2018 ANNUAL REPORT

Investing for Contributors & Beneficiaries

CPP INVESTMENT BOARD

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Who We Are

CPP Investment Board is an investment organization established to help ensure the Canada Pension Plan (CPP) will be there for generations to come.

We compete around the world to secure and manage public and private assets to maximize returns and deliver sustainable value. We have global teams who bring deep expertise and local knowledge.

We ensure the Fund has both asset and geographic diversification to make the Fund more resilient to single-market volatility and to safeguard the best interests of current and future beneficiaries against other factors affecting the funding of the CPP.

Our success depends on the strength of our governance framework, which safeguards our sole investment focus while upholding our accountability to the 20 million CPP contributors and beneficiaries.

Our People

ReNew Power Ventures Pvt. Ltd.

We invested a combined US$391 million in ReNew Power Ventures, one of India's leading clean energy companies. These investments by our Relationship Investments team align well with CPPIB's overall power and renewables strategy, providing greater diversification for the CPP Fund. India's overall power industry continues to grow and we see solar and wind as attractive renewable energy sources to meet the country's growing demand for electricity.

(l–r) Christian Hensley, Wendy Franks, Mike Burnett, Aman Bhathal, Ruoyi Liu

Nord Anglia Education

The Private Equity Asia team completed CPPIB's first direct investment into private education with the acquisition of Hong Kong-based Nord Anglia Education for US$4.3 billion, alongside Baring Private Equity Asia. The premium K-12 private school operator is well positioned to benefit from the rising demand for high-quality education globally and provides a platform for future growth for CPPIB in this sector.

(l–r) Deborah Orida, Kheed Ng, Frank Su, Leo Chiu, Selina Wang, Jason Hu

BGL Group

We acquired a 30% stake in BGL Group, the U.K. leading digital distributor of insurance and household financial services, for approximately £525 million. Through this Direct Private Equity investment, CPPIB will form a partnership with BHL to support the future growth of this financial technology business, with iconic brands like *comparethemarket.com*, which provides greater price transparency and choice to consumers.

(l–r) Jean-Philippe Garant, Katherine Chung, Jonah Enbar, Inaki Echave, Guillaume Pfistner, Jessica Morris

Parkway, Inc.

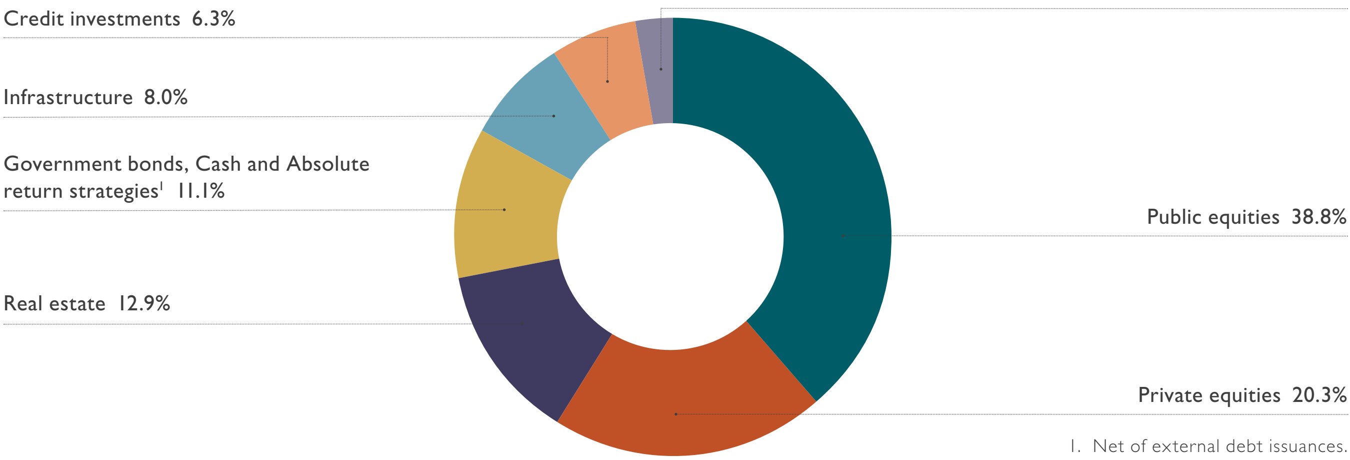
The Real Estate Americas team completed its first take-private transaction with the acquisition of the outstanding common shares of Parkway, Inc., a Houston-based real estate investment trust, investing US$928 million. Parkway fits well with CPPIB's real estate strategy to invest in high-quality assets in large U.S. markets.

(l–r) Lora Gotcheva, Tianhao Fan, Jay Fischer, Hilary Spann, Howard Chang

Performance

Asset Mix

As at March 31, 2018



1. Net of external debt issuances.

$356.1 Billion

CPP Fund Value at March 31, 2018

11.6%
Fiscal 2018 rate of return (net nominal)

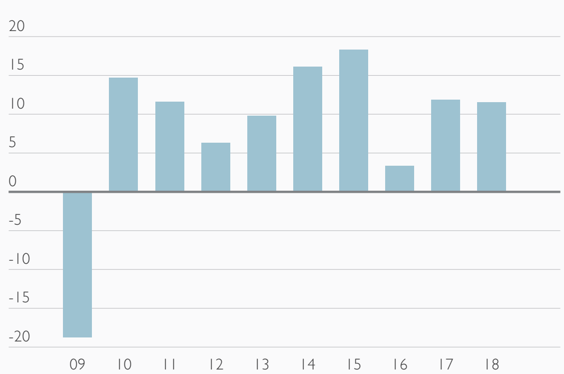
$36.7 Billion
Fiscal 2018 net income after all CPPIB costs

8.0%
10-year annualized rate of return (net nominal)

$183.3 Billion
Cumulative net income for 10-year period after all CPPIB costs

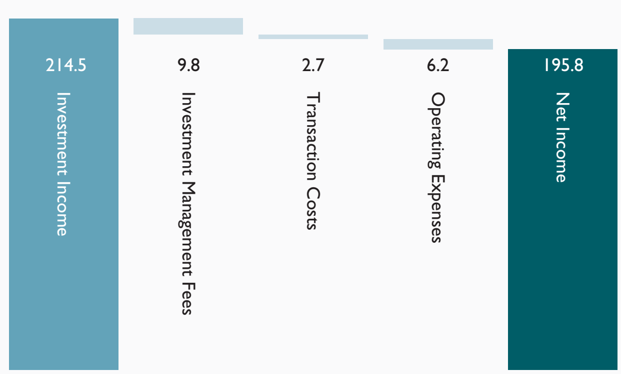
Rate of Return (net nominal)

For the years ended March 31 (%)



Cumulative Net Income Since Inception of Active Management

Fiscal years 2007–2018 ($ billions)



Chairperson's Report

Fellow Canada Pension Plan contributors and beneficiaries,

As Chairperson of the CPPIB Board, I am pleased to report to you on CPPIB's significant work and development on your behalf over this past year.

While CPPIB's focus is firmly set on the long term, we are neither immune from nor indifferent to short-term events impacting global markets and investors. From natural disasters to geopolitical risks, to new federal pension developments with the creation of the additional stream of CPP, fiscal 2018 brought to both Board and Management a number of significant developmental considerations and related activities along with a sustained focus on long-term investment performance.

As our CEO, Mark Machin, completes his second year at the helm of CPPIB, he continues to demonstrate that CPPIB is in strong, capable hands. He leads the enterprise with resolute focus on CPPIB's mandate and special public purpose, its long-term investment strategy, organizational culture and talent development. With his leadership and an outstanding community of CPPIB colleagues, the organization continues to move forward on a firm course through an important period of development against a global backdrop of some uncertainty.

This coming year marks a happy milestone – the 20th anniversary of CPPIB first receiving funds to invest on behalf of the CPP. Even as we celebrate the growth and accomplishment of the past 20 years, our eyes are firmly set on charting for success over the next 20 years and beyond.

Throughout our two decades, CPPIB has been fortunate in its ability to recruit and retain leaders whose skills and experience have been ideally suited to the challenges at hand. A key responsibility of CPPIB's Board is to ensure the composition of the organization's leadership team evolves effectively over time, while maintaining the right balance between renewal and continuity. We do this by bringing in new members with fresh perspectives and new skills to address the challenges of an ever-changing business environment. This year, our Board played a significant role in the renewal of our Senior Management Team (SMT), endorsing the appointment of four new SMT members.

As CPPIB's business evolves, so too must the skills of those who manage it. Our strong, principled culture, public purpose and best-in-class governance framework provide a constant – enabling us to recruit the most talented and dedicated professionals from around the world.

Their daily work on behalf of the CPP's 20 million contributors and beneficiaries helps ensure the Fund remains sustainable over the long term. I am pleased to report CPPIB's results for the past fiscal year continue to demonstrate this, the Fund ending the year with $356.1 billion in net assets, reflecting the second largest annual increase in the Fund's history.

Stewardship of CPPIB's long-term investment strategy

Since inception, CPPIB has steadily evolved its investment strategy, moving from passive to active management in 2006 and extending our global reach and expertise, the results of which we are celebrating this year with the 10th anniversary of the Hong Kong and London offices.

In fiscal 2014, Management developed its vision of what CPPIB should look like in 2020. CPPIB 2020 was a Board-endorsed vision that created a roadmap to

Dr. Heather Munroe-Blum
Chairperson

guide decision-making in relation to long-term investment strategy development. This included a new investment framework that put in place a greater dual focus on total Fund returns, as well as the dollar value-added (DVA) measure we had been using to assess our performance. In addition, the Board provided oversight over a number of major change-management programs associated with the CPPIB 2020 vision and the growth of our investment activities to include new strategies, geographies and structures.

As CPPIB passes the mid-way point towards the 2020 vision, the Board and Management's attention turned to the organization's vision for 2025 and beyond. My fellow Directors and I engaged closely with Management as they contemplated strategic choices that exist for CPPIB through strategy sessions, ongoing dialogue and ultimately the Board's approval of CPPIB's 2025 strategic direction. The Board endorsed a carefully considered strategic direction acknowledging the importance of leveraging our comparative advantages, the scale of our active investment programs across asset classes and geographies, the growing significance of emerging markets to the world economy, and the need to leverage the power of technology and data to position the organization to better drive investment decisions and operational excellence.

Engagement with CPPIB's business activities

In addition to overseeing the organization as it embarks on the CPPIB 2025 strategic direction, the Board is also intently focused on the oversight of CPPIB's preparations for additional CPP contributions, which begin on January 1, 2019.

The additional contributions mean the CPP Fund will grow larger and faster. The Board has been deeply engaged with Management, seeking confidence about how the different risk profiles of the existing and additional parts of the CPP will be managed, how to ensure the best interests of both parts, what operating efficiencies may be achieved and what opportunities might be gained with a larger investment Fund to manage. The Board is engaged with establishing the most appropriate governance framework to ensure CPPIB is well-positioned to manage these additional assets.

Clearly, CPP enhancement is an inflection point for CPPIB. As such, it creates a natural moment for our Board, so deeply engaged in oversight to bolster its own focus on risk management. As Board members, we continually benchmark ourselves to ensure we are doing all we can for the benefit of the Fund, to position the Board to be agile and proactive. This ensures our ability to provide effective governance and oversight through periods of rapidly emerging change and complexity.

A key component of good governance is ensuring the organization pays proper heed to new and emerging risks. Recognizing this, in July 2017 CPPIB augmented the role of the Chief Financial Officer to include enterprise-wide risk management responsibilities. This new role of Chief Financial and Risk Officer reflects our renewed focus on managing risk across the entire organization. We also created an ad hoc Risk Committee of the Board, the work of which will be a major focus for us over the coming months.

Two emerging threats that have especially captured the attention of the Board will not surprise you: climate change and cybersecurity.

Increasingly, climate change is showing significant physical, social, technological and economic impacts with implications for investment strategy and success. The Board is therefore very much engaged in the oversight of the organization's efforts to understand and manage these, including regular updates about broad trends and specific investment-related developments via ongoing enterprise risk management reporting.

Cybersecurity is a further key risk consideration. As a recognized player on the global economic stage, we have a clear understanding of the increasing sophistication of those who would seek to launch cyberattacks and the Board has a priority to understand, with Management, how CPPIB shall best address this risk.

The Board also provides governance oversight with respect to the potential impacts of geopolitical risks to the management of the Fund. Long-established alliances and trade relationships disappear as new ones emerge. Risks include regional conflicts, political and regulatory risks, corruption and terrorism. Careful attention to, and preparation for mitigation of emerging risks are key considerations in Board oversight, enterprise risk management and culture.

As the CPP Fund grows and investment activities expand, oversight of CPPIB's operating budget remains an ongoing Board priority. In fiscal 2018, the operating expense ratio was relatively flat compared to the previous year, against a backdrop of considerable increased volume and new activity.

I spoke earlier of the importance of public accountability to organizations like ours that carry out a critical public purpose. Governance and public accountability are never fixed in time – these evolve as new challenges and risks emerge and sometimes, old ones die out. The Board recognizes this and is constantly seeking ways to enhance the public accountability and transparency of CPPIB, and of the Board itself.

CPPIB demonstrates its accountability through a multitude of activities, including our robust and timely disclosure of financial reports and the tabling of this very report in Parliament by the federal finance minister. In addition, we host biennial public meetings at which CPP contributors and beneficiaries communicate and can ask questions of our CEO and Board Chairperson. As an example, one common contributor question is: "what is the difference between the CPP and CPPIB?" Mark Machin and I welcome opportunities to engage with our stewards, and the Fund contributors and beneficiaries, on a broad array of interests.

Accountability also includes reaching out to stakeholders, ensuring they are familiar with the organization's mandate and vision and – particularly in our case – communicating the organization's relevance to the lives of the people it serves. To this end, CPPIB is making a concerted effort to educate Canadians about the work it does on their behalf.

The soul of an organization is its culture – what one sees and hears and does every day in the hallways and offices, around the board table, and while conducting operations and investments around the world. As a Board, we are very proud of CPPIB's strong culture and values, and we are committed to ensuring these are universally robust.

To provide but one example, gender parity is a key goal for CPPIB. I am pleased to report that this past year we achieved this at the Board level. Management, for its part, has set clear targets to achieve gender parity for new hires across the organization by 2020. Only by making a strong commitment to inclusion and diversity can we continue to attract and retain a broad array of outstanding talent and bring the benefits of their disciplined, strategic effort and hard work to advantage in CPPIB's business performance.

Continued renewal of the Board of Directors

Over the past two years, we have seen significant renewal in the composition of our Board of Directors, with a broad emphasis on the strength, quality and results of the Board appointment process. We are proactively seeking to extend the Board's capabilities in providing strong oversight appropriate to its mandate, the Fund size trajectory, broader global risks, and complexity and, emerging opportunities.

These changes include an amendment to the *CPPIB Act* in 2014 allowing for the appointment of up to three Directors to the Board who are resident outside of Canada, and an expanded director appointments framework introduced in 2017.

In May 2017, Mary Phibbs was appointed as our second non-resident Director to the Board, following our first, Jackson Tai, who joined the Board the prior year. The Board and CPPIB benefit substantially from their contributions. Mary took over from Murray Wallace who, during his 10 years of service, used his superb professional expertise and insight to strengthen our governance oversight of the organization, during a period of extensive growth and change for CPPIB.

Karen Sheriff and Jo Mark Zurel have each been reappointed this year. Since their first term in 2012, Karen and Jo Mark have applied their strong business expertise to the Board's work in stewarding the organization as it embarked on the 2020 vision, and in the successful CEO transition. We look forward to continuing to benefit from their contributions during their next terms of service.

On behalf of myself, my fellow Directors, and all of CPPIB, I extend my gratitude to Murray and my congratulations to Karen and Jo Mark on their reappointments.

In closing

In addition to acknowledging the stellar contributions of our departing Directors, this year we also bade farewell to The Honourable Frank Iacobucci who served CPPIB as Conduct Review Advisor extraordinaire over the past 12 years, and welcomed Sheila Block as the new Conduct Review Advisor. Independent from Management and the Board, the Conduct Review Advisor provides confidential counsel to employees, Directors and relevant third parties about ethical conduct as set out in CPPIB's Code of Conduct. It is one way, among several, that we ensure the organization's Code of Conduct and Guiding Principles are upheld and reinforced across CPPIB.

On behalf of CPPIB and the Board of Directors, I thank Frank most warmly for his exceptional service, and thank Sheila for her willingness to bring her talent and deep professional insights to service in this important role.

In closing, I thank all of our Directors for their fine, committed service; and as a Board, we applaud and celebrate the extraordinary efforts of all CPPIB employees and management teams. In addition to the daily responsibilities they carry in managing and operating a $356.1 billion investment business, this year, they have readily assumed the added task of planning and preparing for the additional CPP. I personally extend my thanks and gratitude for their skilled and tireless contributions towards the realization of a base income on which you, our 20 million contributors and beneficiaries, will depend for your retirement.

Dr. Heather Munroe-Blum
Chairperson

President's Message

Dear fellow Canada Pension Plan contributors and beneficiaries,

We at CPPIB have devoted much of these past 12 months to preparing for significant changes to the ways we serve Canadians.

The coming fiscal year will witness a milestone in our history when we begin receiving the first contributions from the CPP enhancement. These contributions will support a gradual increase in the amount working Canadians will receive from CPP in their retirement years. Starting in 2019, the maximum benefit level will begin growing from one-quarter to one-third of their average work earnings covered by the CPP.

These enhancements mean CPP will become an ever more important thread in our national fabric. We are humbled by the growing role CPPIB will play in helping provide a base income that Canadians can count on for their retirements.

Our preparations to receive the additional CPP contributions are well underway and our teams are diligently working to receive these new funds. We have detailed our plans starting on page 21.

It remains a priority for me as CEO to ensure CPPIB continually earns the trust of Canadians. One of the many ways we do this is by keeping you informed about how we manage the money you and your employers contribute.

In recent months, we launched an effort to engage more directly with Canadians, including expanding our digital communications channels. For my part, I conducted a personal speaking tour across the country during which my many conversations continued to demonstrate how deeply important the CPP is to people from coast to coast.

We will continue these initiatives during the coming fiscal year, as we constantly seek ways to demonstrate the work we do for the benefit of 20 million Canadians.

Investment climate

Every day, CPPIB professionals worldwide meet management teams and explore investment opportunities. With each passing year, we must work harder to find compelling investments, because other institutional investors have both adopted our approach and possess the wherewithal to deploy large amounts of long-term capital.

We see the effects of this increased capital inflow reflected in the long bull market in equities, the ever-stronger demand for private assets, and the low yields on income-oriented investments. While recent increased volatility has dampened values a little, assets of most every type remain expensive from a historical perspective.

This not only makes it hard to pick our spots; it elevates the risk of a correlated decline in prices in both public and private markets. In fact, it is generally expected that as the economic cycle in the U.S. in particular – and to some extent in the rest of the world – becomes more mature, then most financial assets are likely to generally underperform.

In this environment, we lean hard on the advantages we get from our size, reach, expertise, people, partnerships and portfolio management.

For example, the professionals in our Fundamental Equities group are managing elevated markets by redoubling their efforts to reach out to our networks and company management teams to find one-off opportunities where we can be a catalyst and create value.

Mark Machin
President & Chief Executive Officer

This capital glut also has changed the competitive landscape in our real assets business. To stay ahead, we are working across investment teams to determine which segments of the real estate and infrastructure sectors are best poised for meaningful, long-term growth.

For example, in real estate, we are active in student housing. This includes committing more capital to Scion Student Communities, LP, a joint venture that acquired an additional portfolio of 24 high-quality assets located in 20 U.S. markets. This builds on a fiscal 2017 initial investment. CPPIB was early to recognize the potential of these areas and we continue to seek similar opportunities.

Likewise, we view data centres as an opportunity. CPPIB made a significant commitment to Alpha Data Centre Fund's development of facilities in the Asia-Pacific region and Europe. It is aimed squarely at a trend towards explosive demand for data in response to Artificial Intelligence applications for vehicles, mobile computing advances, the Internet of Things and smart homes.

In infrastructure, exceptionally strong worldwide demand from institutional investors for these investments is prompting some of our investment partners to consider selling their interests. Given our long-term approach, we are busy determining whether to take advantage of the extremely high valuations and also dispose of some assets, retain our stakes or possibly increase our holdings. Opportunities for new infrastructure investments at favourable prices are rare, but we were able to reach an agreement last year with a Spanish natural gas distribution system.

We now have dedicated groups actively seeking deals in the power and renewables and energy sectors. We will discuss climate change later in this report, but I will note here that our view on these sectors is emblematic of how we approach the issue – not just as risk but as opportunity.

For example, we believe our Natural Resources group's investment in Calpine, a major U.S. power generator with both geothermal and natural gas assets, will benefit from better pricing for the natural gas power as coal plants are retired.

Patience and discipline remain the watchwords in our private investments business. Competing for direct private equity investments is challenging in a world where dry powder has been on the rise since 2012, reportedly hitting a record high of $1.7 trillion in December 2017.[1]

Capital washing through the markets also challenges our secondaries business, as returns from buying illiquid fund stakes in the secondary market shrink as discounts vanish.

We access the private equity market both directly and as a limited partner and co-investor, working with the best-in-class fund managers we trust. This approach lets us find choice opportunities through our willingness to partner or lead large and relatively more complex deals where we can bring our in-house expertise to bear.

Another way to deal with market frothiness is to focus on where we can deploy our strengths and take advantage of positive global market dynamics. Strong U.S. fundamentals can translate into long-term growth. Europe shows promise for direct investments and we have growing presences in South America and Asia, which have the potential for new expansion and opportunities.

For example, Chinese markets for equities, corporate debt and investment-grade bonds are slowly opening to foreign investors. We were one of the larger non-Chinese institutional investors approved to invest directly in Mainland Chinese equity markets several years ago. The expertise we have gained in this market has been valuable and highly profitable.

India too offers potential as its government focuses on building the country's infrastructure. Since January 2018, we have invested US$391 million in ReNew Power, one of India's leading clean energy companies. Our office in Mumbai means CPPIB has the people on the ground to navigate India's complex investment and asset management environment, making us a good partner for local firms.

And that's the point. We want to be known as the investor that can manage complex situations. In fact, we seek complexity because we can often win with a creative solution rather than merely paying the highest price. The ultimate goal in the long run is the opportunity to create value-building growth.

That's not to say we won't pay healthy valuations for companies with compelling prospects, but we are highly selective. Recognizing that no firm is entirely immune from global events in the shorter term, businesses we buy must preserve their value through cycles, while achieving growth in the longer term.

They should also be able to withstand or benefit from disruption. We have all seen the headlines hyping companies built to upend traditional industries. And while it's easy to see what these firms are displacing, it's not always clear what they are creating or how they will make money. That's one reason why we focus on how disruptors might affect assets we like and invest in: for example, do autonomous vehicles mean more cars on toll roads we own, or fewer? And when?

Understanding these global economic and investment climate shifts, finding the opportunities they create and mitigating the resulting risks demand that we constantly ensure we have the right skills and expertise.

In the meantime, it's fair to expect muted returns for many assets in coming years, and a lot more homework for our investment teams.

1. 2018 Bain Global Private Equity Report.

Our performance

Amidst this highly competitive backdrop, we achieved a strong net return of 11.6% this year.

In total, we added $36.7 billion in net income and received $2.7 billion in net contributions for a total Fund size of $356.1 billion. These results reflect our second largest annual growth in assets since CPPIB's inception.

While these are strong results, performance in individual years is not what matters for the long-term sustainability of CPP. Short-term volatility is inevitable and can have a drastic impact on results in any given year. Our return-risk profile is designed to take advantage of our exceptionally long investment horizon.

As detailed on page 19, we take on a level of risk which we believe maximizes returns in the long term, while also avoiding undue risk of loss. We expect to incur losses of at least 12.5% one year in 10. Both our 10-year annualized real rate of return of 6.2% and 5-year annualized real rate of return of 10.4% are well above the average 3.9% real rate of return that the Chief Actuary assumes in assessing sustainability of the CPP over the 75-year projection period used in his report.

In addition to total Fund performance, we measure our active management strategy using a dollar value-added (DVA) approach to compare our Investment Portfolio returns against a Reference Portfolio comprising public market indexes.

Our Reference Portfolio sets a rigorous benchmark that few investors have come close to beating. When public markets soar, as they generally did for most of our fiscal year, we expect our Reference Portfolio to perform exceptionally well, even better than our Investment Portfolio, by design. Our diversification strategy means that we expect swings in relative performance, either positive or negative, in any single year.

We do not attempt to beat the market every year, but rather look to add value over the long term. Our investment strategy is not designed to outperform in exceptionally high market conditions like those we've seen this year. Rather, it is designed to deliver steady returns that look through significant upswings and corrections, to provide absolute long-term returns over time.

Diversifying the assets in our Investment Portfolio across public and private markets creates resiliency by cushioning the full impact of market corrections, which is prudent when building a portfolio for generations. We have a dual focus on both DVA and total Fund performance.

The Investment Portfolio's net return of 11.6% outperformed the Reference Portfolio's return of 9.8% this year, resulting in $5.7 billion in single-year net DVA and $19.3 billion in compounded DVA since the inception of our active management strategy. Compounded DVA shows the net dollar value that CPPIB has added to the long-term Investment Portfolio through all sources of active management, above the value it would have generated had it earned Reference Portfolio returns alone.

Building for generations

Running a large institutional investing organization offers the same challenges as running any other type of global, growing business. To ensure operational success, we focus on building scalable programs, developing talent, tracking performance and ensuring operational excellence. How well we accomplish these tasks determines the success of our strategy.

One consistent theme across CPPIB is the importance of diversification. Our unique advantages mean that, on a global scale, we have the ability to access the best and biggest opportunities, buy and hold when others cannot, and think beyond short-term volatility. To operationalize this strategy, we made the decision to expand our global presence and allow Canadians to benefit from global growth.

We began our international expansion 10 years ago, with offices in two key global hubs: London and Hong Kong. These offices recently marked their 10th anniversaries. They have been able to capitalize on some of our best investment opportunities – such as China's e-commerce and retail conglomerate Alibaba, and the Nova Victoria mixed-use real estate development in London.

To support our investment strategy, CPPIB is focused on inclusion and diversity at all levels of our organization. Diverse teams make better decisions by bringing us a variety of perspectives. This also enables us to hire from the broadest pool of talent, to find the most exceptional people, and to allow them to perform at their absolute best.

By 2020, our goal is to have women represent half of all our new hires. In fiscal 2018, 47% of new hires were female. At the end of fiscal 2018, there was 24% female representation at the Managing Director and Senior Managing Director levels, with overall female representation of 44% across all levels.

To create an environment in which all people can feel comfortable bringing their whole selves to work, we are also increasing our focus on inclusion initiatives. True credit goes to our people, who drive many of these initiatives themselves, including our Women's Initiative and the newly formed Out@CPPIB, which leads activities to ensure the recruitment, retention and development of LGBT+ talent. Since 2017, over 30% of CPPIB employees have signed up as allies of Out@CPPIB and the LGBT+ community.

Strategic plan

Five years ago, we developed a vision for how CPPIB would evolve our investment framework and implement a multi-year business strategy by 2020. We have achieved the majority of those goals.

As we approach 2020, we now look beyond to the next stage for CPPIB. The Board of Directors recently endorsed a comprehensive strategic direction for the organization that will take us to 2025. This direction will set CPPIB on the path to uphold our reputation as a world-class global investment organization, aspiring to be the standard by which the industry compares itself for governance, performance, talent, partnership and delivering superior financial returns after all costs.

We will continue to scale our world-class active investing programs in public and private markets across asset classes and geographies. Our investing strategy will become more agile so we can seize opportunities and be resilient in facing a range of future uncertainties, including global growth trajectories, technological disruption, geopolitical forces and climate change.

By 2025, we will invest up to a third of the Fund in emerging markets, which by that time are anticipated to account for 47% of global GDP. Investments in significantly improved technology and data capabilities will empower all of our employees, leveraging the power of our collective knowledge, to drive better investment decisions, investing edge and operational excellence.

At the beginning of this current fiscal year, we appointed four new senior executives. These appointments further enhance our international competitiveness and reflect an evolved investment department structure that provides for greater investment agility and the recognition of the importance of emerging markets. Effective June 1, 2018, I am pleased to welcome these four highly respected and talented individuals to our Senior Management Team: John Graham, SMD & Global Head of Credit Investments; Suyi Kim, SMD & Head of Asia Pacific; Deborah Orida, SMD & Global Head of Active Equities; and, Poul Winslow, SMD & Global Head of Capital Markets and Factor Investing.

We will also foster an innovative, ambitious and agile culture rooted in our Guiding Principles of Integrity, Partnership and High Performance. We are excited about this direction and the opportunity it provides us to continue building an organization designed to serve generations of Canadians to come.

Climate change

As a long-term investor, understanding global climate change and its impacts on our investments is a key consideration. We have made it a priority in the coming year to accelerate our understanding and take action on both the risks and opportunities stemming from climate change. Our Head of Sustainable Investing has been working with our Chief Financial and Risk Officer on a firm-wide effort to develop processes and tools to better understand the impact of climate change on our portfolio and potential investments.

By actively addressing climate change, we can increase and preserve economic value. This year, we made two large investments in renewables in emerging markets in India and Brazil, and in April 2018 acquired a sizable portfolio of operating renewables projects in Ontario. We expect more of these deals to emerge in the years ahead.

Priorities of upcoming fiscal year

Each year, in continued support of our long-term strategy, CPPIB goes through extensive business-planning exercises to determine our priorities for the upcoming fiscal year. In fiscal 2019, we will focus on:

1. Completing preparations to accept, invest and report on the additional Canada Pension Plan contributions that start in January 2019.
2. Scaling our investment programs and growing the Fund's exposure to emerging markets.
3. Taking action to improve our understanding of opportunities and risks posed by climate change as part of a cross-departmental, multi-year initiative, and to adopt best-in-class climate-related financial disclosures.
4. Leveraging the power of our collective knowledge through our multi-year integrated technology, data and knowledge advantage initiative, to drive better investment decisions and add value to the Fund.

Conclusion

It is truly an honour to lead an organization focused on building a CPP Fund that will last for generations. This critical purpose is the cornerstone of our organization and drives our people to work hard on your behalf every day.

I would like to thank five outgoing members of our senior leadership who announced they were retiring or pursuing new opportunities this year. Graeme Eadie, Pierre Lavallée, Benita Warmbold, Eric Wetlaufer and Nick Zelenczuk helped grow this organization over many years. They will be missed, but they have worked hard to help ensure a smooth transition to our next generation of leadership.

Last, and certainly not least, I would like to thank our Board of Directors and all my colleagues at CPPIB for a highly successful year, and for their relentless commitment to and support of our organization and our mandate.

Mark Machin
President & Chief Executive Officer

Senior Management Team

Effective June 1, 2018

Left to right

Suyi Kim
Senior Managing Director &
Head of Asia Pacific

Edwin Cass
Senior Managing Director &
Global Head of Real Assets

Mary Sullivan
Senior Managing Director &
Chief Talent Officer

Shane Feeney
Senior Managing Director &
Global Head of Private Equity

Geoffrey Rubin
Senior Managing Director &
Chief Investment Strategist

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

Mark Machin
President & Chief Executive Officer

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

John Graham
Senior Managing Director &
Global Head of Credit Investments

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

Neil Beaumont
Senior Managing Director &
Chief Financial and Risk Officer

Deborah Orida
Senior Managing Director &
Global Head of Active Equities

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

Purpose

The CPP Fund has a critical purpose – to help Canadians build financial security in retirement. CPPIB's objective is to invest the Fund assets to maximize returns without undue risk of loss having regard to the factors that may affect the funding of the CPP. We invest funds for the benefit of CPP's 20 million contributors and beneficiaries. We hold ourselves to high standards of investment management, as well as transparency and accountability.

Why CPPIB was created

In the mid-1990s, concerns arose about the long-term viability of the CPP. CPP assets had started to be depleted in 1993. In response, Canada's provincial and federal governments came together to create bold reforms to ensure the CPP would be there for generations to come and put the CPP back on a sound financial footing for long-term sustainability. They increased the contribution rates and created Canada Pension Plan Investment Board to invest funds not currently needed to pay CPP benefits, in markets around the world.

1966
CPP created. 6.5 workers for every retiree.

1990s
Projections show by 2055 there will be only 2 workers per retiree.

1993
CPP benefits paid out had started to be higher than contributions and investment income coming in.

1997
Canadian governments act to address demographic changes and create CPPIB.

75+

Years duration of CPP sustainability

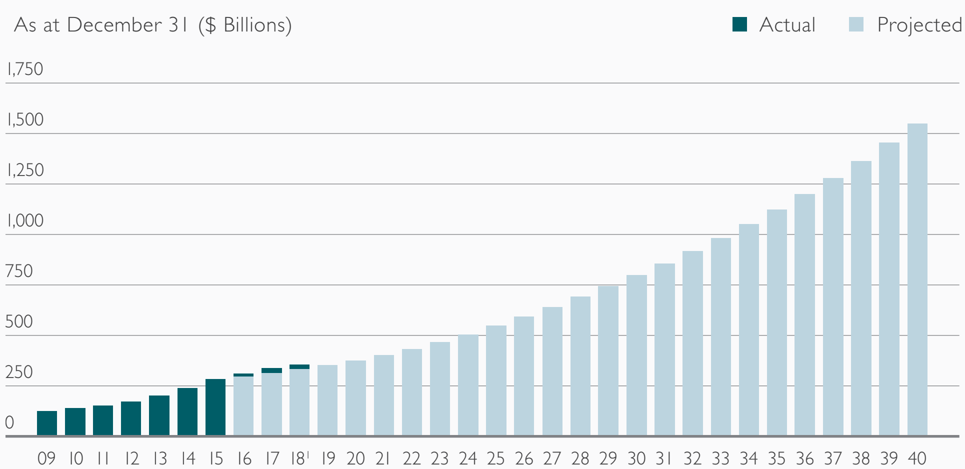
20 Million

CPP contributors and beneficiaries

History and Projections of the CPP Fund

CPPIB's sole focus is investing the amounts transferred from the CPP. As at December 31, 2015, the Chief Actuary projected that the CPP Fund will reach approximately $800 billion by the end of 2030. We have built a professional investment organization capable of handling this substantial growth.

As at December 31 ($ Billions)



1. Table modified by CPPIB to show fiscal 2018 actual assets under management, as at March 31, 2018.

Projections of the CPP Fund, being the combined assets of the base and additional CPP accounts, are based on the nominal projections from the 27th and 28th Actuarial Reports on the Canada Pension Plan as at December 31, 2015.

Advantages

CPPIB benefits from the CPP Fund's exceptionally long investment horizon, certainty of assets and scale. We have also developed a world-class investment team, which we complement with top-tier external partners that support our internal capabilities. We take a disciplined, prudent long-term approach to managing the total portfolio. While no single advantage is unique to our organization, the combination of our comparative advantages provides a strong foundation for investment programs and global competitiveness that help us achieve our objectives.

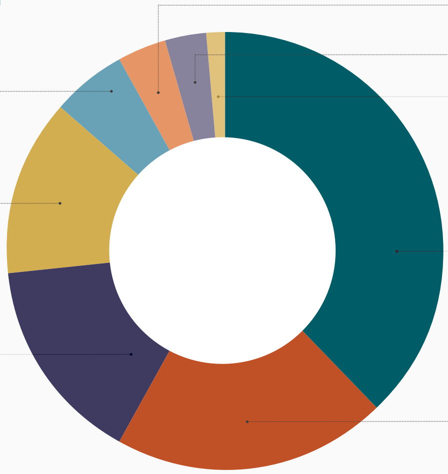
53
Countries in which we hold investments

254
Global investment partners

275
Global transactions in fiscal 2018

Global Diversification by Region

As at March 31, 2018



Global Offices

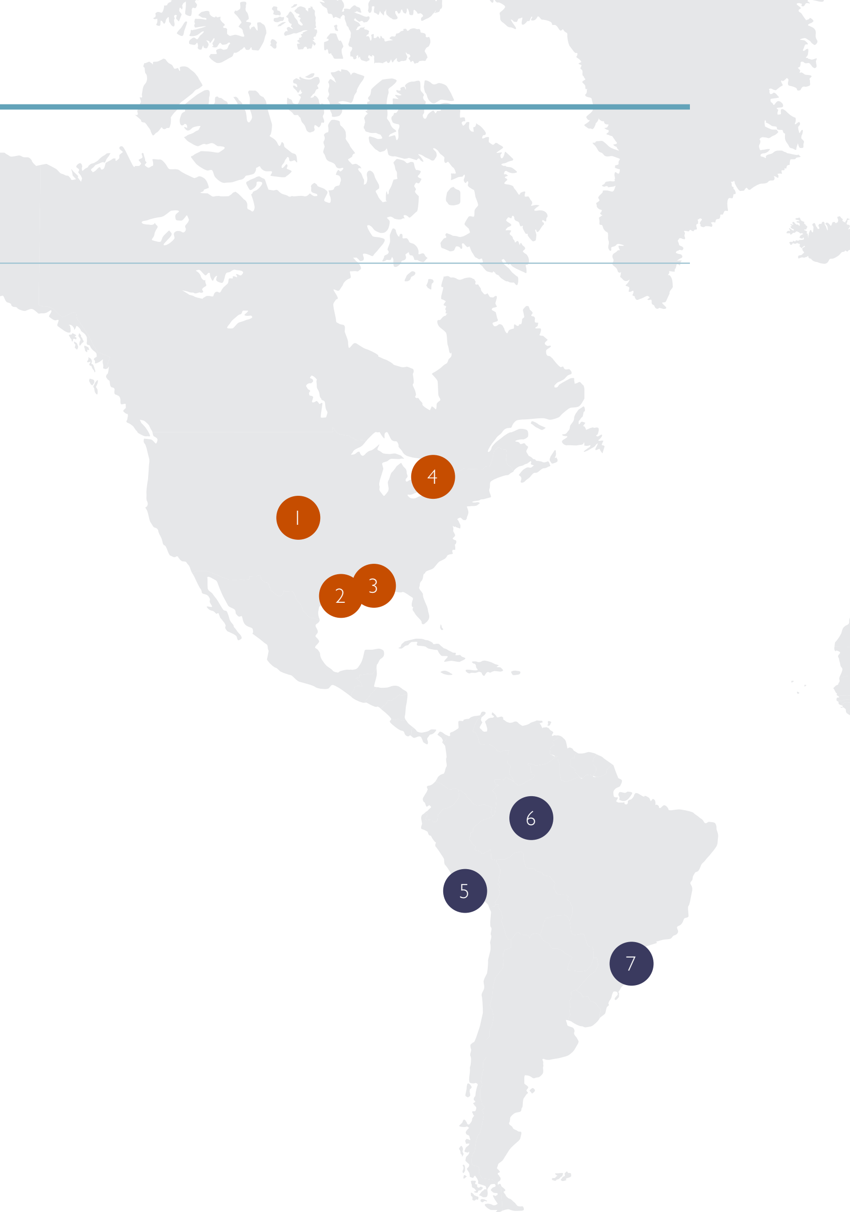
Our Comparative Advantages

Long-Term View

Certainty of Assets

Size and Scale

Global Investments



North America

1 **U.S. Student Housing portfolio**
United States
US$1.1 billion
Acquired 24 properties located in 20 diversified university campus markets across the U.S. with GIC and The Scion Group

2 **Parkway**
Houston, Texas, U.S.
US$928 million
Acquired the common shares of the real-estate investment trust, which owns one of the largest office portfolios in Houston

3 **Calpine Corporation**
Houston, Texas, U.S.
US$900 million
Invested in one of the largest independent natural gas and geothermal power generators in the U.S.

4 **Thomson Reuters' Financial & Risk business**
Toronto, Canada
US$20 billion
Signed an agreement to acquire a 55% stake in the data and financial technology platform alongside Blackstone and GIC

Latin America

5 **Enfoca**
Lima, Peru
US$380 million
Committed to a newly formed fund through a direct secondaries transaction that will focus on Peruvian mid-market companies

6 **Votorantim Energia**
Northeastern Brazil
C$272 million
Formed a joint venture which will initially acquire two operational wind parks with combined generation capacity of 565 megawatts

7 **Cyrela Commercial Properties Office portfolio**
São Paulo, Brazil
Acquired 33% interest in one of Brazil's largest office portfolios, with 12 Class-A properties located in a prime office district

1


3


5
ENFOCA

7


2


4
THOMSON REUTERS
Financial & Risk

6


8
bgl
group

Europe

8 BGL Group
Peterborough, U.K.
£525 million
Acquired 30% stake in a leading digital distributor of insurance and household financial services to 8.5 million customers

9 Lendlease Build-to-Rent Partnership
London, U.K.
£350 million
To invest in a development of new homes in Elephant & Castle, as part of a major U.K. Build-to-Rent Partnership

10 Elis SA
Paris, France
€200 million
Invested in a market leader in the industrial laundry, textile rental, and hygiene and well-being industry

Asia

11 ReNew Power Ventures
New Delhi, India
US$391 million
Invested in one of India's leading clean energy companies with more than 5,600 megawatts of capacity in wind and solar

12 Nord Anglia Education
Hong Kong
US$4.3 billion
Acquired a premium private K-12 school operator with more than 45 schools in 15 countries, alongside Baring Private Equity Asia

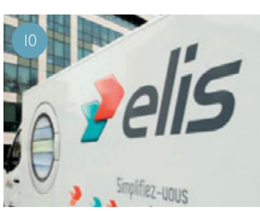
13 Keppel Data Centres
Singapore
US$350 million
Partnership to develop a quality portfolio of data centre assets in key data centre hubs across Asia Pacific and Europe

14 Alibaba
Hangzhou, China
Invested in Alibaba's New Retail Strategic Opportunities fund, which conducts private and public investments

15 IndoSpace Core
Mumbai, India
US$598 million
Formed a joint venture to focus on acquiring and developing modern logistics facilities in the top industrial hubs in India

13

Keppel Capital



12

NORD ANGLIA EDUCATION

14

Alibaba Group 阿里巴巴集团

Operational Highlights

Scaling our investment activities

> Grew active equity programs in Public Market Investments by $19.3 billion in assets under management through new and follow-on investments, including investing US$391 million in ReNew Power Ventures Pvt. Ltd, one of India's leading clean energy companies.

> Committed $21.4 billion in Investment Partnerships including investing in Alibaba's New Retail Strategic Opportunities Fund, which conducts both public and private investments.

> Deployed $14.4 billion in Private Investments including investing US$900 million in Calpine Corporation, one of the largest independent power generators in the U.S., through our Natural Resources group.

> Committed $10.2 billion in Real Assets including the acquisition of Parkway, Inc., a real estate investment trust in Houston, representing our first public to private real estate transaction in the U.S.

Expanding our global investing activities

> Grew our investments outside Canada from $264.7 billion to $302.3 billion during the year; this represents 84.9% of our total assets.

> Grew our investments in emerging markets from $37.9 billion to $56.1 billion this year, representing 15.8% of our total assets; this includes $22.4 billion in China.

> Expanded the employee base outside Canada from 18.2% to 19.8%.

Continuing to enhance our Investment Framework

> Updated our Reference Portfolio design analytics to a more formal tradeoff of investment risk and return in the CPP context.

> Further developed our framework and balancing process to deliver optimal return-risk factor exposures.

> Enhanced our liquidity management and investment risk practices.

Developing talent

> Over 270 employees took part in organization-wide formal training programs, enhancing internal capabilities.

> Expanded and improved our leadership development initiatives with programs targeted at all levels.

> Provided more career development opportunities for employees to receive cross-functional training with 28% of employees receiving career opportunities through promotions, transfers, secondments, special projects, board memberships and international assignments.

> Increased campus hiring for both full-time and summer internship roles.

> Reinforced and renewed employee commitment to our Guiding Principles.

Preparing to accept, invest and report on the additional Canada Pension Plan

> We completed development of the investment structure and risk governance framework for the additional CPP; an operations design to support performance and internal/external reporting; and developed a cost allocation methodology between the additional CPP and base CPP accounts.

Our Mission and Investment Strategy

How we manage the CPP Fund

Our investment objective

CPP Investment Board (CPPIB) is governed by the *Canada Pension Plan Investment Board Act*. It directs CPPIB to act in the best interests of the Canada Pension Plan (CPP) contributors and beneficiaries and to invest "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."

The Act sets no specific investment requirements. There are no limitations, expectations or directions on geographic, development or social objectives. As a result, our investment focus is unambiguous.

Our purpose

Our purpose is to help sustain the CPP as a foundation on which Canadians can build financial security in retirement. When the CPP began in 1966, the contribution rate was set low but with the clear expectation that it would rise over the years. By 1997, there was serious concern about the viability of the CPP, despite several increases in contribution rates. In response, the federal and provincial governments worked together to place the CPP on a more secure financial footing. They made two major changes. First, they introduced a system to set contribution rates at a long-term, stable level. Second, they directed the CPP Fund to invest broadly in the capital markets, including equities, to seek higher long-term returns. They also established the CPP Investment Board to carry out the investment management of the CPP Fund, including establishing appropriate levels of risk to maximize returns.

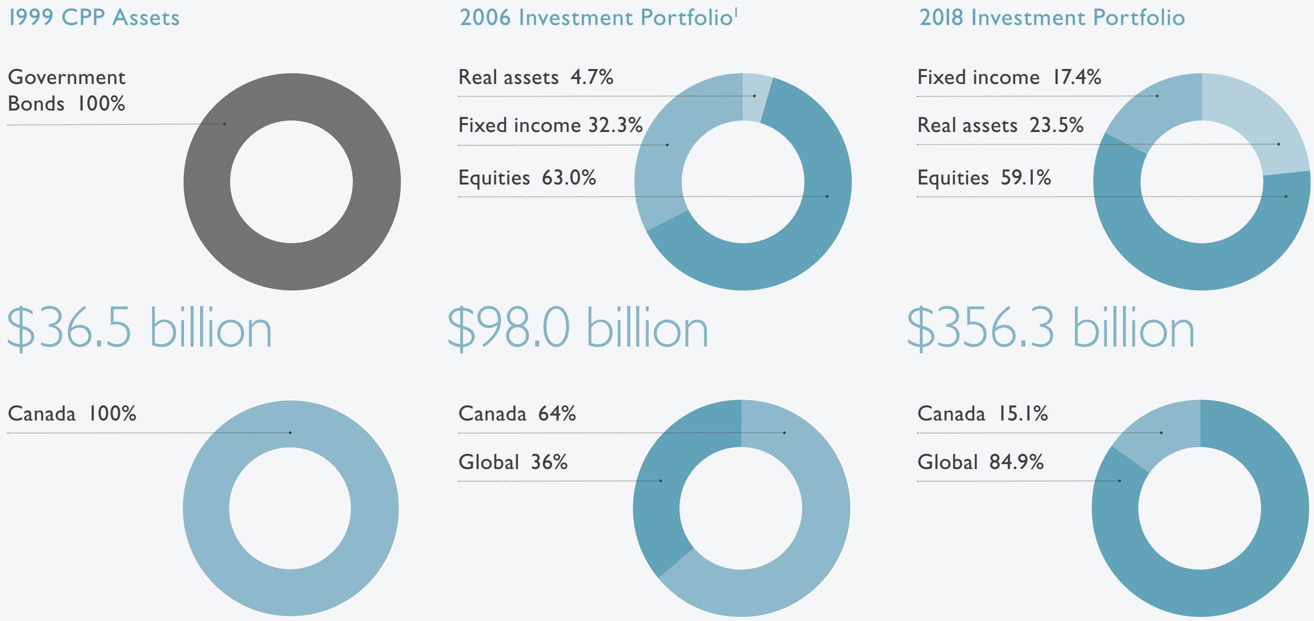
Until March 1999, the CPP Fund was invested only in non-marketable Canadian, federal, provincial and territorial bonds (the "CPP Bonds"). Beginning in March 1999, CPPIB became responsible for the investment of net cash flows into the Fund (the excess of CPP contributions over CPP benefits paid out and CPP administration expenses) and to reinvest all net income it generates. Since then, CPPIB has built a professional investment organization whose strategy has generated $215.6 billion in net income to date. Together with net transfers from the CPP, which include the CPP Bonds and net cash flows, the Fund has grown to its current value of $356.1 billion.

It is important that the Fund be managed so as to offset the risks that the CPP itself faces. For the base part of the CPP (i.e. prior to the January 1, 2019 enhancement), due to its partially funded nature financial risk exposures include an aging population, the future levels of employment and immigration, and the rate of real wage growth. Offsetting these risks is a key reason why we have prudently diversified 85% of the Fund into investments around the world outside Canada. For the additional CPP, due to its fully funded nature the primary risk lies in future investment returns. Again, we believe that a globally diversified investment portfolio, at an appropriate risk level, carries economic resilience and the best long-term prospects for Canadians.

Managing a fund responsibly and successfully is not only about investment skills – it is equally about the organization's culture. CPPIB's strong and unifying culture is founded on our Guiding Principles – Integrity, Partnership and High Performance. As a first order of business, we seek to attract talented individuals who are truly motivated by our unique public purpose. All new employees receive in-depth orientation on the meaning and consequences of these three core principles that guide everything we do. All staff members attend an intensive workshop every year devoted to reviewing the Guiding Principles, discussing how they apply through case studies, and reinforcing their use in everyday duties. Our

Historical Comparison of the Portfolio for the CPP

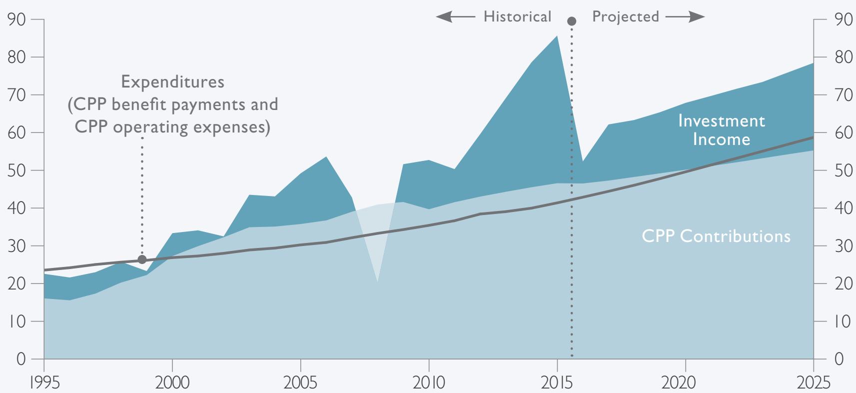
As at March 31



1. Includes interests in the CPP bonds not yet transferred to CPPIB from the Department of Finance.

CPP Revenues[1] and Expenditures

As at December 31 ($ billions of 2016 constant dollars)



1. CPP contributions and investment income net of all CPPIB costs for the base CPP only.

From the 27th Actuarial Report:

> The assets grow continuously over the projection period. During the period 2000 to 2020, contributions are more than sufficient to cover expenditures.

> From 2021 onward, a portion of investment income is required to fund CPP expenditures.

> Investment income, which represents 24% of revenues in 2017, will represent 30% in 2030. This clearly illustrates the importance of investment income as a source of future revenues for the Plan.

annual employee performance reviews include an assessment of how each employee has demonstrated these principles in their work. We evaluate employees' performance not only on their results but also on how they have achieved them.

Independence with accountability

All the assets in the CPP Fund are owned by CPPIB, and are entirely separate from any government's assets. CPP contributions by plan members and employers are not a tax but rather a separate contribution invested in the Fund to generate retirement income benefits. Unlike Old Age Security, CPP benefits do not come from tax revenues. The money required to pay CPP benefits comes from only two sources:

> Contributions from plan members and their employers, based on employment earnings up to the maximum amount covered by the CPP; and
> Investment returns earned on the Fund.

Canadians expect the CPP to remain free from political interference. Under the 1997 CPP reforms, the federal and provincial finance ministers enshrined CPPIB's independence with carefully written legislation, ensuring that we can, and do, operate at arm's length from any government.

To maintain the public's trust through a careful balance between independence and accountability, we operate in a highly transparent way. This includes:

> Explaining on our website and through other public outreach channels who we are, what we do and how we invest;
> Disclosing our investment activities and major transactions in a timely manner;
> Issuing regular reports about our assets, portfolio holdings and performance results;
> Complying fully with all legislative requirements, such as public meetings every two years and an external Special Examination every six years; and
> Actively engaging with news organizations, stakeholders and other interested parties.

Similarly, our Board of Directors is accountable to the stewards of the CPP, the federal and provincial finance ministers. Our diverse Board is appointed on the recommendation of the federal finance minister, following consultation with the provinces.

CPP contributors and beneficiaries can take comfort in knowing there are very strong checks and balances to protect their best interests and the independence of the Fund. In particular, amendments to the governing CPP and CPPIB Acts 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.

Current and future status of the CPP Fund

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

> The growing base of contributors and employment earnings;
> The rising ratio of pension benefit recipients relative to employed contributors; and
> Expected increases in life expectancy.

The most recent actuarial review was conducted as of December 31, 2015, results of which were released in the 27th Actuarial Report in September 2016. The Report concluded that the CPP is sustainable for the next 75 years. It showed investment income over the three years since the previous review was 248% higher than expected, resulting in Fund assets that were $70 billion higher than anticipated by the end of the period. The next review will be performed in 2019, as of December 31, 2018.

A key assumption in the 2015 review is that, over the 75 years from 2015, CPP Fund investments will earn an average annual rate of return of 3.9% above the rate of Canadian consumer price inflation, after all investment costs and operating expenses.

Additional Canada Pension Plan

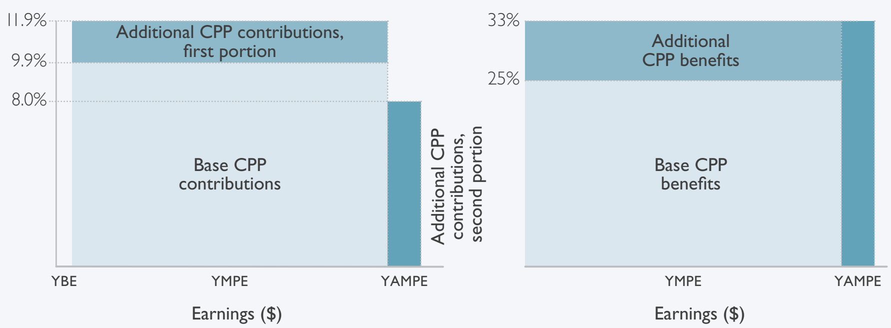
In December 2016, following federal and provincial agreement, Royal Assent was given to Bill C-26, *An Act to Amend the Canada Pension Plan, the Canada Pension Plan Investment Board Act and the Income Tax Act*. This Act increased the amount of retirement pensions and other benefits that will be paid on 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. The contribution and earnings limit increases will be phased in over seven years beginning in 2019.

The additional contributions are set at levels such that together with investment income they are expected to be sufficient to fully fund the additional benefits. Additional benefits will be gradually earned as additional contributions are made, with full benefits paid out only after 40 years of contributions. The diagram on the right illustrates the increases in (i) contribution rates following the phase-in period, (ii) covered earnings from Year's Maximum Pensionable Earnings (YMPE) to Year's Additional Maximum Pensionable Earnings (YAMPE) and (iii) maximum benefits (from 25% to 33% of applicable earnings).

Financial projections

The *Canada Pension Plan Act* now defines two separate parts of the enhanced CPP. The "base" CPP refers to the benefits and contributions at existing levels. The "additional" CPP refers to the additional benefits and the additional contributions that start in January 2019. The contributions, benefits and resulting assets for the additional CPP must be accounted for separately from those for the base CPP, although all assets will be held by CPPIB.

Increase in Maximum Benefits, Covered Earnings and Contribution Rates



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

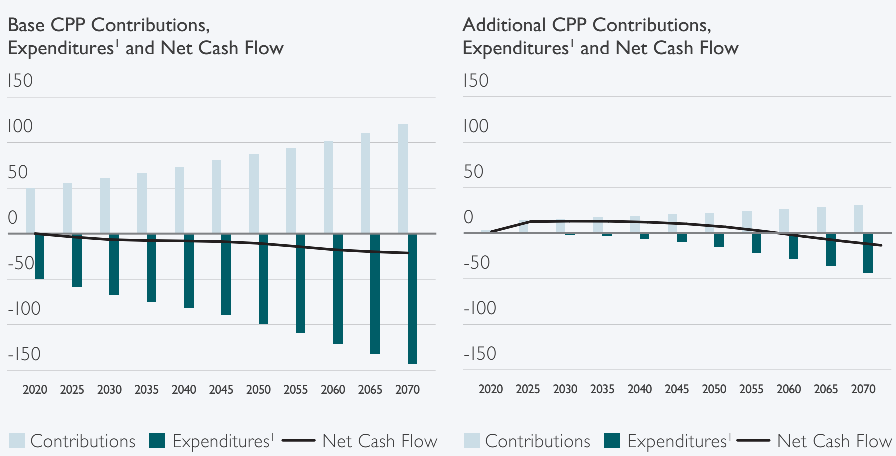
The charts below show expected growth in contributions and expenditures (CPP benefits plus CPP operating expenses) for the base CPP and the additional CPP until the maturity of the additional CPP. These figures are based on the projections for the two parts of the CPP in the 27th Actuarial Report for the base CPP and the 28th Actuarial Report for the additional CPP, released in late 2016.

Contributions to the additional CPP will far exceed benefits payments for many years, whereas for the base CPP, benefits will begin to exceed contributions in 2021. As a result, the assets in the additional CPP account will grow at a much faster rate than those in the base CPP account. By 2055, the two accounts are expected to have comparable assets of about $840 billion each (in constant 2016 dollars). Thereafter, assets in the additional CPP account are expected to remain greater than in the base CPP account.

Since by design the additional CPP is fully funded whereas the base CPP is only partially funded, the two parts of the CPP differ significantly in terms of their future proportions of contributions and investment income as a percentage of total revenues. For the base CPP, the percentage of total revenues represented by investment income is expected to grow slowly from 26% in 2020 to 35% in 2070. However, for the additional CPP, investment income will grow steadily as a percentage of total revenues, stabilizing at about 70% of its total revenues.

Projected Growth of Base and Additional CPP

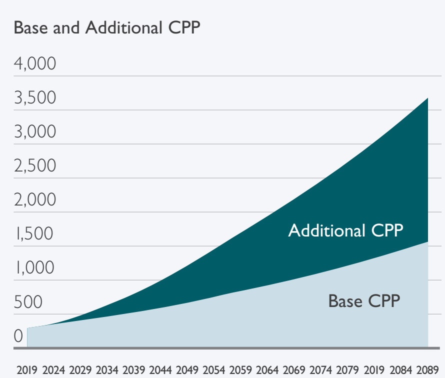
($ billions in 2016 constant dollars)



1. CPP benefits plus CPP operating expenses.

Growth of CPP Fund

($ billions in 2016 constant dollars)



Office of the Chief Actuary Projections – 27th & 28th Actuarial Reports

Risk target

Investment income will perform a much larger role for sustaining the additional CPP than it does for base CPP, which depends more heavily on current and future contributions. Any shortfalls in long-term investment income would have much greater impact on future minimum contributions for additional CPP than for base CPP.

For the base CPP account, CPPIB has adopted an absolute risk target for its Investment Portfolio equivalent to the absolute risk of its Reference Portfolio of 85% global equity/15% Canadian governments nominal bonds, as explained on page 30. Unlike the base CPP, however, the additional CPP will be fully funded from inception. A consequence of this is that the appropriate risk target for the additional CPP is significantly lower than for the partially funded base CPP. This is the case even in the early years when there is a low risk of an adverse adjustment to additional CPP arising from insufficient returns due to the small size of its invested assets. Although adverse adjustment risk is initially low, our simulation-based analytical model shows that adopting a higher risk target materially moves forward the appearance of such risk, and so would not be warranted in our longer-term investment perspective.

Two-pool investment structure

We have carefully considered alternative investment structures that would enable us to maintain different levels of total risk in each of the two parts of the CPP, while also ensuring that the additional CPP account can benefit from all of CPPIB's existing comparative advantages, operational capabilities and the investment programs we have developed.

The economic benefits of CPPIB's investments (whether public securities or private assets) will be equitably allocated between the base CPP and additional CPP, because:

> We can account separately between the base CPP and the additional CPP for their respective economic interests; and
> New weekly CPP net cash flows can be invested (or generated) for each of the base CPP and the additional CPP in an equitable manner at the same time.

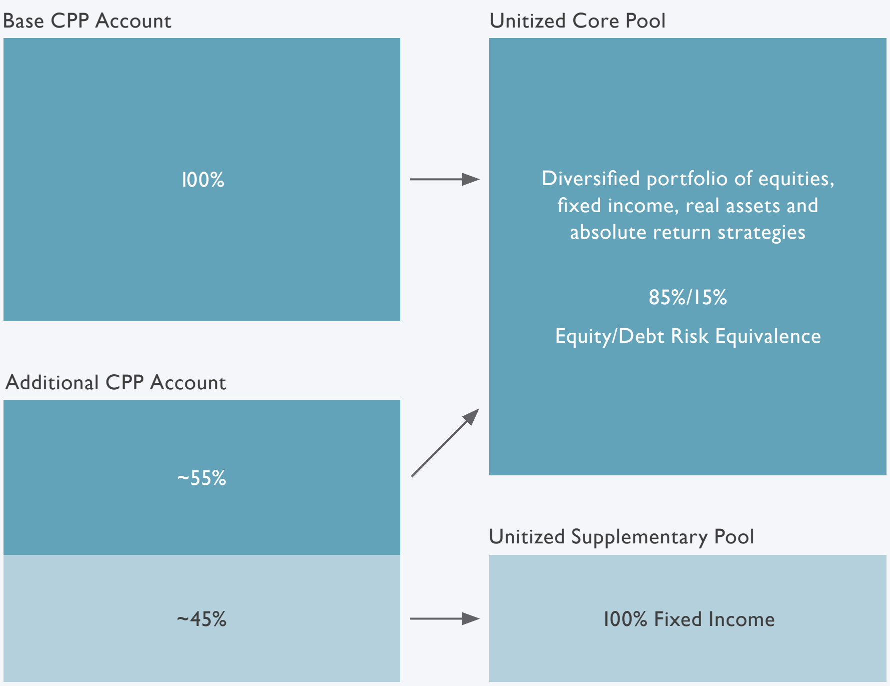
Second, as far as possible, the two future CPP accounts should be managed as cost-efficiently as the current single CPP account.

To meet these objectives, on January 1, 2019, CPPIB will establish two investment pools, each divided into units that are valued daily. Each of the base CPP and additional CPP accounts will invest through their holdings of these units. The "Core Pool" will initially consist of CPPIB's existing portfolio, which is held at the risk level appropriate for the base CPP account. Future net cash flows to or from base CPP will be allocated to the Core Pool. Also, a substantial proportion of additional CPP cash inflows will be allocated to the Core Pool, thereby allowing the additional CPP account to share proportionately in all of the investment programs in the Core Pool.

To achieve the targeted risk level and asset allocations for the additional CPP, the remaining assets of the additional CPP account will be invested in a lower-risk "Supplementary Pool", comprising only fixed-income securities. The Supplementary Pool is designed in such a way that, when combined in the right proportion with the additional CPP account's interests in the Core Pool, the resulting overall risk and the underlying exposures are appropriate for the additional CPP.

This two-pool structure allows CPPIB to apportion all opportunities, individual investments and investment programs fairly, continuously and efficiently between the base CPP account and additional CPP account. The structure respects the distinct risk targets of the base CPP and additional CPP accounts while avoiding the significant costs and complexity that would be associated with separate management of each account.

Proposed Two-Account, Two-Pool Investment Structure



Our investment strategy

In this section, we explain CPPIB's investment approach to meet the Fund's objectives.

What differentiates CPPIB's investment approach

The durable nature of the CPP Fund, our governance, our culture and the strategic choices we make help differentiate CPPIB from other investors. A number of comparative advantages drive our global competitiveness and determine our strategies to maximize long-term Fund returns.

Our inherent advantages

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

Long horizon – By law and its purpose, the CPP must serve Canadians for many generations to come. As a result, the CPP Fund has a much longer investment horizon than most investors. We can assess the prospects of our strategies and opportunities over decades, not quarters or years. And we can withstand short-term downturns to pursue higher long-term returns. Most investors take a shorter-term approach, whether by choice or because they are forced to by business pressures or legislation, and as such, are limited in their ability to access or retain certain investments. We can pursue these opportunities to the long-term benefit of the CPP Fund.

Certainty of assets to invest – The CPP Fund's future asset base is largely predictable and its pattern of cash flows into the future is quite stable. We can reliably expect annual contributions for the base CPP to exceed annual benefits paid through fiscal year 2021. More important, annual cash income generated in the base CPP investment portfolio is expected to comfortably exceed the amounts needed to pay base CPP benefits paid for the foreseeable future. Also, the additional CPP contributions will exceed benefits for many years to come. As a result, we are not forced to sell assets to pay benefits and can thoughtfully design and build programs in reliable anticipation of future investment needs. This certainty of assets and cash flows underpins our ability to act as a long-term financial partner in major transactions. Nevertheless, we carefully maintain sufficient liquidity at all times to make major new investments, meet any CPPIB contractual obligations and adjust the portfolio mix.

Evolution of our Investment Strategy

Since taking over responsibility in 1999 for the investment of the CPP Fund, CPPIB has steadily broadened the asset and geographical mix of the Fund, and added to the range of distinct strategies to enhance long-term returns.

1999 Invested for the first time in publicly traded Canadian and foreign stocks, by mirroring the composition of stock market indexes.

2001 Launched investment programs in private equity and real estate, initially through external funds and in later years increasingly through direct investments.

2003 Took on in-house management of our index-based equity portfolios.

2004 Initiated a degree of active equity management and acquired our first infrastructure assets, including toll highways, water supply facilities and electrical power generation and transmission systems.

2005 Removal of all legislated limits on investments in non-Canadian assets. We broadened our investments in both developed and emerging economies across the world. This has steadily reduced the Fund's dependence on the narrowly based Canadian economy and capital markets.

2006 Made the strategic decision to move progressively away from largely index-based investments towards the more active selection of investments, in order to capitalize on our comparative advantages. For accountability, we established the low-cost, readily investable Reference Portfolio as the passive investment benchmark for Fund returns.

2007 Began building major holdings of Canadian and Group of Seven (G7) industrialized country government bonds (beyond the legacy CPP Bonds inherited from 1999). This helps us to maintain the desired balance of equity, real assets and debt investments in the total portfolio, without undue reliance or influence on the Canadian market.

2009 to 2014 Expanded into private debt and commercial property mortgages (2009), income streams of intellectual property such as drug patent royalties (2010), agricultural land and other natural resource holdings (2013), and thematic investing (2014).

2014 to 2017 Broadened the range and size of public market strategies managed with external partners. We also initiated significant direct investments in operating companies with experienced management teams, as an efficient way to build scale in a defined sector or geography.

2017 to 2018 Following the passage of Bill C-26, began planning structural modifications needed to accommodate the equitable and efficient future investment of assets related to the additional CPP.

Scale – As one of the largest retirement funds in the world, we can access opportunities globally for which few others 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. Scale also enables us to develop the investment technology and operational capabilities needed to support those 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 advantages

The choices we make as an organization afford us three key strategic advantages:

Internal expertise – We employ a world-class investment team working from eight financial centres. We apply their skills to actively build an investment portfolio with a dual focus on maximizing both total and relative Fund returns. The global team combines depth, experience and broad expertise, both in managing assets internally and working with external partners. We are able to attract, motivate and retain high-calibre executives, investment professionals and operational specialists from around the world.

Expert partners – Through our scale, long-term partnering approach and other advantages, we engage the specialized resources and expertise of many top-tier external partners around the world. Our internal expertise allows us to mutually and effectively work as equals with these partners to maximize benefit for the Fund. We gain additional access to major investment opportunities, especially in emerging markets, and we enter co-investments and other joint efforts with them, in ways beyond the reach of many investors. Our external partners provide further rigorous research, in-depth on-the-ground analysis and local knowledge, and supply 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. As a result, we delve into 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 investment and program. Armed with this understanding, we can more effectively combine them into a truly diversified total portfolio that more accurately achieves our targeted overall risk and preferred mix of global exposures in order to maximize returns overall.

How we create value for the CPP Fund through active management

In 2006, CPPIB made the strategic decision to actively manage the Fund to a much greater degree, with the Reference Portfolio as the performance benchmark. See page 30 for more details about the Reference Portfolio. The long-term Investment Portfolio now stands at $356.3 billion. That is $19.3 billion higher than would have been the case had the assets at April 1, 2006 (plus all subsequent cash flows) earned the Reference Portfolio rates of return.

Pursuing an active, global strategy was a fundamental decision. We regularly review the strategy with rigorous analyses. Many investors seek above-market, risk-adjusted 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. But we believe that under our mandate we have an obligation to use our comparative advantages actively for the benefit of the Fund. We remain confident that our active management approach will generate significant and enduring value-building growth over the long term.

Success in active management requires not only real investment insights but also well-structured processes to capitalize on them. It also 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 having the right 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.

Another way for CPPIB to increase long-term returns is to conduct itself as an active owner or lender in the companies in which we invest. Engaging directly with companies can change attitudes and improve activities leading to more sustainable growth. We believe that responsible conduct not only boosts corporate returns, but also improves the functioning of capital markets for all stakeholders.

In 2016, CPPIB, along with McKinsey & Company, BlackRock, Dow Chemical and Tata Sons founded *FCLTGlobal* as a non-profit organization dedicated to developing practical tools and approaches that encourage long-term behaviours in business and investment decision-making. Today the organization comprises nearly 40 leading asset managers, asset owners, corporations and professional services firms. During 2017, *FCLTGlobal* published three new reports examining:

> The economic impact of short-termism;
> How and why corporations are moving away from quarterly earnings guidance; and
> How asset owners and managers can ensure assets are managed in line with long-term horizons through investment management contracts (mandates) better oriented towards long-term goals.

For more information, see fcltglobal.org.

The three sources of total portfolio return

We pursue the generation of absolute returns, and value added over the benchmark Reference Portfolio, through three basic sources:

1. Diversification;
2. Investment selection; and
3. Strategic tilting.

Active management directed at each of the three sources creates value for the CPP Fund in the following ways:

1. Diversification

We deploy the Investment Portfolio over the long term across a diversified set of asset classes and types, across countries and currencies, and across underlying return-risk factors. This is the single biggest influence on the Fund's total portfolio risk and return.

CPPIB's passive benchmark, the Reference Portfolio, contains only global public equities and nominal bonds issued by Canadian governments. Our decision to diversify very broadly beyond the Reference Portfolio, without increasing total risk, provides the most reliable source of additional long-term returns. We are able to maintain significant investments in almost all of the primary asset classes, both public and private, and in both developed and emerging markets around the world. These investments are of three broad types:

a) **Public markets securities** – The Fund profits from global economic growth through equity ownership and credit investments in public corporations around the world. To help diversify exposures and sustain necessary liquidity (the ability to readily sell assets when needed), the Fund also has meaningful holdings of government bonds.

Several of our public markets strategies employ both long and short positions (see call-out box). Because the values of long and short positions offset each other, simply measuring the *net* assets in our active public markets programs greatly understates their importance in the portfolio. To see their impact more fully, we calculate "assets under management", a figure that is more comparable to the size of assets in other areas. The chart on page 26 shows the growth of our active public market investments using this measure.

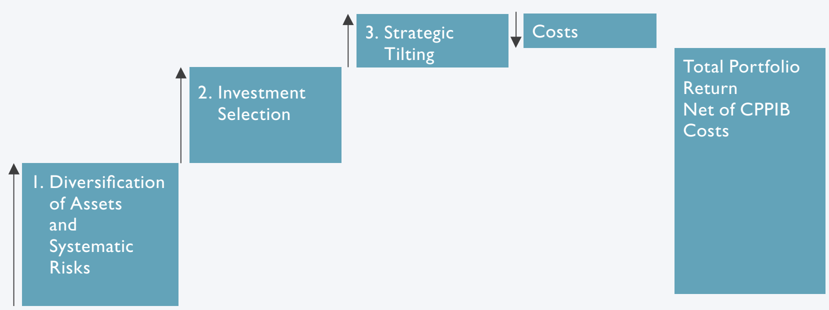
b) **Private company investments** – We invest in the equity and debt of privately held companies, and in other areas such as income streams from intellectual property royalties, both directly and through funds and partnerships. These investments generate returns from underlying corporate earnings in the same way as comparable public companies, plus a premium for illiquidity. However, we also expect well-selected private company investments to deliver extra returns – from optimal financing, superior management and value realizations. We expect these extra returns to more than cover the higher costs and any additional risks associated with these investments. Further, they diversify our investments into the smaller and mid-capitalization segment of equity markets.

> **Long and short investing**
>
> A long investment is one that generates a positive return when the underlying asset increases in value. An example is a price increase following a traditional stock purchase. A short investment is one that generates a positive return when the underlying asset decreases in value. In short selling, the investor sells a stock that he/she has borrowed, and buys it back later to pay off the stock loan. If the stock's price then is lower, the investor makes a profit. Taking both kinds of positions simultaneously can be structured to greatly 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.

c) **Real assets** – These investments generate returns from tangible assets through very different fundamental sources, such as property income, facility user fees, oil and gas revenues, etc. They include 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.

> **Systematic and non-systematic risks**
>
> Investment returns cannot be earned without accepting some form of risk – as the saying goes, there is no free lunch. 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 diminished through diversification, but not eliminated. We believe that over sufficiently long periods in aggregate, for market asset prices and income will adjust to deliver the returns required by investors to justify exposure to systematic risks. The market returns earned over time from systematic risk factors are often called "beta".
>
> > Non-systematic or "idiosyncratic" risks are those that are unique to a particular selected asset or investment. The gains or losses (relative to a benchmark index) that arise from intentional exposure to non-systematic risks are often called "alpha". Non-systematic risk can be substantially reduced through diversification within specific investment types, but this also reduces potential alpha.
>
> As research into markets continues, the line between market-based beta and skill-based alpha is increasingly blurred. Regardless of label, CPPIB balances risk exposures to focus on maximizing total net return, at the targeted total risk level, from all sources.

The Three Sources of Total Portfolio Return



To capitalize on our comparative advantages we have made a major commitment – approximately 50% of the Fund – to very broadly diversified investments in private markets. The reputation that CPPIB has earned 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. Private investments inherently offer a higher return to compensate for their illiquidity, which the Fund can absorb due to its long investment horizon and certainty of assets. Most important, the special expertise that we and our partners bring is a differentiating and durable strength for success in these markets.

The key to optimal diversification is to understand both the short-term volatilities and the long-term risks underlying each broad investment area and each investment program, and how they relate to each other. Only those investment areas and programs that have fundamentally different sources of value creation can offer true diversification. The risk and expected return of the total portfolio depends primarily on how we combine systematic and non-systematic risk exposures to meet our investment goals (see call-out box on page 25).

2. Investment selection

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

The potential amount of value-added from investment selection (in a reasonably diversified portfolio) is comparable to that from diversification. However, due to the highly competitive nature of investment selection, the long-term reliability of this value-added is less than the inherent returns from diversification. Further, seeking to outperform a market index through active management requires both covering its significant costs and achieving better returns than the average. And finally, markets become more "efficient" and harder to outperform as they mature. 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. The key to successful investment selection thus lies in employing the most skillful professionals, both internally and externally.

We believe that many of CPPIB's comparative advantages put the long-term likelihood of investment selection success in our favour. First, our scale and asset certainty enable us to identify and access world-class talent. 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 (both public and private) are often very different from the long-term intrinsic value and earnings potential

Growth of Active Investments in Public Markets

Asset Type ($ billions)	2005	2010	2015	2017	**2018**
Assets Under Active Management	1.4	16.2	66.3	71.7	**97.7**

Assets under management (AUM) for active investments in public markets is computed in the following ways: For internal long/short securities-based programs, we use the value of the long side of the program. For investments in externally managed funds, we use the reported net asset values. In fiscal years prior to 2017, certain AUM figures included an implied asset amount using a risk-based approach.

The chart below shows the growth of our private investing programs.

Growth of Private Markets Investing Programs

Asset Type ($ billions)	2005	2010	2015	2017	**2018**
Private Equity	2.9	16.1	50.4	57.8	**69.3**
Real Estate	0.4	7.0	30.3	40.1	**46.1**
Infrastructure	0.2	5.8	15.2	24.3	**28.6**
Other Real Assets[1]	–	–	–	8.7	**9.1**
Private Debt	–	0.9	8.0	16.8	**20.4**
Private Real Estate Debt	–	0.3	3.8	4.8	**4.7**
Total	3.5	30.1	107.7	152.5	**178.2**
% of Net Investments	4.3%	23.6%	40.7%	48.1%	**50.0%**

1. Other Real Assets includes Agriculture and Natural Resources. Prior to 2017, these amounts were reported within Private Equity.

Climate change

At CPPIB, we view climate change as one of the world's most significant physical, social, technological and economic challenges. Given our exceptionally long investment horizon, we actively address climate change to increase and preserve economic value, in accordance with our purpose. We make decisions in the best interests of current and future beneficiaries – including what and when we buy, hold or sell. To do so, we access and carefully evaluate data, science and prudent forecasts. As world energy markets transition to lower-carbon sources, the implications for investors will be far reaching.

We aim to be a leader among asset owners and managers in understanding the investment risks and opportunities presented by climate change. We understand that portions of our portfolio, including fossil fuel producers, are exposed to policy, technology, market and other climate change transition risks. These must be properly priced and offer sufficient potential return. At the same time, we expect new investment opportunities in sectors such as renewable power and resource efficiency to continue to emerge.

We obtain and review data, apply insight and expertise, and monitor developments as we construct our long-term portfolio, rather than set targets or timelines that could compel us to sell or buy assets at a sub-optimal time. This is an integral part of our overall investment approach. Doing this creates the best opportunities to maximize our returns. It also protects our holdings against potential losses, including losses arising from stranded assets, or simply overpaying for investments during the global energy transition.

Climate-change related initiatives we have underway include:

> **Climate Change Toolkit** – CPPIB is developing a toolkit that investment teams will use to better understand the impact of climate change on both our existing portfolio and potential investments. This includes risks at the company, sector and geographic levels. It will include regulatory monitoring, stress tests and a database of climate change analyses.

> **Energy Outlook** – When buying or selling energy assets, CPPIB teams carefully review energy demand forecasts as well as other factors such as regulation. To strengthen our visibility, CPPIB is developing a dynamic global energy outlook model to serve as a reference point for investment reviews and other portfolio decisions. It will incorporate indicators of the path and pace of the transition to a lower-carbon economy. Inputs will include a range of views from different organizations.

> **Carbon Footprinting Tool** – CPPIB is developing a proprietary platform for measuring greenhouse gas emissions and other climate change-related data in our public portfolio. CPPIB believes this information can help inform our investment process, and provide insights that will assist in the expansion of our measurement efforts beyond public assets in the future. As we develop this platform, we will closely monitor emerging best practices. The Financial Stability Board's (FSB) Task Force on Climate-related Financial Disclosures, of which CPPIB is a member, has said there are challenges and limitations with carbon footprinting metrics that have an effect on their usefulness as risk metrics, but there is nevertheless value in disclosing them to prompt important advancements in this area. We agree with this position. CPPIB will continue to encourage businesses to disclose this data to better inform investing decisions.
>
> The FSB's Task Force on Climate-related Financial Disclosures published its recommendations in June 2017. CPPIB is aiming for full adoption of these recommendations by fiscal 2021.

> **Renewables** – In late 2017, we created a stand-alone Power and Renewables Group dedicated to expanding our renewables portfolio. It will take advantage of growing opportunities as global demand for low-carbon energy grows and the sector's cost efficiency improves. Where these investments can be shown to provide attractive risk-adjusted returns for our contributors and beneficiaries, we will pursue them. We will grow our renewables portfolio based on the quality of the opportunities, carefully considering their value as long-term investment prospects.

To learn more about our Sustainable Investing approach, please see page 38.

that matter most to CPPIB. This creates opportunities for insightful management. Careful investment selection focused on the long term can succeed in virtually every asset class except the most price efficient, and particularly so in less-developed markets. Further, skilled management using long/short strategies in public markets can add value whether markets are rising or falling. Such pure alpha return is extremely valuable as, properly controlled, it adds relatively little to total risk in the portfolio while contributing significantly to total return.

Outperforming competitive markets is a challenging task, and doing so sustainably is even more so. The opportunity to add value also changes as market conditions favour one strategy or another. To stabilize overall performance, we carefully diversify investment selection across 25 distinct programs managed by separate groups. Several programs involve more than one strategy and some employ many. These include:

a) **Large, complex transactions** – Taking advantage of special opportunities available only to large, sophisticated investors. Alone or with partners, we can access, structure and carry out major, complex transactions globally in private and public equity, principal lending, infrastructure, real estate and natural resources.

b) **Private markets deals** – Skillfully selecting, negotiating and financing individual private equity and debt investments. During the holding period for ownership interests, we may be able to contribute meaningfully to operating improvement. Not being forced to sell, we can exit or realize investments at a time of our choosing on advantageous terms. The specialized teams in our Private Investments, Real Assets and Investment Partnerships departments focus on this activity, along with their expert external partners.

c) **Long-term value investing** – Buying and selling individual public securities or sectors that are substantially mispriced relative to their intrinsic value. With our long investment horizon, we can be patient and profit from longer-term indicators more than most other managers. Both our Fundamental Equities and Quantitative Equities groups, along with select external specialist managers, apply their expertise with this orientation.

d) **Thematic investing –** Investing through "themes," by correctly anticipating long-term structural changes and broad trends such as demographic shifts or alternative energy transitions. These are developments, which emerge over the longer term, that we expect will significantly influence the growth, earnings and stock prices of a particular segment of companies, whether directly or indirectly. Our specialized teams develop tailored investment portfolios to capitalize on these trends, working with external partners where appropriate.

We regularly review the thinking behind all investment selection programs as well as their execution. This lets us assess whether the programs remain likely to deliver meaningful and sustained value for the costs and risks involved. If our conclusion changes, we adjust or curtail the strategies.

3. Strategic tilting

Strategic tilting is a deliberate, meaningful but temporary shift of asset allocations and factor exposures away from the total portfolio's established long-term targets. We do this when we have sufficient confidence that there are disparities between current market pricing and long-term fundamental values for specific asset classes. We buy when current pricing indicates that the future returns will be above our long-term expectations. It is a value-oriented contrarian strategy, which may go against prevailing market trends.

For example, we may increase our exposure to public equities in a geographic region where the market is falling and prices have become unduly depressed. We sell when we project nearer-term future returns will be below long-term expectations.

Two key beliefs underlie our use of strategic tilts to help generate additional returns for the Fund:

1. We observe that asset prices have shorter-term momentum but tend to revert to their fundamental value over time. Thus we believe that in the medium term, asset class returns or factor returns are somewhat predictable.
2. The strategy aligns with our long investment horizon and the ability to withstand short-term adverse movements. This allows us to be more concerned with the potential size and likelihood of the opportunity or risk, and less concerned with precisely when the assets will return to their fundamental values.

We are developing our Strategic Tilting program, and have a relatively new team dedicated to managing tilt positions internally, subject to Board-approved risk limits. While strategic tilting is not typically as powerful in the long run as the other two sources of returns, it can at times add materially to total returns, protect Fund asset values, or both.

Balancing internal and external expertise

Because of our size and professional environment, we can maintain expert internal teams to manage large parts of the CPP Fund. This has two main benefits.

First, the benefit of internal management comes from the range of expertise that we bring to assessing investments and strategies:

> Our Fundamental Equities group has the management experience to make a major contribution to the corporate growth and operational strategies of selected public companies in which we take a substantial stake;
> Our Quantitative Equities group can bring to bear the advantage of using longer horizon indicators combined with world-class analytical and modelling capabilities;
> All groups in our Public Market Investments department can draw on specialized strategies, trading and structuring capabilities. These are designed specifically for our programs and their execution;
> The professionals in our Real Assets, Private Investments and Investment Partnerships departments have the ability to engage and co-invest as equals with well-aligned external partners. These partners provide access and specialist capabilities in a wide range of private investments around the world; and
> Our international offices are a critical component in maintaining valuable relationships and partnerships in all international markets.

Our view on currency hedging

Many Canadian pension funds make substantial use of currency hedging, which reduces the reported shorter-term impact of foreign exchange rate changes on the Canadian dollar value of their foreign investments. Hedging has a financial cost, however. Also, when the Canadian dollar depreciates, hedging requires setting aside cash or generating it quickly to meet hedging contract obligations.

We believe extensive hedging of foreign investments is not appropriate for the CPP Fund for the following reasons:

1. For a Canadian investor, hedging foreign equity returns reinforces, rather than reduces, their inherent risk. This is due to the Canadian dollar's status as a commodity currency. The dollar tends to strengthen when global equity markets are rising and weaken when they are falling. We believe that the Canadian dollar will continue to behave in this pro-cyclical way, but we do not believe that there will be sufficient return to compensate for accepting this risk.
2. 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 mean increased earnings for CPP contributors as a result of higher real wages. As earnings rise, so will contributions into the Fund. This represents a natural hedge for the CPP and reduces the need for explicit currency hedging of the CPP Fund's foreign investments.
3. The cost of hedging currencies of many developing countries is high. And if these countries continue to experience higher productivity and economic growth as their economies mature, their currencies should tend to strengthen.
4. We already substantially mitigate the volatility of individual exchange rates by holding a broadly diversified set of currency exposures across the world, as shown on page 46.

Accordingly, for the most part, we do not hedge foreign currency exposures to the Canadian dollar. The exception is when foreign sovereign bonds are used as a liquid substitute for Canadian government nominal bonds.

In the short term, deciding not to hedge can work in either direction. In years of major strengthening or weakening of the Canadian dollar, total performance of the CPP Fund will differ from funds with a standing policy of greater hedging. For example, when the Canadian dollar strengthened along with global equities and commodity prices in fiscal 2010, the Fund generated $16 billion in overall investment returns. This occurred despite a $10.0 billion loss in the Canadian dollar value of our foreign holdings. On the other hand, in fiscal 2014 we realized a currency gain of $9.7 billion as foreign currencies strengthened against the commodities-driven Canadian dollar. Currency movements had a positive impact on Fund returns in fiscal 2018.

STRATEGY

Second, internal management avoids external fees and lowers other management costs. We often have the skills to carry out activities similar to those of external management firms with comparable expertise but at a materially lower cost. Every dollar saved is additional net income for the Fund and it is much more certain than a dollar of possible return. More detail on how we control costs can be found in the Managing CPPIB Costs section on page 49.

However, we also recognize the enormous breadth of external expertise that can benefit the Fund. We will consider engaging an external manager in any strategy that we cannot execute as effectively on our own. These strategies must be relevant, distinct and meaningful and we must be able to scale them up as the Fund grows. Expert external managers not only provide specialist strategies, they often also share valuable knowledge with us as long-term partners.

The Board of Directors approves all external manager appointments above certain limits. 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. We are mindful of principal/agent conflicts. As such, 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 and Co-Investments (FSC) and External Portfolio Management (EPM) groups have the internal depth and knowledge to successfully evaluate strategies and managers in both public and private markets around the world. Selecting, mandating, monitoring, managing and replacing external organizations demands skills that are quite different from those required to select individual investments. The experience and insights of our team enable us to distinguish solid, sustainable opportunities from those that are fleeting, weakly founded or poorly executed.

Our total portfolio investment framework

Since the adoption of our current long-term business plan in fiscal 2015, we have progressively developed our investment framework to implement the structures, accountabilities and methodologies that we believe will best enable CPPIB to meet its investment objective. We have a dual focus:

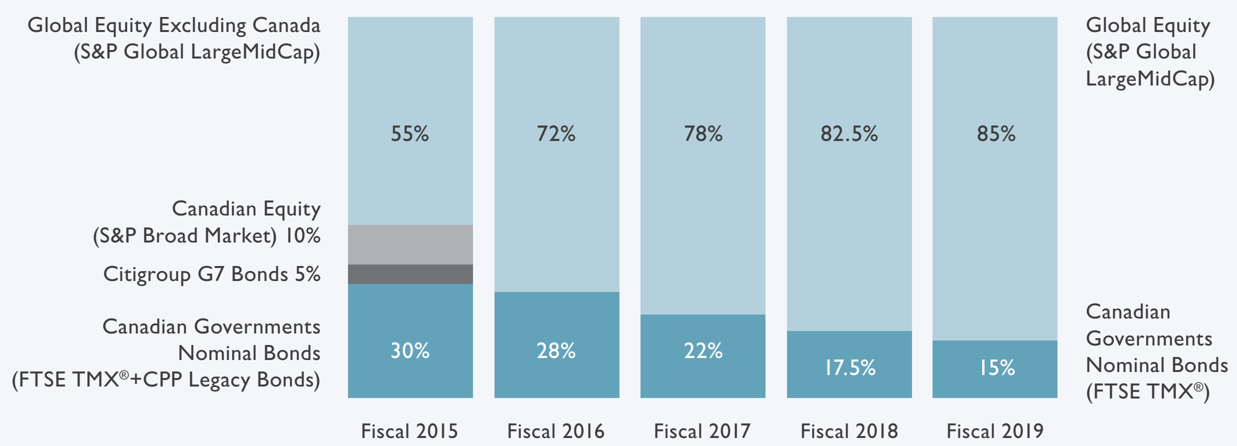
> To achieve long-term total returns that will help sustain the CPP and pay pensions; and
> To use our comparative advantages to earn long-term net value-added returns above what would be achieved through a low-cost, passive investment strategy.

When assessing the sustainability of the base CPP, the Chief Actuary currently assumes a long-term net annual return averaging 3.9% after inflation. If through active management we could consistently deliver returns averaging 0.5% per year higher, then:

> The minimum contribution rate for the base CPP, as determined by the Chief Actuary, could eventually be reduced from the current 9.79% of covered earnings to 9.43%. If the statutory contribution rate were correspondingly reduced, that would be equivalent to a combined savings to employees and employers of more than $1.8 billion annually at current earnings levels; or, benefits could be adjusted.
> Alternatively, the additional returns could be held in reserve to strengthen the sustainability of the CPP.

At the same time, we must always manage CPPIB's investments responsibly for current and future generations. We must strike the right balance along the return-risk spectrum. Due to the financial design of the CPP, what is prudent for the CPP Fund is materially different than for most other pension funds and individual portfolios. In other words, the measure of "undue risk of loss" is highly specific to the particular circumstances of the CPP and each of the base and additional CPP accounts. Given the durability of the CPP and the Fund, while we should not be complacent, nor should we be concerned primarily with short-term return volatility. Rather we can and should be concerned with potential short-, medium- and long-term outcomes, appropriately balancing at

Reference Portfolio – A Shift Along the Return-Risk Spectrum



all horizons the potential investment rewards against risks that could lead to increased CPP contributions or reduced CPP benefits.

To successfully maximize returns from all three sources while controlling the variety of risks, our Total Portfolio Investment Framework has four principal components:

1. Risk Appetite – as expressed by the Reference Portfolio
2. Diversification – represented by the Strategic Portfolio
3. Management – executed through the Target, Active and Balancing Portfolios
4. Monitoring of Risk – maintained through the near-equivalent absolute risk of the Investment Portfolio and the Reference Portfolio.

1. Risk appetite – the Reference Portfolio

The foundation of the investment strategy for any portfolio is to determine a prudent and appropriate 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 risk levels below that of a portfolio comprising 40% global public equities and 60% Canadian governments' nominal bonds will ultimately fail to sustain the CPP. As noted previously, however, there are major potential benefits to achieving better long-term returns, by undertaking a significantly higher – but still prudent – overall risk level.

Based on very long-term projections, the Chief Actuary estimates that contributions for the base CPP will finance 65-70% of future base CPP benefits. Investment returns will finance 30-35%. In other words, contributions will be almost twice as important as investment returns in sustaining future base CPP benefits. This is very different than most fully funded defined benefit pension plans. These types of plans, and the additional CPP, are much more dependent on investment returns to finance the larger share of long-term benefits. Hence, they are generally more risk-averse than the base CPP and are much more sensitive to investment losses. Accordingly:

> A truly long-term investment perspective can be supported. Over a long-time horizon, the higher returns associated with increased but prudent risk tend to offset the effects of short-term volatility as the time horizon lengthens.

> For the base CPP, short-term volatility in returns has much less impact on the CPP's minimum required contributions than it has on conventionally funded plans.

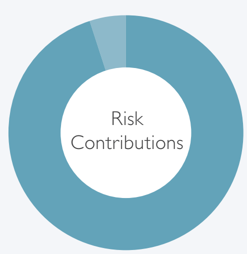
> Positioning the base CPP account at a higher-than-average equity/debt risk equivalence significantly reduces the medium- and longer-term risks of adverse adjustments to the base CPP.

"Global equities" includes both developed and emerging markets; it takes into account their evolving market capitalization. Because we no longer 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 Portfolio. As of March 31, 2018, this market weighting was approximately 2.6%. However, the actual Investment Portfolio 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.

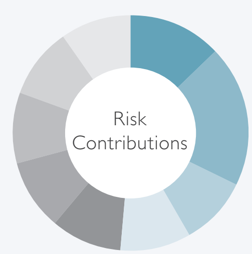
Given these key factors, in fiscal 2014, the Board and Management of CPPIB concluded that the risk level of the Fund could and should be increased over time, with a corresponding increase in expected long-term returns. We express the appropriate risk target by means of the Reference Portfolio. This two-asset-class portfolio comprises only public market global equities and fixed-payment bonds issued by Canadian governments. Each class is represented by broad market indexes that

Characteristics of Investment Portfolio with Enhanced Return-risk Profile

Simple Portfolio in Two Asset Classes



Illustrative Portfolio in Multiple Asset Classes



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

could be passively invested in at minimal expense. The chart on page 29 shows the progression of the Reference Portfolio.

CPPIB Management and the Board of Directors review the Reference Portfolio at least once every three years. They take into account the increasing maturity of the CPP, its evolving funded status and their best estimates for long-term economic and capital markets factors. We have reviewed the Reference Portfolio for the base CPP following the release of the 27th Actuarial Report, simulating both the likelihood and potential size of the impacts of investment returns and risks at different portfolio asset allocations. The potential range of impacts on future contributions and benefits is calculated over successive future actuarial reviews and multiple economic/investment scenarios. After analyzing these simulations, we have concluded that a Reference Portfolio consisting of 85% global public equities and 15% nominal bonds issued by Canadian governments is appropriate for the base CPP account with effect from April 1, 2018. For fiscal 2018, the Reference Portfolio weights progressed linearly from 80% equity/20% debt at the start of the year to 85%/15% at the end, i.e. average weights of 82.5%/17.5% during the year.

See page 21 for the corresponding discussion for the additional CPP.

Fund return benchmark

In addition to serving as the expression of long-term average appetite for absolute risk, the passive Reference Portfolio, whether for the base or the additional CPP, performs a second function as the benchmark for the total net return of the Investment Portfolio. While the applicable Investment Portfolio generally has a risk level similar to the all-public Reference Portfolio, there are wide differences between these two portfolios:

> The Investment Portfolio has a much broader composition of asset classes and is actively managed;
> Public and private investments are valued quite differently. Because the Investment Portfolio contains approximately 50% in private assets, and the Reference Portfolio is 100% public assets, this alone can cause quite wide short-term divergences between the values and returns of the two portfolios; and
> The long-term active strategies of the Investment Portfolio take time to demonstrate results relative to the Reference Portfolio benchmark.

As a result, we focus ongoing performance assessments on the outcomes over five- and 10-year periods. See page 47 for more details.

2. Diversifying sources of return and risk – the Strategic Portfolio

As noted, we manage the Investment Portfolio to closely match its total absolute risk with that of the Reference Portfolio. But that does not mean that we simply hold 85% of the Fund in equities, or even in equity-like exposures. This would be imprudent, as the portfolio's downside risk would be almost completely dominated by a single risk factor – that of the global public equity markets.

We can, however, build a portfolio with a superior return profile for a similar amount of risk by blending a variety of investments and strategies that fit CPPIB's comparative advantages. Each of these strategies offers an attractive return-risk tradeoff of its own, and their addition clearly reduces the dependence on public equity markets.

First, we can invest in a higher proportion of bonds and add two major asset classes with stable and growing income: core real estate and infrastructure. By themselves, these 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 publicly traded companies with privately held ones;
> Substituting some government bonds with higher-yielding credits in public and private debt;
> Judiciously using leverage in our real estate and infrastructure investments, along with increased investment in development projects;
> Increasing participation in selected emerging markets; and
> Making significant use of "pure alpha" investment strategies, which rely on the skills and experience of our managers.

However, even with these additions the resulting diversified portfolio would still carry a lower risk level (and thus lower expected long-term return) than we believe is appropriate for the Fund's objectives. Clearly, we do not wish to reduce high-quality but lower risk assets where we have particularly strong comparative advantages. Therefore, to raise the risk level and expected returns, we make use of a limited degree of leverage through the issuance of CPPIB short- and medium-term debt and the use of derivatives. Leverage enables us to:

> Increase our gross holdings of all asset classes, but particularly of lower risk asset classes that generate attractive risk-adjusted returns;

Strategic Portfolio Asset Class and Geographic Classifications and Percentage Weights

Asset Class	% Weight
Public Equity	33%
Private Equity	22%
Public Fixed Income (high-quality government issues)	25%
Credit Investments (private debt and public fixed income excluding high-quality governments)	14%
Real Assets (public and private, including real estate, infrastructure, resources, agricultural land)	26%
Cash and Absolute Return Strategies[1]	(20%)
	100%

Geographic Region	% Weight
Canada	13%
Developed Markets ex-Canada	65%
Emerging Markets	22%
	100%

1. 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 risk level, and helps maintain necessary liquidity.

> Maximize the dollar return potential at the targeted overall risk; and
> Maintain sufficient liquidity at all times.

Using these tools, we build the Strategic Portfolio in three steps:

1. We first design an optimal strategic mix of key return-risk factor exposures (the "Strategic Exposures" – see page 31 for more information) best suited to meet the Fund's objectives. We do this by looking at the underlying return-risk characteristics of each asset type and incorporating the effects of active management strategies and leverage. We do not impose any investment restrictions other than the practical market limitations facing a fund of our size. The mix of factor exposures is designed to maximize expected long-term returns, at the same total absolute risk as the Reference Portfolio.
2. We then review our current and anticipated investment programs to determine the appropriate portion that each should have in the total portfolio in order to deliver the desired overall exposures. We achieve this partly through active selection programs, and partly through programs designed to passively deliver specific factors.
3. We then translate these planned program allocations into the resulting long-term weightings of six distinct public and private asset classes, as shown on page 31. This Strategic Portfolio also expresses our long-term plan for allocating assets to three geographic regions.

The result is a very broadly diversified aspirational portfolio of investment programs at the intended total risk level. It has significantly higher expected return than the Reference Portfolio, and greater resilience to extreme downturns.

The strategic factor allocations we choose provide a clear guide for our selection of investment programs and strategies as the Fund continues to grow. They lead to a set of "Signals" provided to investment departments that help each investment program execute its specific mandate and collectively deliver the targeted factor exposures over time. For each investment group, each Signal sets out:

> The nature, areas and types of investments;
> Intended contributions to total portfolio return-risk profile;
> Targeted size of assets and/or risk allocation in five years' time;
> Long-term expected risk and returns characteristics; and
> Geographic, sector and other guidelines.

We review the Strategic Portfolio at least every three years, when we review the Reference Portfolio.

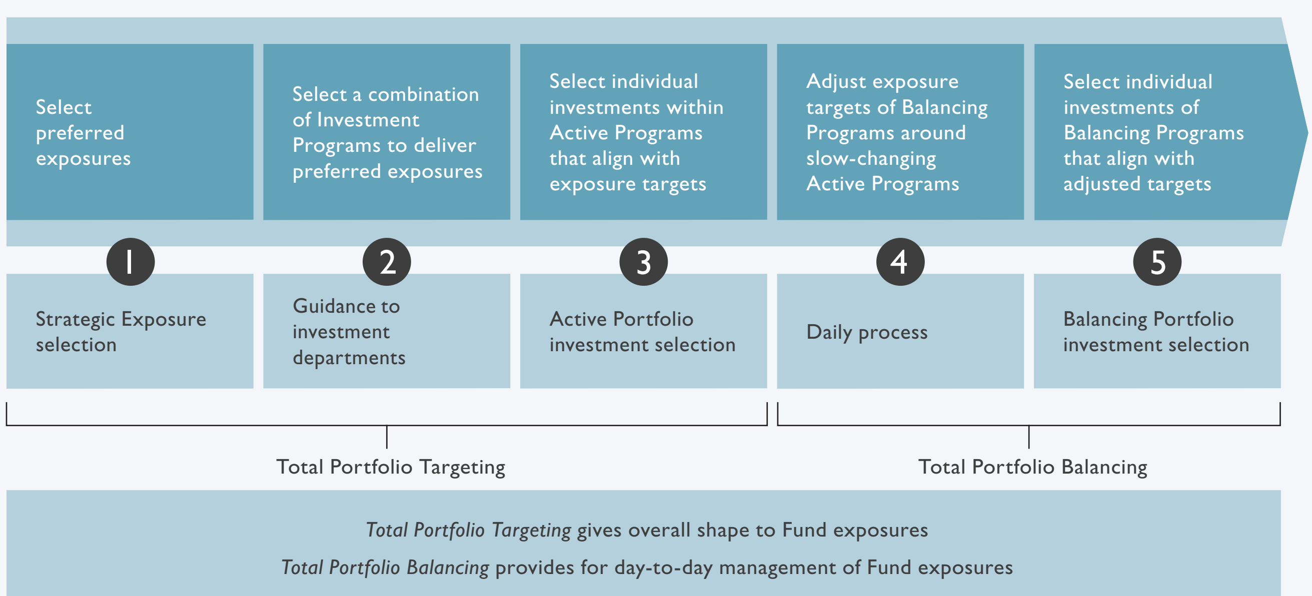
3. Management – the Target, Active and Balancing Portfolios

While the Strategic Exposures and Signals represent a long-term plan to deliver on the Fund's objectives, the actual Investment Portfolio must also take into account the practical business and investment plans of each investment department and group. In addition, the values of portfolio investments change daily as investments are bought, sold and re-priced, so there is inevitable movement in the weights of portfolio holdings and risk-return factor exposures.

We address these naturally changing weights with our Target Portfolio bands and Balancing Process. These control how we actually invest assets today and over the upcoming fiscal year. The Target Portfolio uses the same six asset classes and three geographic regions as the Strategic Portfolio. It sets out the permitted ranges in terms of percentage weights for each asset class and geographic region over the year. We may also add more specific limits, such as investments allowed in a single country.

As always, 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 or geographic region. However, the Target Portfolio bands ensure that we achieve the desired growth, balance

Total Portfolio Investment Framework



and control of total portfolio asset allocations. They enable us to direct available resources to the best areas of long-term opportunity.

To manage the Investment Portfolio effectively, we view it in two components – the Active Portfolio and the Balancing Portfolio:

> The Active Portfolio is the collective holdings that directly result from the specific investment selections of the investment departments, guided by their programs' Signals.
> The Balancing Portfolio comprises the remainder of total assets, held entirely in readily tradeable public market securities. Knowing the return-risk factor exposures delivered by the Active Portfolio at any time, we can adjust the Balancing Portfolio to maintain the currently targeted mix of exposures for the total portfolio without undoing any strategic tilts, subject to the Target Portfolio bands, absolute risk limits and sufficient liquidity.

The Balancing Process aggregates the risk and factor exposures of the Active and Balancing Portfolios daily. When these aggregate exposures vary too much from the intended total portfolio allocations, or total portfolio risk may exceed governance limits, we make optimal trades within the programs comprising the Balancing Portfolio to bring the Investment Portfolio back into line.

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 often is their internal financial leverage. 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 need a unified measure of total exposures to each of the key return-risk factors that can be used throughout the Total Portfolio Investment Framework. We achieve this by modelling and mapping each investment or program based on the extent to which each risk factor affects it. The key factors identified in our management risk model include:

> Movements in equity markets;
> Interest rates;
> Term spreads in government bonds;
> Credit spreads over government bonds;
> Private and real assets characteristics;
> Country and regional influences;
> Residual volatility and correlations of factors; and
> Illiquidity.

When we construct portfolios, we take into account how much exposure we want to each risk factor. We also use these factors to analyze how potential major new investments will affect the exposures of the total portfolio. As markets, security prices and investment values change, the Total Portfolio Approach drives how we rebalance the portfolio and avoid unintended risk exposures. For example, it has enabled us to prevent equity-like risk from accumulating in the portfolio through alternative asset classes.

4. Monitoring of risk

In fiscal 2018, CPPIB completed development of its Long-Term Risk (LTR) model. This model is used to measure and compare potential investment losses over longer horizons of the Investment Portfolio with that of the Reference Portfolio for overall governance and control purposes. The LTR model encompasses five key principles:

1. Historical data is a reasonable starting point. The model is informed by a long time period with a sufficiently wide range of economic and market conditions. We chose the historical period since 1971.
2. Risk is forward looking. The model incorporates forward-looking views on key factors driving potential losses over longer time horizons.
3. Primary quantification of potential reported loss is expressed over a five-year horizon, using a Conditional Value-at-Risk measure. This incorporates both the size and likelihood of potential reported losses.
4. Inclusion of all major contributors to reported losses. This includes systematic risks, the idiosyncratic risks that are particular to an asset, and active portfolio management decisions.
5. Translation of the absolute value of the LTR risk metric into its equity/debt allocation percentages equivalent, represented by the same market indexes as in the Reference Portfolio.

Using the LTR model, the Balancing Portfolio is managed so as to maintain the equity/debt equivalent risk of the Investment Portfolio at all times within Board-approved limits around the Reference Portfolio.

How the Board governs investment strategy

Board governance of the investment strategy has five basic approval elements:

1. **Absolute Risk Limits** – The lower limit is the level of risk below which expected returns are so low as to lead to an immediate challenge to CPP sustainability. The upper limit is the maximum degree of risk the Board believes is justifiable for the Fund, beyond which further risk-taking would be undue. Risk is expressed in portfolio equity/debt risk equivalence terms.
2. **Reference Portfolio** – Every three years, the Chief Actuary releases a report on the CPP. Using this information, Management proposes the Reference Portfolio as a simple, low cost, readily investable portfolio carrying an appropriate level of risk. This expresses the total absolute risk target for the Investment Portfolio as being on a long-term average basis equivalent to that of the Reference Portfolio. It is also the benchmark for total net return performance of the Investment Portfolio.

Aligning the Investment Framework Throughout the Organization

3. **Business Plan** – This annual exercise sets out the current and longer-term investment and operating plans for each department. The plan includes confirmation or adjustment of the Strategic Portfolio and the Target Portfolio ranges. The Board also approves the Absolute Risk Operating Range (AROR) for the upcoming fiscal year, always within the Absolute Risk Limits. Expressed in equity/debt equivalent terms, the AROR limits how far the total risk of the Investment Portfolio can stray from that of the Reference Portfolio without specific Board approval.
4. **Risk Policy** – The Board approves this internal document annually. It formalizes the constraints in the three previous elements and sets out the measures the Board and Management will use to monitor and control risks. It also spells out limits on other risks, such as credit risk and the exposures to counterparties.
5. **Investment Statement** – The Board approves this external document annually. Required by the Regulations to the *CPPIB Act* and published on our website, it sets out the investment objectives, policies, long-term return expectations and risks management for the Investment Portfolio.

As required under the *CPPIB Act*, the Board also approves:

> Investments above authorized size thresholds; and
> The appointments of external managers, delegating to the CEO those appointments where assets under management will be below a defined level.

> At times, Management may propose a strategic tilt in the total portfolio composition. If the tilt would take the portfolio outside the Target Portfolio ranges and/or the Absolute Risk Operating Range, the Board must approve it first. If market changes alone take the portfolio materially outside the Target Portfolio ranges, Management must either:
  - present the Board with a plan to address the situation; or
  - request a variance for a specific time period.

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

> Investment Portfolio growth and composition;
> Management's progress against the year's investment plans;
> Total portfolio risk and other risk measures;
> Total returns, and individual program contributions; and
> Value-added, net of all costs, versus the Reference Portfolio.

How we maintain management accountability for risk-taking and performance

Successful investing requires clear decision-making and accountability, and informed risk-taking. It also requires competitive compensation and carefully aligned performance-based incentives. The diagram on page 33 shows how we align all our activities throughout the organization.

Investment Planning Committee

Management's Investment Planning Committee (IPC) is the primary committee of senior Management with investment responsibilities. It has overall accountability for the long-term Investment Portfolio. The IPC proposes the Risk Policy and other governance elements to the Board, and is then responsible for ensuring control of overall portfolio return-risk exposures within the Board governance framework outlined above. Each year, the IPC also approves the investment plans and Signals (as described on page 32) for all investment departments, and recommends them for CEO approval.

Taking into account recommendations by departments and IPC subcommittees, the IPC provides or approves: the framework for governing, targeting, measuring and managing investment risk, and the Total Portfolio Investment Framework described on page 29. The IPC also approves:

> Long-term strategy to balance and optimize the three sources of returns (see page 25);
> Appetite for distinct return-risk factors in the Investment Portfolio;
> Approach for managing other broad factors such as emerging markets exposure, climate change and sustainable investing practices;
> Appropriate use and limitation of leverage in various forms. This includes recommending to the CEO and Board the level and form of full recourse borrowing by CPPIB;
> New investment programs and their mandates, as well as recommendations to curtail programs; and
> Principles and frameworks for key models and methodologies.

The IPC is also responsible for monitoring performance and risk exposures of the Investment Portfolio, and evaluating the success of programs. The IPC delegates specific authorities and responsibilities to investment and operational departments for certain recommendations, next-level down decisions, implementation and program monitoring.

The IPC may undertake strategic investments that will fall under its accountability, while delegating their day-to-day management to a particular investment group.

The IPC has designated two subcommittees, one dealing with Strategic Tilts and the other with Liquidity. The former oversees the activities of the Strategic Tilting group, as described on page 37. The latter oversees the overall liquidity position of the Fund. CPPIB has the ability to raise funds through the issuance of commercial paper and medium-term notes, as well as other methods, which provide flexibility in managing total Fund liquidity. During the fiscal year, CPPIB expanded both our commercial paper and medium-term note programs as described on page 59. These borrowings continue to carry the highest AAA credit ratings from Standard & Poor's, Moody's and DBRS.

Measures of success for the IPC are:

> Absolute returns on the Investment Portfolio;
> Total net dollar value-added relative to the Reference Portfolio; and
> The delivery of a total portfolio at the targeted risk level, that is soundly diversified across return-risk factors and progressing efficiently as planned towards the Strategic Portfolio.

Investment risk management

The Risk group within the Finance, Analytics and Risk department independently provides the Board, the Senior Management Team and the IPC with basic and supplementary risk assessments. These include sensitivities, historical and predictive stress tests to estimate the potential impacts of major events. For example, we model the potential impact of historical incidents similar to the global financial crisis of 2008–09 and predictive stresses such as Brexit.

We use multiple statistical techniques including Value-at-Risk to measure the aggregated level of market risk, which includes equity, currency, interest rate and other risks within our portfolios over a specific timeframe (see page 33). An important element in this measurement addresses credit risk. This is the potential loss if borrowers default on loans from CPPIB, or if counterparties in financial contracts fail to meet their financial obligations to CPPIB.

Investment risk management is a key part of the Risk Framework, as described on page 70.

Transaction approvals

Investment Management Authorities established by the CEO set out the authorities of investment departments to make specific investment transactions for the Fund. The Authorities include the requirement for approval of transactions above certain sizes by one of two committees – the Credit Investments Committee (CIC) for credit-related investments and counterparties, or the Investment Departments Decision Committee (IDDC) for all other types of transactions. Approval by the Investment Committee of the Board is also required for transactions above certain sizes.

Investment departments and groups

Each investment department or group therein is accountable for:

- Decisions to propose or reject new strategies, and to resize or reposition existing strategies, within the overall IPC and Signals guidance for total portfolio exposures;
- Identification, access, selection, sizing and exit of investment opportunities and partners;
- Individual investment transactions to build and manage portfolios as guided by the applicable Signals; and
- Cost-effective execution of active portfolio management programs within their mandates.

Measures of investment success for each department or group include both absolute returns and the value-added, after all costs, compared to appropriate risk-adjusted benchmarks. Equally important is their contribution towards delivering the targeted return-risk factor exposures and total return of the Investment Portfolio.

Risk/Return Accountability Framework

Accountability	Risk/Return
Board of Directors[1]	> Reference Portfolio > Strategic Portfolio
Human Resources and Compensation Committee[1]	> Compensation and incentive frameworks
Investment Planning Committee	> Target Portfolio Ranges > Departmental asset and risk targets > Program approvals and Signals > Total portfolio risk management > Investment Portfolio returns and DVA
Investment Departments	> Active programs to generate exposures, returns and value-added
Total Portfolio Management	> Balancing programs to deliver intended total return-risk factor exposures

1. Approval of Management recommendations.

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. It ties incentive compensation to the following elements:

1. Total Fund investment results, with equal weighting given to total return and value-added relative to the Reference Portfolio. Both are calculated over rolling five-year periods;
2. Department and group performance, measured against a variety of objectives set in the annual business plan; and
3. Individual performance.

Full details of our compensation system, in the Compensation Discussion and Analysis section, begins on page 76.

Investment program returns for incentive compensation purposes are calculated after deducting all investment costs, external manager and other fees, as well as internal operating expenses.

How we set benchmarks and value-added targets

At the total portfolio level, returns on the Reference Portfolio form the benchmark. At the investment group level, the Finance, Analytics and Risk department sets specific benchmarks and long-term competitive value-added targets for each program. These targets represent 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 for determination of actual and benchmark returns at the total Fund level and report their findings to the HRCC.

Below are specific benchmarks used for individual investment programs, to which a competitive value-added target is added for each program:

Public Markets: Most active programs aim to generate returns that are largely independent of market movements. At the start of each year, we establish risk allocations and target Information Ratios for all programs. An Information Ratio is a risk-adjusted measure of performance, calculated as the net value-added divided by its annualized volatility. The combination of risk allocation and Information Ratio gives us return targets for the respective programs. For any program incorporating deliberate systematic risk, a representative public index (or blend) is used as the benchmark.

Private Equity: Large/midcap public equity index for Developed or Global markets depending on the program.

Natural Resources: Developed Energy large/midcap public equity index.

Infrastructure: Weighted blend of indexes of global large/midcap public equities and G7 government bonds.

Private Credit Investments including Intellectual Property: Weighted blend of three indexes – U.S. leveraged loans, U.S. high yield corporate bonds, and emerging market bonds.

Private Real Estate Equity: Global Property Fund Index.

Private Real Estate Debt: Weighted blend of indexes of investment-grade Real Estate Investment Trust (REIT) bonds and leveraged loans.

Investment departments overview

This section provides an overview of the responsibilities of our investment departments for fiscal 2018:

> Total Portfolio Management (TPM)
> Public Market Investments (PMI)
> Investment Partnerships (IP)
> Private Investments (PI)
> Real Assets (RA)

Details about the fiscal 2018 and longer-term performance for the Balancing Portfolio, directed by TPM, and the active portfolios of each investment department begin on page 53.

Total Portfolio Management

The TPM department has the following broad responsibilities:

> Development of the recommended Reference Portfolio, and the long-term return-risk factor allocations leading to the Strategic Exposures;
> Development of the long-term Investment Portfolio construction. This is done through targeted allocations to active and balancing programs. TPM also translates the results into the Strategic Portfolio;
> Development of current Target Portfolio ranges, and the shorter-term path for Investment Portfolio composition within those ranges;
> Guidance and coordination for the investment departments' activities through their Signals to help ensure that each contributes effectively to the total portfolio in a coherent way;
> Day-to-day direction of the Balancing Portfolio to maintain or achieve intended overall return-risk factor exposures. TPM works closely with Global Capital Markets (GCM) and Cash and Liquidity Group (CLG) in Public Market Investments. GCM optimizes the efficient construction of the Balancing Portfolio components through selection of public securities. CLG maintains and optimizes the appropriate liquidity in the Investment Portfolio; and
> Guidance for the Fund's overall foreign currency exposures (excluding active tactical currency allocation) when required. Our currency hedging approach is described on page 28. Centralized currency management is more cost-effective and provides better control of overall exposures than managing currencies within each investment department.

To support all CPPIB investment activities, TPM conducts high-level investment research on asset classes, return-risk factors and modelling, portfolio construction and active management strategies. TPM also develops CPPIB's primary economic and market forecasts. These help to frame investment decision-making for both the total portfolio, and within specific investment programs.

Our annual business planning process is integral to the ongoing development of the total portfolio. TPM and the other investment departments first scope out the full range of potentially attractive investment areas in each active program over five-year and one-year periods. Considering the portfolio as a whole, we then narrow these areas down to the preferred five-year deployment range for each program. This enables us to achieve

Overview of Responsibilities

Board of Directors

> Approves total Fund risk appetite
> Approves Investment Policy Statement
> Approves Risk Policy
> Approves annual Business Plan
> Approves major investments and appointments of external management

Investment Planning Committee

> Targets and oversees total Fund asset, currency and risk exposures
> Approves investment programs
> Approves investment deployment Signals
> Undertakes select strategic investments
> Monitors fund composition and performance

Finance, Analytics & Risk

> Recommends risk governance elements
> Provides risk measurements and assessments
> Reports returns measurements and attribution
> Performs stress tests and supplementary risk analyses.

Investment Departments

Total Portfolio Management
Public Market Investments
Investment Partnerships
Private Investments
Real Assets

the aspirational return-risk factor allocations underlying the Strategic Portfolio in a practical manner. These directions are formalized in the ID Signals as described on page 32. To assist in comparing expected returns on prospective investments with local alternatives TPM provides supplementary guidance to the investment departments through current expected returns for local public equities and debt markets for the anticipated terms of new investments.

TPM is also responsible for the multi-year forward modelling of projected Fund returns and assets, and of expected CPP contributions, benefits and net liabilities. This asset/liability modelling, and associated long-term risk assessment, supports our periodic reviews of the Reference Portfolio.

Public Market Investments

Public Market Investments (PMI) invests actively in publicly traded equity and fixed income securities globally, including the cash and derivatives markets. PMI undertakes active management activities through market-neutral or long/short strategies, as previously described on page 25. PMI is also responsible for managing a number of strategies on behalf of the IPC. In addition, we provide public market execution and funding services for all investment groups.

PMI's mandate is to:

> Design and execute a range of equity strategies to generate additional returns from successful active management;
> Manage the equity and rate exposures in the Balancing Portfolio along with Credit, Volatility and Carry programs (alternative factor exposure strategies as described on page 33). These programs are done in coordination with the TPM department;
> Manage the research and portfolio management activities needed to support and implement Strategic Tilting at the total Fund level;
> Coordinate and optimize Fund liquidity, including administration of CPPIB's debt issuance program; and
> Execute public market transactions for all active programs across CPPIB.

PMI is organized into the following investment groups and the Sustainable Investing group. The Business Management team supports all of these groups.

Fundamental Equities

The Fundamental Equities (FE) team invests in global equities and focuses on two distinct strategies:

> **Active Fundamental Equities** – Active Fundamental Equities (AFE) invests in public equities across global markets. We use long-term fundamental analysis to inform our security selection. This results in a collection of high conviction, single-company investments. We assemble these investments into a long/short, market-neutral portfolio using an optimization process that aims to minimize or remove unintended factor exposures. The result is a portfolio with maximum exposure to fundamental research insights, and little else.
> **Relationship Investments** – Relationship Investments (RI) makes significant direct minority investments in public (or soon-to-be-public) issuers where an investment by CPPIB can make a meaningful difference to the success of the company and therefore help generate long-term outperformance relative to peers. Since the group's inception in 2009, RI has expanded its geographic reach to include companies in Canada, the United States, South America, Europe and Asia. In particular, the group focuses on transformative growth opportunities and transactions involving the transition of large ownership blocks. In most cases, RI obtains governance rights commensurate with the importance of its stake. In turn, the company benefits from having a supportive cornerstone investor with a longer time horizon.

Quantitative Equities

The Quantitative Equities (QE) team invests in global public equities with the objective of capturing returns from risk premia and alpha through a systematic factor approach. Factor investing is grounded in the belief that securities returns are driven by a set of factors whose returns can be captured through appropriately designed strategies. We seek to build a portfolio of factors with diversification along the dimensions of horizon, source of return, and economic agents. With programs that invest in securities throughout North America, Europe and Asia, QE focuses on refining existing strategies and factors for greater efficacy. We also concentrate on developing new strategies and factors that can be implemented on a scale that is meaningful to the Fund. In addition to research and investment activities, we focus on sourcing and managing new data for use in investing and on developing analytics, collaborating on this work with other teams across the organization.

Global Capital Markets

Global Capital Markets (GCM) delivers services critical to the efficient management of public market assets:

> Manages the Fund's targeted equity, fixed income, public credit, volatility and carry exposures within prescribed ranges or limits, in collaboration with TPM;
> Executes the transactions required to fund major investments while minimizing market impact;
> Provides price-effective and timely execution services for active programs; and
> Manages relationships with our strategic trading counterparties.

GCM also provides a wide array of value-added services to other investment teams within CPPIB. The GCM execution desks act as a central hub for implementation advice, trading strategies for dispositions and acquisitions, efficient hedge construction and information on liquidity discounts.

Cash & Liquidity Group

The Cash & Liquidity Group (CLG) manages activities related to the prudent management of CPPIB's overall balance sheet. This includes assessing and analyzing the Fund's liquidity position. Additionally, it involves managing CPPIB's cash and collateral positions as well as the asset/liability structure. CLG is also responsible for overseeing CPPIB's unsecured and secured debt-financing programs. CLG works with TPM to help forecast the Fund's balance sheet and make certain that liquidity and financing considerations are reflected in long-term portfolio allocation decisions. Moreover, we collaborate with Finance, Analytics & Risk (FAR) to ensure the maintenance of a robust liquidity policy framework, including daily monitoring, stress analysis and escalation procedures.

Strategic Tilting

Strategic tilts are temporary deviations away from the total portfolio's strategic asset allocation weights. They are based on an assessment of the relative attractiveness of those assets at any point in time. Strategic Tilting (ST) manages the research and portfolio management activities needed to support and implement strategic tilting at the total Fund level. Strategic tilts can be applied to major asset classes that are important to the Fund such as equity markets, bonds, credit and major currencies. See page 28 for a further description.

Sustainable Investing

The Sustainable Investing (SI) group brings expertise in environmental, social and governance (ESG) matters to its work with investment professionals across all of CPPIB's investment departments. We believe that considering ESG factors in investment decisions and asset management activities will lead to better long-term investment performance across the Fund. A company's approach to ESG often serves as a good indicator of the quality of the business and its management and board oversight. It is also an indicator of corporate performance over the long term.

The Sustainable Investing group is focused on two core functions:

> **ESG Integration –** Sustainable Investing works with all of the investment teams to ensure that ESG risks and opportunities are incorporated into investment decision-making and asset management activities. Given CPPIB's mandate, we integrate ESG factors into our investment analysis alongside other investment considerations rather than screening investments or, conversely, targeting investments based on ESG factors alone. Sustainable Investing works with investment teams across CPPIB to establish and refine ESG-related investment processes, acting as internal experts.

> **Engagement –** Sustainable Investing supports CPPIB's role as an active, engaged owner. We work to enhance the long-term performance of companies in which we invest by engaging, either individually or collaboratively, with other investors. Engagement activity is directed at companies that present material ESG risks and opportunities. This is determined by research into the company, industry and region, along with an examination of industry standards and global best practices related to ESG factors. Rather than excluding companies from our investment portfolio based on ESG factors, we work with them to promote positive changes on ESG issues that we believe are material to investment value. Sustainable Investing has five engagement focus areas: climate change, water, human rights, executive compensation and board effectiveness. We added board effectiveness as a new focus area in fiscal 2018. This reflects our growing recognition of its importance to long-term value creation.

Examples of our engagement include:

> Encouraging companies to provide better disclosure and adopt better practices related to ESG factors that we believe are material to the long-term performance of the company.

> Pursuing the full spectrum of engagement activities, from exercising our proxy voting rights to direct discussions with the board chairperson of a company.

> Providing public disclosure of our Proxy Voting Principles and Guidelines and updating them annually.

> Publicly disclosing our proxy voting intentions in advance of shareholder meetings.

> Engaging with companies and stakeholders through a variety of means, including platforms such as the United Nations-supported Principles for Responsible Investment (PRI) initiative, the Canadian Coalition for Good Governance and Hermes Equity Ownership Services.

At CPPIB, we take climate change into account in our investment activity. This ensures that we are making sound investments over the long term. Not only does climate change present a complex array of investment risks, it also presents attractive investment opportunities, including those found in the renewable energy sector.

This year, we led and participated in collaborative engagements alongside other global investors. We pressed large greenhouse gas emitters in oil and gas, utilities and other sectors for improved disclosure related to climate change risks.

Stephanie Leaist, CPPIB's Head of Sustainable Investing, is a member of the Financial Stability Board's (FSB) Task Force on Climate-related Financial Disclosures. The Task Force has 32 international members from the private sector. The FSB established the Task Force to develop recommendations for more efficient and effective climate-related financial disclosures so as to promote more informed investment, credit and insurance underwriting decisions. In June 2017, the Task Force released its final report and recommendations. These have gained support from companies, investors, regulators, standard setters and governments around the world.

During fiscal 2018, SI led the development and implementation of a comprehensive and coordinated approach to climate change as both an investment risk and an opportunity across CPPIB. This approach has four main pillars:

> Energy outlook;

> Top-down portfolio risk assessment;

> A bottom-up toolkit for investment teams to better assess climate change risks and opportunities; and

> Reporting and communications.

This firm-wide approach comprises workstreams led by teams in CPPIB's investment departments, as well as FAR. This approach is overseen and directed by a Steering Committee chaired by CPPIB's Head of Sustainable Investing. It includes members from Private Investments, Real Assets, TPM and FAR. Neil Beaumont, Senior Managing Director & Chief Financial and Risk Officer, is the executive sponsor.

We continue to support the annual Climate Change Information Request by the CDP (formerly the Carbon Disclosure Project). It seeks increased disclosure and management of climate change risks from over 6,300 companies globally on behalf of investors. During the fiscal year, we supported over 35 shareholder proposals related to climate change at companies in our portfolio.

The approach and activities of the Sustainable Investing and investment teams are further described in the *2017 Report on Sustainable Investing*. This report is published annually and is available on the CPPIB website.

Investment Partnerships

Investment Partnerships (IP) establishes and broadens relationships with CPPIB's external managers through private and public market funds and related co-investments. IP currently maintains relationships with over 190 premier private equity and hedge fund managers around the world. In addition, we make direct private equity investments in Asia, and identify long-term thematic investment opportunities. The IP department comprises three groups: External Portfolio Management, Thematic Investing, and Funds, Secondaries & Co-Investments.

External Portfolio Management

External Portfolio Management (EPM) creates value by engaging external managers whose distinct strategies and expertise in public markets are accretive and complement the overall CPPIB portfolio. These strategies are expected to offer attractive, sustainable results on a risk-adjusted basis, with value-added that has relatively low correlation to that of CPPIB's internal public investment programs. Each mandate must also be sufficiently scalable to be meaningful for the Fund's current size and expected growth. In addition to managing a portfolio of externally managed funds and separate accounts, EPM makes co-investments alongside our public market fund partners.

Our external managers are valued partners with whom we seek strong, long-term relationships. Unlike many traditional multi-manager programs, EPM does not make aggressive shifts in assets between strategies and managers. Rather, we control exposures and risks through balancing various types of strategies and generating a diversified return stream.

Thematic Investing

Thematic Investing (TI) conducts research and makes investments to gain exposure to long-horizon investment themes across the globe. Since these evolve over many years (in some cases decades), they align well with our long-term investment strategy. Capital may be deployed using public or private asset classes as well as fund investments.

Funds, Secondaries & Co-Investments

Working as one global team, Funds, Secondaries & Co-Investments (FSC) is a leading investor in private equity with three main streams of activity:

> **Funds** – The Funds team focuses on identifying, making and monitoring capital commitments to large- and middle-market buyout and growth equity funds in North America, Europe and Latin America. We have a well-established portfolio of large private equity managers, and we also pursue new relationships in the middle market and with emerging managers. The Funds portfolio plays a critical role in the generation of investment opportunities for our direct investment platforms, in particular our Direct Private Equity and Secondaries & Co-Investments teams.

> **Private Equity Asia (PE Asia)** – This team focuses on private equity investments in Asia through commitments to private equity funds, participation in the secondaries market and direct investments in companies by co-investing and co-underwriting with our general partners and other like-minded strategic partners.

> **Secondaries & Co-Investments (S&C)** – S&C participates in all segments of the secondaries market by acquiring Limited Partner (LP) interests in existing funds (LP Secondaries), providing partial or whole-fund liquidity solutions to existing funds (Direct Secondaries), and providing preferred equity to owners of portfolios of private equity assets (Structured Financing). Secondaries transactions range in size from small, single-fund LP interests to portfolios in excess of $1 billion. The Co-Investment program focuses primarily on minority investments alongside our private equity partners, with a target investment size of up to $275 million. Our team operates using a full range of engagement models, including:
> - Co-underwriting, well in advance of signing;
> - Syndication once the deal has been signed; and
> - Partial Liquidity – providing liquidity to an existing investment prior to a full exit.

Private Investments

Private Investments (PI) invests in a wide range of private equity and credit assets. In some cases, the markets for these private assets are comparable in size to their public equivalents. They are well suited for large, patient and knowledgeable investors. We seek to harvest the return premiums for investing in less liquid and longer-term assets, and for meeting particular financing needs of the entities to which we provide capital. Further, with expert partners, we can generate skill-based additional returns in a wide variety of ways:

> At the inception of the investment, through access to the best opportunities, superior information, unique insights, and expert structuring and financing of transactions;

> During the holding period, through careful stewardship, enhanced governance, and improvements in operations and profitability; and

> Upon exit, through selection of the optimal path, timing and terms.

The PI department is organized into four specialized programs:

Direct Private Equity

Direct Private Equity (DPE) focuses on large direct private equity investments across North America and Europe. DPE has three primary investment strategies:

> Traditional Private Equity invests directly alongside traditional private equity funds, or we invest in existing portfolio companies of fund partners;

> Private Equity Solutions identifies the best partner for the situation. This includes families, like-minded investors, corporations, core funds and entrepreneurs, to pursue sizable investments with the option to hold long term, including preferred equity; and

> Financial Institutions invests across the financial services industry, with a particular focus on control platforms and other large investments in financial institutions.

Principal Credit Investments

Principal Credit Investments (PCI) focuses on direct investing in sub-investment-grade corporate debt, structured credit and income streams of royalties through both primary and secondary transactions. This focus excludes commercial private real estate debt. With investments in North America, Europe, Latin America and Asia, the program provides debt financing across the entire capital structure. This includes term loans, high-yield bonds, mezzanine lending, structured products and other solutions for borrowers. PCI's portfolio also includes Antares Capital, a leading provider of financing solutions to middle market private equity sponsors in North America, jointly acquired and managed by PCI and DPE.

PCI participates in custom event-driven opportunities such as acquisitions, refinancing, restructurings and recapitalization. In select cases, PCI may also commit to debt funds in order to access manager expertise or where strategic benefits exist, such as origination or due diligence capabilities.

Natural Resources

Natural Resources (NR) makes large direct private equity investments across the energy, non-renewable power, and mining sectors globally. NR has three primary investment strategies:

i) Wholly owned long-term platforms, where NR invests in scalable permanent capital vehicles that provide captive technical, origination and execution skills;

ii) Direct resource investments, where NR partners with best-in-class operators to provide capital to acquire, explore, appraise or develop opportunities; and

iii) Private equity, which includes buyout opportunities on our own or partnered with CPPIB general partners or non-general partners depending on the situation.

Portfolio Value Creation

Portfolio Value Creation (PVC) is responsible for driving value creation across CPPIB's global portfolio of material direct equity investments. PVC works closely with deal teams, portfolio company management and deal partners to drive value within portfolio companies. The team works across all sectors and geographies and in every phase of the deal. PVC assists in due diligence, enhances governance, actively monitors portfolio companies, and drives operational change. They also ensure transfer of best practices across all of CPPIB's asset management and value creation activities.

During fiscal 2018, PVC continued to scale its capabilities and embed standard processes to support the oversight and management of CPPIB's direct investments. PVC worked with investment teams and management to identify and realize several opportunities to drive value creation in portfolio assets across the Fund. Working with various CPPIB stakeholders, PVC developed a framework for assessing cybersecurity risk across the CPPIB investee portfolios. It also developed training for CPPIB employees who serve as directors on portfolio company boards.

PVC provided Day-1 transition support and 100-day planning for new asset companies to establish robust long-term processes and controls. The team continued to execute a thorough monitoring process across major CPPIB portfolio companies in addition to providing support on commercial and operational due diligences.

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 real estate, infrastructure, power and renewables, and agriculture sectors. Investments in these sectors are typically long-term, asset-intensive businesses with a steady income stream that rises with inflation over time. Exposure to real assets, which is generally under-represented in the public markets, also provides diversification benefits to the Fund. The Real Assets department comprises three groups: Real Estate, Infrastructure and Power & Renewables.

Real Estate

The Real Estate (RE) group invests in high-quality commercial properties managed by experienced local operating partners. The group takes a targeted approach by focusing on select markets that can bring sufficient scale to investment activities.

The RE portfolio consists primarily of investments in top-tier, income-producing properties that generate a stable income stream, suitable for long-term ownership. RE also pursues development-oriented strategies where attractive risk-adjusted returns are supported by favourable supply/demand dynamics. This "build to core" strategy is designed to develop high-quality assets that will be suitable for long-term investment once completed. As the portfolio has matured, select value-added investments have been included with the goal of enhancing the portfolio's core return profile. Such programs are typically asset rehabilitation or repositioning strategies that require active asset management.

RE remains focused on core geographic markets and sectors:

> The key developed markets of Canada, the U.S., the U.K. and Australia, as well as the key emerging markets of Brazil, China and India; and
> The four main commercial property sectors: office, retail, industrial and multi-family residential.

These markets and sectors are among the largest and most liquid in the real estate investable universe and continue to form the majority of our portfolio.

RE is active in both real estate equity and debt investments:

Real Estate Equity

The Real Estate Equity (REE) program forms the majority of the real estate portfolio. The programs are managed geographically into the Americas, Europe and Asia sub-groups. The REE group's primary activity is to source best-in-class real estate owner/operators in select markets. Partnerships are formed through co-ownership structures such as joint ventures (JV), where we seek significant co-ownership stakes to ensure alignment of interests. These partners provide the necessary local market expertise and are also responsible for the day-to-day management of our properties.

The group's goal of building scalable programs requires significant capital investments from its JV partners, who tend to be large, well-capitalized, listed real estate companies. In recent years, we have also made a number of strategic investments in real estate operating companies to broaden the group's opportunity set.

Private Real Estate Debt

The Private Real Estate Debt group (PRED) complements the Equity program by providing debt financing across the capital structure of quality properties. PRED's geographic and sector focus is broadly consistent with that of the RE Equity group, enabling it to leverage our in-house market knowledge and existing relationships. The two groups work closely by sharing market intelligence with the ultimate goal of providing a one-stop capital solution to potential partners.

Infrastructure

The Infrastructure group invests globally in large-scale infrastructure assets that provide essential services with minimal substitution risk, within the utilities, transport 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 environments and afford us significant shareholding stakes and meaningful governance rights.

The Infrastructure group targets private and public-to-private 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 re-invest in its portfolio companies, and work alongside management teams to drive operational and financial improvements through proactive asset management initiatives.

Power & Renewables

The mandate of the newly created Power & Renewables (P&R) group is to build a diversified global portfolio of investments in the power and renewable energy sector. This includes exposure to operating brownfield and greenfield assets through individual assets or through companies that own, operate and manage portfolios of conventional power, wind, solar, hydro and other assets. The P&R team also manages CPPIB's agriculture investments.

A group dedicated to the renewables sector helps us better access the highest-quality deal flow stemming from energy markets that are transitioning from carbon-intensive economies to green-based electric energy-intensive economies. It also allows us to attract world-class investment partners, and positions us to execute more efficiently. We leverage CPPIB's comparative advantages and global footprint to source and execute on opportunities from around the world.

Our people and culture

At CPPIB, we recognize that our purpose-driven culture is a competitive advantage, and that our talented people are a key driver behind our strong performance and positive reputation. As such, we put a high priority on promoting our distinctive culture and enhancing our workplace experience and development programs. This is particularly important as we continue to grow and evolve as an organization. In the past year we have made notable progress on our talent strategy. We have also ensured that our growing global team remains fully aligned with our mandate, business priorities and guiding principles.

Global workforce

CPPIB's global team continues to grow as we scale to take advantage of market opportunities and execute our strategy – which includes both geographic and asset diversification. We have seen particular growth in our international offices as we expand our global investment programs, while ensuring we operate efficiently and achieve economies of scale. At the end of fiscal 2018, we had 1,498 full-time employees, an increase of 8% over the previous year. The totals in each location were: Toronto – 1,200, London – 142, Hong Kong – 95, New York – 24, São Paolo – 18, Mumbai – 8, Sydney – 8, and Luxembourg – 3.

In line with our expanding global presence, we continue to promote opportunities for workforce mobility. We encourage our people to work in different international offices and explore temporary assignments to enhance their capabilities and further their careers. This in turn benefits the organization through increased engagement. In the past year, 20 employees transferred or accepted assignments in other offices. An additional 138 employees took advantage of secondments or took on new jobs within the organization. Together these options provide rich opportunities for personal development and career advancement, and foster cultural alignment and collaboration across our offices.

Talent strategy priorities

As a talent-driven organization, we recognize that attracting, developing and retaining world-class talent is essential for sustaining our success. This past year, we enhanced our efforts by introducing a new talent vision, which was informed by internal research and industry best practices. The vision states:

We aspire to hire, develop and retain high-performing individuals in an environment of apprenticeship, opportunity and recognition. We have an inclusive culture and our diverse perspectives lead to exceptional outcomes for the Fund.

This vision highlights priorities for improvement across several areas of talent development. It guides us as we evolve our dynamic workplace culture and talent-management programs. Achieving our talent vision is a multi-year process that will be positive for our people and our organization and ultimately for CPP contributors and beneficiaries.

Over the past year, employees have collaborated to implement our talent strategy priorities, with much of the work to date focused on consultation and pilot programs in preparation for a broader implementation. We have made important progress toward embedding apprenticeship practices into formal learning programs, and increasing the transparency of our leadership promotion process. We also continue to expand our formal learning and development programs. We offer a suite of programs tailored to key career inflection points, from new recruit to experienced leader.

Investing in our leaders is critical to building a world-class organization that achieves sustained high performance. Two new leadership programs launched this year are designed to hone the skills of our senior leaders and help future leaders navigate an increasingly complex global environment. Beyond the immediate individual benefits from the customized curricula, these programs also foster valuable networking and collaboration across the organization. In the past year, 274 employees attended one or more of our formal training programs, an increase from 231 in fiscal 2017.

Other statistics illustrate our momentum in providing talent development and career opportunities:

> 250 employees were promoted in the past year, and we filled 25% of open positions internally; and,
> We extended offers to 24 eligible Senior Intern Analysts and Summer Associates, out of a total of 38 participants (or 63%).

A strong talent pipeline is also a priority. We continue to be proactive to ensure we have robust succession plans to sustain our performance as organizational changes occur, particularly for our senior leadership roles.

Inclusion and diversity

Inclusion and diversity are critical imperatives for CPPIB, because we know they drive better business outcomes. CPPIB is in the talent business, and our success in winning the battle for talent depends on attracting, developing and retaining high performing individuals. Talent, not capital, will be our biggest competitive advantage as we continue to scale as a world-leading investment organization. We know that diverse teams make smarter decisions, are more cohesive and lead to higher job satisfaction. Inclusion, meanwhile, fosters mutual respect and a sense of community that improves employee engagement, productivity and retention. At CPPIB, we work hard to ensure all our colleagues feel they can succeed, while being their true selves. We miss out on an employee's full potential when they spend energy hiding parts of who they are or acting differently among peers. We strongly believe bias has no place in our meritocracy. As such, we hire, promote and develop our talent based purely on merit. Gender, race, sexuality, background, or religion have no impact on our staffing or development decisions.

By many measures, we have made progress in our inclusion and diversity efforts, but there is more to do and we are committed to doing better. This is a top priority for our organization, led by our President & CEO Mark Machin.

Last year, we broadened our diversity approach to be more inclusive, recognizing our efforts should extend beyond gender issues – though those remain a priority. Our Inclusion and Diversity Council continued to identify issues and promote discussion. It also provided valuable input to our senior leadership team on potential initiatives to foster an inclusive and diverse environment. The Council engaged an external consultant to assess our current state, and is using the findings and recommendations to direct our efforts toward building a truly inclusive working environment. Meanwhile, Out@CPPIB, a grass-roots group dedicated to the recruitment, retention and development of top LGBT+ talent and its network of allies, saw its membership grow through a range of outreach and promotion activities.

With regard to gender diversity, we remain committed that by 2020 we will hire equally by gender. We continue to make progress towards this goal. In the past year, 47% of our new hires were women. We had 24% female representation at our Managing Directors and Senior Managing Director levels at the end of fiscal 2018, and 44% across all levels of the organization. While these numbers reflect progress in hiring, we need continued focus on the development, training, retention and promotion of women – particularly in senior leadership ranks – to build on that success. Our Sponsorship and Career Mentoring programs helped in this regard and both were expanded this year. Sponsors advocate for their colleagues and identify opportunities for career exposure and opportunities. The mentoring program, meanwhile, expanded beyond gender, rolling-out globally, with over 300 people matched based on their skills and experience.

In addition to these hiring objectives, we continue our partnership with *Women in Capital Markets* (WCM), the largest network of professional women in the Canadian financial sector.

We have made significant progress towards our employment equity objectives since 2013, when we published an Employment Equity Plan highlighting our commitment to diversity and inclusion. Since then, we have consistently had strong representation of visible minorities;

however, despite our progress, there are still gaps in the representation of women, persons with disabilities and Aboriginal peoples. We will continue to promote employment equity to meet our ultimate goal of employing a workforce in Canada that mirrors the diversity of Canada and provides an inclusive environment with equal opportunity for all employees.

Culture

We are very deliberate about sustaining and celebrating our distinctive culture, which is anchored by our public purpose. A key part of that effort is reinforcing our Guiding Principles of Integrity, High Performance and Partnership, which are revisited across our global team through our annual *Living our Guiding Principles* initiative. These interactive employee sessions, which are leader-led, continue to foster valuable discussions and receive very positive ratings from employees. Our Guiding Principles are further embedded into our employees' daily routines through the hiring and orientation process. They are reinforced through our regular Code of Conduct attestation, compliance requirements, and personal trading rules, among others.

This year, we introduced a new whistleblower program to complement these activities. In addition, we launched a new Respectful Workplace Policy, which enhances our existing policies to ensure our workplace presents a positive workplace, free of harassment and bullying.

This past year, we once again conducted research to collect employee feedback and measure the engagement of our people with our culture and talent initiatives. The results suggest our efforts are paying dividends. Our people remain closely aligned with our culture and largely positive about their workplace experience. However, the survey findings also uncovered opportunities for improvement, notably in some of our talent programs and practices. Teams across the organization are using the survey findings to develop action plans to address the feedback.

Culture is also expressed through the actions of our people. We encourage and facilitate employee volunteer efforts, including through our *Get Involved* program, which organizes and executes volunteer and charity events. Many teams across our global locations have proactively engaged in a range of community activities in support of local causes. One notable example is our Toronto-based team. The team raised more than $625,000 for United Way, with 67% of local employees contributing to the annual fundraising campaign.

It is also worth noting that our spirit of continuous improvement goes beyond traditional tenets of culture such as diversity and engagement. Indeed, CPPIB is working across a number of business initiatives to ensure our global team continues to seek ways to foster collaboration and innovation, and ultimately efficiency and productivity. Even with this progress, we can never stand still. Driving our culture is a continuous priority.

Senior appointments

A number of senior executives took on new management roles this past year, while others announced their retirement from the organization. In July 2017, Neil Beaumont joined CPPIB as Senior Managing Director & Chief Financial and Risk Officer (CFRO), a new expanded role. He replaced Benita Warmbold, who retired from CPPIB. Ed Cass, formerly Senior Managing Director & Chief Investment Strategist, took on the role of Senior Managing Director & Global Head of Real Assets, and Geoffrey Rubin was promoted to Senior Managing Director & Chief Investment Strategist, replacing Ed.

On April 24, 2018, we announced four senior executive appointments, effective June 1, 2018: John Graham will become Senior Managing Director, and will lead the Credit Investments team; Suyi Kim will become Senior Managing Director & Head of Asia Pacific; Deborah Orida will become Senior Managing Director & Global Head of Active Equities; and, Poul Winslow will become Senior Managing Director & Global Head of Capital Markets and Factor Investing. In complement to these appointments, we also announced Shane Feeney, current Senior Managing Director & Global Head of Private Investments, will become Senior Managing Director & Global Head of Private Equity and that we are repositioning the Chief Operating Officer role to Senior Managing Director & Chief Technology and Data Officer with an appointment to be made at a later date in fiscal 2019.

We also announced the departure of members of our senior leadership team: Pierre Lavallée, Senior Managing Director & Global Head of Investment Partnerships, who departed on May 2, 2018; Nick Zelenczuk, Senior Managing Director & Chief Operations Officer who is retiring on May 31, 2018; Eric Wetlaufer, Senior Managing Director & Global Head of Public Market Investments who is departing CPPIB on May 31, 2018; and Graeme Eadie, Senior Managing Director who retired on March 31, 2018.

These leadership changes bring the opportunity for fresh perspectives and ideas as we execute our multi-year business plan. Furthermore, we have robust succession plans at CPPIB and we are well positioned to ensure a seamless transition.

Furthering operational capabilities

Our operational capabilities aim to support the growth and globalization of CPPIB's investment programs. During fiscal 2018, we continued to advance our processes and controls to protect our assets and increase efficiency in our operations.

We continue to improve our controls framework by enhancing compliance and risk management practices. We established the role of Chief Financial and Risk Officer (CFRO). The CFRO is accountable for overseeing and enhancing the risk management framework to ensure it is appropriate given CPPIB's unique mandate and risk profile. The CFRO began working with a newly formed ad hoc Risk Committee of the Board which will advise Management and the Board on the evolution of our risk management practices.

We implemented an Anti-Bribery/Anti-Corruption Policy and related training and launched a whistle-blower system. We also culminated a multi-year effort on the development of a new longer-term (five year) risk model to add to our comprehensive suite of risk measures, enhancing our ability to measure risk across various time horizons. We improved our monitoring processes and increasing security to help prevent cyber threats and data loss incidents and updated the risk assessments for our Business Continuity Management program.

This year, we designed and implemented a streamlined, risk-based asset valuation approach to improve monitoring and governance across the portfolio. This approach increases efficiency, timeliness of valuations and sharing of valuation data across the organization, including enhanced objectivity of valuations through a 'three lines of defence' model.

Our multi-year financial platform project continued to evolve. In fiscal 2018, we realized efficiency and scalability benefits by standardizing cross-departmental processes to capture and report financial information. We have taken advantage of automation in reporting our financial information, improving speed of delivery and lowering operational risk.

During the year, we continued our multi-year initiative to deliver a new enterprise operating model for data. This includes acquiring, validating, managing and distributing portfolio, market and reference data across our organization. This new data operating model will rationalize and increase the efficiency of our data management activities, improving operational efficiency and data usability. This year, we achieved significant capacity creation, enhanced operational processes, and made available new and validated data sources across our organization.

We are creating a more modern and advanced workplace to allow employees to work more efficiently and with more flexibility. This year, we delivered new tools and technology to improve productivity, communication and collaboration. Providing our professionals with improved tools allows them to work more effectively and securely, as we have rolled out new collaboration tools and transitioned to a new mobile platform.

Accountability

CPPIB is accountable to Parliament and to the federal and provincial finance ministers who serve as the joint stewards of the CPP. We report to Parliament through the federal finance minister, who tables our Annual Report in the House of Commons. We share quarterly financial statements with the federal and provincial finance ministers, publish them on our website and disseminate a news release publicly. We are also committed to timely and continuous disclosure of significant investments and events.

In addition, we hold public meetings every two years in the provinces that participate in the CPP. These meetings offer Canadians and stakeholder groups the opportunity to ask questions and learn more about CPPIB. Our next public meetings will be held in the fall of 2018.

Every three years, we provide information to the Office of the Chief Actuary of Canada for its evaluation of the CPP. In September 2016, the Chief Actuary released the 27th Actuarial Report on the CPP reflecting the period ended December 31, 2015. We also provide any information the federal and provincial finance ministers request for their periodic reviews of the CPP.

As required for Crown corporations, every six years we undergo an external Special Examination of our records, systems and practices. Our Board of Directors appoints an external examiner to conduct this examination. The most recent Special Examination completed in early 2016 resulted in a clean opinion. A copy of the report is available on our website. The next Special Examination will be in 2022. All public reports issued by CPPIB are subject to review and approval 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 Annual Report.

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

One of these measures is our Code of Conduct for Directors and employees. This Code, which is available on our website, requires everyone at CPPIB 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, and who submits a report and meets in person with the Board at least once a year to discuss the advisor's activities. The Honourable Frank Iacobucci, who has served as CPPIB's Conduct Review Advisor with great distinction over the past 12 years, retired from this role at the end of calendar 2017. Effective January 1, 2018, Sheila Block became CPPIB's new Conduct Review Advisor. Ms. Block is an internationally recognized litigation and dispute resolution lawyer.

In addition to the Conduct Review Advisor, we implemented a Whistleblower Hotline in late 2017. It allows employees to report wrongdoing or unethical behaviour related to CPPIB anonymously and securely.

We also have internal standards and policies to ensure we act responsibly at all times as a major capital markets participant.

Disclosure

We believe in transparency as the foundation of public trust. Our disclosure policy reflects the level of information that will help inform CPP contributors and beneficiaries about how we are making investments on their behalf. This policy is designed to foster a better understanding of what drives performance and sustainability of the Fund over time. Our disclosure includes timely and continuous disclosure of significant new investments and asset dispositions. We disseminate performance results quarterly and publish an Annual Report, which contains extensive information about Fund performance and investment activities.

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 comprehensive information about how we operate. This includes details of our investments and partners. It also provides access to CPPIB's governing legislation and regulations, by-laws, governance manual and policies. These policies include the investment statements that guide us in managing the long-term CPP Fund Investment Portfolio and the short-term Cash for Benefits portfolio. We also maintain alternative digital channels to widely communicate new developments.

We substantially exceed our statutory disclosure requirements. We are committed to reviewing our disclosure policies and practices on an ongoing basis to ensure they keep pace with the evolution of the organization and the needs of Canadians.

Beyond statutory disclosure, this past fiscal year, CPPIB launched an effort to reach CPP contributors and beneficiaries directly to help them understand the work we do on their behalf. In public opinion research conducted by CPPIB, we found consistently low public confidence in the sustainability of the Fund, and in understanding how the Fund is managed. Informing Canadians about how we manage the Fund is important because CPPIB's investment strategy exposes the Fund, by design and in its best interest, to a number of risks. We want Canadians to be informed about our investment strategy and what this means for how we manage their money. Our efforts in fiscal 2018 in this regard included: enhancing our digital presence so that we share information about CPPIB to a broader group of Canadians; engaging with media across Canada to help articulate our investment approach; and launching a national tour where Mark Machin, our CEO, spoke about the sustainability of the CPP Fund.

Financial Review

This Annual Report contains forward-looking statements reflecting Management's objectives, outlook and expectations as at May 10, 2018.

These statements involve risks and uncertainties. Therefore, our future investment activities may vary from those outlined herein.

Table of Contents

The following information provides analysis of the operations and financial position of the Canada Pension Plan Investment Board and should be read in conjunction with the Financial Statements and accompanying notes for the year ending March 31, 2018. The Financial Statements have been prepared in accordance with International Financial Reporting Standards.

Management's Discussion & Analysis

Financial performance

Fiscal 2018 began with a synchronized global upswing in economic growth that propelled stock values higher and prompted central banks in the U.S., Canada and the U.K. to raise interest rates. Equity markets marched progressively higher in the first three quarters of the year, while price volatility remained exceptionally low. The fourth quarter, however, saw the return of volatility as equity markets retreated on fears of inflation and trade protectionism in the U.S. With interest rates higher and projected to continue rising, fixed income performance was generally flat, as investors began to grapple with the tension between growth, inflation and the implications for asset pricing.

The Investment Portfolio earned a net return of 11.6% for the year, delivering net income of $36.7 billion after all CPPIB costs.

The chart below provides the weightings of the Investment Portfolio by asset category, as described on page 31.

Asset Mix

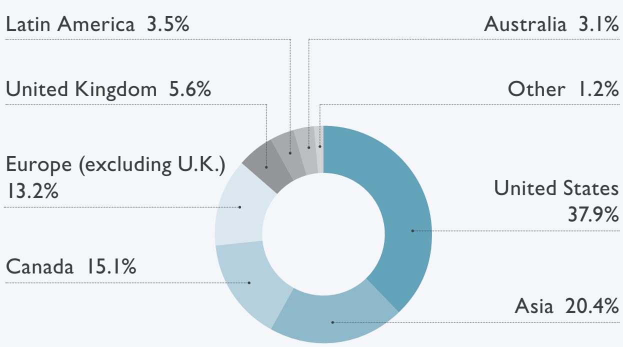
	As at March 31, 2018		As at March 31, 2017[1]	
Asset Class	**($ billions)**	**(%)**	($ billions)	(%)
Public Equities				
Canadian	**8.7**	**2.4%**	10.5	3.3%
Foreign	**103.3**	**29.0%**	88.4	27.9%
Emerging	**26.4**	**7.4%**	17.9	5.7%
	138.4	**38.8%**	116.8	36.9%
Private Equities				
Canadian	**1.0**	**0.3%**	1.2	0.4%
Foreign	**61.8**	**17.3%**	51.6	16.3%
Emerging	**9.6**	**2.7%**	5.8	1.8%
	72.4	**20.3%**	58.6	18.5%
Government Bonds				
Non-marketable	**23.6**	**6.6%**	24.0	7.6%
Marketable	**53.2**	**15.0%**	49.1	15.5%
	76.8	**21.6%**	73.1	23.1%
Credit Investments	**22.6**	**6.3%**	17.6	5.5%
Real Assets				
Real estate	**46.1**	**12.9%**	40.1	12.6%
Infrastructure	**28.6**	**8.0%**	24.3	7.7%
Other[2]	**9.1**	**2.6%**	8.7	2.8%
	83.8	**23.5%**	73.1	23.1%
External Debt Issuance	**(24.1)**	**(6.7%)**	(19.9)	(6.3%)
Cash and Absolute Return Strategies[3]	**(13.6)**	**(3.8%)**	(2.4)	(0.8%)
Investment Portfolio	**356.3**	**100%**	316.9	100%
Cash For Benefits Portfolio	**–**	**–**	–	–
Net Investments[4]	**356.3**	**100%**	316.9	100%

1. Certain comparative figures and percentages have been updated to be consistent with the current year's presentation.
2. Other consists of Natural Resources and Agriculture investments.
3. The negative balance of $13.6 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.
4. Excludes non-investment assets such as premises and equipment and non-investment liabilities, totalling $(0.2) billion for fiscal 2018. As a result, net investments will differ from the net assets figure of $356.1 billion.

The charts below illustrate the global diversification of our portfolio, by region or country and by currency exposure. Canadian assets represented 15.1% of the portfolio at the end of fiscal 2018, and totalled $54.0 billion. Foreign assets represented 84.9% and totalled $302.3 billion. Private assets made up 50.0% of the portfolio. Foreign currency exposures represented 84.2% and totalled $299.9 billion. Currency diversification represents the underlying currency exposure of our investments whereas global diversification represents the geographic exposure.

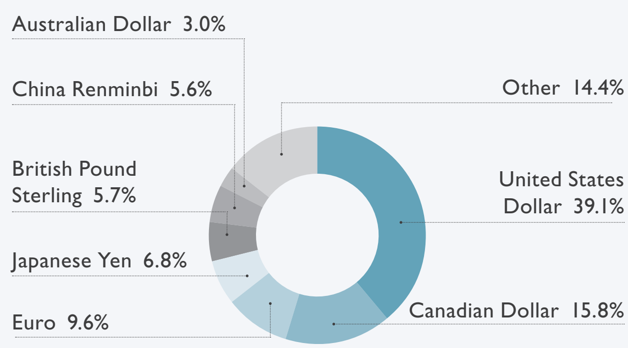
Global Diversification

As at March 31, 2018



Currency Diversification

As at March 31, 2018



Portfolio Returns[1]

Asset Class	Fiscal 2018	Fiscal 2017
Public Equities		
Canadian	**2.2%**	19.2%
Foreign	**11.0%**	18.9%
Emerging	**18.6%**	18.9%
Private Equities		
Canadian	**1.8%**	8.6%
Foreign	**16.0%**	15.8%
Emerging	**19.5%**	15.4%
Government Bonds		
Marketable	**1.6%**	(0.9%)
Non-marketable	**2.7%**	1.8%
Credit Investments	**6.9%**	13.9%
Real Assets		
Real estate	**9.4%**	8.3%
Infrastructure	**15.2%**	7.4%
Other[2]	**(9.8%)**	16.8%
Investment Portfolio[3]	**11.9%**	12.2%

1. Percentage returns are calculated and reported on a time-weighted unhedged Canadian dollar basis. All return figures are before CPPIB operating expenses.
2 Other real assets consist of Natural Resources and Agriculture investments.
3 The total Investment Portfolio return in fiscal 2018 includes performance of $1.5 billion from currency management activities ($(854) million in fiscal 2017), $(579) million from cash and liquidity management activities ($(308) million in fiscal 2017) and $2.9 billion from absolute return strategies ($1.4 billion in fiscal 2017). They are not attributed to an asset class return reported in this table.

	Fiscal 2018 %	Fiscal 2018 $ billions	Fiscal 2017 %	Fiscal 2017 $ billions
Investment Portfolio Net Returns[1, 2, 3]				
1-year return	**11.6%**	**36.7**	11.8%	33.4
5-year return	**12.1%**	**150.0**	11.8%	129.5
10-year return	**8.0%**	**183.2**	6.7%	146.0

1. Commencing in fiscal 2007, the rate of return reflects the performance of the Investment Portfolio, which excludes the Cash for Benefits portfolio.
2. Percentage returns are annualized, dollar figures are cumulative.
3. After all CPPIB costs.

Total Fund performance

The CPP Fund ended its fiscal year on March 31, 2018, with net assets of $356.1 billion, an increase of $39.4 billion from the prior year. This increase consisted of $36.7 billion in net income after all CPPIB costs and $2.7 billion in net CPP contributions.

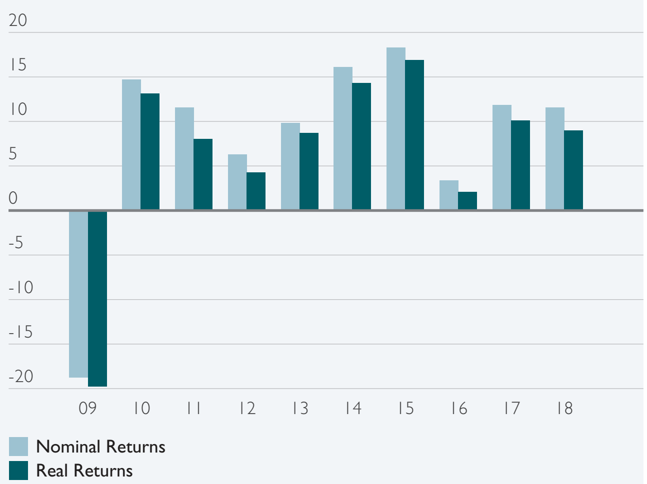
The Investment Portfolio delivered a gross return of 11.9% for fiscal 2018 or 11.6% on a net basis after all CPPIB costs. The return reflects gains from global equities as well as strong performance from our active programs across each of the investment departments. Exposure to foreign currencies added slightly to the Investment Portfolio's return this year.

Global equity markets were the primary source of return in fiscal 2018. Among major developed markets, the Japanese Nikkei 225 returned 15.7%, while the U.S. S&P 500 returned 14.0%, both in local currency terms. The strong performance of emerging markets was notable this year as well, with major indexes in Brazil and China returning 32.3% and 17.1%, respectively, in local currency terms.

Fixed income investments were flat in fiscal 2018 as the decline in bond prices associated with rising bond yields in North America reduced returns. The Canadian and U.S. government bonds markets, in which we hold most of our fixed income exposure, returned 1.2% and 0.4%, respectively, for the year. In particular, the five-year Canadian government bond yield rose by 85 basis points to end the fiscal year at 1.97%, its highest level in more than four years as markets priced in Canada's relatively strong economic performance and the Bank of Canada's turn toward a higher policy rate trajectory. Similarly, the five-year U.S. Treasury yield rose by 64 basis points to end the year at 2.56%.

Rate of Return (Net)

For the years ended March 31 (%)



The impact from foreign currency was a small gain of $2.1 billion, driven by exposure to the euro and the British pound, which strengthened by 11.2% and 8.4%, respectively against the Canadian dollar. Gains from the euro and the pound were reduced by a loss from the U.S. dollar, which weakened by 3.3% against the loonie. The CPP Investment Portfolio is a global portfolio that holds assets denominated in many foreign currencies. We generally do not hedge these widely diversified currency exposures back to the Canadian dollar – our view on currency hedging is explained on page 28. The Investment Portfolio's largest foreign currency exposure is to the U.S. dollar, followed by the euro and the British pound.

As a long-term investor, five- and 10-year periods provide a more meaningful assessment to evaluate performance. For the five-year period ending March 31, 2018, the Investment Portfolio generated total net income of $150.0 billion or an annualized nominal return of 12.1% after deducting all CPPIB costs. For the 10-year period, the Investment Portfolio generated $183.2 billion or an annualized nominal return of 8.0% after all CPPIB costs. In the 27th Actuarial Report on the CPP, the Chief Actuary of Canada noted that investment income in the calendar years 2013 to 2015 was 248% above the projections of the previous actuarial report. In determining the CPP's sustainability, the Report also assumes that the Investment Portfolio's long-term prospective real rate of return will average 3.9% over the 75-year projection period of the Report, after all CPPIB costs and adjusting for inflation. The Investment Portfolio generated annualized net real returns of 10.4% and 6.2% for the most recent five- and 10-year periods.

Reference Portfolio returns

The CPP Reference Portfolio is a two-asset passive portfolio comprising public market global equities and nominal bonds issued by Canadian governments, each represented by broad market indexes. As such, it provides a clear benchmark for long-term total returns on the Investment Portfolio at a comparable level of risk. See page 30 for more information.

On a longer-term basis, Reference Portfolio rates of return have been as follows:

	Fiscal 2018 %
Reference Portfolio Returns[1]	
1-year	9.8%
5-year	11.2%
10-year	7.7%

1. Percentage returns are annualized.

Asset Class	Benchmark	2018 Return (%)	2017 Return (%)
Equity	S&P Global LargeMidCap Index[1]	11.6%	19.2%
Fixed Income	FTSE TMX Canadian Governments Nominal Bonds Index	1.2%	0.6%
Total CPP Reference Portfolio		9.8%	14.9%

1. Net of CPPIB withholding tax, unhedged.

Performance against Reference Portfolio

The Investment Portfolio earned a net return of 11.6% and net income of $36.7 billion in fiscal 2018 after deducting all costs, against the Reference Portfolio's return of 9.8%. The Reference Portfolio's gain reflected the strong performance of global public equity markets in the fiscal year. The Investment Portfolio has outperformed the Reference Portfolio over the period since the latter's inception at April 1, 2006.

To quantify the value generated by CPPIB's active management, each year we measure the difference between the Investment Portfolio performance and that of the Reference Portfolio in dollar terms, or dollar value-added (DVA), after deducting all costs. In fiscal 2018, single-year net DVA was $5.7 billion. See page 24 for more on active management and the sources of return.

Differences between the annual Investment Portfolio and Reference Portfolio returns are substantially affected by three factors:

1. **Diversification** – By design, the Investment Portfolio has much broader diversification than the Reference Portfolio. The Investment Portfolio includes major commitments to private asset classes such as private equity, infrastructure and real estate, compared to only two asset classes in the Reference Portfolio with a heavy weight in public equities (an average of 82.5% for 2018).

   The diversified allocation of Investment Portfolio assets to major asset classes on average in fiscal 2018 is shown below:

	Fiscal 2018[1] %
Average Asset Class Weights	
Public Equities	40%
Private Equities	19%
Government Bonds	22%
Credit Investments	6%
Real Assets[1]	22%
Cash and Absolute Return Strategies[2]	(9)%
Total	100%

1. Includes 13% for real estate, 7% for infrastructure, and 2% for natural resources and agriculture.
2. Net of external debt issuances.

   When global public equity markets have a strong year, the public equities-dominated Reference Portfolio will naturally tend to generate higher returns than the more diversified Investment Portfolio. In years when asset class returns are more mixed across the spectrum, and especially when public equity markets are falling, the Investment Portfolio will tend to outperform. Including a limited degree of leverage in the Investment Portfolio to calibrate to its targeted absolute risk, we can better diversify its returns through a higher allocations to bonds and asset classes with underlying lower-risk exposures, leading overall to positive value-added expected from diversification over the long term.

2. **Investment selection** – Investment selection refers to how we select, buy, sell and weight individual assets in line with their program's mandates and intended factor-exposure appetite, through internal or external management. Generating value-add in the wide set of opportunities in both private and selected public markets requires manager skills. Outperforming markets sustainably is a very challenging task. Therefore value-add from investment selection is less reliable than value-add from diversification and usually carries higher cost. Nevertheless, we believe that many of our comparative advantages put the odds of success in our favour, and the variety and breadth of our investment programs help stabilize our overall performance.

3. **Valuations** – The values placed on private investments are determined by independent appraisal processes. See page 75 for more details about the valuation process. In the short term, these processes tend to generate investment values that are less volatile than – and slightly lag – the daily-moving prices of comparable public market equivalents. In periods when public equities rise rapidly, we expect little or even negative reported dollar value-added in private investments, which now comprise 50.0% of the portfolio. Conversely, in periods of sharp public market losses, we expect private investments values to be relatively resilient, and thus generate positive reported value-added versus public market equivalents. While using our comparative advantages to invest substantially in private markets introduces some volatility into our reported short-term relative performance against the public markets Reference Portfolio, we believe these investments will create greater net value than public alternatives for the Fund's applicable horizon, which spans decades.

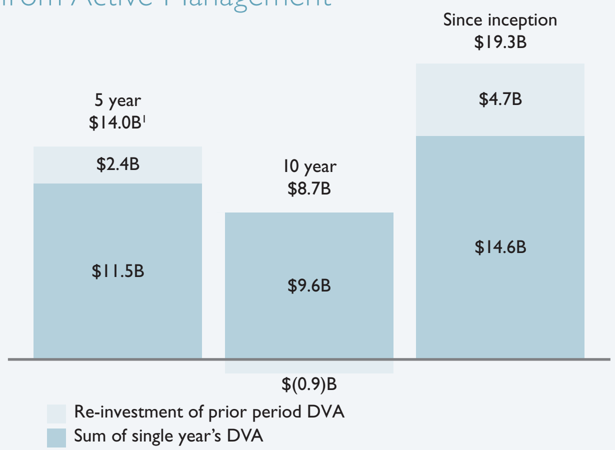
We do not place undue emphasis on results in any single year, whether positive or negative. We focus on tracking absolute and value-added performance over rolling five-year periods. This aligns with the measurement period of our compensation framework, as described on page 76. While it does not necessarily represent a full-market cycle, the five-year period provides a reasonable basis for assessing longer-term performance over multiple such periods.

The Investment Portfolio grows not only through single years' value-added but also through the compounding effect of continuous reinvestment of gains (or losses). We therefore calculate compounded dollar value-added (compounded DVA) as the total net dollar value that CPPIB has added to the long-term Investment Portfolio through all sources of active management, above the value that the Investment Portfolio would have generated had it earned Reference Portfolio returns alone.

Under the compounded DVA measure, the Reference Portfolio is treated as a standalone, zero-cost passive portfolio. Each period of years is treated as an independent period with the Reference Portfolio's notional value set to match the Investment Portfolio value at the start of that period. The Reference Portfolio's dollar value then moves with its daily index returns during the period and, either plus or minus, the same CPP cash flows as for the Investment Portfolio. Comparing the value of the Reference Portfolio against the actual Investment Portfolio at the end of the measured period gives the compounded DVA for that period. On this basis, CPPIB has generated $19.3 billion of compounded DVA since inception of active management at April 1, 2006.

The chart below shows the compounded DVA for the full period since inception, and for the past 10 and five years, attributed between (i) the sum of single years' DVAs for the respective period and (ii) the impact of continuing reinvestment of value-added.

Compounded Dollar Value-Added from Active Management



1. Figures do not add up due to rounding.

Reference Portfolio returns represent a blend of returns on equities and bonds market indexes, which do not take any costs into consideration. Factoring realistic costs to replicate indexes in a live portfolio into the calculation of Reference Portfolio returns would have resulted in even higher value-added figures.

Cash for Benefits portfolio

CPPIB manages cash on a short-term basis in the Cash for Benefits portfolio to support monthly benefit payments made by the CPP. This Cash for Benefits portfolio is segregated from the long-term Investment Portfolio and invested only in liquid money market instruments. The primary objective is to ensure the CPP can meet benefit payment obligations on any business day.

A secondary objective is to match or exceed the benchmark return of the FTSE TMX Canada 91-day Treasury Bill Index. The portfolio earned 1.0% or $11.2 million for fiscal 2018 versus 0.8% for the index. Over the course of the year, this short-term portfolio had an average balance of approximately $1.0 billion.

Managing CPPIB costs

Building CPPIB today and for the future

CPPIB seeks to maximize investment returns without undue risk of loss having regard to the factors that may affect the funding of the CPP. These objectives guide 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. We remain vigilant as we continue to build an organization designed to realize our public purpose.

In 2006, CPPIB made the decision to adopt an active management strategy to create value-building growth, generating investment returns that will exceed passive management over the long run after all costs. Our decision to manage the Fund actively was not made lightly. It presents significant complexity and requires sophisticated resources to build an enduring organization with diverse, internationally competitive investment programs each designed to maximize long-term, risk-adjusted returns after all costs.

To evaluate active management, we continually measure results relative to risk against available alternatives. This ensures that we deliver superior 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 include wage growth, demographics, fertility rates, immigration and longevity, all of which are outside the control of CPPIB.

Consistent with the growth in the Investment Portfolio and the development of our active management strategy, CPPIB's costs have also grown over the years. We have, and continue to develop, the in-house capabilities required to operate as a truly global investment organization. These capabilities include world-class investment skills, expertise in critical corporate functions, sophisticated systems, and the establishment of a local presence in key regions to access the best opportunities and manage the Investment Portfolio's investments. While maintaining offices in key international markets increases operating expenses, this is more than offset by the value we derive.

It is in the CPP Fund's best interest to continue building internal investment expertise and capabilities where CPPIB has comparative advantages. Infrastructure investing is a case in point. We estimate that the costs for an externally managed $20 billion pool of committed capital would range on average from $800 million to $900 million per year. By contrast, the fully costed internal management of our $20 billion infrastructure portfolio is approximately $75 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 only partner with top-tier managers and fee arrangements are structured to ensure our interests are aligned. See page 52 for more details.

Scale is an important consideration in light of the projected growth in our investment portfolio. Scale is one element that allows us to attract and retain expert professionals from across the world. It ensures the critical mass we need to compete realistically for the world's most attractive investments and win against formidable competitors. It has allowed us to establish and effectively manage 25 distinct investment programs, meeting the goal of diversification and to leverage insights from one program to enhance others.

Scale also allows CPPIB to realize the financial benefits of spreading costs over an increasing amount of assets under management. One trend that demonstrates economies of scale is the decreasing ratio of core service professionals to investment professionals. Core services represent business areas such as information technology, governance, operations and finance that partner with and support the investment teams. While the assets we manage and oversee have grown significantly over the years, the ratio of core services to investment professionals has declined. In fiscal 2011, the ratio was 1.08 and has decreased to 0.97 in fiscal 2018.

We regularly assess our cost-effectiveness through participation in external benchmarking studies. Results from the 2017 benchmarking study completed by CEM Benchmarking[1] indicates that CPPIB staffing levels for investment departments are aligned with the benchmark. Meanwhile, the number of full-time equivalent[2] staff in CPPIB's core services remains about 4% lower than the peer comparator benchmark developed by CEM. We continue to monitor these relationships closely and we are comfortable that this level of core services staffing provides us with the resourcing necessary to support investment activities and properly govern and administer the assets we manage. While we benchmark our costs to ensure they are reasonable, CPPIB also participates in benchmarking of our net returns through CEM. For the five-year period ended March 31, 2017 (the most recent data available), our net annualized return of 11.8%, after all costs, was 1.0% higher than the median of our peers and 2.3% higher than the Canadian median.

Growth of CPPIB

The CPP Fund assets are expected to grow to approximately $800 billion by 2030. Given this expected growth, we need the capacity to deploy capital prudently to maximize returns, which requires CPPIB to build capabilities today for the growth of tomorrow.

Growth of CPPIB

	Fiscal 2018	Fiscal 2006 (before active management)
Net Assets	**$356.1 billion**	$98.0 billion
% foreign investments	**84.9%**	35.7%
Total employees (full-time)	**1,498**	164
Number of offices	**Eight**	One
Number of investment programs	**25**	Six
Number of external partners	**254**	62

Cost governance framework

We apply the resources required to deliver above-market returns. At the same time, we are diligent in exercising control over the costs we incur and ensure value for money spent is delivered to the Fund. Our cost governance framework includes expense-management policies and authorities, as well as monthly expense reporting to Senior Management and quarterly reporting to 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. In addition, our employee travel and expense policy ensures that the expenses incurred by employees are reasonable and appropriate to the needs of our business. Oversight also includes regular reviews by the Assurance & Advisory group. To ensure objectivity, Assurance and Advisory is an independent corporate function that reports functionally to the Chair of the Audit Committee and administratively to the Chief Financial and Risk Officer.

1. CEM Benchmarking Inc. is an independent provider of objective and actionable benchmarking information for large pools of capital including pension funds, endowments/foundations and sovereign wealth funds.
2. Full-time staffing includes both full-time CPPIB employees and contractors.

Fiscal 2018 costs

To manage the $356.1 billion portfolio (as at March 31, 2018) and to generate the $36.7 billion of net income after all costs, CPPIB incurred costs of $3,192 million for fiscal 2018. The diagram below shows each component of CPPIB costs.

These costs reflect the internal and external resources required to invest, manage and govern the Investment Portfolio assets across 25 distinct investment programs, in 53 countries around the world.

The table below illustrates the investment income generated and the associated costs incurred by each investment department to support their activities. Further details are available starting on page 53.

CPPIB Costs to Invest the CPP Fund

INVESTMENT MANAGEMENT FEES

PAID ON COMMITMENTS AND ASSETS INVESTED

PAID WHEN RETURNS REALIZED

Operating expenses
$1,053 million

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

Why do we incur the costs?
To prudently manage the CPP Fund, we employ top-tier talent and have offices in key markets to access and monitor the best investment opportunities.

Transaction costs
$401 million

What does it pay for?
External advisors, 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.

Management fees
$1,029 million

What does it pay for?
Payments to external fund managers to pay for the operating costs they incur in managing the fund.

Why do we incur the costs?
External managers help produce exceptional performance, net of all costs, and diversify the Fund through different strategies and regions.

Performance fees
$709 million

What does it pay for?
High performance and alignment of interests between CPPIB and the external fund managers.

Why do we incur the costs?
A form of profit sharing when returns exceed a predefined percentage hurdle.

Net Income by Investment Department

	Fiscal 2018						Fiscal 2017	5-year
($ millions)	Total Portfolio Management[1]	Public Market Investments	Investment Partnerships	Private Investments	Real Assets	Total	Total	Total
Investment Income	**16,764**	**1,381**	**10,101**	**4,382**	**7,292**	**39,920**	36,264	162,768
Investment Management Fees	–	2	1,594	9	133	1,738	1,464	6,733
Transaction Costs	40	86	30	161	84	401	447	1,774
Net Investment Income	**16,724**	**1,293**	**8,477**	**4,212**	**7,075**	**37,781**	34,353	154,261
Operating Expenses[2]	368	145	165	158	217	1,053	923	4,231
Net Income	**16,356**	**1,148**	**8,312**	**4,054**	**6,858**	**36,728**	33,430	150,030

1. Investment Income for Total Portfolio Management includes the Balancing Portfolio and other activities and is net of interest expense of $290 million ($141 million in fiscal 2017 and $553 million from fiscal 2014 to fiscal 2018) incurred in the CPPIB Commercial Paper and Term Debt programs. Interest rate swaps are utilized where applicable to hedge the interest rate risk inherent in our Term Debt.

2. Operating expenses for Total Portfolio Management include $142 million ($113 million in fiscal 2017 and $382 million from fiscal 2014 to fiscal 2018) of general governance costs for the total Fund that are not allocated to the active investment programs.

Operating expenses

Operating expenses were $1,053 million this year compared to $923 million in fiscal 2017. The fiscal 2018 operating expense ratio of 31.5 cents for every $100 of invested assets remained relatively flat compared to the fiscal 2017 operating expense ratio of 31.3 cents. This is lower than both the fiscal 2016 and 2015 ratios of 32.0 and 33.9 cents, respectively.

The $130 million year-over-year increase in total operating expenses is largely due to higher personnel costs, as well as increases in general operating expenses and professional fees as described below.

Total personnel expenses were $712 million in fiscal 2018, an increase of $87 million versus the prior year. The higher personnel costs reflect the increase in staffing levels from 1,393 to 1,498 regular full-time employees in fiscal 2018 required to manage the growing size of the Investment Portfolio, and for the incentive compensation which reflects the Fund's strong results. In fiscal 2018, the rate of employee growth was slower than the growth of Fund assets.

In order to support a growing CPP Fund as well as continued diversification of assets across sectors and geographies, CPPIB has expanded its international operations in key markets over the past five years, particularly in the emerging markets of China, India and Latin America. In fiscal 2014, there were less than 50 employees in the Hong Kong, Mumbai and São Paulo offices combined. Today, there are over 120 employees supporting those offices which will continue to grow in the future as CPPIB looks to further increase exposure in fast-growth emerging markets.

General operating expenses of $270 million were $26 million higher on a year-over-year basis. This was largely due to increases in information technology and data services, higher premises expenses to accommodate staffing levels, custodial fees associated with the level of our public market security holdings across developed and emerging markets, as well a higher taxes assessed on our international office operations.

Professional services fees of $71 million were $17 million higher on a year-over-year basis. IT professional services increased significantly to support key business initiatives across the organization. In addition, management consulting services increased to support strategy development.

Transaction costs

Transaction costs for fiscal 2018 totalled $401 million compared to $447 million in the prior year, a decrease of $46 million versus the prior year. This year, we completed 60 global transactions valued at over $300 million each involving complex due diligence and negotiations.

Transaction costs include a variety of non-recurring expenses including due diligence consulting services. They also include legal and tax advisory fees required to support the acquisition and dispositions of private market assets or, in the case of public markets, commissions paid when trading securities.

Given the nature of these costs, they 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 given the expected growth in the Fund.

Further details on transaction costs are included in the investment department performance sections starting on page 53.

Notes 8 and 9 to the Financial Statements provide additional cost information on pages 132 and 133.

Investment management fees

Given our broadly diversified portfolio, we seek exposure to a wide range of asset classes and active 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 who have the highest capabilities and strong prospective returns, net of all costs incurred. In addition to delivering attractive returns through our fund investments, many of our external manager partners play a critical role in the generation of investment opportunities for our direct investment platforms.

Investment management fees include management fees primarily paid to private equity fund and hedge fund managers who invest and manage capital committed by CPPIB. They also include performance fees paid to hedge fund managers when CPPIB earns a return above pre-determined hurdle rates.

Total investment management fees paid to external asset managers amounted to $1,738 million in fiscal 2018 compared to $1,464 million in fiscal 2017. The $1,738 million in fiscal 2018 reflects $1,029 million in management fees paid primarily to private equity funds and hedge funds and $709 million in performance fees. The $274 million year-over-year increase in investment management fees is largely due to the strong returns generated by these external managers resulting in higher performance fees paid as well as the continued growth in the level of assets and commitments with external managers.

Further details on investment management fees are included in the Investment Partnerships performance section on page 61.

Performance of the investment departments

The following section provides details about the assets, activities and performance of each investment department for fiscal 2018. A description of each department's responsibilities is found on page 36. We conduct all of our investment activity in accordance with the Statement of Investment Objectives, Policies, Return Expectations and Risk Management (the Investment Statement) approved by our Board of Directors and with the Policy on Sustainable Investing discussed on page 38. These and other Board policies are available on our website, www.cppib.com.

The table below shows the year-end composition of net investment assets:

Year-End Composition of Net Investments by Department and Asset Class

($ millions)	Total Portfolio Management[1]	Public Market Investments	Investment Partnerships	Private Investments	Real Assets	Total
Public Equities	136,268	–	1,109	1,007	–	138,384
Private Equities	–	–	49,150	23,266	–	72,416
Government Bonds	75,619	–	–	1,174	–	76,793
Credit Investments	3,862	–	–	14,014	4,695	22,571
Real Assets	–	–	–	6,120	77,668	83,787
External Debt Issuance	(24,056)	–	–	–	–	(24,056)
Cash and Absolute Return Strategies[2]	(15,428)	883	688	41	241	(13,574)
Investment Portfolio	176,265	883	50,947	45,622	82,604	356,321
Cash for Benefits Portfolio	1	–	–	–	–	1
Net Investments	176,266	883	50,947	45,622	82,604	356,322
Absolute Return Strategies – Assets[3]		*53,595*	*44,139*			
Absolute Return Strategies – Liabilities[4]		*(52,712)*	*(43,498)*			

1. Includes the Balancing Portfolio, which Total Portfolio Management directs to maintain or achieve intended exposures. Public Market Investments is responsible for security selection and efficient execution.
2. Absolute Return Strategies hold offsetting systematic exposures through long and short investments. As a result, their net asset values greatly understate their size and impact on the portfolio.
3. 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.
4. Includes short positions and hedges of systematic risks arising in Absolute Return Strategies.

This year, we successfully executed a wide range of investment programs, expanded our internal capabilities internationally and further broadened our global reach in pursuit of our long-term objectives. We believe that a local presence in key markets is critical to accessing the most attractive investment opportunities around the world. This ensures diligent asset management, while maintaining professionals with expertise specific to each market.

In fiscal 2018, across all of our investment programs, we concluded 275 transactions internationally – evidence of our deep internal capabilities and wide global reach. The chart below shows the contributions of each investment department to net income, after all CPPIB costs, for the current fiscal year. It also shows the historical 5-year period.

Net Income by Investment Department[1]

($ millions)	1-Year	5-Year
Total Portfolio Management[2]	16,356	59,129
Public Market Investments	1,148	8,088
Investment Partnerships[3]	8,312	17,847
Private Investments	4,054	35,092
Real Assets	6,858	29,874
Total[4]	36,728	150,030

1. After all CPPIB costs.
2. Total Portfolio Management includes the Balancing Portfolio and other investment activities.
3. Includes 3-years' results since creation of Investment Partnerships in April 2015. If historical results were restated, the 5-year net income for Investment Partnerships would be $37,682 million. $5,875 million and $13,960 million would be reallocated from Public Market Investments and Private Investments, respectively.
4. Excludes $11 million and $51 million from the Cash for Benefits portfolio for fiscal 2018 and 5-year cumulative, respectively.

The dollar value-added (DVA) contributions of the investment departments shown in the chart below are measured relative to the respective portfolios' return comparators. In each case, these are computed as blended returns on underlying return-risk factors weighted to represent the specific programs in each department.

Net Value-Added Contributions of Investment Departments[1, 2]

($ billions)	1-Year	5-Year[3]
Total Portfolio Management[4]	(0.5)	(4.9)
Public Market Investments	1.2	4.1
Investment Partnerships[5]	2.2	4.0
Private Investments	0.5	2.1
Real Assets	2.3	6.3
Total	5.7	11.5

1. After all CPPIB costs. Five-year figures are the sum of the single-year dollar value-added.
2. Foreign currency fluctuations have no impact on value-added for Public Market Investments, Investment Partnerships, Private Investments and Real Assets. The currency impact is reported in Total Portfolio Management. See page 55 for more details.
3. Figures do not add up due to rounding.
4. Total Portfolio Management includes the Balancing Portfolio and other investment activities.
5. Includes 3-years' results since creation of Investment Partnerships in April 2015. If historical results were restated, the 5-year value-added for Investment Partnerships would be $5.5 billion. $2.3 billion and $(0.8) billion would be reallocated from Public Market Investments and Private Investments, respectively.

Total Portfolio Management

Fiscal 2018 Net Return ($ billion/%)

Balancing Portfolio – $16.4 billion/9.9%

Net Investments

Balancing Portfolio – $176.3 billion, executed by Public Market Investments

Key Focus this Year

> Developing investment structure to accommodate additional CPP.

> Analyzing long-term risk for the Reference and Strategic Portfolios.

> Determining Fund appetite for emerging market debt, public credit and other exposures.

> Completing global model of factors' behaviour for enhanced total portfolio approach.

> Extending balancing process to more granular levels of asset allocations and factor exposures.

Summary

Under approvals by the Investment Planning Committee, Total Portfolio Management (TPM) guides the overall exposures of the Investment Portfolio, totalling net investments of $356.3 billion at the end of fiscal 2018. Within this total, TPM itself directs the Balancing Portfolio so as to achieve, in combination with the Active Portfolio managed by the other investment departments, the targeted overall exposures for the Investment Portfolio. At year end, the Balancing Portfolio net investments stood at $176.3 billion.

The following chart shows the net income earned by the Balancing Portfolio.

Net Income for Total Portfolio Management

($ millions)	**Fiscal 2018**	Fiscal 2017	5-Year
Investment Income[1]	**16,764**	17,419	60,535
Investment Management Fees	**–**	–	2
Transaction Costs	**40**	40	190
Net Investment Income	**16,724**	17,379	60,343
Operating Expenses[2]	**368**	259	1,214
Net Income	**16,356**	17,120	59,129

1. Net of interest expense of $290 million ($141 million in fiscal 2017 and $553 million from fiscal 2014 to fiscal 2018) incurred in the CPPIB Commercial Paper and Term Debt programs. Interest rate swaps are utilized where applicable to hedge the interest rate risk inherent in our Term Debt.
2. Includes $142 million ($113 million in fiscal 2017 and $382 million from fiscal 2014 to fiscal 2018) of general governance costs for the total Fund that are not allocated to the active investment programs.

Following widespread equity market gains in fiscal 2018, the Balancing Portfolio earned income of $16.4 billion, net of all incurred costs of $408 million. Investment income is net of $290 million of interest expenses incurred in the CPPIB Commercial Paper and Term Debt programs in fiscal 2018. Interest expense for our debt issuance programs increased by $149 million over last year, reflecting the growth of our Term Debt program, which issued an additional $9 billion in medium- and long-term debt, and rising short-term rates in North America. Transaction costs of $40 million remained flat to last year and represent primarily public market commissions and trade settlement costs. Operating expenses of $368 million increased year over year due to higher support costs from PMI groups, as well as core services support and general governance costs.

The following chart shows the contribution to portfolio value-added by diversification in the Investment Portfolio, and by balancing and other decisions directed by TPM in fiscal 2018.

Total Portfolio Management	**Fiscal 2018 $ billions**	Fiscal 2017 $ billions
Contribution to Portfolio Net Value-Added[1, 2]		
1-year	**(0.5)**	(3.7)
5-year	**(4.9)**	(4.1)

1. After all CPPIB costs.
2. Includes net dollar value-added from Balancing Portfolio and diversification.

The negative net DVA of for fiscal 2018 was primarily due to the impact of broad diversification among asset classes in the Investment Portfolio, relative to the Reference Portfolio's 82.5% in global public equities with a return this year of 11.6%. When global equity markets maintain such strong momentum, the equity-heavy Reference Portfolio will naturally tend to generate higher returns than the more diversified Investment Portfolio. However, the diversification impact was much more muted this year than in fiscal 2017, and is expected to reverse to a positive contribution in years when public equities are less strong.

Fiscal 2018 activities

TPM's responsibilities fall into two broad areas – (i) research, analysis and recommendations to continuously enhance the overall composition and management of the total Investment Portfolio within its risk limits, and (ii) day-to-day direction of the asset and factor exposures allocations of its Balancing Portfolio component.

As part of its analytical activities, TPM refined its Long-Term Economic Opportunity model to enhance assessment of emerging markets, a growing element in the total portfolio. TPM also researched the potential return and risk impacts of adding emerging market bonds to the Investment Portfolio, and made an IPC-accepted recommendation of an allocation to this asset class. Throughout the year, TPM's team of 88 professionals in Toronto has worked closely with the additional CPP project management office and other groups across CPPIB on a variety of legal, portfolio structure, risk management, operational and reporting issues to ensure full readiness for investment of new cashflows from the enhanced CPP commencing January 1, 2019.

The largest element in the long-term Investment Portfolio is the Balancing Portfolio (see page 32), at a value of $176.3 billion at year end. TPM reviews total portfolio composition daily, and balances and adjusts components in the Balancing Portfolio so as to maintain or achieve intended overall return-risk factor exposures in the Investment Portfolio. Consisting entirely of tradeable public market securities, the Balancing Portfolio also maintains and optimizes the appropriate liquidity in the Investment Portfolio. The Global Capital Markets and Cash and Liquidity Group teams in Public Market Investments are responsible for maintaining and optimizing the portfolio components through selection and trading of individual public securities.

TPM's direction of the Balancing Portfolio is a foundational element in the Total Portfolio Investment Framework described on page 29. Underlying this direction are a number of models that we use to analyze asset classes and return-risk factor exposures (see page 33 for more on our factors-based investing approach), optimize allocations and attribute return contributions. TPM made significant enhancements to these critical models during the year, to better design and control total portfolio construction and deliver the guiding Signals for specific programs to the respective investment groups.

Looking ahead

The primary objectives for TPM in fiscal 2019 include:

> Accepting and deploying the additional cashflows commencing January 1, 2019 from the enhanced Canada Pension Plan. TPM will ensure that CPPIB's investment framework then incorporates all aspects needed to invest these cash flows appropriately and cost effectively, applying CPPIB's competitive advantages and expertise for the benefit of the additional part of CPP;

> Expanding the coverage, characterization and control of emerging markets equity and debt investments, and related factor exposures, as these allocations in the total portfolio continue to grow substantially;

> Completing full implementation of the extended day-to-day process for maintaining targeted exposures and risks through the Balancing Portfolio, to optimize total portfolio composition and maximize long-term net returns without undue risk in any dimension; and

> Making significant contributions to further CPPIB's knowledge advantage initiative, for better investment decision-making to create long-term value in a changing world.

Public Market Investments

Fiscal 2018 Net Return ($ billion/%)

Absolute Return Strategies[1] – $1.1 billion/N/A

Net Investments

$176.3 billion on behalf of Balancing Portfolio, directed by TPM

$0.9 billion in Absolute Return Strategies[1] (Asset Under Management $53.6 billion)

Key Focus this Year

> Scaling PMI's investment activities from a bottom-up perspective.

> Facilitating a greater focus on total return and delivering increased emerging markets exposure.

> Launching knowledge-sharing and cross-collaboration initiatives.

Summary

At the end of fiscal 2018, Public Market Investments (PMI) managed total net investments of $177.2 billion, on behalf of the Balancing Portfolio as directed by TPM, as well as for PMI's Absolute Return Strategies. Total assets under management (AUM) under Absolute Return Strategies were $53.6 billion, generally computed as the sum of the values of the long investments in these strategies.

The distribution and development of PMI's AUM for Absolute Return Strategies is shown below at the current and prior year ends, reflecting an increase of $19.3 billion in the current year. Fundamental Equities increased its AUM as Relationship Investments funded new and follow-on investments and Active Fundamental Equities (AFE) continued to scale its portfolio. Quantitative Equities also increased its AUM in fiscal 2018, in line with its planned growth in active risk.

Public Market Investments – Net Investments

($ billions)	March 31, 2018	March 31, 2017
Balancing Portfolio Net Investments	**176.3**	164.0
Absolute Return Strategies (ARS) – Assets		
Fundamental Equities	**39.2**	23.5
Quantitative Equities	**14.1**	10.4
PMI Common[2]	**0.3**	0.4
ARS Assets Under Management (AUM)[1]	**53.6**	34.3
ARS Liabilities[3]	**(52.7)**	(34.5)
ARS Net Investments	**0.9**	(0.2)
Net Investments	**177.2**	163.8

1. Absolute Return Strategies (ARS) hold offsetting systematic exposures through long and short investments. As a result, their net asset values greatly understate their size and impact on the portfolio. Returns for these strategies are reported in dollar values only, since percentage returns on their net asset values do not represent their investment performance. 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 in each of the programs.
2. PMI Common includes an allocation to an externally managed fund and residual holdings from a legacy strategy.
3. Includes short positions and hedges of systematic risks arising in Absolute Return Strategies.

The following chart shows the contribution to portfolio value-added by PMI's Absolute Return Strategies in fiscal 2018. The returns are reported only in dollar amounts, because activities are conducted on a market-neutral or long/short basis. In these cases, there is no generally accepted and appropriate underlying asset base for measuring returns in percentage terms.

Public Market Investments – Absolute Return Strategies	Fiscal 2018 $ billions	Fiscal 2017 $ billions
Contribution to Portfolio Net Value-Added[1]		
1-year	**1.2**	(0.7)
5-year[2]	**4.1**	3.9

1. After all CPPIB costs.
2. External Portfolio Management and Thematic Investing performance is reported under Public Market Investments up to March 31, 2015. If historical results were restated, the 5-year dollar value-added would be $1.8 billion for fiscal 2018, with $2.3 billion reallocated to Investment Partnerships.

Results were mixed across PMI's Absolute Return Strategies, delivering positive overall value-added performance for the one-year period. This occurred amid strong global equity markets. The distribution of results across investment groups was consistent with the expectation that groups will not all move in the same direction in any given year. PMI remains confident in its collective ability to continue generating and sustaining significant value creation over the longer term. PMI manages its investments based on a five-year investment horizon. These results continue to be strong.

During fiscal 2018, PMI's Absolute Return Strategies delivered net income of $1.1 billion for the Fund, and incurred costs of $233 million to support their investing strategies and activities. Transaction costs of $86 million represent primarily public market commissions, trade settlement costs and prime brokerage costs, which mainly support the Fundamental Equities and Quantitative Equities groups. PMI incurred lower transaction costs given the restructure implemented in fiscal 2017. Investment management fees of $2 million in fiscal 2018 were lower than last year due to a legacy fund in the process of being redeemed. Operating expenses of $145 million were lower than last year given the previously noted restructuring in PMI.

Public Market Investments – Absolute Return Strategies ($ millions)	Fiscal 2018	Fiscal 2017	5-Year[1]
Investment Income	**1,381**	(384)	10,747
Investment Management Fees	**2**	6	1,312
Transaction Costs	**86**	91	377
Net Investment Income	**1,293**	(481)	9,058
Operating Expenses	**145**	204	970
Net Income	**1,148**	(685)	8,088

1. 5 year includes EPM and Thematic Investing (TI) for fiscal 2014 and fiscal 2015, before the formation of Investment Partnerships effective fiscal 2016 (includes $21 million transaction costs, $1,292 million investment management fees, and $98 million operating expenses).

Fiscal 2018 activities

In fiscal 2018, PMI continued to play a critical role in facilitating a greater focus on total return and delivering increased emerging markets exposure. PMI advanced top-down strategic tilting efforts, launched new programs within our Global Capital Markets group and expanded our emerging markets capabilities. PMI's team of 215 professionals are located across six global offices.

Fundamental Equities

Fundamental Equities (FE) had positive performance in fiscal 2018, driven by security selection within all major sectors and across global markets. FE investments in the Financials, Health Care, Information Technology and Industrials sectors contributed meaningfully to the overall positive performance. Notably, gains were produced by a majority of the group's largest investments.

In fiscal 2018, FE continued to work on the integration of the Relationship Investments (RI) and Active Fundamental Equities (AFE) teams. We did this by consolidating market hedging, risk management and performance analytics activities across the groups. Optimizing FE's hedge basket into a single overlay allows the group to manage systematic, uncompensated risks more efficiently. This enhances the quality of hedging and reduces trading costs.

During the year, FE furthered its efforts to add emerging markets exposure to the Fund. As examples, RI built a team called Direct Equity Investing in the São Paulo office, responsible for direct cornerstone public and private company investing throughout Latin America. AFE also began active investing in securities listed in the China A-share market and launched an India strategy.

Key investment highlights included:

> Invested a further €200 million in Elis SA, a Paris-based market leader in the industrial laundry, textile rental, and hygiene and well-being industry, to help fund its transformational acquisition of Berendsen. Combined with additional open market purchases, our ownership in Elis is approximately 9%; and

> Invested a combined US$391 million in ReNew Power Ventures Pvt. Ltd., one of India's leading clean energy companies.

Quantitative Equities

After four consecutive years of positive performance, Quantitative Equities (QE) underperformed in fiscal 2018. During a year that was challenging for quantitative and systematic strategies broadly, analysis revealed mixed performance across the three major factor categories (value, sentiment and quality), with value driving the bulk of the underperformance. Sentiment-related factors performed strongly across almost all regions and quality generally had positive results across regions.

In fiscal 2018, the QE team continued to refine and expand its existing strategies with a focus on innovation in the areas of portfolio construction, forecasting and risk modelling. Highlights included:

> New signals based on the analysis of unstructured data;

> New signals leveraging natural language processing applied to text;

> New non-linear family of behavioural signals; and

> Full implementation of a novel portfolio construction methodology.

The team also focused on implementing the Equity Factor Investing initiative. This program is now incorporated into the QE ID Signal. Looking forward, the team is exploring applications of machine learning to address a number of forecasting topics.

Global Capital Markets

The results of Global Capital Market's (GCM) activities are included within the Balancing Portfolio rather than within PMI's Absolute Return Strategies. During fiscal 2018, the IPC granted approval for GCM to launch the pilot programs for the Credit, Volatility and Carry programs. Looking ahead, GCM will continue to work with TPM on the overall development of these programs as they move beyond their pilot phases. Credit will focus on integration with the overall balancing process. Carry and Volatility will increase the size of their programs. In addition, GCM launched the Emerging Markets Local Currency Sovereign Debt pilot program. This aligns with the Fund's desire for more Emerging Market exposure.

Cash & Liquidity Group

The results of the Cash & Liquidity Group's (CLG) activities are included within the Balancing Portfolio as CLG is responsible for funding and liquidity management across the organization. Effective April 1, 2017, CLG, formerly embedded within GCM, became a standalone group within PMI. The Board currently authorizes CPPIB to issue various forms of unsecured indebtedness. In fiscal 2018, the Board approved a $5 billion increase to the aggregate principal outstanding at any one time, resulting in a $30 billion limit.

CLG manages CPPIB's Canadian, U.S. and euro commercial paper programs. The combined commercial paper programs totalled $6.3 billion at March 31, 2018. They provide a flexible source of short-term financing across a broadly diversified investor base. Last year, CPPIB established a global medium-term note program. Through this program, CPPIB issues unsecured senior notes in multiple currencies, on a private placement basis. In fiscal 2018, CLG completed the inaugural Euro Term Debt issue. In addition, we actively seek to diversify the term of our outstanding debt, with prior issuance ranging from two to 15 years. The term-debt program had $17.8 billion outstanding at March 31, 2018.

In fiscal 2018, CLG embarked on a number of initiatives:

> Development of a robust asset-liability management framework;

> Design of new, efficient financing products to enable active strategies; and

> Enhancements to existing liquidity coverage ratios.

Strategic Tilting

There was no performance associated with the Strategic Tilting program during fiscal 2018. Since the creation of the group in November 2016, Strategic Tilting (ST) has focused on designing the investment process and the appropriate governance structure to manage the program. A key milestone was the creation of an IPC subcommittee called the Investment Planning Committee – Strategic Tilting Committee (IPC-STC). It became operational in fiscal 2018. In addition, the group completed a white paper covering the methodologies, principles and process needed to manage the program. This work is expected to culminate in the launch of a pilot program next year.

Looking ahead

Building on the progress made in fiscal 2018, PMI will focus its efforts on:

> Continuing to facilitate a greater focus on total return through the strategic tilting program as well as the Credit, Volatility and Carry programs in GCM;

> Further developing programs that support the delivery of desired levels of emerging markets exposure; and

> Advancing knowledge-sharing initiatives and cross-collaboration across the organization, including data and analytics.

Investment Partnerships

Fiscal 2018 Net Return ($ billion/%)

Funds, Secondaries & Co-Investments – $6.9 billion/16.3%

Absolute Return Strategies[1] – $1.4 billion/N/A

Net Investments

Funds, Secondaries & Co-Investments – $50.3 billion

Absolute Return Strategies[1] – $0.6 billion (Assets Under Management $44.1 billion)

Key Focus this Year

> Continuing to build strong relationships with external managers.

> Proactive sourcing efforts to gain access to attractive fund managers, secondary transactions and co-investments.

> Expanding the number of themes it covers and continuing to scale thematic portfolios.

Summary

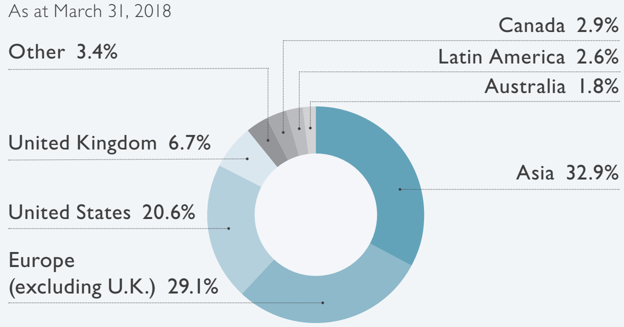
Investment Partnerships (IP) assets under management grew from $77.8 billion at the end of fiscal 2017 to $94.4 billion at the end of fiscal 2018. For Absolute Return Strategies, assets under management (AUM) are computed as the sum of the values of the long investments in these strategies.

As at March 31, 2018, IP maintains over 190 relationships across both our public and private funds. The growth of our portfolio was driven mainly by a combination of investment gains and new investment activity. The IP team also grew from 123 to 139 members across Toronto, London and Hong Kong.

The following tables show IP's assets under management by group. They also show the combined value-added generated by IP's active investment programs in fiscal 2018. We report performance for IP as a whole in dollar amounts only, as many of the activities conducted in public markets are done on a long/short or partially funded basis. In these cases, there is no generally accepted and appropriate underlying asset base for measuring returns in percentages.

Investment Partnerships – Geographic Diversification

As at March 31, 2018



Investment Partnerships – Net Investments

($ billions)	March 31, 2018	March 31, 2017
Funds, Secondaries & Co-Investments	**50.3**	40.3
Absolute Return Strategies (ARS) – Assets		
External Portfolio Management	**37.0**	34.6
Thematic Investing	**4.8**	2.9
IP Common[2]	**2.3**	N/A
ARS Assets Under Management (AUM)[1]	**44.1**	37.5
ARS Liabilities[3]	**(43.5)**	(37.0)
ARS Net Investments	**0.6**	0.5
Net Investments	**50.9**	40.8

1. Absolute Return Strategies (ARS) include External Portfolio Management, Thematic Investing and IP Common programs that hold offsetting systematic exposures through long and short investments. As a result, their net asset values greatly understate their size and impact on the portfolio. Returns for these strategies are reported in dollar values only, since percentage returns on their net asset values do not represent their investment performance. 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 in each of the programs.
2. IP Common includes the Long-Term Value Creation portfolio that was transferred from the Investment Planning Committee portfolio in fiscal 2017, and also other assets that were reported under EPM in fiscal 2017.
3. Includes short positions and hedges of systematic risks arising in Absolute Return Strategies.

Use of External Fund Managers

Over the most recent five-year period, our external fund managers have delivered $40.9 billion of investment income, which is before investment management fees and transaction costs, or $34.8 billion of net investment income relative to the $3.7 billion in management fees and $2.3 billion in performance fees paid to hedge fund managers once certain return hurdles were achieved. The FSC fund partners have also generated a large number of attractive direct investment opportunities, resulting in $25.0 billion of investments since inception and $15.1 billion of net investment income with no associated fees over the last five years.

EPM invests in hedge fund managers that are expected to generate attractive, sustainable results on a risk-adjusted basis, net of all costs. While FSC invests in the funds of private equity managers who we expect will outperform public alternatives on a risk-adjusted basis, they also provide direct investment opportunities to CPPIB, most importantly for our Direct Private Equity, Private Equity Asia and Co-Investment programs.

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 are noted below.

EPM achieves this by:

> Trading lower management fees for higher performance fees;

> Considering longer commitment periods in exchange for lower fee structures;

> Making co-investments alongside managers to increase net returns for the Fund;

> 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 improved fees with several of our managers in fiscal 2018.

FSC achieves this by:

> Securing direct investment opportunities while paying 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 where managers are capacity constrained, but we have declined allocations with a number of high-quality managers when we were unable to negotiate acceptable terms.

MD&A

Investment Partnerships – Contribution to Portfolio Net Value-Added[1, 2]

($ billions)	**Fiscal 2018**	Fiscal 2017
1-year	**2.2**	(1.9)
3-year[3]	**4.0**	N/A

1. After all CPPIB costs.
2. Foreign currency fluctuations have no impact on departmental value-added. See page 28 for more details.
3. Investment Partnerships was created on April 1, 2015 by combining External Portfolio Management, Thematic Investing, and Funds, Secondaries and Co-Investments. If historical results were restated, the 5-year dollar value-added would be $5.5 billion for fiscal 2018. $2.3 billion and $(0.8) billion would be reallocated from Public Market Investments and Private Investments respectively.

In fiscal 2018, IP earned significant net income due to strong performance from the Funds, Secondaries & Co-Investments (FSC), External Portfolio Management (EPM) and Thematic Investing (TI) portfolios, driven by investment gains. The IP portfolio continues to outperform its return comparators over the long term. Although the public equity markets continued to rally, value-added returns were also positive in fiscal 2018, with all IP groups contributing.

During fiscal 2018, IP delivered net income of $8.3 billion for the Fund and incurred costs of $1,789 million to support their investing activities. Transactions costs of $30 million in fiscal 2018 are higher than last year driven by increased deal activity within Funds, Secondaries and Co-Investments. Investment management fees of $1,594 million represented $895 million in management fees paid to external private and public fund managers. Following EPM's strong performance, $699 million in performance fees were paid to hedge fund managers. Compared to fiscal 2017, management fees have increased as a result of increased assets and commitments managed by our external fund managers. Due to strong performance for most EPM strategies, performance fees have increased. Operating expenses of $165 million were higher than last year largely due to increases in personnel-related costs including incentive compensation reflecting performance, as well as allocated core services costs.

Investment Partnerships

($ millions)	Fiscal 2018	Fiscal 2017	3-Year[1,3]
Investment Income	**10,101**	8,282	22,421
Investment Management Fees[2]	**1,594**	1,291	4,062
Transaction Costs	**30**	25	77
Net Investment Income	**8,477**	6,966	18,282
Operating Expenses	**165**	143	435
Net Income	**8,312**	6,823	17,847

1. The three-year view reflects Investment Partnerships effective fiscal 2016. If historical results were re-stated to include FSC, EPM and TI in fiscal 2014 and fiscal 2015, for the five year period from fiscal 2014 to fiscal 2018, transaction costs would be $117 million, investment management fees $6,039 million ($3,698 million in performance fees and $2,341 million in management fees), and operating expenses $624 million for costs for Investment Partnerships of $6,780 million.
2. Investment management fees in fiscal 2018 includes $895 million of management fees and $699 million of performance fees. Fiscal 2017 includes $855 million of management fees and $436 million of performance fees.
3. The three-year view excludes EPM, TI and FSC for fiscal 2014 and fiscal 2015. For fiscal 2014 and fiscal 2015, EPM and TI combined incurred transaction costs of $21 million, investment management fees of $1,292 million and operating expenses of $98 million. FSC incurred transaction costs of $18 million, investment management fees of $686 million and operating expenses of $91 million. Figures do not add due to rounding for investment management fees and transaction costs noted in footnote 3 and the three-year totals in the table above versus the corresponding total in footnote 1.

Fiscal 2018 activities

In fiscal 2018, IP continued to sharpen its focus on maximizing the total relationship value generated by our external manager partners, including direct investments sourced by our partners. In addition, IP continued to leverage its relationships by significantly expanding its co-investment activities globally.

Activities in fiscal 2018 for each IP group are described below.

External Portfolio Management

External Portfolio Management's (EPM) assets under management grew to $37.0 billion from $34.6 billion last year. In fiscal 2018, most of EPM's strategies performed well, led by equity long/short, quantitative equity, and fixed income investments. In particular, our investments in on-shore Chinese equities (known as A-Shares) performed very well both on an absolute basis as well as relative to their benchmarks. While EPM's engagement equity investments strategy was profitable in fiscal 2018, these returns did not keep pace with the strong public market equity rally, resulting in underperformance for this strategy.

EPM continued to scale its portfolio by making additional investments in high-conviction managers, and improved portfolio transparency and alignment with our partners. We added eight new mandates, added two co-investments, increased funding to ten existing mandates and redeemed four mandates. Allocations were made primarily in insurance-linked securities, fundamental equity and fixed income strategies. The portfolio now includes 56 managers, up from 53 at the end of fiscal 2017. Overall, they direct 63 mandates.

Key activities included:

> Following an increase in natural catastrophes in 2017, worked with partners in the Insurance-Linked Securities strategy to provide US$225 million of backup coverage to the global insurance industry;

> With an improved pricing environment, committed a further US$1.0 billion to strategically increase our provision of natural catastrophe reinsurance coverage to insurers globally; and

> Partnered with Man Group to make EPM's first investment in the alternative beta programs, a potential low-cost method to access hedge fund strategies.

Thematic Investing

In fiscal 2018, Thematic Investing (TI) continued to grow in both personnel and the assets it managed. TI increased its assets under management from approximately $2.9 billion to $4.8 billion driven by scaling existing investment themes, adding new themes and strong performance. TI experienced positive results across the majority of its investment themes, with technology exposure providing particularly strong performance versus broad markets. TI also produced positive returns across all asset classes used to express its ideas, with contributions from public equity, private investments and fund relationships.

We continued scaling our exposure and remain concentrated in the health care, consumer discretionary and information technology sectors. Our new investment themes added in fiscal 2018 focus on evolving trends in the retail, automotive and U.S. housing sectors.

Key activities included:

> Committed to Alibaba's New Retail Strategic Opportunities Fund, which conducts both private and public investments;

> Added personnel and investments to grow its Asia exposure and gain access to earlier-stage companies exposed to TI themes; and

> Pursued additional direct private equity opportunities, including an investment in Katerra Inc. as well as a follow-on investment in Viking Cruises.

Funds, Secondaries & Co-Investments

Funds, Secondaries & Co-Investments (FSC) currently manages more than $78.3 billion in total exposure, which includes both investments and commitments. FSC maintains relationships with 136 general partners globally in pursuit of investments that will outperform public equity benchmarks. Private equity markets remained robust in fiscal 2018, with strong returns and a high level of distribution activity. Private equity valuations have risen to historically high levels and a strong fundraising market has driven continued growth in private equity firms' undrawn commitments. As a result, we continue to be cautious in our approach to new investments. In this environment, FSC increased its portfolio by $10.0 billion to a total of $50.3 billion in carrying value, primarily due to investment gains.

FUNDS

In fiscal 2018, the Funds team deployed $5.7 billion, and received $6.7 billion back from asset realizations from our fund managers. The portfolio generated investment gains in all key markets, with European investments outperforming North American investments. Information technology and consumer discretionary investments significantly outperformed, and they combined to generate 63% and 34% of Funds' and FSC's investment gains, respectively. Although energy investments modestly declined, no sectors materially detracted from the Funds portfolio's net return. The Funds team currently has relationships with 77 fund managers with $48.8 billion of total exposure (up 5.8% from fiscal 2017). The group's investment portfolio value increased to $27.9 billion in 182 funds at year-end 2018, from $25.0 billion in 181 funds last year. Fundraising activity by private equity firms remained buoyant in fiscal 2018 with North America being significantly more active than Europe. In this environment, the Funds team made a total of $5.9 billion of commitments, including $5.4 billion commitments to its existing managers. It also introduced two new managers to its portfolio. Additionally, the Funds team invested a total of US$338 million across three dedicated sector-focused funds managed by core partners Apax Partners, Thoma Bravo (both technology) and KKR (health care).

The Funds team continued to focus on actively managing its relationships with external private equity GPs to generate advantaged deal flow for other investment programs within CPPIB and contribute to the growth of the Fund.

PRIVATE EQUITY ASIA

Private Equity Asia (PE Asia) grew its portfolio from $8.7 billion to $12.4 billion in carrying value in fiscal 2018. PE Asia generated strong net returns, driven primarily by investment gains in its private equity funds, the larger component of the portfolio. The strongest net returns were generated by its direct investments, with significant contributions from investments in China, India and Japan. In aggregate, Chinese investments were responsible for the majority of PE Asia's investment gains and earned significantly higher net returns than the rest of the portfolio. Given significant investment activity and strong performance, total exposure rose from $13.4 billion to $17.1 billion. PE Asia closed six direct investments for $1.6 billion, offset by $0.8 billion in distributions across the portfolio. The team made a total of $1.7 billion in commitments to eight funds, and closed three secondary transactions for $0.4 billion. Private equity investment activity across Asia was robust in fiscal 2018, with an increase in large deals and control ownership transactions. Greater China accounted for almost half of Asia's private equity activity in the 2017 calendar year and was a significant contributor to PE Asia's investment activity. The fundraising environment remained steady, with many of PE Asia's experienced GPs raising larger funds. In this environment, our team continued to strengthen our general partner network and seek attractive and sizable private equity deal opportunities in the region. This is consistent with CPPIB's strategy of increasing exposure in the emerging markets as well as in the private equity asset class.

The team continues to focus on building a diversified portfolio. Key activities included:

> Led a US$4.3 billion take-private investment, alongside Baring Private Equity Asia, of Nord Anglia Education Inc., a premium private K-12 school operator;

> Invested US$250 million in Internet Plus Holdings, China's largest service-focused e-commerce platform; and

> Started focusing on secondary investments and closed its first secondary transaction in collaboration with the S&C team.

SECONDARIES & CO-INVESTMENTS

Secondaries & Co-Investments (S&C) grew its portfolio to $10.0 billion in carrying value from $6.4 billion the prior year. S&C generated significant net returns with most of its investment gains from secondaries, the largest component of its portfolio. Both Direct Secondaries and LP Secondaries were significant contributors to S&C's investment gains. Net returns decreased versus the prior year, primarily due to the strengthening of the Canadian dollar and the continued growth of the co-investment portfolio. The growth in our portfolio is largely a result of total new investment activity of $5.8 billion, which compares to $1.7 billion in the prior year, and $2.3 billion in distributions. Total exposure increased by $4.6 billion or 59% in the period.

Our Secondaries team had its most active year since the inception of the program, investing $4.2 billion across 14 transactions, including:

> Acquired two large Limited Partnership portfolios;

> Committed US$380 million investment in a direct secondary in funds managed by Enfoca Inversiones; and

> Completed our first two Structured Financing investments, one of which was in partnership with PE Asia.

Our Co-Investment team invested $1.6 billion across 13 transactions. Key activities included:

> Praesidiad and ADB Safegate alongside funds managed by The Carlyle Group; and

> Completed nine co-investments with GPs we had not co-invested with before.

Looking ahead

In fiscal 2019, IP will focus its efforts on:

> Continuing to broaden its relationships with external managers to expand its existing programs;

> Creating further opportunities for other CPPIB investment strategies; and

> Scaling investment themes that were approved in fiscal 2018.

Private Investments

Fiscal 2018 Net Return ($ billion/%)

$4.0 billion / 9.9%

Net Investments

$45.6 billion

Key Focus this Year

> Building scale through our platforms and private equity solutions strategies.

> Strengthening the governance and management of our assets.

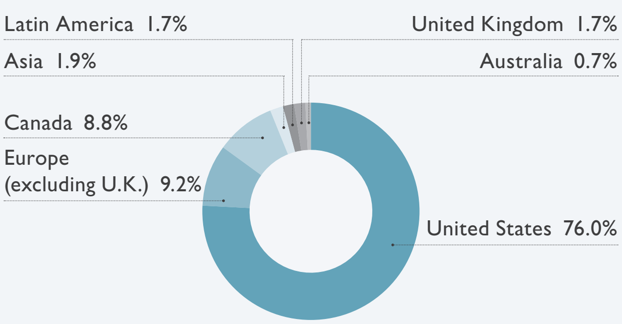
> Actively managing the portfolio, including exploring monetization opportunities.

Summary

Private Investments' (PI) assets increased from $38.7 billion at the end of fiscal 2017 to $45.6 billion at the end of fiscal 2018. This growth was primarily driven by new investment activities totalling $14.4 billion and valuation gains of $3.6 billion. This was partially offset by dispositions totalling $10.6 billion and foreign exchange losses of $0.5 billion. PI's assets represent approximately 12.8% of the CPP Fund. As shown below, PI's investments are diversified by industry and geography.

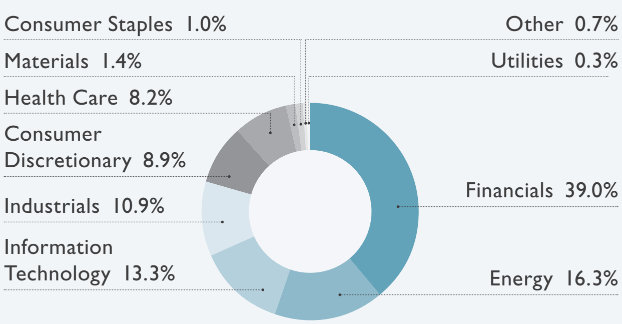
Private Investments – Geographic Diversification

As at March 31, 2018



Private Investments by Sector

As at March 31, 2018



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

The second table shows dollars of net value-added.

Private Investments (%)	Fiscal 2018	Fiscal 2017
Returns		
1-year excluding foreign currency impact[1]	13.6%	13.3%
1-year[1]	10.3%	15.3%
1-year net[2]	9.9%	15.0%
1-year return comparator[3]	10.6%	15.8%

Private Investments ($ billions)	Fiscal 2018	Fiscal 2017
Contribution to Portfolio Net Value-Added[2, 3, 4]		
1-year	0.5	(0.5)
5-year[5]	2.1	0.5

1. After transaction costs and management fees, but before operating expenses.
2. After all CPPIB costs.
3. Return comparator is the weighted return of return-risk factors representative of the department's investment programs. Value-added is relative to the return comparator.
4. Foreign currency fluctuations have no impact on departmental value-added. See page 28 for more details.
5. Funds, Secondaries and Co-Investments performance is reported under Private Investments up to March 31, 2015. If historical results were restated, the 5-year dollar value-added for Private Investments would be $2.9 billion for fiscal 2018, with $(0.8) billion reallocated to Investment Partnerships.

In fiscal 2018, the Private Investments department delivered solid absolute returns. This was due to a combination of large realizations, valuation gains, and strong income flows from our direct equity and debt investments. The gains resulted from rising public company comparable multiples and strong operating results in several portfolio companies. PI's gains were slightly offset by currency losses, primarily due to the Canadian dollar strengthening against the U.S. dollar, which is the portfolio's largest currency exposure. The Private Investments portfolio continues to outpace the returns of relevant public market indexes over the long term. Over the past five years, the PI portfolio has generated a net return of 18.4% and net income of $21.1 billion[3].

During fiscal 2018, PI delivered $4.0 billion in net income for the Fund and incurred costs of $328 million to support investment activities. Transaction costs of $161 million primarily reflect the professional and advisory services related to private market acquisitions and dispositions. This also includes underwriting costs related to existing private assets that went public. Transaction costs compared to last year are higher due to increased investment activities during fiscal 2018. Operating expenses of $158 million were higher than last year largely due to increases in personnel-related costs including incentive compensation reflecting performance, as well as allocated core services costs.

Private Investments ($ millions)	Fiscal 2018	Fiscal 2017	5-Year[1]
Investment Income	4,382	5,451	37,077
Investment Management Fees	9	12	720
Transaction Costs	161	135	542
Net Investment Income	4,212	5,304	35,815
Operating Expenses	158	130	723
Net Income	4,054	5,174	35,092

1. 5 year view includes FSC for fiscal 2014 and fiscal 2015, before the formation of Investment Partnerships effective F2016. The $542 million of transaction costs represents $524 million for PI and $18 million for FSC. The $720 million of investment management fees represents $686 million for FSC, and $34 million for PI. The $723 million of operating expenses represents $632 million for PI and $91 million for FSC.

Fiscal 2018 activities

In fiscal 2018, PI deployed $14.4 billion in capital, continuing on its projected growth trajectory. PI's team of 163 professionals are located across four global offices. The department has remained disciplined and only pursued investments with attractive risk-adjusted returns. Despite very competitive market conditions, PI has been able to deploy capital in line with its growth objectives, capitalizing on CPPIB's structural comparative advantages, including Private Equity Solutions and investments in long-term platforms, primarily in Natural Resources, Principal Credit Investments and Financial Institutions. As at March 31, 2018, PI's four platforms totalled $13.6 billion in asset value, representing 29.9% of the PI portfolio. We committed a follow-on equity investment of US$1.2 billion to the global insurance platform Ascot Group Limited and an additional $703 million to Wolf Midstream Inc., an energy infrastructure platform.

High asset valuations persisted into fiscal 2018 as a result of low-cost debt financing, improved economic activity and buoyant capital markets. This motivated sponsors to evaluate exits and other monetization opportunities. In fiscal 2018, PI monetized a record $10.6 billion through full and partial realizations, representing an 11.1% increase year-over-year. DPE realized net proceeds of US$703 million through a partial sale of our stake in Altice USA following its successful IPO, retaining a 5.7% interest. DPE also sold its stakes in ista International and AWAS, which together represented total proceeds of $1.6 billion.

3. Excludes Funds, Secondaries & Co-Investments, Infrastructure and Agriculture.

Direct Private Equity

At year end, the Direct Private Equity (DPE) portfolio consisted of 23 direct investments valued at $19.1 billion compared with 28 valued at $17.6 billion one year earlier. The growth in the portfolio was driven primarily by $4.1 billion in new investment activity and $2.4 billion in valuation gains. This was partially offset by dispositions totalling $4.7 billion.

In fiscal 2018, private equity transaction valuations remained at cyclical highs. Attractive credit pricing and terms, combined with historically robust fundraising activity, have continued to drive high demand for private equity investments. This has increased the challenge of sourcing and executing transactions at attractive risk-adjusted returns. DPE has remained disciplined in underwriting as it executes its investment program and continues to focus on platforms. We also focused on strategic opportunities through our Private Equity Solutions strategy where DPE identifies the best partner for the situation, including families, like-minded investors, corporations, core funds and entrepreneurs, to pursue sizable investments with the option to hold long term. This strategy may not be accessible to smaller or more traditional private equity funds that have shorter hold periods.

Significant transactions executed by DPE this year included:

> Acquired a 30% stake in BGL Group, a leading digital distributor of insurance and household financial services for £525million; and

> Entered into a partnership agreement with Thomson Reuters for its Financial & Risk business as part of a consortium led by Blackstone. Under the partnership agreement, the consortium will, subject to regulatory approvals, own 55% of the equity in a new corporation created to hold the F&R business and Thomson Reuters will retain a 45% equity stake, at an overall valuation of US$20 billion.

Natural Resources

At year end, the Natural Resources (NR) portfolio consisted of 10 direct investments valued at $6.1 billion compared with $4.3 billion a year earlier. The growth in the portfolio was driven primarily by $1.9 billion in new investment activity.

The macro environment during fiscal 2018 contributed to another active year for NR. Following several years of weakness, oil markets and prices appeared to stabilize on a combination of healthy demand growth and supply-side management by OPEC. Natural gas demand globally continued to increase as a result of switching from other fuels in power generation and growing demand in emerging markets. The merchant power sector in North America continued to undergo significant change as a result of coal plant retirements and increased natural gas and renewables generation.

Notable NR transactions this fiscal year included:

> Acquired, as part of a consortium, Calpine Corporation, one of the largest independent power generators in the United States, for US$5.6 billion. CPPIB invested US$900 million; and

> Signed an agreement with Shell Overseas Holdings Ltd to acquire 100% of Shell E&P Ireland Limited, which holds Shell's 45% interest in Corrib Natural Gas Field in Ireland, for a total initial cash consideration of €830 million, with additional payments of up to €250 million between 2018–2025, subject to gas price and production. The transaction is subject to regulatory approvals.

Principal Credit Investments

At year end, Principal Credit Investments (PCI) assets totalled $20.4 billion, compared to $16.8 billion at the end of fiscal 2017. The growth in the portfolio was driven primarily by $8.4 billion in new investment activity and $1.2 billion in valuation gains. This was partially offset by dispositions totalling $5.9 billion and $0.3 billion in foreign exchange losses.

Volatility in the credit markets was generally low for the first nine months of fiscal 2018. As a result, credit markets continued to show elevated valuations, given the search for yield that has pushed credit investors further out on the risk spectrum. Finding quality credit names with attractive yields has been challenging. However, PCI's breadth and mandate flexibility has enabled the team to deploy significant capital within its leverage finance, structured credit, emerging markets and royalties strategies. As volatility increased in the last three months of fiscal 2018, spreads widened providing PCI more opportunity to find attractively priced credit risk.

Notable PCI transactions this fiscal year included:

> Partnered with Square Capital, a subsidiary of Square Inc., to invest in small business loans in the United States. Square is a payment-processing company that serves over two million merchants, primarily in the U.S. This transaction is a meaningful addition to the group's structured credit strategy; and

> Acquired the income streams of a royalty interest in Venetoclax, a new oral drug used for the treatment of a blood cancer called chronic lymphocytic leukemia. Venetoclax is marketed by AbbVie, a top-10 global pharmaceutical company, and represents PCI's second oncology investment.

Looking ahead

PI's programs will continue to support CPPIB's objectives of scaling investment activities and focusing on total return:

> DPE will continue to focus on originating transactions within the Private Equity Solutions and Financial Institutions strategies. It will also continue to work alongside world-class private equity fund partners to grow the traditional private equity portfolio.

> Natural Resources will focus on establishing stand-alone infrastructure and processes for its new investment vehicles, supporting existing portfolio companies to optimize performance and deliver organic growth. It will also expand its investment program into new sub-sectors and geographies.

> PCI will focus on the continued buildout of the structured credit strategy, liquid credit strategy, and natural resources group. It will also support new team leadership in London and Hong Kong.

> Portfolio Value Creation will continue to enhance value by driving change programs, reducing risk and strengthening CPPIB's oversight capabilities, supported by a scalable approach to commercial/operational diligence, appropriate governance standards, a strong suite of external directors/advisers, smooth asset transition, effective monitoring and best practices for asset management.

Real Assets

Fiscal 2018 Net Return ($ billion/%)

$6.9 billion / 9.2%

Net Investments

$82.6 billion

Key Focus this Year

> Pursuing selective growth in target markets and sectors.

> Continuing to build out global execution capabilities.

Summary

The Real Assets (RA) portfolio increased from $73.6 billion at the end of fiscal 2017 to a current $82.6 billion, representing a net increase of $9.0 billion. The change in portfolio value was the net result of several factors: (i) new investment activity totalling $ 9.5 billion; (ii) changes in valuation and foreign exchange movement during the year totalling $5.6 billion; and (iii) offset by asset dispositions and return of capital of $6.1 billion.

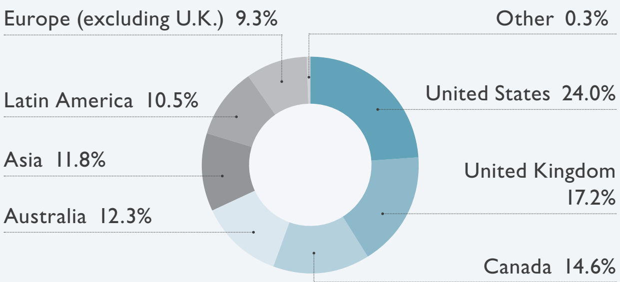
The RA portfolio represents 23.2% of the Fund, managed by 144 professionals located across seven offices globally. Our geographic footprint spans five continents and consists of 178 investments.

In fiscal 2018, CPPIB sought to establish a more dedicated and focused effort in building our business in the growing power and renewables sector, creating the new Power & Renewables (P&R) group. The investment groups within RA, including P&R, share similarities with respect to risk profile and the capital intensive and long-dated nature of its investment activities. The groups are also amongst our most globally diverse businesses within the Fund.

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

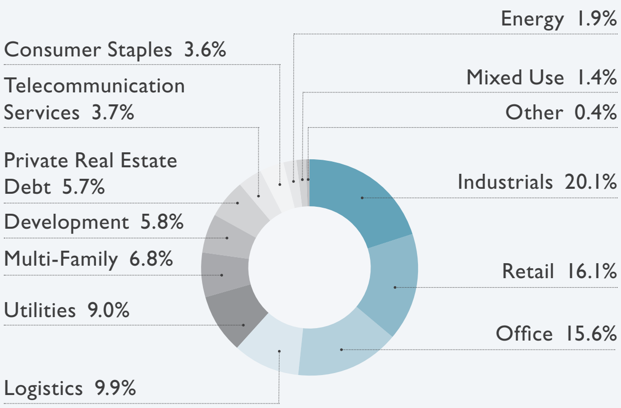
Real Assets – Global Diversification

As at March 31, 2018



Real Assets by Sector

As at March 31, 2018



The two tables below show RA's performance in absolute terms and relative to its return comparator of weighted factor returns. The first table summarizes the absolute returns of all assets (equity value) with rates of return calculated on a time-weighted basis.

The second table shows the DVA generated by the department compared to the return comparator.

Real Assets (%)	Fiscal 2018	Fiscal 2017
Returns		
1-year excluding foreign currency impact[1]	**8.6**	8.3
1-year[1]	**9.5**	7.8
1-year net[2]	**9.2**	7.5
1-year return comparator[3]	**5.7**	10.4

Real Assets ($ billions)	Fiscal 2018	Fiscal 2017
Contribution to Portfolio Net Value-Added[2, 3, 4]		
1-year	**2.3**	(1.3)
5-year	**6.3**	3.5

1. After transaction costs and management fees, but before operating expenses.
2. After all CPPIB costs.
3. Return comparator is the weighted return of return-risk factors representative of the department's investment programs. Value-added is relative to the return comparator.
4. Foreign currency fluctuations have no impact on departmental value-added. See page 28 for more details.

RA's overall return comparator comprises four components reflecting the four different types of investments the department pursues. Each component assigns different weights to the factor returns underlying each type of investment. For example, programs with a higher return-risk profile are assigned a larger equity weight in the comparator to account for the higher volatility in returns.

The department's four investment programs performed well against their respective performance objectives this year. In particular, our Infrastructure program showed strong performance due to valuation uplifts.

During fiscal 2018, RA delivered net income of $6.9 billion and incurred costs of $434 million to support their investing activities. Transaction costs of $84 million primarily represent professional and advisory services for due diligence related to real estate and infrastructure acquisitions and dispositions. For the Real Estate portfolio, transaction costs were lower compared to last year as there was a major disposition in fiscal 2017. In addition, the majority of Real Estate transactions this fiscal year were made with existing and longstanding partnerships, giving us the leverage to negotiate favourable terms and achieve economies of scale. Investment management fees were lower compared to last year as a result of non-recurring performance-based fees paid in fiscal 2017. Operating expenses of $217 million were higher than last year largely due to increases in personnel-related costs, including incentive compensation reflecting performance, as well as allocated core services costs.

Real Assets ($ millions)	Fiscal 2018	Fiscal 2017	5-Year[1]
Investment Income	**7,292**	5,496	31,988
Investment Management Fees[1]	**133**	155	637
Transaction Costs	**84**	156	588
Net Investment Income	**7,075**	5,185	30,763
Operating Expenses	**217**	187	889
Net Income	**6,858**	4,998	29,874

1. Fiscal 2018 includes management fees of $123 million and performance fees of $10 million. Fiscal 2017 includes management fees of $114 million and performance fees of $41 million. Fiscal 2014 – fiscal 2018 includes management fees of $577 million and performance fees of $60 million.

Fiscal 2018 activities

The global real asset markets are now entering their ninth year of expansion. In response to multiple years of historically low global interest rates, income-seeking investors continued to push additional capital into real assets. This placed upward pressure on asset prices and downward pressure on prospective returns. As a consequence, some RA teams further slowed the pace of their overall deployment activity, while remaining aggressive in special situations that lent themselves to our competitive advantages.

Our approach to acquisitions remains very disciplined. We continue to favour situations where our strong partnerships and our ability to offer scale, speed and certainty of execution can unlock excess returns.

We have also been ready to dispose of assets where our business plan was complete, or where the market's view on go-forward returns was materially misaligned with our own. While down from the record pace of divestments we achieved in fiscal 2017, the RA programs still repatriated $6.1 billion of capital to the CPP Fund in fiscal 2018.

Real Estate – Equity

Fiscal 2018 marked another year of growth for the Real Estate Equity (REE) portfolio, which at the end of the year totalled $46.1 billion, an increase of 15.0% from fiscal 2017. The Equity programs represent 90.8% of the overall real estate portfolio and 55.9% of the RA portfolio. The value increase in the portfolio was primarily the result of several factors:

(i) $6.0 billion in new investment activity, (ii) valuation increases mainly due to improved market conditions and foreign exchange of $2.6 billion, offset by $2.6 billion in return of capital from asset sales.

At year end, the REE portfolio consisted of 134 investments with 62 operating partners, managed by a team of 67 professionals across six offices globally. This portfolio remains well diversified across major markets globally, with 83.3% in developed markets such as U.S., U.K., Canada and Australia, and 16.7% in the emerging markets including China, India and Brazil. REE's success in these markets can be attributed to our local presence with almost 75% of real estate investment professionals located in our international offices.

Despite increased interest rates, large pools of institutional capital have prevented a dampening of prices in the private real estate markets and intense competition for core real estate assets in gateway markets continues. The team remained prudent and disciplined in our investment approach and focused on opportunities that offered attractive returns on a risk-adjusted basis. As a result, we continued to broaden our opportunity set this year and increased our investments in alternative sectors where significant influx of institutional capital has yet to be seen and/or to sectors less susceptible to business cycle volatility. More specifically, in fiscal 2018 we entered new sectors such as data centres, life science business parks and the U.K. private rental sector. We also continued expanding our portfolio in the medical office and student housing sector. Together, these alternative sector investments comprised more than 17% of our transactions this year.

REE also continues to benefit from our long-standing relationships with many best-in-class operating partners who continue to be a valuable source of deal flow. Over 65% of our investment activity this year was made with existing partners such as Goodman, Longfor, Lendlease, Oxford, Hermes and Scion.

Major transactions undertaken by the REE groups in fiscal 2018:

> Committed US$598 million into IndoSpace Core joint venture to acquire a portfolio of industrial and logistics parks in India.

> Invested US$928 million in the privatization of Parkway, Inc., a Houston-based real estate investment trust, via the acquisition of the company's outstanding common shares.

> Signed an agreement for an initial allocation of up to US$350 million to a co-investment sidecar to invest in data centre opportunities alongside the Singapore-based Alpha Data Centre Fund.

Real Estate – Debt

The Private Real Estate Debt (PRED) program, which represents 9.2% of the RE portfolio and 5.7% of the RA portfolio, totalled $4.7 billion at year end, a decrease of 2.6% from fiscal 2017. Borrowers repaid several loans in the portfolio, offsetting much of the new investments made this year. That resulted in more moderate growth in the loan portfolio compared to previous years. Specifically, the value decrease in the portfolio was the result of: (i) $2.0 billion in new investment activity, (ii) valuation increases of $15.0 million mainly due to improved market conditions, offset by a foreign exchange loss of $40 million and $2.1 billion in return of capital loan repayments.

A team of 11 professionals located in Toronto, London and Hong Kong manage the PRED program.

Major transactions undertaken by PRED in fiscal 2018:

> Invested £250 million in a subordinated facility to Intu properties plc, indirectly secured by intu Trafford Centre in Manchester, U.K.

> Committed an additional US$500 million to upsize our investment in LoanCore Capital Credit REIT. This is a vehicle with a focus on middle-market real estate debt investments alongside GIC and LoanCore Capital. CPPIB's total commitment to date is US$1 billion.

Infrastructure

At year end, the Infrastructure portfolio consisted of 18 direct investments valued at $28.6 billion compared with $24.3 billion a year earlier. The change in value was primarily the result of several factors: $3.4 billion in valuation increases driven by strong portfolio performance and market pricing, $0.4 billion in foreign exchange gains, and $1.6 billion in new investment activity, offset by $1 billion in return of capital from distributions.

The Infrastructure portfolio remains well-diversified globally with 75.8% in developed markets such as North America, Western Europe and Australia and select emerging markets, primarily in Latin America and India. Infrastructure investments represent 34.7% of the RA portfolio. A team of 44 professionals located across five offices globally manages the Infrastructure portfolio.

Investors continued to be active in the infrastructure sector globally due to a significant availability of capital and increasing appetite for yield. With relatively few assets up for sale and easy access to abundant and low-cost debt financing, the deals that did materialize were priced aggressively. We remained disciplined in our approach and focused on opportunities where we have a comparative advantage. We were active across our core markets, including:

> Invested €900 million to acquire a 12% stake in Nedgia, the leading natural gas distribution network in Spain.

Power & Renewables

Formed in December 2017, the Power & Renewables portfolio, which also includes holdings in agriculture, consisted of two direct investments valued at $2.9 billion at year end.

> Fiscal 2018 marked our first investment within the power and renewables sector where we formed a new joint venture alongside Votorantim Energy focusing on investments and developments in the Brazilian power generation sector, where we will be initially contributing approximately R$690 million in equity.

Looking ahead

In fiscal 2019, we are very conscious of the developing conflict between rising revenues and rising discount rates. Real assets continue to offer a robust and growing income stream, with an expected total return that is very attractive relative to fixed income. However, if interest rates continue to rise, we expect to see an end to the yield compression and valuation gains that have characterized our business for the last few years. As such, we expect to see total returns decline from the elevated levels we have witnessed in recent years, while still offering an attractive investment to the CPP Fund.

> RA will continue to focus on managing the other threats to our businesses, such as technological and climate change, while remaining ready to invest aggressively when we see attractive opportunities.

Fiscal 2019 objectives for CPPIB

The corporate objectives for fiscal 2019 are:

1. Completing preparations to accept, invest and report on the additional Canada Pension Plan contributions that start in January 2019.
2. Scaling our investment programs and growing the Fund's exposure to emerging markets.
3. Taking action to improve our understanding of opportunities and risks posed by climate change as part of a cross-departmental, multi-year initiative, and to adopt best-in-class climate-related financial disclosures.
4. Leveraging the power of our collective knowledge through our multi-year integrated technology, data, and knowledge advantage initiative to drive better investment decisions to add value to the Fund.

Risk Management

CPPIB's activities expose us to a broad range of risks. All risks are managed within a Risk Framework with the goal of ensuring that the risks we prudently take are commensurate with and rewarded by long-term benefits. We define a key risk as one that could have a significant impact on our ability to execute our mandate. In our assessment of key risks we consider how different risks are interconnected and/or correlated.

Risk environment

The environment in which we operate is dynamic and the pace of change is accelerating. These changes may impact our risk profile, the development of our risk management practices, and our ability to achieve our investment objectives. This past year, we closely monitored a number of developments to assess their potential impact on our operations over time.

> Political events in the U.S. dominated the headlines and had a marked impact on capital market performance. We expect the geopolitical environment to remain uncertain as NAFTA renegotiations and other global trade events continue in 2018. The prospect of tighter monetary policy and rising interest rates in Canada and elsewhere will drive additional market volatility globally.

> Large institutional investors continue to push into alternative assets, supporting high valuations in private equity, credit, real estate and infrastructure. This competitive environment has made it increasingly difficult to source attractive opportunities with adequate returns.

> Authorities around the world have continued their focus on systemic risk and tax avoidance practices. As a result, we are seeing an increase in tax regulatory changes globally. A number of governments, including the E.U., U.K. and Australia, are adopting the Base Erosion Profit Shifting (BEPS) recommendations of the Organisation for Economic Cooperation and Development (OECD) that will increase their tax bases. The U.S. government also enacted significant changes to its tax law in late 2017.

> Strong labour markets have made it more challenging to attract and retain talented and specialized investment professionals in Canada and globally.

> Failure to anticipate the degree to which new technologies will disrupt conventional business models could impact our investments and operations. This is particularly true in the medium to long term.

> Climate change presents a complex array of physical and non-physical risks and opportunities across our investment activities. This is discussed more thoroughly in the Climate Related Risks section on page 74.

> On January 1, 2019, we will begin receiving the additional CPP funds. Preparing to receive and invest the funds is a complicated undertaking as we will need to adapt our governance structure, underlying processes and systems to account for an investment structure that can maintain different levels of total risk in each of the two parts of the CPP.

Enhancing our risk management practices

Effective risk management, along with our comparative advantages, puts us in a position to capitalize on opportunities in situations when others cannot. As part of our efforts to continuously improve our risk management practices, we made the following enhancements this year:

> Established the role of Chief Financial and Risk Officer (CFRO). The CFRO has explicit accountability to oversee and enhance the risk management framework and to ensure it is appropriate given CPPIB's unique mandate and risk profile;

> Established a new ad hoc Risk Committee of the Board to advise management and the Board on the evolution of our risk management practices;

> Added a longer-term (five year) risk model to our comprehensive suite of risk tools. This enhances our ability to measure investment risk across various time horizons and it aligns better with our investment horizon;

> Enhanced scenario analysis for geopolitical events (e.g., Brexit) to support investment decision-making;

> Improved our controls and monitoring processes to help ensure we prevent, and respond effectively to, cyber threats and data loss incidents; and

> Established a Climate Change Steering Committee, chaired by the CFRO. The Committee will guide a multi-year initiative to improve our understanding and management of the risks posed by climate change on our portfolio.

Our integrated Risk Framework is based on:

> A strong governance structure that includes a risk-aware culture, risk policies, defined risk appetite and risk limits;

> Processes for identifying, assessing, controlling, monitoring and reporting all key existing and emerging risks; and

> Clear separation between front-line management, risk oversight functions and independent assurance (the "Three Lines of Defence").

Risk Culture

We believe that formally documented controls 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 Guiding Principles and Code of Conduct provide a strong foundation for our culture, which is further reinforced by a strong tone from the top.

Risk governance

Risk governance at CPPIB is the accountability of the Board, Management and their respective committees. The Board of Directors oversees our efforts to act in accordance with CPPIB's mandate. This requires us to seek a "maximum rate of return, without undue risk of loss, having regard to the factors that may affect the funding of the CPP." To this end, the Board is responsible for the oversight of risk, ensuring that Management has identified key risks and established appropriate strategies to manage them. We establish a separate risk appetite for each key risk. Board committees have the following risk-related responsibilities (as further described on page 93):

> The ad hoc Risk Committee of the Board (established in fiscal 2018) advises Management and the Board on the evolution of our risk management practices.

> The ad hoc additional CPP Committee of the Board (established in 2017) oversees progress and risks associated with preparing to receive additional CPP funds in January 2019.

> The Investment Committee recommends to the Board CPPIB's investment and risk policies, and approves and monitors investment activities and risks levels. It also reviews the approach to investment risk management;

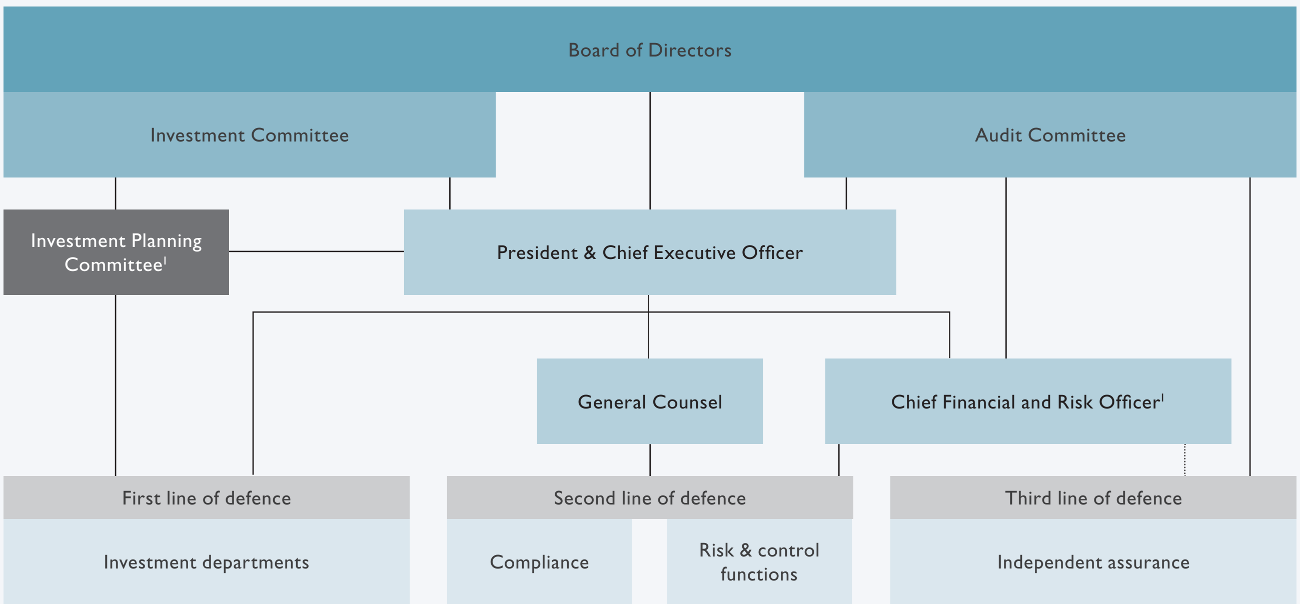
> The Audit Committee oversees financial reporting, tax, information systems and technology and associated risks, external and internal audit, and internal control policies and practices;

> The Human Resources and Compensation Committee (HRCC) is responsible for overseeing risks related to our employees and employment practices. The HRCC reviews and recommends the compensation framework, reviews organizational structure, and ensures a succession planning program is in place; and

> The Governance Committee ensures that CPPIB follows appropriate governance best practices and monitors application of the Code of Conduct and conflict of interest guidelines.

The diagram below shows CPPIB's risk management structure.

Risk Management Structure



1. The Chief Financial and Risk Officer is a member of the Investment Planning Committee.

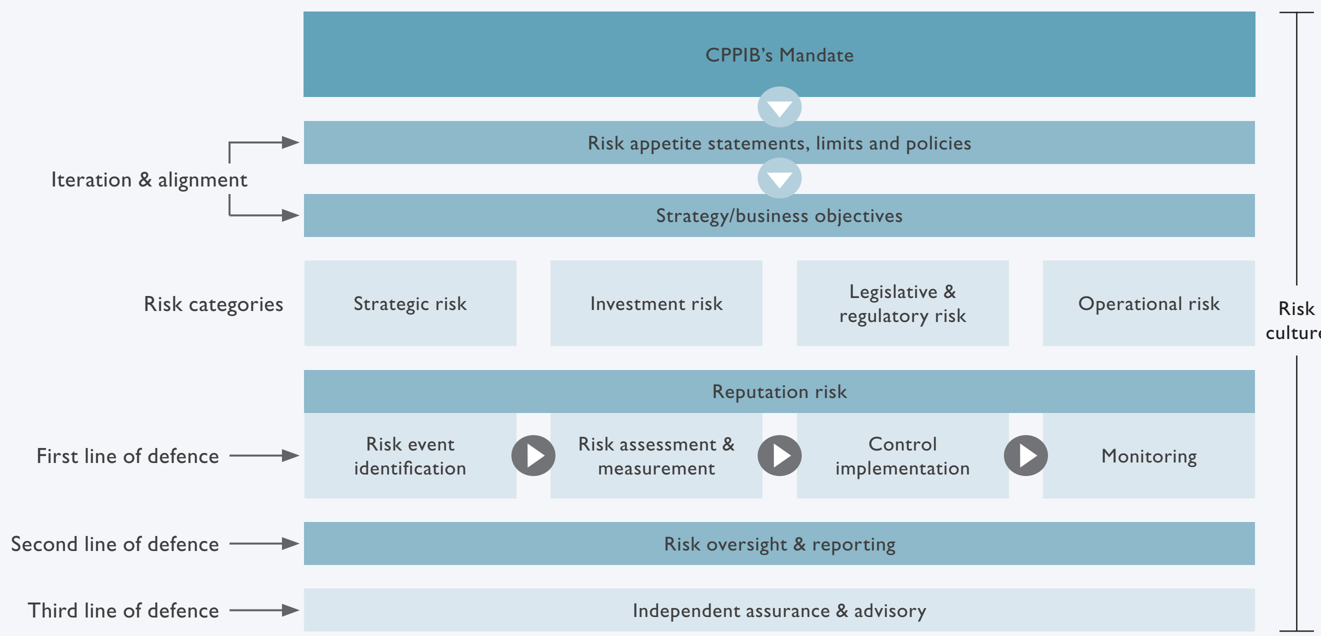
The President & CEO, by way of delegation from the Board of Directors, is accountable for all risks beyond those matters specifically reserved for the Board or Board committees. The responsibility for risk management is further distributed throughout the organization starting with the CFRO and Senior Management Team (SMT).

The SMT ensures that risk management is integrated with strategic and business planning. Through the business planning process, the SMT ensures that plans align with our overall strategy and risk appetite and that adequate resources and processes are in place to identify and effectively manage key risks. The leaders of each department are responsible for appropriately managing the risks assumed within their areas of responsibility.

Our approach to investment risk governance is described further on page 33.

The diagram below shows CPPIB's Risk Management Framework.

Risk Management Framework



Risk categories & risk management strategies

Strategic Risk: This is the risk that CPPIB will make inappropriate strategic choices or be unable to successfully execute selected strategies or adapt to changes in the external business, political or socioeconomic environment over the long term. Managing strategic risk effectively is critical to achieving our mandate.

A number of important processes control and mitigate strategic risks:

> The Board discusses and reviews our overall strategy at least annually;

> Each department carries out detailed business planning that takes into account our strategy and longer-term objectives. The President & CEO reviews these plans, leading to an annual business plan approved by Management and the Board;

> We prepare specific signals that guide each investment program to ensure alignment with CPPIB's overall strategy and comparative advantages;

> We complete quarterly reviews of the portfolio and associated investment risks in the context of capital market and emerging economic conditions; and

> Both Management and the Board conduct quarterly reporting and discussion of our progress, challenges and risks related to achieving the approved business plan.

Investment Risk: This is the risk of loss due to participation in investment markets. Investment risk exists in both internally and externally managed portfolios. It includes market risk, liquidity risk and credit risk (including counterparty risk).

Market risk: This is the risk that the value of an investment will fluctuate because of changes in market prices and rates. Market risk includes equity risk, interest rate risk, currency risk, commodity risk and credit-spread risk.

CPPIB manages market risk through the Risk/Return Accountability Framework. It includes investing across a wide spectrum of asset classes and investment strategies to earn a diversified set of risk premiums over the long term at the total fund level. This is based on risk limits established in the risk policies.

Credit risk: This is the risk of financial loss due to a counterparty failing to meet its contractual obligations. Short of such failure but still material, it is the risk of a reduction in the value of the assets due to a decline in the credit quality of the borrower, counterparty, guarantor or the assets supporting the credit exposure.

We mitigate credit risk exposure on certain financial assets and financial liabilities through conditional offset rights in the event of default, insolvency or bankruptcy, and in the case of reverse repurchase agreements, collateral from counterparties.

Liquidity Risk: This is the risk of failing to readily obtain the necessary funds to meet our payment obligations as they become due, fund investment programs, or make shifts to optimize our portfolio in periods of stress, without incurring unacceptable losses on forced sales.

CPPIB supplements its management of liquidity risk through its ability to raise funds through the issuance of commercial paper and term debt and transacting in securities sold under repurchase agreements. CPPIB also maintains unsecured credit facilities to meet potential liquidity requirements and can readily dispose of unencumbered investments that are traded in an active market.

Liquidity risk is managed and monitored according to the Liquidity Management Standards. Market and credit risk are managed and monitored in accordance with the Risk Policy approved annually by the Board of Directors.

We have committees to oversee our investment risk exposures. The Investment Committee of the Board receives regular reporting on our assets, investment income, investment returns, risk measures and stress-testing results. Management's Investment Planning Committee (IPC) receives risk-related information weekly, and reviews the risks in the Investment Portfolio at least monthly through commentaries prepared by TPM and the Investment Risk group. See page 34 for more details about the IPC.

Additional information related to our investment risk exposures and risk measurement and management processes is included in the How We Maintain Management Accountability for Risk-taking and Performance section on page 34 and in note 5 to our Financial Statements on page 125.

Legislative & Regulatory Risk: This is the risk of loss due to actual or proposed changes to (or non-compliance with) applicable laws, regulations, rules and mandatory industry practices. This includes those defined in the *CPPIB Act*. Failure to comply could result in financial penalties or portfolio losses and damage to our reputation.

Our compliance program is designed to promote adherence to regulatory obligations worldwide. It helps ensure awareness of the laws and regulations that affect us and the risks associated with failing to comply. We monitor emerging legal and regulatory issues as well as proposed regulatory changes, and take a constructive role in these developments when appropriate. Input is regularly sought from external legal counsel to keep us informed on emerging issues.

Tax Strategy: Our Tax group plays a key role to support decision-making, overseeing tax-risk management and evaluating overall tax practices. We review key tax risk both as part of transaction due diligence and at the total Fund level.

CPPIB's tax strategy is consistent with our mandate and with CPP's status as Canada's national pension plan and it is one of a number of considerations we take into account as part of our investment process. Our tax strategy is best considered in the context of how CPP's 20 million Canadian contributors and beneficiaries are taxed on their CPP income.

For sound public policy purposes, income earned by CPPIB and its subsidiaries is exempt from tax in Canada. This enables investment income to grow tax-free in Canada during the investment period, and CPP beneficiaries are then taxed on receipt of their pension income based on their tax rate at that time.

We have 84.9% of our assets invested outside Canada. As a result, CPPIB is subject to the tax laws of the countries where we invest. We honour our tax obligations around the world and pay taxes due on the income earned in those countries as required. Various types of taxes are also paid by the companies in our investment portfolio, as determined by the tax rules applicable in the jurisdictions in which those companies carry on their business activities.

To help ensure that CPP's contributors and beneficiaries do not pay tax twice on income earned by the Investment Portfolio, we employ judicious and prudent investment structures designed to maximize after-tax investment returns.

CPPIB's Board of Directors has oversight of risk management, including tax risk. To that end, the Board, through its various committees and processes, reviews internal controls and systems designed to address key risks for the Fund, including tax risk. At the management level, CPPIB's Chief Financial and Risk Officer (CFRO) is responsible for CPPIB's tax strategy. Day-to-day management of tax risk sits with the Head of Tax who periodically reports to the Audit Committee.

As with any other risk, our aim is to mitigate tax risk taking into account our investment mandate, through adherence 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 reputational implications.

For more information about CPPIB's tax strategy, please visit our website at www.cppib.com.

Operational Risk: This is the risk of loss due to actions of people, or inadequate or failed internal processes or systems as a result of either internal or external factors. Operational risk encompasses a broad range of risks, including those associated with:

> Human resource management and employment practices;

> Employee misconduct including breaches of the Code of Conduct, fraud and unauthorized trading;

> Information and cybersecurity;

> Business interruptions and natural or other disasters;

> Transaction processing, operations and project execution;

> Data, models, user-developed applications; and

> Accuracy of financial reporting.

Risk can take the form of direct financial losses, indirect financial losses appearing as operating inefficiencies, regulatory sanctions or penalties, or 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. We manage operational risk through internal controls that are subject to internal audit reviews. We also conduct an annual review as part of the CEO/CFO certification of internal control over financial reporting. The Finance, Analytics and Risk department, and the Operations and Technology department maintain formal protocols for implementing new investment products and technologies, managing data, models and user-developed applications, ensuring information security, and establishing continuity plans for potential business interruptions. Also, we purchase property and casualty insurance as well as director and officer liability coverage.

Reputation Risk: This is the risk of loss of credibility due to internal or external factors and is often related to, or results from, other categories of risk. This risk can arise from our internal business practices or those of our business partners or the companies in which we invest. Business partners include third parties hired to perform some of our administrative functions as well as investment organizations with which we have a contractual arrangement. A loss of reputation could impact our position as a partner, investor and employer of choice and impede our ability to execute our strategy.

The responsibility for managing reputation risk extends to every employee and Director. This is clearly detailed and communicated through our Code of Conduct and our Guiding Principles of Integrity, Partnership and High Performance, which apply to all employees and all business activities. The Code of Conduct, as an example, requires all employees and Directors to disclose any personal trading or business interests that might lead to a real, potential or perceived conflict of interest. It also requires that employees confidentially report conduct breaches to our external Conduct Review Advisor.

The Senior Managing Director & Global Head of Public Affairs and Communications oversees CPPIB's brand and reputation activities including our Issues Management Framework, which has several reputation management dimensions. We also require that reputation risk assessments be part of the investment decision-making process through the Reputation Risk Framework protocol, and business strategy development and execution. And, we have a robust issues management program in place that allows CPPIB to identify and address issues at the organizational level as well as those issues that impact the companies in which we invest. Our Issues Management Executive Committee addresses significant issues as they arise. There are protocols for escalation and management of reputation risks and issues relating to our existing portfolio companies. Additionally, we continue to proactively build our reputation and brand with key stakeholders globally, to support our business objectives and mitigate risk.

Climate-Related Risks: Climate change is one of CPPIB's top priorities for fiscal 2019. We recognize the need to improve our assessment of climate-related risks and routinely incorporate an assessment of climate-related risk in our investment decision-making process. This will increase the likelihood that we are being fully compensated for this risk and allows us to take advantage of opportunities when we believe the risk is overpriced. Climate change has elements of market risk (for example, the impact on commodity prices), strategic risk (not adapting quickly enough to changes in the external environment) and regulatory risk (climate-related regulations that could negatively affect the value of an investment).

The Climate Change Steering Committee, established in fiscal 2018, will guide a multi-year program to develop the tools and resources required to identify climate-related risks and opportunities throughout the investment lifecycle, including asset management. For details, see the Strategy section on page 27.

As noted in the Sustainable Investment section, the Financial Stability Board's Task Force on Climate-Related Financial Disclosures (TCFD) issued their report in June 2017. The report establishes recommendations for disclosing information about the risks and opportunities created by climate change. Their widespread adoption will assist a variety of stakeholders in assessing the effects of climate change on a more consistent basis.

The TCFD recommendations are structured around four pillars on which organizations operate: governance, strategy, risk management, and metrics and targets. They consist of key climate-related financial disclosures intended to help investors and others understand how the reporting organization thinks about and assesses climate-related risks and opportunities. The four overarching recommendations are described below.

> **Governance:** Disclose the organization's governance around climate-related risks and opportunities.

> **Strategy:** Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy and financial planning, where such information is material.

> **Risk Management:** Disclose how the organization identifies, assesses and manages climate-related risks.

> **Metrics and Targets:** Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities, where such information is material.

We support the TCFD recommendations and plan to be fully compliant with them within the next three years.

As mentioned in last year's annual report, climate change is now an integral part of our overall risk management framework and risk reporting to the Board of Directors.

Organizational Accountability

CEO/CFRO Certification

During the year, we completed an evaluation of internal control over financial reporting and disclosure controls and procedures, using the framework and criteria set out in the Internal Control – Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). CPPIB 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.

The CEO and CFRO are responsible for establishing and maintaining internal control over financial reporting to provide reasonable assurance that it is reliable and conforms with International Financial Reporting Standards (IFRS). They are also responsible for the design of disclosure controls and procedures that provide reasonable assurance that all material information is gathered and reported to Management on a timely basis.

No changes were made in our internal control over financial reporting or disclosure controls and procedures that have affected, or are reasonably likely to materially affect, our reporting.

Based on the results of Management's evaluation, the CEO and CFRO have concluded that internal control over financial reporting and the disclosure controls and procedures is properly designed and operated effectively throughout the year.

Accounting policies and critical estimates

Our significant accounting policies are summarized in notes 1 and 2 to the annual Consolidated Financial Statements and are important in understanding and interpreting our reported financial results and financial condition. Certain of these accounting policies require Management to make assumptions and estimates that affect the reported amounts of assets, liabilities, income and expenses. We have established procedures to ensure accounting policies are applied consistently and processes for changing methodologies are well-controlled. Management's most critical accounting estimates are with regard to 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 pricing an investment or investment liability. Quoted market prices are used to measure the fair value for investments traded in an active market, such as public equities and marketable bonds. Where the market for an investment is not active, such as for private equity, infrastructure, private real estate, private debt, and over-the-counter derivatives (together "alternative assets"), fair value is determined by valuation techniques that make maximum use of inputs observed from markets, such as a multiple of earnings derived from a set of publicly traded comparable companies. Additional techniques include the use of recent arm's-length transactions, the current fair value of another investment that is substantially the same, discounted cash-flow analysis, pricing models and other accepted industry valuation methods.

The Valuation Committee is responsible for the oversight of valuation governance, processes and results. Committee members include the Chief Financial and Risk Officer (as Chair), Chief Operating Officer, along with select senior representatives from CPPIB's Finance team. We have developed robust quarterly valuation processes to ensure the fair value of alternative assets are reasonably presented in our financial statements. These processes include independent procedures and the use of external appraisers and valuators.

CPPIB's Finance team includes accredited professionals who prepare or approve fair values independently from the investment team. This ensures a valuation that is free of potential bias. In addition, for a majority of the direct investments portfolio, we leverage the use of independent third-party appraisals and external valuation experts at least once per year to support the valuation process. Assets are selected for third-party appraisals through a risk-based approach that is based on both the materiality of the investment and complexity considerations.

For CPPIB's private equity and real estate funds, Net Asset Values (NAVs) are obtained directly from the Investment Manager and represent fair value. CPPIB performs certain procedures to validate our reliance on the NAVs provided by the Investment Manager. These procedures may include: an operational risk review, updating all publicly listed securities to the current reporting date, a cross fund holdings analysis, and ensuring that funds are subject to an independent audit.

Regardless of the technique used, judgment is required to estimate fair value for investments, which are not traded on an active market. Our valuation methodologies for investments and investment liabilities are summarized in note 2 to the annual Consolidated Financial Statements.

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 CPPIB employee compensation.

The underlying principles of CPPIB's compensation framework are to deliver the long-term business strategy by focusing on:

> Attracting 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.

Fiscal 2018 Performance Highlights

A key underpinning of our compensation programs is the performance of the total Fund and our investment departments. Over this period, the Fund generated a strong return. The one-year total Fund net return was 11.6%, while the five-year annualized net return was 12.1%. For fiscal 2018, we outperformed the Reference Portfolio benchmark, reflecting the strong performance of global public equity markets and performance of our active investments programs in the fiscal year. We delivered positive dollar value-add (DVA) above the Reference Portfolio's return, with the total Fund net DVA in fiscal 2018 at $5.7 billion, and the cumulative five-year net DVA at $11.5 billion.

Compensation Program

We believe that reflecting a focus on total Fund performance in our compensation program is a crucial foundation to support a strong alignment between CPPIB employees and the interests of 20 million CPP contributors and beneficiaries.

We implemented the current compensation program in fiscal 2016 with an enhanced focus on total Fund performance, balanced with a continued focus on dollar value-add, over a longer performance horizon to better align with our investment mandate (a five-year rolling period, instead of four). Importantly, our program continues to measure the quantity and quality of outcomes, including how senior Management and employees deliver on long-term strategic business objectives.

Fiscal 2018 was the third full year under the new compensation program, and we are confident that it continues to support our business strategy, to enforce the principle of pay for performance and to align employees with the long-term interests of beneficiaries. This year, we outperformed the Reference Portfolio benchmark as well as the absolute return target, and as a result saw an increase in the five-year multiplier used to drive incentive compensation. Our Named Executive Officers' (NEO) compensation remained relatively flat over the past two years. This year, it is slightly lower for Mr. Machin, and higher for Mr. Carrier, SMD & Head of International, Mr. Cass, SMD & Global Head of Real Assets, Mr. Eadie, former SMD & Global Head of Real Assets, and Mr. Lavallée, SMD & Global Head of Investment Partnerships. Mr. Carrier's first full year as an SMD with higher incentive targets, and stronger Department and Group multiplier drove the increase. Mr. Cass also received higher compensation due to strong Department and Group multipliers. Mr. Eadie's higher compensation is due to stronger Total Fund performance, as well as a special one-time award associated with his management of the Real Assets Department, while Mr. Lavallée's compensation includes recognition of his leadership of two departments, Private Investments and Investment Partnerships for a portion of the year.

Fiscal 2019 will be the first year completely under the new compensation program, when the remaining Long-Term Incentive Plan (LTIP) grants awarded under the old compensation program will have been fully paid out. As a result, we expect that total NEO compensation will decrease next year.

Our compensation program provides competitive pay levels relative to our defined talent market in all regions in which we operate, and provides a clear, transparent framework to CPPIB employees and to our stakeholders.

In addition to the Board approving all compensation benchmarks and multipliers, the Board retains full discretion to reward performance for the Senior Management Team within a range of zero to two times target incentive levels, as well as any salary adjustments or other compensation arrangements. This full discretion allows the Committee to not just assess and reward results, but also the manner in which they were achieved.

Fiscal 2018 CEO Pay Decisions

Over the past five years, CPPIB's total Fund return of 12.1% and dollar value-add of $11.5 billion has been strong and has resulted in a total Fund multiplier of 1.71. The Board assessed Mr. Machin against his corporate goals and deemed that all of these were substantially achieved, resulting in a multiplier of 1.55. Against his individual objectives, the Board determined a multiplier of 1.50 for fiscal 2018. The weighted average of these three factors resulted in an overall incentive multiplier for Mr. Machin of 1.58.

Ultimately, the Board awarded Mr. Machin a total direct compensation (salary + in-year award + deferred award) of $4,568,650 for fiscal 2018, as well as 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 2018. This included reviewing the Incentive Compensation Plan to ensure it adequately incorporates additional CPP when we begin receiving inflows in January 2019. The HRCC concluded that the existing compensation design will drive appropriate outcomes for the enhanced CPP over the next several years. Please refer to page 77 for specific HRCC activities undertaken in fiscal 2018.

In conclusion, the HRCC is satisfied that the compensation paid for fiscal 2018 is appropriate and that our decisions with respect to the department/group and individual performance factors of compensation reflect our assessment of the Senior Management Team's performance relative to the pre-established objectives for fiscal 2018, and are appropriately aligned with the interests of contributors and beneficiaries.

Karen Sheriff
Chair, Human Resources and Compensation Committee

The Role and Structure of the Committee

The Human Resources and Compensation Committee (HRCC) assists the Board of Directors with human resources matters, including talent management and compensation.

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 2018 were:

Ian Bourne
Ashleigh Everett
Tahira Hassan
Douglas W. Mahaffy
Mary Phibbs
Karen Sheriff, Chair
Kathleen Taylor
Jo Mark Zurel

The HRCC held nine (9) meetings during fiscal 2018. The Chairperson of the Board of Directors, although not an HRCC member, attended all meetings. The CEO, the COO and the Senior Managing Director & Chief Talent Officer also attended portions of the meetings at the HRCC's request. Annual activities for the HRCC (including those performed in fiscal 2018) are:

Evaluation of the CEO:

> Reviewed and recommended for Board approval the CEO's performance objectives and performance evaluation process.

> Reviewed significant outside commitments of the CEO.

Compensation of Officer and non-Officer employees:

> Reviewed, approved and recommended for Board approval, salary increases and incentive compensation payouts for officers and employees.

> Reviewed executive compensation trends as provided by the HRCC's external compensation advisor.

> Reviewed Officers' compensation. This included requesting and reviewing a report from the HRCC's external compensation advisor on the compensation of officers relative to other large Canadian pension funds and investment management companies.

> Oversaw the disclosure of Directors' and Officers' compensation and the compensation framework in the Annual Report.

> Reviewed and recommended for Board approval the benchmark and incentive compensation curve for the CPP Fund.

Talent Management and Development:

> Reviewed succession planning for Officers and talent management programs.

> Reviewed employee pension and benefits plans.

> Received the Annual Report of the Pension Committee and reviewed and approved pension plan documents.

> Reviewed material changes to employee benefit plans and Human Resources policies.

Committee Terms of Reference review:

> Reviewed and recommended for Board approval the HRCC Terms of Reference and reviewed performance against 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 $162,000 for its services to the HRCC in fiscal 2018 and $270,000 in fiscal 2017.

You can find out more about the HRCC's mandate in the Terms of Reference for the HRCC section posted on the CPPIB website.

Compensation Discussion and Analysis

This Compensation Discussion and Analysis summarizes the foundational principles of our compensation framework. It reviews the elements of our compensation program and provides the details on the performance results and remuneration paid to our Named Executive Officers (NEOs) for the fiscal year ended March 31, 2018 including:

> President & Chief Executive Officer (CEO) – Mark Machin

> Former SMD & Chief Financial Officer (CFO) – Benita Warmbold (to July 24, 2017)

> SMD & Chief Financial and Risk Officer (CFRO) – Neil Beaumont (from July 24, 2017)

> SMD & Head of International, Head of Europe – Alain Carrier

> SMD & Global Head of Investment Partnerships – Pierre Lavallée

> SMD & Global Head of Real Assets – Ed Cass

> SMD, Investments – Graeme Eadie (to March 31, 2018)

Principles of our compensation program

Our compensation program continues to rest on three key principles:

> Attracting 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 of $356.1 billion. 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 type globally, we require people with significant experience in investment management, investment research, portfolio design, risk management, and investment operations. A competitive compensation package is essential to attract and retain this talent to effectively execute CPPIB's 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 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 Fund's performance over time;

> **Long-term Horizon Measurement** – CPPIB tracks performance over multiple years, aligned 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 and specific risk limits; and

> **Clawbacks** – the Board can claw back or adjust all forms of incentive compensation.

The HRCC reviews our compensation programs annually. In our 2018 review it confirmed that the compensation framework meets or exceeds the Principles for Sound Compensation Practices established by the Financial Stability Board and endorsed by the G20 nations.

Financial Stability Board Principles	CPPIB 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 program takes into account the environment in which we operate, our mission and the strategy we have chosen to execute. We are a growing organization, and one that is meant to endure for a very long time. As a result, a large element of management's current focus is on:

- Attracting talent;
- Growing the organization globally;
- Establishing investment programs and processes that can be scaled;
- Delivering strong performance;
- Improving the efficiency of technology, operations and risk management; and
- Establishing a strong culture with uncompromising standards of integrity and a commitment to 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 for the benefit of 20 million contributors and beneficiaries by ensuring risk is considered appropriately. Further, we believe not only is what gets accomplished important, but also how it is accomplished. Our compensation program is grounded in our Guiding Principles and takes into account the best practices in incentive design. We adhered to the following best practices in designing our compensation structure:

Our compensation structure is based on the following design principles:

- **Focuses on Total Fund Performance** – each employee has 30% of their total incentive weighted on total Fund performance. The measurement of total Fund performance includes absolute total Fund return as well as dollar value-add. This emphasis on the total Fund allows for a closer tie between compensation and the interests of our beneficiaries and contributors.
- **Aligns Performance Horizon with the Long-Term Nature of our Investment Mandate** – the five-year rolling 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.
- **Measures 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.
- **Aligns Pay Mix to Market Practice** – the pay mix of fixed and variable compensation, as well as short-term and long-term compensation reflects market trends.
- **Creates a Consistent Framework for all Employees** – all employees have the same weight on total Fund performance, department and group performance, and individual performance. This creates a consistent platform for rewarding all employees.

Aligned with Our Investment Objectives	> Maximize return to the total Fund within agreed risk parameters > Supports CPPIB's Guiding Principles
Market Competitive	> Enables CPPIB 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, CPPIB conducts a competitive benchmarking of jobs across the organization annually. This ensures compensation levels are competitive and aligned with the organization's market for talent. We operate within the global investment management industry, and compete globally to attract and retain employees in Toronto and our offices in Hong Kong, London, Luxembourg, Mumbai, New York, São Paulo and Sydney. Accordingly, we review competitive pay information for Canadian pension funds and broader investment management organizations as well as those in other major markets in which we operate (e.g., 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) relative to a significant market sample and data from proprietary consultant surveys. Specifically for the Senior Management Team and NEOs, we benchmark compensation against the following organizations:

> **Canadian Pension Funds:** Caisse de dépôt et placement du Québec (CDPQ), Ontario Teachers' Pension Plan (OTPP), bcIMC, AIMCo, OMERS, PSPIB, HOOP and OPTrust.

> **Canadian Publicly Traded Investment Asset Managers:** CI Investments, AGF Management, Fiera Capital, Mackenzie Investments, RBC Global Asset Management.

> **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 international markets if relevant.

Compensation elements

Base salary

Employees receive a base salary for fulfilling their core job responsibilities. Salaries reflect skill level, ability and 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 Named Executive Officers' (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 × Incentive target × Performance multiplier = Annual award

We set incentive targets by the 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 (In-Year Award) and, for senior employees, a portion is deferred over three years (Deferred Award).

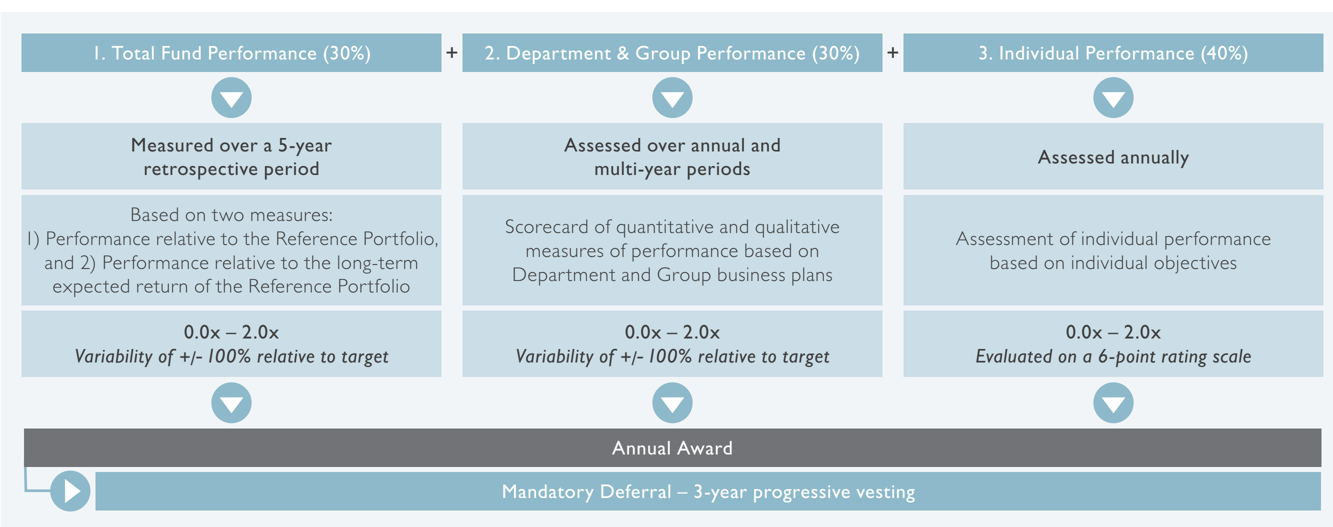
At the end of the fiscal year, the Annual Award is adjusted by a Performance Multiplier. The Performance Multiplier is based on a performance assessment of three factors:

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. These weightings are consistent across the organization. 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 pre-determined objectives.

This structure applies to all employees across the organization regardless of department, group, seniority or geographic location. To align with the long-term focus of the CPP Fund, senior employees must defer a portion of their Annual Award. The Deferred Award vests and pays out over three years following the fiscal year for which the award is awarded.

The following chart illustrates the current incentive plan:



Below is more information on our three performance factors:

1. *Total Fund performance* – This performance factor includes equally weighted measures of both dollar value-add and total Fund return, each measured over a five-year trailing period.

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, taking both quality and quantity into account and aligning 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-add. We may measure performance over the year or over several years, depending on the objective and performance measurement approach.

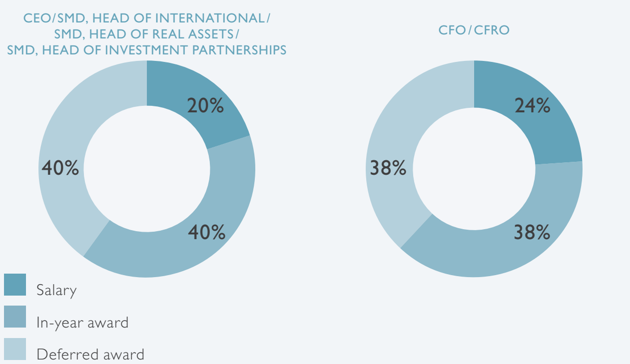
3. *Individual performance* – We assess this performance factor annually for each employee, based on specific objectives identified at the beginning of the year. Assessment of the individual is also based on their performance relative to the expectations of the job and their demonstration of our Guiding 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 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.

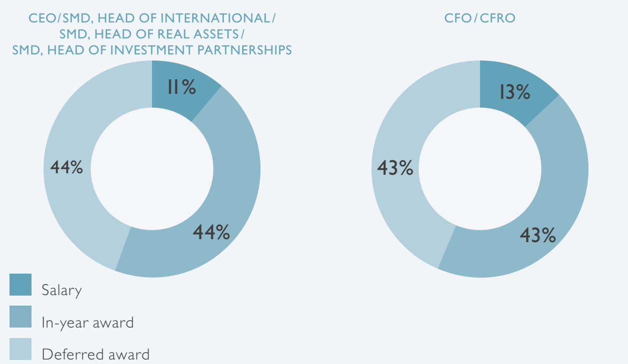
Pay mix

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 2018 for the Named Executive Officers (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 CPP Fund, or in both the CPP Fund and up to a maximum of 50% in the CPP Fund's Private Investments portfolio. The deferred amounts fluctuate in value over the three-year deferral period with the returns of the Fund and, if elected, the Private Investments portfolio. The VDIP provides another way to align employee interests with Fund performance.

Long-Term Incentive Plan (LTIP)

We discontinued the Long-Term Incentive Plan as part of the incentive redesign in fiscal 2015. Existing unvested LTIP awards were converted using a 2x single-year multiplier for fiscal 2016 to fiscal 2018, aligned with historical performance and payout levels. The cliff-vesting schedule continues to apply to these awards, as per the terms of the plan. We paid residual payments in fiscal 2016 and fiscal 2017, and eligible employees will receive the last instalment of payments at the end of fiscal 2018.

Supplemental Restricted Fund Units (SRFU)

SRFUs are a notional investment which fluctuate in value with CPP total Fund performance. SRFUs with multi-year vesting schedules can assist in attracting new employees as they help ease in the compensation of new hires during their transition to CPPIB, such as replacing forfeited compensation from their previous employer. SRFUs can also be used as part of a transition package for current employees.

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.

> The incentive award was granted in error.

> An employee is guilty of misconduct.

Pension

CPPIB provides its Officers 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.

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, and CPPIB 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.

Employees based outside Canada 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 and dental benefits, time-off policies, a fitness reimbursement and an Employee-Family Assistance Program. Perquisites are limited to paid parking for the Senior Management Team members.

Fiscal 2018 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 2018.

Annual non-financial objectives

Management establishes the non-financial organizational objectives in the CPPIB business plan each fiscal year. The Board of Directors approves these goals. You will find the non-financial organizational objectives of fiscal 2018 in Table 1 below.

Management then aligns annual individual objectives for Officers 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 2018.

Table 1: Fiscal 2018 Non-Financial Objectives

1. Scaling our investment activities from all three sources of return: investment selection, diversification and strategic tilting in alignment with the long-term vision for asset classes and weights indicated by the Strategic Portfolio.
2. Expanding our global investment activities, including the substantial scaling of our emerging markets programs, to build a diversified investment portfolio aligned with the long-term vision for geographic composition indicated by the Strategic Portfolio.
3. Continuing the multi-year implementation of our enhanced investment framework, including launching the daily process to optimize the Fund's factor exposures, leverage and liquidity.
4. Developing talent with a focus on increasing diversity, early career hiring and building future leaders from within our organization.
5. Advancing our core operational functions, including data management and financial accounting and reporting, to add efficiency, and reduce costs and operational risk.
6. Preparing to accept, invest and report on the additional Canada Pension Plan (aCPP) contributions that start in January 2019.

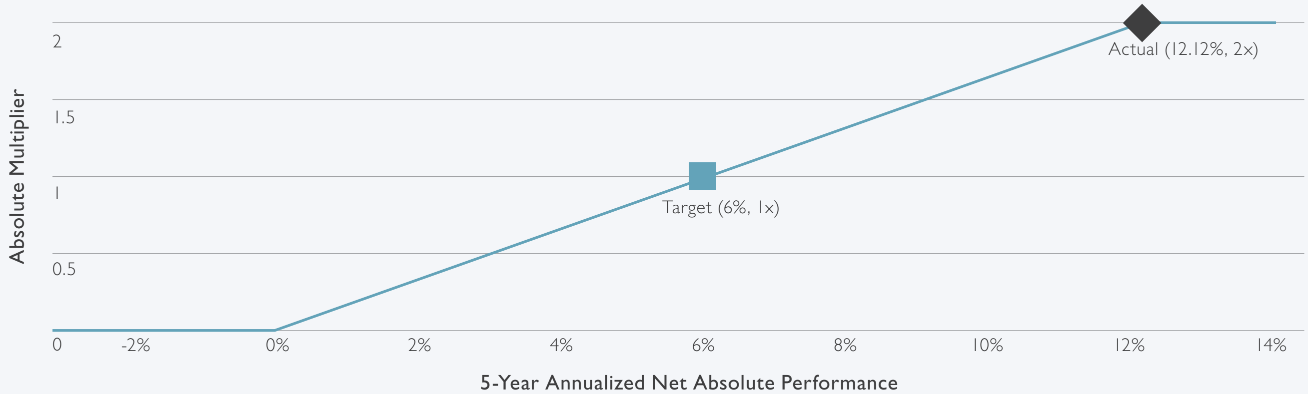
Total Fund performance

We measure total Fund performance over a five-year period using two equally weighted criteria:

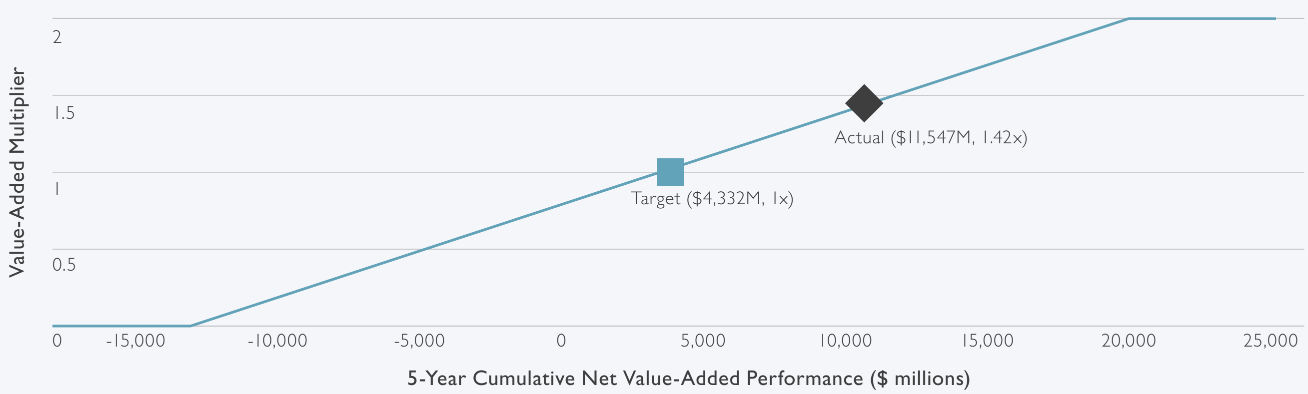
1. **Absolute performance** – Absolute total return of the Fund; and
2. **Relative performance** – Value-add relative return of the Fund compared to the Reference Portfolio.

For compensation payout purposes, the performance realized on each of these two measures, over a rolling five-year performance period, maps to a multiplier. On the absolute performance, a target return of 6% will result in a target multiplier of 1x. On the relative performance, a five-year cumulative target dollar value-add (DVA) of $4.33 billion must be reached to achieve a relative performance multiplier of 1x. The Board reviews DVA targets annually. The graphs below map the fiscal 2018 target and actual Fund performance.

Absolute Performance Component



Relative Performance Component



CD&A

In Table 2 below, total Fund performance is measured over the five fiscal years beginning April 1, 2013 and ending March 31, 2018. The absolute and relative performance of the Fund in fiscal 2018 resulted in an equally weighted total Fund multiplier of 1.71.

Table 2: CPP Fund Performance, Fiscal 2014 to 2018 and Cumulative Results

	Absolute Performance				Relative Performance				
Fiscal year	CPP Fund Gross Return ($ billion)	CPP Fund Net Return ($ billion)	CPP Fund Net Return %	Total Fund Absolute Multiplier	Reference Portfolio Return ($ billion)	CPP Gross Value-add ($ billion)	CPP Net Value-add ($ billion)	Total Fund Value-added Multiplier	Total Fund Multiplier
2014	30.7	30.1	16.12%		30.2	0.5	(0.1)		
2015	41.4	40.6	18.31%		37.8	3.6	2.8		
2016	10.0	9.1	3.37%		(2.1)	12.1	11.2		
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**		
Cumulative $ / Annualized % – 5 year	**154.3**	**150.0**	**12.12%**	**2.00**	**138.5**	**15.8**	**11.5**	**1.42**	**1.71**
Cumulative $ / Annualized % – 10 year	**189.1**	**183.2**	**7.96%**		**173.6**	**15.5**	**9.6**		

Former Long-Term Incentive Plan (LTIP) Payouts

For the purpose of calculating LTIP payout, the total Fund's cumulative four-year net rate of return was 53.09%, which is an average annualized return of 11.14%, since the beginning of fiscal 2015.

Department Performance

Each department has both financial and non-financial objectives. Performance against these objectives is evaluated by the CEO and approved by the Board. We have summarized performance for fiscal 2018 for each investment department below.

Fiscal 2018 Investment Department Performance

	Fiscal 2018 performance
Public Market Investments	Exceeded target
Real Assets	Exceeded target
Private Investments	Exceeded target
Investment Partnerships	Exceeded target
Total Portfolio Management	Exceeded target
International	Exceeded target

You can find a more detailed description of the total Fund and investment department performance in the Management's Discussion and Analysis section of the Annual Report.

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 of the Annual Report. The total compensation expense for key management personnel for fiscal 2018 is $40.8 million, up 9% from $37.5 million for fiscal 2017. This increase was principally a result of residual payments for CPPIB's discontinued Long-Term Incentive Plan, which will be fully paid out at the end of fiscal 2018.

See note 9 of the Financial Statements for more information.

Compensation of the CEO

The CEO participates in the same incentive compensation plan as all employees at CPPIB. 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. As well, each Director completes an annual evaluation of the CEO's performance with respect to his key areas of responsibility. These evaluations are summarized and presented to the Board of Directors. The Board uses these sources of evaluation to determine the organizational performance multiplier and individual performance multiplier of the CEO's incentive award for the fiscal year. These evaluations are also used to set the CEO's base salary for the upcoming fiscal year.

Mr. Machin's personal accomplishments for fiscal 2018 included achievement against the following goals:

1. Execute Vision 2020 and ensure key strategic decisions are made and communicated by end of fiscal 2018.

> As part of Vision 2020, additional CPP milestones are being achieved on time and key design considerations have been completed, allowing for an appropriate period for implementation and testing.

2. Grow, attract and retain top talent at all levels of the organization to create a wide and deep pool of diverse, global leaders.

> We have filled 42% of 36 vacancies at senior level positions with internal candidates, indicative of our excellent bench strength.

> We have taken deliberate measures to ensure our talent pipeline embodies our commitment to a diverse and inclusive culture, with a particular focus on furthering gender parity across all levels of the organization. This has improved female representation across Investment Departments.

3. Achieve peer recognized practice leadership in Core functions.

> Continue to build depth in the Compliance function and made significant improvements to management reporting to get greater insights.

> Consolidated risk management with improvements to evaluation, mitigation and reporting of risks.

4. Continue to develop CPPIB's global culture of high performance, partnership and integrity.

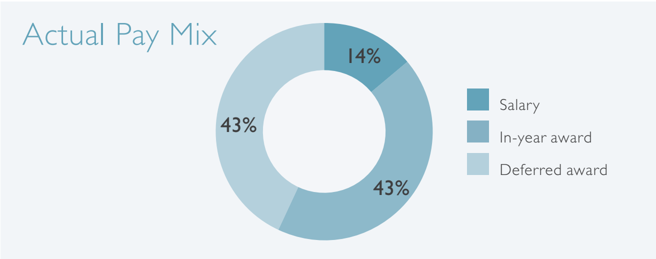
> Participate in several domestic and global initiatives to highlight how CPPIB's evolving investment strategy continues to generate strong long-term results, ensuring the Fund remains well-positioned for future growth.

The Board of Directors awarded Mr. Machin a total incentive award of $3,943,650 for fiscal 2018. The compensation awarded to Mr. Machin is consistent with the principle of pay for performance and appropriately recognizes his many accomplishments as CEO. His leadership of the organization, its critical priorities and Fund management strongly position CPPIB 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 2018.

Table 3: Fiscal 2018 CEO Total Direct Compensation

	Fiscal 2018 Total		Fiscal 2019 Target
	Target Annual	Actual Annual	Target
Base salary (A)	**625,000**	**625,000**	**625,000**
Total Fund	750,000	1,281,150	750,000
Department/Group	750,000	1,162,500	750,000
Individual	1,000,000	1,500,000	1,000,000
Total Incentive Award (B)	**2,500,000**	**3,943,650**	**2,500,000**
In-year Award	1,250,000	1,971,825	1,250,000
Deferred Award	1,250,000	1,971,825	1,250,000
Total Direct Compensation (A) + (B)	**3,125,000**	**4,568,650**	**3,125,000**



Please refer to Table 5: Summary Total Compensation.

Compensation for the Named Executive Officers

The incentive awards for the Senior Management Team reflect the same total Fund, Department/Group and Individual performance factors as for all other employees. Please refer to Table 6: Annual Deferred Awards.

Table 4 below shows the total direct compensation in fiscal 2018 for each Named Executive Officer (NEO).

Table 4: Summary Fiscal 2018 Total Direct Compensation

	Base Salary (A)	Total Fund	Department/ Group/ Individual	**Total Incentive Award (B)**	In-year Award	Deferred Award	**Total Direct Compen-sation (A) + (B)**
Neil Beaumont SMD & CFRO *From July 24, 2017*	**285,384**	475,304	982,218	**1,457,522**	728,761	728,761	**1,742,906**
Benita Warmbold Former SMD & CFO *To July 24, 2017*	**168,384**	280,442	503,468	**783,910**	391,955	391,955	**952,294**
All amounts reported are in GBP Alain Carrier SMD & Head of International, Head of Europe	**436,000**	893,730	1,803,296	**2,697,026**	1,348,513	1,348,513	**3,133,026**
Pierre Lavallée SMD & Global Head of Investment Partnerships	**505,351**	1,035,888	1,991,082	**3,026,970**	1,513,485	1,513,485	**3,532,321**
Ed Cass SMD & Global Head of Real Assets	**458,499**	939,848	1,942,200	**2,882,048**	1,441,024	1,441,024	**3,340,547**
Graeme M. Eadie Former SMD & Global Head of Real Assets *To March 31, 2018*	**455,000**	932,678	1,701,700	**2,634,378**	1,317,189	1,317,189	**3,089,378**

The total compensation awarded to the Named Executive Officers is $25 million, up 2.9% from $24.3 million in fiscal 2017. This includes the compensation paid to the departing CFO.

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	Base Salary[1] ($) A	In-year Award ($) B	Deferred Awards[2] ($) C	Other Deferred Awards[3] D	Pension Value ($) E	All Other Compensation[4] ($) F	Total Compensation (with Deferred Award) ($) A+B+C+D+E+F
Mark Machin[6,7,8,11,12]	**2018**	**625,000**	**1,971,825**	**1,971,825**		**450,921**	**211,593**	**5,231,164**
President & CEO	2017	651,608	1,927,890	1,927,890	1,125,000	420,804	108,581	6,161,773
	2016	823,717	2,526,900	2,526,900		74,135	256,143	6,207,795
Neil Beaumont[5,13]	**2018**	**285,384**	**728,761**	**728,761**	**1,400,000**	**12,929**	**112,196**	**3,268,031**
SMD & CFRO								
From July 24, 2017								
Benita Warmbold[11]	**2018**	**168,384**	**391,955**	**391,955**		**25,691**	**6,141**	**984,126**
Former SMD & CFO	2017	395,000	903,970	903,970		40,813	11,794	2,255,547
To July 24, 2017	2016	387,500	943,900	943,800		42,230	11,641	2,329,071
All amounts reported are in GBP								
Alain Carrier[9,10,11]	**2018**	**436,000**	**1,348,513**	**1,348,513**		**56,429**	**15,628**	**3,205,082**
SMD & Head of International,	2017	452,009	1,248,560	1,106,740	1,000,000	62,701	19,381	3,889,391
Head of Europe	2016	522,841	1,760,543	704,500		62,358	17,025	3,067,267
Pierre Lavallée[11,12]	**2018**	**505,351**	**1,513,485**	**1,513,485**		**53,260**	**13,338**	**3,598,919**
SMD & Global Head of	2017	430,000	1,216,324	1,216,324		45,557	10,634	2,918,839
Investment Partnerships	2016	420,000	1,296,400	1,296,400		45,999	42,559	3,101,358
Ed Cass[5,11,12]	**2018**	**458,499**	**1,441,024**	**1,441,024**		**48,710**	**5,274**	**3,394,530**
SMD & Global Head of Real Assets	2017	435,000	1,338,350	1,338,350		46,306	6,893	3,164,899
	2016	430,000	1,319,100	1,319,100		47,456	6,819	3,122,475
Graeme M. Eadie[5,11,14]	**2018**	**455,000**	**1,317,189**	**1,317,189**		**48,310**	**710,688**	**3,848,376**
Former SMD & Global Head of	2017	455,000	1,296,200	1,296,200		49,036	8,821	3,105,258
Real Assets	2016	450,000	1,398,450	1,398,400		50,068	8,748	3,305,666

1. Mr. Machin's compensation for 2016 and 2017 (pro-rated for the period April 1 – June 12, 2017) is converted using the exchange in rate in effect on March 31, 2018 (CAD:HKD 1:6.08).
2. The Deferred Award represents the award value at the time of the award. The award fluctuates with the performance of the total Fund over the vesting period.
3. Other Deferred Awards refers to one-time, non-recurring long-term awards.
4 All other compensation includes life insurance, disability benefits, health and dental benefits, discretionary employment arrangements, fitness reimbursement as well as comprehensive health assessment conducted at a private medical clinic. Perquisites are limited to paid parking for officers. For the time spent in Hong Kong, Mr. Machin received a housing allowance in accordance with local market practice. In addition, Mr. Machin and Mr. Beaumont received relocation support.
5 NEO elected to defer all or part of the fiscal 2018 In-year award into the Voluntary Deferred Incentive Plan (VDIP).
6. Mr. Machin received a fiscal 2017 SRFU award of C$625,000 upon his appointment as President & CEO. This award vests progressively as 33%, 33% and 34% from fiscal 2017 to fiscal 2019.
7. Upon his appointment as President & CEO, Mr. Machin received an FRU award of C$500,000. Based on a Black-Scholes valuation, the underlying notional investment of this award is C$2.7 million and it is annualized over 5 years.
8. Upon his appointment as President & CEO, Mr. Machin received partial vesting on his unvested LTIP/ELTIP awards at the end of Q2 fiscal 2017. This payment was made in October 2016.
9. Upon his promotion to SMD, Head of International on June 21, 2016, Mr. Carrier received an SRFU award of GBP 1 million. This award vests 50% in fiscal 2017, and 40% in fiscal 2018 and 10% in fiscal 2019.
10. As part of his original employment agreement, Mr. Carrier received an additional cash payment on his salary and in-year bonus payment. This arrangement was discontinued upon his promotion.
11. Final payout of outstanding fiscal 2015 LTIP grant.
12. Final payout of outstanding fiscal 2015 ELTIP grant.
13. As part of his employment agreement, Mr. Beaumont received a fiscal 2018 SRFU grant of C$1.4 million. This award vests 60% in fiscal 2018, 20% in fiscal 2019 and 20% in fiscal 2020.
14. As part of his prior employment agreement, Mr. Eadie received a one-time payment of C$700,000.

Compensation and Estimated Future Payouts

NEOs must defer a portion of the 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. Under the former LTIP plan, awards vested and paid out four years from the time of grant. Table 6 below shows the outstanding deferred portion of incentive awards and former LTIP awards and the future payouts for each Named Executive Officer.

Table 6: Annual Deferred Awards

Name	Type of Award	Year of Award	Payments in Current Year[1] 2018	Estimated future payouts at time of vesting ($)[4] 2019	2020	2021
Mark Machin[2,3]	**Deferred Award**	**2018**		**657,275**	**657,275**	**657,275**
President & CEO	Deferred Award	2017	708,845	708,845	708,845	
	Deferred Award	2016	1,005,994	1,005,994		
	LTIP	2015	870,105			
	ELTIP	2015	435,052			
Neil Beaumont	**Deferred Award**	**2018**		**242,920**	**242,920**	**242,920**
SMD & CFRO						
From July 24, 2017						
Benita Warmbold	**Deferred Award**	**2018**		**130,652**	**130,652**	**130,652**
Former SMD & CFO	Deferred Award	2017	336,157	336,157	336,157	
To July 24, 2017	Deferred Award	2016	392,522	392,522		
	LTIP	2015	1,276,969			
All amounts reported are in GBP						
Alain Carrier	**Deferred Award**	**2018**		**449,504**	**449,504**	**449,504**
SMD & Head of International,	Deferred Award	2017	411,561	411,561	411,561	
Head of Europe	Deferred Award	2016	292,999	292,999		
	LTIP	2015	1,140,072			
Pierre Lavallée	**Deferred Award**	**2018**		**504,495**	**504,495**	**504,495**
SMD & Global Head of	Deferred Award	2017	452,310	452,310	452,310	
Investment Partnerships	Deferred Award	2016	539,167	539,167		
	ECA	2016	75,234			
	LTIP	2015	1,194,287			
	ELTIP	2015	597,144			
Ed Cass	**Deferred Award**	**2018**		**480,341**	**480,341**	**480,341**
SMD & Global Head of Real Assets	Deferred Award	2017	497,687	497,687	497,687	
	Deferred Award	2016	548,608	548,608		
	LTIP	2015	1,286,156			
Graeme Eadie	**Deferred Award**	**2018**		**439,063**	**439,063**	**439,063**
Former SMD & Global Head of Real Assets	Deferred Award	2017	481,991	481,991	481,991	
	Deferred Award	2016	581,589	581,589		
	LTIP	2015	1,505,677			

1. The LTIP was discontinued in fiscal 2015. The last residual payment occurs in fiscal 2018.
2. Mr. Machin's unvested grants have been converted to CAD using the exchange rate in effect on March 31, 2018 (CAD:HKD 1:6.08).
3. Upon his appointment as President & CEO, Mr. Machin received partial vesting on his unvested LTIP/ELTIP awards at the end of Q2 fiscal 2017. This payment was made in October 2016.
4. Current estimated value of Deferred Award is based on a Fund return of 0% for future years.

Voluntary Deferral Incentive Plan (VDIP)

Eligible employees may choose to participate in the Voluntary Deferral Incentive Plan (VDIP) before the end of the fiscal year in which they earn the incentive. The incentive is then paid out at the end of a three-year deferral period.

Table 7 below shows the VDIP election amounts and estimated future payouts for each Named Executive Officer who chose to participate in the plan. The future value of the payouts is estimated as at March 31, 2018. It is based on actual CPP Fund and Private Investments portfolio rates of return for fiscal 2016, 2017 and 2018. For this calculation we have made the assumption of no growth in future years.

Table 7: VDIP Election and Estimated Payout

Name	Year of Election	Amount Deferred[1] ($)	Estimated future payouts at the end of fiscal years 2019	2020	2021
Mark Machin President & CEO	2017	710,078		792,163	
Neil Beaumont SMD & CFRO *From July 24, 2017*	**2018**	**728,761**			**728,761**
Benita Warmbold Former SMD & CFO *To July 24, 2017*	2016	707,930	883,275		
All amounts reported are in GBP					
Alain Carrier SMD & Head of International, Head of Europe	**2018**	**1,348,513**			**1,348,513**
	2017	590,110		658,327	
Pierre Lavallée SMD & Global Head of Investment Partnerships	**2018**				
	2017	1,216,324		1,356,931	
	2016	1,296,400	1,617,501		
Ed Cass SMD & Global Head of Real Assets	**2018**	**1,441,024**			**1,441,024**
	2017	1,338,350		1,493,063	
	2016	1,319,100	1,645,824		
Graeme Eadie Former SMD & Global Head of Real Assets	**2018**	**658,595**			**658,595**
	2017				
	2016	349,625	436,223		

1. Represents the original amount deferred.

Pension Plans

As described earlier, all Canada-based employees participate in the regular and 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.

Retirement Compensation Arrangement (RCA)

The CEO participates in a Retirement Compensation Arrangement (RCA), which is a non-registered pension fund to which CPPIB contributes annually. The participant can choose from a range of options on how the available funds are invested, similar to the registered pension plan and supported by the same provider. As part of his compensation package as CEO, Mr. Machin took a greater proportion of his overall total compensation in the form of pension.

Table 8 below shows the contributions and investment earnings for the Named Executive Officers under both plans. The total unfunded liability for the Canada-based Named Executive Officers, as at March 31, 2018, is $854,718 (2017 – $924,262).

Table 8: Pension Plan Contributions

			Compensatory ($)			
Name	Plan Type	Accumulated Value at Start of Year ($)	Employer Contributions ($)	Investments Earnings ($)	Non-compensatory ($)[1,2]	at End of Year ($)
Mark Machin[2,3]	Registered	41,075	13,418		13,957	68,450
President & CEO	Supplementary	3,118	57,539	(2,539)		58,118
	RCA	186,832	365,000		(189,569)	362,263
	Mandatory[3, 5]	24,734	246	see note 6	246	25,227
	Voluntary[4, 5]	258,791	14,718	see note 6	–	273,509
Neil Beaumont	Registered	–	12,929	–	13,176	26,104
SMD & CFRO	Supplementary	–	–	–	–	–
Appointed July 24, 2017						
Benita Warmbold[7]	Registered	326,359	8,329		23,083	357,771
Former SMD & CFO	Supplementary	233,218	17,361	6,576	–	257,155
Retired August 31, 2017						
All amounts reported are in GBP						
Alain Carrier	GSIPP[8]	750,183	391	–	6,197	756,771
SMD & Head of International, Head of Europe	Cash-In-Lieu[9]	–	56,038	see note 9		56,038
Pierre Lavallée	Registered	134,019	14,576		19,619	168,214
SMD & Global Head of Investment Partnerships	Supplementary	96,028	38,684	263		134,974
Ed Cass	Registered	333,181	13,479		38,592	385,251
SMD & Global Head of Real Assets	Supplementary	268,213	35,231	46,717		350,161
Graeme Eadie	Registered	429,317	13,115		37,110	479,542
Former SMD & Global Head Real Assets	Supplementary	274,547	35,195	1,723		311,465

1. Represents employee contributions and investment earnings in the registered pension plan.
2. Mr. Machin's Retirement Compensation Arrangment 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 was appointed President & CEO, which has an employee and employer contribution of 5% towards relevant income capped at HKD 30,000 of monthly earnings.
4. CPPIB provides an employer pension contribution of 5% towards relevant income above the HKD 30,000 monthly earnings ceiling.
5. Figures are reported in CAD using the exchange rate in effect on March 31, 2018 (CAD:HKD 1:6.08).
6. Investment earnings are not disclosed by the pension administrator.
7. Ms. Warmbold participated in the pension plans until retirement date.
8. In the 2017 Annual Report, Mr. Carrier's end of year balance for GSIPP did not include the March 2017 contributions of GBP 516. The correct end of year balance was GBP 750,183.
9. Received employer pension contributions as cash-in-lieu above annual U.K. pension limit less statutory deductions and the employer portion of National Insurance contributions.

Termination and Retirement Arrangements for the President & CEO

In the event of termination without cause, severance pay for the President & CEO is set at:

> 12 months of base salary and a pro-rated payment for the value of the Incentive Award at target (both In-year and Deferred), plus

> An additional month of salary and one-twelfth of the pro-rated Incentive Award value for each year of service.

Severance pay is capped at 21 months for the President & CEO. The President & CEO forfeits any deferred portion of the incentive awards, as well as former LTIP awards, with the exception of voluntary deferrals. 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, all incentives and benefits are forfeited.

The President & CEO is eligible to retire from the organization and receive certain benefits, provided he has served in the role of President for at least five years and has provided formal notice at least six months in advance. Any Annual Incentive Award during the year of retirement is paid out on a pro-rated basis. Any unvested deferred awards continue to vest as per the established vesting schedule. All benefits stop on the date of retirement.

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 pro-rated payment for the value of the in-year Award at target, plus

> An additional month of salary and one-twelfth of the target in-year award for each year of service.

Severance pay is capped at 24 months for Graeme Eadie, and 18 months for the other NEOs. Any unvested deferred portion of the incentive awards, as well as former LTIP awards, are forfeited, with the exception of voluntary deferrals. Insured benefits, such as health, dental and life coverage, continue during the severance period.

In the case of termination with cause, the employee forfeits all incentives, unvested awards and benefits. There are no change-of-control provisions in the employment arrangements.

In the event of resignation and in consideration of adherence to a one-year non-compete and non-hire agreement, the Named Executive Officers receive either a prorated payment of the LTIP grant or of the Deferred Award which would have vested at the end of the fiscal year of resignation. It is payable one year after resignation. All other incentives and benefits are forfeited.

NEOs are generally entitled to retire from the organization and receive certain benefits, provided they have reached the combined threshold of age of 55 and CPPIB service of 10 years.

Upon retirement, employees continue to receive the ongoing deferral payments owed to them under the Incentive Plan, unless they have opted out. The normal payment cycle applies and payments are subject to the same conditions. Retirees also receive LTIP payouts prorated for the time worked during the performance period. These are paid shortly after the regular vesting dates. All benefits stop on the date an employee retires.

CD&A

Table 9 below shows the payments that would be made, as of March 31, 2018, to the Named Executive Officers if they retire or are terminated without cause.

Table 9: Potential Termination and Retirement Payments[1]

Name	Completed years of service	Severance[2]	Retirement treatment of unvested awards[3,4]
Mark Machin[5] President & CEO	6	4,687,500	4,395,500
Neil Beaumont SMD & CFRO *From July 24, 2017*	0	1,763,750	728,800
Benita Warmbold Former SMD & CFO *To July 24, 2017*	9	2,560,838	1,456,800
All amounts reported are in GBP Alain Carrier SMD & Head of International, Head of Europe	10	3,270,000	2,464,600
Pierre Lavallée SMD & Global Head of Investment Partnerships	6	3,279,750	2,957,300
Ed Cass SMD & Global Head of Real Assets	10	3,487,500	2,985,000
Graeme Eadie Former SMD & Global Head Real Assets	12	4,550,000	2,862,800

1. Excludes incentive compensation payouts for the current fiscal year, which are included in Table 5: Summary Total Compensation. Termination and retirement payments are estimated as of March 31, 2018. Actual payments are pro-rated based on time worked in the performance period.
2. Excludes the value of insured benefits, such as health, dental and life insurance, continued during the severance period.
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;
   – Payment is made at the end of the vesting period.
4. The unvested awards assume a net return of 0% on the CPP Fund for future years.
5. Mr Machin's unvested grants in HKD have been converted to CAD using the exchange rate in effect on March 31, 2018 (CAD:HKD 1:6.08).

Letter from the Chair of the Governance Committee

We believe sound governance practices are integral to CPPIB's successful long-term performance. They also help to ensure compliance with the law and the ethical standards that we expect of everyone at CPPIB. We are committed to rigorous standards of corporate governance and strive to be a leader in global best practices for our industry. We also want strong governance practices in the companies in which we invest.

Good governance starts with our Board of Directors. The Governance Committee of the Board regularly assesses our corporate governance against evolving global best practices, changing regulatory requirements and stakeholder expectations. The Committee leads the Board in assessing and planning for Board succession and composition by reviewing criteria and qualifications for Directors. The Committee also oversees processes related to the annual Board evaluations as described on page 96 and Director compensation on a biennial cycle. In addition, we oversee Director development and orientation programs, monitor the application of the Code of Conduct across CPPIB, and recommend Proxy Voting Principles and Guidelines for Board approval.

My Committee colleagues for fiscal 2018 were: Robert Brooks, Ashleigh Everett (who replaced Heather Munroe-Blum as a Committee member when Dr. Munroe-Blum's status on the Committee became *ex officio* in November 2017), Tahira Hassan, John Montalbano, Heather Munroe-Blum (until November 2017) and Jackson Tai.

Fiscal 2018 report on activities

The Governance Committee continued its work this year to prudently manage Board renewal. The last several fiscal years have been a period of significant change within the membership of the Board of Directors. Four Directors retired during fiscal 2016–2018 and three additional retirements are anticipated during fiscal 2019, all long-standing Directors. Mary Phibbs, CPPIB's second non-resident Director, was appointed in May 2017, replacing Murray Wallace.

We introduced a series of Board information sessions covering topics such as CPPIB's role in sustainability of the Canada Pension Plan. These sessions assist with orientation of new Directors and ensure a consistent level of information among all Board members. Consistent with the Director Appointment and Reappointment Process described on page 94, we recommended the appointment of candidates to replace two directors whose terms are set to expire. We also recommended Tahira Hassan, Heather Munroe-Blum, Karen Sheriff and Jo Mark Zurel for reappointment. These recommendations were based upon the matrix of requirements and our stringent Board and peer evaluation process.

In fiscal 2018, the Board adopted a written Board of Directors Diversity Policy. It is consistent with our long-standing belief that embracing diversity and inclusion enhances corporate governance and helps us achieve our business objectives and execute our corporate strategy most effectively. The Board Diversity Policy formalizes and documents the ongoing commitment of CPPIB and the Board of Directors to maintain a Board composed of qualified Directors with a diverse mix of expertise, experience, personal backgrounds and characteristics. CPPIB will seek to maintain a Board composition that targets gender parity among the Directors, ensuring that at least 40% of Directors are women and at least 40% are men.

Another of the Governance Committee's fiscal 2018 activities involved conducting the biennial review of Director compensation, recommending only minor changes to the compensation framework effective April 1, 2018. The Committee also oversaw the appointment of CPPIB's new Conduct Review Advisor as described on page 100.

Looking ahead to next year, we will ensure that the funds we receive from the Canada Pension Plan, including the additional CPP funds we will receive, are managed in a way that continues to reflect the highest standards of corporate governance.

Ian A. Bourne
Chair, Governance Committee

Governance Practices of the Board of Directors

This section sets out certain key governance practices of the Board of Directors. More extensive governance information is posted on our website.

Mandate, duties and objectives of the Board of Directors

The Board of Directors is responsible for the stewardship of CPPIB. This includes overseeing the Chief Executive Officer and CPPIB's Enterprise Risk Management.

Among other duties, the Directors:

> Appoint the President & CEO and annually review his or her performance;
> Oversee succession planning for Senior Management;
> Set compensation policies and approve Senior Management compensation;
> Determine the organization's strategic direction in collaboration with management;
> Review and approve investment policies, standards and procedures;
> Approve investment risk targets and limits;
> Approve the guidelines for investment transactions and for retaining external investment managers;
> Regularly review the Investment Portfolio and the results of investment decisions;
> Review and approve the annual business plan and budget;
> Appoint CPPIB's external auditor;
> Establish procedures to identify and resolve conflicts of interest;
> Establish and monitor compliance with a Code of Conduct for Directors and employees;
> Assess the performance of the Board itself, including an annual Chairperson and Director peer review;
> Establish other policies relating to such matters as authorities, procurement, privacy and travel and expenses; and
> Review and approve material disclosures such as quarterly and annual Financial Statements and the Annual Report.

Directors are required to act honestly and in good faith with a view to the best interests of CPPIB. They must exercise the care, diligence and skill that a reasonably prudent person would apply in comparable circumstances. They must employ any expertise or skill they possess in carrying out their duties.

One of the Board's most important responsibilities is to preserve a governance model in which CPPIB operates at arm's length from governments with an investment-only mandate.

One important way the carefully designed governance structure balances independence with accountability is to make investment professionals accountable to an independent Board of Directors operating at arm's length from governments. The Board ensures that CPPIB's investment-only mandate is undertaken without regard to political, regional, social or economic development considerations or any other non-investment objectives.

CPPIB's 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. Directors, like officers and employees, have a duty under the Code of Conduct to immediately report any attempted political interference with respect to investments, procurement, hiring or any other decisions. No such reports have been made. The Code of Conduct also establishes a process for identifying, minimizing and resolving financial conflicts of interest so that Directors, Officers and employees can discharge their responsibilities effectively while maintaining their integrity and, in the case of Directors, recognize when they may have a specific or systemic conflict of interest.

Mandates, activities and composition of Board committees

The Board has four standing committees: Investment, Audit, Human Resources and Compensation, and Governance. Membership is shown in the Board Attendance chart on page 98.

The **Investment Committee** oversees CPPIB's core business, which is making investment decisions within the context of a Board-approved framework. The Committee reviews and recommends investment policies to the Board. It also reviews, approves and monitors the long-term investment strategy. In addition, the Committee reviews portfolio risk tolerances, approves certain investment transactions and approves the engagement of external investment managers in accordance with the *CPPIB Act*. All members of the Board serve on the Investment Committee.

The **Audit Committee** oversees management controls and financial reporting. This includes recommending for Board approval the Financial Statements and Management's Discussion and Analysis, and overseeing the external and internal audit functions. Oversight also involves the appointment of the internal auditor and recommending the external auditor for appointment by the full Board. The Audit Committee reviews information systems and internal control policies and practices. It oversees the Internal Audit function and financial aspects of the employee pension plans. It also advises the Board in connection with the statutorily mandated Special Examination to review CPPIB's records, systems and practices. CPPIB's external auditors, upon the recommendation of the Audit Committee, typically conduct this review every six years, with the final report provided to CPPIB's stewards. In fiscal 2016, a Special Examination was completed by Deloitte with 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. A copy of the Special Examination report and the Special Examiner's report are available on CPPIB's website. The next Special Examination will be held in 2022. The Audit Committee regularly meets separately with each of the external and internal auditors, without Management present, and with the CEO and CFRO.

The **Human Resources and Compensation Committee (HRCC)** administers the performance evaluation process for the CEO and senior leadership, reviews and recommends the compensation framework, reviews organizational structure and oversees Management succession planning. It also oversees employee benefits and human resources policies as well as the employee pension plans. The role of the HRCC is further outlined in the Compensation Discussion and Analysis beginning on page 76.

The **Governance Committee** ensures that CPPIB follows appropriate governance best practices. The Governance Committee:

> Monitors the application of the Code of Conduct and recommends amendments;
> Makes recommendations to the Board to improve the Board's effectiveness;
> Oversees Board succession planning, the design of Director orientation and ongoing Director education programs;
> Reviews criteria and qualifications for Director appointments/reappointments;
> Recommends candidates for appointment/reappointment;
> Recommends Director compensation; and
> Establishes, recommends and is involved in performance evaluation processes for the Chairperson, individual Directors, Board committees and the full Board.

At every regularly scheduled meeting, the Board of Directors and all committees have in camera sessions without members of Management present. As noted above, the Audit Committee also meets privately with each of the internal and external auditors, and the CFRO. In addition, the Board meets alone with the President & CEO at every regularly scheduled Board meeting.

Decisions requiring prior Board approval

Management's discretion in making operational and investment decisions is described in Board-approved or Board committee-approved policies. 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. Annual and incentive-based compensation for Officers, as well as their appointments, also require Board approval.

Ensuring Board effectiveness

Managing prudent Board renewal

The *Canada Pension Plan Investment Board Act* provides that each Director is 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 prudently manages continuity and renewal by seeking to ensure that multiple tenured directors remain on the Board as other Directors complete their terms, and new Directors are effectively transitioned onto the Board.

The Board has attempted to minimize disruption of recent retirements by aiming to stagger them over several fiscal years. Murray Wallace, a long-tenured Director, retired from the Board this fiscal year after his term expired, and was replaced by Mary Phibbs. We made recommendations to the federal Minister of Finance's Nominating Committee for Appointments to CPPIB's Board of Directors in August 2017 in relation to the candidates to replace Ian Bourne and Robert Brooks. We are actively seeking a replacement for Douglas Mahaffy, to be effective later this year.

The Board continues to work closely with CPPIB's stewards to ensure there is a prudent rhythm of Director turnover. Renewal will continue to contribute to the Board's effectiveness as it carries out its duties, yet it must be managed over a prudent and effective course.

Board appointment and reappointment process

The federal Governor in Council appoints Directors on the recommendation of the federal finance minister, following the minister's consultation with the finance ministers of the participating provinces. An external nominating committee with some private sector involvement assists in the process.

The Director appointment and reappointment process is designed to ensure that the Board has Directors with proven financial ability or relevant work experience such that CPPIB will be able to effectively achieve its objectives. In seeking to uphold CPPIB's governance practices as a leading model in the oversight of public pension management, 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 of the Board. This ensures appointments and reappointments will create a Board that is fully capable of providing the effective oversight necessary for CPPIB to achieve its statutory objectives. The Committee establishes the essential attributes or "table stakes" required of individuals, as well as other competencies required (of the Board as a whole and in individual Board members to varying degrees). It then compares these requirements to CPPIB's 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, CPPIB retains and manages executive search firms to source qualified candidates for consideration. To ensure the principles of openness, transparency and independence are met, a Notice of Appointment opportunity is posted on CPPIB's website. This enables members of the general public to view the timing of future Board appointments and the critical competencies required of a Director. Interested individuals can then submit their names for consideration. These applicants augment the candidates identified by external executive search firms to ensure that the widest possible network of candidates is considered for appointment. The analysis of competencies described above is used to establish the criteria against which the Governance Committee (or an ad hoc search committee) assesses candidates identified by the executive search firm as well as candidates who have applied through the Notice of Appointment opportunity are assessed.

In assessing potential director reappointments, the Governance Committee considers, in addition to table stakes, Board competencies and applications to the Notice of Appointment opportunity, the results of the annual evaluations of the relevant Director and his or her performance on the Board.

	Experience and Expertise	Ian Bourne	Robert Brooks	Ashleigh Everett	Tahira Hassan	Douglas Mahaffy	John Montalbano	Heather Munroe-Blum	Mary Phibbs	Karen Sheriff	Jackson Tai	Kathleen Taylor	Jo Mark Zurel
	Governance	×	×	×	×	×	×	×	×	×	×	×	×
	C-Suite Executive Leadership	×	×	×	×	×	×	×	×	×	×	×	×
Investment Management	Asset Management		×		×	×	×				×		
Investment Management	Financial Services		×	×		×	×	×	×		×	×	
Investment Management	Capital Markets	×	×			×	×		×		×		×
Investment Management	Capital Project Management	×			×				×	×	×	×	×
	Risk Management	×	×	×	×		×	×	×	×	×	×	×
	Accounting/Finance	×	×		×	×	×		×	×	×	×	×
	Business Building and Transformation	×	×	×	×		×	×		×	×	×	×
	Government/Regulatory/Public Policy	×						×					
	Global Business	×	×	×	×	×	×	×	×		×	×	×
	Talent Management/Compensation	×		×	×		×	×	×	×		×	×
	Information Technology/Security		×		×			×		×	×		
Diversity	Gender			×	×			×	×	×		×	
Diversity	Non-Gender				×						×		

In addition to the competencies analysis and the assessment of peer evaluations, we believe that diversity, including gender diversity, is crucial in ensuring an effective Board of Directors with various perspectives and qualifications. The Board has adopted a written Board of Directors Diversity Policy which acknowledges that CPPIB is best served by a Board with a wide array of skills, backgrounds, perspectives and ideas. The Board Diversity Policy includes the objective of gender parity among Directors so that at least 40% are women and at least 40% are men.

Once finalized, the names of qualified candidates are forwarded to the Nominating Committee for Appointments to CPPIB's Board of Directors, which considers them and submits names of recommended candidates to the federal finance minister.

Board composition

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 CPPIB's activities. Details of the competencies analysis and diversity of the Board, as at March 31, 2018, are set out in the table above. The current gender diversity of the Board is 50/50, including Heather Munroe-Blum who is the Chairperson.

Biographies of the CPPIB Board of Directors are on pages 101 to 103. They provide details of each Director's background, business and financial experience.

Board member orientation and development

The Board has an established orientation process for new Directors. This includes several comprehensive, full-day sessions with discussion of the background, history and mandate of CPPIB as well as its strategy, business planning process and current corporate and departmental business plans. It involves providing each new Director with background material in advance and intensive interaction with Management during the orientation process. Directors can attend supplemental orientation sessions to further deepen their knowledge of the organization.

Professional development for all Directors is a key focus for the Board because of the evolving nature of a Director's responsibilities and the unique nature of CPPIB. Management provides ongoing presentations focused on our business, emerging global issues and corporate governance practices. Special development seminars outside the regular meeting context feature both external and internal experts. In fiscal 2018, a new series of Board Information Sessions was introduced to provide Directors with information on topics selected by Management. These sessions typically follow an interactive format to allow for ample engagement with the Board. Some are conducted by webinar to facilitate participation by Directors outside of the regular Board meeting calendar.

Directors are encouraged to participate in relevant external programs. A key education component for Board members is to develop an in-depth understanding of the geographic regions in which CPPIB invests. Over the past few years, Directors have visited select international offices and gained valuable insights related to economic and geopolitical risk awareness for those regions. This enhanced the Board's knowledge of the various challenges and implications of deploying capital outside North America. In June 2017, the Board convened in New York, which provided the Directors with an opportunity to review first-hand CPPIB's U.S. activities and to engage with CPPIB's local partners and employees.

Given CPPIB's scale and the growth of Fund assets, the Board will continue to engage in these types of education programs as a central part of the Board's governance responsibility.

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. Summaries of the results of the Board and committee evaluations are reviewed by the full Board and provide a basis for improvement plans.

The Chairperson leads the confidential annual peer review. This is designed to assist each Director in identifying self-development initiatives and provides the external nominating committee with guidance on individual reappointments. After receipt of relevant questionnaire feedback, the Chairperson meets formally with each Director. 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. The feedback is also relevant to the reappointment of the Chairperson when his or her term expires.

To ensure independence among Directors, the Board of Directors follows leading governance practices by monitoring interlocking relationships. This includes Board and committee interlocks. We currently have one Board interlock whereby Heather Munroe-Blum and Kathleen Taylor both serve on the Board of Royal Bank of Canada. The Board has considered this interlock and has determined that this relationship does not impair the exercise of independent judgment of the Directors.

Directors are also required to notify the Chairperson in advance if they plan to accept an appointment to another board or as an executive of any enterprise that might benefit from, or be in conflict with, the activities of the CPPIB Board of Directors.

Board expectations of Management

The Board expects Management to comply with the *CPPIB Act* and regulations and all policies approved by the Board, 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 CPPIB invests. The Board 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 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 affect CPPIB's reputation.

Directors' compensation

The Governance Committee of the Board is responsible for making recommendations with respect to Directors' compensation, which consists of an annual retainer, meeting fees and travel time allowances. Directors' compensation is reviewed at least every two years. Changes, if any, are recommended to the Board.

In fiscal 2018, the Committee reviewed Director compensation with the assistance of an external consulting firm. Our objective was to make appropriate changes to Director compensation that would ensure CPPIB remains competitive in the talent market for recruiting and retaining outstanding directors in order to meet its statutory objectives. Recognizing the expanding mandate of the CPP Fund and the complexity of CPPIB's global activities, the Board approved modest increases in annual retainers for Directors as well as the Chairperson. The Committee approved more material increases in retainers for Committee Chairs in order to align with the responsibilities of those roles. It also approved an annual allowance for Directors residing outside Canada to reflect the additional overall travel time and complexities associated with not residing in Canada and serving as a CPPIB Director.

These changes will ensure that Directors are competitively compensated for their responsibilities, while still taking into account CPPIB's public mandate, consistent with CPPIB's Directors' Compensation Philosophy as outlined on page 97.

The following table reflects changes to Directors' Compensation which were effective April 1, 2018.

Director Compensation

		F2018		F2019
Annual Retainers				
Chairperson[1]	$	230,000	$	245,000
Director	$	65,000	$	70,000
Committee chair, additional retainer	$	15,000	$	25,000
Meeting Fees				
In-person meeting fee	$	2,000	$	2,000
Telephone meeting fee[2]	$	1,000	$	1,000
Travel and Other Allowances				
One way travel time per meeting is 1–3.5 hours	$	500	$	500
One-way travel time per meeting is greater than 3.5 up to 6.5 hours or crossing an international border	$	1,500	$	1,500
One-way travel time per meeting is greater than 6.5 hours	$	2,500	$	2,500
Annual allowance for Directors residing outside Canada	$	–	$	20,000

1. In the case of the Board Chairperson, compensation will continue to be a flat annual fee, recognizing the difference in 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.
2. When the meeting is intended to be done by telephone and generally covers one or two topics.

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 CPPIB. 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 CPPIB's commercial activities and public purpose promotes the selection of individuals who will reinforce the organization's unique culture.

CPPIB Directors' compensation pay principles

I. Pay Neutrality

Compensation alone should not attract or detract desirable candidates.
In reviewing the compensation of CPPIB Directors, the Board's objective must be to set a reasonable "threshold" level of compensation, which neutralizes compensation is not a significant favourable or unfavourable influence on the decision of a candidate in joining the CPPIB Board.

II. Public Purpose

Canadian governments established CPPIB 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 CPPIB Directorship, and the expertise and experience required, are comparable to private sector directorships, the total pay opportunity for CPPIB 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 CPPIB 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

CPPIB 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 CPPIB 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 CPPIB's 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 review in 2015.

Board attendance

There were six regularly scheduled Board and Investment Committee meetings in fiscal 2018. In addition, there were five regularly scheduled Audit Committee meetings, six regularly scheduled Human Resources and Compensation Committee meetings, and six regularly scheduled Governance Committee meetings. The Investment Committee is composed of the full Board. 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. The table below shows the number of meetings that each Director attended in fiscal 2018 relative to the number of meetings he or she could have attended.

Director	Board Meeting[1]	Investment Committee[2]	Audit Committee[3]	Governance Committee[4]	Human Resources and Compensation Committee (HRCC)[5]
Heather Munroe-Blum, Chair[6]	10/10	10/10	–	5/5	–
Ian Bourne, Chair of Governance Committee	10/10	9/10	–	6/6	9/9
Robert Brooks	10/10	10/10	5/5	6/6	–
Ashleigh Everett[7, 12]	10/10	9/9	5/5	2/2	5/5
Tahira Hassan	10/10	10/10	–	6/6	9/9
Douglas Mahaffy	8/10	8/10	–	–	8/9
John Montalbano[8, 13]	10/10	10/10	5/5	6/6	4/4
Mary Phibbs[9, 10, 13]	9/9	8/8	4/4	4/4	8/8
Karen Sheriff, Chair of HRCC	10/10	10/10	–	–	9/9
Jackson Tai[13]	8/10	8/10	5/5	6/6	6/6
Kathleen Taylor[12]	10/10	10/10	5/5	1/1	9/9
Murray Wallace[11]	–	1/1	–	–	–
Jo Mark Zurel, Chair of Audit Committee[14]	10/10	9/10	5/5	–	4/4

1. Six in-person and four teleconference meetings.
2. Six in-person and four teleconference meetings.
3. Five in-person meetings.
4. Six in-person meetings.
5. Six in-person and three teleconference meetings.
6. Ceased to be a member of the Governance Committee November 10, 2017.
7. Appointed to the Investment Committee effective April 17, 2017 and to the Governance Committee effective November 10, 2017. Appointed to the HRCC effective May 10, 2017 until November 10, 2017, and appointed to the Audit Committee effective May 10, 2017, until March 5, 2018.
8. Appointed to the Investment Committee effective April 12, 2017, and to the Audit and Governance Committees effective May 10, 2017.
9. Became a Director effective May 4, 2017.
10. Appointed to the Investment, Audit and HRCC Committees effective June 5, 2017.
11. Ceased to be a Director effective May 4, 2017.
12. Attended the Governance Committee by invitation.
13. Attended the HRCC Committee by invitation.
14. Appointed to the HRCC Committee effective November 10, 2017.

During fiscal 2018, the following ad hoc committees of the Board were formed or continued:

> The ad hoc Director candidate search committee, formed in fiscal 2017, met several times during fiscal 2018. The purpose of the committee was to interview potential candidates and recommend candidates to the Governance Committee and the Board (to be ultimately recommended to the external nominating committee). Membership consisted of Mr. Bourne, Dr. Munroe-Blum, Ms. Hassan and Mr. Brooks;

> A separate ad hoc Director candidate search committee was formed in fiscal 2018 to interview potential candidates for a fiscal 2019 Board vacancy. Membership of the committee consisted of Ms. Everett, Mr. Montalbano, Dr. Munroe-Blum and Mr. Zurel;

> The ad hoc CEO succession-planning committee was formed to ensure CEO succession is continuously planned and assessed. Membership of the committee consisted of Ms. Sheriff, Ms. Hassan, Dr. Munroe-Blum, Mr. Tai and Ms. Taylor;

> The ad hoc committee to oversee Management's preparations to receive additional CPP contributions was formed. The membership consists of Dr. Munroe-Blum, Mr. Bourne, Mr. Brooks, Mr. Montalbano, Ms. Sheriff and Mr. Zurel;

> The ad hoc risk committee was formed to review matters relating to evolving CPPIB's risk governance practices. Membership of the committee consisted of Mr. Tai, Mr. Montalbano, Dr. Munroe-Blum, Ms. Phibbs and Mr. Zurel; and

> The ad hoc conduct and culture committee was formed to oversee the review and optimization of CPPIB's organizational culture. Membership of the committee consisted of Ms. Everett, Mr. Bourne, Dr. Munroe-Blum, Ms. Sheriff and Mr. Zurel.

Director compensation for fiscal 2018

Based on the attendance and fee schedules, individual compensation for each of the Directors for fiscal 2018 was as follows:

Director	Annual Retainer ($)	Board and Committee Meeting Fees[1] ($)	Travel Fees ($)	Total Remuneration ($)
Heather Munroe-Blum, Chairperson of Board of Directors; and Chair of Investment Committee[2]	230,000	18,000	6,000	254,000
Ian Bourne, Chair of Governance Committee	80,000	71,000	13,500	164,500
Robert Brooks	65,000	66,000	3,000	134,000
Ashleigh Everett[3, 4]	65,000	55,000	7,500	127,500
Tahira Hassan	65,000	67,000	2,000	134,000
Douglas Mahaffy	65,000	39,000	2,000	106,000
John Montalbano[5]	65,000	68,000	9,000	142,000
Mary Phibbs[6]	59,042	57,000	12,500	128,542
Karen Sheriff, Chair of Human Resources and Compensation Committee	80,000	55,000	2,000	137,000
Jackson Tai	65,000	65,000	6,500	136,500
Kathleen Taylor	65,000	61,000	2,000	128,000
Murray Wallace[7]	5,958	1,000	500	7,458
Jo Mark Zurel, Chair of Audit Committee[8]	80,000	54,000	4,500	138,500
Total	990,000	677,000	71,000	1,738,000

1. These meeting fees include attendance at ad hoc committee meetings.
2. Ceased to be a Governance Committee member effective November 10, 2017.
3 Appointed as Investment Committee member effective April 17, 2017; appointed as Governance Committee member effective November 10, 2017.
4 Appointed as Human Resources and Compensation Committee member effective May 10, 2017 and ceased effective November 10, 2017; appointed as Audit Committee member effective May 10, 2017 and ceased effective March 5, 2018.
5 Appointed as Investment Committee member effective April 12, 2017; appointed as Governance and Audit Committee member effective May 10, 2017.
6 Appointed as Director effective May 4, 2017; appointed as Investment, Audit and Human Resources and Compensation Committee member effective June 5, 2017.
7 Ceased to be a Director effective May 4, 2017.
8 Appointed as Human Resources and Compensation Commiittee member effective November 10, 2017.

A culture of integrity and ethical conduct

Code of conduct

The Code of Conduct can be found on our website. It is designed to help create a corporate culture of trust, honesty and integrity.

One of the main topics covered in the Code is conflicts of interest. Conflicts of interest were anticipated in CPPIB's legislation as a result of the need to recruit Directors and employees with financial and investment experience. CPPIB's Code of Conduct was established to manage and, where possible, eliminate such conflicts. Stringent procedures under the Code are designed to ensure that Directors and employees act in the best interests of the organization. They are required to 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 CPPIB's objectives and mandate.

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.

It also deals with such matters as personal and professional conduct, confidentiality of proprietary information, and personal investments. For example, the Code of Conduct establishes strict pre-clearance procedures and restrictions for personal trading in securities.

As part of the hiring process, new recruits are required to read and agree to comply with the Code of Conduct and related personal trading guidelines. Together, these set a high standard for addressing conflicts of interest and promoting ethical conduct. Directors and employees must reconfirm their compliance semi-annually and employees must complete an online module to confirm their understanding of the Code and ability to apply it in day-to-day decisions and actions.

Guiding Principles

CPPIB holds annual sessions for all employees on the same day across all offices to renew their commitment to the Guiding Principles of Integrity, Partnership and High Performance. These sessions will continue to be held annually 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 decided in 2003 to appoint 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 reviewing it for any appropriate changes.

In fiscal 2018, the Board appointed Ms. Sheila Block as CPPIB's Conduct Review Advisor. Ms. Block succeeds The Honourable Frank Iacobucci who completed 12 years in this role.

Board of Directors[1]

HEATHER MUNROE-BLUM, O.C., O.Q., Ph.D., F.R.S.C., CHAIRPERSON [1*]
Corporate Director and Public Policy Scholar | Montreal, Quebec | Director since March 2010 | Appointed Chairperson effective October 2014.

Served for over a decade as Principal and Vice Chancellor (President) of McGill University. Former Vice-President (Research and International Relations) of the University of Toronto. Current Director of the Royal Bank of Canada, CGI Group, and the Gairdner Foundation (Vice-Chair). Currently a member of the 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 Four Seasons Hotels, Alcan, Yellow Media Inc., and Hydro One (Ontario), 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. Recipient of numerous domestic and international honorary degrees and awards of distinction. Officer of the Order of Canada, Officer of the Order of Quebec, and a Specially Elected Fellow of the Royal Society of Canada. Building on a distinguished career of clinical, academic and scientific achievements, qualifications include more than 25 years of senior administrative leadership concentrated in higher education, public policy, and, research and development; has 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.

IAN A. BOURNE [1, 2*, 4]
Corporate Director | Calgary, Alberta | Director since April 2007.

Chair of Ballard Power Systems Inc., Director of Hydro One Limited, Wajax Corporation, and the Canadian Public Accountability Board. Former Chair of SNC-Lavalin Group Inc. and former Director of Canadian Oil Sands Limited. Retired Executive Vice-President and Chief Financial Officer of TransAlta Corporation, a power generation company, and President of TransAlta Power L.P. Over 35 years of experience in senior finance roles at TransAlta, General Electric and Canada Post Corporation. Former Director of TransAlta Power L.P. Qualifications include expertise in finance in major corporations, corporate governance and international experience in Paris and London.

ROBERT L. BROOKS [1, 2, 3]
Corporate Director | Toronto, Ontario | Director since January 2009.

Former Vice-Chair and Group Treasurer of the Bank of Nova Scotia, the culmination of a 40-year career with the bank serving in a succession of senior investment banking, finance and treasury roles. Director of Integrated Asset Management Corp. Director of Hamilton Capital Partners Inc. Former Director of numerous Scotiabank subsidiaries including Scotia Discount Brokerage, Inc., Scotia Life Insurance Company, ScotiaMcLeod, Inc. and Scotia Cassels Investment Counsel Ltd. Qualifications include more than 40 years of financial industry experience as a bank executive dealing with finance, risk management, pension fund asset mix, investment strategies, treasury functions and international operations.

ASHLEIGH EVERETT [1, 2]
Corporate Executive, Corporate Director | Winnipeg, Manitoba | Director since February 2017.

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. Former Director of The Bank of Nova Scotia (Chair of the Corporate Governance and Pension Committee). Former Director of Manitoba Telecom Services (Chair of the Governance and Nominating Committee). Current member of the Premier's Enterprise Team for the Province of Manitoba. 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. Over 25 years of senior management experience in private property development and retail business operations.

TAHIRA HASSAN [1, 2, 4]
Corporate Director | Toronto, Ontario | Director since February 2015.

Non-executive Director of Brambles Limited. Vice-Chair and Director of Ontario Shores Centre for Mental Health Sciences. Former Senior Vice-President at Nestlé SA with extensive international experience in transformative change including mergers and 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. Served on several international management and joint venture boards. Past member of the Dean's advisory council of the Laurier School of Business & Economics at Wilfrid Laurier University. Certified Management Accountant of Canada. Fellow of the Chartered Institute of Management Accountants in the United Kingdom. Qualifications include more than 36 years of business and board expertise, in countries such as the United Kingdom, Switzerland and Pakistan, in addition to Canada.

Committee memberships
1. Investment Committee
2. Governance Committee
3. Audit Committee
4 Human Resources and Compensation Committee
5. At the time of appointment
* Indicates Chair position

1. The biographies provided include all Directors who served on the Board in fiscal 2018. Mr. Wallace left the Board and Board committees during fiscal 2018.

Board of Directors[1] *(cont'd)*

DOUGLAS W. MAHAFFY [1, 4]
Corporate Director | Toronto, Ontario | Director since October 2009.

Retired Chairman and Chief Executive Officer of McLean Budden Ltd., an institutional money management firm. Former Managing Director and Head of Investment Banking (Ontario) of Merrill Lynch Canada Inc., and former Senior Vice-President, Finance and Chief Financial Officer of Hudson's Bay Company. Current Director at Methanex Corporation and former Director at Stelco Inc. and Woodward's Ltd. Current Chairman at Drumlane Capital, a personally owned investment firm. Member of the Investment Committee at Sunnybrook Health Sciences Centre. Qualifications include more than 40 years of investment industry, general management, and mergers and acquisitions experience.

JOHN MONTALBANO [1, 2, 3]
Corporate Director | Vancouver, British Columbia | Director since February 2017.

Served as Chief Executive Officer of RBC Global Asset Management from 2008 to 2015. Previously President of Phillips, Hager & North Investment Management and Vice Chairman of RBC Wealth Management. Serves as Director on a number of corporate boards, including Canalyst Financial Modeling Corporation, Accuro Technologies Inc. and Eupraxia Pharmaceuticals Inc. Chartered Financial Analyst designation. Leslie Wong Fellow of the UBC Portfolio Management Foundation. Holds an Honorary Doctorate from Emily Carr University and serves on the Asia Pacific Foundation Board. Qualifications include nearly thirty 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.

MARY PHIBBS [1, 3, 4]
Corporate Director | London, United Kingdom | Director since May 2017.

Held senior positions at Standard Chartered Bank plc, ANZ Banking Group, National Australia Bank, Commonwealth Bank of Australia, and Allied Irish Banks plc among others. Non-executive Director of Morgan Stanley International Limited, Morgan Stanley & Co International plc and Morgan Stanley Bank International Limited. Previously a Director of 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. 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 38 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.

KAREN SHERIFF [1, 4*]
Corporate Executive | Halifax, Nova Scotia[5] | Director since October 2012.

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. Director of WestJet Airlines Ltd. and BCE Inc/Bell Canada. Past Director of Bell Aliant Inc., Bell Aliant Regional Communications Inc., Bell Aliant Preferred Equity Inc., Aliant Inc. and Teknion Corporation. Chair of the Board of Trustees of the Gardiner Museum of Ceramic Arts from 2006 to 2016. 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.

JACKSON TAI [1, 2, 3]
Corporate Director | Greenwich, Connecticut, USA | Director since June 2016.

Former Chief Executive Officer and Vice-Chairman of DBS Bank Ltd, and previously, President and Chief Operating Officer, and Chief Financial Officer. Served 25 years in the Investment Banking Division of J.P. Morgan & Co. Incorporated and held executive positions such as Head of Japan Capital Markets; founder of the firm's global real estate investment banking; Senior Regional Officer for Asia Pacific; and Senior Regional Officer for the Western United States. Currently serves as a non-executive director for several boards, including HSBC Holdings PLC, Eli Lilly & Company, Royal Philips N.V. and Mastercard Incorporated. Currently serves as a trustee for Rensselaer Polytechnic Institute and as a Director of Metropolitan Opera. Qualifications include significant on-the-ground operating and governance experience in Asia, including in China, Singapore and Japan; a distinguished career in banking and capital markets with experience in investment and risk assessment; as well as global governance experience among active boards providing insights into U.S., EU and China.

KATHLEEN TAYLOR,
C.M., BA (Hons), JD, MBA [1, 3, 4]
Global Executive, Corporate Director | Toronto, Ontario | Director since October 2013.

Chair of the Board of the Royal Bank of Canada and Board member since 2001. Chair of the Board of the Hospital for Sick Children Foundation and a member of the Hospital's Board of Trustees. Director of Air Canada since May 2016. Vice-Chair of The Adecco Group since April 2017 and Director since April 2015. 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 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). Qualifications include over 25 years of global executive experience overseeing major strategic and operations initiatives, negotiating expertise and strong relationship management capabilities that drove the modern evolution of an iconic company with the support of almost 100 ownership and development partners around the world.

D. MURRAY WALLACE
Fellow, Institute of Chartered Accountants of Ontario | London, Ontario | Director since April 2007. Left the Board in May 2017, after his term expired.

Executive Chairman of Financial Horizons Group, an MGA in the life insurance industry, until August 1, 2017. Former Chief Executive Officer of Granite Global Solutions Inc., an insurance services company, and former President of Axia NetMedia Corporation. Director and Chairman of Echelon Financial Holdings Inc., and Director of Ascot Group Ltd. Former Director of Axia NetMedia Corporation, Terravest Income Fund, Critical Outcome Technologies Inc., Western Surety Ltd., Ontario Hydro, London Insurance Group, IPSCO Inc., Crown Life Insurance Co. and Queen's University School of Business (Advisory Committee), among others. Former Deputy Minister of Finance and Deputy Minister to the Premier for the Government of Saskatchewan. Qualifications include expertise as a Chartered Accountant, senior-level financial experience from five years as President of Avco Financial Services Canada Ltd. and eight years in executive roles with companies in the Trilon Financial Group, including CEO of Wellington Insurance, and experience in public pension plan management and interface with government.

JO MARK ZUREL [1, 3*, 4]
Chartered Professional Accountant, Corporate Director | St. John's, Newfoundland and Labrador | Director since October 2012.

President/Owner of Stonebridge Capital Inc., a private investment company that invests in a variety of businesses, including Atlantic Canadian start-up and high-growth companies. From 1998 to 2006 served as Senior Vice-President and Chief Financial Officer of CHC Helicopter Corporation. 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. 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.

Committee memberships
1. Investment Committee
2. Governance Committee
3. Audit Committee
4 Human Resources and Compensation Committee
5. At the time of appointment
* Indicates Chair position

1. The biographies provided include all Directors who served on the Board in fiscal 2018. Mr. Wallace left the Board and Board committees during fiscal 2018.

GOVERNANCE PRACTICES

Management's Responsibility for Financial Reporting

The Consolidated Financial Statements of Canada Pension Plan Investment Board (CPP Investment Board) 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. 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. The financial information presented throughout the Annual Report is consistent with the Consolidated Financial Statements.

CPP Investment Board develops and maintains systems of internal control and supporting procedures. The systems of internal control are designed to provide reasonable assurance that assets are safeguarded; that transactions are properly recorded, authorized and are in accordance with the *Canada Pension Plan Investment Board Act*, the accompanying regulations, the by-laws and investment policies of CPP Investment Board; and that there are no material misstatements in the Consolidated Financial Statements or the financial information contained within the Annual Report. The internal control over financial reporting and disclosure controls and procedures are tested for both design and operational effectiveness as part of our CEO/CFRO certification process as described on page 75 of Management's Discussion and Analysis in the 2018 Annual Report.

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 and conflict of interest procedures, and other policies, management authorities and procedures that guide decision-making. The controls also include the establishment of an organization 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 Investment Board's 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.

The Audit Committee assists the Board of Directors in discharging its responsibility to approve the Consolidated Financial Statements. The Audit Committee, consisting of six 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 and approves the Consolidated Financial Statements and recommends them to the Board of Directors for approval.

CPP Investment Board's 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 Investment Board's financial reporting and the adequacy of internal control systems.

Mark G. Machin
President & Chief Executive Officer

Neil Beaumont
Senior Managing Director & Chief Financial and Risk Officer

Toronto, Ontario
May 10, 2018

Investment Certificate

The *Canada Pension Plan Investment Board Act* (the Act) requires that a certificate be signed by a director on behalf of the Board of Directors, stating that the investments of CPP Investment Board held during the year were in accordance with the Act and CPP Investment Board's investment policies, standards and procedures. Accordingly, the Investment Certificate follows.

The investments of CPP Investment Board, held during the year ended March 31, 2018, were in accordance with the Act and CPP Investment Board's investment policies, standards and procedures.

Jo Mark Zurel
Chair of the Audit Committee on behalf of the Board of Directors

Toronto, Ontario
May 10, 2018

Independent Auditor's Report

To the Board of Directors of Canada Pension Plan Investment Board

We have audited the accompanying Consolidated Financial Statements of Canada Pension Plan Investment Board, which comprise the Consolidated Balance Sheet as at March 31, 2018, and the Consolidated Statement of Comprehensive Income, Consolidated Statement of Changes in Net Assets and Consolidated Statement of Cash Flows for the year then ended, and a summary of significant accounting policies and other explanatory information.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these Consolidated Financial Statements in accordance with International Financial Reporting Standards, and for such internal control as management determines is necessary to enable the preparation of Consolidated Financial Statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these Consolidated Financial Statements based on our audit. We conducted our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the Consolidated Financial Statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the Consolidated Financial Statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the Consolidated Financial Statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the Consolidated Financial Statements 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 the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the Consolidated Financial Statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the Consolidated Financial Statements present fairly, in all material respects, the financial position of Canada Pension Plan Investment Board as at March 31, 2018, and its financial performance, changes in its net assets and its cash flows for the year then ended in accordance with International Financial Reporting Standards.

Report on Other Legal and Regulatory Requirements

Further, in our opinion, the transactions of Canada Pension Plan Investment Board that have come to our attention during our audit of the Consolidated Financial Statements have, in all material respects, been in accordance with the *Canada Pension Plan Investment Board Act* (the Act) and the by-laws, as the case may be.

Further, in our opinion, the record of investments kept by Canada Pension Plan Investment Board's management, pursuant to paragraph 39(1)(c) of the Act fairly presents, in all material respects, the information required by the Act.

Deloitte LLP

Chartered Professional Accountants
Licensed Public Accountants
May 10, 2018

Consolidated Balance Sheet

(CAD millions)	As at March 31, 2018	As at March 31, 2017[1]
Assets		
Investments (note 2)	$ 428,827	$ 377,700
Amounts receivable from pending trades	2,613	3,234
Premises and equipment	348	348
Other assets	153	131
Total assets	431,941	381,413
Liabilities		
Investment liabilities (note 2)	72,641	60,423
Amounts payable from pending trades	2,477	3,631
Accounts payable and accrued liabilities	689	682
Total liabilities	75,807	64,736
Net assets	$ 356,134	$ 316,677
Net assets, represented by:		
Share capital (note 6)	$ –	$ –
Accumulated net income from operations	215,614	178,875
Accumulated net transfers from the Canada Pension Plan (note 7)	140,520	137,802
Net assets	$ 356,134	$ 316,677

1. Certain comparatives have been updated to conform with the current year's presentation.

The accompanying notes are an integral part of these Consolidated Financial Statements.

On behalf of the Board of Directors

Heather Munroe-Blum
Chairperson

Jo Mark Zurel
Chair of the Audit Committee

Consolidated Statement of Comprehensive Income

(CAD millions)	For the year ended March 31, 2018	For the year ended March 31, 2017
Investment income	$ 39,931	$ 36,273
Investment management fees	(1,738)	(1,464)
Transaction costs	(401)	(447)
Net investment income (note 8)	**$ 37,792**	$ 34,362
Personnel costs	712	625
General operating expenses	270	244
Professional services	71	54
Operating expenses (note 9)	**1,053**	923
Net income from operations and comprehensive income	**$ 36,739**	$ 33,439

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, 2016	10	$ –	$ 133,505	$ 145,436	$ 278,941
Total net income for the year		–	–	33,439	33,439
Canada Pension Plan transfers (note 7):					
Transfers from the Canada Pension Plan		–	39,517	–	39,517
Transfers to the Canada Pension Plan		–	(35,220)	–	(35,220)
Balance at March 31, 2017	10	$ –	$ 137,802	$ 178,875	$ 316,677
As at April 1, 2017	**10**	**$ –**	**$ 137,802**	**$ 178,875**	**$ 316,677**
Total net income for the year		**–**	**–**	**36,739**	**36,739**
Canada Pension Plan transfers (note 7):					
Transfers from the Canada Pension Plan		**–**	**36,425**	**–**	**36,425**
Transfers to the Canada Pension Plan		**–**	**(33,707)**	**–**	**(33,707)**
Balance at March 31, 2018	**10**	**$ –**	**$ 140,520**	**$ 215,614**	**$ 356,134**

The accompanying notes are an integral part of these Consolidated Financial Statements.

CONSOLIDATED FINANCIAL STATEMENTS

Consolidated Statement of Cash Flows

(CAD millions)	For the year ended March 31, 2018	For the year ended March 31, 2017[3]
Cash flows from operating activities		
Net income from operations	$ 36,739	$ 33,439
Adjustments for non-cash items:		
Amortization of premises and equipment	27	30
Effect of exchange rate changes on cash and cash equivalents	1	(16)
Unrealized losses on debt financing liabilities	27	906
Adjustments for net changes in operating assets and liabilities:		
(Increase) in investments	(58,922)	(21,382)
Decrease (Increase) in pending trades receivable	621	(607)
(Increase) in other assets	(7)	(10)
Increase (Decrease) in investment-related liabilities	8,078	(9,785)
Increase in debt financing liabilities	4,113	3,374
(Decrease) Increase in pending trades payable	(1,154)	200
Increase in accounts payable and accrued liabilities	7	42
Net cash flows (used in) provided by operating activities	(10,470)	6,191
Cash flows from financing activities		
Transfers from the Canada Pension Plan	36,425	39,517
Transfers to the Canada Pension Plan	(33,707)	(35,220)
Net cash flows provided by financing activities	2,718	4,297
Cash flows from investing activities		
Acquisitions of premises and equipment	(28)	(23)
Disposals of premises and equipment	1	1
Net cash flows (used in) investing activities	(27)	(22)
Net (decrease) Increase in cash and cash equivalents	(7,779)	10,466
Effect of exchange rate changes on cash and cash equivalents	(1)	16
Cash and cash equivalents at the beginning of the year	16,076	5,594
Cash and cash equivalents at the end of the year	8,296	16,076
Cash and cash equivalents at the end of the year are comprised of:		
Cash held for operating purposes[1]	83	68
Cash and cash equivalents held for investment purposes[2]	8,213	16,008
Total	$ 8,296	$ 16,076

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 and Money market securities on the Consolidated Schedule of Investment Portfolio.
3. Certain comparatives have been updated to conform with 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 CPP Investment Board's investment assets and investment liabilities:

(CAD millions)	As at March 31, 2018	As at March 31, 2017[1]
Equities (note 2a)		
Canada		
Public equities[2]	$ 7,783	$ 4,576
Private equities	4,509	4,048
	12,292	8,624
Foreign developed markets		
Public equities[2]	114,164	93,905
Private equities	67,080	54,992
	181,244	148,897
Emerging markets		
Public equities[2]	24,274	19,208
Private equities	9,877	5,781
	34,151	24,989
Total equities	227,687	182,510
Fixed income (note 2b)		
Bonds	63,851	61,240
Other debt	22,183	19,764
Money market securities[3]	8,213	19,408
Total fixed income	94,247	100,412
Absolute return strategies (note 2c)	21,027	19,371
Real assets (note 2d)		
Real estate	44,712	38,732
Infrastructure	30,399	27,899
Total real assets	75,111	66,631
Investment receivables		
Securities purchased under reverse repurchase agreements (note 2e)	6,164	5,207
Accrued interest	2,026	1,561
Derivative receivables (note 2f)	1,918	1,718
Other	647	290
Total investment receivables	10,755	8,776
Total investments	$ 428,827	$ 377,700
Investment liabilities		
Securities sold under repurchase agreements (note 2e)	(32,504)	(14,749)
Securities sold short (note 2a and 2b)	(13,574)	(24,177)
Debt financing liabilities (note 2g)	(24,056)	(19,873)
Derivative liabilities (note 2f)	(1,712)	(1,401)
Other	(795)	(223)
Total investment liabilities	(72,641)	(60,423)
Amounts receivable from pending trades	2,613	3,234
Amounts payable from pending trades	(2,477)	(3,631)
Net investments	$ 356,322	$ 316,880

1. Certain comparatives have been updated to conform with the current year's presentation.
2. As at March 31, 2018, public equities included fund investments with a fair value of $8,331 million (March 31, 2017 – $8,022 million).
3. Includes investments managed on a short-term basis to support transfers to the Canada Pension Plan.

The accompanying notes are an integral part of these Consolidated Financial Statements.

Notes to the Consolidated Financial Statements

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Corporate information

Canada Pension Plan Investment Board (CPP Investment Board) was established in December 1997 pursuant to the *Canada Pension Plan Investment Board Act* (the Act). CPP Investment Board is a federal Crown corporation, all of the shares of which are owned by Her Majesty the Queen in right of Canada. CPP Investment Board is responsible for assisting the Canada Pension Plan (the CPP) in meeting its obligations to contributors and beneficiaries under the legislation *Canada Pension Plan*. It is responsible for managing amounts that are transferred to it under Section 108.1 of the *Canada Pension Plan* in the best interests of CPP beneficiaries and contributors. CPP Investment Board received its first funds for investing purposes from the CPP in March 1999. CPP Investment Board's assets are to be invested in accordance with the Act, the regulations and the 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.

CPP Investment Board is exempt from Part I tax under paragraphs 149(1) (d) of the *Income Tax Act (Canada)* on the basis that all of the shares of CPP Investment Board are owned by Her Majesty the Queen in right of Canada. Further, all of CPP Investment Board's wholly owned subsidiaries are exempt from Part I tax.

The Consolidated Financial Statements provide information on the net assets managed by CPP Investment Board and do not include the liabilities and other assets of the CPP.

CPP Investment Board's registered office is 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 10, 2018.

1. Summary of significant accounting policies

a) Basis of presentation

These Consolidated Financial Statements present the financial position and the financial performance of CPP Investment Board in accordance with International Financial Reporting Standards (IFRS).

CPP Investment Board 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 Investment Board, we have one investor (more specifically, we invest amounts transferred from the CPP that are not required to pay current CPP benefits), but we invest the funds 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 Investment Board meets the definition of an investment entity as defined in IFRS 10.

Certain comparative figures have been reclassified to conform to the current year's financial statement presentation.

Statement of compliance

The Consolidated Financial Statements of CPP Investment Board have been prepared in accordance with IFRS as issued by the International Accounting Standards Board and the requirements of the Act and the regulations of CPP Investment Board.

b) Subsidiaries

CPP Investment Board is required to report the results of its operations in accordance with IFRS 10. As a consequence, the Consolidated Financial Statements represent the results of operations of CPP Investment Board 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 Investment Board.

Subsidiaries that are managed by CPP Investment Board 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.
Fair value for unconsolidated investment holding subsidiaries is based on the fair value of the underlying investments and investment liabilities held by the investment holding subsidiary together with its accumulated net income from operations. The determination

of the fair value of the underlying investments and investment liabilities are based on the valuation techniques and related inputs outlined in note 2a to g.

c) Financial instruments

(i) Classification

CPP Investment Board classifies its financial assets and financial liabilities, in accordance with IFRS 9, *Financial Instruments*, as follows:

Financial assets

Financial assets are either classified at fair value through profit or loss 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 fair value through profit or loss 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 the CPP Investment Board. Financial assets classified at fair value through profit or loss include investments in equity, fixed income, absolute return strategies, real assets, securities purchased under reverse repurchase agreements and derivatives. Financial assets carried at amortized cost are accrued interest, dividends receivable and amounts receivable from pending trades.

Financial liabilities

Financial liabilities are either classified at fair value through profit or loss or at amortized cost. The classification depends on whether the financial liability (a) meets the definition of held for trading or (b) is designated at fair value through profit or loss upon initial recognition.

A financial liability is classified as held for trading if:

> It is acquired or incurred principally for the purpose of selling or repurchasing it in the near term;
> On initial recognition it is part of a portfolio of identified financial instruments that is managed together and for which there is evidence of a recent actual pattern of short-term profit taking; or
> It is a derivative, except for a derivative that is a financial guarantee contract or a designated and effective hedging instrument.

Financial liabilities are classified at fair value through profit or loss on the basis that they meet the definition of held for trading. Financial liabilities classified at fair value through profit or loss include securities sold under repurchase agreements, securities sold short, debt financing liabilities and derivative liabilities. Amounts payable from pending trades, accounts payable and accrued liabilities are carried at amortized cost.

(ii) Recognition

CPP Investment Board recognizes a financial asset or a financial liability when, and only when, it becomes a party to the contractual provisions of the instrument. Investments, investment receivables and investment liabilities are recorded on a trade date basis.

(iii) Derecognition

Financial assets are derecognized when the contractual rights to receive the cash flows from the financial asset expire or when CPP Investment Board has transferred the financial asset and substantially all the risks and rewards of the asset or no longer retains control over the asset.

CPP Investment Board derecognizes a financial liability when the obligation under the liability is discharged, cancelled or expires.

(iv) Initial measurement

Financial assets and financial liabilities are measured on initial recognition at fair value.

(v) Subsequent measurement

After initial measurement, financial assets and financial liabilities classified at fair value through profit or loss are measured at fair value. Subsequent changes in the fair value of those financial assets and financial liabilities 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.

d) Valuation of investments and investment liabilities

Investments and investment liabilities are stated at fair value. 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.

In an active market, fair value is best evidenced by an independent quoted market price. In the absence of an active market, fair value is determined by valuation techniques that make maximum use of inputs observed from markets. See note 2a to g for more details about the determination of fair value.

e) Income recognition

Income from investments includes realized gains and losses from investments, changes in unrealized gains and losses on investments, dividend income and interest income. Dividend income is recognized on the ex-dividend date, which is when CPP Investment Board's right to receive the dividend has been established. Interest income is recognized using the effective interest rate method.

f) Offsetting financial instruments

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.

g) Transaction costs

Transaction costs are incremental costs that are directly attributable to the acquisition or disposal of an investment. Transaction costs are expensed as incurred and included in net investment income (see note 8).

h) Investment management fees

Investment management fees, which include hedge fund performance fees, are paid to investment managers for externally managed investments. Investment management fees are expensed as incurred and included in net investment income (see note 8).

i) Cash equivalents

Cash equivalents consist of short-term deposits with a maturity of 90 days or less.

j) Securities purchased under reverse repurchase agreements and sold under repurchase agreements

Securities purchased under reverse repurchase agreements represent the purchase of securities effected 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. These securities are not recognized as an investment of CPP Investment Board. 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 (see note 11). In the event of counterparty default, CPP Investment Board 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 continue to be recognized as an investment of CPP Investment Board with any changes in fair value recorded as net gain (loss) on investments and included in investment income.

Interest earned on reverse repurchase agreements and interest incurred on repurchase agreements is included in investment income.

k) Securities sold short

Securities sold short represent securities that are sold, but not owned, by CPP Investment Board. CPP Investment Board 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, when appropriate (see note 11). Interest and dividend expense on securities sold short are included in investment income.

l) Functional and presentation currency

CPP Investment Board's functional and presentation currency is the Canadian dollar, which is the currency of the primary economic environment in which it operates. CPP Investment Board's performance is evaluated and its liquidity is managed in Canadian dollars. Therefore, the Canadian dollar is considered as the currency that most faithfully represents the economic effects of the underlying transactions, events and conditions.

m) Foreign currency translation

Transactions, including purchases and sales of investments, 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 that are measured in terms of historical cost in a foreign currency are translated using the exchange rates at the dates of the initial transactions.

Foreign currency transaction gains and losses on financial instruments classified at fair value through profit or loss are included in investment income in the Consolidated Statement of Comprehensive Income.

n) Canada Pension Plan transfers

Net amounts from the CPP are recorded as received.

o) 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 assets or liabilities affected in the future.

2. Fair value determination

CPP Investment Board manages the following types of investments and investment liabilities and determines fair value as follows:

a) Equities

(i) 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.

(ii) Private equity investments are generally made directly or through ownership in limited partnership funds.

The fair value for investments held directly is primarily determined using 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 determined based on relevant information reported by the general partner using similar accepted industry valuation methods.

b) Fixed income

(i) Bonds include non-marketable and marketable 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 flow based on benchmark yield curves and credit spreads pertaining to the issuer.

(ii) Other debt includes investments in direct private debt, asset-backed securities, distressed mortgage funds, private debt funds, hedge funds and investments in income streams of intellectual properties and royalties.

Fair value for direct investments in private debt and asset-backed securities is based on quoted market prices or 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 income streams of intellectual properties and royalties, 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.

(iii) Money market securities include cash, term deposits, treasury bills, commercial paper and floating rate notes. 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.

c) Absolute return strategies

Absolute return strategies include investments in hedge funds whose objective is to generate positive returns regardless of market conditions, that is, returns with a low correlation to broad market indices. The underlying securities of the funds could include, but are not limited to, equities, fixed income securities and derivatives.

Fair value for fund investments is generally based on the net asset value as reported by the external administrators or managers of the funds.

d) Real assets

(i) CPP Investment Board obtains exposure to real estate through direct investments in privately held real estate and real estate funds. Private real estate investments are managed by investment managers primarily through co-ownership arrangements.

Fair value for private real estate investments is primarily determined using discounted cash flows based on various factors such as net operating income, discount rate and terminal capitalization rate.

Fair value for real estate funds is generally based on the net asset value reported by the external managers of the funds.

(ii) Infrastructure investments are generally made directly, but can also occur through limited partnership funds.

Fair value for infrastructure investments is primarily determined using discounted cash flows based on significant inputs including projected cash flows and discount rates.

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.

e) Securities purchased under reverse repurchase agreements and sold under repurchase agreements

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 securities.

f) Derivative contracts

A derivative contract is a financial contract, the value of which is derived from the value of underlying assets, indices, interest rates, currency exchange rates or other market-based factors. Derivatives are transacted through regulated exchanges or negotiated in over-the-counter markets.

Notional amounts of derivative contracts 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.

The fair value of these contracts is reported as derivative receivables and derivative liabilities on the Consolidated Schedule of Investment Portfolio.

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 swaps, options, forward contracts and warrants, is determined based on valuation techniques 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.

g) Debt financing liabilities

Debt financing liabilities consist of commercial paper payable and term debt. Commercial paper payable is recorded 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.

3. Derivative instruments

a) Type of derivative instruments

CPP Investment Board uses the following types of derivative instruments:

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 either 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 and variance 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, respectively.

Interest rate-related swaps include bond swaps, interest rate swaps and cross-currency interest rate 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 interest rate 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 Investment Board cannot reasonably estimate the potential maximum amount of future payments.

Warrants are transacted both over-the-counter and through exchanges where 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.

b) Derivative-related risk

The following are primary risks associated with derivatives:

Market risk

Derivatives generate positive or negative value, as the value of underlying assets, indices, 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 potential for derivatives to increase or decrease in value as a result of the foregoing factors is generally referred to as market risk.

The derivative-related market risk is a component of the total portfolio market risk, which is managed through the Risk/Return Accountability Framework described in note 5.

Credit risk

Credit risk is the risk of a financial loss that occurs as a result of the failure of a counterparty to meet its obligations to CPP Investment Board. The maximum exposure to credit risk is represented by the positive fair value of the derivative instrument 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 contracts is limited because these transactions are executed on regulated exchanges, each of which is associated with a well-capitalized clearing house that assumes the obligation of the writer of a contract and guarantees their performance.

CPP Investment Board 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 as discussed in note 5b.

c) Fair value of derivative contracts

The fair value of derivative contracts was as follows:

Fair value of derivative contracts

	As at March 31, 2018		As at March 31, 2017	
(CAD millions)	Positive fair value	Negative fair value	Positive fair value	Negative fair value
Equity contracts				
Futures	$ –	$ –	$ –	$ –
Swaps	1,326	(967)	923	(717)
Options:				
Over-the-counter – written	–	(12)	–	–
Warrants	–	–	1	–
Total equity contracts	1,326	(979)	924	(717)
Foreign exchange contracts				
Forwards	185	(273)	357	(286)
Options:				
Over-the-counter – written	–	(2)	–	–
Total foreign exchange contracts	185	(275)	357	(286)
Interest rate contracts				
Futures	–	–	–	–
Forwards	–	–	–	–
Swaps	225	(271)	148	(117)
Total interest rate contracts	225	(271)	148	(117)
Credit contracts				
Purchased credit default swaps	2	(174)	4	(277)
Written credit default swaps	180	(2)	285	(4)
Options:				
Over-the-counter – purchased	–	–	–	–
Over-the-counter – written	–	–	–	–
Total credit contracts	182	(176)	289	(281)
Commodity contracts				
Futures	–	–	–	–
Options:				
Exchange-traded – written	–	(11)	–	–
Total commodity contracts	–	(11)	–	–
Total	$ 1,918	$ (1,712)	$ 1,718	$ (1,401)

d) Notional amount of derivatives by terms to maturity

Notional amounts of derivative contracts 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 derivative contracts.

The terms to maturity of the notional amounts for derivative contracts are as follows:

Notional amount of derivatives by terms to maturity

	Terms to maturity					
	As at March 31, 2018					As at March 31, 2017
(CAD millions)	Within 1 year	1 to 5 years	6 to 10 years	Over 10 years	Total	Total
Equity contracts						
Futures	$ 532	$ –	$ –	$ –	$ 532	$ –
Swaps	85,690	4,018	–	–	89,708	91,013
Options:						
Over-the-counter – written	721	–	–	–	721	–
Warrants	–	9	1	–	10	48
Total equity contracts	86,943	4,027	1	–	90,971	91,061
Foreign exchange contracts						
Forwards	46,689	–	–	–	46,689	56,276
Options:						
Over-the-counter – written	849	–	–	–	849	–
Total foreign exchange contracts	47,538	–	–	–	47,538	56,276
Interest rate contracts						
Futures	5,604	967	–	–	6,571	5,398
Forwards	101	–	–	–	101	1,833
Swaps	10,858	16,461	4,995	2,331	34,645	24,629
Total interest rate contracts	16,563	17,428	4,995	2,331	41,317	31,860
Credit contracts						
Purchased credit default swaps	1,536	5,727	13	–	7,276	11,880
Written credit default swaps	2,206	5,673	29	–	7,908	12,720
Options:						
Over-the-counter – purchased	–	–	–	–	–	1,600
Over-the-counter – written	–	–	–	–	–	133
Total credit contracts	3,742	11,400	42	–	15,184	26,333
Commodity contracts						
Futures	330	–	–	–	330	–
Options:						
Exchange-traded – written	538	–	–	–	538	–
Total commodity contracts	868	–	–	–	868	–
Total	$ 155,654	$ 32,855	$ 5,038	$ 2,331	$ 195,878	$ 205,530

4. Fair value measurement

a) Fair value hierarchy

The following shows investments and investment liabilities recognized at fair value, analyzed between those whose fair value is based on:

> Quoted prices in active markets for identical assets or liabilities (Level 1);
> 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) (Level 2); and
> Inputs for the asset or liability that are not based on observable market data (unobservable inputs) (Level 3).

Fair value hierarchy

As at March 31, 2018

(CAD millions)	Level 1	Level 2	Level 3	Total
Investments				
Equities				
Canada				
Public equities[1]	$ 7,779	$ 4	$ –	$ 7,783
Private equities	–	–	4,509	4,509
	7,779	4	4,509	12,292
Foreign developed markets				
Public equities[1]	106,846	7,171	147	114,164
Private equities	–	1,174	65,906	67,080
	106,846	8,345	66,053	181,244
Emerging markets				
Public equities[1]	22,230	1,918	126	24,274
Private equities	–	–	9,877	9,877
	22,230	1,918	10,003	34,151
Total equities	136,855	10,267	80,565	227,687
Fixed income				
Bonds	36,347	27,504	–	63,851
Other debt	–	5,557	16,626	22,183
Money market securities	–	8,213	–	8,213
Total fixed income	36,347	41,274	16,626	94,247
Absolute return strategies[1]	–	19,442	1,585	21,027
Real assets				
Real estate	–	–	44,712	44,712
Infrastructure	–	–	30,399	30,399
Total real assets	–	–	75,111	75,111
Investment receivables				
Securities purchased under reverse repurchase agreements	–	6,164	–	6,164
Accrued interest	–	2,026	–	2,026
Derivative receivables	–	1,918	–	1,918
Other	–	641	6	647
Total investment receivables	–	10,749	6	10,755
Total investments	$ 173,202	$ 81,732	$ 173,893	$ 428,827
Investment liabilities				
Securities sold under repurchase agreements	–	(32,504)	–	(32,504)
Securities sold short	(13,574)	–	–	(13,574)
Debt financing liabilities	(17,802)	(6,254)	–	(24,056)
Derivative liabilities	(11)	(1,701)	–	(1,712)
Other	–	(795)	–	(795)
Total investment liabilities	(31,387)	(41,254)	–	(72,641)
Amounts receivable from pending trades	–	2,613	–	2,613
Amounts payable from pending trades	–	(2,477)	–	(2,477)
Net investments	$ 141,815	$ 40,614	$ 173,893	$ 356,322

				As at March 31, 2017[2]
(CAD millions)	Level 1	Level 2	Level 3	Total
Investments				
Equities				
Canada				
Public equities	$ 4,576	$ –	$ –	$ 4,576
Private equities	–	18	4,030	4,048
	4,576	18	4,030	8,624
Foreign developed markets				
Public equities[1]	87,129	6,700	76	93,905
Private equities	–	1,226	53,766	54,992
	87,129	7,926	53,842	148,897
Emerging markets				
Public equities[1]	17,493	1,562	153	19,208
Private equities	–	–	5,781	5,781
	17,493	1,562	5,934	24,989
Total equities	109,198	9,506	63,806	182,510
Fixed income				
Bonds	36,987	24,253	–	61,240
Other debt[3]	–	4,036	15,728	19,764
Money market securities	–	19,408	–	19,408
Total fixed income	36,987	47,697	15,728	100,412
Absolute return strategies[1]	–	17,835	1,536	19,371
Real assets				
Real estate	–	–	38,732	38,732
Infrastructure	–	–	27,899	27,899
Total real assets	–	–	66,631	66,631
Investment receivables				
Securities purchased under reverse repurchase agreements	–	5,207	–	5,207
Accrued interest	–	1,561	–	1,561
Derivative receivables	–	1,717	1	1,718
Other	–	290	–	290
Total investment receivables	–	8,775	1	8,776
Total investments	$ 146,185	$ 83,813	$ 147,702	$ 377,700
Investment liabilities				
Securities sold under repurchase agreements	–	(14,749)	–	(14,749)
Securities sold short	(24,177)	–	–	(24,177)
Debt financing liabilities	(8,772)	(11,101)	–	(19,873)
Derivative liabilities	–	(1,401)	–	(1,401)
Other	–	(223)	–	(223)
Total investment liabilities	(32,949)	(27,474)	–	(60,423)
Amounts receivable from pending trades	–	3,234	–	3,234
Amounts payable from pending trades	–	(3,631)	–	(3,631)
Net investments	$ 113,236	$ 55,942	$ 147,702	$ 316,880

1. Includes investments in funds.
2. Certain comparatives have been updated to conform with the current year's presentation.
3. Amounts have been revised for an immaterial misclassification from Level 2 to Level 3 totalling $4,232 million as at March 31, 2017.

b) Transfers between Level 1 and Level 2

During the year ended March 31, 2018, there were $137 million of transfers from Level 1 to Level 2 (March 31, 2017 – $2 million) and $13 million of transfers from Level 2 to Level 1 (March 31, 2017 – $239 million). 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. These transfers are deemed to have occurred at the end of year values.

c) Level 3 reconciliation

The following presents the reconciliations for investments included in Level 3 of the fair value hierarchy:

Reconciliation of changes in fair value for Level 3 investments

For the year ended March 31, 2018

(CAD millions)	Fair value as at April 1, 2017	Gain (loss) included in investment income	Purchases	Sales[2]	Transfers into Level 3[3]	Transfers out of Level 3[3]	Fair value as at March 31, 2018	Change in unrealized gains (losses) on investments still held at March 31, 2018[1,4]
Investments								
Equities								
Canada								
Private equities	$ 4,030	$ (102)	$ 950	$ (369)	$ –	$ –	$ 4,509	$ (255)
	4,030	(102)	950	(369)	–	–	4,509	(255)
Foreign developed markets								
Public equities	76	8	66	(3)	–	–	147	7
Private equities	53,766	9,586	16,072	(12,229)	3	(1,292)	65,906	4,078
	53,842	9,594	16,138	(12,232)	3	(1,292)	66,053	4,085
Emerging markets								
Public equities	153	–	–	(33)	6	–	126	(3)
Private equities	5,781	1,279	3,848	(1,035)	8	(4)	9,877	674
	5,934	1,279	3,848	(1,068)	14	(4)	10,003	671
Total equities	63,806	10,771	20,936	(13,669)	17	(1,296)	80,565	4,501
Fixed income								
Other debt[5]	15,728	131	8,329	(7,430)	–	(132)	16,626	–
Total fixed income	15,728	131	8,329	(7,430)	–	(132)	16,626	–
Absolute return strategies	1,536	45	392	(388)	–	–	1,585	(84)
Real assets								
Real estate	38,732	2,864	5,877	(2,761)	–	–	44,712	2,328
Infrastructure	27,899	1,748	1,546	(794)	–	–	30,399	2,038
Total real assets	66,631	4,612	7,423	(3,555)	–	–	75,111	4,366
Investment receivables								
Derivative receivables	1	(1)	–	–	–	–	–	–
Other	–	–	6	–	–	–	6	–
Total investment receivables	1	(1)	6	–	–	–	6	–
Total	$ 147,702	$ 15,558	$ 37,086	$ (25,042)	$ 17	$ (1,428)	$ 173,893	$ 8,783

For the year ended March 31, 2017

(CAD millions)	Fair value as at April 1, 2016	Gain (loss) included in investment income	Purchases	Sales[2]	Transfers into Level 3[3]	Transfers out of Level 3[3]	Fair value as at March 31, 2017	Change in unrealized gains (losses) on investments still held at March 31, 2017[1,4]
Investments								
Equities								
Canada								
Private equities	$ 2,687	$ 489	$ 1,534	$ (251)	$ 164	$ (593)	$ 4,030	$ 379
	2,687	489	1,534	(251)	164	(593)	4,030	379
Foreign developed markets								
Public equities	–	(5)	98	(17)	–	–	76	(4)
Private equities	49,019	6,489	10,983	(10,557)	402	(2,570)	53,766	2, 247
	49,019	6,484	11,081	(10,574)	402	(2,570)	53,842	2,243
Emerging markets								
Public equities	170	10	–	(27)	–	–	153	7
Private equities	5,341	791	1,330	(905)	7	(783)	5,781	429
	5,511	801	1,330	(932)	7	(783)	5,934	436
Total equities	57,217	7,774	13,945	(11,757)	573	(3,946)	63,806	3,058
Fixed income								
Other debt[6]	21,827	272	9,912	(15,913)	–	(370)	15,728	560
Total fixed income	21,827	272	9,912	(15,913)	–	(370)	15,728	560
Absolute return strategies	1,314	222	–	–	–	–	1,536	222
Real assets								
Real estate	35,857	2,451	4,267	(3,843)	–	–	38,732	1,379
Infrastructure	20,373	624	4,554	(461)	2,809	–	27,899	1,071
Total real assets	56,230	3,075	8,821	(4,304)	2,809	–	66,631	2,450
Investment receivables								
Derivative receivables	2	(1)	–	–	–	–	1	–
Total investment receivables	2	(1)	–	–	–	–	1	–
Total	$ 136,590	$ 11,342	$ 32,678	$ (31,974)	$ 3,382	$ (4,316)	$ 147,702	$ 6,290

1. Included in Investment income.
2. Includes return of capital.
3. Transfers into and out of Level 3 are deemed to have occurred at the end of year values.
4. Includes the entire change in fair value for the year for those investments that were transferred into Level 3 during the year, and excludes the entire change in fair value for the year for those investments that were transferred out of Level 3 during the year.
5. Opening balance has been revised for an immaterial misclassification from Level 2 to Level 3.
6. Amounts have been revised for an immaterial misclassification from Level 2 to Level 3.

During the years ended March 31, 2018 and March 31, 2017, transfers into and out of Level 3 were primarily due to changes in the availability of market observable inputs used to determine fair value.

d) Level 3 – Significant unobservable inputs

The following presents fair values of the investments categorized within Level 3 of the fair value hierarchy, valuation techniques used to determine their fair values, ranges and weighted averages of unobservable inputs:

Valuation techniques and inputs used in the fair value measurement of Level 3 investments

As at March 31, 2018

(CAD millions)	Fair value	Primary valuation techniques used	Significant unobservable inputs	Range of input values[3]	Weighted average[3]
Public equities					
Fund investments[2]	$ 273	Net asset value provided by Investment Manager	–	–	–
Private equities					
Direct[1, 2]	17,365	Earnings multiples of comparable companies	EBITDA multiple	8.5X – 15.9X	12.6X
	14,260	Discounted cash flow	Discount rate	10.0% – 12.9%	11.7%
	6,578	Value provided by Investment Manager	–	–	–
Fund investments[2]	42,089	Net asset value provided by Investment Manager	–	–	–
Other debt					
Direct private debt[1]	10,696	Discounted cash flow	Discount rate	5.7% – 29.6%	12.1%
Direct private real estate debt	3,581	Discounted cash flow	Discount rate	4.7% – 10.1%	6.6%
Asset-backed securities[2]	3	Valuation model by third-party pricing vendor	–	–	–
Fund investments[2]	2,346	Net asset value provided by Investment Manager	–	–	–
Absolute return strategies					
Fund investments[2]	1,585	Net asset value provided by Investment Manager	–	–	–
Real estate					
Direct[1, 2]	21,318	Discounted cash flow	Discount rate	5.0% – 14.0%	6.3%
			Terminal capitalization rate	3.5% – 9.5%	5.2%
	20,071	Net asset value provided by Investment Manager	–	–	–
Fund investments[2]	3,323	Net asset value provided by Investment Manager	–	–	–
Infrastructure					
Direct[1]	30,350	Discounted cash flow	Discount rate	7.1% – 15.3%	9.8%
Fund investments[2]	49	Net asset value provided by Investment Manager	–	–	–
Other[1]	6	Net asset value provided by Investment Manager	–	–	–
Total	$ 173,893				

NOTES

					As at March 31, 2017
(CAD millions)	Fair value	Primary valuation techniques used	Significant unobservable inputs	Range of input values[3]	Weighted average[3]
Public equities					
Fund investments[2]	$ 229	Net asset value provided by Investment Manager	–	–	–
Private equities					
Direct[1, 2]	22,114	Earnings multiples of comparable companies	EBITDA multiple	8.0X – 15.4X	11.2X
	2,783	Discounted cash flow	Discount rate	12.0%	12.0%
	3,824	Value provided by Investment Manager	–	–	–
Fund investments[2]	34,856	Net asset value provided by Investment Manager	–	–	–
Other debt					
Direct private debt[1]	9,485	Discounted cash flow	Discount rate	4.8% – 19.6%	10.7%
Direct private real estate debt[4]	3,937	Discounted cash flow	Discount rate	5.0% – 10.0%	7.1%
Asset-backed securities[2]	10	Valuation model by third-party pricing vendor	–	–	–
Fund investments[2, 4]	2,296	Net asset value provided by Investment Manager	–	–	–
Absolute return strategies					
Fund investments[2]	1,536	Net asset value provided by Investment Manager	–	–	–
Real estate					
Direct[1, 2]	21,010	Discounted cash flow	Discount rate	4.4% – 14.3%	6.4%
			Terminal capitalization rate	3.5% – 9.5%	5.3%
	14,440	Net asset value provided by Investment Manager	–	–	–
Fund investments[2]	3,282	Net asset value provided by Investment Manager	–	–	–
Infrastructure					
Direct[1]	27,860	Discounted cash flow	Discount rate	7.4% – 15.8%	9.8%
Fund investments[2]	39	Net asset value provided by Investment Manager	–	–	–
Derivative receivables					
Warrants	1	Option model	Market volatility	30.0%	30.0%
Total	$ 147,702				

1. May include certain recently acquired investments held at cost, which approximates fair value.
2. In certain cases, external valuations are prepared by a third-party and hence, valuation information is not available.
3. 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.
4. Amounts have been revised for an immaterial misclassification from Level 2 to Level 3.

Significant increases (decreases) 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 preceeding table above are 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 value of these direct investments classified within Level 3 of the fair value hierarchy above 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 $5,200 million (March 31, 2017 – $3,400 million) or increase of $6,000 million (March 31, 2017 – $3,800 million) in net assets. This sensitivity analysis excludes investments where fair values are provided by Investment Managers as the underlying assumptions used are not available to CPP Investment Board.

5. Investment risk management

CPP Investment Board manages the investment portfolio on behalf of the Canada Pension Plan (CPP Investment Portfolio). The CPP Investment Portfolio is exposed to a variety of financial risks. These risks include market risk, credit risk and liquidity risk. CPP Investment Board utilizes a total portfolio approach to risk management which considers all of the investment activities taken together, including those made through its unconsolidated investment holding subsidiaries. In the discussion that follows, any references to the investment activities and exposures to risk of CPP Investment Board also include those of its unconsolidated investment holding subsidiaries.

CPP Investment Board employs the Risk/Return Accountability Framework, which establishes accountability of the Board of Directors, the various committees and the investment departments to manage investment related risks. CPP Investment Board manages and mitigates financial risks through the Risk Policy 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. It has been designed to achieve the mandate of CPP Investment Board.

Upper and Lower Absolute Risk Limits and the Absolute Risk Operating Range (AROR) are included within the Risk Policy, and these govern the amount of total investment risk that CPP Investment Board can take in the long term CPP Investment Portfolio. CPP Investment Board monitors the absolute risk, the possible loss of value expressed in absolute dollar and percentage terms, in the CPP Investment Portfolio daily and reports risk exposures to the Board of Directors on at least a quarterly basis. Risk targeting for the Investment Portfolio, and compliance with the Upper/Lower Risk Limits and AROR is assessed using an equity/debt risk equivalence ratio.

Independent risk oversight

The Investment Risk function within CPP Investment Board reports to the Chief Financial and Risk Officer. The function is responsible for assessing, monitoring and ensuring investment risks generated by risk-taking investment departments are consistent with the Board and senior management's risk appetite. This is exercised through portfolio-wide oversight and independent control and support functions. Investment departments and Investment Risk discuss market information, positions and estimated risk and loss scenarios on an ongoing basis.

Investment departments are accountable for managing risk within prescribed limits.

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. A longer term risk model forecasts the potential losses to the portfolio over a five year horizon in both equity debt risk equivalency terms and on an absolute loss basis. CPP Investment Board also uses other risk models to forecast potential losses over shorter periods (one year or less) using more recent market data to appropriately calibrate the risk of loss measures (e.g., Volatility, Value at Risk (VaR)). In addition, a number of trading desk specific market risk measures are tracked that are related to the specific nature of the strategy. For example, factor risks for real estate and public market equity portfolios.

Most risk reports are circulated daily to trading desks and senior management as well as summary level reporting on a monthly and quarterly basis.

Stress testing

To complement the suite of risk measures used to monitor CPP Investment Portfolio risk, CPP Investment Board further examines the potential impact of exceptional but plausible adverse market events. Stress testing considers the effect of various hypothetical scenarios. CPP Investment Board has a bottom-up approach for stress testing that considers the effect of either historical or predictive shocks across the entire portfolio. The focus is predominantly on those expected to be more extreme tail event losses for the CPP Investment Portfolio. Generally, the forecasted time line considered is one year in order to appropriately include the effect of private asset valuations, as well as the initial public market shocks. These are reported to both senior management and the Board.

Unlike VaR measures, which have an implied probability because they are calculated at a specified confidence level, there is generally no implied probability that our stress test scenarios will occur. Instead, Investment Risk will highlight trigger points as a potential situation starts to evolve and then gauge the directional trend.

Model review and validation

The model validation function within Investment Risk validates the models within our vendor risk systems as well as valuation methodologies within our main investment systems. In addition, it reviews the asset allocation models which guide our investment selection and strategies.

a) Market risk

Market risk is the risk that the fair value or future cash flows of an investment or investment liability will fluctuate because of changes in market prices and rates. As discussed previously, CPP Investment Board manages market risk through the Risk/Return Accountability Framework. This includes investing across a wide spectrum of asset classes and investment strategies to earn a diversified set of risk premiums at the total fund level, based on risk limits established in the risk policies. In addition, derivatives are used, where appropriate, to manage certain risk exposures.

CPP Investment Board uses a tiered structure of limits to govern market risk by controlling the size of risk exposures. The top tier Board limits are currently based upon an Equity/Debt risk equivalency Ratio (EDR) further discussed under Absolute Risk (see note 5c). The next level of market risk limits are set based upon volatility or exposure measures and reflect the market risk allocation methodology. These limits ensure that none of the individual investment department's market risks grow faster than originally anticipated in the annual planning period. These measures are supplemented with drawdown triggers that highlight to senior management any individual strategies that are having losses outsized to their estimated investment risk levels. The lowest set of limits are investment program specific and are tailored to the way that the strategies are managed. Examples include, DV01 that measures the possible loss/gain in the investment strategy as a result of 1 basis point increase/decrease in interest rate yield curves, hedge ratios and concentration limits that assess the significance of systematic and non-systematic risks for long/short equity, and divergence limits that track the portfolios risks against their respective benchmarks.

Investment departments are expected to stay within their limits but are allowed to request limit increases from the relevant Senior Management Team (SMT) member or Investment Planning Committee (IPC) dependent upon established escalation guidelines. Any limit excesses are reported by Investment Risk to the SMT member and/or the IPC. These groups will then make an assessment as to whether to increase the limit or reduce the position.

Market risk comprises the following:

Equity risk

The CPP Investment Portfolio invests in both publicly traded and private equities. Equity risk, which is the risk that the fair value or future cash flows will fluctuate because of changes in equity prices, is a significant source of risk of the investment portfolio.

After taking into account derivative positions and with all other variables held constant, a 1% decrease/increase in the S&P 500 Index would result in a loss/profit of $1,200 million (March 31, 2017 – $1,000 million) on public equity investments. 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.

Currency risk

The CPP Investment Portfolio is exposed to currency risk through holdings of investments or investment liabilities in various 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.

In Canadian dollars, the net currency exposures, after allocating foreign currency derivatives are as follows:

Currency risk exposures

(CAD millions)	As at March 31, 2018		As at March 31, 2017	
Currency	**Net exposure**	**% of total**	Net exposure	% of total
United States dollar	**$ 171,898**	**48%**	$ 122,750	39 %
Euro	**36,135**	**10**	34,003	11
British pound sterling	**19,329**	**5**	18,839	6
Japanese yen	**15,019**	**4**	20,788	7
Australian dollar	**11,889**	**3**	10,790	3
Hong Kong dollar	**8,086**	**2**	4,423	1
Chinese yuan	**6,412**	**2**	3,434	1
Indian rupee	**4,947**	**1**	3,586	1
Swiss franc	**4,002**	**1**	4,381	1
South Korean won	**3,680**	**1**	2,857	1
Chilean peso	**2,695**	**1**	2,387	1
Brazilian real	**2,422**	**1**	3,425	1
Other	**12,694**	**5**	8,424	3
Total foreign exposure	**299,208**	**84**	240,087	76
Canadian dollar	**57,114**	**16**	76,793	24
Total	**$ 356,322**	**100%**	$ 316,880	100%

With all other variables and underlying values held constant, a 1% appreciation/depreciation of the Canadian dollar against all other currencies would result in a decrease/increase in net investments as follows:

Currency risk sensitivity

(CAD millions)	As at March 31, 2018	As at March 31, 2017
Currency	**Decrease/Increase in Net Assets**	Decrease/Increase in Net Assets
United States dollar	**$ 1,719**	$ 1,228
Euro	**361**	340
British pound sterling	**193**	188
Japanese yen	**150**	208
Other	**569**	437
Total	**$ 2,992**	$ 2,401

Interest rate risk

Interest rate risk is the risk that the fair value or future cash flows of an investment or investment-related liability will fluctuate because of changes in market interest rates. The CPP Investment Portfolio is exposed to interest rate risk primarily through holdings of fixed income securities, certain investment liabilities and interest rate derivative instruments.

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:

Interest rate risk sensitivity[1]

(CAD millions)	As at March 31, 2018	As at March 31, 2017
Maturity	**Decrease/Increase in Net Assets**	Decrease/Increase in Net Assets
Within 1 year	**$ –**	$ 1
1 to 5 years	**12**	8
6 to 10 years	**13**	12
Over 10 years	**37**	31
Total	**$ 62**	$ 52

1. This sensitivity only applies to small yield curve changes. More substantial (stress) shocks would impact the value of assets such as real estate and infrastructure but for 1 basis point moves their values remain unchanged.

The CPP Investment Portfolio's exposure to various countries' risk-free rates are concentrated in North America with 51% (March 31, 2017 – 56%) in Canada and 47% (March 31, 2017 – 43%) in the United States, and minor exposures to Europe, United Kingdom and Japan in both years.

Credit spread risk

Credit spread 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. As at March 31, 2018, 80% (March 31, 2017 – 84%) of credit spread risk was in A or better rated debt, primarily in Canadian provincial bonds.

With all other variables held constant, a 1 basis point widening of the credit spreads would result in a decrease in net assets by $30 million (March 31, 2017 – $33 million).

Other price risk

Other price risk is the risk that the fair value or future cash flows of an investment will fluctuate because of changes in market prices arising from other risk factors such as commodity price risk, basis risk and volatility.

b) Credit risk

Credit risk is the risk of financial loss due to a counterparty failing to meet its contractual obligations, or a reduction in the value of the assets due to a decline in the credit quality of the borrower, counterparty, guarantor or the assets (collateral) supporting the credit exposure. The CPP Investment Portfolio's 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.

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 was as follows:

Credit risk exposures

(CAD millions) As at March 31, 2018

Credit Rating	Bonds[1]	Money market securities[1]	Reverse repurchase agreements[1]	Over-the-counter derivatives	Other[1,2]	Total	% of total
AAA	$ 12,048	$ 24	$ –	$ –	$ –	$ 12,072	13%
AA	26,251	2,339	168	43	–	28,801	32
A	24,638	2,788	4,066	1,500	465	33,457	37
BBB	1,284	–	1,930	375	1,449	5,038	6
BB	181	–	–	–	3,589	3,770	4
B	–	–	–	–	6,065	6,065	7
CCC/D	1	–	–	–	782	783	1
Total	$ 64,403	$ 5,151	$ 6,164	$ 1,918	$ 12,350	$ 89,986	100%

(CAD millions) As at March 31, 2017

Credit Rating	Bonds[1]	Money market securities[1]	Reverse repurchase agreements[1]	Over-the-counter derivatives	Other[1,2]	Total	% of total
AAA	$ 13,114	$ 42	$ –	$ –	$ –	$ 13,156	14%
AA	27,491	8,011	1,234	53	2	36,791	37
A	21,136	8,928	1,892	1,396	479	33,831	35
BBB	3	–	2,081	242	1,500	3,826	4
BB	6	–	–	–	3,041	3,047	3
B	–	–	–	–	5,718	5,718	6
CCC/D	–	–	–	–	1,061	1,061	1
Total	$ 61,750	$ 16,981	$ 5,207	$ 1,691	$ 11,801	$ 97,430	100%

1. Includes accrued interest.
2. Includes direct investments in private debt and asset-backed securities.

In addition to the above, the CPP Investment Portfolio is indirectly exposed to credit risk on the underlying securities of fund investments.

Credit VaR

Credit Risk for the CPP Investment Portfolio is estimated using a Monte Carlo simulation that incorporates likelihood of default, credit rating migration and recovery in the event of default for underlying credit instruments. The primary risk measure used to monitor credit risk at the total portfolio level is VaR over a one year period at a 99% level of confidence. As at March 31, 2018, Credit VaR was $4,106 million (March 31, 2017 – $3,983 million) which implies there is a 1% chance that the CPP Investment Board portfolio of credit instruments will lose more than this amount in any given year due to default and credit migration risk.

Financial instruments – rights of offset

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 11). 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.

The following presents the effect of conditional master netting and similar arrangements:

Rights of offset

												As at March 31, 2018
							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[1]		Net exposure
Securities purchased under reverse repurchase agreements	$	6,164	$	–	$	6,164	$	(6,164)	$	–	$	–
Derivative receivables		1,918		–		1,918		(1,290)		(628)		–
Total investment receivables	$	8,082	$	–	$	8,082	$	(7,454)	$	(628)	$	–
Securities sold under repurchase agreements	$	(32,504)	$	–	$	(32,504)	$	6,164	$	26,340	$	–
Derivative liabilities		(1,712)		–		(1,712)		1,290		320		(102)
Total investment payables	$	(34,216)	$	–	$	(34,216)	$	7,454	$	26,660	$	(102)

												As at March 31, 2017
							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[1]		Net exposure
Securities purchased under reverse repurchase agreements	$	5,207	$	–	$	5,207	$	(4,347)	$	(860)	$	–
Derivative receivables		1,718		–		1,718		(1,124)		(594)		–
Total investment receivables	$	6,925	$	–	$	6,925	$	(5,471)	$	(1,454)	$	–
Securities sold under repurchase agreements	$	(14,749)	$	–	$	(14,749)	$	4,347	$	10,402	$	–
Derivative liabilities		(1,401)		–		(1,401)		1,124		–		(277)
Total investment payables	$	(16,150)	$	–	$	(16,150)	$	5,471	$	10,402	$	(277)

1. Securities and cash collateral exclude over-collateralization and collateral in transit. Refer to note 11 for the total amount of collateral.

c) Absolute risk

CPP Investment Board adopted a new risk governance model in the second quarter of fiscal 2018 to estimate Absolute Risk within the CPP Investment Portfolio to better align with its long term investment mandate. Notable changes included a longer historical period for calibration of model inputs, a longer future horizon over which risk is assessed, and a more conservative total portfolio risk measure used for governance.

CPP Investment Board uses a simulation methodology to derive a distribution of potential portfolio outcomes at a future point in time. These distributions are used to estimate a variety of risk measures to monitor the absolute risk of the CPP Investment Portfolio across various time periods. The primary risk governance measure within the Risk/Return Accountability Framework is expressed using an Equity/Debt risk equivalency Ratio (EDR). It is the proportion of equity versus debt in a simple two-asset-portfolio (Global Equity and Canadian Government Bonds) that would give the same measured absolute risk as that of the CPP Investment Portfolio. Absolute Risk for this purpose is defined as the Conditional Value at Risk (CVaR), after inflation, at the 90th percentile expressed over a five-year horizon and encompasses both market and credit risks.

The Absolute Risk measure, CVaR, is based on the average of the worst ten percent outcomes in the simulated return distribution over a five-year period. It captures the impact of extreme market events that would lead to large losses within the CPP Investment Portfolio.

The methodology employed to calculate CVaR assumes that historical market data is a sound basis for estimating potential future losses but it allows for the incorporation of forward-looking return expectations. If future market conditions and interrelationships of equity markets, interest rates, foreign exchange rates and other market prices differ significantly from those of the past, then the

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actual losses could materially differ from those estimated. To ensure a variety of business cycles and market conditions are captured within the risk model, a long historical data period (1971 – current) is used in simulating the distribution of potential outcomes. The CVaR measure provides an estimate of the average value in this distribution of potential losses that CPP Investment Portfolio could experience. It is not an estimate of the worst-case scenario.

As at March 31, 2018 the CVaR of the CPP Investment Portfolio was $70,328 million (March 31, 2017 – $64,612 million) with an associated EDR of 86% (March 31, 2017 – 83%). Note that the CVaR measure necessitates an estimate of mean expected returns on the CPP Investment Portfolio over the upcoming five years. The above CVaR estimate is strongly influenced by equity returns realized throughout the historical data period used within the risk model. As forward-looking expectations are further considered within the modelling process the CVaR value may move materially as the mean return estimates change through time. Changes in EDR will also occur, but likely smaller in magnitude.

d) Liquidity risk

Liquidity risk is the risk of being unable to generate sufficient cash or its equivalent in a timely and cost-effective manner to meet investment commitments and investment liabilities as they come due.

CPP Investment Board supplements its management of liquidity risk through its ability to raise funds through the issuance of commercial paper and term debt and transacting in securities sold under repurchase agreements.

CPP Investment Board maintained $6,012 million (March 31, 2017 – $6,168 million) of unsecured credit facilities to meet potential liquidity requirements. There were no credit facilities drawn as at March 31, 2018 and 2017.

CPP Investment Board also has the ability to readily dispose of certain investments that are traded in an active market. These include a liquid portfolio of publicly traded equities, money market securities and marketable bonds.

CPP Investment Board is exposed to liquidity risk through its obligations to remit cash to the CPP (see note 7). In order to manage associated liquidity risk, certain assets are segregated and managed separately. Liquidity risk is also managed by investing these assets in liquid money market instruments with the primary objective of ensuring that the CPP has the necessary liquidity to meet benefit payment obligations on any business day.

Refer to note 5e for investment liabilities terms to maturity.

e) Terms to maturity

The tables below present the contractual maturities of investments and investment liabilities:

Investments

					As at March 31, 2018		Terms to maturity As at March 31, 2017	
(CAD millions)	Within 1 year	1 to 5 years	6 to 10 years	Over 10 years	Total[1]	Average effective yield	Total[1]	Average effective yield
Non-marketable bonds								
Canadian provincial government	$ 283	$ 5,680	$ 5,353	$ 12,211	$ 23,527	2.9%	$ 23,887	2.9%
Marketable bonds								
Government of Canada	–	3,107	706	1,204	5,017	2.1	5,872	1.6
Canadian provincial government	–	1,551	1,967	2,965	6,483	2.9	6,856	2.8
Canadian government corporations	–	1,310	924	392	2,626	2.6	1,543	2.4
Foreign government	486	14,367	4,925	3,335	23,113	2.9	22,718	2.3
Corporate bonds	1,042	978	582	483	3,085	3.4	364	2.6
Other debt								
Private debt[2]	30	4,585	4,124	834	9,573	8.4	8,214	9.7
Private real estate debt[2]	251	1,733	1,346	252	3,582	6.6	3,937	7.2
Asset-backed securities	–	2	–	3	5	4.4	10	4.4
Securities purchased under reverse repurchase agreements	6,164	–	–	–	6,164	1.8	5,207	0.6
Total	$ 8,256	$ 33,313	$ 19,927	$ 21,679	$ 83,175	3.3%	$ 78,608	3.1%

1. Represents fair value.
2. Includes direct investments and excludes fund investments.

Investment liabilities

											Terms to maturity
					As at March 31, 2018				As at March 31, 2017		
(CAD millions)	Within 1 year	1 to 5 years	6 to 10 years	Over 10 years	Total[1]	Fair value	Weighted average interest rate		Total[1]	Fair value	Weighted average interest rate
Securities sold under repurchase agreements	$ 32,559	$ –	$ –	$ –	$ 32,559	$ 32,504	1.7%		$ 14,753	$ 14,749	0.8%
Securities sold short[2,3]	13,574	–	–	–	13,574	13,574	n/a		24,177	24,177	n/a
Debt financing liabilities											
Commercial paper payable	6,263	–	–	–	6,263	6,254	1.9		11,120	11,101	0.9
Term debt	1,250	10,614	4,460	1,586	17,910	17,802	1.8		8,783	8,772	1.8
Total	$ 53,646	$ 10,614	$ 4,460	$ 1,586	$ 70,306	$ 70,134	n/a%		$ 58,833	$ 58,799	n/a%

1. Represents contractual amounts.
2. Considered repayable within one year based on the earliest period in which the counterparty could request payment under certain conditions.
3. Includes equities sold short for which the average interest rate is not applicable.

6. Share capital

The issued and authorized share capital of CPP Investment Board is $100 divided into 10 shares with a par value of $10 each. The shares are owned by Her Majesty the Queen in right of Canada.

7. Canada Pension Plan transfers and future enhancements

a) Canada Pension Plan transfers

Pursuant to Section 108.1 of the Canada Pension Plan (*Canada Pension Plan Act*), the Act and an administrative agreement between Her Majesty the Queen in right of Canada and CPP Investment Board, amounts not required to meet specified obligations of the CPP are transferred weekly to CPP Investment Board. The funds originate from employer and employee contributions to the CPP.

CPP Investment Board 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 since inception are as follows:

(CAD millions)	As at March 31, 2018	As at March 31, 2017
Accumulated transfers from the Canada Pension Plan	$ 492,033	$ 455,608
Accumulated transfers to the Canada Pension Plan	(351,513)	(317,806)
Accumulated net transfers from the Canada Pension Plan	$ 140,520	$ 137,802

b) Enhanced Canada Pension Plan

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 will be paid on CPP contributions made after 2018. The *CPP Act* now defines two separate parts of the CPP as the "base" CPP (being the existing CPP) and "additional" CPP (being the new contributions and corresponding benefits). The additional CPP contributions begin on January 1, 2019. The assets of the additional CPP will be accounted for separately from those of the base CPP.

In order to prepare for the additional CPP account, costs are being incurred by CPP Investment Board. Since CPP Investment Board will not receive additional CPP contributions until January 1, 2019, these costs are, in effect, being paid for from funds transferred to CPP Investment Board on account of the base CPP. To ensure that these costs and the related accrued interest are properly attributed to the additional CPP rather than the base CPP, CPP Investment Board will reimburse the base CPP account from the additional CPP account once CPP Investment Board has received sufficient additional CPP funds to do so.

As at March 31, 2018, the CPP Investment Board has incurred $8 million (March 31, 2017 – nil) in order to prepare for the additional CPP. The amount is recorded in Other Assets.

8. Net investment income

Net investment income is reported net of transaction costs and investment management fees. The tables below present the net investment income based on (a) the asset class categories as established by Total Portfolio Management (see note 10) for portfolio governance or (b) the nature of the income.

a) Net investment income by asset class categories

For the year ended March 31, 2018

(CAD millions)	Investment income (loss)[1]	Investment management fees[2]	Transaction costs	Net investment income (loss)
Investments				
Equities				
Canada	$ 326	$ (7)	$ (2)	$ 317
Foreign developed markets	20,511	(419)	(129)	19,963
Emerging markets	4,747	(285)	(11)	4,451
	25,584	(711)	(142)	24,731
Fixed income				
Non-marketable bonds	639	–	–	639
Marketable bonds, Cash and Absolute return strategies[3]	5,343	(886)	(110)	4,347
Credit investments	1,556	(13)	(32)	1,511
	7,538	(899)	(142)	6,497
Real assets				
Real estate	4,152	(128)	(61)	3,963
Infrastructure	3,601	–	(14)	3,587
Other[4]	(801)	–	(36)	(837)
	6,952	(128)	(111)	6,713
Debt financing liabilities	(143)	–	(6)	(149)
Total	$ 39,931	$ (1,738)	$ (401)	$ 37,792

For the year ended March 31, 2017

(CAD millions)	Investment income (loss)[1]	Investment management fees[2]	Transaction costs	Net investment income (loss)
Investments				
Equities				
Canada	$ 2,275	$ (13)	$ (9)	$ 2,253
Foreign developed markets	22,138	(488)	(93)	21,557
Emerging markets	3,202	(225)	(8)	2,969
	27,615	(726)	(110)	26,779
Fixed income				
Non-marketable bonds	440	–	–	440
Marketable bonds, Cash and Absolute return strategies[3]	386	(452)	(108)	(174)
Credit investments	2,585	(133)	(39)	2,413
	3,411	(585)	(147)	2,679
Real assets				
Real estate	3,314	(153)	(100)	3,061
Infrastructure	1,714	–	(15)	1,699
Other[4]	743	–	(66)	677
	5,771	(153)	(181)	5,437
Debt financing liabilities	(524)	–	(9)	(533)
Total	$ 36,273	$ (1,464)	$ (447)	$ 34,362

1. Includes realized gains and losses from investments, changes in unrealized gains and losses on investments, interest income, dividends, interest expense on the debt financing liabilities and other investment-related income and expenses.
2. Includes management fees of $1,029 million (March 31, 2017 - $987 million) and performance fees of $709 million (March 31, 2017 - $477 million).
3. Absolute return strategies consist of investments in funds and internally managed portfolios.
4. Comprises agriculture and natural resources.

b) Net investment income by the nature of the income

(CAD millions)	For the years ended March 31, 2018	March 31, 2017
Interest, dividends, and other investment income[1]	$ 6,323	$ 4,450
Realized gains on private equities and real assets[2]	78	181
Unrealized gains (losses) on private equities and real assets[2]	1,005	(404)
Unrealized gains on investment holding subsidiaries[2, 3]	17,338	15,604
Realized and unrealized gains on public and other investments[2, 4]	15,187	16,442
Total investment income	**39,931**	36,273
Investment management fees[5]	(1,738)	(1,464)
Transaction costs[6]	(401)	(447)
Net investment income	**$ 37,792**	$ 34,362

1. Net of interest expense on debt financing liabilities of $290 million (March 31, 2017 – $141 million).
2. Includes foreign currency gains or losses.
3. Unrealized gains on investment holding subsidiaries, exclude investment management fees and transaction costs incurred by the subsidiaries. It is a composite of following sources of income:
   Interest, dividends, and other investment income of $1,271 million (March 31, 2017 – $2,931 million),
   Realized gains on private equities and real assets of $8,870 million (March 31, 2017 – $8,703 million),
   Unrealized gains on private equities and real assets of $5,945 million (March 31, 2017 – $1,342 million), and
   Realized and unrealized gains on public and other investments of $1,252 million (March 31, 2017 – $2,628 million).
4. Consists of investment income from public equities, fixed income, absolute return strategies, derivatives and other.
5. Includes investment management fees of $1,101 million (March 31, 2017 – $998 million) incurred by investment holding subsidiaries.
6. Includes transaction costs of $141 million (March 31, 2017 – $180 million) incurred by investment holding subsidiaries.

9. Operating expenses

a) 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 Investment Board, consisting of the Senior Management Team and the Board of Directors.

Compensation of key management personnel of CPP Investment Board is as follows:

(CAD millions)	For the years ended March 31, 2018	March 31, 2017
Short-term employee compensation and benefits	$ 22	$ 20
Other long-term compensation and benefits	19	18
Total	$ 41	$ 38

b) General operating expenses

General operating expenses consist of the following:

(CAD millions)	For the years ended March 31, 2018	March 31, 2017
Information technology and data services	$ 98	$ 92
Premises and equipment	38	32
Amortization of premises and equipment	27	30
Custodial fees	32	26
Travel and accommodation	21	17
Tax on international operations	40	32
Communications	9	8
Directors' remuneration	2	2
Other	3	5
Total	**$ 270**	$ 244

c) Professional services

Professional services consist of the following:

(CAD millions)	For the years ended March 31, 2018	March 31, 2017
Consulting	$ 58	$ 41
Legal and tax services	10	10
Auditor's remuneration	3	3
Total	**$ 71**	$ 54

10. Segment information

a) Investment segments

As explained in corporate information on page 112, CPP Investment Board's sole purpose is to manage amounts transferred to it under Section 108.1 of the *CPP Act* in the best interests of CPP beneficiaries and contributors. This requires investing in assets with a view to achieving a maximum rate of return without undue risk of loss. To deliver on its mandate, CPP Investment Board has organized itself into five reportable segments, based on the grouping of various active investment programs managed by five investment departments.

> Total Portfolio Management – directs the remaining portion of the CPP Investment Portfolio after excluding the assets of all active programs managed by the other investment departments (the Balancing Portfolio) to achieve overall desired exposures. Total Portfolio Management also develops the investment strategies and guides the portfolio construction of the CPP Investment Portfolio.

> Public Market Investments – invests primarily in publicly traded equity and fixed income securities globally, including the cash and derivatives markets. It also provides public market execution for the Balancing Portfolio.

> Investment Partnerships – focuses on partnering with external managers through private and public market funds and related co-investments. It also makes direct private equity investments in Asia, and identifies long-term thematic investment opportunities.

> Private Investments – invests in a wide range of private equity and credit assets with the objective of harvesting the return premiums for investing in less liquid and longer-term assets, and for meeting particular financing needs of the entities to which we provide capital.

> Real Assets – consists of investments in the real estate, infrastructure, power and renewables, and agriculture sectors which are typically long-term, asset-intensive businesses with steady-income streams. They provide diversification benefits to the CPP Investment Portfolio.

For the year ended March 31, 2018

(CAD millions)	Total Portfolio Management	Public Market Investments	Investment Partnerships	Private Investments	Real Assets	Other[1]	Total
Investment income	$ 16,764	$ 1,381	$ 10,101	$ 4,382	$ 7,292	$ 11	$ 39,931
Expenses[2]	(408)	(233)	(1,789)	(328)	(434)	–	(3,192)
Net income from operations[3]	$ 16,356	$ 1,148	$ 8,312	$ 4,054	$ 6,858	$ 11	$ 36,739
Net assets[4]	$ 176,265	$ 883	$ 50,947	$ 45,622	$ 82,604	$ (187)	$ 356,134

For the year ended March 31, 2017

(CAD millions)	Total Portfolio Management	Public Market Investments	Investment Partnerships	Private Investments	Real Assets	Other[1]	Total
Investment income	$ 17,419	$ (384)	$ 8,282	$ 5,451	$ 5,496	$ 9	$ 36,273
Expenses[2]	(299)	(301)	(1,459)	(277)	(498)	–	(2,834)
Net income from operations[3]	$ 17,120	$ (685)	$ 6,823	$ 5,174	$ 4,998	$ 9	$ 33,439
Net assets[4]	$ 164,007	$ (212)	$ 40,760	$ 38,727	$ 73,598	$ (203)	$ 316,677

1. Other includes net corporate liabilities of $188 million (March 31, 2017 – $203 million) and investments managed on a short-term basis to support transfers to the CPP of $1 million (March 31, 2017 – nil), which are included in money market securities.
2. Includes investment management fees, transaction costs and operating expenses.
3. Net income from operations in Other represents net income from investments managed on a short-term basis to support transfers to the CPP.
4. Net assets attributable to Total Portfolio Management include debt financing liabilities of $24,056 million (March 31, 2017 – $19,873 million).

b) Geographic information

Net investments are presented in the table below based on the region to which they have primary economic exposure.

For the year ended March 31, 2018

(CAD millions)	**Canada**	**U.S.**	**Asia**	**Europe (excluding U.K.)**	**U.K.**	**Other**	**Total**
Net investments[1]	**$ 53,977**	**$ 135,058**	**$ 72,512**	**$ 47,068**	**$ 19,844**	**$ 27,863**	**$ 356,322**

For the year ended March 31, 2017

(CAD millions)	Canada	U.S.	Asia	Europe (excluding U.K.)	U.K.	Other	Total
Net investments[1]	$ 52,212	$ 123,401	$ 56,180	$ 41,977	$ 18,709	$ 24,401	$ 316,880

1. Includes debt financing liabilities of $3,466 million, $15,807 million and $4,783 million (March 31, 2017 – $4,718 million, $15,155 million and nil), based on the currencies of the issuances, in Canada, U.S. and Europe (excluding U.K.), respectively.

On April 24, 2018, CPP Investment Board announced executive management and organizational changes effective June 1, 2018. The new investment departments will be Total Portfolio Management, Private Equity, Real Assets, Credit Investments, Active Equities, and Capital Markets and Factor Investing.

11. Collateral

Collateral transactions are conducted to support investment activities under terms and conditions that are common and customary to collateral arrangements. The net fair value of collateral held and pledged was as follows:

Collateral held and pledged

(CAD millions)	**As at March 31, 2018**	As at March 31, 2017
Third-party assets held as collateral on:		
Reverse repurchase agreements[1]	**$ 6,187**	$ 5,196
Over-the-counter derivative transactions[1]	**692**	493
Other debt[1]	**760**	726
Own and third-party assets pledged as collateral on:		
Repurchase agreements	**(32,621)**	(14,785)
Securities sold short[2]	**(16,610)**	(30,603)
Over-the-counter derivative transactions	**(315)**	–
Private equities	**(5,942)**	(5,291)
Other debt	**(4,417)**	(3,957)
Total	**$ (52,266)**	$ (48,221)

1. The fair value of the collateral held that may be sold or repledged as at March 31, 2018 was $6,967 million (March 31, 2017 – $6,192 million). The fair value of collateral sold or repledged as at March 31, 2018 was $5,969 million (March 31, 2017 – $2,677 million).
2 Comparative figures have been updated to conform with the current year's presentation.

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12. Commitments

CPP Investment Board has 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, 2018, the unfunded commitments totalled $41,767 million (March 31, 2017 – $38,886 million).

CPP Investment Board made lease and other commitments, which require future annual payments as follows:

Lease and other commitments

(CAD millions)	As at March 31, 2018	As at March 31, 2017
Within one year	$ 36	$ 37
After one year but not more than five years	115	123
More than five years	26	46
Total	$ 177	$ 206

13. Related party transactions

Related parties of CPP Investment Board include unconsolidated subsidiaries, joint ventures and associates and all related party investments are measured at fair value.

Unconsolidated subsidiaries include 210 wholly-owned investment holding subsidiaries (see note 1(b)) (March 31, 2017 – 187) managed by CPP Investment Board. These investment holding subsidiaries hold private investments, debt, and real assets. The 210 investment holding subsidiaries are incorporated as follows: 145 in Canada (March 31, 2017 – 127), 22 in the United States (March 31, 2017 – 22), 20 in Australia (March 31, 2017 – 20), two in the United Kingdom (March 31, 2017 – 0), and 21 in other jurisdictions (March 31, 2017 – 18). CPP Investment Board provides financial or other support to these investment holding subsidiaries to fund their day-to-day operations and investment activities under loan agreements or shareholder's resolutions, as needed.

In addition, CPP Investment Board also 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 Investment Board.

Investments in joint ventures are those arrangements where CPP Investment Board has joint control. An associate is an entity which CPP Investment Board has the ability to exercise significant influence over decision making.

Related party transactions consist of investments and investment income primarily in private equities, debt, real estate and infrastructure. 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.

14. Guarantees

a) Guarantees

As part of certain investment transactions, CPP Investment Board agreed to guarantee, as at March 31, 2018, up to $2,842 million (March 31, 2017 – $3,073 million) to other counterparties in the event certain investee entities default under the terms of loan and other related agreements.

b) Indemnifications

CPP Investment Board provides indemnifications to its officers, directors, certain others and, in certain circumstances, to various counterparties and other entities. CPP Investment Board 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 Investment Board from making a reasonable estimate of the maximum potential payments CPP Investment Board could be required to make. To date, CPP Investment Board has not received any material claims nor made any material payments pursuant to such indemnifications.

Ten-Year Review

For the year ended March 31

($ billions)	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Change in Net Assets										
Net investment income	**37.8**	34.4	10.0	41.4	30.7	16.7	9.9	15.5	16.2	(23.6)
Operating expenses	**(1.1)**	(0.9)	(0.9)	(0.8)	(0.6)	(0.5)	(0.4)	(0.3)	(0.2)	(0.2)
Net contributions	**2.7**	4.3	5.2	4.9	5.7	5.5	3.9	5.4	6.1	6.6
Increase in net assets	**39.4**	37.8	14.3	45.5	35.8	21.7	13.4	20.6	22.1	(17.2)

As at March 31

($ billions)	2018	2017[1]	2016[1]	2015[1]	2014[1]	2013[1]	2012[1]	2011[1]	2010[1]	2009[1]
Equities										
Canada	**9.7**	11.7	13.5	19.5	18.6	15.3	14.2	21.0	18.5	15.6
Foreign developed markets	**165.1**	140.0	112.6	98.0	75.6	64.0	56.7	50.8	46.2	40.4
Emerging market	**36.0**	23.7	17.6	15.5	12.6	12.4	10.6	7.6	6.5	4.6
Fixed Income										
Non-marketable bonds	**23.6**	24.0	24.4	25.8	23.4	24.4	23.6	21.8	22.7	23.2
Marketable bonds	**53.2**	49.1	32.5	34.4	31.0	28.5	21.2	19.7	17.1	9.3
Cash and Absolute Return Strategies[2]	**(13.6)**	(2.4)	16.8	18.6	17.4	8.6	2.5	2.3	1.7	(0.8)
External debt issuance	**(24.1)**	(19.9)	(15.6)	(9.9)	(9.7)	(9.5)	(2.4)	(1.4)	(1.3)	–
Credit Investments	**22.6**	17.6	17.0	17.2	11.4	8.6	8.8	6.1	3.5	1.8
Real Assets										
Real estate	**46.1**	40.1	36.7	30.3	25.5	19.9	17.1	10.9	7.0	6.9
Infrastructure	**28.6**	24.3	21.3	15.2	13.3	11.2	9.5	9.5	5.8	4.6
Other	**9.1**	8.7	2.3	–	–	–	–	–	–	–
Investment Portfolio	**356.3**	316.9	279.1	264.6	219.1	183.4	161.8	148.3	127.7	105.6
Cash For Benefits Portfolio	**–**	–	–	0.2	–	0.1	–	–	–	–
Net Investments[3]	**356.3**	316.9	279.1	264.8	219.1	183.5	161.8	148.3	127.7	105.6
Performance of Investment Portfolio (%)										
Annual rate of return after all CPPIB costs[4]	**11.6%**	11.8%	3.4%	18.3%	16.1%	9.8%	6.3%	11.6%	14.7%	(18.8%)

1. Historical figures for fiscal 2017 and 2016 are consistent with the current year's presentation. Fiscal 2009 to 2015 figures have not been updated to the current year's presentation.
2. Includes amounts receivable/payable from pending trades, dividends receivable and accrued interest.
3. Excludes non-investment assets such as premises and equipment and non-investment liabilities, totalling $(0.2) billion for fiscal 2018. As a result, net investments will differ from the net asset figure of $356.1 billion.
4. The rate of return reflects the performance of the Investment Portfolio, which excludes the Cash for Benefits Portfolio.

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