benefit from portfolio company performance and a diversified strategy, generating positive absolute returns through both rising and falling markets since the onset of the pandemic.

Net Income for Active Equities

($ millions)	Fiscal 2021	Fiscal 2020	5-Year
Adjusted Investment Income	**2,823**	3,916	9,007
Investment Management Fees	**15**	6	40
Transaction Costs	**63**	56	267
Net Investment Income	**2,745**	3,854	8,700
Operating Expenses	**225**	179	843
Net Income	**2,520**	3,675	7,857

Fiscal 2021 activities

In November 2020, Frank Ieraci was appointed Senior Managing Director & Global Head of Active Equities to lead the department and further advance its long-term strategy, building on his extensive experience within AE and the broader organization. Despite the uncertainties in the financial markets in fiscal 2021, AE continued to take a disciplined approach in deploying new capital in developed markets. The department also collaborated closely with other investment groups on long-term investment opportunities.

As part of the organization's 2025 strategy, AE continued to grow its exposure in emerging markets. In particular, Fundamental Equities Asia (FEA) increased its focus in the Indian market through the hiring of a Senior Portfolio Manager to lead its India strategy. AE continues to be a strategic partner to all investment departments by providing data-driven insights to supplement traditional fundamental research for current and potential investments. In fiscal 2021, AE collaborated with other teams on numerous large investments bringing data analytics and deep industry knowledge to inform better decision-making.

AE continued to support the Climate Change Program and CPP Investments' efforts to be a leader among asset owners and external managers in understanding the investment risks and opportunities presented by climate change.

Key achievements of the program in fiscal 2021 included:

- The quantification of climate-related physical and transition risk impacts on the economies of the countries we invest in, and the resulting impacts across different potential Energy Transition and Climate Change (ETCC) scenarios;
- The continued refinement of our in-house carbon footprint tool to more accurately measure greenhouse gas emissions associated with CPP Investments' holdings, including the introduction of carbon emission metrics for government-issued securities; and
- The enhancement of the bottom-up Climate Change Security Selection Framework that assesses material impacts from climate change on significant transactions, and the initial application of the framework to existing investments in our portfolio.

Active Fundamental Equities

Active Fundamental Equities (AFE) had net income of $0.4 billion this year as returns from active long investments exceeded losses from market hedges and active short positions, particularly in the communications services and health care sectors. Assets under management were $31.2 billion, representing an increase of $9.3 billion from $21.9 billion last year. The increase resulted from rising market valuations, offset by net sales of $0.9 billion.

Notable highlights for the fiscal year:

- Invested C$1.2 billion in Intact Financial, Canada's largest property and casualty insurer and leading provider of specialty insurance in North America, to support their acquisition of RSA Insurance Group PLC;
- Invested an additional C$393 million for a C$845 million total investment in Akamai Technologies, the leading global content delivery network services provider for media and software delivery to output faster webpage rendering and reduced video buffering, in addition to their cloud security solutions; and
- Sold our remaining 0.5% stake in Ferrari N.V., which designs and manufactures luxury sport cars. Net proceeds from the sale were C$236 million. Over fiscal 2019–2021, we disposed of our entire 2.0% stake in Ferrari N.V. in several transactions, for total net proceeds of C$837 million.

Direct Equity Investments Latin America

In terms of relative performance, Direct Equity Investments Latin America (DEILA) was flat this year as active investments essentially matched the surging Brazilian equity market, which grew by 60%. The DEILA program grew to $1.9 billion in assets under management from $1.6 billion last year with net deployments of $212 million. A depreciated Brazilian real partly offset rising valuations.

Notable highlights for the fiscal year:

- Invested C$103 million for a 2.7% stake in TOTVS, a leading provider of business solutions for companies of all sizes, providing management software solutions, collaboration and productivity platforms and consulting services, with a leading share of Brazil's small- and medium-sized business market; and
- Invested C$80 million for a 1.5% stake in Ultrapar Participacoes SA (Ultra). Ultra is a Brazilian company operating in the sectors of fuel distribution specialty chemicals production, liquid bulk storage and pharmaceuticals.

Fundamental Equities Asia

Fundamental Equities Asia (FEA) delivered another year of outperformance relative to broad equity markets and was the top contributor to AE's result in fiscal 2021 with net income of $1.2 billion. Assets under management were $25.2 billion compared to $20.3 billion last fiscal year, with the notable increase reflecting portfolio company gains. In terms of capital deployment, FEA had net sales this year (where asset dispositions exceeded purchases), realizing profits from several investments. While markets in Greater China and India surged this year, FEA delivered outperformance with high-conviction investments generating significant gains.

Notable highlights for the fiscal year:

- Invested C$128 million in the National Stock Exchange of India, which is the dominant vertically integrated, diversified exchange in India; and
- Invested US$100 million for a 2.3% ownership in Hutchison China MediTech, a Chinese biopharmaceutical company focused on small molecule-targeted therapies in a variety of oncology indications.

Relationship Investments

Relationship Investments (RI) had a modest net loss of $0.1 billion in fiscal 2021 as active investments lagged slightly, relative to strong public market performance. Assets under management were $15.0 billion compared to $11.7 billion last fiscal year, with the increase primarily reflecting rising valuations.

Notable highlights for the fiscal year:

- Invested US$285 million for 2.0% ownership in Avantor Inc., a leading global provider of health care products and services in the life sciences and advanced technologies and applied materials industries, to support shareholder transition;
- Invested €499 million for 5.4% ownership in Embracer Group, a Sweden-listed mid-sized developer/publisher in the global video game industry, to support its future growth strategy; and
- Exited our investment in Advanced Disposal Services, Inc. following the company's acquisition by Waste Management, Inc., generating net proceeds of US$502 million.

Thematic Investing

Thematic Investing (TI) was another top contributor to department outperformance this year with net income of $1.0 billion, as portfolio investments outperformed broad market hedges. Investments in leading-edge companies in the group's Automobility and Innovations in Health Care portfolios generated significant results. The Innovations in Health Care portfolio benefited from the surging share prices of vaccine producers as vaccines were rapidly developed to combat the COVID-19 pandemic. Assets under management were $8.9 billion, increasing from $5.9 billion last year.

Notable highlights for the fiscal year:

- Expanded the Innovations in Health Care theme by $219 million, which included a C$49 million investment in NeoGenomics, a premier cancer diagnostics and pharma services company offering innovative diagnostic, prognostic and predictive testing and realized C$159 million in net proceeds from our investment in Moderna, a leading developer of a COVID-19 vaccine; and
- Expanded the Climate Change Opportunities theme by C$319 million, which included US$50 million invested in Perfect Day, a pioneer in animal-free dairy production, headquartered in California.

Sustainable Investing

During fiscal 2021, Sustainable Investing (SI) continued to align its efforts to directly and indirectly contribute to the Fund's performance by further integrating environmental, social and governance (ESG) considerations, including climate change, into the investment process. The group continued to work closely with investment and asset management teams on major transactions across the organization to ensure that ESG considerations are integrated into investment decision-making processes.

SI also continued to advance CPP Investments' efforts to be a leader in understanding the risks and opportunities brought on by climate change. This fiscal year, we enhanced the Climate Change Security Selection Framework, enabling a more efficient determination as to materiality of climate risk; consistent, comparable views being provided to investment committees across deals and investments; and greater clarity to investment groups on reference cases and required scenario analysis. (See page 41 for more on the framework.)

SI continued to play a leading role in engagement and proxy voting. During the July 1, 2019 to June 30, 2020 proxy voting season, SI supported more than 25 shareholder proposals related to climate change. SI also continued to undertake activities to support CPP Investments' view that companies with diverse boards and executive management teams are more likely to achieve superior financial performance. Our efforts on this front include involvement in the 30% Club Canada and related engagements with portfolio companies. We also continued to expand our gender diversity voting policy in Canada and globally. During the 2019/2020 voting season, we voted against directors at 10 Canadian public companies due to gender diversity concerns. Nine of these were S&P/TSX composite companies with only one woman on the board, while one was a non-S&P/TSX composite company with no women on the board. This shows positive movement compared to the previous season, where we had voted against directors at 26 S&P/TSX composite companies for having only one woman on the board and 13 Canadian public companies with no women on the board. Outside of Canada during the 2019/2020 season, we voted against 323 of our public portfolio companies for failing to have any women on the board. These activities will remain significant areas of focus going forward. This year, we made important changes to our Proxy Voting Principles and Guidelines which include escalating our board diversity expectations and a new climate change voting policy.

The past year also saw the second year of the beta test of a Sustainable Equities investment portfolio. The program has exceeded the return targets we set on initiation of the beta test.

Looking ahead

The AE department will focus on developing and enhancing our capabilities to maximize alpha, while maintaining a sufficient level of diversification, agility, capital efficiency and scalability within our portfolio. Building on the progress made in fiscal 2021, AE will focus its efforts to:

- Increase exposure in emerging markets by expanding our presence and investment capabilities in India;
- Enhance our traditional investment research and due diligence processes with data-driven research and insights;
- Develop a portfolio construction methodology to enhance program agility and capital efficiency;
- Drive our climate voting policy, engage with companies contributing to the biggest climate risks in our public equities portfolio and make continuous enhancements to the Climate Change Security Selection Framework; and
- Commit to increase training of our talent on data literacy, while seeking more female and minority representation and diversity of skill in our hiring pipeline.

Credit Investments

Investment Department

Fiscal 2021 Net Return
$2.5 billion 6.4%

Net Investments
$43.8 billion

Key Focus this Year

- Proactively managed the credit portfolio through the COVID-19 pandemic and leveraged the department's relative value framework to optimize the portfolio
- Continued to pursue growth in emerging markets with a focus on Greater China, India and Latin America, while deepening local networks and developing new partnerships
- Executed the technology and data roadmap to enhance credit portfolio management capabilities and support the long-term growth of the portfolio

Credit Investments (CI) manages CPP Investments' public and private credit investments globally. CI invests in all credit and credit-like products across the capital structure, in all sectors and along the rating spectrum, with the exception of local currency sovereign bonds.

Summary

The CI portfolio grew from $40.0 billion at the end of fiscal 2020 to $43.8 billion at the end of fiscal 2021. This growth was primarily the result of new investment activities of $15.4 billion and valuation gains of $4.6 billion, partially offset by $11.9 billion of dispositions and distributions, and foreign exchange losses of $4.3 billion. CI's net assets represent approximately 8.8% of the Fund and are managed by 125 professionals located across four offices globally. As shown on page 81, CI's investments are diversified by industry and geography.

The table below summarizes aggregated returns in absolute terms. Rates of return are calculated on an unhedged time-weighted basis.

Credit Investments

(%)	Fiscal 2021	Fiscal 2020
Returns		
1-year excluding foreign currency impact	**18.8**	(6.8)
1-year	**6.8**	(2.0)
1-year net	**6.4**	(2.4)
1-year return comparator[1]	**14.4**	2.5

1. Return comparator is the weighted return of return-risk factors representative of the department's investment programs.

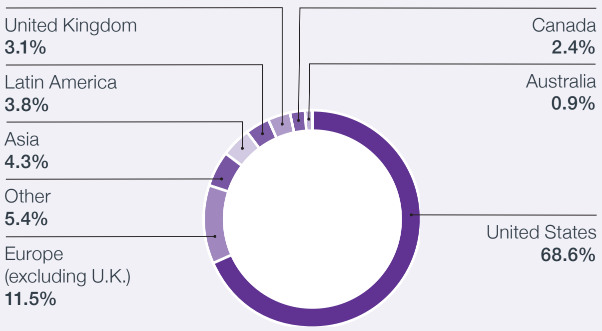
In fiscal 2021, the CI department delivered positive net returns across all its programs due to a combination of income flows, realizations and valuation gains. This was partially offset by foreign exchange losses which reduced the net return by 10.1%, as the U.S. dollar, which accounted for 78% of the department's currency exposure, depreciated 11.7% against the Canadian dollar. The diversified CI portfolio generally tracked to the returns of relevant public market indexes over the long term, despite negative contributions of $857 million to dollar value-added in fiscal 2021 on account of the significant rebound of these indexes. See page 93 for more on relative performance. Over the past five years, the CI portfolio has generated a net return of 7.3% and net income of $9.3 billion.

During fiscal 2021, CI generated net income of $2.5 billion after $223 million in costs to support investment activities. Investment management fees of $22 million mainly represent fees for structured credit and deployment vehicles and were higher than the prior year due to increased assets under management. Transaction costs of $33 million, reflecting professional and advisory services related to acquisitions and dispositions, were lower than the prior year due to lower deal volume. CI's operating expenses of $168 million were higher than the prior year relative to assets under management, which was driven by higher headcount and increased cost allocations for technology and data.

The charts below provide a summary of CI's holdings by geography and sector.

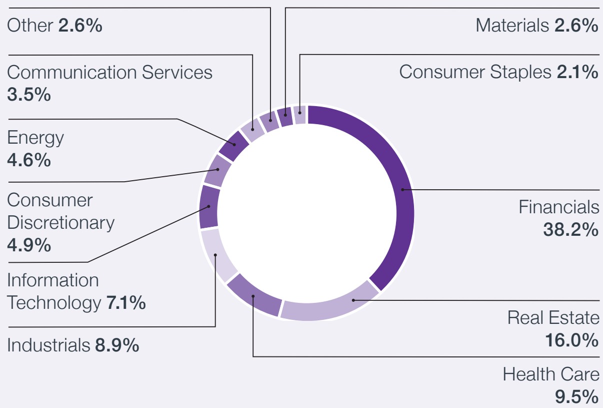
Credit Investments – Geographic Diversification

As at March 31, 2021



Credit Investments – Sector Diversification

As at March 31, 2021



Net Income (Loss) for Credit Investments

($ millions)	Fiscal 2021	Fiscal 2020	5-Year
Adjusted Investment Income (Loss)	**2,730**	(838)	10,145
Investment Management Fees	**22**	17	90
Transaction Costs	**33**	37	188
Net Investment Income (Loss)	**2,675**	(892)	9,867
Operating Expenses	**168**	147	591
Net Income (Loss)	**2,507**	(1,039)	9,276

Fiscal 2021 activities

This marked the CI department's third year of operation since forming in fiscal 2019, and it continues to focus on extending investment activities across the entire credit spectrum and growing its emerging markets exposure. The ability to invest across the capital structure in both the public and private credit markets allowed CI to participate in the best relative-value opportunities through the cycle.

Fiscal 2021 exhibited strong recoveries across global credit markets following significant volatility amid the COVID-19 pandemic in the fourth quarter of fiscal 2020. As a result of unprecedented monetary and fiscal stimulus together with vaccine optimism, credit spreads moved tighter throughout the year while new issuance and deal activity picked up in the second half of fiscal 2021. CI took advantage of strong market conditions to monetize positions. Capital deployment was more measured compared to the previous year, with $15.4 billion deployed across various credit products and geographies.

CI continues to take significant steps to strengthen its technology infrastructure and embrace innovation. Enhancements to CI's proof of concept portfolio management tool were made to support the monitoring of portfolio company fundamental data and drive portfolio analytics. As part of CI's target operating model, the goal is to implement a credit portfolio management platform that supports a data-driven approach to the investment process and portfolio management.

Americas Leveraged Finance

At year end, Americas Leveraged Finance (ALF) assets totalled $15.5 billion, compared to $13.7 billion at the end of fiscal 2020. The portfolio growth came from new investment activity of $5.8 billion and valuation gains of $2.0 billion. This was offset by dispositions (including maturities and redemptions) and distributions totalling $4.4 billion and $1.6 billion in foreign exchange losses. ALF earned a net return of 6.3%, or $1.0 billion of net income, during fiscal 2021. ALF's high-yield bond strategy deployed $2.6 billion in gross capital, $1.2 billion net, highlighting the group's ability to dynamically adjust the size of its liquid credit portfolio to the opportunities available in the public high-yield market.

Notable highlights for the fiscal year:

- Invested US$210 million in the first lien term loan, senior secured notes and second lien term loans of LogMeIn, Inc., a provider of remote working, collaboration and customer engagement software-as-a-service solutions.
- Invested US$95 million across the pre-petition term loan, debtor-in-possession loan, exit term loan, and post-reorganized equity of TNT Crane, a North American provider of specialized crane services across a diverse range of end markets.

Americas Structured Credit & Financials

At fiscal year end, Americas Structured Credit & Financials (ASCF) assets totalled $6.1 billion, compared to $5.8 billion at the end of fiscal 2020. The growth in the portfolio was primarily the result of $3.5 billion in new investment activity and $0.8 billion in valuation gains. This was partially offset by portfolio dispositions (including maturities and redemptions) and distributions totalling $3.3 billion, as well as $0.7 billion in foreign exchange losses. ASCF earned a net return of 13.0%, or $0.7 billion of net income, during fiscal 2021. ASCF continued the build out of the structured credit portfolio including whole loans, collateralized loan obligations (CLOs), and asset-backed securities.

Notable highlights for the fiscal year:

- Committed to acquire up to US$1 billion of home improvement-focused consumer loans from Service Finance Company, LLC, a sales finance business owned by ECN Capital Corp.
- Invested US$75 million in a senior secured term loan issued by Global Lending Services LLC, an auto financing solutions provider.
- Invested US$293 million into unsecured consumer loans through a partnership with Affirm, a leading provider of online point-of-sale financing solutions in the United States. CPP Investments also made an equity investment in Affirm as part of the company's Series F equity raise.

APAC Credit

At year end, APAC Credit (APAC) assets totalled $1.1 billion, compared to $1.3 billion at the end of fiscal 2020. The decrease in the portfolio primarily came from $0.6 billion of dispositions (including maturities and redemptions). This was partially offset by $0.3 billion in new investment activity and $0.1 billion of valuation gains. APAC earned a net return of 8.1%, or $0.1 billion of net income, during fiscal 2021. During the year, APAC continued to expand the portfolio's footprint in India, deploying $0.1 billion across the region on a gross basis.

Notable highlights for the fiscal year:

- Committed INR 7,250 million (US$98 million) to a bilateral financing transaction to support a strategic investment in BMM Ispat Ltd. by India-based JSW Project Ltd. BMM is the largest iron ore pellets producer in southern India, and manufactures direct reduced iron, rebars and billets. The underlying transaction was APAC Credit's first onshore, bilateral, rupee-denominated financing in India.
- Committed up to US$125 million as a cornerstone investor to Baring Private Equity Asia's India Credit Fund III, and up to US$125 million to a Fund III overflow vehicle. The fund strategy is focused on Indian rupee-denominated secured lending to performing mid-market Indian companies.

European Credit

At year end, European Credit (EC) assets totalled $4.3 billion, compared to $4.1 billion at the end of fiscal 2020. The increase in the portfolio was due to $2.9 billion in new investment activity and $0.4 billion in valuation gains. This was offset by $2.8 billion of dispositions (including maturities and redemptions) and distributions and $0.3 billion of foreign exchange losses. EC earned a net return of 8.8%, or $0.3 billion of net income, during fiscal 2021. In fiscal 2021, the group focused on growing its senior secured loan strategy deploying $1.5 billion on a gross basis.

A notable highlight for the fiscal year:

- Invested €50 million in the senior secured notes of one of the fastest growing Western European telecommunications operators offering fixed line, mobile and internet services to residential and business customers.

Public Credit

At fiscal year end, Public Credit managed assets that totalled $34.9 billion, consisting of $26.7 billion in Balancing Credit (included in TFM's net investments) and $8.2 billion in Active Public Credit (included in CI's net investments), compared to $23.1 billion at the end of fiscal 2020. The net asset growth in the portfolio was the result of $13.5 billion in net new investment activity ($12.0 billion in Balancing Credit and $1.5 billion in Active Public Credit) and $1.1 billion in valuation gains ($0.6 billion in Balancing Credit and $0.5 billion in Active Public Credit), which more than offset $2.8 billion in foreign exchange losses ($2.0 billion in Balancing Credit and $0.8 billion in Active Public Credit). In terms of net income, distributions and valuation gains were not enough to offset foreign exchange losses, and Public Credit delivered a net loss of $1.4 billion (all in Balancing Credit). Public Credit earned a net return of negative 3.8% (negative 5.7% in Balancing Credit and 1.2% in Active Public Credit). During fiscal 2021, the emerging market strategy within the Active Public Credit portfolio increased by $0.6 billion, driven by new investment activity.

Real Assets Credit

At year end, Real Assets Credit (RAC) assets totalled $8.6 billion, compared to $8.1 billion at the end of fiscal 2020. The increase in the portfolio was primarily due to $1.4 billion of new investment activity and $0.8 billion of valuation gains. This was partially offset by $0.8 billion of dispositions (including maturities and redemptions) and distributions and $0.9 billion in foreign exchange losses. RAC earned a net return of 5.2%, or $0.4 billion of net income, during fiscal 2021. In fiscal 2021, the group enhanced its ability to create portfolio liquidity through the selective sale of fully valued assets.

Notable highlights for the fiscal year:

- Invested US$160 million in the subordinated interest of a first mortgage loan and US$15 million horizontal risk retention note secured by 2+U, a newly built and fully occupied office tower in the central business district of Seattle, Washington.
- Committed US$110 million of equity as the lead investor to Harbor Group International's (HGI) multifamily whole loan platform, which provides senior mortgage bridge financing on multifamily assets throughout the United States.

Looking ahead

Building on the department's foundational capabilities as a global credit business, CI is focused on continuing to scale the portfolio across the credit spectrum and investing in the best risk-adjusted opportunities. Specifically, CI will:

- Continue to strengthen and build local partnerships in emerging markets;
- Institutionalize the relative value framework established in fiscal 2021, to inform short- and long-term portfolio positioning decisions;
- Focus on the implementation of CI's target technology and data architecture; and
- Commit to talent development and drive inclusion and diversity through formal and informal education.

Private Equity

Investment Department

Fiscal 2021 Net Return
$34.0 billion 36.3%

Net Investments
$125.1 billion

Key Focus this Year

- **Implemented mitigating actions to address short-term risks caused by the COVID-19 pandemic and actively managed the investment portfolio to enhance long-term value creation**
- **Integrated the separate Private Equity Funds and Secondaries groups into one combined Funds & Secondaries group, optimized resources across both strategies, and revised the PE Funds' portfolio construction framework**
- **Facilitated a data-driven investment decision-making approach and explored value creation opportunities by leveraging alternative data and technology**

Private Equity (PE) invests in a wide range of private equity assets globally. PE seeks return premiums for investing in less liquid assets and by focusing on long-term value creation.

Summary

PE's assets increased from $94.6 billion at the end of fiscal 2020 to $125.1 billion at the end of fiscal 2021. This growth was primarily the result of new investment activities totalling $13.2 billion and valuation gains of $44.4 billion. This was partially offset by dispositions and distributions of $15.8 billion and foreign exchange losses of $11.3 billion. PE's total exposure including unfunded commitments was $154.9 billion – an increase of $25.1 billion over the fiscal year. PE has 166 direct investments and maintains 160 manager relationships. The department's net assets represent approximately 25% of the Fund, managed by 160 professionals located across five offices globally. As shown on page 85, PE's investments are diversified by industry and geography.

The table below summarizes aggregated returns in absolute terms. Rates of return are calculated on an unhedged time-weighted basis.

Private Equity

(%)	Fiscal 2021	Fiscal 2020
Returns		
1-year excluding foreign currency impact	**52.5**	0.2
1-year	**36.6**	6.1
1-year net	**36.3**	5.8
1-year return comparator[1]	**60.4**	(7.2)

1. Return comparator is the weighted return of return-risk factors representative of the department's investment programs.

In fiscal 2021, the PE department delivered positive absolute net returns with valuation gains recorded across all groups. This resulted from portfolio companies' higher market multiples, improved earnings outlooks, and better-than-expected operational results, as well as higher private equity fund valuations. For fiscal 2021, PE contributed positively to the total Fund and generated a net return of 36.3% and net income of $34.0 billion. Over the past five years, PE delivered a net return of 17.5% and net income of $68.0 billion.

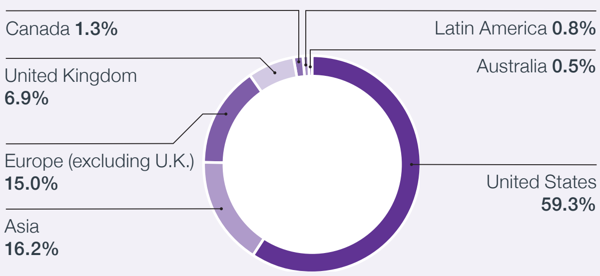
The PE portfolio underperformed the returns of the relevant public equity benchmarks this year and on a five-year basis. The strong performance of public equity markets in fiscal 2021 outpaced the department's relative performance and resulted in a negative contribution to dollar value-added of $18.7 billion in fiscal 2021 and $9.2 billion on a five-year basis. See page 93 for more on relative performance.

During fiscal 2021, PE delivered $34.0 billion in net income after incurring $1,068 million in costs to support investment activities. Investment management fees of $754 million, representing fees paid to external fund managers, are higher than last year driven by greater assets under management by funds and by emerging market growth. Transaction costs of $51 million, reflecting professional and advisory services related to private market acquisitions and dispositions, were lower than the prior year due to reduced deal activity. Operating expenses of $263 million were consistent with the prior year relative to assets managed.

The charts below provide a summary of PE's holdings by geography and sector.

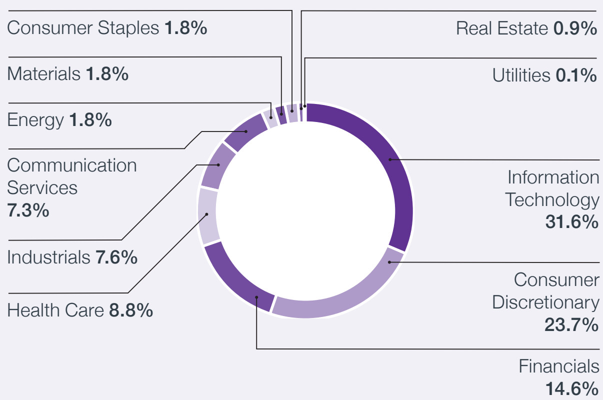
Private Equity – Geographic Diversification

As at March 31, 2021



Private Equity – Sector Diversification

As at March 31, 2021



Net Income for Private Equity

($ millions)	Fiscal 2021	Fiscal 2020	5-Year
Adjusted Investment Income	**35,036**	6,068	72,369
Investment Management Fees	**754**	585	2,921
Transaction Costs	**51**	63	392
Net Investment Income	**34,231**	5,420	69,056
Operating Expenses	**263**	227	1,012
Net Income	**33,968**	5,193	68,044

Fiscal 2021 activities

The COVID-19 pandemic caused a significant decline in global buyout deal activity during the first half of fiscal 2021, given the high level of market uncertainty combined with low business optimism and liquidity concerns. Amid decreased fundraising and exit activity, limited partner (LP) sentiment indicated a flight to the highest-quality assets. Sponsors turned their focus to providing liquidity support and investing in resilient sectors such as technology and health care. Deal activity showed signs of recovery in the latter half of calendar 2020 supported by positive news of vaccine development and record amounts of capital available to be invested, although at a varied pace across regions.

Against this backdrop, PE deployed $13.2 billion in capital by the close of the fiscal year. In addition to identifying and executing on opportunities presented by the global pandemic, PE continued to monitor the ongoing COVID-19 impact on existing assets and maintained its focus on long-term value creation. As of fiscal year end, PE's portfolio demonstrated resilience with total rescue capital funded representing only 0.6% of March 31, 2021 carrying value of its direct investments to sustain their operations amid the global pandemic.

Another key focus for PE this year was to further optimize portfolio construction and capital management. PE executed on its fund and co-investment sell-downs, and enhanced the exit review process for its direct portfolio to plan for future liquidity.

PE continues to embrace innovation and technology as it strives to make investment decisions that enhance portfolio value. The goal is to apply an alternative data and analytics-led approach to disrupt the traditional private equity investment process. Alongside Portfolio Value Creation and T&D, PE has made material progress in building a digital insights platform that allows for analysis and visualization of various datasets to better understand historical performance of portfolio companies and identify value-creation opportunities.

Direct Private Equity

At year end, the Direct Private Equity (DPE) portfolio consisted of 88 direct investments valued at $53.3 billion compared with 85 valued at $38.0 billion the previous year. The growth in the portfolio was primarily driven by $20.2 billion in valuation gains and $3.5 billion in new investment activity. This was partially offset by dispositions and distribution income totalling $3.9 billion and $4.5 billion in foreign exchange losses, respectively. The group earned a net return of 41.9%, or net income of $16.1 billion, continuing to contribute significant net income to PE and to the Fund.

With a slowdown in deal activity caused by COVID-19, DPE focused on protecting its portfolio's intrinsic value, reviewing subsector strategies, and pursued several accretive follow-on opportunities. The department also supported two portfolio companies in successfully pricing their IPO this year, which enabled the portfolio companies to deleverage.

Notable highlights for the fiscal year:

- Completed the acquisition of Galileo Global Education, a leading international provider of higher education and Europe's largest higher-education group, as part of a consortium of investors, with an investment of €550 million for a significant minority stake;
- Completed the IPO of Petco Health and Wellness Company (Petco), with the company raising US$939 million in net proceeds. Petco is a health and wellness company operating more than 1,500 pet care centres across the U.S., Mexico, and Puerto Rico, including a growing network of more than 100 in-store veterinary hospitals; and
- Completed the IPO of MYT Netherlands Parent B.V. (Mytheresa), with the company and selling shareholders raising US$468 million in gross proceeds. Mytheresa is a high-growth, multi-brand online luxury retailer offering luxury apparel and accessories through a global online retail platform and a flagship Munich-based brick-and-mortar store.

Funds & Secondaries

During the year, the Private Equity Funds and Secondaries groups were re-integrated into one cohesive group, Funds & Secondaries (F&S). The group created a new operating and management framework to optimize resources across the two strategies. The combined portfolio grew from $41.3 billion to $49.4 billion. The growth in the portfolio stemmed from $15.7 billion in valuation gains and $6.3 billion in new invested capital. This was partially offset by distributions totalling $9.1 billion and foreign exchange losses of $4.8 billion. F&S currently has relationships with 131 fund managers, with $71.7 billion of total exposure, up 5.7% from fiscal 2020. Overall, the F&S group earned a net return of 28.2%, or net income of $11.3 billion, in the fiscal year.

The group refined its portfolio construction approach towards a tiered prioritization of general partner (GP) relationships. This is expected to result in greater exposure to the most impactful relationships both in terms of investment returns and partnership opportunities.

During the year, Private Equity Funds reviewed 59 relevant, on-strategy opportunities and made commitments to 11 funds for a total of $3.5 billion. Of these, 10 represented existing relationships. There was one new relationship added to the program. F&S moderated the pace of investments in the secondary market as it maintained a high risk/return bar amid a drop in market activity. It committed $458 million across five secondary transactions. In addition, the group invested $386 million in the Venture Capital strategy, based in our San Francisco office, developing nine GP relationships. The F&S GPs offered CPP Investments 195 direct opportunities, of which 37 had closed as of March 31, 2021. The total dollar amount of closed opportunities represented $2.5 billion of CPP Investments' invested capital, which was invested on a no-fee, no-carry basis.

Notable highlights for the fiscal year:

- Committed US$750 million to Silver Lake Partners VI. The commitment represents an opportunity to invest in the GP's flagship platform focused on large-scale, growth-oriented technology, media and telecommunications and technology-enabled businesses;
- Committed €500 million to CVC Capital Partners VIII, an opportunity to invest in one of CVC's largest flagship buyout funds. CVC VIII is a Europe and North America fund focused on control buyouts of medium- to large-sized businesses; and
- Completed a C$2.4 billion sale of a portfolio of 20 fund interests and nine passive co-investments as part of the active divestiture program.

Private Equity Asia

The Private Equity Asia (PE Asia) portfolio grew from $15.3 billion to $22.4 billion in carrying value during the fiscal year. The portfolio consists of $13.3 billion (or 60%) in funds, $8.6 billion (or 38%) in direct investments, and $0.5 billion (or 2%) in secondary investments. The majority of PE Asia's investments were based in emerging markets, with $12.4 billion in Greater China, up from $8.0 billion in fiscal 2020, and $2.1 billion in India, a slight increase from fiscal 2020. Growth in the portfolio primarily came from $8.5 billion in valuation gains and $3.4 billion in new invested capital. This was partially offset by distributions totalling $2.8 billion and $2.0 billion in foreign exchange losses. The group currently has relationships with 37 fund managers, with $20.8 billion of total exposure. Its portfolio also includes direct investments in 40 companies. During the year, it selectively expanded its GP network by adding three new managers, committing $2.1 billion to funds in Asia and invested $0.9 billion across eight direct investments. Overall, PE Asia earned a net return of 43.5%, or net income of $6.6 billion.

The Asia-Pacific private equity market experienced a quicker recovery in investment activities compared to North America and Europe. However, decreased mobility, ongoing U.S.-China trade tensions, continuous uncertainty from the COVID-19 pandemic and heightened valuation levels all served to reduce the pace of investments and fundraising in the region. Private equity remained an important source of capital in the region. Chinese and Indian markets exhibited an accelerating interest in alternative capital as investors recognized value-creation capabilities in longer-term private equity partnerships to their portfolio companies.

Notable highlights for the fiscal year:

- Invested US$300 million to acquire an approximate 25% stake in Virtusa Corporation (Virtusa), alongside Baring Private Equity Asia. Virtusa is a global provider of a full spectrum of IT services;
- Closed a US$160 million investment for an approximate 8% stake in CITIC aiBank, the first internet direct bank in China aimed at penetrating China's fast growing fintech market. It represents a strategic alliance between CITIC Bank and Baidu Group which commenced operations in November 2017; and
- Committed US$300 million to Trustbridge Fund VII. The commitment represents an opportunity to invest in a strong mid-market, growth-oriented investor in China with a thematic-driven strategy underpinned by technology in the health care, education and lifestyle sectors.

Looking ahead

The Private Equity department will continue to ensure the resilience of its investment portfolio, in addition to capitalizing on emerging trends caused by the COVID-19 pandemic. PE will maintain a flexible partnership-driven investment approach that maximizes efficient capital allocation, enhances portfolio liquidity and optimizes investment returns. Specifically, PE will:

- Evaluate new opportunities in dislocated markets exhibiting attractive COVID-19 pandemic tailwinds and supported by strong existing sector or asset expertise;
- Continue development of the alternative data and analytics-led investing approach to generate alpha by ingesting new data sources, applying advanced analytics to business challenges, leveraging best-in-class partnerships and engaging interdisciplinary teams across CPP Investments;
- Deepen local market expertise and networks in Greater China and India, and build a local team in the Mumbai office to enhance deal origination efforts;
- Refine capital management processes to improve visibility and to support future capital deployment decision-making; and
- Actively engage in talent development, promoting a global mindset, increasing diversity and improving employee experiences.

Real Assets

Investment Department

Fiscal 2021 Net Return

$6.9 billion
7.1%

Net Investments

$104.4 billion

Key Focus this Year

- **Reinforced our strong commitment to investing in the energy transition, culminating with the decision to form the Sustainable Energy Group for fiscal 2022; this is aligned with the organization's belief that the energy transition provides opportunities for attractive long-term, risk-adjusted returns**
- **The department continued to embrace innovation and technology as it strives to make investment decisions that enhance portfolio value. The goal is to apply an alternative data and analytics-led approach to disrupt the traditional direct investment process**
- **Increased focus on asset management including capital management, downturn readiness and climate change**

Real Assets (RA) has a global portfolio of investments that deliver an attractive combination of diversification, income and capital growth to the Fund. The RA portfolio consists of investments in the real estate, infrastructure, power and renewables, and energy and resources sectors.

Summary

The RA portfolio increased from $97.6 billion at the end of fiscal 2020 to $104.4 billion at the end of fiscal 2021. This growth was primarily the result of new investment activities totalling $9.8 billion and valuation gains of $11.0 billion. This was partially offset by asset dispositions and distributions of $9.8 billion, and foreign exchange losses of $4.2 billion. RA's net assets represent 21% of the Fund, managed by 223 professionals located across eight offices globally. The geographic footprint of the department's 204 investments spans five continents and 66% of RA's professionals are in CPP Investments' international offices.

The table below summarizes aggregated returns in absolute terms. Rates of return are calculated on an unhedged time-weighted basis.

Real Assets

(%)	Fiscal 2021	Fiscal 2020
Returns		
1-year excluding foreign currency impact	**12.1**	0.1
1-year	**7.4**	0.1
1-year net	**7.1**	(0.2)
1-year return comparator[1]	**20.7**	(6.8)

1. Return comparator is the weighted return of return-risk factors representative of the department's investment programs.

In fiscal 2021, the RA department's four investment programs had mixed absolute performance results, largely reflecting the variable impact of, and recovery from, the COVID-19 pandemic. The department delivered an overall positive net return, largely attributable to the energy market rebound, the resilience of the essential services provided by assets in the infrastructure portfolio, and the increased global demand for power and renewable investments. However, key real estate sectors such as retail and office were adversely impacted by strict public health measures designed to limit person-to-person contact resulting in lower cash flows. These trends were somewhat offset by the continued ascendancy of warehouse properties as a sector of choice for investors.

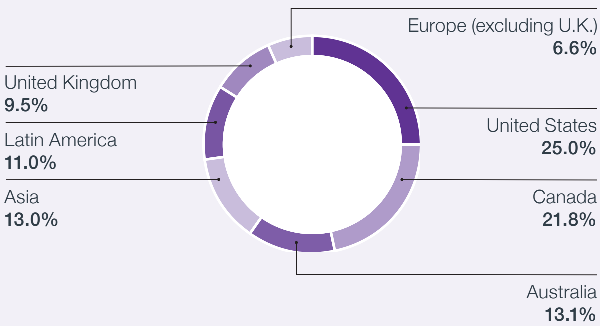
The department's contribution to dollar value-added for fiscal 2021 was negative due to the strong performance of the public market indexes, in addition to the reasons impacting Real Estate stated above. This resulted in a negative contribution to dollar value-added of $11.2 billion in fiscal 2021 and $3.1 billion on a five-year basis. See page 93 for more on relative performance.

The RA department continued to contribute positively in the long term and over the past five years the department has generated net income of $25.0 billion and a net return of 6.2%.

During fiscal 2021, RA delivered a net income of $6.9 billion after incurring $766 million in costs to support its investing activities. Costs have increased over the prior year due to higher performance fees in Real Estate as fiscal 2021 included one-time performance-based fees relating to dispositions and valuation gains. Investment management fees include $228 million in performance fees and $148 million in management fees. Transaction costs of $57 million primarily represent professional and advisory services incurred during due diligence related to investment acquisitions and dispositions. Transaction costs were lower than the prior year due to reduced deal activity. Operating expenses of $333 million were slightly higher than the prior year relative to assets managed, which was driven by higher cost allocations from supporting internal functions such as finance and technology and data.

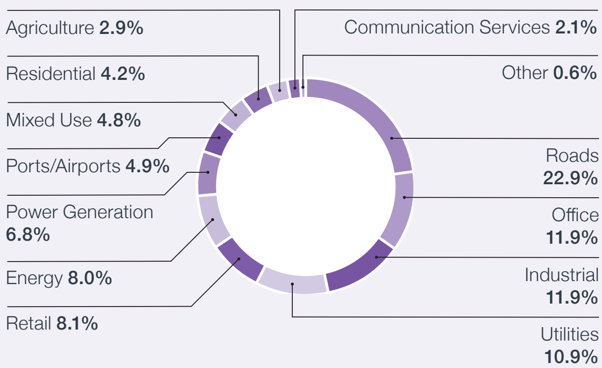
Real Assets – Geographic Diversification

As at March 31, 2021



Real Assets – Sector Diversification

As at March 31, 2021



Net Income (Loss) for Real Assets

($ millions)	Fiscal 2021	Fiscal 2020	5-Year
Adjusted Investment Income	**7,664**	347	28,141
Investment Management Fees	**376**	190	1,106
Transaction Costs	**57**	136	648
Net Investment Income	**7,231**	21	26,387
Operating Expenses	**333**	296	1,364
Net Income (Loss)	**6,898**	(275)	25,023

Fiscal 2021 activities

COVID-19 necessitated a heavy focus on portfolio management as the department worked to ensure its assets would be resilient in the face of the pandemic and well placed to benefit from the reopening of economies. This focus combined with global uncertainty and local lockdown orders brought on by the pandemic resulted in the overall pace of capital deployment for the department slowing in fiscal 2021 relative to prior years. The department continued to seek situations where strong partnerships and the ability to offer scale, speed and certainty of execution are key differentiators. This provides access to complex, non-traditional deals with attractive return profiles.

RA remained focused on expanding exposures in emerging markets, while managing dispositions when business plans were complete or by taking advantage of high valuations. The department increased its exposure to emerging markets such as Latin America and India through private and public investment opportunities.

RA has begun to implement CPP Investments' Climate Change Security Selection Framework to identify and engage with material climate change risks and opportunities both within the existing portfolio as well as on new opportunities. In support of the organization's Climate Change Program, RA has helped to identify the risks and opportunities of climate change across the asset class by sharing portfolio data and industry insights. RA is now involved with integrating the Climate Change Security Selection Framework to portfolio companies with material climate transition opportunities.

Furthermore, RA has contributed to the Green Bond Committee, a "Hydrogen Sprint" initiative and CPP Investments' material presence in the renewable energy space.

Energy & Resources

At year end, the Energy & Resources (E&R) portfolio consisted of 19 investments valued at $10.0 billion compared with $7.3 billion at the end of fiscal 2020. Growth in the portfolio was primarily the result of $3.8 billion in valuation gains as the energy markets recovered from the steep declines experienced in the fourth quarter of the previous fiscal year, and from $0.7 billion in new investment activity. This was partially offset by $1.2 billion in portfolio distributions and $0.6 billion in foreign exchange losses. Overall, E&R earned a net return of 45.0%, or a net income of $3.2 billion, in fiscal 2021.

Amid a broader energy sector that continues to experience intense change and volatility, the group sees tremendous opportunity for investors with patience, flexibility and scale. The shift towards a low-carbon economy will continue to drive the energy industry to new heights of innovation and efficiency, and the team is well positioned to invest through the global energy transition. As of fiscal 2022, E&R has combined with the Power & Renewables group into the new Sustainable Energy Group (SEG), which will pursue a variety of opportunities in the broader sustainable energy market. Fiscal 2022 performance will be reported under SEG.

Notable highlights for the fiscal year:

- Invested in Chargepoint's series H-1 bridge financing round, split equally between the E&R and Thematic Investing groups. CPP Investments previously invested in ChargePoint through a preferred share investment in 2018. Our latest investment brings CPP Investments' total investment in ChargePoint up to US$73 million. In February 2021, ChargePoint and Switchback Energy Acquisition Corporation completed a merger to become the world's first publicly traded global electric vehicle charging network.
- Invested US$10 million into a US$75 million growth financing round for Solidia Technologies, Inc. Solidia has developed a proprietary method to utilize CO_2 in the cement and concrete production process.

Infrastructure

At fiscal year end, the Infrastructure portfolio consisted of 24 direct investments valued at $41.2 billion, compared with $35.1 billion at the end of fiscal 2020. The growth in the portfolio was primarily the result of $4.2 billion in new investment activities, and $5.0 billion in valuation increases. This was offset by portfolio dispositions and distributions of $2.8 billion and $0.3 billion in foreign exchange losses. The portfolio was resilient throughout fiscal 2021 in the face of reduced economic activity. This reflected the essential and long-lived nature of the businesses, lower than market comparable leverage levels embedded within the investments, and the efforts of portfolio companies who worked to deliver the essential services to communities around the world. Infrastructure earned a net return of 12.5%, or a net income of $4.5 billion, in fiscal 2021.

The Infrastructure portfolio is diversified globally, with 75.3% in developed markets such as North America, Western Europe and Australia and 24.7% in emerging markets, primarily in Latin America and India. Infrastructure investments represent 39.5% of the RA portfolio.

During the year, the Infrastructure group was active across its core geographies and markets and continued to focus on investing in quality, large-scale core opportunities with like-minded partners.

Notable highlights for the fiscal year:

- Acquired 40% of the shares of Impulsora del Desarrollo y el Empleo en América Latina, S.A.B. de C.V. (IDEAL) alongside Ontario Teachers' Pension Plan. Our net equity investment was C$1.0 billion. IDEAL's portfolio includes 18 infrastructure concessions in Mexico as well as an electronic toll collection service business and an operations business.
- Acquired a 15% interest in Transurban Chesapeake for US$624 million, a toll-road business comprising the 495, 95 and 395 Express Lanes located in the Greater Washington Area in the U.S., alongside other investors collectively acquiring a 50% interest.
- Acquired an additional 2.67% stake in E.ON SE, a listed German utility that owns and operates regulated electricity and gas networks, as well as energy supply businesses, for a combined ownership stake (along with Active Fundamental Equities) of 6.30%. Our latest investment brings CPP Investments' total investment in E.ON to €1.5 billion.

Power & Renewables

At year end, the Power & Renewables (P&R) portfolio consisted of nine direct investments valued at $10.2 billion compared with $8.7 billion at the end of fiscal 2020. The growth in the portfolio primarily came through $2.1 billion in valuation gains due to operational performance and increased market appetite for renewables, and from $0.8 billion in new investment activity. This more than offset $1.0 billion in foreign exchange losses and $0.4 billion in dispositions and distributions. Since the closing of its first power generation investment in May 2018, the P&R portfolio has grown by $7.0 billion. P&R earned a net return of 13.6%, or a net income of $1.2 billion, in fiscal 2021.

Fiscal 2021 saw an acceleration of long-term changes in the power market and this trend, coupled with available private capital, continues to create meaningful and scalable investment opportunities for the group. As of fiscal 2022, P&R has combined with the Energy & Resources group into the new Sustainable Energy Group (SEG), which will continue to pursue a variety of opportunities in the broader sustainable energy market. Fiscal 2022 performance will be reported under SEG.

Notable highlights for the fiscal year:

- Announced an agreement with Enbridge Inc. to acquire 49% of the entity that holds Enbridge Inc.'s stake in Éolien Maritime France SAS, Enbridge's partnership with EDF Renewables, for approximately €80 million. The partnership is developing three offshore wind projects in France.
- Established a new U.K.-based platform Renewable Power Capital Limited (RPC), backed by Power & Renewables' investment strategy to invest in solar, onshore wind and battery storage, among other technologies, across Europe. The platform completed its first acquisition in Finland, a portfolio of three onshore wind projects totalling 171 megawatts, for which we committed up to €245 million. In addition, RPC also announced a joint venture with Benbros Solar to develop 3.4 gigawatts of Spanish solar projects.

Real Estate

At fiscal year end, the Real Estate (RE) portfolio totalled $43.0 billion, compared to $46.5 billion at the end of fiscal 2020. The change in portfolio value stemmed from $5.4 billion in return of capital from asset sales and distributions, and $2.3 billion in foreign exchange losses. This was offset by new investment activity totalling $4.1 billion and valuation gains of $0.1 billion. Overall, RE had a net return of negative 4.5%, or a net loss of $2.0 billion, in fiscal 2021.

The RE portfolio consisted of 152 investments with 58 operating partners, managed across seven offices globally. This portfolio remains diversified across sectors and major markets globally. It has 79.0% in developed markets such as the U.S., U.K., Canada and Australia, and 21.0% in emerging markets, including Greater China, India and Brazil. More than 80% of RE's professionals are in CPP Investments' international offices.

RE continued to increase its investments in emerging markets, while also re-orienting its exposure more towards warehouse and multi-family residential investments and increasing investments in growing sectors such as data centres. The Listed Real Estate (LRE) program, established in fiscal 2019 to gain exposure to countries and sectors that are absent or under-represented in the current portfolio, deployed $1.6 billion of new capital this year, with almost 11% in emerging markets.

RE remains committed to growing its long-standing relationships with best-in-class operating partners who are a valuable source of investment opportunities. Excluding investments in the Listed Real Estate portfolio, more than 98% of the investment activity this year was made with existing partners such as Goodman Group, Longfor Properties, Global Logistic Properties, ESR and LOGOS.

Notable highlights for the fiscal year:

- Established a new development joint venture with APG and ESR Cayman Limited to invest in and develop a best-in-class warehouse logistics portfolio in South Korea. CPP Investments' equity allocation to the joint venture is US$450 million.
- Formed a new joint venture with Greystar Real Estate Partners, LLC to pursue multifamily real estate development opportunities in target markets in the United States, with an equity allocation of US$350 million for a 90% stake.
- Completed a number of dispositions during the fiscal year, including the sale of our 50% interest in Nova Victoria, a landmark five-building mixed-use development in London, across two separate transactions totalling net proceeds of approximately C$725 million. RE also completed the sale of its 50% interest in Puerto Venecia, a Spanish shopping centre asset, alongside joint venture partner, intu, for net proceeds of approximately €115 million.

Portfolio Value Creation

Over the past year, Portfolio Value Creation (PVC) continued to partner with investment teams to enhance CPP Investments' active asset management approach to direct equity investments in which the Fund has material governance rights. Working closely with investment departments, PVC sought to further strengthen the Fund's practices in value creation planning, evaluation and selection of senior management, portfolio company board director selection and engagement, and investment monitoring across the portfolio.

The group played an important role in the Fund's response to the COVID-19 pandemic, facilitating a targeted portfolio impact assessment, which included evaluating potential liquidity needs for active investments, planning and executing of COVID-19 impact mitigation strategies as well as continued best practice sharing.

Throughout the year, PVC continued to work with teams across CPP Investments and with external partners, to proactively identify and execute digitally driven value-creation opportunities across the entire portfolio and within the Fund itself. These initiatives covered a wide variety of projects including digital business transformations, the use of advanced data and analytics to drive operational improvement and enhanced portfolio monitoring, as well as pilots and targeted scouting to identify high-value use cases in emerging and established technologies.

As part of CPP Investments' portfolio company director engagement program, and in collaboration with the Legal department, PVC launched a virtual, ongoing director engagement series. This series is designed to provide a forum in which the Fund and directors nominated to our portfolio company boards can proactively exchange information, align on key issues, and learn from one another. Topics that feature prominently in the series include those relating to asset management best practices, inclusion and diversity, as well as digital transformation and disruption.

Looking ahead

As we look forward, RA's primary focus will be to identify and secure attractive investment opportunities that emerge as private markets reopen post COVID-19:

- Advance key initiatives around renewable energy and fuels, industrial decarbonization and carbon markets through the newly formed Sustainable Energy Group. The combined team will allow for greater collaboration to deliver an integrated approach to investment opportunities created by increased electrification and sustainability;
- Continue to engage with portfolio companies to advance their digital transformations and build out an alternative data- and analytics-based approach to private investing;
- Further integrate climate change considerations into our existing investment portfolio to identify and assess key climate change risks that are likely to have a material economic impact;
- Grow our exposure in the emerging markets, primarily in Mainland China, Brazil and India; and
- Focus on talent development, collaboration across global offices and increasing diversity in our talent pool.

Reference Portfolios returns

CPP Investments established market-based benchmarks called Reference Portfolios to serve as a point of measurement when assessing the Fund's performance.

The Reference Portfolios are notional, two-asset passive portfolios consisting of public market global equities and nominal bonds issued by Canadian federal and provincial governments. Each is represented by broad market indexes. These portfolios serve as benchmarks against which we can compare CPP Investments' performance. They provide the targeted level of market risk and also serve as benchmarks for the long-term total returns of both the base CPP and additional CPP Investment Portfolios. There are separate Reference Portfolios for the base CPP and the additional CPP accounts. These reflect the different risk levels targeted for each of their long-term Investment Portfolios. See page 32 for more information on the global equity and Canadian bonds weights in the Reference Portfolios.

The risk targets that the Reference Portfolios express are one of the most important investment decisions that we make. CPP Investments must take on measured risks to meet its legislated objective, and to achieve the long-term returns that will best sustain the CPP for future generations. In the short term, exposure to higher-risk investments such as equities increases volatility of returns. But over the longer term, higher-risk levels are compensated by higher returns. We believe that the long-term nature of the CPP and its funding, and its relatively predictable cash flows, justify a substantially higher target level of risk than simply the minimum required to sustain the plan. The associated higher expected returns enhance the longer-term sustainability of the CPP.

Below are the Reference Portfolios' rates of return over a longer-term basis:

% (annualized)	**Fiscal 2021**	Fiscal 2020
base CPP Reference Portfolio Returns		
1-year	**30.5**	(3.1)
5-year	**11.2**	5.2
10-year	**10.2**	8.3
additional CPP Reference Portfolio Returns		
1-year	**17.0**	0.7
Since inception[1]	**10.8**	6.1

1. Return is since inception of additional CPP in January 2019.

Performance against Reference Portfolios

Each year, we measure the difference between the annual performance of each account and that of its Reference Portfolio in dollar terms, or dollar value-added (DVA), after deducting all costs.

The Fund earned net income of $83.9 billion in fiscal 2021. This result marks the best single-year performance of the Fund in absolute terms and contributes to the long-term sustainability of the CPP. However, the Fund's fiscal 2021 performance is below the aggregated Reference Portfolios' returns for both the base and additional CPP accounts. This led to a negative net DVA of $35.3 billion. On a relative basis, the aggregated Reference Portfolios' return of 30.4% exceeded the Fund's net return of 20.4% by 10.0%. This is primarily due to the extraordinary surge in global public equity markets, which dominate the Reference Portfolios' aggregated returns.

In periods when the Reference Portfolios' returns are dominated by rising public equity markets such as in this fiscal year, the Fund will typically underperform the two-asset Reference Portfolios.

In fiscal 2021, the Reference Portfolios' equity benchmark was strongly influenced by a small number of very large technology companies, which form a significant share of the S&P Global LargeMidCap Index's total market capitalization. Of the more than 3,000 companies in the index, just six account for 12.1% of the market capitalization. Also, they outperformed the index by a wide margin. Together, these six companies accounted for 17.2% of the total fiscal year return on the index. The diversified equity exposure in the Investment Portfolios does not carry this degree of concentration in a very few companies; these six comprised only 1.5% of the Fund's net assets at fiscal year end.

The Reference Portfolios' equity benchmark return of 36.7% in fiscal 2021 was the highest since inception of active management, making it a very high bar for the much more broadly diversified Investment Portfolios to overcome in this highly unusual single year. However, in years where markets significantly underperform, as they did at the end of our fiscal 2020 year, the Fund has more protection against precipitous declines.

At an account level, the base CPP Reference Portfolio return of 30.5% resulted in a net DVA of negative $35.2 billion, while the additional CPP Reference Portfolio return of 17.0% resulted in a net DVA of negative $0.1 billion. See page 25 for more details on active management and the sources of return.

In any given period, the net value-added differences between the actual net returns and Reference Portfolios' returns are often substantially affected by one or more of the following factors:

1. **Diversification –** By design, the Investment Portfolios are more broadly diversified than the Reference Portfolios. As discussed in Our Investment Strategy on page 22, we construct portfolios that are diversified in terms of underlying risk-return factor exposures as well as across asset classes that deliver these exposures. The base CPP Investment Portfolio includes major commitments to private asset classes such as private equity and real assets. By comparison, the Reference Portfolio contains only two asset classes heavily weighted to public equities (85% in the base CPP since fiscal 2019). The additional CPP Investment Portfolio also participates in the same broad range of asset classes and strategies, but a higher proportion of the portfolio is invested in government bonds.

   Over long time periods, diversification can be expected to add value (at a given risk level) and can help protect against extreme drawdowns experienced in equity-market dominated portfolios.

   We may see asset class performance deviating from what we would expect based on our beliefs about its underlying risk-return factors. For example, real estate performance in fiscal 2021 lagged well behind the returns we would typically expect to see due to its particular vulnerability to impacts related to the pandemic. Over short-term time frames, asset classes will sometimes be influenced by events that cause them to move, or behave, in ways that are not aligned with our long-term expectations, both positively and negatively. As part of our investment process (as described on page 32), however, we monitor the performance of assets relative to factors-based expectations and use this information to continuously refine our investment approach.

   Overall, in the five-year period ending in fiscal 2021, two factors influenced the negative value-added from diversification:

   - The lower proportion of equities in the base CPP Investment Portfolio compared to their 85% weight in the Reference Portfolio; and
   - The performance of investments in alternative asset classes, which did not keep up with the extended rally in global public equity markets over the five-year period.

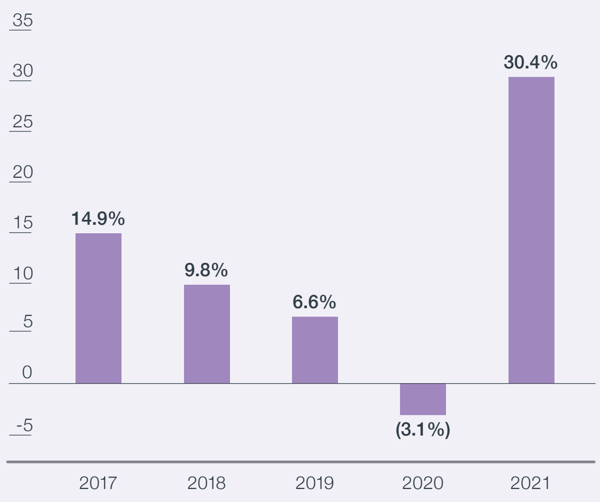
Factors that impact net value-added

Diversification: The impact of diversifying the Fund away from the two-asset class Reference Portfolios, heavily weighted to public equities, into a broad range of asset classes.

Investment selection: The impact of investment selection decisions within each program. This would include buying, weighting and selling individual assets in line with the program's mandates and intended factor exposures, net of all costs.

Strategic positioning: The impact of deliberate, meaningful but temporary shifts of asset allocations and/or exposures away from the portfolio's established targets or normal mix.

Annual Aggregated Reference Portfolio Returns



The base CPP Investment Portfolio's diversification into a broad range of factor exposures, asset classes, geographies and currencies may negatively impact the Fund's value-added generation over the short term, while being expected to add value over the long term when markets are not dominated by a single factor. Regarding currency exposures, we believe and observe that the Fund's broadly diversified set of currency exposures mitigates overall risk and reduces volatility in its Canadian dollar returns. We also believe that using leverage to increase the gross amount of assets we invest in, at a targeted level of market risk, leads to both broader diversification and higher returns over the long term.

Asset Class	Benchmark	**2021 Return (%)**	2020 Return (%)
Equity	S&P Global LargeMidCap Index[1]	**36.7**	(4.8)
Fixed Income	FTSE Canada All Government Bond Index	**(0.5)**	5.6
Total base CPP Reference Portfolio[2]		**30.5**	(3.1)
Total additional CPP Reference Portfolio[2]		**17.0**	0.7

1. Net of CPP Investments withholding tax, unhedged.
2. Component returns for base CPP and additional CPP Reference Portfolios are the same, but the aggregated returns differ due to different component weighting between the two benchmarks (Equity/Fixed Income weights of 85/15% and 50/50% for base CPP and additional CPP, respectively).

The average allocation of Fund assets to major asset classes in fiscal 2021 is shown below:

	Fiscal 2021	
Average Asset Class Weights	base CPP	additional CPP
Public Equities	31%	19%
Private Equities	24%	15%
Government Bonds	22%	52%
Credit	13%	8%
Real Assets[1]	22%	13%
Cash and Absolute Return Strategies[2]	(12%)	(7%)
Total	100%	100%

1. Includes 10% for Real Estate, 8% for Infrastructure, 2% for Power and Renewables, and 2% for Energy and Resources for base CPP, and 6% for Real Estate, 5% for Infrastructure, 1% for Power and Renewables, and 1% for Energy and Resources for additional CPP.
2. Net of external debt issuances.

2. **Investment selection –** Investment selection refers to how we select, buy, weight and sell individual assets in line with their program's mandates and intended factor exposures. We draw upon our distinct investment skills in public markets and various kinds of private markets, using both long-only and long/short strategies (see page 27 for more on long and short investing). Generating value through investment selection over longer time horizons requires skill. Nevertheless, we believe that the variety and breadth of our investment programs help to both increase and stabilize our overall performance.

   In any given period, the value-added contribution stemming from investment selection can be influenced by:

   - The valuation of private assets at that point in time (as described on page 107); and/or
   - The investment's comparator index returns, which may be influenced by a small number of companies with a significant share of total market capitalization and high volatility in their returns.

3. **Strategic positioning –** Strategic positioning refers to a deliberate, meaningful but temporary shift of asset allocations and factor exposures away from established targets. We can achieve appropriate strategic positions by exploiting gaps between current market prices and long-term fundamental values. For example, we may increase our exposure to public equities in a geographic region where markets are falling and prices have become unduly depressed. Or, we may reduce positions in rising but overvalued markets when we project near- to mid-term future returns will be below long-term expectations.

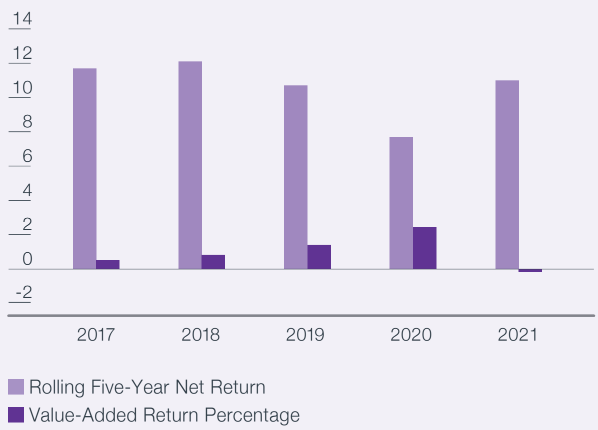
Long-term value-added

We do not place undue emphasis on results in any single year, whether positive or negative, since many factors, such as market volatility in asset classes, can vary from one year to the next. Our investment strategy and decisions intentionally look through time horizons spanning multiple years and decades. We focus on tracking absolute and dollar value-added performance over rolling five-year periods. This measurement period aligns with our long-term investment mandate and our compensation framework, as described on page 109. While it does not necessarily represent a full market cycle, historical patterns show that the five-year period provides a reasonable basis for assessing longer-term performance when viewed over multiple such periods.

In any given period, value-added when expressed in dollar terms (DVA) is influenced by two factors:

- The total Fund value-added return percentage. This is the direct difference between the total Fund annualized percentage net return and the Reference Portfolios annualized percentage return; and
- The dollar size of the Fund.

Rolling Five-Year Net Return and Value-Added Return Percentage
(% annualized)



Over longer periods, more recent single-year DVA amounts have a higher impact on ten- and five-year DVA because of the significant growth in Fund size. At fiscal 2011 year end, the Fund was $148.2 billion in assets; by fiscal 2016, it had nearly doubled to $278.9 billion. Today, the Fund has $497.2 billion in net assets.

When value-added is measured in percentage terms, it is not influenced by the growth in Fund size through time. In fiscal 2021, CPP Investments five-year annualized net return of 11.0% underperformed the aggregate Reference Portfolios' return of 11.2% by 0.2%. This was largely influenced by the outperformance of the Reference Portfolio in fiscal 2021, stemming from significant returns in global equities. In the prior fiscal year, the Fund's five-year annualized net return of 7.7% exceeded the aggregate Reference Portfolios by 2.4%. For fiscal 2021, CPP Investments' 10-year annualized net return of 10.8% outperformed the aggregate Reference Portfolios' return of 10.2% by 0.6%.

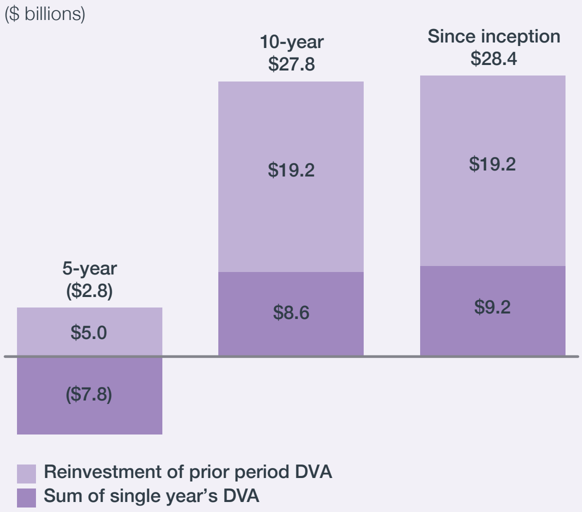
At March 31, 2021, CPP Investments has generated $28.4 billion of compounded DVA (see call-out box) since the inception of active management on April 1, 2006. The chart at right shows the compounded DVA for the full period since inception, and for the past 10 and five years.

Compounded dollar value-added

The dollar value-added is not only the sum of every single year's value-added but also the compounding effect of continuous reinvestment of gains (or losses). We calculate compounded dollar value-added as the total net dollar value that CPP Investments has added to the Fund over the long term through all sources of active management. This figure is above the value that the Fund would have generated had it earned Reference Portfolio returns alone.

Compounded Dollar Value-Added Returns

($ billions)



5-Year Net Dollar Value-Added

($ billions)	2017	2018	2019	2020	**2021**
base CPP	5.6	11.6	18.0	38.6	**(7.8)**
additional CPP	0.0	0.0	0.0	0.1	**0.0**
Total	5.6	11.6	18.0	38.7	**(7.8)**

Dollar value-added by investment department

The dollar value-added contributions of the investment departments shown in the table below are measured relative to the respective portfolio's return comparators. The definition of those benchmarks or comparators takes into consideration the underlying return-risk factors that represent the specific programs in each department. In the case of the Total Fund Management department, it also includes a variety of other impacts contributing to total net dollar value-added. Among these are foreign currency gains and financing costs, which are excluded from the value-added shown for the other investment departments.

In fiscal 2021, the rise in global equity markets contributed to negative DVA across select investment departments. However, not all sectors of global equities have seen growth as some were negatively impacted by the COVID-19 pandemic. The consumer discretionary and technology sectors in the S&P Global LargeMidCap Index have outperformed the broad index return, with returns in these sectors primarily attributable to a small number of companies. The diversified nature of our investments, particularly in private equity and real assets, contributed to performance below that of their respective comparators this fiscal year.

Net Value-Added Contributions by Investment Department[1,2]

($ billions)	**Fiscal 2021 1-Year**	Fiscal 2020 1-Year	**Fiscal 2021 5-year**	Fiscal 2020 5-Year
Total Fund Management[3]	**(11.7)**	11.6	**(4.7)**	6.6
Capital Markets and Factor Investing	**4.6**	(3.2)	**2.9**	(1.8)
Active Equities	**2.5**	3.7	**7.9**	6.0
Credit Investments	**(0.9)**	(3.4)	**(1.6)**	0.3
Private Equity	**(18.7)**	9.6	**(9.2)**	13.7
Real Assets	**(11.2)**	5.3	**(3.1)**	14.0
TOTAL	**(35.3)**	**23.5**	**(7.8)**	**38.7**

1. Foreign currency fluctuations have no impact on value-added of investment departments other than Total Fund Management. The currency impact is reported under Total Fund Management. See page 70 for more details.
2. Figures do not add up due to rounding.
3. Includes net dollar value-added from Balancing Portfolio, diversification and other total portfolio impacts.

Risk Management

CPP Investments must take risks to earn long-term total returns that will contribute to the sustainability of the CPP and the payment of pensions. Our Integrated Risk Framework considers all key risks that we are exposed to, including both investment and non-investment risks. It helps ensure that the risks we take are prudent and commensurate with the long-term benefits we expect to receive.

Risk management principles

1. We understand and clearly articulate the organization's appetite for risk. This includes defining "undue risk of loss" in the context of our objectives, considering both the short and long term, as well as the risk of positive and negative plan adjustments;
2. We are appropriately rewarded for risks we undertake in pursuing both our overall investment strategy and specific investment opportunities;
3. We operate within our stated risk appetite by monitoring our risk exposures and by evaluating the design and operating effectiveness of our controls; and
4. We clearly define who is accountable, across the three lines of defence, for various risks and the related controls.

We define a key risk as one that could have a significant impact on CPP Investments' ability to achieve our statutory objective: to seek a "maximum rate of return, without undue risk of loss, having regard to the factors that may affect the funding of the Canada Pension Plan (CPP) and the ability of the CPP to meet its financial obligations on any given business day."

Risk culture

Our risk culture helps us ensure that risk-taking is appropriate given our mandate, risk appetite and strategy. Risk culture permeates all aspects of our Integrated Risk Framework. Our risk culture:

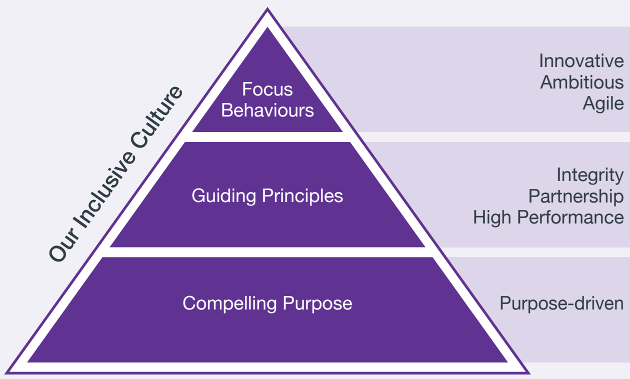
- Starts with the "tone from the top" and applies to all levels in the organization;
- Aligns with CPP Investments' strategy; and
- Drives the effectiveness of risk governance.

We believe that formally documented controls and processes can only be effective with a sound organizational risk culture. This is characterized by open dialogue, a willingness to raise concerns and clear accountabilities.

Our Code of Conduct and Guiding Principles provide a strong foundation for our overall organizational culture, including our risk culture. All employees formally acknowledge, at least twice a year, that they have read, understood and complied with the Code. Annually, we hold a *Living our Guiding Principles* day where all employees discuss, in small groups, scenarios that put our Guiding Principles of Integrity, Partnership and High Performance into action (see page 48).

Key elements of our culture are shown in the figure below. For more information on our culture and our whistleblower hotline, see pages 49 and 52, respectively.

Key Elements of Culture



Enhancing our risk management practices

We believe effective risk management, along with our comparative advantages, allow us to capitalize on opportunities when others cannot. As part of our efforts to continuously improve our risk management practices, we periodically engage external experts to review our practices relative to industry best practices. This year we made several enhancements to our processes, including:

- Implemented a new Management committee structure to enhance oversight of key risks. (See the description of the Investment Strategy and Risk Committee on page 99.)
- Made improvements to the Management Risk Limit Standard that sets out the framework for cascading the Board-level risk appetite and associated limits down to investment departments.
- Began to improve the oversight of private investments by expanding independent assessment of higher risk, direct private transactions and operational due diligence of fund investments.

- Enhanced our liquidity forecasting process by expanding the range of downturn scenarios along with potential mitigating actions to better inform liquidity management decisions.
- Enhanced business continuity and crisis management processes by expanding reporting, stress testing and scenario analysis capabilities and advancing operational processes to respond to COVID-19.
- Developed the Integrated Risk Policy, which was approved by the Board of Directors. It will take effect in fiscal 2022. The policy incorporates key elements of the existing Integrated Risk Framework and Investment Risk Management Policy, as well as enhancements to our risk governance practices and risk limits. There are no material changes to the overall level of market risk we are targeting.

Risk governance

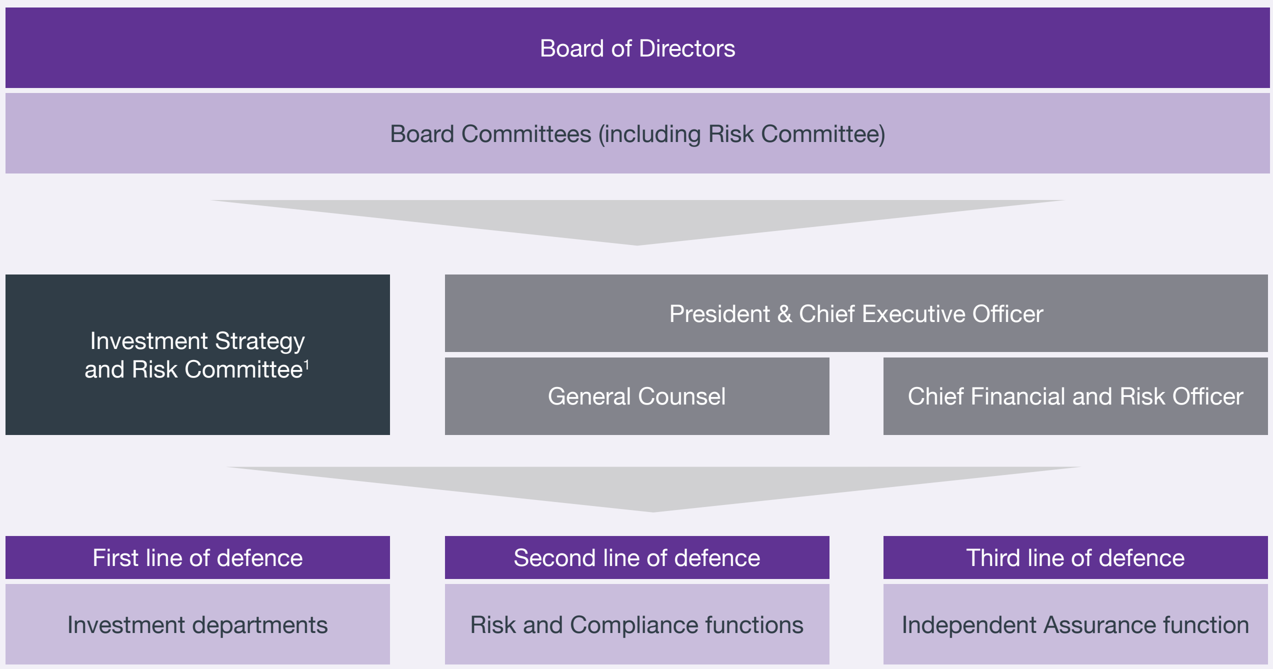
The Board of Directors, Management and their respective committees are responsible for risk governance at CPP Investments. The Board oversees our efforts to act in accordance with CPP Investments' statutory objective to maximize returns without undue risk of loss.

To this end, the Board is responsible for the oversight of risk. It requires that Management has identified key risks, has established our risk appetite for each key risk and has appropriate strategies to manage them. Board committees have the following risk-related responsibilities:

- The Risk Committee oversees risk governance and management practices.
- The Investment Committee recommends investment policies to the Board and oversees investment activities and associated risk levels.
- The Audit Committee oversees financial reporting, tax, external and internal audit and internal control policies and practices.
- The Human Resources and Compensation Committee (HRCC) oversees risks related to our employees and employment practices. The HRCC reviews and recommends the compensation framework, reviews organizational structure and ensures that a succession planning program is in place.
- The Governance Committee ensures that CPP Investments follows appropriate governance practices. It monitors the application of the Code of Conduct and Conflicts of Interest Policy.

For a more detailed description of these responsibilities, see page 126. The diagram below shows CPP Investments' risk management structure.

Risk Management Structure



1. The President & Chief Executive Officer chairs the Investment Strategy and Risk Committee and both the General Counsel and Chief Financial and Risk Officer are members.

A key Board responsibility is CEO succession planning. Our succession planning and talent development positioned us well when Mark Machin stepped down as President & CEO. John Graham, as the new President & CEO of CPP Investments, continues the execution and evolution of our long-term strategic objectives.

The Board of Directors delegates accountability to the President & CEO for all risks beyond those matters specifically reserved for the Board or Board Committees. Responsibility for risk management is further distributed throughout the organization, starting with the Chief Financial and Risk Officer (CFRO) and the Senior Management Team.

The CFRO seeks to ensure that risk management is integrated with strategic and business planning. Through the business planning process, the CFRO confirms that plans align with our overall strategy and risk appetite. The CFRO also monitors the adequacy of resources and processes in place to identify and effectively manage key risks.

As shown below, we follow the three lines of defence model ensuring alignment across front-line management, risk oversight functions and the independent assurance function for reliable, cohesive and transparent risk-based decision-making:

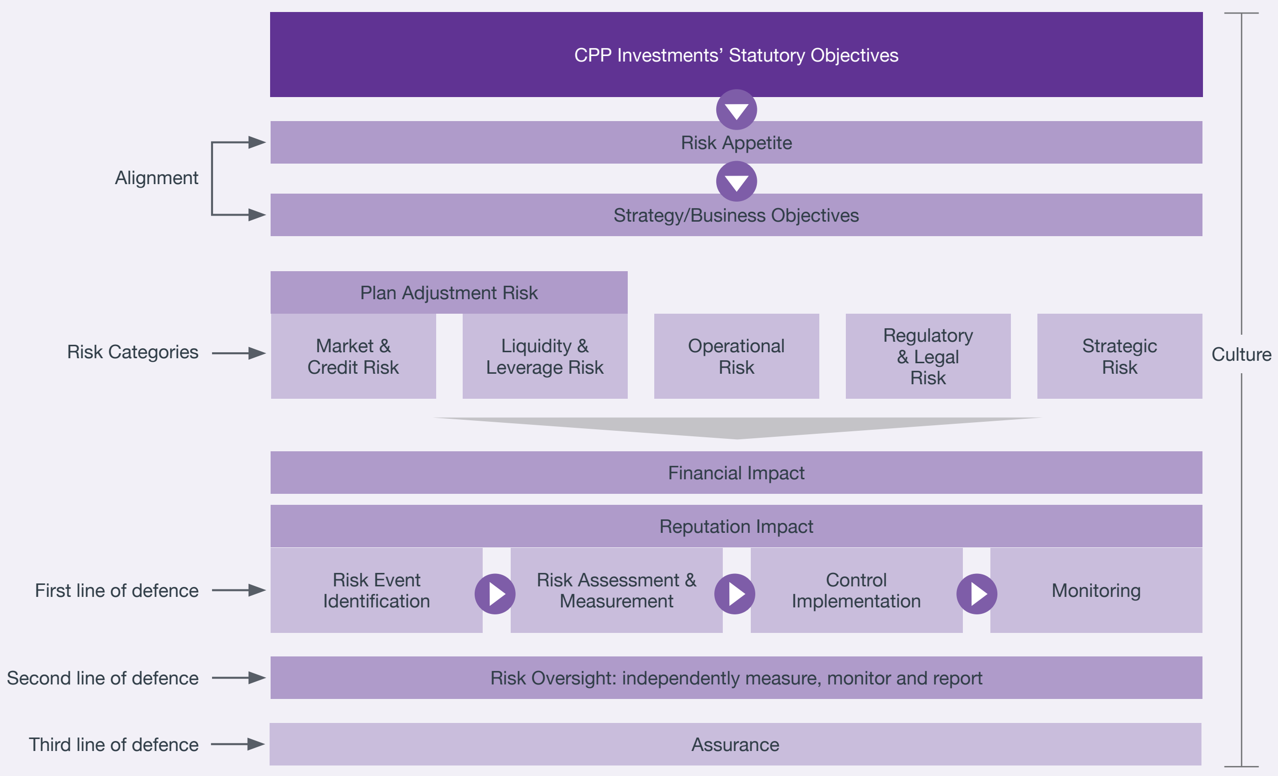
- First line of defence: The leaders of each department are responsible for managing the risks assumed within their areas of responsibility. The CIO is accountable for recommending risk targets to the Board for approval.
- Second line of defence: The CFRO is responsible for risk oversight at CPP Investments. The Risk group is responsible for independently challenging the first line's identification, assessment and management of risks. It also develops, measures and monitors compliance with all approved risk limits. In addition, the Risk group assesses emerging risks for the organization. Other groups also provide independent oversight, including the Legal and Compliance functions.
- Third line of defence: The Assurance & Advisory group provides independent assurance over risk governance and internal controls.

The Risk Committee of the Board receives regular reporting on our risk measures and stress-testing results. We have Management committees to oversee our various risks and exposures. Management's Investment Strategy and Risk Committee (ISRC), in addition to its subcommittees, was created in fiscal 2021 to replace the Investment Planning Committee, with the goal of enhancing and better integrating the governance of investment strategy and risk across CPP Investments. The ISRC oversees CPP Investments' portfolio design and structure, and the risks specified in the Integrated Risk Framework. ISRC is supported by, and delegates certain authorities to, subcommittees that include the Investment Strategy Committee, Investment Risk Committee, and Operational and Legal Risk Committee. See page 31 for more details about the ISRC.

Additional information related to our investment risk exposures and our risk measurement and management processes is included in the section called How Management is accountable for risk-taking and performance on page 31. There is also further information in Note 8 to the Financial Statements on page 170.

The diagram below shows CPP Investments' Integrated Risk Framework.

Integrated Risk Framework



Legend

- no change in risk from prior year
- increasing risk from prior year
- decreasing risk from prior year

Risk environment – top and emerging risks

The environment in which CPP Investments operates is dynamic and the pace of change is rapid. These changes may have an impact on our risk profile, the development of our risk management practices and our ability to achieve our statutory objectives. In our assessment of key risks, we consider how different risks are interconnected and how they are correlated. This past year, we closely monitored the following developments to assess their potential impact on our investments and operations over time:

- **Pandemic risk** ⇔ emerged in fiscal 2020 through the emergence of COVID-19 and continued to have very material global, societal and economic impacts in fiscal 2021. We expect that the global economic impacts of COVID-19 will continue into fiscal 2022 and beyond. Despite the U.S. equity markets being at record highs, slower than expected recovery could result in increased market volatility and/or permanent loss of value for certain investments. While the Fund was able to maintain a strong liquidity position during the COVID-19 stress period, we continue to monitor developments and their potential impacts to our liquidity and capital deployment targets.

  We continue to execute our crisis management and business continuity plans to monitor and mitigate impacts to our investments and operations. The well-being of our employees is a priority as risks to our employees remain elevated, primarily driven by health and safety concerns from rising COVID-19 cases/variants and global lockdowns. We introduced additional programs to provide support to employees through initiatives such as workplace flexibility and additional time off, partnering with medical advisors and enhancing health and mental wellness programs. We will continue to adapt and evolve our work practices to meet changing demands.
- **Geopolitical risk** ↗ remained a top risk throughout fiscal 2021. Many developments in Canada and around the world could have significant implications for our investments and operations. These include, but are not limited to:
  - The Province of Alberta's continued analysis of the possibility of exiting the CPP. The range of potential outcomes is wide – from status quo to an exit from the CPP;
  - U.S.-China relations and Canada-China relations, which remain tense;
  - The National Security Law in Hong Kong that was implemented in 2020; and
  - Tax reform proposals that may be introduced by the new U.S. administration and other governments in response to growing fiscal deficits.

  We monitor developments, and we are actively engaging, conducting scenario analysis and preparing to address any impacts as events unfold.
- **Environment, social and governance (ESG) factors** ↗ will be significant drivers of business and financial risks or opportunities as increasing expectations from stakeholders are surfacing these issues. We consider relevant ESG factors and integrate them into our investment decision-making. Our active ownership approach includes direct or collaborative engagement with companies. This year, we refreshed our Policy on Sustainable Investing to more clearly articulate the business case for ESG integration as well as our expectations of the businesses in our portfolio.
- **Climate change** ↗ We believe climate change is one of the most significant strategic risks and presents a complex array of physical and transition risks across our investment activities, in addition to opportunities.

  This year, CPP Investments continued to advance its efforts to identify, manage and monitor climate-related risks that may impact our investment portfolio. We use a range of tools and analytics to measure and monitor climate-related risks, both quantitatively and qualitatively. Our internally developed carbon footprint tool provides the insights on greenhouse gas emissions (GHG) associated with all CPP Investments' holdings, as well as relevant benchmarks. See our key carbon footprint metrics on page 101.

Carbon Footprint Metrics[1]

	Non-Government Holdings		
Metrics	Long-term Capital Ownership	Equity Ownership	Description
Total Carbon Emissions (million tonnes of CO_2e)	21.8	38.2	The absolute GHG emissions associated with a portfolio. This figure would typically rise as assets under management grow.
Carbon Footprint (tonnes of CO_2e/$ million invested)	52	92	Total carbon emissions for a portfolio normalized by the market value of the portfolio.
Carbon Intensity (tonnes of CO_2e/$ million revenue)	166	191	Volume of carbon emissions per milion dollars of revenue (carbon efficiency of a portfolio).
Weighted Average Carbon Intensity (tonnes of CO_2e/$ million revenue)	155	155	Portfolio's exposure to carbon-intensive industries.

1. Based on the most recent annual emission information available at March 31, 2021 and allocated based on CPP Investments' March 31, 2021 holdings. Exchange rates applied are those as at the year ends of the reported emissions for revenue data, and as at March 31, 2021 for market capitalizations and long-term debt of holdings.

To augment the standard carbon footprint metrics, we use scenario analysis to assess potential future impacts of climate risk-related stress events. We stress test the resilience of our investments under a range of plausible scenarios, including extreme events and exploring a range of temperature outcomes, using both top-down and bottom-up approaches, to quantify financial impacts. The results of our assessments thus far suggest that:

- In a business-as-usual scenario where carbon prices do not increase markedly from their current levels, we estimate the Fund's market value could be negatively impacted by up to 4% in a one-in-20-year event, or up to 10% in a one-in-100-year event.
- Should policy actions be more heavily concentrated in years after 2030 by adopting stricter mitigation efforts in order to limit warming to no more than 2°C, we estimate the Fund's market value could be negatively impacted by up to 6% of the market value for a one-in-20-year event, or 8% for a one-in-100-year event.

Furthermore, this year we updated our proxy voting practices on climate change. See the sustainable investing strategy section on page 38, as well as our latest Sustainable Investing Report for additional details.

- **Competition risk** ↗ continues to be high as investors increase allocations to alternative investments, including private assets such as equity, credit and real assets, in pursuit of higher returns. This has created an abundance of capital available for investment, or "dry powder," which has resulted in increased competition for assets and higher prices. This has made it increasingly difficult to source opportunities with attractive risk-adjusted returns. We continue to leverage our inherent comparative advantages (long investment horizon, certainty of assets and scale) and our developed comparative advantages to help us mitigate this risk. A further discussion of this topic can be found in the Our Investment Strategy section on page 22.
- **Perception of underperformance** ↗ While our absolute Fund returns remain above the long-term assumptions of the Office of the Chief Actuary, our returns relative to the Reference Portfolios were negative this fiscal year and for the five years ended March 31, 2021. This relative underperformance was largely due to the sharp rise in global equity markets and the choice of the Reference Portfolios as comparator portfolios given they are less diversified than our Investment Portfolios. Negative DVA may cause stakeholders to question the merits of our active management strategy despite adding value over time horizons greater than five years.

We have several ongoing initiatives to enhance our performance measurement and reassess the strategic choices we make to pursue excess returns, or "alpha". We continue to have conviction that our active management strategy will add value, in the form of excess returns or enhanced diversification over the long term. For further discussion of our results see page 54.

- **New technologies and business models** ⇔ are increasing competitive pressures in the asset management industry, where decision-making is increasingly informed by complex datasets and advanced analytic techniques. Our investments and operations could be impacted if we fail to adapt. This is particularly true in the medium to long term. Our multi-year 2025 strategy has a focus on increasing the use of technology and data to drive better investment decisions. This includes: (i) enhancing our public market technology, (ii) developing external partnerships that will build a transformational alternative data- and analytics-based approach to investing, and (iii) empowering employees to innovate and collaborate.
- **Cyber security breaches** ↗ in both the public and private sectors have illustrated the difficulties organizations face in managing rapidly evolving cyber threats. While the nature of our exposure to breaches differs from many financial institutions, particularly those that hold client data, we must stay vigilant. A cyber breach could result in investigation and containment costs, legal and regulatory fines, and negative reputation impact. In fiscal 2021, we faced unprecedented changes in our operating environment as a result of COVID-19. This has increased cyber security risk from various sources of threats such as state-sponsored attacks, phishing attacks, malware, leakage of confidential data and cyber fraud. We could be exposed if our partners or service providers experience a cyber breach. For example, in December 2020, CPP Investments made an investment in publicly traded enterprise software management company, SolarWinds Inc., which was subsequently involved in a cyber-attack. As a result, the valuation of that investment declined. CPP Investments was also a SolarWinds customer, and while there is no evidence that our data was compromised, we continue to monitor the situation. This incident demonstrated the extent of the impact a cyber-attack may cause, in this case harming thousands of organizations globally, including critical departments of the U.S. government. Over the past five years, we have allocated resources to investigate and remediate the cyber incidents we have experienced. To date, none of these incidents have had a significant impact on CPP Investments.

Risk categories and management strategies

Plan adjustment risk: This is the risk of increase in the Minimum Contribution Rates applicable to CPP contributors due solely to adverse investment experiences. It is an overarching risk that is impacted by market, credit, liquidity and leverage risks. Each of these risk categories is further described in the following sections. The Minimum Contribution Rates are the minimum rates at which employees and employers in Canada must contribute to sustain the base CPP and the additional CPP payments over the next 75 years. The rates are calculated at least every three years in the Actuarial Reports on the CPP published by the Office of the Chief Actuary.

We manage plan adjustment risk by designing Investment Portfolios for the base CPP and additional CPP that target appropriate levels of market risk for each portfolio. We then seek to maximize returns at those target risk levels. We also set limits on liquidity risk to ensure we can always rebalance our portfolios back to target risk levels and fulfil our payment obligations. These concepts are further discussed in the following sections.

Market and credit risk: This risk category captures investment losses arising from the following:

- Fluctuations in market prices and rates, which include equity prices, interest rates, credit spreads and currency exchange rates; and
- Permanent loss of investment value due to direct exposure to a defaulted entity, indirect counterparty exposure via "over-the-counter" derivative transactions, or deterioration of an entity's credit quality.

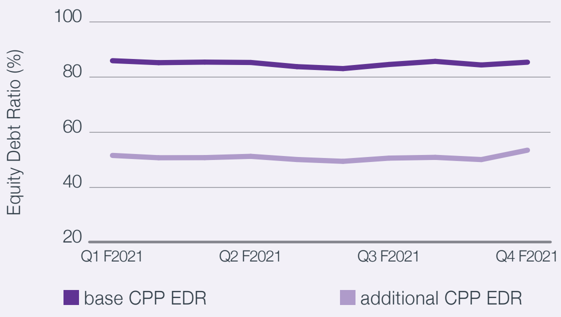
CPP Investments targets a level of market risk for each of the base CPP and the additional CPP accounts that provides long-term expected returns exceeding the minimum rates of return required to sustain each part of the CPP (as derived by CPP Investments from information in the Chief Actuary's latest Actuarial Report) while balancing the trade-off between potential losses and expected returns. The higher the risk target, the higher the long-term expected return and the lower the risk of negative plan adjustments (i.e., increases to contribution rates); however, there would also be the potential for higher short-term investment losses.

CPP Investments mitigates the risk of market and credit losses by investing across a wide spectrum of asset classes and investment strategies. This enables us to earn returns on a diversified set of factor exposures and active management activities over the long term.

Market risk targets are sometimes expressed in terms of equity equivalent content (i.e., the equity/debt risk equivalence ratio or EDR). We also express our appetite for market and credit risks in terms of the probability of plan adjustments and acceptable reported losses over short- and longer-term time horizons. See Note 9 to the Financial Statements on page 172 for additional details on these measures.

The chart below shows our EDR for the base CPP and additional CPP Investment Portfolios over the past year. The ratios remained stable throughout the year as we always seek to rebalance the portfolios back to the target EDR, subject to managing high transaction costs that would result from rebalancing very small movements.

Market and Credit Risk



We measure potential losses in our Investment Portfolios against our appetite for acceptable reported losses over short- and longer-time horizons. Given our targeted level of market risk, the one-year potential loss as at March 31, 2021 for the base CPP was estimated to be $89.0 billion (18.3% of the base CPP Investment Portfolio), representing an increase of $19.6 billion compared to the prior year. This was mainly due to the increase in Fund size, as a result of returns generated by our equity investments. The one-year potential loss was estimated to be $746 million (11.9% of the additional CPP Investment Portfolio) for the additional CPP. The table below provides an attribution of the total one-year potential loss estimate for both the base CPP and additional CPP to each investment department.

Contribution to One-Year Potential Loss by Investment Departments

	Fiscal 2021				Fiscal 2020			
	base CPP		**additional CPP**		base CPP		additional CPP	
	(millions)	**(%)**	**(millions)**	**(%)**	(millions)	(%)	(millions)	(%)
Total Fund Management	$30,571	30%	$335	37%	$24,219	30%	$127	40%
Capital Markets and Factor Investing	$1,811	2%	$15	2%	$1,422	2%	$5	1%
Active Equities	$4,942	5%	$40	4%	$3,406	4%	$11	4%
Credit Investments	$6,150	6%	$50	5%	$4,989	6%	$17	5%
Private Equity	$36,882	36%	$297	32%	$26,062	32%	$87	27%
Real Assets	$22,044	22%	$178	19%	$21,978	27%	$74	23%
Total One-Year Potential Loss[1]	**$89,024**		**$746**		**$69,377**		**$252**	

1. Represents our estimate of reported losses we do not expect to exceed 19 times out of 20. Potential Loss measures in dollar amount are not additive across departments, as the diversification of their activities has the effect of reducing total risk.

The largest contributor to one-year potential loss is the Private Equity investments where higher expected returns come with higher levels of investment risks, in part due to the amount of leverage used within the capital structure of these businesses. The Total Fund Management department is also a large contributor to total potential one-year losses given the large public equity Balancing Portfolio it manages.

As part of our ongoing monitoring, we perform scenario analysis to quantify the impact of potential stress events and identify potential vulnerabilities that may not be fully captured by our standard risk models. This includes how severe market or geopolitical events could affect CPP Investments' portfolios. Below are examples of scenarios that we run and monitor on a regular basis:

1. A repeat of the Global Financial Crisis (GFC) of 2008 – We estimate that if an event like the GFC were to reoccur, the reported value of the Investment Portfolios would decline by approximately $72 billion or 15%. The estimated loss is within our risk appetite and the event sufficiently captured in our standard market risk models.
2. Severe Stress scenario – A hypothetical scenario that aggregates several historical market stress events. This scenario also removes the foreign currency gains typically realized in past market stress events where losses were partially offset by the depreciation of the Canadian dollar against the United States dollar. Realization of this more extreme scenario would result in losses of approximately $107 billion or 22%. While this stress scenario is less plausible, it highlights the sensitivity of returns to foreign currency fluctuations and is actively monitored to ensure the estimated loss broadly remains within our stated risk appetite.
3. Comprehensive Capital Analysis and Review (CCAR) – An extreme stress scenario that is used to assess the capital adequacy of the largest U.S.-based bank holding companies. We have implemented the CCAR stress parameters into our stress loss estimates and the reported value of the Investment Portfolios would decline by approximately $205 billion or 41%. While the parameters used in this scenario are likely overly punitive in the context of an investment fund, we believe it is still a useful scenario to consider. Mitigating the risk of an event this remote is not consistent with the Fund's approach to establishing its risk governance limits.

In addition to the standard stress scenarios, CPP Investments performs more bespoke analysis on scenarios, including identifying and assessing the impact of the key investment risk drivers in two years from a macro-economic, financial market and geopolitical perspective, to develop a view on what the world may look like post COVID-19. CPP Investments also performs sensitivity analysis on specific components of market risk including equity, interest rate, credit spread and currency risks – see Note 9 to the Financial Statements on page 172. In addition, CPP Investments monitors standalone measures for credit risk including counterparty exposures and potential losses due to defaults and credit rating migration – see Note 10 on page 174.

Liquidity and leverage risk: Liquidity risk is the risk of failing to obtain the funds needed to meet our payment obligations as they become due, to fund investment programs or to rebalance our portfolio back to our target levels of market risk and leverage during periods of stress, all without realizing unacceptable losses. Leverage risk is a related concept. It is the risk of the build-up of excessive on- and off-balance sheet financial obligations that could heighten market and liquidity risks during periods of stress.

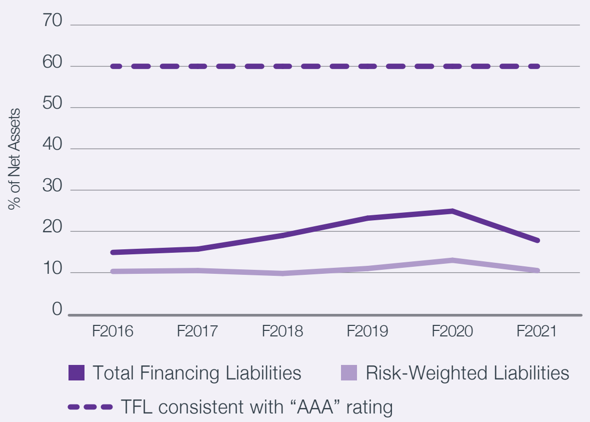
Leverage is the amount of borrowed funds (on-balance sheet) and synthetic financing (off-balance sheet) used to increase the amount of physical and synthetic assets in which we invest. On-balance sheet leverage includes the issuance of medium- and long-term debt, commercial paper, and secured borrowing where CPP Investments pledges collateral. Synthetic financing includes derivatives, primarily swaps and futures across various asset classes.

CPP Investments targets the level of recourse leverage used at a given level of market risk (i.e., equity equivalent content) to further diversify the Investment Portfolios. Recourse leverage represents borrowed funds that are direct legal obligations of CPP Investments. While we recognize that there are multiple ways to define leverage, CPP Investments monitors leverage risk against the following two metrics. Together, these capture different aspects of leverage across the Investment Portfolios.

- **Total Financing Liabilities** is a notional-based measure of recourse leverage. Notional amounts represent the contractual amounts to which a rate or price is applied for the purposes of computing the cash flows to be exchanged. The Total Financing Liabilities measure represents all financing activities that are undertaken to obtain recourse leverage using both on-balance sheet and off-balance sheet items. This measure captures all forms of recourse leverage that enable CPP Investments to increase the amount of physical and synthetic assets we invest in. This measure represents Management's view of leverage and deviates from the definition under International Financial Reporting Standards (IFRS). Total Financing Liabilities captures all leverage elements that result in increased portfolio exposure such that it can be used as an input to portfolio construction.
- **Risk-Weighted Liabilities** is a measure that represents the risk of the underlying leverage products, including derivatives, used by the Fund. It is determined by assigning risk weights to all forms of recourse leverage across the Fund and aggregating the resulting risk-weighted notional amounts across asset classes with similar characteristics.

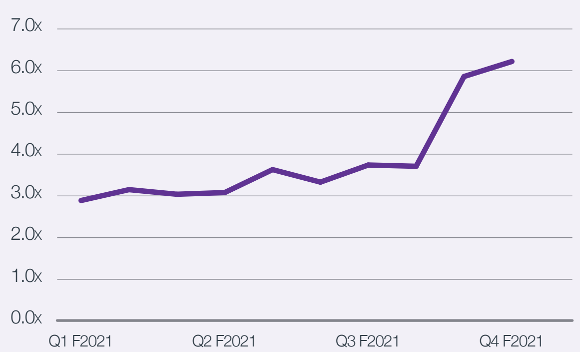
A historical five-year trend for both measures is shown in the chart on page 104. The increasing trend in Total Financing Liabilities can be attributed to the increased use of synthetic equity financing and secured debt, and is consistent with our longer-term leverage target. The additional funds raised are used to increase diversification of the portfolio at a target level of market risk. Compared to Total Financing Liabilities, the Risk-Weighted Liabilities remain relatively steady over time as derivative positions increased in proportion to net assets. The chart also shows the level of Total Financing Liabilities we need to stay within in order to maintain a "AAA" credit rating. See Note 11 to the Financial Statements on page 175 for additional details on leverage risk.

Total Financing Liabilities and Risk-Weighted Liabilities



Most importantly, we must maintain sufficient liquidity to meet our payment obligations as they become due, fund investment programs and rebalance the Investment Portfolios by buying and selling securities to maintain the target market risk and leverage levels; hence we establish liquidity limits to do so. Our payment obligations include the payments to the CPP, unsecured debt repayments, and collateral and margin requirements. CPP Investments manages liquidity risk through its ability to raise funds through various sources by issuing commercial paper and term debt, and by transacting in securities sold under repurchase agreements. CPP Investments also maintains unsecured credit facilities to meet potential liquidity requirements. In addition, CPP Investments maintains sufficient liquid assets, including developed market government bonds and money market assets, which can be easily converted to cash to meet liquidity requirements. We measure and monitor our liquidity coverage at various time horizons (for example, 10 days or 6 months). The Fund's liquidity position strengthened over the year as a result of strong equity market performance and lower capital deployment due to reduced deal activity during the pandemic. The following table shows our 10-Day Liquidity Coverage Ratio over the past year.

10-Day Liquidity Coverage Ratio



See Note 11 to the Financial Statements on page 175 for additional details on liquidity risk.

In targeting a level of recourse leverage and setting limits on liquidity, CPP Investments seeks to maintain leverage and liquidity ratios that are consistent with an issuer credit rating of "AAA".

Operational risk: This is the risk of loss due to actions of people or inadequate or failed internal processes or systems. It can be the result of either internal or external factors. Operational risk encompasses a broad range of risks, including those associated with:

- Flawed or misused investment models;
- Human capital management;
- Technology and data;
- Information integrity and cybersecurity;
- Business interruptions;
- Process management and execution;
- Third parties; and
- Integrity of valuations and financial reporting.

The impacts can take the form of:

- Direct financial losses;
- Indirect financial losses appearing as operating inefficiencies;
- Regulatory sanctions or penalties; and
- Damage to our reputation.

Operational risk can also directly impact our ability to manage other key risks.

Each member of the Senior Management Team bears primary accountability for managing operational risks within their department. CPP Investments manages operational risk through internal controls that are subject to internal audit reviews. We also conduct an annual review of internal controls over financial reporting as part of the CEO/CFRO certification described on page 106.

The Finance, Analytics and Risk department and the Technology & Data department maintain formal protocols for:

- Implementing new investment products and technologies;
- Managing data, models and user-developed applications;
- Ensuring information security;
- Tracking and reporting on operational and compliance incidents; and
- Establishing continuity plans for potential business interruptions.

In addition, we purchase property and casualty insurance and director and officer liability coverage.

Regulatory and legal risk: This is the risk of loss due to changes in, or failing to comply with, applicable laws, regulations, rules, contractual obligations, CPP Investments' Code of Conduct or other internal policies, including those defined in the *Canada Pension Plan Investment Board Act*. Failure to comply could result in fines, regulatory sanctions and/or harm to our reputation. It also includes internal and external fraud.

Our compliance program is designed to promote adherence to regulatory obligations worldwide. It helps with awareness of the laws and regulations that affect CPP Investments and the risks associated with failing to comply. We monitor emerging legal and regulatory issues as well as proposed regulatory changes (such as the interest rate benchmark reform). We also take a constructive role in these developments when appropriate. CPP Investments regularly seeks input from external legal counsel to keep us informed on emerging issues. Over the past few years, we have evolved our compliance program including expanding our in-house expertise across multiple jurisdictions. Our compliance program also sets the tone for a culture of compliance at CPP Investments, which includes anchoring our focus on the Code of Conduct and Guiding Principles, as well as facilitating training across the organization.

Non-compliance with tax laws is a particular type of risk under this category. As with any other risk, we aim to mitigate tax risk while considering our investment objectives. CPP Investments does this by adhering to the controls and procedures embedded in our internal policies. Tax risks can be technical, operational or regulatory in nature and can have financial or reputation implications.

To mitigate the impact of CPP contributors and beneficiaries paying tax twice on income earned by CPP Investments, we employ investment structures. These are designed to optimize after-tax investment returns. Our Tax group plays a key role in evolving CPP Investments' tax strategy. This group supports decision-making, oversees tax risk management and evaluates overall tax practices. We review key tax risks both as part of due diligence for individual transactions and at the total Fund level. CPP Investments' CFRO is responsible for the organization's tax strategy. Day-to-day management of tax risk is the responsibility of the Head of Tax. Periodic updates are also provided to the Audit Committee. For more information about CPP Investments' tax strategy, visit our website at www.cppinvestments.com.

Strategic risk: This is the risk that CPP Investments will make inappropriate strategic choices, will be unable to implement strategies or will fail to be agile enough to respond to changes in the external environment over the long term. Managing strategic risk effectively is critical to achieving our objectives.

Several important processes have been established to control and mitigate strategic risks:

- The Board and Management review key elements of our strategy throughout the year, at least annually, including through implementation updates, outlining progress, key milestones and any updates to the strategic plan;
- The Board and Management review our business plan annually, and each department carries out detailed business planning that considers our strategy and longer-term objectives;
- Through our governance framework, we provide specific investment guidance for each investment program. This promotes alignment with CPP Investments' overall strategy and comparative advantages;
- We complete quarterly reviews of the portfolios and associated investment risks in the context of capital market and emerging economic conditions;
- Both Management and the Board review quarterly reporting and discuss progress, challenges and risks related to achieving the approved business plan; and
- In fiscal 2021, we also began a review of CPP Investments 2025 strategy to reassess our strategic choices, and either reconfirm or restate our strategy. This is planned to be completed in fiscal 2022.

Financial and reputation impacts to CPP Investments

The investment and non-investment risks listed above can have both financial and reputation impacts on CPP Investments.

Financial: Financial impacts can take many forms, including investment losses, unplanned operational expenses and regulatory fines. The higher we set our risk target, the higher the long-term expected returns, but also the greater the shorter-term volatility and potential for reported losses. Refer to our Total Portfolio Investment Framework on page 32 for a description of how we seek to achieve long-term total returns that will help sustain the CPP and pay pensions, while managing CPP Investments' portfolio responsibly for current and future generations.

Reputation: In managing our reputation, we seek to avoid the loss of credibility and brand value due to internal or external factors. Many types of events have the potential to negatively shape perceptions of our organization and impact our reputation among a diverse group of stakeholders, including contributors and beneficiaries. Our business practices, or those of our business partners or the companies in which we invest, may harm our reputation. Consequences include diminished brand efficacy in our markets and weakened ability to execute our strategy. It would also affect our status as investor, partner and employer of choice.

The responsibility to protect our reputation extends to every employee, Management and the Board of Directors – it is embedded in our organizational culture such that reputation impacts are considered across the organization, allowing for an integrated approach to anticipating and managing potential issues. We continue to build our reputation and brand proactively with key stakeholders globally to support our business objectives and mitigate risk. The Senior Managing Director & Global Head of Public Affairs and Communications is responsible for CPP Investments' reputation management strategy and for the implementation of reputation management programs.

Understanding potential areas of reputation impact in our Investment Portfolios is critical to managing CPP Investments' reputation. We maintain formal processes to assess the potential reputation impacts associated with public and private investments. Management also oversees macro reputation impacts relating to issues that affect the organization as a whole. We raise risks and issues with potential to cause material reputation impacts to the Board as they arise.

Financial Policies and Controls

CEO/CFRO certification

Management is responsible for establishing and maintaining adequate internal control over financial reporting. Internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with International Financial Reporting Standards (IFRS), as issued by the International Accounting Standards Board (IASB), and the requirements of the *Canada Pension Plan Investment Board Act* (CPPIB Act) and the accompanying regulations. However, because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements on a timely basis.

Management assessed the design and operating effectiveness of CPP Investments' internal control over financial reporting as of March 31, 2021, based on the criteria set forth in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission.

Management is also responsible for the design of disclosure controls and procedures that provide reasonable assurance that all material information is gathered and reported on a timely basis.

Under the supervision of the CEO and CFRO, we completed an evaluation of internal control over financial reporting and disclosure controls and procedures and concluded that they were properly designed and operated effectively as of March 31, 2021. CPP Investments is not required by law or regulation to perform this annual evaluation. We do so voluntarily as part of our commitment to strong corporate governance and accountability.

Accounting policies and critical accounting estimates

Significant accounting policies

The Financial Statements are prepared in accordance with IFRS, the requirements of the *Canada Pension Plan Investment Board Act* and regulations of CPP Investments. The preparation of the Financial Statements requires the selection of appropriate accounting policies. Processes have been established to ensure accounting policies and methodologies are applied consistently and any changes are well-controlled.

Future changes in accounting policies

Developments and changes in accounting standards from the IASB are actively monitored. The impact of adopting new standards issued by the IASB is continuously assessed, as is any impact to the presentation of the Financial Statements, including evaluating alternative presentation choices upon transition, where applicable.

The IASB has addressed interest rate benchmark reform-related financial reporting issues in two phases. In September 2019, the IASB issued "Interest Rate Benchmark Reform: Amendments to IFRS 9, IAS 39 and IFRS 7" (Phase 1 Amendments). Our assessment is that Phase 1 Amendments have no impact on our Financial Statements.

In August 2020, the IASB issued phase 2 of the amendments to various accounting standards that address issues affecting financial reporting as a result of changing the interest rate benchmark from the Interbank Offered Rate to an alternative benchmark rate and provided specific disclosure requirements. The phase 2 amendments are effective for CPP Investments on April 1, 2021. We are currently assessing the impact of the phase 2 amendments on our Financial Statements.

Other than the future change in accounting policies noted above, there were no adoptions of issued IFRS standards, changes in existing standards or new interpretations during the year ended March 31, 2021 that impact the Financial Statements.

Fair value measurement

Management's most critical accounting estimate is the determination of fair value for investments and investment liabilities. Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Fair value is a market-based measurement and therefore incorporates those factors that market participants would consider when selling an asset or paying to transfer a liability. The fair value of investments and investment liabilities is categorized in a hierarchical manner according to the level of reliance on unobservable inputs in determining their fair value measurement.

It includes:

- Level 1 – Quoted prices in active markets for identical assets or liabilities;
- Level 2 – Inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly (as prices) or indirectly (derived from prices); and
- Level 3 – Inputs for the asset or liability that are not based on observable market data (unobservable inputs).

The Fund's net investments classified by the fair value hierarchy are described in Note 3 of the Financial Statements on page 154.

The investment departments' percentage contribution to each hierarchy level for investments held by CPP Investments and its investment holding subsidiaries is outlined as follows:

Investment departments' percentage contribution to each hierarchy level

	Fiscal 2021			Fiscal 2020		
	Level 1	**Level 2**	**Level 3**	Level 1	Level 2	Level 3
Public Market Strategies	**95%**	**78%**	**4%**	95%	85%	4%
Credit Investments	**0%**	**14%**	**12%**	1%	13%	13%
Private Equity	**1%**	**7%**	**46%**	1%	2%	41%
Real Assets	**4%**	**1%**	**38%**	3%	0%	42%
Total	**100%**	**100%**	**100%**	100%	100%	100%

Public market strategies consist of Total Fund Management, Capital Markets and Factor Investing and Active Equities, all of which invest mainly in Level 1 and Level 2 assets. The majority of our Level 3 assets consist of private equity, private debt and real asset investments where fair values are determined using unobservable multiples of earnings before interest, taxes, depreciation and amortization, or discount rates. Our valuation methodologies for investments and investment liabilities are summarized in Note 2 to the Financial Statements on page 151.

Processes have been developed to determine the fair value of our investments. These processes include targeted use of external appraisers and valuation experts. CPP Investments' Finance group includes accredited professionals who prepare or approve fair values independently from investment departments. In addition, for most of the direct investments, independent third-party appraisals and external valuations are sought to support the valuation process. Assets are selected for third-party appraisals through a risk-based approach that is based on both the materiality and complexity of the investments.

For our fund investments in public and private equity, credit and real assets, net asset values (NAVs) are obtained directly from investment managers and represent fair value. CPP Investments performs certain procedures to validate reliance on the NAVs provided by the investment managers.

Related-party transactions

CPP Investments regularly enters into transactions with related parties, such as subsidiaries, joint ventures and associates. Related-party transactions with subsidiaries that provide investment-related support and administrative services to support the Fund are eliminated upon inclusion of the subsidiaries' results within CPP Investments reported results. All other related party transactions are accounted for at fair value. (See Note 15 on page 180 of the Financial Statements.)

Commitments, guarantees and indemnifications

CPP Investments and its investment holding subsidiaries have entered into commitments related to the funding of investments. At the end of our fiscal year, these commitments remain off-balance sheet, with the unfunded commitments for CPP Investments totalling $1,057 million in fiscal 2021, compared to $1,940 million in the prior year, and unfunded commitments for investment holding subsidiaries totalling $44,244 million in fiscal 2021, compared to $53,453 million one year earlier. The decrease compared to the prior year was primarily due to a decrease in unfunded commitments from Private Equity and Real Assets. (See Note 17 of the Financial Statements on page 181.)

In the normal course of business, CPP Investments and its investment holding subsidiaries also enter into various guarantee contracts. These contracts ensure that investments are supported in the event of a default based on the terms of the respective loan or other agreements. At the end of fiscal 2021, the maximum amount payable in relation to these guarantees was approximately $505 million by CPP Investments directly, compared to $263 million in the prior year, and $6,128 million by its investment holding subsidiaries, compared to $4,832 million one year earlier. The combined increase of $1,538 million was primarily due to new guarantees relating to private investments during the fiscal year. (See Note 18 of the Financial Statements on page 181.)

CPP Investments also provides indemnifications to its officers, directors, certain others and, in certain circumstances, to various counterparties and other entities. CPP Investments may be required to compensate these indemnified parties for costs incurred as a result of various contingencies such as changes in laws, regulations and litigation claims. (See Note 18 of the Financial Statements on page 181.)

Key Performance and non-IFRS measures

The disclosure of certain non-International Financial Reporting Standards (non-IFRS) measures, as described below, is intended to provide readers with supplemental information that reflects Management's perspective on the Fund's performance. Non-IFRS measures do not have a standardized meaning under IFRS and may not be comparable to similar measures disclosed by other institutions.

Furthermore, in alignment with the Fund's long-term investment approach, Management discloses five- and 10-year performance measures that extend beyond the year-over-year comparison in the Financial Statements and Notes. The Management's Discussion and Analysis (MD&A) discloses select financial results both on a dollar and percentage basis. Also presented are performance measures, such as dollar value-added and compounded dollar value-added. Where these measures are reported as percentages, they are calculated relative to average asset balances. These metrics are not included in the table below, as they have no IFRS comparable value.

Non-IFRS Measure	Reconciliation to Comparable IFRS Measure		
Total Financing Costs As disclosed in the Managing Costs section of the MD&A, total financing costs is composed of expenses from debt financing liabilities, securities sold under repurchase agreements, prime brokerage and other securities borrowing transactions as well as securities lending transactions where cash is received. Gains and losses associated with certain interest rate derivatives used as part of financing activities are also included, as well as the costs associated with the leverage-generating elements of additional derivative transactions.		March 31, 2021	March 31, 2020
	Balance as at:	1,217	2,429
	Less: Costs associated with leverage-generating elements of derivative transactions	(181)	(906)
	Borrowing Costs (Note 6.1 in the Financial Statements)	1,036	1,523
Total Financing Liabilities As disclosed in the Risk Management section of the MD&A, Total Financing Liabilities represents all financing activities that are undertaken to obtain recourse leverage using both on-balance sheet and off-balance sheet items. This measure captures all forms of recourse leverage that enable CPP Investments to increase the amount of physical and synthetic assets we invest in. This measure represents Management's view of leverage and deviates from the definition under IFRS.		March 31, 2021	March 31, 2020
	Balance as at:	88,279	102,155
	Add: Cash and cash equivalents and reverse repos netted against Total Financing Liabilities	19,689	33,983
	Other investment liabilities	21,689	24,609
	Less: Notional value of net leverage-generating derivative balances	(31,499)	(33,685)
	Investment liabilities (Consolidated Balance Sheet within the Financial Statements)	98,158	127,062
Currency Diversification Foreign currency exposure used as a basis for the currency diversification charts and currency return, disclosed in the Total Fund Performance section of the MD&A, are calculated based on the underlying currency denomination that a particular asset or security is exposed to. For example, an American Depository Receipt (ADR) equity security from Mexico is traded in U.S. dollars. While the investment is denominated in U.S. dollars, the underlying currency is Mexican pesos and that is the basis for calculating measures of currency diversification and currency return. This is in contrast to IFRS, which focuses on the denomination of the financial instrument itself – U.S. dollars in the above example.		March 31, 2021	March 31, 2020
	Balance as at:	424,515	348,297
	Add (Less): Impact of limiting currency changes to denomination of financial instrument held	528	(680)
	Total foreign exposure (Note 9.4.1 in the Financial Statements)	425,043	347,617
Investment Management Fees and Transaction Costs Investment management fees and transaction costs disclosed in the Managing Costs section of the MD&A and further referenced in the discussion of the performance of each investment department, reflect the combination of costs directly incurred by CPP Investments and costs incurred indirectly through its investment holding subsidiaries.		March 31, 2021	March 31, 2020
	Balance as at:	3,014	2,198
	Less: Management fees and transaction costs borne by CPP Investments' investment holding subsidiaries	(1,864)	(1,351)
	Management fees and transaction costs (Note 6 in the Financial Statements)	1,150	847
Adjusted Investment income As disclosed in the Performance of Investment Departments section of the MD&A, adjusted investment income is investment income, as reported in the Consolidated Statement of Comprehensive Income, with the exclusion of investment management fees and transaction costs incurred by investment holding subsidiaries, and the inclusion of financing costs in place of borrowing costs, as defined in this table.		March 31, 2021	March 31, 2020
	Balance as at:	89,592	17,978
	Less: Management fees and transaction costs borne by CPP Investments' investment holding subsidiaries	(1,864)	(1,351)
	Costs associated with leverage-generating elements of derivative transactions	(181)	(906)
	Investment income (Consolidated Statement of Comprehensive Income within the Financial Statements)	87,547	15,721

Compensation Discussion and Analysis

Report of the Human Resources and Compensation Committee

As the Chair of the Human Resources and Compensation Committee (HRCC), I am pleased to share with you our approach to assessing performance and determining compensation for employees of CPP Investments.

The underlying principle of CPP Investments' compensation framework remains to deliver our long-term business strategy by focusing on:

- Attracting, motivating and retaining top investment and management expertise;
- Paying for performance; and
- Aligning the interests of employees with those of Canada Pension Plan (CPP) contributors and beneficiaries over the very long term.

Fiscal 2021 performance highlights

A key underpinning of our compensation program is the performance of the total Fund[1] and each of our departments. Over the past year, the COVID-19 pandemic has continued to have a widespread impact on people and economic activity around the world. We have continued to execute our long-term strategy despite these extraordinary circumstances.

For fiscal 2021, the total Fund generated a record net rate of return of 20.4% or $83.9 billion, after deducting CPP Investments costs. The total Fund's five-year annualized net return was 11.0%. During the fiscal year, the rise in global equity markets drove up the aggregated Reference Portfolios, against which we measure our dollar value-added (DVA), to deliver a benchmark return of 30.4% – the highest since inception of active management. As a result, our single-year DVA was negative 10.0% or negative $35.3 billion, and cumulative five-year DVA was negative $7.8 billion. At year end, CPP Investments has generated $28.4 billion of compounded DVA since the inception of active management on April 1, 2006.

The HRCC supported management's efforts to ensure all global employees had additional resources to navigate the pandemic. This included introducing a number of new or refreshed benefits such as:

- Offering additional paid time off to tend to personal needs (COVID support days) and to disconnect from work (unplugged days);
- Encouraging use of vacation days to take a break from work, while allowing for exceptional carry over of days;
- Offering the opportunity to work a reduced work week to flexibly manage all responsibilities;
- Providing access to global thought leaders on wellness and public health, for employees to be able to ask questions on specific needs;
- Additional mental health support including online tools, expanded employee assistance program resources and in-person counselling;
- New virtual health care services, including access to personal consultations with physicians/nurses;
- Additional funding to support remote work and ergonomic needs, as well as advance access to next year's funds from existing annual well-being allowance; and
- Leadership-sponsored engagement program to get people moving, taking breaks, meditating and focusing on their well-being.

You can read more about the pandemic response by Management in the Purpose and People Drive Performance section on page 48.

Compensation program

We believe that a focus on investment performance is foundational to our compensation program. It supports a strong alignment between CPP Investments employees and the interests of more than 20 million CPP contributors and beneficiaries.

The deliberate focus on our investment performance, balanced with a consideration of dollar value-added, over a long performance horizon – a five-year period to better align with our long-term investment mandate, ensures we reward for a holistic achievement. Importantly, our compensation program continues to measure both the quantity and quality of outcomes, including how our CEO, Senior Management and employees deliver on long-term strategic business objectives.

The total Fund stood up exceptionally well to the challenges the organization faced in fiscal 2021. In the past five years, the total Fund has grown by $218.1 billion. The absolute return performance of 11.0% during that same period exceeds the projections set by the Office of the Chief Actuary to help sustain the Canada Pension Plan.

We are confident that our compensation program continues to support our business strategy to enforce the principle of pay for performance and to align employees with the long-term interests of CPP contributors and beneficiaries. This year, all investment departments contributed positively to total Fund returns despite the severe impact of the COVID-19 pandemic. We achieved our highest-ever absolute return for the fiscal year; however, the significant and rapid surge in public markets meant we performed below our DVA target. As a result, we saw a decrease in the overall multiplier used to drive incentive compensation.

Over the past five years, CPP Investments' total Fund net return of 11.0% and cumulative dollar value-added of negative $7.8 billion resulted in a lower total Fund multiplier of 1.06. We assessed that the plan design appropriately aligned pay outcomes while balancing absolute and relative performance.

1. For the purpose of the incentive compensation plan, total Fund reflects the combined long-term Investment Portfolios of the base CPP and additional CPP. This includes our cash for benefits portfolios, which hold incoming cash receipts from the CPP and cash amounts set aside for CPP benefits payments. This now aligns the definition of total Fund with how it is used in financial reporting.

Our Named Executive Officers' (NEOs) compensation is as follows: John Graham, President & CEO, received prorated compensation given the timing of appointment on February 26, 2021. Mark Machin, former President & CEO, who was CEO for most of the year and then remained in an advisory role to support the CEO transition, received lower annual compensation relative to the prior fiscal year. Total compensation is also lower for Alain Carrier, SMD & Head of International, and for Ed Cass in his new role of SMD & Chief Investment Officer, both due to the lower total Fund multiplier. Despite the progress made in risk governance and oversight, compensation is moderately lower for Neil Beaumont, SMD & Chief Financial and Risk Officer, due to the same lower multiplier; and higher for Suyi Kim, SMD & Head of Asia Pacific, given fiscal 2020 was prorated due to an approved leave. The final NEO, Kelly Shen, SMD & Chief Technology and Data Officer, received lower compensation despite the significant enhancements in technology and data management this year, again due to lower multipliers.

Our compensation program provides competitive pay levels relative to our defined talent market in all regions where we operate. It provides a clear, transparent framework to CPP Investments employees and to our stakeholders. The Board approves all compensation benchmarks and multiplier levels. The Human Resources and Compensation Committee retains full discretion to reward performance for the Senior Management Team within a range of zero to two times target incentive levels. It may also award salary adjustments or other compensation arrangements. This allows the Committee to assess and reward not only results, but also the manner in which they were achieved.

CPP Investments elected to freeze in-role salaries for its Senior Management Team last fiscal year given the global environment. This approach for senior executive compensation was consistent with the Board of Directors' decision, taken at the start of April 2020, to not draw on previously approved year-over-year compensation increases for Directors. Given progress against our strategy, we will selectively apply moderate increases where warranted by market analysis, similar to our approach in the past.

CEO Transition

In February 2021, the Board appointed John Graham as President & CEO. Mr. Graham's business and leadership track record are exceptionally well-suited to lead the organization through the next chapter of global opportunities. In his prior role as Senior Managing Director & Global Head of Credit Investments, Mr. Graham was instrumental in building out the Credit Investments department. He led the Investment Governance workstream of the organization's 2025 strategy, which led to the creation of the new Chief Investment Officer role.

The HRCC and Board continuously engage in the work of succession planning for the organization, ensuring a strong slate of future leaders, and that executives are provided with ongoing development. The Board had previously determined John Graham to be the next person to lead the organization, when Mr. Machin indicated that he would like to retire in summer 2021.

John Graham's appointment was effective on February 26, 2021, as Mr. Machin ceased to be CEO on February 25, 2021. Mr. Machin agreed to serve as an advisor for the next several months to support a successful transition, particularly in the context of activities following the end of fiscal year 2021. He is receiving compensation commensurate with the retirement treatment provided for in his arrangements. He did not receive any severance.

Fiscal 2021 CEO pay decisions

Mr. Graham has been instrumental in shaping and executing CPP Investments' strategy over the last decade. As a member of the Senior Management Team and throughout his career, he has had a highly successful track record of building and leading global investment businesses. Mr. Graham's assessment for the year reflects each of the roles he has served, and in recognition of his high achievements, the Board awarded him a multiplier of 1.50. The weighted average of the total Fund multiplier and the Department/Individual multiplier resulted in an overall incentive multiplier for Mr. Graham of 1.28.

Upon his appointment as President & CEO, the Board approved a target annual compensation package for Mr. Graham, which is both competitive and appropriate to his role. Mr. Graham's annual pay package as President & CEO was benchmarked to market references.

The Board awarded Mr. Graham total direct compensation of $2,896,745 for fiscal 2021, consisting of salary, an in-year award and deferred awards, recognizing his time as CEO and SMD & Global Head of Credit Investments. Mr. Graham also received standard pension and benefits.

Further details on CEO compensation are included in the Compensation Discussion and Analysis that follows.

Other activities of the HRCC

The HRCC adopted specific objectives to focus on strategic priorities in fiscal 2021. These included increasing the alignment of our Senior Management Team's compensation with the performance of the total Fund by increasing the weight of the total Fund performance on their compensation from 30% to 50%. See page 114 for more details. Further, in fiscal year 2021 the HRCC and Risk Committee of the Board jointly began the work to review an external assessment of the organization's compensation programs and frameworks from a risk governance perspective. The external assessment found these to be aligned to global standards and designed to deter undue risk-taking. Please refer to page 111 for specific HRCC activities undertaken in fiscal 2021.

The financial dimensions of this global pandemic are undeniable and severe. Having strong, experienced and skilled employees is vital at all times, and especially during periods of stress. Our people are critical to help navigate the total Fund through difficult times soundly and securely. This is where skill comes to bear to help preserve value. The HRCC is satisfied that the compensation paid for fiscal 2021 is appropriate, especially taking into account how the design and management of our Investment Portfolios played a role in delivering out-performance relative to our Absolute Performance goal. We are confident that our decisions regarding department and individual performance compensation factors reflect our assessment of the Senior Management Team's performance, relative to the pre-established objectives for fiscal 2021. They are also appropriately aligned with the interests of CPP contributors and beneficiaries.

S. D. Chrominska

Sylvia Chrominska
Chair, Human Resources and Compensation Committee

The role and structure of the Committee

The Human Resources and Compensation Committee (HRCC) helps the Board of Directors with human resources matters, including talent management and compensation. It also ensures all Directors benefit from ongoing development and remain best-in-class.

The HRCC is composed entirely of Directors who are knowledgeable about human resources and executive compensation issues. All HRCC members also serve on the Investment Committee. They have a strong appreciation of the link between compensation and risk management.

The committee members for fiscal year 2021 were:

Sylvia Chrominska – Chair
Mark Evans
Chuck Magro
John Montalbano – appointed January 1, 2021
Karen Sheriff
Kathleen Taylor
Heather Munroe-Blum (ex officio)

The HRCC held six meetings during fiscal 2021. The Chairperson of the Board of Directors is an ex officio HRCC member and attended all meetings in that capacity. The following people also attended portions of the meetings at the HRCC's request: the CEO, the Senior Managing Director & Chief Talent Officer; the Senior Managing Director & General Counsel; Managing Director, Head of Total Rewards; and the Managing Director, Associate Corporate Secretary. Annual activities for the HRCC are:

Evaluation of the CEO:

- Reviewed and recommended for Board approval the CEO's performance objectives and performance evaluation process; and
- Reviewed the CEO's significant outside commitments.

Evaluation of compensation of Officer and non-Officer employees:

- Reviewed, approved and recommended for Board approval the salary increases and incentive compensation payouts for the Senior Management Team and employees;
- Reviewed executive compensation trends as provided by the HRCC's external compensation advisor;
- Reviewed the Senior Management Team's compensation. This included requesting and reviewing a report from an external compensation advisor on the compensation of the Senior Management Team in other large Canadian pension funds and investment management companies;
- Oversaw the disclosure of the Senior Management Team's compensation and the compensation framework in the annual report; and
- Reviewed and recommended for Board approval the benchmark and incentive compensation curve for the total Fund.

Evaluation of talent management and development:

- Reviewed succession planning for the Senior Management Team, most notably this year for the CEO and other talent-management programs;
- Reviewed employee pension and benefits plans;
- Received the annual report of the Pension Committee and reviewed and approved employee pension plan documents; and
- Reviewed material changes to employee benefit plans and Human Resources policies.

Review of Committee Terms of Reference:

- Reviewed and recommended for Board approval the HRCC Terms of Reference and reviewed performance against the Terms of Reference.

The HRCC uses the services of Hugessen Consulting Inc. to provide independent advice, information and guidance on human resources and executive compensation issues. Hugessen cannot provide any services to Management without the committee's prior approval. Hugessen received $121,879 for its services to the HRCC in fiscal 2021 and $239,717 in fiscal 2020.

You can find out more about the HRCC's mandate in the Terms of Reference section posted on the CPP Investments website.

Compensation Discussion and Analysis

This Compensation Discussion and Analysis summarizes the foundational principles of our compensation framework and reviews the elements of our compensation program. It also provides details on the performance results and remuneration paid to our Named Executive Officers (NEOs) for the fiscal year ended March 31, 2021, including:

- President & Chief Executive Officer (CEO) – John Graham
- Former President & Chief Executive Officer – Mark Machin
- SMD & Chief Financial and Risk Officer (CFRO) – Neil Beaumont
- SMD & Head of International, Head of Europe – Alain Carrier
- SMD & Head of Asia Pacific – Suyi Kim
- SMD & Chief Investment Officer (CIO) – Edwin Cass
- SMD & Chief Technology and Data Officer (CTDO) – Kelly Shen

Principles of our compensation program

Our compensation program continues to rest on three key principles:

- Attracting, motivating and retaining top investment and management expertise;
- Paying for performance; and
- Aligning the interests of employees with those of CPP contributors and beneficiaries over the very long term.

Our compensation program is a key factor in attracting the talent and investment experience we need to manage a global, active portfolio effectively. In our search for the best employees, we compete with the largest investment managers and financial institutions in Canada and around the world. As the Fund is one of the largest of its kind globally, we require people with significant experience in investment management, investment research, portfolio design, risk management, investment operations and many other support and governance functions. A competitive compensation package is essential to attract, motivate and retain this talent and effectively execute CPP Investments' mandate to maximize the rate of return without undue risk of loss.

Risk management

Our compensation program reflects our public mandate and our responsibility to manage the Fund in the best interests of CPP's contributors and beneficiaries. We have aligned incentives with our long-term investment strategy and mandate, while considering our target return and risk appetite.

Our compensation program includes a number of key risk-mitigating features:

- **Significant Pay at Risk –** a significant portion of compensation for Senior Management and senior employees is variable and deferred. The deferred portion fluctuates with the total Fund's performance over time;
- **Long-Term Horizon Measurement –** CPP Investments tracks performance over multiple years. This aligns with the long-term nature of our investment mandate;
- **Maximum Payouts –** there is a cap on the incentive multipliers;
- **Robust Benchmark Investment Return Targets –** benchmarks used to calculate dollar value-added and returns reflect an appropriate balance of risk and return, aligned with the Board-approved investment strategy;
- **Board-Approved Risk Limits –** the target rates of return consider the Board-approved overall risk and specific risk limits; and
- **Clawbacks –** the Board can claw back or adjust all forms of incentive compensation.

To ensure that our compensation framework continues to meet or exceed the Principles for Sound Compensation Practices established by the Financial Stability Board and endorsed by the G20 nations, our compensation and risk teams engaged an external consultant to conduct a comprehensive review. The review concluded our compensation practices are consistent with these principles.

Financial Stability Board Principles	CPP Investments Compensation Framework
Based on long-term performance	Based on investment performance over up to five-year periods
Discourage short-term risk-taking	Five-year results discourage short-term decisions Total amount of risk is governed by the Board of Directors Where appropriate, benchmarks adjust for the degree of risk taken
Increased oversight powers of compensation committees	The HRCC and the Board of Directors make all decisions about the compensation framework

Our Compensation Framework

The design of our incentive compensation program takes into account the environment in which we operate, our mission and the strategy we have chosen to execute. We are an organization that is meant to endure for a very long time. As a result, a large element of Management's current focus is on:

- Attracting and retaining the best talent;
- Supporting a global organization;
- Delivering strong performance;
- Improving the effectiveness of technology, operations and risk management; and
- Establishing a strong culture with uncompromising standards of integrity and a commitment to inclusion and diversity.

The program considers these important priorities and reflects them in the performance measures used to determine incentive payouts. It also considers the public responsibility involved in managing the Fund in the best interests of more than 20 million contributors and beneficiaries. It does this by ensuring that risk is considered appropriately. Further, our belief is that what we accomplish is important, but how we accomplish it is equally vital. We have grounded our compensation program in our Guiding Principles and we adhere to the following best practices in designing our compensation structure:

Focus on Total Fund Performance – Every employee's total incentive is partly tied to total Fund performance. The measurement of total Fund performance includes absolute total Fund return as well as dollar value-added. This emphasis on the total Fund allows for a closer linkage between compensation outcomes and the interests of CPP contributors and beneficiaries.

- **Align performance horizon with the long-term nature of our investment mandate –** The five-year time period over which we measure total Fund performance reflects our long-term perspective. Department performance is also measured over a multi-year time frame. This long-term performance horizon improves measurement accuracy and reduces volatility.
- **Measure both quantitative and qualitative outcomes –** As our investment strategy and execution evolve, we consider both quantity and quality when measuring investment performance and other objectives.
- **Align pay mix to market practice –** The mix of fixed and variable compensation, as well as short-term and long-term compensation, reflects market trends.

Aligned with Our Investment Objectives	• Maximize return to the total Fund within agreed risk parameters • Supports CPP Investments' Guiding Principles
Market Competitive	• Enables CPP Investments to attract and retain the right people
Right Time Horizon	• Strong alignment to our long-term investment horizon for performance measurement and for payouts
Simple	• Ability to distinctly differentiate based on individual performance
Enables Application of Informed Judgment	• Clear and simple framework transparent to key stakeholders and prospective employees • Yields increased stability and consistency of performance measurements
Differentiation Based on Individual Performance	• Ability to recognize the distinction of each asset class, strategic and operational objectives, and market conditions

In addition to researching best practices in incentive design, CPP Investments conducts a competitive benchmarking of jobs across the organization annually. This ensures the compensation opportunity is competitive and aligned with the organization's market for talent. We operate within the global investment management industry. We compete globally to attract, motivate and retain employees in Toronto and our offices in Hong Kong, London, Luxembourg, Mumbai, New York, San Francisco, São Paulo and Sydney. Accordingly, we review competitive pay information for Canadian pension funds and broader investment management organizations and financial institutions in Canada. We also review compensation in the other major markets in which we operate, such as the United States, United Kingdom and Hong Kong.

The HRCC also reviews competitive pay levels for each position on the Senior Management Team, including the Named Executive Officers (NEOs). These reviews are relative to a significant market sample and data from proprietary consultant surveys. For the Senior Management Team and NEOs, we benchmark compensation against the following organizations:

- **Canadian pension funds:** These include: Alberta Investment Management Corporation (AIMCo), British Columbia Investment Management Corporation (BCI), Caisse de dépôt et placement du Québec (CDPQ), Healthcare of Ontario Pension Plan (HOOPP), Ontario Municipal Employees Retirement System (OMERS), Ontario Teachers' Pension Plan Board (Ontario Teachers'), and OPSEU Pension Trust (OP Trust).
- **Canadian publicly traded investment asset managers:** CI Investments, AGF Management, Fiera Capital, Mackenzie Financial Corporation, RBC Global Asset Management, among others.
- **Broader labour market:** The top Canadian pension funds and/or the broad financial services market. This includes investment firms, insurance companies and banks in Canada, the U.S. and other relevant international markets.

Compensation elements

Base salary

Employees receive a base salary for fulfilling their core job responsibilities. Salaries reflect skill level, ability and sustained performance. We use annual compensation surveys from reputable compensation consulting firms to ensure that we remain competitive within our talent market.

We review salaries annually at the end of each fiscal year. Any changes to Senior Management Team compensation, including the NEOs' salaries, require Board approval.

Incentive compensation plan

At the end of each fiscal year, employees are eligible to receive an annual award according to the following formula:

Base salary x Incentive target x Performance multiplier = Annual award

We set incentive targets by job level to align with market practices. A portion of the annual award is paid out in cash following the end of the fiscal year. We call this the In-Year Award. For senior employees, a portion is deferred over three years to align with the long-term focus of the Fund. We call this the Deferred Award. It vests and pays out over three years following the fiscal year for which it is awarded.

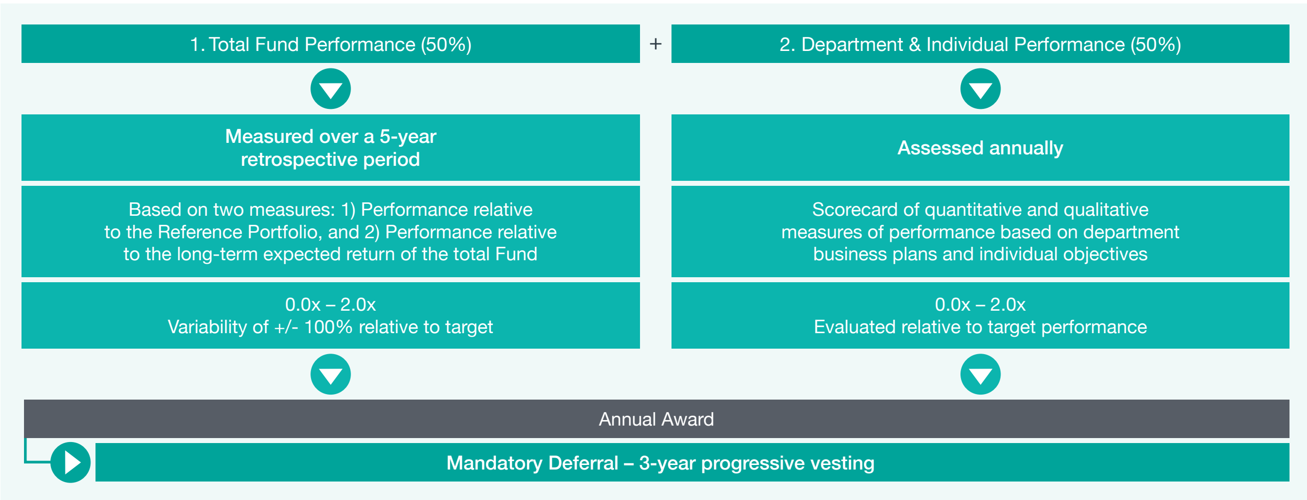
At the end of the fiscal year, the annual award is adjusted by a Performance Multiplier. The Performance Multiplier for all employees, excluding the Senior Management Team, is based on a performance assessment of three factors:

1. Total Fund performance;
2. Department and group performance; and
3. Individual performance.

Each performance factor contributes a fixed percentage or weight to the total incentive pay. In fiscal 2021, the weighting of the total Fund performance multiplier for the Senior Management Team's compensation increased from 30% to 50%. The remaining 50% weighting is a blend of the Senior Management Team member's department performance and their individual performance. This change further aligns the Senior Management Team's compensation with the performance of the total Fund.

The total incentive may vary from zero to a maximum of two times the target amount for each performance factor. The award depends on performance relative to predetermined objectives. This structure applied to all employees across the organization in fiscal 2021 regardless of department, group or geographic location.

The following chart illustrates the incentive plan in fiscal 2021 for the Senior Management Team:



Here is more information on our three performance factors for employees:

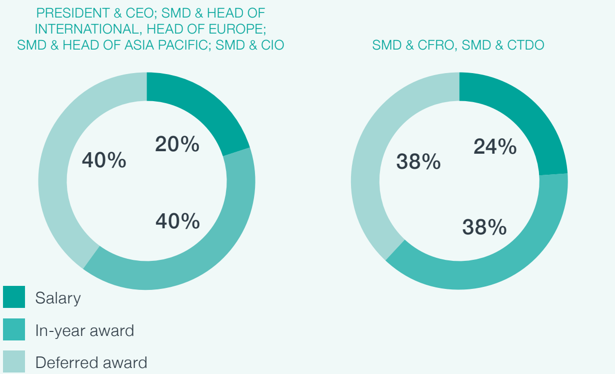
1. **Total Fund performance –** This performance factor includes equally weighted measures of both dollar value-added and total Fund return, each measured over a five-year trailing period. For the purpose of the incentive compensation plan, the Board approved the inclusion of Cash for Benefits starting fiscal year 2021, which will be applied on a go-forward basis. Total Fund reflects the combined long-term Investment Portfolios of the base Canada Pension Plan and the additional Canada Pension Plan.
2. **Department and group performance –** Departments and groups play an important role in contributing to and maximizing the performance of the total Fund. We determine performance objectives at the start of each year. We take both quality and quantity into account and align them with the strategic objectives of the organization. At year end, we measure performance against the objectives defined for each department and group, including value-added. We may measure performance over one year or over several years, depending on the objective and performance measurement approach.
3. **Individual performance –** We assess this performance factor annually for each employee, based on specific objectives identified at the beginning of the year. Assessment of the individual is also based on their performance relative to the expectations of the job and the Integrated Career Framework. In addition, we assess their demonstration of our Guiding Principles of Integrity, Partnership and High Performance.

Employees receive their in-year cash payout following an assessment of their performance and approval by the HRCC and the Board. All deferred awards are treated as if they were invested in the Fund and fluctuate with the total Fund return over time. Employees forfeit the incentive award and any unvested deferred awards if they resign during the fiscal year.

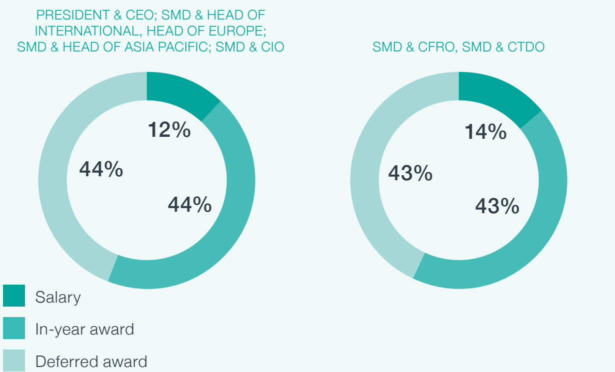
Pay mix

The mix of in-year cash and deferred compensation varies by role and level, with higher deferral targets for more senior professionals. The charts below illustrate the mix of salary, in-year cash, and deferred incentive for fiscal 2021 for the NEOs:

Target Awards



Maximum Awards



Voluntary Deferral Incentive Plan (VDIP)

Where allowed under local tax law, employees may defer some or all of their in-year award in a given year. The deferred portion is treated as if it were invested. The employee can choose to make this nominal investment either entirely in the Fund, or in both the Fund and up to a maximum of 50% in the Fund's portfolio of private investments. The deferred amounts fluctuate in value over the three-year deferral period in line with the returns of the total Fund and, if elected, the returns of the portfolio of private investments. The VDIP provides another way to align employee interests with total Fund performance.

Supplemental Restricted Fund Units (SRFU)

SRFUs are notional investments that fluctuate in value with total Fund performance. SRFUs with multi-year vesting schedules can assist in attracting new employees. That is because they help ease in the compensation of new hires during their transition to CPP Investments. For example, SRFUs can replace forfeited compensation from a previous employer. SRFUs can also be used as part of a transition arrangement to a new role or geographic location for current employees.

Fund Return Units (FRU)

FRUs are a type of long-term incentive compensation that aligns payouts to the long-term absolute performance of the total Fund. An FRU grant pays out an amount equal to the total Fund return on a notional investment in the Fund. Specific plan terms govern FRUs and they are contingent on positive cumulative returns. The grant value is derived using a valuation model which takes into consideration volatility and risk-free rate of return. More about these awards is included in the tables that follow.

Clawback and forfeiture provision

The Board of Directors has the authority to interpret, change and discontinue the compensation plans at its discretion. In addition, the Board may reduce incentive awards or require employees to forfeit them if:

- Financial results are restated and the Board considers the award is therefore excessive. The Board can also require employees to forfeit unvested incentive compensation awards. This provision applies to those at the Managing Director level and above; or
- The incentive award was granted in error; or
- An employee is guilty of misconduct.

Pension

CPP Investments provides its Senior Management Team and employees with the opportunity to participate in defined contribution retirement plans. These have relatively lower and more predictable costs than the more generous defined benefit plans offered by other organizations in the large pension fund and broader financial services industry.

Canada

All Canada-based employees are eligible to participate in our registered and supplementary defined contribution pension plans. Eligible earnings for both pension plans consist of:

- Base salary, plus
- The portion of the incentive paid in a given year (to a maximum of 50% of base salary).

Employees contribute 4.5% of annual eligible earnings to the registered pension plan, and CPP Investments contributes 4.5% to the maximum allowed under the *Income Tax Act* (Canada). For the supplementary pension plan, employees earn contribution credits equal to 9% of eligible earnings over the maximum for the registered pension plan. The supplementary plan is an unfunded plan. It grows at the same rate as the investment choices available under the registered plan.

Hong Kong

All Hong Kong-based employees are eligible to participate in the Mandatory Provident Fund (MPF) which consists of a mandatory program and a voluntary program. Only CPP Investments contributes to the voluntary program. Both programs operate as defined contribution pension plans.

Under the Mandatory Provident Fund Schemes Ordinance, employees contribute 5% of annual eligible earnings and CPP Investments contributes 5% to the monthly maximum allowed. For the voluntary portion of the MPF, CPP Investments contributes 10% of eligible earnings less the employer mandatory MPF contributions. The voluntary program has a graded vesting schedule in which contributions fully vest once an employee reaches 10 years of continuous service.

All the remuneration that employees receive is eligible earnings for the purposes of the mandatory portion of the MPF. The eligible earnings for the purposes of the voluntary program are base salary, plus housing allowance and health savings allowance.

United Kingdom

All United Kingdom-based employees are eligible to participate in our Group Self Invested Personal Pension (GSIPP) which operates as a defined contribution pension plan. Eligible earnings consist of:

- Base salary, plus
- The portion of the incentive paid in a given year (to a maximum of 50% of base salary).

Employees contribute 3% of eligible earnings to the GSIPP. CPP Investments contributes between 7% and 10% of eligible earnings, depending on the individual's role.

Employees based in other global CPP Investments locations are eligible to participate in local pension plans that vary based on local regulations and market practices.

Benefits and other compensation

Our benefits programs are comparable to those provided by similar organizations in our industry. They include life insurance, disability benefits, health, dental and vision benefits, time-off policies, a health and wellness reimbursement, and an Employee-Family Assistance Program. Perquisites are limited to paid parking for the Senior Management Team members based in Toronto.

Fiscal 2021 results: annual objectives, performance outcomes and compensation decisions

This section describes the annual financial and non-financial performance measures and results we used to make compensation decisions for the Named Executive Officers (NEOs) for fiscal 2021.

Annual non-financial objectives

Management establishes the non-financial organizational objectives in the CPP Investments business plan each fiscal year. The Board of Directors approves these goals. You will find the non-financial organizational objectives of fiscal 2021 in Table 1.

Management then aligns annual individual objectives for the Senior Management Team and employees to these organizational objectives. The Board reviews progress against organizational objectives quarterly and at year end. This ensures a pay-for-performance approach to evaluation. Based on the Board's assessment, Management achieved the organizational objectives for fiscal 2021.

Table 1: Fiscal 2021 Non-Financial Objectives

1. Continue to scale our investment programs and increase our global presence.
2. Foster a culture that promotes innovation, ambition, agility and inclusiveness.
3. Further develop key technology infrastructure and data-analysis capabilities.
4. Build on our risk framework to deliver world-class risk management and risk governance.
5. Develop alpha-generating capabilities to enhance the quality of investment analysis and decision-making.

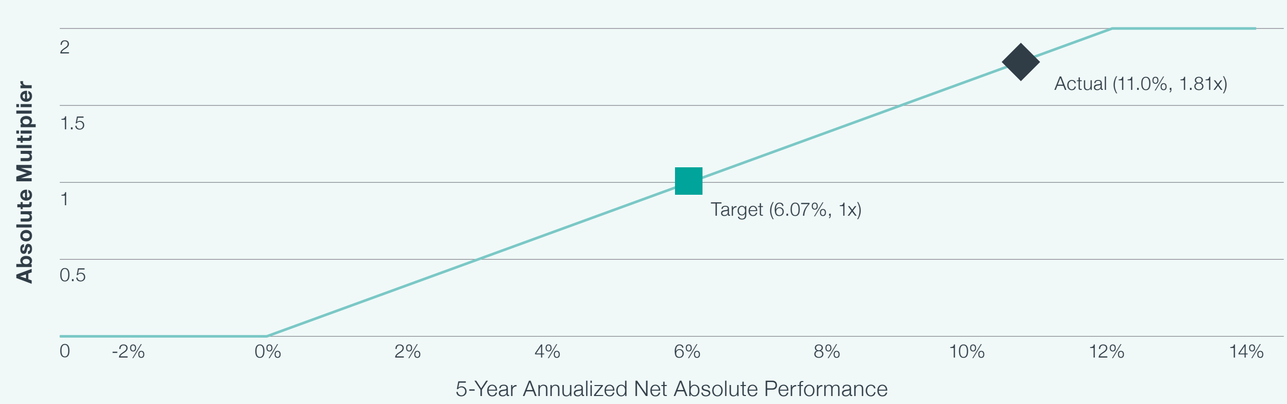
Total Fund performance

We measure total Fund performance over a five-year period using two equally weighted criteria:

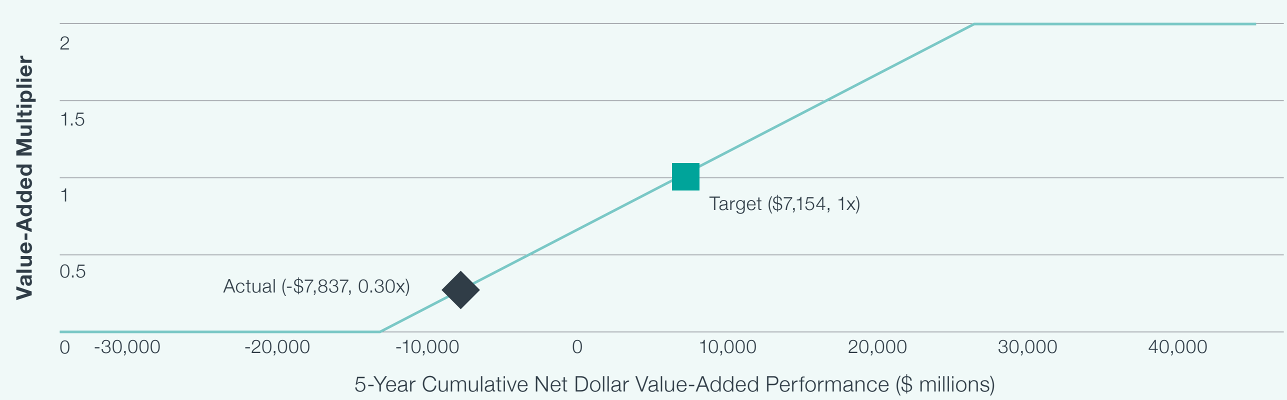
1. **Absolute performance –** Absolute return of the total Fund; and
2. **Relative performance –** Value-added relative return of the total Fund compared to the aggregated Reference Portfolios.

For compensation payout purposes, we measure total Fund performance over a five-year period relative to each of these two criteria and map it to a multiplier. For the absolute-performance component, achieving a five-year annualized target return of 6.07% will result in a target multiplier of 1x. For the relative performance component, the Fund must reach a five-year cumulative target dollar value-added (DVA) of $7.15 billion to achieve a relative performance multiplier of 1x. The Board reviews targets annually. The graphs below map the fiscal 2021 target and actual total Fund performance.

Absolute Performance Component of the Total Fund Performance Multiplier



Value-Added Performance Component of the Total Fund Performance Multiplier



In Table 2 below, total Fund performance is measured over the five fiscal years beginning April 1, 2017 and ending March 31, 2021. The absolute and relative performance of the total Fund in fiscal 2021 resulted in an equally weighted total Fund multiplier of 1.06.

Table 2: Total Fund[1,2] Performance, Fiscal 2017 to 2021 and Cumulative Results

	Absolute Performance				Relative Performance				
Fiscal year	Total Fund Gross Return ($ billion)	Total Fund Net Return ($ billion)	Total Fund Net Return %	Total Fund Absolute Multiplier	Reference Portfolios Return ($ billion)	Total Fund Gross DVA ($ billion)	Total Fund Net DVA ($ billion)	Total Fund Value-Added Multiplier	Total Fund Multiplier
2017	34.4	33.4	11.84%		41.6	(7.2)	(8.2)		
2018	37.8	36.7	11.56%		31.0	6.8	5.7		
2019	33.2	32.0	8.95%		25.6	7.6	6.4		
2020	13.3	12.1	3.09%		(11.4)	24.8	23.5		
2021	**85.4**	**84.0**	**20.37%**		**119.3**	**(33.9)**	**(35.3)**		
Cumulative $ / Annualized % – 5 year	**204.1**	**198.2**	**11.02%**	**1.81**	**206.1**	**(2.0)**	**(7.8)**	**0.30**	**1.06**
Cumulative $ / Annualized % – 10 year	**312.9**	**303.8**	**10.83%**		**295.2**	**17.6**	**8.6**		

1. Results prior to fiscal year 2021 excluded the Cash for Benefits Portfolio, consistent with how total Fund was previously defined for incentive compensation plan purposes.
2. Figures do not add up due to rounding.

Department performance

Each investment department has both financial and non-financial objectives. The CEO evaluates performance against these objectives for approval by the Board. All departments met or exceeded their target performance.

A more detailed description of the total Fund and investment department performance is found on page 55 in the Management's Discussion and Analysis section.

Compensation disclosure

We align with the best practices for compensation disclosure for a public pension fund. We disclose compensation information for key management personnel as a group. We also disclose individual compensation figures for the CEO, the CFO, and the next four highest-paid Senior Management Team members.

Compensation of Key Management Personnel

We define key management personnel as the Senior Management Team and the Board of Directors. For more information on Director compensation, please refer to the Governance Practices section that begins on page 125. The total compensation expense for key management personnel for fiscal 2021 is $53 million, up 19% from $45 million for fiscal 2020. This increase was principally a result of higher rate of return, which increases the value of outstanding deferred compensation from prior years, and one additional key management personnel.

See Note 14.1 of the Financial Statements for more information.

Compensation of the CEO

The CEO participates in the same incentive compensation plan as all employees at CPP Investments with the pay mix of an Officer. At the start of each fiscal year, the Board and the CEO agree on organizational and individual objectives for the CEO. At year end, the HRCC evaluates the CEO's performance against those objectives and presents its evaluation to the Board for review and approval. Because Mr. Graham assumed his role late in the fiscal year, the HRCC and Board took into account those objectives set for him in his role as Senior Managing Director & Global Head of Credit Investments as well as the early expectations of his performance in the role of CEO.

Accomplishments for fiscal 2021 included achievements against the following goals:

- Champion and progress implementation plan for 2025 strategy.
- Executive sponsor for the Business architecture – Investment governance workstream which led to the creation of the new Chief Investment Officer role.
  - Recommended future operating model for investment governance.
- Grow, attract and retain top talent at all levels to create a wide and deep pool of diverse, global leaders.
  - 49% internal employees were selected for senior vacancies, relative to 30% last year, speaking to the excellent bench strength and succession planning.
- Make demonstrable progress towards attaining our fiscal 2025 diverse representation ambitions and making our work environment more inclusive.
  - Female representation across the organization is at 45.8% and across investment departments, has grown from 37% in fiscal year 2020 to 38.5% in fiscal 2021.
- Continue to champion CPP Investments' global culture of high performance, partnership and integrity.
  - The cross-department team launched to champion our culture had over 200 'wins' and is tackling complex problems with a "speed to impact" framework.
- Maintain our reputation as a trusted institution.
- Drive the themes of Ambition, Agility, Innovation and Inclusion.

The Board of Directors awarded Mr. Graham a total incentive award of $2,374,315 for fiscal 2021. His leadership of the organization, its critical priorities and Fund management strongly position CPP Investments to continue working in the best interests of CPP's contributors and beneficiaries.

The table below shows a summary of the CEO Total Direct Compensation for fiscal 2021.

Table 3: Fiscal 2021 CEO Total Direct Compensation

	Fiscal 2021 Total	
	Target Annual	Actual Annual
Base salary (A)[1]	**650,000**	**464,096**
Total Fund	1,300,000	982,027
Department/Individual	1,300,000	1,392,288
Total Incentive Award (B)	**2,600,000**	**2,374,315**
In-year Award	1,300,000	1,187,157
Deferred Award	1,300,000	1,187,157
Other Deferred Award (C)[2]	**700,000**	**58,334**
Total Direct Compensation (A) + (B) + (C)	**3,950,000**	**2,896,745**
Fiscal 2021 Total Direct Compensation	**3,950,000**	**2,896,745**

1. Mr. Graham was appointed President & CEO on February 26, 2021. His fiscal 2021 salary and incentive are prorated for time spent in both roles – SMD and CEO. The CEO's base salary will remain unchanged for fiscal 2022.
2. Mr. Graham received a prorated FRU award of C$58,334 upon his appointment as President & CEO. The underlying notional investment of the fiscal 2021 award is C$388,893.

Mark Machin ceased to be President & CEO effective February 25, 2021. For the period between February 26, 2021 to June 15, 2021, Mr. Machin is providing transitional service in an advisory role to the Board Chair and new CEO. Per the terms of his employment arrangements and subject to continued compliance with certain non-competition and non-solicitation undertakings, Mr. Machin will receive compensation commensurate with that of a retiree of the company. Mr. Machin's VDIP election will also remain in the plan until maturity.

Compensation for the Named Executive Officers

Table 4 below shows the total direct compensation in fiscal 2021 for each Named Executive Officer (NEO).

Table 4: Summary Fiscal 2021 Total Direct Compensation

	Currency	**Base Salary (A)**	Total Fund	Department/ Individual	**Total Incentive Award (B)**	In-year Award	Deferred Award	**Total Direct Compen-sation (A) + (B)**
Neil Beaumont SMD & Chief Financial and Risk Officer	CAD	**448,050**	770,310	1,164,930	**1,935,240**	967,620	967,620	**2,383,290**
Alain Carrier SMD & Head of International, Head of Europe	GBP	**436,000**	922,576	1,220,800	**2,143,376**	1,071,688	1,071,688	**2,579,376**
Suyi Kim[1] SMD & Head of Asia Pacific	HKD	**4,239,480**	7,849,397	10,386,726	**18,236,123**	9,118,062	9,118,062	**22,475,603**
Edwin Cass[2,3] SMD & Chief Investment Officer	CAD	**527,945**	1,117,132	1,478,247	**2,595,379**	1,297,689	1,297,689	**3,123,324**
Kelly Shen[4] SMD & Chief Technology and Data Officer	USD	**469,406**	807,026	1,144,177	**1,951,203**	975,602	975,602	**2,420,609**

1. Ms. Kim is also eligible for a Housing Allowance (HA) in Hong Kong, similar to other employees, as shown in Table 5.
2. Mr. Cass' compensation has been prorated to reflect time in each role – SMD & Global Head of RA as well as SMD & Chief Investment Officer (CIO).
3. Upon his appointment as CIO, Mr. Cass received a FRU award of C$300,000. Details provided in Table 5.
4. Ms. Shen's compensation is prorated based on time spent in the U.S. and Canada. Other payments are detailed in Table 5.

The total compensation awarded to the Named Executive Officers is $23.3 million, down compared to $24.2 million in fiscal 2020.

Table 5 below shows total compensation over the past three fiscal years for the Named Executive Officers.

Table 5: Summary Total Compensation

Name and Position	Year	Currency	Base Salary ($) A	In-year Award ($) B	Deferred Award[1] ($) C	Other Deferred Award[2] D	Pension Value ($) E	All Other Compensation[5] ($) F	Total Compensation (with Deferred Award) ($) A+B+C+D+E+F
John Graham[2,3,4,5,6,7]	**2021**	**CAD**	**464,096**	**1,187,157**	**1,187,157**	**58,334**	**46,930**	**7,911**	**2,951,586**
President & CEO	2020		437,500	1,364,125	1,364,125		45,214	114,654	3,325,618
Appointed February 26, 2021	2019		396,541	1,401,423	1,323,635	400,000	26,044	41,268	3,588,911
Mark Machin[2,4,5,8,9]	**2021**	**CAD**	**625,000**	**1,036,250**	**1,036,250**	**800,000**	**436,784**	**55,614**	**3,989,898**
Former President & CEO	2020		625,000	1,980,000	1,980,000	800,000	436,035	62,520	5,883,555
Until February 25, 2021	2019		625,000	2,100,063	2,100,063	440,000	436,380	54,900	5,756,406
Neil Beaumont[4,5,10]	**2021**	**CAD**	**448,050**	**967,620**	**967,620**		**47,348**	**42,406**	**2,473,043**
SMD & Chief Financial	2020		445,875	1,147,682	1,147,682		46,510	52,999	2,840,749
and Risk Officer	2019		435,000	1,119,019	1,119,019		45,233	83,471	2,801,742
Alain Carrier[4,5,11]	**2021**	**GBP**	**436,000**	**1,071,688**	**1,071,688**		**57,469**	**13,610**	**2,650,455**
SMD & Head of International,	2020		436,000	1,276,608	1,276,608		57,469	14,957	3,061,642
Head of Europe	2019		436,000	1,367,340	1,367,340		57,469	13,549	3,241,698
Suyi Kim[4,5,12]	**2021**	**HKD**	**4,239,480**	**9,118,062**	**9,118,062**		**533,532**	**1,535,123**	**24,544,258**
SMD & Head of Asia Pacific	2020		3,187,988	8,167,626	8,167,626		413,741	1,200,850	21,137,831
	2019		4,151,380	11,346,386	10,699,945		461,481	1,478,837	28,138,030
Edwin Cass[2,4,5,13]	**2021**	**CAD**	**527,945**	**1,297,689**	**1,297,689**	**300,000**	**58,656**	**276,913**	**3,758,893**
SMD & Chief Investment Officer	2020		500,000	1,493,000	1,493,000		52,976	483,820	4,022,796
	2019		479,479	1,547,808	1,547,808		49,525	291,462	3,916,083
Kelly Shen[5,14,15,16]	**2021**	**USD**	**469,406**	**975,602**	**975,602**		**38,704**	**43,128**	**2,502,441**
SMD & Chief Technology	2020		432,079	1,104,449	1,104,449		48,700	107,320	2,796,996
and Data Officer	2019		180,878	442,080	442,080	1,646,768	8,162	56,451	2,776,420

1. The Deferred Award represents the award value at the time of the award. The award value fluctuates with the performance of the total Fund over the vesting period.
2. Other Deferred Award refers to one-time, long-term awards. For the CEO, former CEO and CIO, these include Fund Return Unit (FRU) awards.
3. Mr. Graham was appointed President & CEO on February 26, 2021. His fiscal 2021 compensation was prorated to reflect time in both roles – SMD & Global Head of Credit Investments, and President & CEO. Mr. Graham's fiscal 2019 awards were prorated for time spent in both roles – MD, Head of Principal Credit Investments and SMD & Global Head of Credit Investments.
4. NEO elected to defer all or part of the fiscal 2021 In-year award into the Voluntary Deferred Incentive Plan (VDIP).
5. All other compensation includes the premium or value of life insurance, disability benefits, health, dental and vision benefits, discretionary employment arrangements, health and wellness reimbursement as well as comprehensive health assessment conducted at a private medical clinic. Perquisites are limited to paid parking for Senior Management Team members based in Canada. Ms. Kim received a housing allowance in Hong Kong. Mr. Cass received a temporary allowance for the duration of his international assignment. Mr. Graham received a temporary allowance in fiscal 2019 and in fiscal 2020 as part of his international assignments. These figures include all relocation and assignment costs as applicable. Ms. Shen received a special allowance to support her commuting arrangement and this ceased in fiscal 2021.
6. Upon appointment to President & CEO, Mr. Graham received a prorated FRU award of C$58,334. Based on a valuation, the underlying notional investment of this award is C$388,893.
7. In fiscal 2019, Mr. Graham was awarded a recognition award called the Extraordinary Contribution Award (ECA) by the Board of Directors for his leadership in managing multiple Investment Departments during a period of transition.
8. As President & CEO, Mr. Machin received four FRU awards: C$500,000 upon appointment, C$440,000 in fiscal 2019, C$800,000 in fiscal 2020 and C$800,000 in fiscal 2021. Based on a valuation, the underlying notional investment of the first award is C$2.70 million and it vests over seven years. The notional investment value of the other awards were C$2.93 million, C$5.33 million, and C$5.33 million, respectively. All of these awards vest over five years.
9. Mr. Machin's other compensation and pension values during his time in Hong Kong are converted using the exchange rate in effect on March 31, 2021 (CAD:HKD 1:6.19), March 31, 2020 (CAD:HKD 1:5.45), and on March 31, 2019 (CAD:HKD 1:5.88), as applicable.
10. Mr. Beaumont received a fiscal 2018 SRFU grant of C$1.40 million as part of his employment agreement. This award vested 60% in fiscal 2018, 20% in fiscal 2019 and 20% in fiscal 2020.
11. Upon promotion to SMD, Head of International on June 21, 2016, Mr. Carrier received an SRFU award of GBP 1 million. This award vested 50% in fiscal 2017, 40% in fiscal 2018 and 10% in fiscal 2019.
12. Ms. Kim's other compensation is converted using the exchange rate in effect on March 31, 2021 (USD:HKD 1:7.77), March 31, 2020 (USD:HKD 7.75), and on March 31, 2019 (USD:HKD 1:7.85), as applicable. Her fiscal 2020 compensation is prorated to reflect time on an approved leave.
13. Mr. Cass was appointed SMD & CIO on September 9, 2020. His salary and incentive is prorated for time spent as SMD & CIO and as SMD & Global Head of RA. Upon his appointment as CIO, Mr. Cass received a FRU award of C$300,000. Based on a valuation, the underlying notional investment of this award is C$2 million.
14. Ms. Shen's compensation is converted using the exchange rate in effect on March 31, 2021 (CAD:USD 1:0.80), March 31, 2019 (CAD:USD 1:0.70), and on March 31, 2020 (CAD:USD 1:0.75).
15. Ms. Shen's fiscal 2019 compensation was prorated based on start date of November 5, 2018. Her fiscal 2021 salary and incentive are prorated based on time spent in the U.S. and Canada.
16. Ms. Shen received a fiscal 2019 SRFU grant of C$2.20 million as part of her employment agreement. This award vests 33% in fiscal 2019, 33% in fiscal 2020 and 34% in fiscal 2021.

Deferred compensation

NEOs must defer a portion of their annual incentive award. The deferred portion vests and pays out in equal instalments over a three-year period following the fiscal year for which the award is given. All deferred awards fluctuate in value with the net total Fund rate of return during the vesting period. Table 6 below shows the outstanding deferred awards and the future payouts for each Named Executive Officer.

Table 6: Deferred Awards

Name	Currency	Type of Award	Year of Award	Award Value	Payments in Current Year 2021	Current Value of Unvested Awards[1]
John Graham[2,3,4]	CAD	Deferred Award	**2021**	**1,187,157**		**1,187,157**
President & CEO			2020	1,364,125	547,469	1,094,938
Appointed February 26, 2021			2019	1,323,635	547,634	547,634
			2018	714,142	321,909	
		FRU Grant	**2021**	**58,334**		**79,334**
		ECA	2019	400,000	165,494	165,494
Mark Machin[5]	CAD	Deferred Award	**2021**	**1,036,250**		**1,036,250**
Former President & CEO		Deferred Award	2020	1,980,000	794,640	1,589,280
Until February 25, 2021		Deferred Award	2019	2,100,063	868,869	868,869
		Deferred Award	2018	1,971,825	888,827	
		FRU Grant	**2021**	**800,000**		**1,087,932**
		FRU Grant	2020	800,000		1,286,339
		FRU Grant	2019	440,000		1,032,214
		FRU Grant	2017	500,000		1,855,538
Neil Beaumont	CAD	Deferred Award	**2021**	**967,620**		**967,620**
SMD & Chief Financial		Deferred Award	2020	1,147,682	460,603	921,206
and Risk Officer		Deferred Award	2019	1,119,018	462,976	462,976
		Deferred Award	2018	728,762	328,500	
Alain Carrier	GBP	Deferred Award	**2021**	**1,071,688**		**1,071,688**
SMD & Head of International,		Deferred Award	2020	1,276,608	512,345	1,024,691
Head of Europe		Deferred Award	2019	1,367,340	565,716	565,716
		Deferred Award	2018	1,348,513	607,861	
Suyi Kim[6]	HKD	Deferred Award	**2021**	**9,118,062**		**9,118,062**
SMD & Head of Asia Pacific		Deferred Award	2020	8,167,626	3,277,941	6,555,881
		Deferred Award	2019	10,699,945	4,426,937	4,426,937
		Deferred Award	2018	6,801,869	3,066,036	
Edwin Cass[7]	CAD	Deferred Award	**2021**	**1,297,689**		**1,297,689**
SMD & Chief Investment Officer		Deferred Award	2020	1,493,000	599,191	1,198,381
		Deferred Award	2019	1,547,808	640,382	640,382
		Deferred Award	2018	1,441,025	649,562	
		FRU Grant	**2021**	**300,000**		**408,000**
Kelly Shen[8,9]	USD	Deferred Award	**2021**	**975,602**		**975,602**
SMD & Chief Technology		Deferred Award	2020	1,104,449	501,971	1,003,943
and Data Officer		Deferred Award	2019	442,080	194,415	194,415
		SRFU Award	2019	1,646,768	804,801	

1. Current estimated value of unvested Awards is based on a Fund return of 0% for future years. For Deferred Awards, ECAs, and SRFUs, it equals the award value at grant date times the cumulative net total Fund rate of return, and applicable foreign exchange rates at time of award. For FRUs, the value represents only the cumulative net total Fund rate of return of the underlying notional investment since grant.
2. Upon appointment to President & CEO, Mr. Graham received a prorated FRU award of C$58,334. Based on a valuation, the underlying notional investment of this award is C$388,893.
3. Mr. Graham was appointed President & CEO on February 26, 2021. His fiscal 2021 compensation was prorated to reflect time in both roles – SMD & Global Head of Credit Investments, and President & CEO. Mr. Graham's fiscal 2019 awards were prorated for time spent in both roles – MD, Head of Principal Credit Investments and SMD & Global Head of Credit Investments.
4. In fiscal 2019, Mr. Graham was awarded a recognition award called the Extraordinary Contribution Award (ECA) by the Board of Directors for his leadership in managing multiple Investment Departments during a period of transition.
5. As President & CEO, Mr. Machin received four FRU awards: C$500,000 upon appointment, C$440,000 in fiscal 2019, C$800,000 in fiscal 2020 and C$800,000 in fiscal 2021. Based on a valuation, the underlying notional investment of the first award is C$2.70 million and it vests over 7 years. The notional investment value of the other awards were C$2.93 million, C$5.33 million, and C$5.33 million, respectively. All of these awards vest over 5 years.
6. Ms. Kim's fiscal 2020 compensation is prorated to reflect time on an approved leave.
7. Mr. Cass was appointed SMD & CIO on September 9, 2020. His salary and incentive is prorated for time spent as SMD & CIO and as SMD & Global Head of RA. Upon his appointment as CIO, Mr. Cass received a FRU award of C$300,000. Based on a valuation, the underlying notional investment of this award is C$2 million.
8. Ms. Shen received a fiscal 2019 SRFU grant of C$2.20 million as part of her employment agreement. This award vests 33% in fiscal 2019, 33% in fiscal 2020 and 34% in fiscal 2021.
9. Ms. Shen's award values have been converted to USD using the exchange rate in effect on March 31, 2021 (CAD:USD 1:0.80), March 31, 2020 (CAD:USD 1:0.70), and on March 31, 2019 (CAD:USD 1:0.75). The current value of unvested awards has been converted to USD using the exchange rate in effect on March 31, 2021 (CAD:USD 1:0.80).

Pension plans

As described earlier, all Canada-based employees participate in the regular and, if applicable, supplementary defined contribution pension plans. Employees based outside of Canada are eligible to participate in local pension plans that vary based on local regulations and market practices.

The table below shows the contributions and investment earnings for the Named Executive Officers under all plans. The total unfunded liability for the Canadian-based Named Executive Officers, as at March 31, 2021, is $1,076,936 (2020 – $667,776).

Table 7: Pension Plan Contributions

				Compensatory ($)			
Name	Plan Type	Currency	Accumulated Value at Start of Year ($)	Employer Contributions ($)	Investments Earnings ($)[5]	Non-compensatory ($)[1]	at End of Year ($)
John Graham	Registered	CAD	372,640	13,145		125,957	511,742
President & CEO	Supplementary		104,053	33,785	31,718		169,557
Mark Machin[2,3]	Registered	CAD	118,214	12,833		56,799	187,846
Former President & CEO	Supplementary		169,457	58,708	51,753		279,919
	Retirement Compensation Arrangement		634,656	365,000	62,746		1,062,402
	Mandatory[3]	HKD	163,776	1,500		(1,578)	163,698
	Voluntary[3]		1,667,789	0		(34,160)	1,633,629
Neil Beaumont	Registered	CAD	72,941	13,140		37,461	123,541
SMD & CFRO	Supplementary		59,972	34,208	18,907		113,086
Alain Carrier[4]	GSIPP	GBP	748,528			169,206	917,733
SMD & Head of International, Head of Europe	Cash-In-Lieu[4]			57,469	see note 4		57,469
Suyi Kim	Mandatory	HKD	438,061	18,000		11,231	467,292
SMD & Head of Asia Pacific	Voluntary		3,675,783	515,532		(45,453)	4,145,862
Edwin Cass	Registered	CAD	398,771	13,569		164,559	576,899
SMD & Chief Investment Officer	Supplementary		374,974	45,087	94,313		514,374
Kelly Shen[5]	Registered[5]	CAD	43,452	6,428		14,367	64,247
SMD & Chief Technology and	Supplementary[5]		45,314	29,287	6,110		80,711
Data Officer	401K	USD	0	10,288		40,692	50,980

1. Represents employee contributions and investment earnings in the registered pension plans.
2. Mr. Machin's Retirement Compensation Arrangement represents investment earnings and government tax deductions in the plan.
3. Mr. Machin became an active and non-participating member of the Mandatory Provident Fund (MPF) for Hong Kong when he assumed the role of CEO, which has an employee and employer mandatory contribution of 5% towards relevant income capped at HKD 30,000 of monthly earnings.
4. Mr. Carrier receives employer pension contributions as cash-in-lieu less statutory deductions and the employer portion of National Insurance contributions due to reaching the U.K. lifetime pension allowance.
5. Upon relocation to the U.S. on July 1, 2020, Ms. Shen ceased membership in the Canadian pension programs and joined the U.S. program.

Termination and retirement arrangements for the President & CEO

The President & CEO is eligible to retire from the organization and receive certain benefits, provided he has reached the combined threshold age of 55 and 10 years of service at CPP Investments, and has provided notice at least six months in advance of departure. Any Annual Incentive Award during the year of retirement is paid out on a prorated basis. Any unvested deferred awards continue to vest according to the established vesting schedule. All benefits stop on the date of retirement.

In the event of termination without cause, severance pay for the President & CEO is set at:

- Any base salary earned and remaining payable and a prorated payment in lieu of the Incentive In-Year Award at target, plus
- An amount equivalent to 21 months of salary and an amount in lieu of an In-Year Incentive Award calculated based on the weighted average of the three prior completed fiscal years; and
- Deferred Awards that would otherwise have vested during the 21-month period.

The President & CEO forfeits any deferred portion of the incentive awards, with the exception of voluntary deferrals and any vested awards. Insured benefits, such as health, dental and life coverage, continue during the severance period.

In the case of termination with cause, the President & CEO forfeits all incentives and benefits. There are no change-of-control provisions in the employment arrangements.

In the event of resignation from employment, all incentives and benefits are forfeited.

Termination and retirement arrangements for the NEOs

In the event of termination *without* cause, severance pay for the Named Executive Officers (NEOs) is set at:

- 12 months of base salary and a prorated payment for the value of the In-Year Award at target of the respective fiscal year;
- An additional month of salary and one-twelfth of the target In-Year Award for each year of service, up to a maximum of 18 months of base salary and In-Year Award; and
- Deferred Awards that would otherwise have vested in that period to a maximum of 18 months.

In the case of termination *with* cause or resignation, the employee forfeits all incentives, unvested awards and benefits. There are no change-of-control provisions in the employment arrangements.

For Ed Cass specifically, in the event of resignation Mr. Cass will receive a prorated payment of the Deferred Award that would have vested at the end of the fiscal year of resignation. This provision is in consideration of his post-employment obligations. It is payable one year after resignation. All other incentives and benefits are forfeited.

As with other employees, NEOs are entitled to retire from the organization provided they have reached the combined threshold age of 55 and 10 years of service at CPP Investments.

Upon retirement, employees continue to receive the ongoing deferral payments owed to them under the Incentive Plan, provided they continue to satisfy the retirement criteria under the Plan. The normal payment cycle applies and payments are subject to the same conditions. All benefits stop on the date an employee retires.

Table 8 below shows the payments that would be made, as of March 31, 2021, to the Named Executive Officers if they retire or are terminated without cause.

Table 8: Potential Termination and Retirement Payments[1]

Name	Currency	Completed years of service	Severance[2]	Retirement treatment of unvested awards[3,4]
John Graham President & CEO	CAD	13	3,400,788	2,991,934
Neil Beaumont SMD & Chief Financial and Risk Officer	CAD	3	1,470,164	2,619,100
Alain Carrier SMD & Head of International, Head of Europe	GBP	13	1,962,000	2,963,000
Suyi Kim SMD & Head of Asia Pacific	HKD	13	19,395,621	22,559,700
Edwin Cass SMD & Chief Investment Officer	CAD	13	2,783,753	3,903,500
Kelly Shen SMD & Chief Technology and Data Officer	USD	2	1,437,556	2,741,600

1. Excludes incentive compensation payouts included in Table 5: Summary Total Compensation. Termination and retirement payments are estimated as of March 31, 2021. Actual payments are prorated based on time worked in the performance period.
2. Excludes the value of any deferred awards that may continue to vest as per severance terms and the cost of benefits continued during the relevant notice period, where applicable.
3. Upon retirement, payout of the unvested awards will be subject to the following conditions:
   – Performance is measured at the end of the vesting period;
   – Continued compliance with post-employment obligations; and
   – Payment is made at the end of vesting period.
4. The unvested awards assume a net return of 0% on the Fund for future years.

Governance Practices of the Board of Directors

Letter from the Chair of the Governance Committee

We believe sound governance practices are integral to the successful long-term performance of all companies in which we invest. This extends to the success of CPP Investments. Strong governance practices help to ensure compliance with the law and with the ethical standards that we expect of everyone at CPP Investments. We are committed to rigorous standards of corporate governance and strive to be a leader in setting global governance best practices for our industry.

Good governance starts with our Board of Directors. The Governance Committee of the Board regularly assesses our corporate governance. It takes into account evolving global best practices, regulatory changes and stakeholder expectations. The Committee works to ensure the Board's effectiveness by reviewing criteria and qualifications for Directors, planning for Board succession and overseeing Director orientation and ongoing development programs. The Committee also oversees the annual Board evaluation process as described under A Commitment to Accountability on page 129. We monitor the application of the Code of Conduct and related policies across CPP Investments. In addition, we recommend Proxy Voting Principles and Guidelines, which provide the public companies of which we own shares guidance on how CPP Investments is likely to vote on matters put to shareholders, for Board approval.

My colleagues on the Committee for fiscal 2021 were: Tahira Hassan, Chuck Magro, John Montalbano (until December 2020), Heather Munroe-Blum (in an ex officio capacity), Karen Sheriff and Boon Sim (from September 2020).

Fiscal 2021 report on activities

One of the primary responsibilities of the Governance Committee is to lead the Board in assessing and planning for Board composition and succession, ensuring an appropriate balance of renewal and continuity. Boon Sim was appointed to the Board in July 2020, replacing Jackson Tai who retired at the end of fiscal 2019. This fiscal year, we undertook an in-depth search for two director candidates to replace Karen Sheriff and Jo Mark Zurel, whose final terms on the Board are ending in 2021, and made recommendations to CPP Investments' stewards for individuals to succeed Ms. Sheriff and Mr. Zurel. The Committee also recommended each of Tahira Hassan, Chuck Magro and Sylvia Chrominska, as well as Chairperson Heather Munroe-Blum, for reappointment.

All appointment and reappointment recommendations, including those made by us in fiscal 2021, are based upon our stringent Director Appointment and Reappointment Process described on page 127. This includes taking into account the Board composition matrix set out on page 129 and the results of our established Board, committee and peer evaluation process, among other factors.

In fiscal 2021, the Committee undertook a review of the Board's effectiveness, focused on optimizing how the Board spends its time, with a view to continuous improvement and further augmenting the performance of the Board. The Board worked with Management to implement the resulting recommendations over the remainder of the year and this work, intended to ensure the Board's processes and structures continue to reflect best practices, will continue into fiscal 2022.

The Committee undertook a deep dive in respect of CPP Investments' proxy voting activities in respect of its public market holdings, to better inform the Committee's responsibility to annually review updates to the Proxy Voting Principles and Guidelines. This year, the Committee engaged with Management on notable updates to the Guidelines in the areas of gender diversity and climate change, recommending these for Board approval.

The Governance Committee oversaw the orientation and integration of newer Directors, as well as continuing development and education for all Directors, with a focus on Board culture and cohesion during the extended virtual meeting period this year. The Committee also maintained its focus on overseeing organizational conduct and culture, including continuing to refine the holistic Board reporting on conduct and culture matters, which underscores the importance CPP Investments places on culture in the context of the 2025 strategy.

In the upcoming year, in addition to our continuing activities, we will carry out the biennial review of Director compensation and undertake a search to replace long-standing Director Kathleen Taylor, whose final term on the Board ends in fiscal 2023.

N. Ashleigh Everett
Chair, Governance Committee

Governance Practices of the Board of Directors

This section sets out certain key governance practices of the Board of Directors. Additional governance information is available on our website.

Mandate, duties and objectives of the Board of Directors

The Board of Directors is responsible for overseeing the management of the business and affairs of CPP Investments.

Among other duties, the Directors:

- Appoint the President & CEO and annually review his or her performance;
- Determine the organization's strategic direction in collaboration with Management;
- Review and approve investment policies, standards and procedures;
- Review and approve the Integrated Risk Policy which establishes enterprise risk appetite;
- Approve the guidelines for investment transaction approvals and for retaining external investment managers;
- Review the Investment Portfolios and the results of investment decisions;
- Review and approve the annual business plan and budget;
- Oversee succession planning for Senior Management;
- Set compensation policies and approve Senior Management compensation;
- Appoint CPP Investments' external auditor;
- Establish and monitor compliance with the Code of Conduct for Directors and employees;
- Establish procedures to identify and resolve conflicts of interest;
- Establish other policies relating to matters such as authorities, procurement, anti-corruption, privacy, and travel and expenses;
- Review and approve material disclosures such as quarterly and annual financial statements and the annual report; and
- Assess the performance of the Board itself, including an annual Chairperson and Director peer review.

One of the Board's most important responsibilities is to preserve a governance model in which CPP Investments operates at arm's length from governments, acting as an independent, professional investment organization.

The CPP Investments governance structure balances that independence with accountability by making investment professionals accountable to an independent Board of Directors. The Board ensures that CPP Investments' investment-only mandate is undertaken without regard to political, social or economic development considerations or any other non-investment objectives.

CPP Investments' Code of Conduct states that Board members shall not participate in any political activity that could:

- Be incompatible with their duties;
- Affect their ability to carry out their duties in a politically impartial fashion; or
- Cast doubt on the integrity, objectivity or impartiality of the organization.

There is an expectation that Directors, like Officers and employees, will promptly report any attempted political interference with respect to investments, procurement, hiring or any other decisions. No such reports have been made.

Directors must also act honestly and in good faith with a view to the best interests of CPP Investments. They must exercise the care, diligence and skill that a reasonably prudent person would apply in comparable circumstances. In carrying out their duties, they must employ any particular expertise or skill they possess.

Mandates, activities and composition of Board committees

The Board has five standing committees that met during fiscal 2021: Investment, Audit, Risk, Human Resources and Compensation, and Governance. Membership is shown in the Board Attendance chart on page 132.

The Investment Committee oversees CPP Investments' core business, which is making investment decisions within the context of a Board-approved framework. This Committee reviews and recommends investment policies to the Board. It also reviews, approves and monitors the long-term investment strategy. In addition, the Committee approves certain investment transactions and approves the engagement of external investment managers in accordance with the *Canada Pension Plan Investment Board Act* (CPPIB Act).

The Audit Committee oversees management controls and financial reporting. This includes recommending for Board approval the financial statements and the Management's Discussion and Analysis section of this report. It also involves overseeing the external and internal audit functions, including appointing the internal auditor and recommending the external auditor for appointment by the full Board. Without Management present, the Audit Committee regularly meets separately with each of the external and internal auditors, as well as with the Chief Financial and Risk Officer (CFRO). It also reviews information systems and internal control policies and practices.

The Audit Committee advises the Board in connection with the statutorily mandated special examination, which reviews CPP Investments' records, systems and practices. The organization's external auditors, as recommended by the Audit Committee, typically conduct this review every six years, with the final report provided to CPP Investments' stewards. In fiscal 2016, Deloitte completed a special examination that resulted in a clean opinion. In its report, Deloitte concluded that there were no significant deficiencies in the systems and practices examined during the period covered by the review. Copies of all special examination reports are available on CPP Investments' website. The next special examination will be held in fiscal 2022.

The Risk Committee provides a focus on risk governance and overseeing risk management. It reviews and recommends the Integrated Risk Policy and monitors CPP Investments' risk profile against its risk appetite. It also reviews key existing and emerging risks to which CPP Investments is exposed. In addition, the Committee reviews and recommends other material risk management policies and exceptions to those policies. The Risk Committee regularly meets separately with the CFRO. For more details about CPP Investments' risk governance practices, see page 30.

The Human Resources and Compensation Committee (HRCC) administers the performance evaluation process for the CEO and senior leadership. It reviews and recommends the compensation framework, reviews organizational structure and oversees Management succession planning. It also oversees human resources policies, employee benefits and the employee pension plans. The role of the HRCC is further outlined in the Compensation Discussion and Analysis section, beginning on page 109.

The Governance Committee ensures that CPP Investments follows appropriate governance best practices. The Governance Committee oversees conduct and culture matters, including review and monitoring the application of the Code of Conduct and related policies. It establishes and recommends performance evaluation processes for the Board, Board committees, individual Directors and the Chairperson. It also oversees Board succession planning. This includes reviewing criteria and qualifications for Director appointments and reappointments. The Governance Committee recommends Director compensation, oversees the design of orientation and ongoing education programs for Directors and recommends the Proxy Voting Principles and Guidelines for Board approval.

At every regularly scheduled meeting, the Board of Directors and each committee has sessions without members of Management present. As noted previously, the Audit Committee also meets privately with each of the internal and external auditors, and the Audit Committee and Risk Committee meet with the CFRO. In addition, the Board meets alone with each of the CEO and CFRO at every regularly scheduled Board meeting.

Decisions requiring prior Board approval

Management's discretion in making operational and investment decisions is described in the policies approved by the Board. This includes a detailed policy dealing exclusively with authorities. In particular, Board approval is required for matters affecting the strategic direction of the organization and for the annual business plan and budget. Appointments of Officers, as well as their annual and incentive-based compensation, also require Board approval.

Board expectations of Management

The Board expects Management to comply with all policies approved by the Board and with the CPPIB Act and regulations, and to act in accordance with applicable law. With involvement from the Board, Management develops the strategic direction of the organization in response to its growing asset-management responsibilities and the outlook for capital markets. The strategy incorporates risk management policies and controls, as well as monitoring and reporting mechanisms. Management is also expected to sustain and promote a culture of high integrity, to manage any conflicts of interest appropriately and to adhere to a stringent Code of Conduct.

Management is charged with developing benchmarks that objectively measure the performance of the markets, asset classes and programs in which CPP Investments invests. The Board assesses and approves benchmarks at the total Fund level. These benchmarks assist the Board in evaluating Management's investment performance and structuring performance-based compensation incentives.

Management is expected to disclose all material activities to the Board and the public on a full and timely basis. This includes new investments, the engagement of operational and investment partners, quarterly and annual financial results, and developments that may materially affect CPP Investments' reputation.

Ensuring Board effectiveness

Managing prudent Board renewal

The CPPIB Act provides that each Director be appointed for a term of up to three years. Each Director may be reappointed for one or more additional terms. In order to ensure good governance practices, the Board aims to prudently manage continuity and renewal. It seeks to ensure that multiple tenured Directors remain on the Board as other Directors complete their terms and new Directors join.

In fiscal 2021, new international Director colleague Boon Sim joined the Board, filling a vacancy that had existed since the retirement of Jackson Tai at the end of fiscal 2019 and returning the Board to its usual complement of 12 Directors. The Board also recommended Director candidates to replace Karen Sheriff and Jo Mark Zurel, whose final terms on the Board end in 2021.

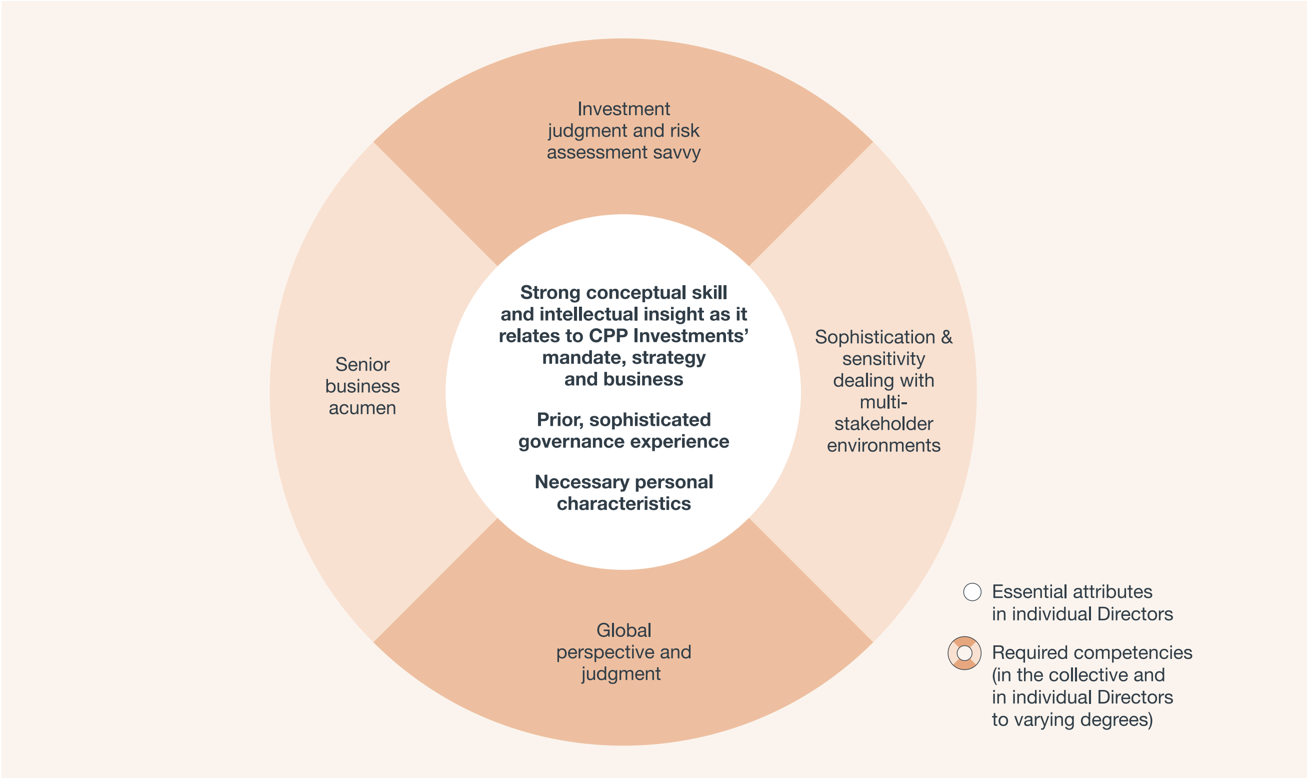
Also, this fiscal year, the Committee recommended Tahira Hassan for reappointment for a third three-year term on the Board, and each of Chuck Magro and Sylvia Chrominska for a second term. Heather Munroe-Blum was reappointed for a third term as Chairperson and fourth term as Director, and each of Ashleigh Everett, John Montalbano and Mary Phibbs were reappointed for a second term on the Board.

The Board continues to work closely with the federal-provincial Nominating Committee to ensure there is a prudent rhythm of Director turnover. Managed carefully, the right balance of continuity and renewal contributes to the Board's effectiveness as it carries out its duties.

Board appointment and reappointment process

The Director appointment and reappointment process is designed to ensure that the Board has Directors who provide effective oversight to help CPP Investments achieve its objectives, including having a sufficient number with proven financial ability or relevant work experience as required by the CPPIB Act. CPP Investments seeks to uphold its governance practices as a leading model in the oversight of public pension management. To that end, the Director appointment and reappointment process is based on the principles of merit, openness, transparency and diversity. The process aligns with our governance model to ensure an independent, qualified Board of Directors.

The Governance Committee regularly reviews and updates both desirable and actual competencies and attributes of the Board. This helps to ensure appointments and reappointments will create a Board that is fully capable of providing the oversight necessary for CPP Investments to achieve its statutory objectives. The Committee establishes the essential attributes or "table stakes" required of individuals, along with other competencies required of the Board as a whole and in individual Board members to varying degrees, as outlined on page 128. It then compares these requirements to CPP Investments' existing Board composition to determine which competencies and attributes are required or are likely to be required in the foreseeable future.



As part of the Director appointment process, CPP Investments retains and manages executive search firms to source qualified candidates for consideration. To meet the principles of openness, transparency and independence, a Notice of Appointment opportunity is posted on CPP Investments' website. This enables members of the general public to view the eligibility factors and the critical competencies required of Directors. Interested individuals can then submit their names for consideration. These applicants augment the candidates identified by the Board and external search firms to ensure that the widest possible pool of candidates is considered for appointment. An analysis of competencies and diversity, as described under the Board Composition section on page 128 and the Board Diversity section on page 133, is used to establish the selection criteria for a particular Board vacancy. The Governance Committee (or an ad hoc Director search committee) then uses these criteria to assess candidates.

In assessing potential Director reappointments, the Governance Committee considers the results of the annual evaluations of the relevant Director and his or her performance on the Board. It also considers table stakes, Board competencies, applications in response to the Notice of Appointment opportunity, and the overall diversity of the Board.

Once agreed by the Board, qualified candidates for appointments and reappointments are provided to the Nominating Committee for Appointments to CPP Investments' Board of Directors. The Nominating Committee is constituted by the federal Minister of Finance. It considers recommended candidates and submits them to the federal Finance Minister. Following consultation with the participating provincial finance ministers, the federal Minister of Finance recommends Directors to the federal Governor in Council for appointment.

Board composition

The Board maintains and regularly reviews a skills matrix to monitor the skills and experience necessary for the Board to supervise CPP Investments' business and activities and to identify any gaps in the Board's collective skill set. Directors are asked to identify their top five key areas of experience, recognizing that they have experience in other areas as well, in consultation with the Governance Committee.

The Board has determined that the governance, functional and industry experience of the Board, as well as its diversity, currently provide for the effective oversight of CPP Investments. Details of the competencies analysis and diversity of the Board, as at March 31, 2021, are set out in the following table. CPP Investments Director biographies on pages 135 to 138 provide additional details of each Director's background and professional experience in support of these areas.

Board composition matrix

Skills and Experience	Sylvia Chrominska	Mark Evans	Ashleigh Everett	Tahira Hassan	Chuck Magro	John Montalbano	Heather Munroe-Blum	Mary Phibbs	Karen Sheriff	Boon Sim	Kathleen Taylor	Jo Mark Zurel
Large-Scale Governance			✓				✓		✓	✓	✓	✓
C-Suite Executive Leadership	✓		✓	✓	✓	✓		✓	✓	✓		✓
Investment/Asset Management		✓				✓				✓		
Financial Services	✓		✓					✓			✓	
Risk Management	✓	✓			✓	✓	✓	✓	✓			
Accounting/Finance				✓		✓		✓			✓	✓
Business Building and Transformation		✓	✓	✓	✓				✓	✓		✓
Government/Regulatory/Public Policy							✓					
Global Business	✓	✓		✓	✓		✓	✓			✓	
Talent Management/Compensation	✓		✓		✓	✓	✓				✓	✓
Technology and Data		✓		✓					✓	✓		
Diversity												
Age[1]	69	63	64	67	51	56	70	63	63	58	63	57
Years on Board[1]	2	1	4	6	2	4	10	3	8	–	7	8
Gender	✓		✓	✓			✓	✓	✓		✓	
Non-Gender[2]				✓						✓		

1. As of March 31, 2021.
2. Directors who self-identify in categories such as visible minority, person with a disability, indigenous, LGBTQ+, etc. are noted in this row.

Board member orientation and development

The Board has an established orientation program for new Directors. This includes several comprehensive sessions which were held virtually this fiscal year due to the extended pandemic context. These involve discussion of the background, history and mandate of CPP Investments as well as its strategy, business planning process and current corporate and departmental priorities. Each new Director receives background material in advance and intensive interaction with Management during the orientation process. Directors are invited to attend supplemental orientation sessions to deepen their knowledge of the organization in specific areas.

Professional development for all Directors is a key focus for the Board because of the evolving responsibilities of directors and the unique nature of CPP Investments. Management provides ongoing presentations focused on our business and emerging global issues, which feature both internal and external speakers. The Board maintained its focus on Board and Director development throughout the virtual meeting format this year, continuing to incorporate development sessions into the Board's meeting calendar. In fiscal 2021, the topics for these sessions included geopolitical risks and reputation management, as well as the key pillars of CPP Investments' portfolio design and risk governance in light of the Board's focus this year on overseeing the evolution of the risk management framework.

A key education component for Board members is to develop an in-depth understanding of the various regions in which CPP Investments operates and invests. In recent years, the Board has visited a CPP Investments international office in conjunction with one of its scheduled meetings to gain additional perspective on the challenges and implications of deploying capital on a global basis. With the COVID-19 pandemic impeding travel in fiscal 2021, the Board instead held a virtual Asia-Pacific offsite meeting. This provided the Board with valuable insights on the macroeconomic and geopolitical climate in the Asia-Pacific region. Notwithstanding the virtual format, the Board also had an opportunity to hear directly from our teams in the Hong Kong, Mumbai and Sydney offices and to engage with select local partners. The Board came away from this meeting with a better understanding of CPP Investments' activities in this important region, in the context of our global strategy.

Directors are also encouraged to participate in relevant external programs. Given CPP Investments' scale and breadth of activities, the Board will continue to support Directors' participation in external education programs as a means of further enhancing their knowledge and skill sets.

A commitment to accountability

Procedures for the assessment of Board performance

The Board has an established annual process for evaluating its own performance and that of its committees, the Chairperson and each Director. All assessments are currently conducted through confidential questionnaires. The full Board then reviews summaries of the evaluations. These summaries provide a basis for continuous improvement plans.

The Chairperson leads the confidential annual peer review. This is designed to assist each Director to identify self-development opportunities. It is also used to explore new Board and committee roles for individual Directors. After receiving relevant questionnaire feedback, the Chairperson meets formally with each Director. The Chairperson also checks in with each Director at least one more time formally during the year regarding feedback. The Board considers improvements to this process annually.

The Chair of the Governance Committee leads the confidential annual Chairperson review and, subject to the direction of the Board, provides feedback to the Chairperson.

A summary of the feedback obtained through the evaluations process is conveyed to the external Nominating Committee. It uses this information when considering the reappointment of CPP Investments Directors and the Chairperson when the ends of each of their current terms are approaching.

Directors' outside activities

To ensure independence among Directors, the Board of Directors monitors interlocking relationships, in line with leading governance practices. This includes Board and committee interlocks. Throughout the fiscal year, both Heather Munroe-Blum and Kathleen Taylor served on the board of Royal Bank of Canada. The CPP Investments Board considered this interlock and determined that this relationship did not impair the independent judgment of these Directors. This board interlock is no longer relevant as Dr. Munroe-Blum retired from the Royal Bank of Canada board following fiscal year end. Another board interlock existed as a result of Karen Sheriff being appointed to the board of Emera Incorporated in February 2021 and Sylvia Chrominska also serving as a director of Emera. With Ms. Sheriff's retirement from the CPP Investments Board of Directors imminent at the time of her appointment to the Emera board, this interlock was determined not to be material.

Directors are also expected to notify the Chairperson in advance if they plan to accept an appointment to another board or to an executive position to ensure that there are no conflicts with CPP Investments' activities and that Directors will continue to have sufficient time to devote to CPP Investments matters.

Directors' compensation

The Governance Committee of the Board is responsible for making recommendations with respect to Directors' compensation in accordance with the requirements under the CPPIB Act. Section 10 of the Act sets out that directors are to receive such remuneration and benefits having regard to the remuneration and benefits received by persons having similar responsibilities and engaged in similar activities. This compensation consists of annual retainers, meeting fees, and travel and other allowances. Directors' compensation is reviewed at least every two years. Changes, if any, are recommended to the Board for approval.

As outlined in our 2020 annual report, the Board reviewed Directors' compensation in the fall of 2019 and approved increases in annual retainers for Directors as well as the Chairperson to take effect April 1, 2020. The Board also approved a more material increase in the annual allowance for Directors residing outside of Canada to reflect the significant additional complexities and overall travel time associated with residing outside of Canada and serving as a CPP Investments Director. The aim of these changes was to ensure Directors are compensated competitively for their CPP Investments responsibilities, while still taking into account the organization's public mandate, consistent with the Directors' Compensation Philosophy outlined on page 131.

Recognizing the significance of COVID-19 and its impact on Canadians, the Board unanimously elected to not implement these changes with effect as of April 1, 2020, as had been initially planned, operating for the majority of fiscal 2021 at the compensation levels set out under the applicable by-law prior to these amendments. In February 2021, the changes to Directors' compensation were fully implemented effective as of that date, in light of the established biennial process for reviewing compensation and the aim of ensuring competitive compensation for Board members.

The following table reflects Directors' compensation for fiscal 2021 and fiscal 2022, as well as for fiscal 2020. The Governance Committee and the Board will review Directors' compensation during fiscal 2022.

	Fiscal 2020		Fiscal 2021 and Fiscal 2022[1]
	($)		($)
Annual Retainers			
Chairperson[2]	245,000		255,000
Director	70,000		80,000
Committee Chair, additional retainer	25,000		25,000
Meeting Fees			
In-person meeting fee	2,000		2,000
Telephone meeting fee[3]	1,000		1,000
Travel and Other Allowances (aggregate)		**Travel and Other Allowances (aggregate)**	
One-way travel time per meeting greater than 1 up to 3.5 hours	500	More than 200 km	1,000
One-way travel time per meeting greater than 3.5 up to 6.5 hours	1,500	Crossing an international border	1,000
One-way travel time per meeting greater than 6.5 hours	2,500		
Annual allowance for Directors residing outside Canada	20,000		40,000

1. This column sets out changes to Directors' compensation that were passed with effect as of April 1, 2020 but which effect was subsequently deferred until February 2021; other than the changes to the travel allowances, which became effective as of April 1, 2020.
2. Board Chairperson compensation will continue to be a flat annual fee in recognition of the differences between the role of the Board Chairperson versus individual Directors. The Board Chairperson will, however, be eligible for travel time reimbursement for regularly scheduled meetings and meeting fees in the event the Chairperson serves on an ad hoc committee or attends public meetings.
3. When meeting is intended to be done by telephone and generally covers one or two topics.

CPP Investments Directors' compensation philosophy

Safeguarding the interests of CPP contributors and beneficiaries requires professional directors with the capabilities to ensure the effective stewardship and oversight of CPP Investments. The Board maintains a compensation approach that takes into account:

- Leading governance performance;
- The recruitment and retention of directors with extensive international experience and expertise in business, finance or investments; and
- The considerable time demands of the position.

An equitable balance between CPP Investments' commercial activities and public purpose promotes the selection of individuals who will reinforce the organization's unique culture.

CPP Investments Directors' compensation principles

I. Pay Neutrality

Compensation alone should not attract or detract desirable candidates.

- In reviewing the compensation of CPP Investments Directors, the Board's objective must be to set a reasonable "threshold" level of compensation, which neutralizes compensation so that it is not a significant favourable or unfavourable influence on the decision of a candidate in joining the CPP Investments Board.

II. Public Purpose

Canadian governments established CPP Investments with a purpose to serve millions of contributors to the compulsory CPP program. Directors' compensation should reflect a purpose distinct from other commercial organizations oriented to profits and stock price.

- While Directors' compensation should reflect the reality that both the workload and time commitment of a CPP Investments Directorship, and the expertise and experience required are comparable to private sector directorships, the total pay opportunity for CPP Investments Directors should reflect our public purpose.

III. Time Commitment

The compensation structure should recognize the differential in time commitment among Directors.

- The Board must contemplate and design a compensation structure that takes into account the fact that the CPP Investments Board is a true 'working board' with significant time and travel requirements. Directors are expected to be continuously engaged on organizational matters well beyond preparing for, and participating in, frequent Board and Committee meetings. The structure should recognize the incremental time, travel and meeting commitments expected of each Director, Committee Chairs and the unique role of the Board Chairperson.

IV. Relative Benchmark

CPP Investments is a complex global investment management organization and is correctly considered a peer relative to other major financial institutions and large companies globally.

- There is a highly competitive global market for top director talent and the Board must consider how candidates perceive the value proposition of being a CPP Investments Director to recruit and retain top governance talent. For compensation-benchmarking purposes, the Board should consider alternative directorship opportunities available to these candidates in three target talent markets: (1) pension funds and smaller Canadian asset managers; (2) TSX 100 boards and larger Canadian asset managers; and (3) TSX 20 & U.S./U.K. asset managers and multinationals.

V. Appropriate Discount to Benchmark

A full market-based level of compensation is not appropriate given CPP Investments' public purpose as described in Principle II.

- Upon review of the relative target talent markets for benchmarking purposes, an approximate 20% discount was applied during the last review of compensation in fiscal 2020.

Board meetings and attendance

There were nine regularly scheduled Board meetings in fiscal 2021. In addition, there were six regularly scheduled Audit Committee meetings, six regularly scheduled Human Resources and Compensation Committee meetings, seven regularly scheduled Governance Committee meetings, six regularly scheduled Risk Committee meetings, and eight regularly scheduled Investment Committee meetings. In addition, there were a number of special Board or Committee meetings held to address specific issues or approvals, some of which were scheduled at times where all Directors were not able to attend given pre-existing commitments.

All Board and Committee meetings were held by interactive videoconference due to the impact of the COVID-19 pandemic on Directors' ability to travel. The table below shows the number of meetings that each Director attended in fiscal 2021 relative to the number of meetings he or she could have attended. The number of Board meetings increased as compared to fiscal 2020 as a result of the pandemic and the Board's enhanced focus this year on CEO succession and transition.

Director	Board Meeting	Investment Committee	Audit Committee	Governance Committee	HRCC	Risk Committee
Heather Munroe-Blum[1]	20 / 20	9 / 9	6 / 6	7 / 7	6 / 6	6 / 6
Sylvia Chrominska	20 / 20	9 / 9	–	–	6 / 6	6 / 6
Mark Evans	20 / 20	9 / 9	–	–	6 / 6	6 / 6
Ashleigh Everett[2]	20 / 20	9 / 9	–	7 / 7	–	1 / 1
Tahira Hassan[3]	19 / 20	9 / 9	–	7 / 7	1 / 1	6 / 6
Chuck Magro[4]	20 / 20	9 / 9	6 / 6	6 / 7	6 / 6	1 / 1
John Montalbano[5]	20 / 20	9 / 9	6 / 6	5 / 5	1 / 1	6 / 6
Mary Phibbs[6]	17 / 20	8 / 9	5 / 6	-	–	6 / 6
Karen Sheriff[7]	20 / 20	9 / 9	–	7 / 7	6 / 6	1 / 1
Boon Sim[8]	14 / 15	5 / 6	3 / 4	4 / 5	1 / 1	1 / 1
Kathleen Taylor[9]	20 / 20	9 / 9	6 / 6	–	6 / 6	1 / 1
Jo Mark Zurel[10]	19 / 20	9 / 9	6 / 6	–	–	6 / 6

1. Ex officio member of the Audit Committee, Governance Committee, HRCC and Risk Committee.
2. Attended Risk Committee by invitation.
3. Attended HRCC by invitation.
4. Attended Risk Committee by invitation.
5. Appointed to the HRCC effective January 1, 2021. Ceased to be a member of the Governance Committee effective January 1, 2021.
6. Ex officio member of the Risk Committee. Attended eight of nine regularly scheduled Board meetings.
7. Attended Risk Committee by invitation.
8. Became a director effective July 15, 2020. Appointed to the Audit Committee, Governance Committee and Investment Committee effective September 15, 2020. Attended HRCC and Risk Committee by invitation.
9. Attended Risk Committee by invitation.
10. Ex officio member of the Audit Committee.

During fiscal 2021, the following ad hoc committees of the Board were formed or continued to meet:

- The ad hoc committee to oversee Management's preparation and implementation of receipt of additional CPP contributions, formed in fiscal 2018, had one meeting and concluded its operations in fiscal 2021 as additional CPP matters were folded into the Board's annual work plan. Membership consisted of Heather Munroe-Blum, John Montalbano (Chair), Karen Sheriff and Jo Mark Zurel.
- An ad hoc Director candidate search committee was formed in fiscal 2021 to consider potential candidates and recommend preferred candidates to the Governance Committee and the Board to replace Karen Sheriff and Jo Mark Zurel. Membership of the committee consisted of Ashleigh Everett (Chair), Tahira Hassan, Chuck Magro, Heather Munroe-Blum and Jo Mark Zurel.
- An ad hoc committee was formed in fiscal 2021 to examine the extent to which the mandate, function and processes of the Investment Committee are optimized and effective. Membership consisted of Mark Evans, Tahira Hassan, Heather Munroe-Blum (Chair) and Jo Mark Zurel.

Directors' compensation for fiscal 2021

Based on the fee schedule in effect for fiscal 2021 and their attendance, individual compensation for each Director for fiscal 2021 was as follows:

Director	Annual Retainers and Allowances ($)	Board and Committee Meeting Fees ($)	Public Meeting Fees ($)	Travel Fees ($)	Total Remuneration ($)
Heather Munroe-Blum, Chairperson of the Board, Chair of the Investment Committee	246,369	22,000	4,000	1,000	273,369
Sylvia Chrominska, Chair of the HRCC	96,369	87,000	2,000	–	185,369
Mark Evans	94,107	85,000	–	–	179,107
Ashleigh Everett, Chair of the Governance Committee	96,369	83,000	1,000	–	180,369
Tahira Hassan	71,369	92,000	1,000	–	164,369
Chuck Magro	71,369	100,000	1,000	–	172,369
John Montalbano[1]	71,369	98,000	–	–	169,369
Mary Phibbs, Chair of the Audit Committee	119,107	71,000	–	–	190,107
Karen Sheriff	71,369	84,000	–	–	155,369
Boon Sim[2]	68,220	62,000	–	–	130,220
Kathleen Taylor	71,369	81,000	–	–	152,369
Jo Mark Zurel, Chair of the Risk Committee	96,369	93,000	1,000	–	190,369

1. Appointed to the HRCC effective January 1, 2021. Ceased to be a member of the Governance Committee effective January 1, 2021.
2. Became a Director effective July 15, 2020. Appointed to the Audit Committee, Governance Committee and Investment Committee effective September 15, 2020.

Diversity

Board diversity

CPP Investments believes that diversity, including gender diversity, is crucial to ensuring an effective Board of Directors with various perspectives and qualifications. The Board has adopted a written Board of Directors Diversity Policy. It reflects our long-standing belief that CPP Investments is best served by a Board with a wide array of skills, backgrounds, perspectives and ideas. For purposes of Board composition, diverse representation considerations include, but are not limited to, professional experience and expertise, age, gender, ethnicity, geographic background, disability status, sexual orientation and other personally defining dimensions.

The Board Diversity Policy applies to both the nomination of new candidates to serve as Directors as well as recommendations for existing Directors to be reappointed to the Board. Under the Policy, when assessing Board composition or identifying suitable candidates for appointment or reappointment, the Board or any search committee it establishes will have due regard to the benefits of ensuring diversity among the Directors. In particular, in furtherance of Board diversity it includes the objective of gender parity among Directors so that at least 40% are women and at least 40% are men. Currently, 58% of CPP Investments Directors are women, including Heather Munroe-Blum who is the Chairperson, and 42% are men.

The Board Diversity Policy does not include targets for the representation on the Board of other traditionally under-represented groups given the small size of the Board and the importance of considering a variety of factors for Director appointments and reappointments. Currently, 17% of Directors are visible minorities.

Any search firm engaged to assist the Board with the identification of candidates for nomination to the Board is directed to the Board Diversity Policy and expected to comply with it. Regular review of the Board Diversity Policy and the Board's adherence to it is undertaken as part of the annual work of the Governance Committee.

In fiscal 2021, the Board of Directors was awarded the National Association of Corporate Directors' 2020 NXT Award which recognizes excellence in board diversity and inclusion. CPP Investments is the first Canadian organization to receive this award.

Diversity of the Senior Management Team

The importance we place on diversity and inclusion in relation to our talent practices, outlined in Purpose and People Drive Performance on page 48, applies equally at the executive level. The Board regularly considers diversity in pipeline discussions for senior leadership positions and implements development plans for top-performing diverse senior talent. The Board considers gender and non-gender diversity dimensions when appointing CPP Investments Officers.

The Senior Management Team is currently 36% female. CPP Investments is committed to ensuring that at least 30% of senior management positions are held by women. We have not established other specific diversity representation targets due to the relatively small size of this group and our belief that efforts are best focused on furthering the strong talent pipeline at CPP Investments and considering a broad pool of candidates for senior leadership positions.

Conduct and culture

A culture of integrity and ethical conduct

The Board places utmost importance on fostering an inclusive culture of ethics and integrity throughout CPP Investments. It requires and expects Management to support the Board in setting the tone for a strong governance culture.

Code of Conduct and related policies

The Code of Conduct can be found on our website. It is designed to help create a corporate culture of trust, honesty and integrity. It outlines what is expected of everyone at CPP Investments and our accountability to each other.

The Code sets out strict criteria for the acceptance by Directors and employees of any entertainment, gifts or special treatment. Such benefits must not create or appear to create a favoured position for actual or potential contractors or suppliers or any party with whom we do business.

It also deals with such matters as conflicts of interest, personal and professional conduct, confidentiality of proprietary information, and personal investments.

Related internal policies provide additional information on conflicts of interest and personal investments. These are intended to identify, manage and, where possible, eliminate conflicts of interest relating to Directors and employees. Conflicts of interest were anticipated in CPP Investments' legislation as a result of the need to recruit Directors and employees with financial and investment experience. Our policies are designed to ensure that Directors and employees act in the best interests of the organization. They must disclose any personal or business interests that might lead to a real, potential or perceived conflict of interest. Any involvement in relevant decision-making is prohibited, should those circumstances arise. Further, Directors are expected to resign from the Board if they take on executive responsibilities with an organization whose objectives and mandates may be, or might reasonably be perceived to be, in conflict with CPP Investments' objectives or mandate.

These policies also cover the personal trading of CPP Investments Directors and employees. They establish strict pre-clearance procedures and restrictions on personal trading in prescribed circumstances.

As part of the hiring process, new recruits must agree to comply with the Code of Conduct and related conduct policies. Collectively, these set a high standard for promoting ethical conduct and addressing conflicts of interest. Semi-annually, Directors and employees must reconfirm their compliance and employees must complete an online module to confirm their understanding of the Code and their ability to apply it in day-to-day decisions and actions.

Guiding Principles

Our Guiding Principles of Integrity, Partnership and High Performance are embedded in the Code of Conduct. CPP Investments holds annual sessions for all employees on the same day across all offices to renew their commitment to the Guiding Principles and to maintain the focus on this cornerstone of our culture.

When the Board hires or conducts annual performance reviews of the CEO, it considers the individual's leadership in promoting ethical conduct and championing a culture of Integrity, Partnership and High Performance. These factors are also relevant in the hiring and review of all employees.

Conduct Review Advisor

To augment the Code of Conduct, the Board of Directors has appointed an external Conduct Review Advisor to discuss Code of Conduct issues with Directors, employees and relevant third parties on a confidential basis. The Conduct Review Advisor also assists the Governance Committee in monitoring how the Code is applied and in reviewing it for any appropriate changes. Sheila Block, a distinguished Canadian litigation lawyer, currently holds this position.

Board of Directors[1]

Committee membership:
Investment Committee (Chair), ex officio member of the Audit, Governance, Human Resources and Compensation, and Risk Committees

HEATHER MUNROE-BLUM, O.C., O.Q., PH.D., F.R.S.C., CHAIRPERSON
Corporate Director and Public Policy Scholar, Montreal, Quebec
Director since December 2010. Appointed Chairperson effective October 2014.

Chairperson of the Gairdner Foundation, Co-founder and Co-Chair of the Canadian Children's Literacy Foundation, Co-Chair of the Leader's Council of McGill's Tanenbaum Open Science Institute (TOSI), Advisor of the McGill University Health Centre Interdisciplinary Initiative in Infection and Immunity (MI4), and member of The Committee on the Future of Corporate Governance in Canada, Board of Stanford University's Center for Advanced Study in the Behavioral Sciences (CASBS), and, the Trilateral Commission. Among others, served on the boards of the Royal Bank of Canada, Four Seasons Hotels, Alcan, Yellow Media Inc., Hydro One (Ontario), and CGI Group, and as a member of the President's Council of the New York Academy of Sciences, the Conference Board of Canada and the CD Howe Institute. Served for over a decade as Principal and Vice Chancellor (President), McGill University; Former Vice-President (Research and International Relations), University of Toronto. Recipient of numerous domestic and international honorary degrees and awards of distinction. Officer of the Order of Canada, l'Ordre National du Québec, Specially Elected Fellow of the Royal Society of Canada and Fellow of the Institute of Corporate Directors.

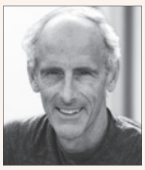
Building on a distinguished career of clinical, scientific and policy contributions, qualifications include more than 25 years of senior administrative leadership concentrated in higher education, public policy and research and development; extensive board experience as a director on executive, human resources and compensation, governance, investment, finance and risk committees in the corporate and not-for-profit sectors.

Committee membership:
Investment Committee, Human Resources and Compensation Committee (Chair), Risk Committee

SYLVIA CHROMINSKA
Corporate Director, Stratford, Ontario
Director since September 2018.

Currently serves on the board and as Chair of the Human Resources and Compensation Committee of Wajax Inc., as an ex officio member of the board of the Stratford Festival. Previously served as Chair of the Boards of the Bank of Nova Scotia Jamaica and Scotiabank Trinidad & Tobago, as a Director and Chair of the Management Resources and Compensation Committee of Emera Inc., Director and Chair of the Human Resources Committee of Dofasco Inc., as the Chair of the Board of Governors of the Canadian Bankers Association. Previously served on the Board of the University of Western Ontario and the Dean's Advisory Committee of the Richard Ivey Business School, former member and Honorary Fellow of the Advisory Council for Dalhousie University, former Chair of the International Women's Forum; and former member and Vice President of the Canadian Club of Toronto. Holds an Honours Degree in Business Administration and an Honorary Doctorate from the University of Western Ontario.

Qualifications include more than 30 years of banking experience, including executive positions in human resources and corporate credit risk, as well as extensive board experience.



Committee membership:
Investment Committee, Human Resources and Compensation Committee, Risk Committee

WILLIAM 'MARK' EVANS
Early stage technology investor, London, United Kingdom
Director since May 2019.

Works with several early stage technology businesses. General Partner at Benchmark Europe/Balderton Capital from 2002 through 2015. Co-founded TrustBridge Partners in China (2006) and Kindred Capital in Europe (2016). General Partner and Management Committee member at Goldman Sachs. Master's Degree in Economics from the University of Oxford and a BA in Economics from Queen's University.

Qualifications include finance and technology investing experience in Europe, Asia and the U.S.

1. The biographies provided include all Directors who served on the Board in fiscal 2021.

Committee membership:
Investment Committee, Governance Committee (Chair)

ASHLEIGH EVERETT

Corporate Executive, Corporate Director, Winnipeg, Manitoba
Director since February 2017.

Director of The Wawanesa Mutual Insurance Company. Former Director of the Bank of Nova Scotia (Chair of the Corporate Governance and Pension Committees). Former Director of Manitoba Telecom Services (Chair of the Governance and Nominating Committees). Former member of the Premiers Enterprise Team for the Province of Manitoba. President, Corporate Secretary and Director of Royal Canadian Securities Limited, the holding company of Royal Canadian Properties Limited, Domo Gasoline Corporation Ltd., and L'Eau-1 Inc. Masters of Business Administration, Ivey School of Management, University of Western Ontario.

Qualifications include extensive board experience as a director on executive and risk, governance and pension, and human resources and compensation committees in the public telecom and finance sectors, with experience in international risk and governance issues. More than 30 years of senior management experience in private property development and retail business operations.

Committee membership:
Investment Committee, Governance Committee, Risk Committee

TAHIRA HASSAN

Corporate Director, Toronto, Ontario
Director since February 2015.

Non-executive Director of Brambles Limited. Director of Ontario Shores Centre for Mental Health Sciences. Served on Recall Holdings Limited, Dreyer's Grand Ice Cream Holdings Inc., Dairy Partners America and several other international management and association boards. Past member of the Dean's advisory council of the Laurier School of Business & Economics at Wilfrid Laurier University. Former Senior Vice-President at Nestlé SA with extensive international experience in transformative change including mergers & acquisitions. Held executive positions such as Global Business Head for Nescafé Ready-to-Drink, Head of Global Supply Chain and President of Ice Cream in Canada. Certified Management Accountant of Canada, Fellow of the Chartered Institute of Management Accountants in the United Kingdom and Chartered Global Management Accountant.

Qualifications include more than 45 years of business and board expertise, in multinational environments including lived-in experiences in the United Kingdom, Switzerland and Pakistan, in addition to Canada.

Committee membership:
Investment Committee, Audit Committee, Governance Committee, Human Resources and Compensation Committee

CHUCK MAGRO

Corporate Executive, Heritage Point, Alberta
Director since July 2018.

Serves on the boards of the Business Council of Canada, Business Council of Alberta. Vice Chairman of the International Fertilizer Industry Association. Past Chair and current board member of The Fertilizer Institute. Former Chair of Canpotex and on the boards of the Nutrients for Life Foundation and International Plant Nutrition Institute. Former President and Chief Executive Officer of Nutrien Ltd.

Qualifications include 25 years of international business experience primarily in North and South America, Australia, Europe and Asia, as well as board experience.

Committee membership:
Investment Committee,
Audit Committee,
Risk Committee,
Human Resources and
Compensation Committee

JOHN MONTALBANO

Corporate Director, Vancouver, British Columbia
Director since February 2017.

Serves as Director on a number of corporate boards, including AbCellera Biologics (Audit Chair), Aritzia Inc., Autozen (Chair), Canalyst Financial Modeling Corporation (Chair) and Eupraxia Pharmaceuticals Inc. (Audit Chair). Current member of the Asia Pacific Foundation Board, Gairdner Foundation, Windmill Microlending and The Vancouver Police Foundation (former Chair), and serves as Chair of The St. Paul's Hospital Foundation. Former Vice Chairman of RBC Wealth Management. Past Chair, University of British Columbia. Served as Chief Executive Officer of RBC Global Asset Management from 2008 to 2015. Previously President of Phillips and Hager & North Investment Management. Chartered Financial Analyst designation. Leslie Wong Fellow of the UBC Portfolio Management Foundation. UBC B.Comm (Hons).

Qualifications include nearly 30 years working in asset management and extensive senior management experience, including overseeing double-digit annual growth over seven years as CEO of the new RBC Global Asset Management, making it one of the 50 largest asset managers in the world.

Committee membership:
Investment Committee,
Audit Committee (Chair),
Risk Committee
(ex officio member)

MARY PHIBBS

Corporate Director, London, United Kingdom
Director since May 2017.

Chairperson of Virgin Money Unit Trust Managers Limited. Previously a non-executive Director of Morgan Stanley International Limited, Morgan Stanley & Co International plc and Morgan Stanley Bank International Limited, Novae Group plc, New Day Group Limited, Nottingham Building Society, Friends Life Group plc, Stewart Title Limited, The Charity Bank Limited and Northern Rock plc during its period of public ownership. Held senior positions at Standard Chartered Bank plc, ANZ Banking Group, National Australia Bank, Commonwealth Bank of Australia, Allied Irish Banks plc, and PricewaterhouseCoopers, among others. Holds a Bachelor of Science (Honours) from the University of Surrey, is a Fellow of the Institute of Chartered Accountants in England and Wales and a Fellow of Chartered Accountants Australia and New Zealand.

Qualifications include more than 40 years of international business, risk management and board experience in various countries in the Australian, Pacific, Southeast Asia, Middle East and European regions including the United Kingdom.

Committee membership:
Investment Committee,
Governance Committee,
Human Resources and
Compensation Committee

KAREN SHERIFF

Corporate Executive, Halifax, Nova Scotia[1]
Director since October 2012.

Director of BCE Inc/Bell Canada and Emera Inc. Past director of Bell Aliant Inc., Bell Aliant Regional Communications Inc., Bell Aliant Preferred Equity Inc., Aliant Inc., Teknion Corporation and WestJet Airlines Ltd. Chair of the Board of Trustees of the Gardiner Museum of Ceramic Arts from 2006 to 2016. Former President and Chief Executive Officer of Q9 Networks from January 2015 through October 2016. Previously President and CEO of Bell Aliant; Chief Operating Officer, Bell Aliant. Prior to Bell Aliant, President of Small and Medium Business, Bell Canada; Chief Marketing Officer, Bell Canada; Senior Vice President of Product Management and Development, Bell Canada, and a variety of assignments with Ameritech and United Airlines. Named one of Canada's top 25 Women of Influence for 2013 by Women of Influence Inc. In 2012, named Woman of the Year by Canadian Women in Communications (CWC). Named one of Atlantic Canada's Top 50 CEOs (*Atlantic Business Magazine*). Recognized as one of Canada's Top 100 Most Powerful Women three times and named to the Women's Executive Network Top 100 Women Hall of Fame.

Qualifications include extensive senior management experience and expertise in strategic priority setting of major corporations, including oversight of Bell Aliant's conversion back to a corporation from one of the largest income trusts in Canada, and leading Bell Aliant's corporate transformation and industry leading fibre-to-the-home (FTTH) network build, the first of its kind in Canada.

1. At time of appointment.

Committee membership:
Investment Committee,
Audit Committee,
Governance Committee

BOON SIM
Corporate Director, New York, NY, United States
Director since July 2020.

Director of Artius Acquisition Inc. Previously served on the boards of WorldPay Inc. and Vantiv Inc. Founder and Managing Partner of Artius Capital Partners, a New York-based growth and private equity investment firm, and CEO of Artius Acquisition Inc. Held senior roles with Temasek International, most recently President, Americas, Head of International Group and Head of Life Science and Credit Portfolios, between 2012 and 2017. Prior to joining Temasek, served a 20-year tenure with Credit Suisse Group and its predecessor firm, The First Boston Corporation, including various senior leadership positions, last as Global Head of Mergers & Acquisitions based in New York, NY, U.S. Served as a semiconductor and process automation design engineer with Texas Instruments Inc. prior to joining The First Boston Corporation. Holds a Master of Science in Engineering (SM) from Massachusetts Institute of Technology, a Master of Private & Public Management (MPPM) from Yale University and a Bachelor of Engineering (BEng First Class Honours) from the National University of Singapore.

Qualifications include more than 30 years of global experience in the finance and technologies industries and expertise in a range of high-growth sectors including technology, financial-technology and healthcare. Currently a member of the Yale University School of Management Board of Advisors.

Committee membership:
Investment Committee,
Audit Committee,
Human Resources and
Compensation Committee

KATHLEEN TAYLOR, C.M., BA (Hons), JD, MBA
Global Executive, Corporate Director, Toronto, Ontario
Director since October 2013.

Chair of the Board of the Royal Bank of Canada since 2014 and Board member since 2001. Immediate past Chair of the Board of the Hospital for Sick Children Foundation and a member of the Hospital's Board of Trustees. Vice Chair of The Adecco Group since April 2017 and Director since April 2015. Director of Air Canada since May 2016. Chair of Altas Partners, a Toronto-based private equity firm, since April 2019. Former President and Chief Executive Officer of Four Seasons Hotels and Resorts. Recipient of the Order of Canada with the grade of member (2016). Recipient of an Honorary Doctor of Humane Letters from Mount Saint Vincent University (2015) and Honorary Doctorates of Laws from University of Toronto (2019), McGill University (2017), Trent University (2016) and York University (2014). Named the first woman Corporate Hotelier of the World by *Hotels Magazine* (2011) and was inducted to the Canadian Marketing Hall of Legends (2010). Recipient of the Inaugural Medal for Career Achievement from Hennick Centre for Business and Law (2010), and the Schulich School of Business Award for Outstanding Executive Leadership (2001).

Executive qualifications include almost 25 years of international experience building a global culture, overseeing major strategic and operations initiatives, negotiating expertise and strong relationship management capabilities. More recently, a senior partner in a private equity firm. Also, a seasoned Director with 20 years of governance experience on a number of corporate and not-for-profit boards.

Committee membership:
Investment Committee,
Audit Committee
(ex officio member),
Risk Committee (Chair)

JO MARK ZUREL
Chartered Professional Accountant, Corporate Director, St. John's, Newfoundland and Labrador
Director since November 2012.

Director of Highland Copper, Director of Major Drilling Group International Inc. and Director of Fortis Inc. Current and recent volunteer activities include Chair of the Atlantic Provinces Economic Council, Chair of the St. John's Board of Trade, Chair of Junior Achievement of Newfoundland and Labrador, and Chair of a Red Cross Capital Campaign. Former Director of Newfoundland Power Inc., and Fronteer Gold Inc. In 2015, Jo Mark and his wife were named the Outstanding Philanthropists for Newfoundland and Labrador. Honoured as one of Canada's Top 40 under 40 in 2000.

Qualifications include extensive investment industry and corporate director experience including as an active angel investor and as Director of the Institute of Corporate Directors (ICD) and member of the founding executive of the ICD's Newfoundland and Labrador Chapter.

Management's Responsibility for Financial Reporting

The Consolidated Financial Statements of Canada Pension Plan Investment Board (CPP Investments) have been prepared by Management and approved by the Board of Directors. Management is responsible for the integrity and reliability of the Consolidated Financial Statements and the financial information contained within the Annual Report. The Consolidated Financial Statements have been prepared in accordance with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board and the requirements of the *Canada Pension Plan Investment Board Act* (CPPIB Act) and the accompanying regulations. The financial information throughout the Annual Report is consistent with the Consolidated Financial Statements.

The Consolidated Financial Statements include certain amounts based on Management's judgments and best estimates where deemed appropriate. The significant accounting policies used are disclosed in Note 1 to the Consolidated Financial Statements or in the Notes to which the accounting policies relate.

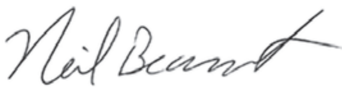
CPP Investments develops and maintains systems of internal control and supporting procedures designed to provide reasonable assurance that assets are safeguarded and that transactions are properly recorded, authorized and are in accordance with the CPPIB Act, the accompanying regulations, the by-laws and investment policies of CPP Investments. The internal control framework includes a strong corporate governance structure, an enterprise risk management framework that identifies, monitors and reports on key risks facing the organization, a Code of Conduct, conflict of interest procedures and other policies, as well as management authorities and procedures that guide decision-making. The controls also include the establishment of an organizational structure that provides a well-defined division of responsibilities and accountability, the selection and training of qualified staff and the communication of policies, management authorities and procedures throughout the organization. The systems of internal control are further supported by a compliance management system to monitor CPP Investments' compliance with legislation, policies, management authorities and procedures and by internal and external auditors who review and evaluate internal controls in accordance with their respective annual audit plans approved by the Audit Committee.

Management is responsible for establishing and maintaining adequate internal control over financial reporting to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with IFRS, the CPPIB Act and accompanying regulations. Management assessed the effectiveness of our internal control over financial reporting as of March 31, 2021 as part of our CEO/CFRO certification process as described on page 106 of Management's Discussion and Analysis in the 2021 Annual Report.

The Audit Committee assists the Board of Directors in discharging its responsibility to approve the Consolidated Financial Statements. The Audit Committee, consisting of independent directors, meets regularly with Management and the internal and external auditors to discuss the scope and findings of audits and other work they may be requested to perform from time to time, to review financial information and to discuss the adequacy of internal controls. The Audit Committee reviews the Consolidated Financial Statements and recommends them to the Board of Directors for approval.

CPP Investments' external auditor, Deloitte LLP, has conducted an independent audit of the Consolidated Financial Statements in accordance with Canadian generally accepted auditing standards, performing such tests and other procedures as it considers necessary to express an opinion in its Independent Auditor's Report. The external auditor has full and unrestricted access to Management and the Audit Committee to discuss any findings related to the integrity and reliability of CPP Investments' financial reporting and the adequacy of internal control systems.

John Graham
President & Chief Executive Officer



Neil Beaumont
Senior Managing Director & Chief Financial and Risk Officer

Toronto, Ontario
May 13, 2021

Investment Certificate

The *Canada Pension Plan Investment Board Act* (CPPIB Act) requires that a certificate be signed by a director on behalf of the Board of Directors, stating that the investments of CPP Investments held during the year were in accordance with the CPPIB Act and CPP Investments' investment policies, standards and procedures. Accordingly, the Investment Certificate follows.

The investments of CPP Investments, held during the year ended March 31, 2021, were in accordance with the CPPIB Act and CPP Investments' investment policies, standards and procedures.

Mary Phibbs
Chair of the Audit Committee on behalf of the Board of Directors

Toronto, Ontario
May 13, 2021

Independent Auditor's Report

To the Board of Directors of Canada Pension Plan Investment Board

Opinion

We have audited the consolidated financial statements of Canada Pension Plan Investment Board ("CPP Investments"), which comprise the consolidated balance sheet as at March 31, 2021, and the consolidated statements of comprehensive income, changes in net assets and cash flows for the year then ended, and Notes to the Consolidated Financial Statements, including a summary of significant accounting policies (collectively referred to as the "financial statements").

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of CPP Investments as at March 31, 2021, and its financial performance and its cash flows for the year then ended in accordance with International Financial Reporting Standards ("IFRS").

Basis for Opinion

We conducted our audit in accordance with Canadian generally accepted auditing standards ("Canadian GAAS"). Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Financial Statements* section of our report. We are independent of CPP Investments in accordance with the ethical requirements that are relevant to our audit of the financial statements in Canada, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Other Information

Management is responsible for the other information. The other information comprises the information, other than the financial statements and our auditor's report thereon, in the Annual Report.

Our opinion on the financial statements does not cover the other information and we do not express any form of assurance conclusion thereon. In connection with our audit of the financial statements, our responsibility is to read the other information identified above and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated.

We obtained the Annual Report prior to the date of this auditor's report. If, based on the work we have performed on this other information, we conclude that there is a material misstatement of this other information, we are required to report that fact in this auditor's report. We have nothing to report in this regard.

Responsibilities of Management and Those Charged with Governance for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with IFRS, and for such internal control as Management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, Management is responsible for assessing CPP Investments' ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless Management either intends to liquidate CPP Investments or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing CPP Investments' financial reporting process.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian GAAS will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with Canadian GAAS, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of CPP Investments' internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by Management.
- Conclude on the appropriateness of Management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on CPP Investments' ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause CPP Investments to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Report on Other Legal and Regulatory Requirements

Further, in our opinion, the transactions of CPP Investments that have come to our attention during our audit of the financial statements have, in all material respects, been in accordance with the *Canada Pension Plan Investment Board Act* ("CPPIB Act") and the by-laws, as the case may be.

Further, in our opinion, the record of investments kept by CPP Investments Management, pursuant to paragraph 39(1)(c) of the CPPIB Act fairly presents, in all material respects, the information required by the CPPIB Act.

Deloitte LLP

Chartered Professional Accountants
Licensed Public Accountants

Toronto, Ontario
May 13, 2021

Consolidated Financial Statements and Notes

Consolidated Balance Sheet

(CAD millions)	As at March 31, 2021	As at March 31, 2020
Assets		
Investments (Note 2)	$ 595,952	$ 535,464
Pending trades receivable	2,663	6,944
Premises and equipment	459	474
Other assets	311	262
Total assets	599,385	543,144
Liabilities		
Investment liabilities (Note 2)	98,158	127,062
Pending trades payable	3,191	5,702
Accounts payable and accrued liabilities	849	792
Total liabilities	102,198	133,556
Net assets	$ 497,187	$ 409,588
Net assets, represented by:		
Share capital	$ –	$ –
Accumulated net income from operations	343,665	259,721
Accumulated net transfers from the Canada Pension Plan	153,522	149,867
Net assets	$ 497,187	$ 409,588

The accompanying Notes are an integral part of these Consolidated Financial Statements.

On behalf of the Board of Directors

Heather Munroe-Blum
Chairperson

Mary Phibbs
Chair of the Audit Committee

Consolidated Statement of Comprehensive Income

(CAD millions)	For the years ended March 31, 2021	For the years ended March 31, 2020
Investment income (Note 5)	$ 87,547	$ 15,721
Investment-related expenses (Note 6)	(2,186)	(2,370)
Net investment income	**85,361**	13,351
Operating expenses (Note 14)	**(1,417)**	(1,254)
Net income from operations and comprehensive income	**$ 83,944**	$ 12,097

The accompanying Notes are an integral part of these Consolidated Financial Statements.

Consolidated Statement of Changes in Net Assets

(CAD millions)	Number of shares outstanding		Share capital		Accumulated net transfers from the Canada Pension Plan		Accumulated net income from operations		Total net assets
As at April 1, 2019	10	$	–	$	144,356	$	247,624	$	391,980
Total net income for the year			–		–		12,097		12,097
Canada Pension Plan transfers:									
Transfers from the Canada Pension Plan			–		44,521		–		44,521
Transfers to the Canada Pension Plan			–		(39,010)		–		(39,010)
Balance at March 31, 2020	10	$	–	$	149,867	$	259,721	$	409,588
As at April 1, 2020	**10**	**$**	**–**	**$**	**149,867**	**$**	**259,721**	**$**	**409,588**
Total net income for the year			**–**		**–**		**83,944**		**83,944**
Canada Pension Plan transfers:									
Transfers from the Canada Pension Plan			**–**		**44,071**		**–**		**44,071**
Transfers to the Canada Pension Plan			**–**		**(40,416)**		**–**		**(40,416)**
Balance at March 31, 2021	**10**	**$**	**–**	**$**	**153,522**	**$**	**343,665**	**$**	**497,187**

The accompanying Notes are an integral part of these Consolidated Financial Statements.

Consolidated Statement of Cash Flows

(CAD millions)	For the years ended March 31, 2021	March 31, 2020[3]
Cash flows from operating activities		
Net income from operations	$ 83,944	$ 12,097
Adjustments for non-cash items:		
Amortization of premises and equipment	60	50
(Gains) Losses on debt financing liabilities (Note 12)	(3,751)	2,857
Effect of exchange rate changes on cash and cash equivalents	(488)	45
Adjustments for net changes in operating assets and liabilities:		
(Increase) in investments	(69,185)	(25,749)
Decrease (Increase) in pending trades receivable	4,281	(2,477)
(Increase) Decrease in other assets	(18)	88
(Decrease) Increase in investment-related liabilities	(26,958)	15,309
(Decrease) Increase in pending trades payable	(2,511)	1,999
Increase in accounts payable and accrued liabilities	57	42
Net cash flows (used in) provided by operating activities	(14,569)	4,261
Cash flows from financing activities		
Transfers from the Canada Pension Plan	44,071	44,521
Transfers to the Canada Pension Plan	(40,416)	(39,010)
Proceeds from debt financing liabilities (Note 12)	12,839	29,507
Repayments of debt financing liabilities (Note 12)	(11,034)	(24,830)
Net cash flows provided by financing activities	5,460	10,188
Cash flows from investing activities		
Acquisitions of premises and equipment	(45)	(32)
Net cash flows (used in) investing activities	(45)	(32)
Net (decrease) increase in cash and cash equivalents	(9,154)	14,417
Cash and cash equivalents at the beginning of the year	23,123	8,706
Cash and cash equivalents at the end of the year	13,969	23,123
Cash and cash equivalents at the end of the year are comprised of:		
Cash and cash equivalents held for operating purposes[1]	225	194
Cash and cash equivalents held for investment purposes[2]	13,744	22,929
Total	$ 13,969	$ 23,123

1. Presented as a component of other assets on the Consolidated Balance Sheet.
2. Presented as a component of investments on the Consolidated Balance Sheet.
3. Certain comparatives have been reclassified to conform to the current year's presentation.

The accompanying Notes are an integral part of these Consolidated Financial Statements.

Consolidated Schedule of Investment Portfolio

The schedule below provides information on investments and investment liabilities held by Canada Pension Plan Investment Board and its investment holding subsidiaries on a combined basis. The nature of these investments and investment liabilities is further described in Note 2.

(CAD millions)	As at March 31, 2021	As at March 31, 2020[2]
Equities		
Public equities	$ 175,083	$ 118,241
Private equities	139,444	105,381
Total equities	314,527	223,622
Fixed income		
Bonds	98,560	103,658
Other debt	28,879	27,214
Cash and cash equivalents	14,532	23,555
Money market securities	143	1,353
Total fixed income	142,114	155,780
Absolute return strategies	29,008	27,922
Real assets		
Infrastructure	39,954	34,679
Real estate	38,078	43,718
Power and renewables	9,627	8,711
Energy and resources	9,518	7,281
Total real assets	97,177	94,389
Investment receivables		
Securities purchased under reverse repurchase agreements and cash collateral pledged on securities borrowed	7,127	18,658
Derivative assets	3,636	9,730
Other	2,764	6,212
Total investment receivables	13,527	34,600
Total investments[1]	$ 596,353	$ 536,313
Investment liabilities		
Debt financing liabilities	(36,449)	(38,395)
Securities sold under repurchase agreements and cash collateral received on securities lent	(33,150)	(52,347)
Securities sold short	(22,275)	(20,776)
Derivative liabilities	(3,004)	(10,023)
Short-term secured debt	(1,234)	(1,430)
Other	(2,052)	(4,104)
Total investment liabilities[1]	(98,164)	(127,075)
Pending trades receivable[1]	3,077	7,025
Pending trades payable[1]	(4,000)	(6,619)
Net investments	$ 497,266	$ 409,644

1. Consists of all the financial assets and liabilities held by both Canada Pension Plan Investment Board and its investment holding subsidiaries. In contrast, the Consolidated Balance Sheet presents all financial assets and liabilities held by investment holding subsidiaries as investments. This results in a difference of $401 million (March 31, 2020 – $849 million), $6 million (March 31, 2020 – $13 million), $414 million (March 31, 2020 – $81 million) and $809 million (March 31, 2020 – $917 million) as compared to investments, investment liabilities, pending trades receivable and pending trades payable, respectively, as presented in the Consolidated Balance Sheet. Refer to Note 1.2, 3.1 and 3.2 for further details.
2. Certain comparatives have been reclassified to conform to the current year's presentation.

The accompanying Notes are an integral part of these Consolidated Financial Statements.

Notes to the Consolidated Financial Statements

Corporate information

Canada Pension Plan Investment Board (CPP Investments) was established in December 1997 pursuant to the *Canada Pension Plan Investment Board Act* (CPPIB Act). CPP Investments is a federal Crown corporation, all of the shares of which are owned by Her Majesty the Queen in right of Canada. The issued and authorized share capital of CPP Investments is $100 divided into 10 shares with a par value of $10 each.

CPP Investments is responsible for assisting the Canada Pension Plan (CPP) in meeting its obligations to contributors and beneficiaries under the legislation *Canada Pension Plan* (CPP Act). It is responsible for managing amounts that are transferred to it under Sections 108.1 and 108.3 of the CPP Act in the best interests of CPP beneficiaries and contributors. CPP Investments received its first funds for investing purposes from the CPP in March 1999. CPP Investments' assets are to be invested in accordance with the CPPIB Act, the regulations and CPP Investments' investment policies with a view to achieving a maximum rate of return without undue risk of loss, having regard to the factors that may affect the funding of the CPP and the ability of the CPP to meet its financial obligations on any given business day.

In December 2016, Royal Assent was given to Bill C-26 titled *An Act to Amend the Canada Pension Plan,* the *Canada Pension Plan Investment Board Act* and the *Income Tax Act*. These legislative amendments increase the amount of CPP contributions and the corresponding retirement pensions and other benefits that are paid on CPP contributions made after 2018. The CPP Act now defines two separate parts of the CPP. The "base CPP" refers to the benefits and contributions established before 2019. The "additional CPP" refers to the additional benefits and additional contributions that began on January 1, 2019. The assets attributable to the CPP's additional CPP account are accounted for separately from those of the base CPP account. Note 19 provides information on the net assets, net investments and net income of the base CPP account and additional CPP account. All references to "CPP" mean base CPP and additional CPP together.

CPP Investments is exempt from Part I tax under paragraph 149(1)(d) of the *Income Tax Act (Canada)* on the basis that all of the shares of CPP Investments are owned by Her Majesty the Queen in right of Canada. Further, all of CPP Investments' wholly owned subsidiaries are exempt from Part I tax.

The Consolidated Financial Statements provide information on the net assets managed by CPP Investments and do not include the liabilities and other assets of the CPP.

CPP Investments' registered office is located at One Queen Street East, Toronto, Ontario, Canada.

The Consolidated Financial Statements were approved by the Board of Directors and authorized for issue on May 13, 2021.

1. Summary of significant accounting policies

At a Glance

This Note describes significant accounting policies that are relevant to the Consolidated Financial Statements as a whole. Where an accounting policy is specific to one financial statement element, the policy is described in the Note to which it relates.

Use of Estimates, Judgments and Assumptions

The preparation of the Consolidated Financial Statements requires Management to make estimates, judgments and assumptions that affect the amounts recognized for assets and liabilities, principally the valuation of financial instruments which are not actively traded. Uncertainty about these estimates, judgments and assumptions may result in outcomes that could require a material adjustment to the carrying amount of the affected assets or liabilities in the future.

1.1 Basis of presentation

These Consolidated Financial Statements present the financial position and the financial performance of CPP Investments in accordance with International Financial Reporting Standards (IFRS).

CPP Investments qualifies as an investment entity as it meets the following definition of an investment entity outlined in IFRS 10, *Consolidated Financial Statements* (IFRS 10):

- Obtains funds from one or more investors for the purpose of providing those investor(s) with investment management services. In the case of CPP Investments, we have one investor (more specifically, we invest amounts transferred from the CPP that are not required to pay current CPP benefits), but the funds are invested in the best interests of a wide group of individuals being the contributors and beneficiaries of the CPP.
- Commits to its investor(s) that its business purpose is to invest funds solely for returns from capital appreciation, investment income, or both.
- Measures and evaluates the performance of substantially all of its investments on a fair value basis.

No significant judgments or assumptions were made in determining that CPP Investments meets the definition of an investment entity as defined in IFRS 10.

Statement of compliance

The Consolidated Financial Statements of CPP Investments have been prepared in accordance with IFRS as issued by the International Accounting Standards Board and the requirements of the CPPIB Act and the accompanying regulations.

1.2 Subsidiaries

CPP Investments reports the results of its operations in accordance with IFRS 10. As a consequence, the Consolidated Financial Statements represent the results of operations of CPP Investments and its wholly owned subsidiaries that were created to provide investment-related services to support its operations. Operating subsidiaries of this nature include those that provide investment advisory services or subsidiaries that were created to provide financing to CPP Investments.

Subsidiaries that are managed by CPP Investments to hold investments are referred to herein as investment holding subsidiaries. Such subsidiaries are not consolidated in these Consolidated Financial Statements but instead are measured and reported at fair value through profit and loss (FVTPL) in accordance with IFRS 9, *Financial Instruments* (IFRS 9). Fair value for unconsolidated investment holding subsidiaries is based on the fair value of the underlying investments, investment liabilities and pending trades held by the investment holding subsidiary together with its accumulated net income from operations less dividends paid. The determination of the fair value of the underlying investments and investment liabilities is based on the valuation techniques and related inputs described in Note 2.

1.3 Associates and joint ventures

An associate is an entity in which CPP Investments or its investment holding subsidiaries has the ability to exercise significant influence over decision-making.

Investments in joint ventures are those arrangements where CPP Investments or its investment holding subsidiaries have joint control of the arrangements.

CPP Investments is an investment entity and measures investments in its associates and joint ventures at FVTPL in accordance with IAS 28 *Investments in Associates and Joint Ventures* (IAS 28) and IFRS 9.

1.4 Financial instruments

Classification

CPP Investments classifies its financial assets and financial liabilities, in accordance with IFRS 9 as follows:

Financial assets

Financial assets are either classified at FVTPL or at amortized cost. The classification depends on (a) the business model for managing the financial assets and (b) the cash flow characteristics of the financial assets. Financial assets are classified at FVTPL on the basis that they are part of a portfolio of investments which is managed to maximize returns without undue risk of loss and whose performance is evaluated on a fair value basis in accordance with investment strategies and risk management of CPP Investments. Financial assets classified at FVTPL include investments in equities, fixed income, absolute return strategies, real assets, derivatives, securities purchased under reverse repurchase agreements and cash collateral pledged on securities borrowed. Financial assets carried at amortized cost include pending trades receivable and other assets.

Financial liabilities

Financial liabilities are either classified at FVTPL or at amortized cost. A financial liability is classified at FVTPL if it is classified as held for trading, it is a derivative, or it is designated as such on initial recognition.

Financial liabilities at FVTPL are derivative liabilities and securities sold short. Financial liabilities designated at FVTPL include debt financing liabilities, securities sold under repurchase agreements, cash collateral received on securities lent, short-term secured debt and other investment liabilities. Financial liabilities at amortized cost include pending trades payable and accounts payable and accrued liabilities.

Recognition

CPP Investments recognizes a financial asset or a financial liability when, and only when, it becomes a party to the contractual provisions of the financial instrument. Investments, investment receivables, investment liabilities, pending trades receivable and pending trades payable are recorded on a trade date basis.

Derecognition

A financial asset is derecognized under the following situations: (a) when the contractual rights to receive the cash flows from the financial asset expire, (b) when CPP Investments has transferred the financial asset and substantially all the risks and rewards of the asset, or (c) in cases where CPP Investments has neither retained nor transferred substantially all risks and rewards of the asset, it no longer retains control over the asset.

CPP Investments derecognizes a financial liability when the obligation under the liability is discharged, cancelled or expires.

Initial measurement

Financial assets and financial liabilities are measured on initial recognition at fair value.

Subsequent measurement

After initial measurement, financial assets and financial liabilities continue to be measured at fair value or amortized cost. Subsequent changes in the fair value of those financial assets and financial liabilities classified at fair value are recorded as a net gain (loss) on investments and included in investment income. Interest income and dividend income from such financial instruments are also included in investment income.

1.5 Functional and presentation currency

CPP Investments' functional and presentation currency is the Canadian dollar, which is the currency of the primary economic environment in which it operates. CPP Investments' performance is evaluated and its liquidity is managed in Canadian dollars. Therefore, the Canadian dollar is considered to be the currency that most faithfully represents the economic effects of the underlying transactions, events and conditions.

1.6 Foreign currency translation

Transactions, including purchases and sales of investments, and income and expenses, are translated at the rate of exchange prevailing on the date of the transaction. Investments and monetary assets and liabilities denominated in foreign currencies are translated at the functional currency exchange rate at each balance sheet date. Non-monetary items in a foreign currency are measured at historical cost and are translated using the exchange rates at the dates of the initial transactions.

Foreign currency transaction gains and losses on financial instruments classified at FVTPL are included in investment income in the Consolidated Statement of Comprehensive Income.

1.7 Current year adoption and future changes in accounting policies

Developments and changes in accounting standards from the International Accounting Standards Board (IASB) are actively monitored.

IASB has addressed interest rate benchmark reform related financial reporting issues in two phases. In September 2019, the IASB issued "Interest Rate Benchmark Reform: Amendments to IFRS 9, IAS 39 and IFRS 7" (Phase 1 Amendments). Our assessment is that Phase 1 Amendments have no impact on our Consolidated Financial Statements.

In August 2020, the IASB issued phase 2 of the amendments to various accounting standards that address issues affecting financial reporting as a result of changing the interest rate benchmark from the Interbank Offered Rate to an alternative benchmark rate and provide specific disclosure requirements. The phase 2 amendments are effective for CPP Investments on April 1, 2021. We are currently assessing the impact of the phase 2 amendments on our Consolidated Financial Statements.

Other than the future change in accounting policies noted above, there were no adoptions of issued IFRS standards, changes in existing standards or new interpretations during the year ended March 31, 2021 that impact the Consolidated Financial Statements.

2. Investments and investment liabilities

At a Glance

All investments and investment liabilities are measured at fair value.

This Note describes the types of investments and investment liabilities held by CPP Investments and its investment holding subsidiaries, and explains how Management determines their fair value.

ACCOUNTING POLICY

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

CPP Investments manages the following types of investments and investment liabilities and determines fair value as described below.

2.1 Equities

Public equities

Public equity investments are made directly or through funds, including hedge funds.

Fair value for publicly traded equities, including equity short positions, is based on quoted market prices. Fair value for fund investments is generally based on the net asset value reported by the external administrators or managers of the funds.

Private equities

Private equity investments are generally made directly or through ownership in limited partnership funds.

Fair value for investments held directly is primarily determined using accepted industry valuation methods such as earnings multiples of comparable publicly traded companies or discounted cash flows. Significant inputs for these valuation methods include company-specific earnings before interest, taxes, depreciation and amortization (EBITDA), earnings multiples of comparable publicly traded companies, projected cash flows and discount rates using current market yields of instruments with similar characteristics. Recent market transactions, where available, are also used. In the case of investments held through a limited partnership fund, fair value is generally based on relevant information reported by the general partner using similar accepted industry valuation methods.

2.2 Fixed income

Bonds

Bonds include non-marketable and marketable bonds. Non-marketable bonds and marketable bonds include government bonds issued by Canadian and foreign governments and corporate bonds.

Fair value for non-marketable Canadian provincial government bonds is calculated using discounted cash flows based on current market yields of instruments with similar characteristics. In the case of marketable bonds, including bond short positions, fair value is based on quoted prices or calculated using discounted cash flows based on benchmark yield curves and credit spreads pertaining to the issuer.

Other debt

Other debt includes investments in direct private debt, asset-backed securities, distressed mortgage funds, private debt funds, hedge funds and investments in royalty-related income streams.

Fair value for direct investments in private debt and asset-backed securities is based on quoted market prices, broker quotes or recent market transactions, if available. Where the market price is not available, fair value is calculated using discounted cash flows based on significant inputs such as projected cash flows and discount rates using current market yields of instruments with similar characteristics.

Fair value for fund investments is generally based on the net asset value as reported by the external administrators or managers of the funds.

In the case of investments in royalty-related income streams, fair value is primarily determined using discounted cash flows based on projected cash flows and discount rates using current market yields of instruments with similar characteristics.

Cash and cash equivalents

Cash includes cash on hand. Cash equivalents includes short-term deposits, commercial paper, bank accepted bills, floating rate deposit notes and treasury bills with a maturity of 90 days or less.

Cash and cash equivalents held for investment purposes are included in Investments on the Consolidated Balance Sheet and are presented separately on the Consolidated Statement of Cash Flows. Cash and cash equivalents for operating purposes are presented in Other assets on the Consolidated Balance Sheet and separately on the Consolidated Statement of Cash Flows.

Fair value is determined using cost, which, together with accrued interest, approximates fair value due to the short-term or floating rate nature of these assets.

Money market securities

Money market securities include term deposits, treasury bills, commercial paper and floating rate notes, all of which have a maturity date of over 90 days.

Fair value is determined using cost, which, together with accrued interest income, approximates fair value due to the short-term or floating rate nature of these securities.

2.3 Absolute return strategies

Absolute return strategies include investments in hedge funds whose objective is to generate returns regardless of market conditions, that is, returns with a low correlation to broad market indexes. The underlying securities of the funds could include, but are not limited to, equities, fixed income securities and derivatives.

Fair value for these fund investments is generally based on the net asset value as reported by the external administrators or managers of the funds.

2.4 Real assets

Real estate

Real estate investments are generally made through direct private investments, or through ownership of real estate funds. Private real estate investments are managed by investment partners primarily through co-ownership arrangements.

Fair value for private real estate investments is determined using accepted industry valuation methods such as discounted cash flows. Significant inputs include projected cash flows, net operating income, discount and terminal capitalization rates. Fair value is also determined using net asset value provided by the investment partner.

Fair value for real estate funds is generally based on the net asset value reported by the external managers of the funds.

Infrastructure, power and renewables and energy and resources

Infrastructure, power and renewables and energy and resources investments are generally made directly, but can also occur through limited partnership funds.

The fair value of these investments is primarily determined using discounted cash flows based on significant inputs including projected cash flows and discount rates. Earnings multiples of comparable companies may also be used for determining the fair value of certain investments.

Fair value for investments held through limited partnership funds are generally based on the net asset value as reported by the external managers of the funds.

2.5 Securities purchased under reverse repurchase agreements and sold under repurchase agreements

ACCOUNTING POLICY

Securities purchased under reverse repurchase agreements represent the purchase of securities with a simultaneous agreement to sell them back at a specified price at a specified future date and are accounted for as an investment receivable. The purchased securities under these agreements are not recognized on the Consolidated Balance Sheet. The fair value of securities to be resold under reverse repurchase agreements is monitored and additional collateral is obtained, when appropriate, to protect against credit exposure. In the event of counterparty default, CPP Investments has the right to liquidate the collateral held.

Securities sold under repurchase agreements are accounted for as collateralized borrowing because they represent the sale of securities with a simultaneous agreement to buy them back at a specified price at a specified future date. The securities sold under these agreements continue to be recognized on the Consolidated Balance Sheet with any changes in fair value recorded as net gain (loss) on investments and included in investment income.

Interest earned on reverse repurchase agreements is included in interest income within investment income. Interest incurred on repurchase agreements is included in borrowing costs within investment-related expenses.

Reverse repurchase and repurchase agreements are carried at the amounts at which the securities were initially acquired or sold, which, together with accrued interest income or expense, approximates fair value due to the short-term nature of these agreements.

2.6 Securities borrowed and lent

ACCOUNTING POLICY

Securities borrowing and lending agreements are transactions in which CPP Investments borrows securities from or lends securities to third parties.

Borrowed securities are not recognized on the Consolidated Balance Sheet. Lent securities remain on the Consolidated Balance Sheet as CPP Investments retains substantially all of the risks and rewards of ownership of the transferred securities.

Collateral received or pledged is generally in the form of cash, equities or fixed income securities. Cash collateral received is accounted for as an investment liability while equities and fixed income securities received as collateral are not recognized on the Consolidated Balance Sheet. Cash collateral pledged is accounted for as an investment receivable, while securities collateral pledged by CPP Investments in securities borrowing agreements remain on the Consolidated Balance Sheet. Costs relating to securities borrowing and lending are included in borrowing costs within investment-related expenses.

2.7 Securities sold short

Securities sold short represent securities that are sold, but not owned, by CPP Investments. CPP Investments has an obligation to cover these short positions, which are accounted for as an investment liability based on the fair value of the securities sold. Collateral is pledged to the counterparty, as required. Interest and dividend expenses on securities sold short are included in investment income.

2.8 Debt financing liabilities

Debt financing liabilities consist of commercial paper payable and term debt. Commercial paper payable is carried at the amount originally issued, which, together with accrued interest expense, approximates fair value due to the short-term nature of these liabilities. Fair value for term debt is based on quoted market prices. Interest expense and associated costs on debt financing liabilities are included in borrowing costs within investment-related expenses.

2.9 Short-term secured debt

Short-term secured debt consists of cash advances from prime brokers that are fully collateralized by securities. The securities collateral pledged to the counterparty remains on the Consolidated Balance Sheet. Short-term secured debt is carried at the amounts at which the funding was initially transferred, which together with accrued interest, approximates fair value due to the short-term nature of the debt and variable interest rate. Interest expense on short-term secured debt is included in borrowing costs within investment-related expenses.

2.10 Derivative assets and liabilities

A derivative is a financial contract, the value of which is derived from the value of underlying assets, indexes, interest rates, currency exchange rates or other market-based factors. Derivatives are transacted through regulated exchanges, centrally cleared or negotiated in over-the-counter markets.

Fair value for exchange-traded derivatives, which includes futures, options and warrants, is based on quoted market prices. Fair value for over-the-counter derivatives, which includes forwards, swaps, options and warrants, is determined based on valuation techniques that make maximum use of inputs observed from markets such as option pricing models, discounted cash flows and consensus pricing from independent brokers and/or third-party vendors. Inputs used in these valuation techniques can include, but are not limited to, spot prices, price volatilities, currency exchange rates, interest rate curves and credit spreads. In determining fair value, consideration is also given to the credit risk of the counterparty.

CPP Investments uses the types of derivatives described below.

Futures and forwards

Futures are standardized contracts transacted on an exchange, whereas forwards are customized over-the-counter contracts negotiated between counterparties. Futures contracts may be cash-settled or require physical delivery of the underlying asset. Examples of futures and forwards are described below.

Equity futures are contractual obligations to purchase or sell a specified quantity of an equity index, a basket of stocks, or a single stock at a predetermined price and date in the future.

Foreign exchange forwards are contractual obligations negotiated between counterparties to purchase or sell a specified amount of foreign currencies at a predetermined price and date in the future.

Interest rate futures and forwards, including bond futures, are contractual obligations to purchase or sell a specified amount of an interest-rate-sensitive financial instrument(s) or index at a predetermined price and date in the future.

Commodity futures are contractual obligations to purchase or sell a specified quantity of a commodity, such as precious metals and energy-related products, at a predetermined price and date in the future.

Swaps

Swaps are over-the-counter contracts between two parties to exchange a series of cash flows. Examples of swaps are described below.

Equity-based swaps include equity swaps, volatility swaps, variance swaps and dividend swaps. Equity swaps are contracts where one counterparty agrees to pay or receive from the other, cash flows based on changes in the value of an equity index, a basket of stocks, or a single stock in exchange for a return based on a fixed or floating interest rate or the return on another instrument. Volatility and variance swaps are contracts where cash flows are exchanged based on the realized volatility or variance of an equity index, a basket of stocks, or a single stock compared to the fixed strike level specified in the contract. Dividend swaps are contracts where one party pays the other future dividend flows of a single stock or index in exchange for predefined fixed amounts at sequential intervals or at termination.

Interest rate-related swaps include bond swaps, interest rate swaps and cross-currency swaps. Bond swaps are contracts in which counterparties exchange the return on a bond, or group of such instruments, for the return on a fixed or floating interest rate or the return on another instrument. Interest rate swaps are contracts where counterparties exchange cash flows based on different interest rates applied to a notional amount in a single currency, with no exchange of a notional amount. Cross-currency swaps involve the exchange of both interest and notional amounts in two different currencies.

Credit default swaps are contracts that provide credit protection against a specified credit event such as the default or bankruptcy of the underlying financial instrument (referenced asset). The purchaser (buyer) pays a premium to the writer (seller) in return for payment, which is contingent on a credit event affecting the referenced asset. Credit default swaps require the writer to compensate counterparties for the decline in value of the referenced asset as a result of the occurrence of a specified credit event. The notional amount represents the maximum amount payable to these counterparties under these written credit default swap contracts.

Options and warrants

Options are contractual agreements where the seller (writer) gives the purchaser the right, but not the obligation, to buy or sell a specified amount of an equity, currency, interest rate, credit, commodity or other financial instrument at or before a specified future date at a predetermined price. The purchaser pays a premium to the seller for this right. Options can be transacted in standardized amounts on regulated exchanges or customized in over-the-counter markets.

Call or put options may require the writer to sell or purchase the underlying asset at a fixed date or at any time within a fixed future period. Due to the nature of these contracts, CPP Investments cannot reasonably estimate the potential maximum amount of future payments.

Warrants are transacted both over-the-counter and through exchanges. Under a warrant, the issuer gives the purchaser the right, but not the obligation, to buy a specified quantity of stock of the issuer at or before a specified future date at a predetermined price.

3. Fair value measurement

At a Glance

In an active market, fair value is best evidenced by an independent quoted market price. In the absence of an active market, valuation can be significantly more complex and often subjective, requiring judgment.

This Note categorizes the fair value of investments and investment liabilities within the three levels of the fair value hierarchy. For investment valuations that require significant judgment, the Note further provides the roll-forward of these investments during the year and the range of valuation techniques and inputs used.

Investments and investment liabilities owned by investment holding subsidiaries are indirectly held by CPP Investments. The fair value of each investment holding subsidiary is determined based on the fair value of the underlying investments held, net of any investment liabilities and pending trades together with its accumulated net income from operations less dividends paid. Further detail on investment holding subsidiaries is provided in Note 3.2.

ACCOUNTING POLICY

The fair value of CPP Investments' investments and investment liabilities is categorized into the following fair value hierarchy based on the level of significant inputs used in the fair value measurement:

- Level 1 – Quoted prices in active markets for identical assets or liabilities;
- Level 2 – Inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly (as prices) or indirectly (derived from prices); and
- Level 3 – Inputs for the asset or liability that are not based on observable market data (unobservable inputs).

SIGNIFICANT ESTIMATE

Level 3 investments consist of instruments held at fair value that are not traded or quoted in active markets. Fair value is, therefore, determined using valuation techniques that use models with unobservable inputs while maximizing the use of inputs observed from markets. The resulting values are particularly judgmental. Refer to Note 3.5 for the valuation techniques used to determine the fair value of Level 3 investments.

3.1 Fair value hierarchy of investments and investment liabilities held directly by CPP Investments

	As at March 31, 2021			
(CAD millions)	Level 1	Level 2	Level 3	Total
Investments				
Equities				
Public equities[1]	$ 154,995	$ 3,889	$ 45	$ 158,929
Private equities	–	172	8,598	8,770
Total equities	154,995	4,061	8,643	167,699
Fixed income				
Bonds	54,941	39,824	–	94,765
Other debt	–	1,049	2,709	3,758
Cash and cash equivalents	–	13,744	–	13,744
Money market securities	–	143	–	143
Total fixed income	54,941	54,760	2,709	112,410
Absolute return strategies	–	15,734	1,012	16,746
Real assets				
Infrastructure	–	–	8,037	8,037
Real estate	–	–	9,556	9,556
Power and renewables	–	–	654	654
Energy and resources	–	–	2,233	2,233
Total real assets	–	–	20,480	20,480
Investment receivables				
Securities purchased under reverse repurchase agreements and cash collateral pledged on securities borrowed	–	7,127	–	7,127
Derivative assets	–	3,515	–	3,515
Other[2]	–	2,269	–	2,269
Total investment receivables	–	12,911	–	12,911
Investments in investment holding subsidiaries (Note 3.2)	–	–	265,706	265,706
Total investments	$ 209,936	$ 87,466	$ 298,550	$ 595,952
Investment liabilities				
Debt financing liabilities	(36,449)	–	–	(36,449)
Securities sold under repurchase agreements and cash collateral received on securities lent	–	(33,150)	–	(33,150)
Securities sold short	(22,275)	–	–	(22,275)
Derivative liabilities	(45)	(2,957)	–	(3,002)
Short-term secured debt	–	(1,234)	–	(1,234)
Other[2]	–	(2,048)	–	(2,048)
Total investment liabilities	(58,769)	(39,389)	–	(98,158)
Pending trades receivable[3]	–	2,663	–	2,663
Pending trades payable[3]	–	(3,191)	–	(3,191)
Net investments	$ 151,167	$ 47,549	$ 298,550	$ 497,266

(CAD millions)	As at March 31, 2020[4] Level 1	Level 2	Level 3	Total
Investments				
Equities				
Public equities[1]	$ 100,769	$ 3,891	$ 33	$ 104,693
Private equities	–	–	5,702	5,702
Total equities	100,769	3,891	5,735	110,395
Fixed income				
Bonds	60,295	40,829	–	101,124
Other debt	–	1,325	2,552	3,877
Cash and cash equivalents		22,929	–	22,929
Money market securities	–	1,353	–	1,353
Total fixed income	60,295	66,436	2,552	129,283
Absolute return strategies	–	14,735	1,534	16,269
Real assets				
Infrastructure	–	–	7,622	7,622
Real estate	–	–	14,469	14,469
Power and renewables	–	–	1,114	1,114
Energy and resources	–	–	1,770	1,770
Total real assets	–	–	24,975	24,975
Investment receivables				
Securities purchased under reverse repurchase agreements and cash collateral pledged on securities borrowed	–	18,658	–	18,658
Derivative assets	–	9,730	–	9,730
Other[2]	–	5,925	–	5,925
Total investment receivables	–	34,313	–	34,313
Investments in investment holding subsidiaries (Note 3.2)	–	–	220,229	220,229
Total investments	$ 161,064	$ 119,375	$ 255,025	$ 535,464
Investment liabilities				
Debt financing liabilities	(32,639)	(5,756)	–	(38,395)
Securities sold under repurchase agreements and cash collateral received on securities lent	–	(52,347)	–	(52,347)
Securities sold short	(20,776)	–	–	(20,776)
Derivative liabilities	(353)	(9,670)	–	(10,023)
Short-term secured debt	–	(1,430)	–	(1,430)
Other[2]	–	(4,091)	–	(4,091)
Total investment liabilities	(53,768)	(73,294)	–	(127,062)
Pending trades receivable[3]	–	6,944	–	6,944
Pending trades payable[3]	–	(5,702)	–	(5,702)
Net investments	$ 107,296	$ 47,323	$ 255,025	$ 409,644

1. Includes investments in funds.
2. Included in other investment receivables and other investment liabilities is cash pledged as collateral of $1,142 million (March 31, 2020 – $3,855 million) and cash held as collateral of $1,955 million (March 31, 2020 – $3,709 million) on over-the-counter derivative transactions, respectively.
3. Pending trades receivable and payable are measured at amortized cost, which approximates fair value.
4. Certain comparatives have been reclassified to conform to the current year's presentation.

3.2 Supplemental information on fair value hierarchy relating to investment holding subsidiaries

The following table presents the fair value hierarchy of the underlying investments and investment liabilities held by investment holding subsidiaries. For further details on the nature and purpose of investment holding subsidiaries, refer to Note 1.2.

	As at March 31, 2021			
(CAD millions)	Level 1	Level 2	Level 3	Total
Investments				
Equities				
Public equities[1]	$ 8,629	$ 7,485	$ 40	$ 16,154
Private equities	–	7,385	123,289	130,674
Total equities	8,629	14,870	123,329	146,828
Fixed income				
Bonds	–	3,795	–	3,795
Other debt	–	4,342	20,779	25,121
Cash and cash equivalents	–	788	–	788
Money market securities	–	–	–	–
Total fixed income	–	8,925	20,779	29,704
Absolute return strategies	–	10,576	1,686	12,262
Real assets				
Infrastructure	–	–	31,917	31,917
Real estate	–	–	28,522	28,522
Power and renewables	–	–	8,973	8,973
Energy and resources	–	–	7,285	7,285
Total real assets	–	–	76,697	76,697
Investment receivables				
Derivative assets	–	121	–	121
Other	–	495	–	495
Total investment receivables	–	616	–	616
Total investments held by investment holding subsidiaries	$ 8,629	$ 34,987	$ 222,491	$ 266,107
Investment liabilities				
Derivative liabilities	–	(2)	–	(2)
Other	–	(4)	–	(4)
Total investment liabilities held by investment holding subsidiaries	–	(6)	–	(6)
Pending trades receivable[2]	–	414	–	414
Pending trades payable[2]	–	(809)	–	(809)
Investments in investment holding subsidiaries	$ 8,629	$ 34,586	$ 222,491	$ 265,706

(CAD millions)	As at March 31, 2020[3]							
		Level 1		Level 2		Level 3		Total
Investments								
Equities								
Public equities[1]	$	5,496	$	7,956	$	96	$	13,548
Private equities		–		–		99,679		99,679
Total equities		5,496		7,956		99,775		113,227
Fixed income								
Bonds		–		2,534		–		2,534
Other debt		–		3,533		19,804		23,337
Cash and cash equivalents		–		626		–		626
Money market securities		–		–		–		–
Total fixed income		–		6,693		19,804		26,497
Absolute return strategies		–		9,973		1,680		11,653
Real assets								
Infrastructure		–		–		27,057		27,057
Real estate		–		–		29,249		29,249
Power and renewables		–		–		7,597		7,597
Energy and resources		–		–		5,511		5,511
Total real assets		–		–		69,414		69,414
Investment receivables								
Derivative assets		–		–		–		–
Other		–		287		–		287
Total investment receivables		–		287		–		287
Total investments held by investment holding subsidiaries	$	5,496	$	24,909	$	190,673	$	221,078
Investment liabilities								
Other		–		(13)		–		(13)
Total investment liabilities held by investment holding subsidiaries		–		(13)		–		(13)
Pending trades receivable[2]		–		81		–		81
Pending trades payable[2]		–		(917)		–		(917)
Investments in investment holding subsidiaries	$	5,496	$	24,060	$	190,673	$	220,229

1. Includes investments in funds.
2. Pending trades receivable and payable are measured at amortized cost, which is a reasonable approximation of fair value.
3. Certain comparatives have been reclassified to conform to the current year's presentation.

3.3 Transfers between Level 1 and Level 2

Transfers between levels in the fair value hierarchy are deemed to have occurred at the end of the reporting period. During the year ended March 31, 2021, transfers from Level 1 to Level 2 included $103 million of investments held directly by CPP Investments (during the year ended March 31, 2020 – $2 million). During the year ended March 31, 2021, transfers from Level 2 to Level 1 included $104 million of investments held directly by CPP Investments (during the year ended March 31, 2020 – nil). Transfers between Level 1 and Level 2 depend on the availability of quoted market prices in active markets and valuations using inputs other than quoted prices that are observable.

3.4 Level 3 reconciliation

The following presents the reconciliations for investments included in Level 3 of the fair value hierarchy:

(CAD millions)	For the year ended March 31, 2021 Fair value as at April 1, 2020	Gain (loss) included in investment income	Purchases	Sales[1]	Transfers into Level 3	Transfers out of Level 3	Fair value as at March 31, 2021	Change in unrealized gains (losses) on investments still held at March 31, 2021[2]
Investments								
Equities								
Public equities	$ 33	$ 13	$ –	$ (1)	$ –	$ –	$ 45	$ 14
Private equities	5,702	3,154	494	(903)	151	–	8,598	3,187
Total equities	5,735	3,167	494	(904)	151	–	8,643	3,201
Fixed income								
Other debt	2,552	243	1,967	(1,902)	–	(151)	2,709	(41)
Absolute return strategies	1,534	(78)	237	(776)	95	–	1,012	(140)
Real assets								
Infrastructure	7,622	867	25	(477)	–	–	8,037	867
Real estate	14,469	(2,526)	357	(2,744)	–	–	9,556	(2,392)
Power and renewables	1,114	3	21	(484)	–	–	654	(8)
Energy and resources	1,770	430	74	(42)	1	–	2,233	433
Total real assets	24,975	(1,226)	477	(3,747)	1	–	20,480	(1,100)
Investments in investment holding subsidiaries[3]	220,229	43,500	2,841	(864)	–	–	265,706	43,500
Total	$ 255,025	$ 45,606	$ 6,016	$ (8,193)	$ 247	$ (151)	$ 298,550	$ 45,420

(CAD millions)	Fair value as at April 1, 2019	Gain (loss) included in investment income	Purchases	Sales[1]	Transfers into Level 3	Transfers out of Level 3	Fair value as at March 31, 2020	Change in unrealized gains (losses) on investments still held at March 31, 2020[2]
	For the year ended March 31, 2020							
Investments								
Equities								
Public equities	$ 63	$ (28)	$ –	$ (2)	$ –	$ –	$ 33	$ (27)
Private equities	6,194	(912)	730	(319)	9	–	5,702	(918)
Total equities	6,257	(940)	730	(321)	9	–	5,735	(945)
Fixed income								
Other debt	2,159	(61)	983	(529)	–	–	2,552	(27)
Absolute return strategies	447	57	68	(120)	1,082	–	1,534	98
Real assets								
Infrastructure	12,534	(388)	–	(4,524)	–	–	7,622	(7)
Real estate	15,217	531	890	(2,169)	–	–	14,469	392
Power and renewables	1,215	(101)	–	–	–	–	1,114	(101)
Energy and resources	1,888	(118)	–	–	–	–	1,770	(118)
Total real assets	30,854	(76)	890	(6,693)	–	–	24,975	166
Investment receivables								
Other	2	(2)	–	–	–	–	–	–
Total investment receivables	2	(2)	–	–	–	–	–	–
Investments in investment holding subsidiaries[3]	199,571	(2,784)	24,854	(1,412)	–	–	220,229	(2,784)
Total	$ 239,290	$ (3,806)	$ 27,525	$ (9,075)	$ 1,091	$ –	$ 255,025	$ (3,492)

1. Includes return of capital.
2. Included in investment income.
3. Purchases relating to investment holding subsidiaries represent capital contributions or net loan funding provided to these subsidiaries. Sales relating to investment holding subsidiaries represent return of capital from these subsidiaries.

Transfers into and out of Level 3 were primarily due to changes in the availability of market observable inputs used to determine fair value. Transfers into and out of Level 3 are deemed to have occurred at the end of the reporting period. The entire 'change in unrealized gains (losses) on investments still held' column in the above reconciliation includes or excludes the investments transferred into and out of Level 3, respectively.

3.5 Level 3 – Significant unobservable inputs

The table below presents the fair value of investments directly held by CPP Investments, valuation techniques used to determine their fair values, and the ranges and weighted averages of unobservable inputs.

Investment holding subsidiaries are also classified as Level 3 in the fair value hierarchy. The fair value is largely driven by Level 3 investments, for which the valuation techniques, ranges and weighted averages of unobservable inputs are included below. However, certain investments held by the investment holding subsidiaries are based on quoted prices in active markets (Level 1) or valued using observable inputs (Level 2). These amount to $8,629 million (March 31, 2020 – $5,496 million) and $34,586 million (March 31, 2020 – $24,060 million), respectively. Refer to Note 3.2 for further details on Level 1 and Level 2 investments relating to investment holding subsidiaries. As each investment holding subsidiary is largely composed of Level 3 investments, the entire subsidiary is classified as Level 3.

(CAD millions)	Fair value of investments held by: CPP Investments	Investment holding subsidiaries	Primary valuation techniques used[1]	Significant unobservable inputs	Range of input values[2]	Weighted average[2]
	As at March 31, 2021					
Public equities						
Direct	$ –	$ 9,635	Quoted market price	–	–	–
Fund Investments	45	6,519	Net asset value provided by investment manager	–	–	–
Private equities						
Direct	8,437	55,514	Earnings multiples of comparable companies	EBITDA multiple	9.0X–64.3X	25.5X
			Discounted cash flow	Discount rate	8.0%–16.3%	11.5%
	14	14,166	Net asset value provided by investment manager	–	–	–
Fund investments	147	60,994	Net asset value provided by investment manager	–	–	–
Bonds	–	3,795	Quoted market prices or discounted cash flows using observable inputs	–	–	–
Other debt						
Direct private debt	137	18,744	Discounted cash flow	Discount rate	3.7%–30.0%	7.6%
	–	1,420	Net asset value provided by investment manager	–	–	–
Asset-backed securities	2,550	693	Comparable pricing	Price	81.4%–109.2%	99.3%
Fund investments	22	4,264	Net asset value provided by investment manager	–	–	–
Cash and cash equivalents	–	788	Cost with accrued interest	–	–	–
Absolute return strategies						
Fund investments	1,012	12,262	Net asset value provided by investment manager	–	–	–
Infrastructure						
Direct	8,037	31,891	Discounted cash flow	Discount rate	7.2%–14.1%	8.3%
Fund investments	–	26	Net asset value provided by investment manager	–	–	–
Real estate						
Direct	8,286	5,500	Discounted cash flow	Discount rate	5.3%–14.3%	6.7%
				Terminal capitalization rate	3.8%–11.0%	5.5%
	1,205	20,461	Net asset value provided by investment partner	–	–	–
Fund investments	65	2,561	Net asset value provided by investment manager	–	–	–
Power and Renewables						
Direct	654	8,973	Discounted cash flow	Discount rate	7.1%–12.1%	9.3%
Energy and Resources						
Direct	2,233	7,285	Discounted cash flow	Discount rate	9.0%–32.9%	11.5%
Investment receivables						
Derivative assets	–	121	Option model	–	–	–
Other	–	495	Cost with accrued interest	–	–	–
Investment liabilities						
Derivative liabilities	–	(2)	Discounted cash flow	–	–	–
Other	–	(4)	Cost with accrued interest	–	–	–
Pending trades net receivable/(payable)	–	(395)	Amortized cost	–	–	–
Total	$ 32,844	$ 265,706				

	As at March 31, 2020[3]					
	Fair value of investments held by:					
(CAD millions)	CPP Investments	Investment holding subsidiaries	Primary valuation techniques used[1]	Significant unobservable inputs	Range of input values[2]	Weighted average[2]
Public equities						
Direct	$ –	$ 7,643	Quoted market price	–	–	–
Fund Investments	33	5,905	Net asset value provided by investment manager	–	–	–
Private equities						
Direct	5,623	37,730	Earnings multiples of comparable companies	EBITDA multiple	6.2X–21.2X	13.4X
			Discounted cash flow	Discount rate	8.6%–13.6%	11.8%
	–	12,540	Net asset value provided by investment manager	–	–	–
Fund investments	79	49,409	Net asset value provided by investment manager	–	–	–
Bonds	–	2,534	Quoted market prices or discounted cash flows using observable inputs	–	–	–
Other debt						
Direct private debt	210	17,359	Discounted cash flow	Discount rate	5.6%–64.9%	12.5%
	–	1,475	Net asset value provided by investment manager	–	–	–
Asset-backed securities	2,311	203	Comparable pricing	Price	49.5%–101.1%	89.6%
Fund investments	31	4,300	Net asset value provided by investment manager	–	–	–
Cash and cash equivalents	–	626	Cost with accrued interest	–	–	–
Absolute return strategies						
Fund investments	1,534	11,653	Net asset value provided by investment manager	–	–	–
Infrastructure						
Direct	7,622	27,027	Discounted cash flow	Discount rate	7.1%–13.8%	8.6%
Fund investments	–	30	Net asset value provided by investment manager	–	–	–
Real estate						
Direct	12,791	5,799	Discounted cash flow	Discount rate	5.0%–14.3%	6.7%
				Terminal capitalization rate	3.3%–10.8%	5.5%
	1,559	20,738	Net asset value provided by investment partner	–	–	–
Fund investments	119	2,712	Net asset value provided by investment manager	–	–	–
Power and Renewables						
Direct	1,114	7,597	Discounted cash flow	Discount rate	7.6%–14.7%	10.3%
Energy and Resources						
Direct	1,770	5,511	Discounted cash flow	Discount rate	9.0%–15.0%	11.6%
Investment receivables – Other	–	287	Cost with accrued interest	–	–	–
Investment liabilities – Other	–	(13)	Cost with accrued interest	–	–	–
Pending trades net receivable/(payable)	–	(836)	Amortized cost	–	–	–
Total	$ 34,796	$ 220,229				

1. May include certain recently acquired investments held at cost, which approximates fair value.
2. The range of input values represents the highest and lowest inputs used to value the investments in a particular asset class. The weighted average of the input values is calculated based on the relative fair values of the investments within the asset class. The diversity of investments reported within each asset class, such as the geographic location and industry sector of the investments, may result in certain ranges of inputs being wide and unevenly distributed across the range.
3. Certain comparatives have been reclassified to conform to the current year's presentation.

3.6 Sensitivity analysis of valuations using unobservable inputs

Significant changes in any of the above unobservable inputs would result in a significantly higher or lower fair value measurement. The interrelationship of significant unobservable inputs and fair value measurement for the most significant key inputs identified in the table above is as follows:

- An increase (decrease) in the EBITDA multiple will result in a higher (lower) fair value.
- An increase (decrease) in the discount rate and terminal capitalization rate will result in a lower (higher) fair value.

The fair values of the investments classified within Level 3 of the fair value hierarchy in Note 3.1 and 3.2 are based on accepted industry valuation methods that may include the use of estimates made by Management, appraisers or both where significant judgment is required. By using valuation methods based on reasonable alternative assumptions, different fair values could result. With all other variables held constant, the use of reasonable alternative assumptions would result in a decrease of $9,000 million (March 31, 2020 – $11,100 million) or increase of $9,500 million (March 31, 2020 – $10,600 million) in net assets. This sensitivity analysis is subject to the exercise of judgment and excludes investments where fair values are provided by investment managers as the underlying assumptions used are not available to CPP Investments.

4. Derivatives

At a Glance

CPP Investments enters into a variety of derivatives to manage its exposure to currency exchange, credit, interest and other market risks, and to adjust the exposure in its assets and asset classes.

The fair values, notional amounts and contractual maturities of all derivative financial instruments are set out in Note 4.1 and 4.2. Through these breakdowns, information is provided regarding the extent to which different types of derivatives are used.

4.1 Fair value of derivatives

Derivatives generate positive or negative value, as the value of underlying assets, indexes, interest rates, currency exchange rates or other market-based factors change such that the previously contracted terms of the derivative transactions have become more or less favourable than what can be negotiated under current market conditions for contracts with the same terms and remaining period to expiry.

The derivative-related market risk is a component of the total portfolio market risk, which is managed through the Integrated Risk Framework described in Note 8.

The maximum exposure to credit risk is represented by the positive fair value of the derivative and is normally a small fraction of the contract's notional amount. Negotiated over-the-counter derivatives generally present greater credit exposure than exchange-traded contracts. Credit risk on exchange-traded or centrally cleared contracts is limited because these transactions are either executed on regulated exchanges, or settled through well-capitalized clearing houses that assume the obligation of the writer of a contract and guarantee their performance.

The fair value of derivative contracts held by CPP Investments and its investment holding subsidiaries is as follows:

(CAD millions)	As at March 31, 2021 Positive fair value	As at March 31, 2021 Negative fair value	As at March 31, 2020 Positive fair value	As at March 31, 2020 Negative fair value
Equity contracts				
Futures	$ –	$ –	$ –	$ –
Swaps	2,231	(2,267)	7,032	(8,237)
Options:				
Exchange-traded – purchased	–	–	–	–
Exchange-traded – written	–	–	–	(2)
Over-the-counter – purchased	1	–	20	–
Over-the-counter – written	–	(85)	–	(197)
Warrants	121	–	–	–
Total equity contracts	2,353	(2,352)	7,052	(8,436)
Foreign exchange contracts				
Forwards	406	(370)	1,146	(853)
Options:				
Over-the-counter – purchased	50	–	66	–
Over-the-counter – written	–	(45)	–	(61)
Total foreign exchange contracts	456	(415)	1,212	(914)
Interest rate contracts				
Futures	–	–	–	–
Forwards	–	–	–	–
Swaps	763	(53)	1,412	(85)
Options:				
Over-the-counter – purchased	29	–	–	–
Over-the-counter – written	–	(109)	–	(110)
Total interest rate contracts	792	(162)	1,412	(195)
Credit contracts				
Credit default swaps:				
Over-the-counter – purchased	2	(11)	19	(19)
Over the counter – written	32	(5)	21	(21)
Options:				
Over-the-counter – purchased	1	–	14	–
Over-the-counter – written	–	(14)	–	(87)
Total credit contracts	35	(30)	54	(127)
Commodity contracts				
Futures	–	–	–	–
Options:				
Exchange-traded – purchased	–	–	–	–
Exchange-traded – written	–	(45)	–	(351)
Total commodity contracts	–	(45)	–	(351)
Total[1]	$ 3,636	$ (3,004)	$ 9,730	$ (10,023)

1. Includes $121 million (March 31, 2020 – nil) relating to warrants and $2 million (March 31, 2020 – nil) relating to interest rate derivative liabilities transacted by investment holding subsidiaries.

4.2 Notional amounts of derivatives by terms to maturity

Notional amounts of derivatives represent the contractual amounts to which a rate or price is applied for computing the cash flows to be exchanged. The notional amounts are used to determine the gains/losses and fair value of the contracts. They are not recorded as assets or liabilities on the Consolidated Balance Sheet. Notional amounts do not necessarily represent the amount of potential market risk or credit risk arising from derivatives.

The terms to maturity of the notional amounts for derivatives held by CPP Investments and its investment holding subsidiaries are as follows:

	Terms to maturity					
	As at March 31, 2021					As at March 31, 2020
(CAD millions)	Within 1 year	1 to 5 years	6 to 10 years	Over 10 years	Total	Total
Equity contracts						
Futures	$ 4,932	$ 102	$ –	$ –	$ 5,034	$ 5,441
Swaps	134,145	2,024	1	–	136,170	107,086
Options:						
Exchange-traded – purchased	–	–	–	–	–	–
Exchange-traded – written	–	–	–	–	–	49
Over-the-counter – purchased	–	11	–	–	11	1,677
Over-the-counter – written	4,626	11	–	–	4,637	3,737
Warrants	–	1	58	–	59	35
Total equity contracts	143,703	2,149	59	–	145,911	118,025
Foreign exchange contracts						
Forwards	41,160	22	–	–	41,182	41,459
Options:						
Over-the-counter – purchased	1,713	394	–	–	2,107	4,296
Over-the-counter – written	9,182	182	–	–	9,364	7,137
Total foreign exchange contracts	52,055	598	–	–	52,653	52,892
Interest rate contracts						
Futures	4,482	994	130	–	5,606	8,246
Forwards	3,926	–	–	–	3,926	9,653
Swaps	14,765	29,873	18,495	13,788	76,921	105,985
Options:						
Over-the-counter – purchased	3,431	–	–	–	3,431	–
Over-the-counter – written	8,484	–	–	–	8,484	6,533
Total interest rate contracts	35,088	30,867	18,625	13,788	98,368	130,417
Credit contracts						
Credit default swaps:						
Over-the-counter – purchased	480	42,291	1,162	–	43,933	31,924
Over-the-counter – written	480	56,718	19,357	1	76,556	45,558
Options:						
Over-the-counter – purchased	2,181	–	–	–	2,181	1,423
Over-the-counter – written	10,727	–	–	–	10,727	7,473
Total credit contracts	13,868	99,009	20,519	1	133,397	86,378
Commodity contracts						
Futures	5,122	12	–	–	5,134	6,555
Options:						
Exchange-traded – purchased	–	–	–	–	–	–
Exchange-traded – written	1,225	–	–	–	1,225	2,209
Total commodity contracts	6,347	12	–	–	6,359	8,764
Total[1]	$ 251,061	$ 132,635	$ 39,203	$ 13,789	$ 436,688	$ 396,476

1. Includes $59 million (March 31, 2020 – $10 million) relating to warrants and $67 million (March 31, 2020 – $14 million) relating to interest rate derivatives transacted by investment holding subsidiaries.

5. Investment income

At a Glance

Components of investment income are included to provide additional information on the nature of the income.

Investment income on investments made through investment holding subsidiaries and not directly held by CPP Investments, is presented as unrealized gains or losses under IFRS 10 in Note 5.1. Further details are provided in Note 5.2.

Investment-related expenses borne by the investment holding subsidiaries are a reduction in the net asset values of the investment holding subsidiaries and thus are a component of the unrealized gains on investment holding subsidiaries under IFRS 10 in Note 5.1. Further details are provided in Note 6.2.

ACCOUNTING POLICY

Income from investments includes realized gains and losses from investments, unrealized gains and losses on investments, dividend income and interest income. Realized and unrealized gains and losses on investments include foreign currency gains or losses arising from investments denominated in foreign currencies. Dividend income is recognized on the ex-dividend date, which is when CPP Investments' right to receive the dividend has been established. Interest income is recognized as earned.

Interest, dividends, and other investment income includes dividend income received by CPP Investments from its investment holding subsidiaries.

5.1 Investment income by nature

(CAD millions)	For the years ended March 31, 2021	March 31, 2020
Interest, dividends, and other investment income	$ 8,884	$ 13,476
Realized gains on private equities and real assets	258	705
Unrealized gains (losses) on private equities and real assets	1,863	(1,846)
Unrealized gains (losses) on investment holding subsidiaries (Note 5.2)	43,500	(2,784)
Realized and unrealized gains on public and other investments[1]	33,042	6,170
Total investment income	$ 87,547	$ 15,721

1. Consists of investment income from public equities, fixed income, absolute return strategies, derivatives and other.

5.2 Supplemental information on investment income

The change in unrealized gains generated from investment holding subsidiaries is a composite of the following:

(CAD millions)	For the years ended March 31, 2021	March 31, 2020
Interest, dividends, and other investment income	$ 4,455	$ 4,742
Realized gains on private equities and real assets	9,484	7,346
Unrealized gains (losses) on private equities and real assets	26,118	(2,889)
Realized and unrealized gains (losses) on public and other investments[1]	9,084	(3,297)
Dividends paid to CPP Investments	(3,777)	(7,335)
Investment-related expenses (Note 6.2)	(1,864)	(1,351)
Unrealized gains (losses) on investment holding subsidiaries	$ 43,500	$ (2,784)

1. Consists of investment income from public equities, fixed income, absolute return strategies, derivatives and other.

6. Investment-related expenses

At a Glance

The combined borrowing costs, investment management fees and transaction costs of CPP Investments and its investment holding subsidiaries are $1,036 million, $2,723 million and $291 million, respectively, for the year ended March 31, 2021 (March 31, 2020 – $1,523 million, $1,808 million and $390 million, respectively).

ACCOUNTING POLICY

Investment-related expenses includes borrowing costs, investment management fees and transaction costs.

Borrowing costs include interest and other costs that are incurred when borrowing funds or securities. Borrowing costs are composed of expenses from debt financing liabilities, securities sold under repurchase agreements, prime brokerage and other securities borrowing transactions as well as securities lending transactions where cash is received. Gains and losses associated with certain interest rate derivatives used as part of financing activities are also included in borrowing costs. Borrowing costs are recognized as incurred.

Investment management fees include payments to external managers who invest and manage capital committed by CPP Investments, whether directly or through funds. They also include performance fees paid when CPP Investments earns a return above a predetermined hurdle. Investment management fees are expensed as incurred.

Transaction costs are incremental costs that are directly attributable to the acquisition or disposal of an investment. These costs comprise a variety of non-recurring expenses, including due diligence on potential investments, legal and tax advisory fees required to support the acquisition and disposition of private market assets, or, in the case of public markets, commissions paid when trading securities. Transaction costs are expensed as incurred.

Borrowing costs, investment management fees and transaction costs borne by the investment holding subsidiaries are recognized as part of the unrealized gain or loss on investment holding subsidiaries.

6.1 Investment-related expenses of CPP Investments

Investment-related expenses borne by CPP Investments consist of the following:

	For the years ended	
(CAD millions)	**March 31, 2021**	March 31, 2020
Borrowing costs	**$ 1,036**	$ 1,523
Investment management fees	**968**	603
Transaction costs	**182**	244
Total	**$ 2,186**	$ 2,370

6.2 Supplemental information on investment-related expenses

Investment-related expenses borne by CPP Investments' investment holding subsidiaries consist of the following:

	For the years ended	
(CAD millions)	**March 31, 2021**	March 31, 2020
Investment management fees	**$ 1,755**	$ 1,205
Transaction costs	**109**	146
Total	**$ 1,864**	$ 1,351

7. Segment information

ACCOUNTING POLICY

CPP Investments has six investment departments for which the operating results are regularly reviewed for resource allocation and performance assessment purposes. These departments represent operating segments under IFRS 8, *Operating Segments*. Segment results include items that are directly attributable to a segment as well as those that are allocated on a reasonable basis.

7.1 Investment segments

CPP Investments' purpose is to manage amounts transferred to it under Sections 108.1 and 108.3 of the CPP Act in the best interests of CPP beneficiaries and contributors. This requires investing its assets with a view to achieving a maximum rate of return without undue risk of loss. Investments are managed by six departments as described below.

- **Total Fund Management –** ensures the investing activities of the organization collectively produce portfolios that seek to maximize returns for the base CPP and additional CPP accounts without taking undue risk. Total Fund Management also directs the Balancing Portfolio (the remaining portion of net investments after excluding the assets of all active programs managed by the other investment departments) to achieve overall desired investment exposures. Effective September 2020, Balancing & Collateral, a subgroup of the Capital Markets and Factor Investing department, was combined with Total Portfolio Management to form Total Fund Management. There is no impact to the comparatives as a result of this change.
- **Capital Markets and Factor Investing –** invests assets globally in public equities, fixed income securities, currencies, commodities and derivatives, and engages investment managers and makes co-investments to invest in public market securities. Capital Markets and Factor Investing is also responsible for managing CPP Investments' liquidity needs.
- **Active Equities –** invests globally in public and soon-to-be public companies as well as securities focused in emerging markets or long-term global changes, which can include earlier stage private companies. Active Equities also works with departments across the organization to ensure that environmental, social and governance risks and opportunities are incorporated into investment decision-making and asset management activities.
- **Credit Investments –** responsible for public and private credit investments globally. Credit Investments invests across the entire credit structure, including term loans, high-yield bonds, mezzanine lending, structured products and other credit instruments for borrowers in all sectors.
- **Private Equity –** responsible for private equity investments globally including funds, secondaries and direct private equity investments.
- **Real Assets –** responsible for investments in real estate, infrastructure, energy and resources, and power and renewables, which are typically long term, tangible assets with steady income streams.

7.1.1 Net income from operations by investment segment

The table below illustrates the investment income generated and the associated investment-related expenses and operating expenses incurred by each investment department to support their activities.

	For the year ended March 31, 2021							
(CAD millions)	Total Fund Management	Capital Markets and Factor Investing	Active Equities	Credit Investments	Private Equity	Real Assets	Adjustment[3]	Total
Investment income	$ 34,933	$ 6,406	$ 2,823	$ 2,730	$ 35,036	$ 7,664	$ (2,045)	$ 87,547
Borrowing costs[1]	(1,217)	–	–	–	–	–	181	(1,036)
Investment management fees[2]	–	(1,556)	(15)	(22)	(754)	(376)	1,755	(968)
Transaction costs[2]	(50)	(37)	(63)	(33)	(51)	(57)	109	(182)
Net investment income	33,666	4,813	2,745	2,675	34,231	7,231	–	85,361
Operating expenses	(212)	(216)	(225)	(168)	(263)	(333)	–	(1,417)
Net income from operations	$ 33,454	$ 4,597	$ 2,520	$ 2,507	$ 33,968	$ 6,898	$ –	$ 83,944

(CAD millions)	Total Fund Management	Capital Markets and Factor Investing	Active Equities	Credit Investments	Private Equity	Real Assets	Adjustment[3]	Total
	For the year ended March 31, 2020							
Investment income (loss)	$ 10,395	$ (1,910)	$ 3,916	$ (838)	$ 6,068	$ 347	$ (2,257)	$ 15,721
Borrowing costs[1]	(2,429)	–	–	–	–	–	906	(1,523)
Investment management fees[2]	–	(1,010)	(6)	(17)	(585)	(190)	1,205	(603)
Transaction costs[2]	(53)	(45)	(56)	(37)	(63)	(136)	146	(244)
Net investment income (loss)	7,913	(2,965)	3,854	(892)	5,420	21	–	13,351
Operating expenses	(200)	(205)	(179)	(147)	(227)	(296)	–	(1,254)
Net income (loss) from operations	$ 7,713	$ (3,170)	$ 3,675	$ (1,039)	$ 5,193	$ (275)	$ –	$ 12,097

1. Costs of $1,217 million (March 31, 2020 – $2,429 million) attributable to Total Fund Management represent borrowing costs as described in Note 6 of $1,036 million (March 31, 2020 – $1,523 million), as well as the leverage-generating elements of additional derivative transactions of $181 million (March 31, 2020 – $906 million). Together these amounts reflect the financing costs described in Note 11.2, which is a measure used by Management to monitor the total costs associated with all sources of leverage to CPP Investments.
2. Includes investment management fees and transaction costs borne by CPP Investments and its investment holding subsidiaries in relation to the respective departments.
3. Consists of costs on the leverage-generating elements of additional derivative transactions, and investment management fees and transaction costs borne by investment holding subsidiaries, all of which are reclassified into investment income.

7.1.2 Net assets (liabilities) by investment segment

(CAD millions)	Total Fund Management[1]	Capital Markets and Factor Investing	Active Equities	Credit Investments	Private Equity	Real Assets	Total
	Net assets (liabilities)						
As at:							
March 31, 2021	**$ 222,260**	**$ 2,218**	**$ (569)**	**$ 43,761**	**$ 125,140**	**$ 104,377**	**$ 497,187**
March 31, 2020	179,681	(2,686)	430	39,965	94,557	97,641	409,588

1. Net assets attributable to Total Fund Management include net corporate liabilities of $79 million (March 31, 2020 – $56 million).

7.2 Geographic information

Net investments are presented in the table below based on the region to which they have primary economic exposure:

(CAD millions)	Canada	U.S.	Asia	Europe (excluding U.K.)	U.K.	Other	Total
	Net investments[1]						
As at:							
March 31, 2021	**$ 78,283**	**$ 183,551**	**$ 119,292**	**$ 53,614**	**$ 23,623**	**$ 38,903**	**$ 497,266**
March 31, 2020	63,858	144,259	102,855	42,723	20,698	35,251	409,644

1. Includes debt financing liabilities of $3,604 million, $16,108 million, $12,071 million, $4,272 million, and $394 million (March 31, 2020 – $3,629 million, $23,990 million, $9,890 million, $886 million, and nil), based on the currencies of the issuances, in Canada, the U.S., Europe (excluding the U.K.), the U.K., and other, respectively.

8. Risk management

At a Glance

CPP Investments must take risks to earn long-term total returns that will contribute to the sustainability of the CPP and pay pensions. The base CPP Investment Portfolio and additional CPP Investment Portfolio (collectively the Investment Portfolios) are exposed to a variety of financial risks which are managed through the Integrated Risk Framework. The underlying risk categories, exposures and the related risk management techniques are described in the following Notes:

- Note 9 – Market risk
- Note 10 – Credit risk
- Note 11 – Liquidity and leverage risk

Any references to the investment activities and risk exposures of CPP Investments also include those of its unconsolidated investment holding subsidiaries.

The COVID-19 pandemic continues to have widespread impact around the world, despite the equity markets having rebounded since their initial decline. Throughout this volatile environment, CPP Investments continues to remain within all risk limits established by its Board of Directors, including limits related to market, credit, liquidity and leverage risks.

8.1 Introduction

CPP Investments uses the Integrated Risk Framework, which establishes accountability of the Board of Directors, the various committees, including the Risk Committee, and the investment departments to manage investment-related risks. CPP Investments manages and mitigates investment risks through the Investment Risk Management Policy, which is approved by the Board of Directors at least once every fiscal year. This Policy contains risk limits and risk management provisions that govern investment decisions in accordance with the mandate of CPP Investments.

Upper and lower absolute risk limits and the absolute risk operating range are included within the Investment Risk Management Policy, and these govern the amount of total investment risk that CPP Investments can take in the Investment Portfolios. CPP Investments monitors potential investment losses in the Investment Portfolios daily and reports to the Board of Directors on at least a quarterly basis. The target equity content for each of the base CPP Investment Portfolio and additional CPP Investment Portfolio is assessed using an equity/debt risk equivalence ratio, which is the proportion of equity versus debt in a simple two-asset reference portfolio that would give the same market and credit risk as that of the applicable Investment Portfolio. Each Investment Portfolio's ratio must be within the Board of Directors' approved absolute risk limits.

In addition, we developed a new Integrated Risk Policy which will be effective April 1, 2021. The new policy incorporates key elements of the existing Integrated Risk Framework and Investment Risk Management Policy, and includes enhancements to our risk governance practices and risk limits. These changes do not materially change the overall level of risk we are targeting and will position us for the future growth of CPP Investments amidst a changing risk environment.

8.1.1 Independent risk oversight

The risk group (Risk) within CPP Investments reports to the Chief Financial and Risk Officer. The function is responsible for assessing, monitoring and ensuring management of the Investment Portfolios is consistent with the risk appetites and limits established. This oversight is exercised through independent control and support functions.

Investment departments are accountable for managing risk within prescribed limits.

8.1.2 Investment risk measures

A suite of measures is used to estimate the risk of loss from small, moderate and significant market moves over various time horizons. In addition to industry standard market and credit risk models, CPP Investments uses proprietary models to assess potential losses to the portfolio over longer time horizons. Furthermore, a number of trading desk-specific risk measures are tracked that are related to the specific nature of the strategy.

8.1.3 Stress scenario analysis

To complement the suite of potential loss measures used to monitor the Investment Portfolios, CPP Investments further examines the potential impact of exceptional but plausible adverse market events. Scenario analysis considers the effect of various market stress events, including potential geopolitical or adverse economic events, using a bottom-up approach that considers the effect of parameter shocks across the entire portfolio. Generally, the forecasted timeline considered is one year in order to appropriately include the effect of the public market shocks on private asset valuations. These assessments are reported to both Senior Management and the Board of Directors.

8.1.4 Model validation

The model validation function within Risk independently validates strategically important portfolio construction and risk management models as well as valuation methodologies within main investment systems. A risk-based approach is used to establish the frequency and depth of the validation activities, with increased focus on higher risk models.

8.2 Total portfolio risk

A suite of risk measures is used within CPP Investments to monitor and assess the risk profile of the base CPP Investment Portfolio and the additional CPP Investment Portfolio. Regular risk reports are provided to Senior Management and the Board of Directors to support the governance of the various dimensions of investment risk to which the Investment

Portfolios are exposed. Effective April 1, 2020, the one-year potential loss risk limit increased from $80 billion to $90 billion for the base CPP, and from $300 million to $800 million for the additional CPP, to reflect the increase in the size of the Investment Portfolios. As part of the new Integrated Risk Policy noted in Note 8.1, further refinements will be effective April 1, 2021, including the addition of new limits around portfolio composition, and the removal of certain limits at a Board level to reduce redundancy. The target level of market risk of the base CPP Investment Portfolio will not change, while that of the additional CPP Investment Porfolio will marginally increase.

Plan adjustment risk is a central concept in our portfolio design and risk governance activities. It is defined as the probability of a material adjustment to the Minimum Contribution Rate applicable to CPP contributors, based solely on investment return performance over various time horizons. It is an overarching measure that is impacted by market, credit, liquidity and leverage risk.

Other investment risk governance measures include:

- Potential investment losses: The reported loss of the Investment Portfolios over a one- and five-year horizon is not expected to exceed the established limit of fund value for that horizon 19 times out of 20. It is based on the value-at-risk measure at a 95 percent confidence level.
- Liquidity and leverage risk measures, which are further described in Note 11.

These measures are monitored in addition to the equity/debt risk equivalence ratios as described in Note 8.1.

The monitoring of adherence to investment risk limits is conducted independently by Risk using both industry standards and internally developed risk models. The tables below provide a summary of the key investment risk governance measures of the Investment Portfolios.

(CAD millions, unless otherwise specified)	Limit	**As at March 31, 2021 base CPP**	As at March 31, 2020 base CPP
Plan adjustment risk	30%	**23%**	26%
Potential investment loss:			
One-year horizon	$ 90,000	**$ 89,024**	$ 69,377
Five-year horizon[1]	25%	**20%**	13%
Equity/debt risk equivalence ratio[2]	55–100%	**85%**	84%

(CAD millions, unless otherwise specified)	Limit	**As at March 31, 2021 additional CPP**	As at March 31, 2020 additional CPP
Plan adjustment risk	30%	**25%**	28%
Potential investment loss:			
One-year horizon	$ 800	**$ 746**	$ 252
Five-year horizon[1]	15%	**15%**	8%
Equity/debt risk equivalence ratio[2]	40–70%	**54%**	49%

1. Percentage of investment value.
2. Conditional value-at-risk is measured to calculate the equity/debt risk equivalence ratio.

8.2.1 Stress scenarios and results

As part of ongoing monitoring, CPP Investments performs scenario analysis to quantify the impact of potential stress events and identify potential vulnerabilities that may not be fully captured by our standard risk models. This includes how severe market and geopolitical events could affect CPP Investments' portfolios. Below are examples of scenarios that we run and monitor on a regular basis:

- A repeat of the Global Financial Crisis (GFC) of 2008 – CPP Investments estimates that if an event like the GFC were to reoccur, the reported value of the Investment Portfolios would decline by approximately $72 billion or 15%. The estimated loss is within our risk appetite and the event sufficiently captured in our standard market risk models.
- Severe Stress scenario – A hypothetical scenario that aggregates several historical market stress events. This scenario also removes the foreign currency gains typically realized in past market stress events where losses were partially offset by the depreciation of the Canadian dollar against the United States dollar. Realization of this more extreme scenario would result in losses of approximately $107 billion or 22%. While this stress scenario is less plausible, it highlights the sensitivity of returns to foreign currency fluctuations and is actively monitored to ensure the estimated loss broadly remains within our stated risk appetite.
- Comprehensive Capital Analysis and Review (CCAR) – An extreme stress scenario that is used to assess the capital adequacy of the largest U.S.-based bank holding companies. CPP Investments has implemented the CCAR stress parameters into our stress loss estimates and the reported value of the Investment Portfolios would decline by approximately $205 billion or 41%. While the parameters used in this scenario are likely overly punitive in the context of an investment fund, CPP Investments believes it is still a useful scenario to consider. Mitigating the risk of an event this remote is not consistent with CPP Investments' approach to establishing its risk governance limits.

In addition to the standard stress scenarios, CPP Investments also performs more bespoke analysis on scenarios, including identifying and assessing the impact of the key investment risk drivers in two years from a macro-economic, financial market and geopolitical perspective, to develop a view on what the world may look like post COVID-19.

9. Market risk

Market risk is the risk that the fair value of an investment or investment liability will fluctuate because of changes in market prices and rates.

CPP Investments uses a tiered structure of limits to govern market risk by controlling the size of risk exposures. Limits include the use of equity/debt risk equivalence ratios of the two Investment Portfolios as well as various limits to reduce the probability that none of the individual investment departments' market risks grow faster than originally anticipated. Market risk is also incorporated as a component of potential investment loss measures in Note 8.2. These measures are supplemented with drawdown or reported loss triggers that highlight any public market strategies that are experiencing losses outsized to their estimated market risk levels. More granular limits are also used in certain cases that are investment program specific and are tailored to the way that the strategies are managed on a daily basis. Examples of such granular limits and measures include: DV01 which measures the possible loss/gain in the investment strategy as a result of 1 basis point increase/decrease in interest rate yield curves; and divergence limits that track the risks against their respective benchmarks.

Investment departments are expected to stay within their limits but are allowed to request increases to management level limits. Any limit excesses are processed according to established escalation guidelines.

Market risk includes equity risk, interest rate risk, credit spread risk and currency risk. The sensitivity of these risks is summarized in each respective Note.

9.1 Equity risk

Equity risk is the risk that the fair value will fluctuate because of changes in equity prices, which is a significant source of risk of the Investment Portfolios. The table below presents the instantaneous effect of a 1% decrease/increase in the S&P 500 Index on loss/profit of public equity investments, with all other variables held constant. This calculation assumes that equities other than the S&P 500 Index would move in accordance with their historical behaviour conditional on a 1% decrease/increase in the S&P 500 Index.

(CAD millions)	As at March 31, 2021	As at March 31, 2020
	Impact of 1% decrease in the S&P 500 Index	
Loss on public equity investments	$ (1,184)	$ (944)

9.2 Interest rate risk

Interest rate risk is the risk that the fair value of an investment or investment-related liability will fluctuate because of changes in market interest rates. The Investment Portfolios are exposed to interest rate risk primarily through holdings of fixed income securities, certain investment liabilities and interest rate derivatives.

9.2.1 Interest rate risk sensitivity

With all other variables held constant, a 1 basis point increase/decrease in nominal risk-free rates would result in a decrease/increase in the value of investments directly impacted by interest rate changes as follows:

(CAD millions)	As at March 31, 2021	As at March 31, 2020[2]
Maturity	Impact of increase of 1 basis point on net assets[1]	
Within 1 year	$ 1	$ 1
1 to 5 years	(23)	(26)
6 to 10 years	(18)	(19)
Over 10 years	(49)	(54)
Total	$ (89)	$ (98)

1. This sensitivity only applies to debt instruments and interest-rate-sensitive derivatives.
2. Certain comparatives have been reclassified to conform to the current year's presentation.

The Investment Portfolios' sensitivity to various countries' risk-free rates is as follows:

Region	As at March 31, 2021	As at March 31, 2020[1]
United States	50%	53%
Canada	31	32
China	6	3
United Kingdom	4	2
Other	9	10
Total	100%	100%

1. Certain comparatives have been reclassified to conform to the current year's presentation.

9.3 Credit spread risk

Credit spread risk is the difference in yield on certain securities compared to a comparable risk-free security (i.e., government issued) with the same maturity date. Credit spread risk is the risk that the fair value of these securities will fluctuate because of changes in credit spread. With all other variables held constant, an increase in credit spread rates would result in a decrease in assets or an increase in liabilities.

	As at March 31, 2021	As at March 31, 2020
Percentage of credit risk in A or better rated debt	28%	44%

(CAD millions)	As at March 31, 2021	As at March 31, 2020
	Impact of 1 basis point widening of credit spread	
Decrease in net assets	$ 34	$ 37

9.4 Currency risk

The Investment Portfolios are exposed to currency risk through holdings of investments or investment liabilities in various foreign currencies. Fluctuations in the relative value of foreign currencies against the Canadian dollar can result in a positive or negative effect on the fair value or future cash flows of these investments and investment liabilities.

9.4.1 Currency risk exposures

The net currency exposures after allocating foreign currency derivatives, in Canadian dollars, are as follows:

(CAD millions)	As at March 31, 2021		As at March 31, 2020	
Currency	Net exposure	% of total[1]	Net exposure	% of total[1]
United States dollar	$ 280,198	56%	$ 230,536	56%
Euro	31,580	6	25,921	6
Chinese renminbi	23,391	5	14,954	4
British pound sterling	16,238	3	15,438	4
Hong Kong dollar	14,596	3	11,526	3
Australian dollar	13,829	3	12,669	3
Indian rupee	10,340	2	7,897	2
Japanese yen	6,407	1	8,153	2
Brazilian real	5,439	1	3,813	1
Mexican peso	4,325	1	1,948	–
Swiss Franc	3,546	1	3,286	1
Korean won	3,453	1	1,818	–
Other	11,701	2	9,658	3
Total foreign exposure	425,043	85	347,617	85
Canadian dollar	72,223	15	62,027	15
Total	$ 497,266	100%	$ 409,644	100%

1. May not reflect actual percentage of total due to rounding.

With all other variables and underlying values held constant, a 10% appreciation/depreciation of the Canadian dollar against all other currencies would result in a decrease/increase in net investments by $42,504 million (March 31, 2020 – $34,762 million).

10. Credit risk

Credit risk represents the potential permanent loss of investment value due to direct or indirect counterparty exposure to a defaulted entity and/or financial losses due to deterioration of an entity's credit quality. The Investment Portfolios' credit risk exposure arises primarily through its investment in debt securities and over-the-counter derivatives. The carrying amounts of these investments as presented in the Consolidated Schedule of Investment Portfolio represent the maximum direct credit risk exposure at the Balance Sheet date. Credit risk is also incorporated as a component of potential investment loss measures in Note 8.2.

10.1 Counterparty exposures

The fair value of debt securities and over-the-counter derivatives exposed to credit risk, by credit rating category and without taking account of any collateral held or other credit enhancements, is as follows:

(CAD millions) Credit rating	As at March 31, 2021 Bonds[1]	Cash equivalents[1]	Money market securities[1]	Reverse repurchase agreements[1]	Over-the-counter derivatives	Other debt[1,2]	Total	% of total
AAA	$ 18,540	$ 150	$ –	$ –	$ –	$ 1,031	$ 19,721	14%
AA	39,915	7,804	80	1,063	152	1,037	50,051	36
A	24,880	4,316	63	2,414	2,785	307	34,765	25
BBB	9,891	–	–	2,587	578	2,464	15,520	11
BB	3,234	–	–	–	–	2,844	6,078	4
B	2,219	–	–	–	–	9,212	11,431	8
CCC/CC/D	644	–	–	–	–	1,732	2,376	2
Total	$ 99,323	$ 12,270	$ 143	$ 6,064	$ 3,515	$ 18,627	$ 139,942	100%

(CAD millions) Credit rating	As at March 31, 2020[3] Bonds[1]	Cash equivalents[1]	Money market securities[1]	Reverse repurchase agreements[1]	Over-the-counter derivatives	Other debt[1,2]	Total	% of total
AAA	$ 22,316	$ 50	$ 79	$ –	$ –	$ 1,058	$ 23,503	14%
AA	43,307	12,557	298	7,743	784	876	65,565	38
A	26,569	8,294	709	6,403	8,255	255	50,485	30
BBB	7,110	–	–	3,519	691	1,269	12,589	7
BB	3,969	601	267	–	–	3,543	8,380	5
B	865	–	–	–	–	8,307	9,172	5
CCC/CC/D	404	–	–	–	–	998	1,402	1
Total	$ 104,540	$ 21,502	$ 1,353	$ 17,665	$ 9,730	$ 16,306	$ 171,096	100%

1. Includes accrued interest.
2. Includes direct investments in private debt and asset-backed securities.
3. Certain comparatives have been reclassified to conform to the current year's presentation.

In addition to the above, the Investment Portfolios are indirectly exposed to credit risk on the underlying securities of fund investments.

CPP Investments limits credit risk on over-the-counter contracts through a variety of means, including dealing only with authorized counterparties that meet the minimum credit rating and limiting the maximum exposures to any individual counterparty, and the use of master netting agreements and collateral.

Credit risk exposure is mitigated on certain financial assets and financial liabilities, which have conditional offset rights in the event of default, insolvency or bankruptcy. For securities purchased under reverse repurchase agreements, securities sold under repurchase agreements and over-the-counter derivatives, collateral is collected from or pledged to counterparties to manage credit exposure (see Note 16). In addition, in the event of default, amounts with a specific counterparty are settled on a net basis under master netting or similar arrangements, such as the Global Master Repurchase Agreement and the International Swaps and Derivatives Association Netting Agreements.

10.2 Credit value-at-risk

In addition to incorporating credit risk within the potential investment loss measures as described in Note 8.2, a standalone measure for losses due to defaults and credit rating migration is also monitored. A Monte Carlo simulation that incorporates likelihood of default, credit rating migration and recovery in the event of default for underlying credit instruments is adopted to quantify this dimension of risk. Credit value-at-risk, at a 99% confidence level, implies there is a 1% chance that the credit instruments in the Investment Portfolios will lose more than the amounts shown below in any given year due to default and credit migration risk.

(CAD millions)	As at March 31, 2021 base CPP	As at March 31, 2021 additional CPP	As at March 31, 2020 base CPP	As at March 31, 2020 additional CPP
Credit value-at-risk	$ 5,889	$ 54	$ 6,299	$ 26

11. Liquidity and leverage risk

Liquidity and leverage risk includes three main components:

- Solvency risk – The risk of failing to obtain the funds needed to meet payment obligations as they come due.
- Portfolio rebalancing risk – The risk that CPP Investments is unable to fund investment programs and rebalance investment portfolios back to their target level of market risk and leverage during periods of stress.
- Leverage risk – The risk that excessive on- and off-balance sheet financial obligations heighten market and liquidity risks during periods of stress.

11.1 Solvency and portfolio rebalancing risk

Liquidity risk is impacted by the use of various forms of leverage which CPP Investments uses to manage certain other risks and enhance fund returns. The use of leverage is governed directly through leverage measures (Note 11.2), and through liquidity risk limits which require sufficient liquidity to be available to manage both solvency and portfolio rebalancing risks.

Management of liquidity risk is supplemented through the ability to raise funds through activities such as the issuance of commercial paper and term debt and transacting in securities sold under repurchase agreements. The table below presents additional unsecured credit facilities that CPP Investments maintained at each reporting date. There were no credit facilities drawn as at March 31, 2021 and March 31, 2020.

(CAD millions)	As at March 31, 2021	As at March 31, 2020
Unsecured credit facilities held	$ 3,000	$ 6,482

The ability to readily dispose of certain investments to meet liquidity needs is facilitated by maintaining a liquid portfolio of publicly traded equities, money market securities and marketable bonds.

CPP Investments is exposed to liquidity risk through its obligations to remit cash to the CPP and to fund investment commitments. In order to manage liquidity risk associated with CPP benefit payment obligations, certain assets are segregated and managed separately. These assets are invested in liquid money market instruments with the primary objective of ensuring that CPP Investments has the necessary liquidity to meet all of its CPP benefit payment obligations and investment obligations, without incurring unacceptable losses.

The liquidity coverage ratio measures the level of liquidity CPP Investments maintains to meet all CPP and investment obligations over various time horizons including any 10-day period. It measures the amount of available liquid securities relative to CPP Investments' payment obligations as they become due, to fund investment programs, and to rebalance the portfolio in periods of market stress, all without realizing unacceptable losses.

	Limit	As at March 31, 2021	As at March 31, 2020
Liquidity coverage ratio	1.0x	6.2x	3.3x

11.2 Leverage risk

Leverage risk is monitored against two metrics which together capture different aspects of leverage across the Investment Portfolios:

- Total financing liabilities is a notional-based measure of recourse leverage which represents the net amount of on-balance sheet and off-balance sheet financing used by CPP Investments to increase investment exposure.
- Risk weighted liabilities is determined using risk-weighted notionals of recourse liabilities which represent the risk of the underlying leverage products, including derivatives, used by CPP Investments.

The table below presents the key leverage risk metrics of the Investment Portfolios.

	As at March 31, 2021	As at March 31, 2020
Total financing liabilities	17.8%	24.9%
Risk weighted liabilities	10.5%	13.0%

For the year ended March 31, 2021, the associated financing costs on total financing liabilities were $1,217 million (March 31, 2020 – $2,429 million). These financing costs are higher than the borrowing costs disclosed in Note 6.1 due to the inclusion of certain elements of derivative transactions which are utilized to provide additional sources of leverage to CPP Investments.

In addition, CPP Investments seeks to maintain its issuer credit rating of "AAA" and maintains leverage ratios that are consistent with this rating.

11.3 Terms to maturity

11.3.1 Terms to maturity of non-derivative investments held directly by CPP Investments

	Terms to maturity							
	As at March 31, 2021						As at March 31, 2020[3]	
(CAD millions)	Within 1 year	1 to 5 years	6 to 10 years	Over 10 years	Total[2]	Average effective yield	Total[2]	Average effective yield
Non-marketable bonds								
Canadian provincial government	$ 1,367	$ 5,736	$ 1,061	$ 12,397	$ 20,561	2.6%	$ 22,369	2.4%
Marketable bonds								
Government of Canada	–	4,153	1,206	978	6,337	1.1	7,478	0.8
Canadian provincial government	369	1,059	2,491	3,451	7,370	2.5	6,287	2.4
Canadian government corporations	–	1,714	544	326	2,584	1.6	3,789	1.1
Foreign government	23	16,431	10,630	18,652	45,736	2.1	52,952	1.5
Corporate bonds	379	4,033	4,456	3,309	12,177	2.6	8,249	3.8
Other debt								
Private debt[1]	112	25	–	–	137	–	552	6.2
Asset-backed securities	19	52	532	1,947	2,550	1.8	2,311	3.9
Securities purchased under reverse repurchase agreements	6,062	–	–	–	6,062	0.2	17,665	0.5
Cash collateral pledged on securities borrowed	1,065	–	–	–	1,065	n/a	993	n/a
Total	$ 9,396	$ 33,203	$ 20,920	$ 41,060	$ 104,579	n/a	$ 122,645	n/a

1. Includes direct investments that are preferred shares classified as debt. Excludes fund investments.
2. Represents fair value.
3. Certain comparatives have been reclassified to conform to the current year's presentation.

11.3.2 Terms to maturity of non-derivative investments held by investment holding subsidiaries

The following table presents supplemental information relating to the terms to maturity of investments held by investment holding subsidiaries.

	Terms to maturity							
	As at March 31, 2021						As at March 31, 2020[3]	
(CAD millions)	Within 1 year	1 to 5 years	6 to 10 years	Over 10 years	Total[2]	Average effective yield	Total[2]	Average effective yield
Marketable bonds								
Corporate bonds	$ –	$ 862	$ 2,847	$ 86	$ 3,795	4.8%	$ 2,534	7.3%
Other debt								
Private debt[1]	1,529	8,161	7,492	–	17,182	6.1	14,092	10.2
Asset-backed securities	–	75	191	427	693	3.4	203	6.2
Total	$ 1,529	$ 9,098	$ 10,530	$ 513	$ 21,670	n/a	$ 16,829	n/a

1. Includes direct investments that are preferred shares classified as debt. Excludes fund investments.
2. Represents fair value.
3. Certain comparatives have been reclassified to conform to current year's presentation.

11.3.3 Terms to maturity of non-derivative investment liabilities held directly by CPP Investments

(CAD millions)	Terms to maturity: As at March 31, 2021: Within 1 year	1 to 5 years	6 to 10 years	Over 10 years	Total[3]	Fair value	Weighted average interest rate	As at March 31, 2020: Total[3]	Fair value	Weighted average interest rate
Securities sold under repurchase agreements	$ 30,502	$ –	$ –	$ –	$ 30,502	$ 30,489	0.1%	$ 52,261	$ 52,189	1.0%
Cash collateral received on securities lent	2,661	–	–	–	2,661	2,661	n/a	158	158	n/a
Securities sold short[1,2]	22,275	–	–	–	22,275	22,275	n/a	20,776	20,776	n/a
Debt financing liabilities										
Commercial paper payable	–	–	–	–	–	–	–	5,775	5,757	1.7
Term debt	5,374	13,530	11,914	4,805	35,623	36,449	0.8	31,152	32,638	0.7
Short-term secured debt	1,234	–	–	–	1,234	1,234	0.2	1,430	1,430	1.1
Total	$ 62,046	$ 13,530	$ 11,914	$ 4,805	$ 92,295	$ 93,108	n/a	$ 111,552	$ 112,948	n/a

1. Considered repayable within one year based on the earliest period in which the counterparty could request payment under certain conditions.
2. Includes equities sold short for which the average interest rate is not applicable.
3. Represents contractual amounts.

12. Reconciliation of debt financing liabilities

The following table provides a reconciliation of debt financing liabilities arising from financing activities:

(CAD millions)	For the year ended March 31, 2021: As at April 1, 2020	Proceeds	Repayments	Non–cash Changes in fair value[1]	As at March 31, 2021
Debt financing liabilities	$ 38,395	$ 12,839	$ (11,034)	$ (3,751)	$ 36,449

(CAD millions)	For the year ended March 31, 2020: As at April 1, 2019	Proceeds	Repayments	Non–cash Changes in fair value[1]	As at March 31, 2020
Debt financing liabilities	$ 30,861	$ 29,507	$ (24,830)	$ 2,857	$ 38,395

1. Includes foreign exchange gains of $3,211 million (March 31, 2020 – losses of $1,824 million).

13. Financial instruments – rights of offset

ACCOUNTING POLICY

Financial assets and financial liabilities are offset and the net amount reported in the Consolidated Financial Statements if, and only if, there is a currently enforceable legal right to offset the recognized amounts and there is an intention to settle on a net basis, or to realize the asset and settle the liability simultaneously.

The following table presents the effect of offsetting for derivatives and repurchase and reverse repurchase agreements that are subject to master netting arrangements or similar agreements that meet the criteria for offsetting. The table also presents the amounts that are subject to enforceable netting arrangements but do not qualify for offsetting. For certain derivatives, the gross amounts subject to netting arrangements include the daily settlement of variation margin which is netted against the fair value of the derivatives. As a result, these derivatives are not subject to netting arrangements and are not included in the table below.

	As at March 31, 2021					
				Less: Amounts subject to master netting or similar arrangements but not presented net		
(CAD millions)	Gross amounts subject to netting arrangements	Less: Amounts offset in Consolidated Financial Statements	Net amount presented in the Consolidated Schedule of Investment Portfolio	Subject to agreements	Securities and cash collateral[2]	Net exposure
Securities purchased under reverse repurchase agreements	$ 6,062	$ –	$ 6,062	$ (3,800)	$ (2,262)	$ –
Cash collateral on securities borrowed	1,065	–	1,065	–	(1,065)	–
Derivative assets[1]	3,636	–	3,636	(1,997)	(1,639)	–
Total investment receivables	$ 10,763	$ –	$ 10,763	$ (5,797)	$ (4,966)	$ –
Securities sold under repurchase agreements	$ (30,489)	$ –	$ (30,489)	$ 3,800	$ 26,689	$ –
Cash collateral on securities lent	(2,661)	–	(2,661)	–	2,661	–
Derivative liabilities[1]	(3,004)	–	(3,004)	1,997	1,007	–
Total investment payables	$ (36,154)	$ –	$ (36,154)	$ 5,797	$ 30,357	$ –

	As at March 31, 2020[3]					
				Less: Amounts subject to master netting or similar arrangements but not presented net		
(CAD millions)	Gross amounts subject to netting arrangements	Less: Amounts offset in Consolidated Financial Statements	Net amount presented in the Consolidated Schedule of Investment Portfolio	Subject to agreements	Securities and cash collateral[2]	Net exposure
Securities purchased under reverse repurchase agreements	$ 17,665	$ –	$ 17,665	$ (6,300)	$ (11,365)	$ –
Cash collateral on securities borrowed	1,091	(98)	993	–	(993)	–
Derivative assets[1]	9,730	–	9,730	(6,470)	(3,260)	–
Total investment receivables	$ 28,486	$ (98)	$ 28,388	$ (12,770)	$ (15,618)	$ –
Securities sold under repurchase agreements	$ (52,189)	$ –	$ (52,189)	$ 6,300	$ 45,889	$ –
Cash collateral on securities lent	(256)	98	(158)	–	158	–
Derivative liabilities[1]	(10,023)	–	(10,023)	6,470	2,643	(910)
Total investment payables	$ (62,468)	$ 98	$ (62,370)	$ 12,770	$ 48,690	$ (910)

1. Includes $121 million (March 31, 2020 – nil) relating to warrants in derivative assets and $2 million (March 31, 2020 – nil) relating to interest rate derivative liabilities transacted by investment holding subsidiaries.
2. Securities and cash collateral exclude over-collateralization. Refer to Note 16 for the total amount of collateral.
3. Certain comparatives have been represented to conform to current year's presentation.

14. Operating expenses

14.1 Compensation of key management personnel

Key management personnel are defined as those persons having authority and responsibility for planning, directing and controlling the activities of CPP Investments, consisting of the Senior Management Team and the Board of Directors.

Compensation of key management personnel of CPP Investments is as follows:

	For the years ended	
(CAD millions)	**March 31, 2021**	March 31, 2020
Short-term employee compensation and benefits	**$ 25**	$ 28
Other long-term compensation and benefits	**28**	17
Total	**$ 53**	$ 45

14.2 Operating expenses

Operating expenses consist of the following:

	For the years ended	
(CAD millions)	**March 31, 2021**	March 31, 2020
Personnel costs	**$ 938**	$ 837
Information technology and data services	**158**	139
Professional services[1]	**124**	93
Amortization of premises and equipment	**60**	50
Tax on international operations	**60**	32
Custodial fees	**35**	35
Premises and equipment	**21**	22
Communications	**14**	15
Travel and accommodation	**2**	27
Directors' remuneration	**2**	2
Other	**3**	2
Total	**$ 1,417**	$ 1,254

1. Includes auditor's remuneration of $9 million (March 31, 2020 – $4 million).

15. Related-party transactions

Related parties of CPP Investments include unconsolidated subsidiaries, joint ventures and associates. All related-party investments are measured at fair value.

Unconsolidated subsidiaries include 226 wholly owned investment holding subsidiaries (see Note 1.2) (March 31, 2020 – 224) managed by CPP Investments. These investment holding subsidiaries hold public and private equities, bonds, other debt, funds and real assets. The 226 investment holding subsidiaries are incorporated as follows: 155 in Canada (March 31, 2020 – 155), 29 in the United States (March 31, 2020 – 26), 20 in Australia (March 31, 2020 – 20), six in Hong Kong (March 31, 2020 – six), and 16 in other jurisdictions (March 31, 2020 – 17). CPP Investments provides financial or other support to these investment holding subsidiaries to fund their day-to-day operations and investment activities under loan agreements or shareholders' resolutions, as needed.

In addition, CPP Investments owns interests in unconsolidated subsidiaries that are themselves investments. These investments, some of which may be wholly owned, are controlled through ownership rights directly or indirectly by CPP Investments. CPP Investments holds, or indirectly holds, investments in associates and joint ventures which are also related parties of CPP Investments.

Related-party transactions consist of investments and investment income primarily in public and private equities, bonds, other debt, funds and real assets. These transactions are measured at fair value and will, therefore, have the same impact on net assets and net investment income as those investment transactions with unrelated parties.

Related-party transactions with consolidated subsidiaries are eliminated upon consolidation.

16. Collateral

Collateral transactions are conducted to support investment activities under terms and conditions that are common and customary to collateral arrangements. These arrangements may be transacted by CPP Investments or its investment holding subsidiaries in their normal course of business.

16.1 Collateral held and pledged directly by CPP Investments

The net fair value of collateral held and pledged directly by CPP Investments was as follows:

(CAD millions)	As at March 31, 2021	As at March 31, 2020
Third-party assets held as collateral on[1]**:**		
Reverse repurchase agreements	$ 6,056	$ 17,606
Derivative transactions	2,049	3,709
Securities lent[2,4]	3,292	613
Own and third-party assets pledged as collateral on:		
Repurchase agreements	(30,457)	(52,072)
Securities borrowed[3,4]	(25,027)	(23,265)
Short-term secured debt[5]	(1,502)	(1,879)
Derivative transactions	(3,545)	(3,855)
Loans[6]	–	(3,607)
Total	$ (49,134)	$ (62,750)

1. The fair value of the collateral that may be sold or repledged as at March 31, 2021 was $6,781 million (March 31, 2020 – $18,025 million). The fair value of collateral sold or repledged as at March 31, 2021 was $3,148 million (March 31, 2020 – $11,145 million).
2. The fair value of securities lent as at March 31, 2021 was $3,252 million (March 31, 2020 – $675 million).
3. The fair value of securities borrowed as at March 31, 2021 was $20,670 million (March 31, 2020 – $16,953 million) of which $20,091 million (March 31, 2020 – $16,160 million) was used for short selling activity.
4. Cash collateral payable on the balance sheet of $2,661 million (March 31, 2020 – $158 million) consists of collateral receivable of nil and collateral payable of $2,661 million that qualify for netting (March 31, 2020 – $98 million and $256 million, respectively).
5. Represents securities pledged as collateral on short-term cash borrowings from prime brokers.
6. Represents investment assets pledged by CPP Investments on loan liabilities held by its investment holding subsidiaries.

16.2 Supplemental information on collateral relating to investment holding subsidiaries

The net fair value of collateral held and pledged directly by investment holding subsidiaries was as follows:

(CAD millions)	As at March 31, 2021	As at March 31, 2020
Third-party assets held as collateral on[1]:		
Other debt	$ –	$ 987
Own and third-party assets pledged as collateral on:		
Securities borrowed[2,3]	(4,752)	–
Derivative transactions[3]	(347)	–
Loans[4]	(17,357)	(10,762)
Total	$ (22,456)	$ (9,775)

1. The fair value of the collateral held that may be sold or repledged as at March 31, 2021 was nil (March 31, 2020 – $987 million). The fair value of collateral sold or repledged as at March 31, 2021 was nil (March 31, 2020 – nil).
2. The fair value of securities borrowed as at March 31, 2021 was $2,976 million (March 31, 2020 – nil) of which $2,976 million (March 31, 2020 – nil) was sold for securities sold short.
3 The cash collateral at the prime brokers may be used for securities borrowed and derivatives transacted by broker.
4. The loans liability is included in the fair value of investment holding subsidiaries.

17. Commitments

CPP Investments and its investment holding subsidiaries have entered into commitments related to the funding of investments. These commitments are generally payable on demand based on the funding needs of the investment subject to the terms and conditions of each agreement. As at March 31, 2021, the unfunded commitments for CPP Investments and its investment holding subsidiaries totalled $1,057 million (March 31, 2020 – $1,940 million) and $44,244 million (March 31, 2020 – $53,453 million), respectively.

18. Guarantees and indemnifications

18.1 Guarantees

As part of certain investment transactions, CPP Investments and its investment holding subsidiaries agreed to guarantee, as at March 31, 2021, up to $505 million (March 31, 2020 – $263 million) and $6,128 million (March 31, 2020 – $4,832 million), respectively, to other counterparties in the event certain investee entities default under the terms of loan and other related agreements.

18.2 Indemnifications

CPP Investments provides indemnifications to its officers, directors, certain others and, in certain circumstances, to various counterparties and other entities. CPP Investments may be required to compensate these indemnified parties for costs incurred as a result of various contingencies such as changes in laws, regulations and litigation claims. The contingent nature of these indemnification agreements prevents CPP Investments from making a reasonable estimate of the maximum potential payments CPP Investments could be required to make. To date, CPP Investments has not received any material claims nor made any material payments pursuant to such indemnifications.

19. Base CPP and additional CPP

At a Glance

As a result of legislative amendments in December 2016, the CPP Act now defines two separate parts of the CPP:

1. base CPP – the part of the CPP that existed before January 1, 2019; and
2. additional CPP – the additional part of the CPP that came into effect on January 1, 2019.

The following Note discloses the net assets, net investments and net income of CPP Investments' base CPP account and additional CPP account.

19.1 Changes in net assets

Pursuant to Sections 108.1 and 108.3 of the CPP Act, the CPPIB Act and an administrative agreement between Her Majesty the Queen in right of Canada and CPP Investments, amounts not required to meet specified obligations of the CPP are transferred weekly to CPP Investments. The funds originate from employer and employee contributions to the CPP. CPP Investments remits cash to the CPP as required, including the periodic return, on at least a monthly basis, of funds required to meet CPP benefits and expenses. The accumulated transfers from/to the CPP and its two parts, the base CPP and additional CPP, as well as their accumulated net income since inception, are as follows:

	Accumulated net transfers from CPP			Accumulated net income			
(CAD millions)	base CPP	additional CPP	Total	base CPP	additional CPP	Total	Total net assets
As at April 1, 2019	$ 143,935	$ 421	$ 144,356	$ 247,622	$ 2	$ 247,624	$ 391,980
Total net income for the year	–	–	–	12,084	13	12,097	12,097
Transfers from CPP	42,619	1,902	44,521	–	–	–	44,521
Transfers to CPP	(39,010)	–	(39,010)	–	–	–	(39,010)
Balance as at March 31, 2020	$ 147,544	$ 2,323	$ 149,867	$ 259,706	$ 15	$ 259,721	$ 409,588
As at April 1, 2020	**$ 147,544**	**$ 2,323**	**$ 149,867**	**$ 259,706**	**$ 15**	**$ 259,721**	**$ 409,588**
Total net income for the year	**–**	**–**	**–**	**83,536**	**408**	**83,944**	**83,944**
Transfers from CPP	**40,537**	**3,534**	**44,071**	**–**	**–**	**–**	**44,071**
Transfers to CPP	**(40,416)**	**–**	**(40,416)**	**–**	**–**	**–**	**(40,416)**
Balance as at March 31, 2021	**$ 147,665**	**$ 5,857**	**$ 153,522**	**$ 343,242**	**$ 423**	**$ 343,665**	**$ 497,187**

19.2 Net assets of base CPP and additional CPP

The net assets of CPP Investments' base CPP and additional CPP accounts are as follows:

	As at March 31, 2021		
(CAD millions)	**base CPP**	**additional CPP**	**Total**
Cash and cash equivalents held for investment purposes	**$ 13,650**	**$ 94**	**$ 13,744**
Net investments other than cash and cash equivalents	**477,344**	**6,178**	**483,522**
Net investments	**490,994**	**6,272**	**497,266**
Premises and equipment	**448**	**11**	**459**
Other assets[1]	**307**	**4**	**311**
Accounts payable and accrued liabilities	**(842)**	**(7)**	**(849)**
Net assets	**$ 490,907**	**$ 6,280**	**$ 497,187**

	As at March 31, 2020[2]		
(CAD millions)	base CPP	additional CPP	Total
Cash and cash equivalents held for investment purposes	$ 22,845	$ 84	$ 22,929
Net investments other than cash and cash equivalents	384,472	2,243	386,715
Net investments	407,317	2,327	409,644
Premises and equipment	461	13	474
Other assets[1]	261	1	262
Accounts payable and accrued liabilities	(789)	(3)	(792)
Net assets	$ 407,250	$ 2,338	$ 409,588

1. Includes cash held for operating purposes.
2. Certain comparatives have been reclassified to conform to the current year's presentation.

19.3 Schedule of investment portfolio for base CPP and additional CPP

The table below provides details of the investments and investment liabilities for CPP Investments' base CPP and additional CPP accounts:

	As at March 31, 2021		
(CAD millions)	base CPP	additional CPP	Total[1]
Equities			
Public equities	$ 173,682	$ 1,401	$ 175,083
Private equities	138,328	1,116	139,444
Total equities	312,010	2,517	314,527
Fixed income			
Bonds	95,474	3,086	98,560
Other debt	28,649	230	28,879
Cash and cash equivalents	14,432	100	14,532
Money market securities	142	1	143
Total fixed income	138,697	3,417	142,114
Absolute return strategies	28,776	232	29,008
Real assets			
Infrastructure	39,634	320	39,954
Real estate	37,774	304	38,078
Power and renewables	9,550	77	9,627
Energy and resources	9,442	76	9,518
Total real assets	96,400	777	97,177
Investment receivables			
Securities purchased under reverse repurchase agreements and cash collateral pledged on securities borrowed	7,070	57	7,127
Derivative assets	3,607	29	3,636
Other	2,729	35	2,764
Total investment receivables	13,406	121	13,527
Total investments	$ 589,289	$ 7,064	$ 596,353
Investment liabilities			
Debt financing liabilities	(36,157)	(292)	(36,449)
Securities sold under repurchase agreements and cash collateral received on securities lent	(32,885)	(265)	(33,150)
Securities sold short	(22,097)	(178)	(22,275)
Derivative liabilities	(2,980)	(24)	(3,004)
Short-term secured debt	(1,224)	(10)	(1,234)
Other	(2,036)	(16)	(2,052)
Total investment liabilities	(97,379)	(785)	(98,164)
Pending trades receivable	3,052	25	3,077
Pending trades payable	(3,968)	(32)	(4,000)
Net investments	$ 490,994	$ 6,272	$ 497,266

(CAD millions)	As at March 31, 2020 base CPP	additional CPP	Total[1,2]
Equities			
Public equities	$ 117,847	$ 394	$ 118,241
Private equities	105,030	351	105,381
Total equities	222,877	745	223,622
Fixed income			
Bonds	102,363	1,295	103,658
Other debt	27,123	91	27,214
Cash and cash equivalents	23,469	86	23,555
Money market securities	1,349	4	1,353
Total fixed income	154,304	1,476	155,780
Absolute return strategies	27,829	93	27,922
Real assets			
Infrastructure	34,563	116	34,679
Real estate	43,572	146	43,718
Power and renewables	8,682	29	8,711
Energy and resources	7,257	24	7,281
Total real assets	94,074	315	94,389
Investment receivables			
Securities purchased under reverse repurchase agreements and cash collateral pledged on securities borrowed	18,595	63	18,658
Derivative assets	9,698	32	9,730
Other	6,186	26	6,212
Total investment receivables	34,479	121	34,600
Total investments	$ 533,563	$ 2,750	$ 536,313
Investment liabilities			
Debt financing liabilities	(38,267)	(128)	(38,395)
Securities sold under repurchase agreements and cash collateral received on securities lent	(52,173)	(174)	(52,347)
Securities sold short	(20,707)	(69)	(20,776)
Derivative liabilities	(9,989)	(34)	(10,023)
Short-term secured debt	(1,425)	(5)	(1,430)
Other	(4,090)	(14)	(4,104)
Total investment liabilities	(126,651)	(424)	(127,075)
Pending trades receivable	7,002	23	7,025
Pending trades payable	(6,597)	(22)	(6,619)
Net investments	$ 407,317	$ 2,327	$ 409,644

1. Presented using the same basis as the Consolidated Schedule of Investment Portfolio, which is different from that of the Consolidated Balance Sheet. Refer to the Consolidated Schedule of Investment Portfolio for further details.
2. Certain comparatives have been reclassified to conform to the current year's presentation.

19.4 Net income of base CPP and additional CPP

Details of net income of CPP Investments' base CPP and additional CPP accounts are as follows:

	For the year ended March 31, 2021		
(CAD millions)	base CPP	additional CPP	Total
Investment income	$ 87,116	$ 431	$ 87,547
Investment-related expenses	(2,174)	(12)	(2,186)
Net investment income	84,942	419	85,361
Operating expenses	(1,406)	(11)	(1,417)
Net income	$ 83,536	$ 408	$ 83,944

	For the year ended March 31, 2020		
(CAD millions)	base CPP	additional CPP	Total
Investment income	$ 15,699	$ 22	$ 15,721
Investment-related expenses	(2,365)	(5)	(2,370)
Net investment income	13,334	17	13,351
Operating expenses	(1,250)	(4)	(1,254)
Net income	$ 12,084	$ 13	$ 12,097

Ten-Year Review[1]

($ billions)	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
	For the year ended March 31									
CHANGE IN NET ASSETS										
Net investment income	**85.3**	13.4	33.2	37.8	34.4	10.0	41.4	30.7	16.7	9.9
Operating expenses	**(1.4)**	(1.3)	(1.2)	(1.1)	(0.9)	(0.9)	(0.8)	(0.6)	(0.5)	(0.4)
Net contributions	**3.7**	5.5	3.9	2.7	4.3	5.2	4.9	5.7	5.5	3.9
Increase in net assets	**87.6**	17.6	35.9	39.4	37.8	14.3	45.5	35.8	21.7	13.4
NET ASSETS	**497.2**	409.6	392.0	356.1	316.7	278.9	264.6	219.1	183.3	161.6

($ billions)	2021	2020[2]	2019[2]	2018[2]	2017[2]	2016[2]	2015[2]	2014[2]	2013[2]	2012[2]
EQUITIES										
Canada	**10.7**	8.2	8.9	9.7	11.7	13.5	19.5	18.6	15.3	14.2
Foreign	**198.1**	156.9	162.7	165.1	140.0	112.6	98.0	75.6	64.0	56.7
Emerging	**69.1**	51.5	51.5	36.0	23.7	17.6	15.5	12.6	12.4	10.6
FIXED INCOME										
Non-marketable bonds	**20.8**	21.1	22.2	23.6	24.0	24.4	25.8	23.4	24.4	23.6
Marketable bonds	**75.4**	76.6	63.9	53.2	49.1	32.5	34.4	31.0	28.5	21.2
Cash and Absolute Return Strategies	**(12.2)**	(14.7)	(16.2)	(13.6)	(2.4)	16.8	18.8	17.4	8.7	2.5
External debt issuance	**(36.4)**	(38.4)	(30.9)	(24.1)	(19.9)	(15.6)	(9.9)	(9.7)	(9.5)	(2.4)
CREDIT	**67.4**	50.8	35.8	22.6	17.6	17.0	17.2	11.4	8.6	8.8
REAL ASSETS										
Real estate	**43.0**	46.5	47.5	46.1	40.1	36.7	30.3	25.5	19.9	17.1
Infrastructure	**41.2**	35.1	33.3	28.6	24.3	21.3	15.2	13.3	11.2	9.5
Energy and resources	**10.0**	7.3	8.2	6.1	4.3	1.4	–	–	–	–
Power and renewables	**10.2**	8.7	5.1	3.0	4.4	0.9	–	–	–	–
NET INVESTMENTS[3]	**497.3**	409.6	392.0	356.3	316.9	279.1	264.8	219.1	183.5	161.8
NET RETURN (%)										
base CPP	**20.5%**	3.1%	8.9%	11.5%	11.8%	3.4%	18.2%	16.0%	9.7%	6.2%
additional CPP	**11.6%**	4.2%	5.0%	–	–	–	–	–	–	–
TOTAL FUND	**20.4%**	3.1%	8.9%	11.5%	11.8%	3.4%	18.2%	16.0%	9.7%	6.2%

1. The net investment table aligns with the Asset Mix table on page 59 of the Management's Discussion & Analysis.
2. Historical figures for fiscal 2016 to 2020 are consistent with the current year's presentation. Fiscal 2012 to 2015 figures have not been updated to the current year's presentation.
3. Includes $491.0 billion of base CPP and $6.3 billion of additional CPP.

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