



**Ontario Pension Board
Business Plan
2019-2021**

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OPB Overview

Ontario Pension Board (OPB) is the administrator of the Public Service Pension Plan (the Plan) and oversees the investment of \$27 billion of net assets (the Fund) that fund the benefits under the Plan. This Business Plan speaks to the three-year period from January 1, 2019 to December 31, 2021; however, the primary focus is on 2019.

Mandate

OPB was created in 1990, by enactment of the *Public Service Pension Act*, to administer both the Plan and the Fund. Subject to the provisions of the Plan, OPB may administer other pension plans or funds, or insured benefits plans. Currently, OPB has established fee-for-service agreements to administer several other plans on behalf of the Government of Ontario and, to date, all of these fee-for-service agreements are structured on a cost recovery basis, not as a profit-generating activity.

OPB is governed by its Board of Directors. The Chair of OPB's Board is accountable to the President of the Treasury Board for OPB's performance in fulfilling its mandate.

OPB Mission and Vision: Advise & Protect

Our mission is to:

- deliver the pension promise;
- support the long-term sustainability of the Plan;
- oversee the investment of the Plan's assets to maximize returns within acceptable risk parameters;
- keep contribution rates and benefits reasonably stable and affordable; and
- deliver superior, cost-effective service to all Plan stakeholders.

OPB is committed to protecting the long-term health of the Plan for today's and tomorrow's public servants and to providing our clients and stakeholders with tailored advice and counsel to enable them to make excellent decisions about their pension benefits.

At OPB, we believe that providing excellent client service goes beyond just processing transactions for members and responding to their questions. We believe it means protecting our members by helping them make sound decisions about their pension. To do that effectively, members need to understand how their pension decisions fit into their broader financial plan. That's why we introduced Advisory Services, which provides members with access to a team of in-house Certified Financial Planners®.

Expenditure Management and Fiscal Restraint

As an agency of the Province of Ontario, OPB respects the message of expense restraint that has been established by the Government. We have reviewed and noted the key recommendations of *“Managing Transformation: A Modernization Action Plan for Ontario”* which was released near the end of our planning process. In particular, we noted the principles of reducing duplication and improving efficiency and performance through a variety of initiatives including increased use of technology in service delivery (“Digital First”). We believe that OPB’s key strategies such as pooled investment management through the Investment Management Corporation of Ontario (IMCO), the consolidation of small broader public sector pension plans into the PSPP as well as the optimization and increased automation of our business processes and increased online service delivery are very well aligned with the direction recommended in the *Managing Transformation* report. As noted in the report, an upfront investment is required to pursue these initiatives. While OPB is prepared to make this investment, we need time to ensure that that investment would be aligned with the strategic direction of the Government and that it would generate the efficiency and performance enhancements to justify the expenditure. We will work with Treasury Board Secretariat in the upcoming year to gain a better understanding of the Government’s expectations and prepare and evaluate the business case for further technology investments. Elements of our pension administration technology systems are nearing end of life, having been developed in the mid-1990s. Accordingly, there are risks in the system that need to be addressed and our 2019 plans do include expenditures to manage those risks. Nevertheless, in preparing our 2019 business plan and budget, OPB has taken measures to restrain the year-over-year increase in operating expenses to 1.4%, an amount that is less than inflation, despite expense pressures that are detailed later in this report.

As a key efficiency metric, OPB’s expense ratio (expense per dollar of assets under administration, which is expected to be about 60 bps in 2019) continues to be among the lowest in the industry, including compared to peers who have significant advantages of scale.

It is important to note that OPB’s expenses are paid from the Plan’s assets not from the Consolidated Revenue Fund and therefore are not reported as part of Government expenses. During 2019, we will undertake a deeper review of all our expenses to ascertain whether and where they might be reduced.

Status of the Plan

Protecting the promise for our members and ensuring the Plan is sustainable over the long-term is our top priority. As of December 31, 2017, the Plan had a strong funded status of approximately 97%. The initiatives we have planned for the next several years are directed at continuing to protect the pension promise for members by generating returns that consistently exceed the long-term rate of return assumed in the actuarial valuation and improving the client experience by modernizing our systems and tools to provide members with the services they need.

We take a disciplined, long-term approach to managing the financial health of the Plan. As part of that approach, we regularly conduct in-depth reviews of the cost of the pensions promised by the Plan and the adequacy of the contributions to fund those pensions. Over the past few years those studies have shown that the cost of pensions is rising due to our members and pensioners living longer than expected and due to the prolonged low-interest-rate environment. When we looked at how to fund this increased cost, we had to look at the returns we expect to earn in the future.

Our expectation is that investment returns over the next five to 10 years are going to be lower. As a result, and consistent with the shared cost model of the PSPP, we recommended that the Plan Sponsor increase member and employer contribution rates by 1%. The increase is being implemented in two phases. Phase 1 took effect in April 2018 and Phase 2 will take effect in April 2019.

We also lowered our discount rate and strengthened our longevity assumptions to better align the PSPP with our expectations for the future. We believe these were prudent steps that will help us protect the long-term health of the Plan.

Environmental Scan

The environment for administrators of large public sector defined benefit pension plans continues to be complex and challenging. Environmental factors present opportunities, risks and impacts for the Plan. Whether and how effectively OPB responds to these factors can significantly impact Plan stakeholders. Accordingly, properly identifying and assessing these factors is necessary to successfully fulfill our mission. There are many aspects of the current environment that are placing significant and unavoidable pressure on OPB's operating expenses and resources. Despite this, OPB remains committed to the Government's expectation of expense management and we believe that the budget outlined in this Business Plan is respectful of that expectation.

This section highlights some of the environmental factors we believe could impact OPB's business plan or strategies over the next few years.

Investment Environment/Outlook: Current economic and geopolitical factors will continue to present a challenging and uncertain investment outlook globally characterized by the following key themes.

- The synchronous global growth characteristic of 2016 and 2017 has been the engine of corporate earnings gains and the basis for the long-drawn-out advance in risk assets (equities in particular).
- We believe that the acceleration of this global economic growth peaked in late 2017. We are "Late Cycle" in terms of global economic growth. We further believe that the synchronous nature of this global growth has now been broken and see a growth divergence between North America (Canada and the United States specifically) versus non-North American economies.

- A 12-18 month policy of tightening financial conditions in China and the United States has had global ramifications.
- With the tightening of monetary policy on a global scale, it is expected that volatility across all asset classes will return to more normal (higher) levels as a result of the effective liquidity withdrawal, implying a repricing of the risk premium for risk assets.
- A clear lack of impetus for rising real interest rates compounded by a prospective wave of Chinese disinflationary forces suggest that we may have seen the high in bond yields for the current cycle.
- Economic growth in the United States is strong, driven by the tailwind of late cycle fiscal stimulus in the form of tax relief. US growth, interest rate and inflation differentials, coupled with a rising central bank policy rate and quantitative tightening in the form of balance sheet contraction justify a strong or strengthening dollar.
- With the current Chinese administration’s power base now cemented, the relatively new political elite in China is working its “Made in China 2025” agenda which includes:
 - the move towards a knowledge based economy that is more dependent upon technology and consumption versus fixed-asset investment (FAI) and acting as the world's factory to export lower value products; and
 - in order to reduce pollution and reduce financial risk the old model of credit intensive fixed asset investment and goods for export has been targeted.
- The ramifications of a strong US dollar coupled with the planned re-characterization of China’s economy described above are negative for non-North American global growth and, most particularly, the Emerging Markets economies where current and trade account deficits are US dollar dependent (funded).
- Despite the risks of unsuccessful NAFTA negotiations and ensuing trade war with the United States, the Canadian economy is currently enjoying the tailwind of the brisk US economic growth.
- Geopolitics continues to be an important and relevant factor impacting markets and creating future uncertainty. Trade wars, Eurozone fragmentation, Iran and the possible return of provocative actions by the North Korean regime continue to be a concern and the implications of Brexit still remain unknown.

Pension Administration IT: As discussed in the 2018-2020 Business Plan, our existing pension administration systems are nearing the end of their life cycle. Since they were put in place in the early 1990s, the Plan’s membership has grown, and we have introduced digital tools and services to improve our productivity and modernize our service delivery to better serve our members. We have also implemented several initiatives to improve our cyber-security maturity. Ensuring our technology remains current is critical to ensuring our clients’ personal information remains secure. We plan to continue to address this risk over the next several years

by further modernizing our pension administration systems. We will also use this opportunity to look at how we can make our processes and systems more efficient and effective for our clients and to continue to improve our productivity. We respect the environment of expense restraint that we are in and carefully considered how best to approach our modernization initiative to manage our systems risk as cost-effectively as possible. As noted above, we will work with Treasury Board Secretariat in the upcoming year to gain a better understanding of the Government's expectations around information technology modernization and prepare and evaluate the business case for further technology investments. The technology risk management initiatives undertaken during 2018 and planned for 2019 require significant involvement from our pension subject matter experts, as well as IT staff resources. Together with increased service demands detailed later, even our risk management initiatives required some additional staffing. To meet these needs, we added staff in 2018 on a contract basis. The full year cost of this staff drive much of the increase in staffing costs in our 2019 budget. We have no plans to add staff from 2019 onward.

Province of Ontario Fiscal Situation: Controlling human resource costs, including pension expense, in the public sector is seen as one of the key paths to fiscal health in Ontario. Measures to address the Province's budget deficit and debt level could impact the Plan and OPB in various ways. Initiatives such as changes to retiree insured benefits, changes to the long-term income protection program and its interplay with the Plan, and the Ontario Lottery and Gaming Corporation (OLG) modernization have created significant human resource demands on OPB. Our Asset Pooling arrangement through the Investment Management Corporation of Ontario (IMCO), OPB's external investment manager, is another Government policy initiative to increase the efficiency and effectiveness of the investment of public sector assets.

Demographics: There are several demographic pressures facing the Plan. The most important of these is the fact that people are living longer and therefore collecting their pension longer. This increases the costs of pensions and creates funding pressures. In PSPP's case, this has been largely addressed by using some of our investment experience gain in 2017 to further strengthen our mortality assumptions used to value the liabilities of the Plan as well as lower our discount rate a second year in a row. We believe that these are prudent steps to manage the long-term health of the Plan. Even with this in mind, OPB will continue to monitor our demographic and other trends (such as modernizing the Ontario Public Service and Broader Public Sector which could reduce the Plan's active membership) to determine if plan design and other funding changes are required in response to these trends.

Rising mandatory governance, risk and compliance standards: OPB continues to be vigilant and responsive to constantly evolving cyber security threats. As these threats become increasingly sophisticated, increased vigilance is essential to effectively mitigate this risk. Additionally, there are a number of Government directives and legislative requirements that OPB must comply with, including Ontario's new Open Data Directive, anti-spam legislation, and accessibility for persons with disabilities legislation (AODA). This creates resource and cost pressures and impedes our progress on strategic initiatives, as we must dedicate limited human and financial resources to comply with these obligations. Another example, is the introduction of Administrative Monetary Penalties (AMPs) under the Pension Benefits Act. These AMPs

introduce potential director and officer liability in the form of fines. This brings increased risk management standards and costs to ensure continued compliance with all legislative and regulatory requirements.

Rising service expectations: Our members, retired members, employers and other stakeholders expect faster and more sophisticated service including the use of online self-service tools. Our clients want more personalized advisory services to help them navigate key pension decisions during their membership, and increasingly they expect to be able to exchange information, complete transactions and receive their communications online. To ensure we continue to keep our clients' information secure while providing them with the online services and tools they expect, we need to modernize our outdated technology.

Increasing service demands: In the last few years, OPB has experienced a dramatic increase in client service demands, many attributable to the environmental factors noted previously. For example, current annualized levels of transactions in 2018 compared to 2015 reveal a:

- 43% increase in member terminations;
- 17% increase in client service calls;
- 169% increase in pension transfers; and
- 15 fold increase in the processing of member divestments.

We are also in the process of implementing two plan merger transactions (TV Ontario and Ontario Northland Transportation Commission) with 2800 affected members and pensioners compared to no plan mergers previously. These pension plan mergers align with the Government's drive for removal of redundancies and the creation of efficiencies across the broader public sector (further details on page 12).

Until 2018, we had been able to manage these increased service demands without adding to our staff complement, demonstrating a marked increase in our productivity in recent years. However, service demand continues to rise; combined with our need to proceed with IT systems risk mitigation initiatives and the resources required, led us to add staff on a contract basis in 2018. We have no plans to add any further staff.

Strategic Direction

OPB has established the following three key strategic objectives to enable us to fulfill our mission and vision in the current environment:

- To be a trusted advisor to Plan stakeholders and a credible thought leader on public policy, to support sound decision-making that promotes the long term sustainability of the Plan and pension coverage and adequacy for all Canadians.
- To achieve excellence in the management of all Plan funding variables (investment returns, contribution levels and benefit structure) so as to ensure (1) that accrued benefits are

delivered as promised; (2) the long-term affordability of the Plan; (3) the continuance in the Plan of a benefit package structured to build lifetime income adequacy for members; and (4) intergenerational equity.

- To administer the Plan and serve our stakeholders so that every stakeholder realizes, to the extent possible, appropriate value from their participation in the Plan so that we earn their continued support for the Plan.

Operationally, our objectives are achieved by aligning all organizational, departmental and individual initiatives and goals to four Foundations (State of the Art Governance; Strategic and Responsible Financial Management; Better, Faster, Smarter Systems and Processes; and High Performing People) and four Strategies (Disciplined and Astute Investing; Unmatched Client Service Excellence; Outstanding Stakeholder Relations; and Educate and Advocate). A high level description of these Foundations and Strategies is provided in Appendix III.

OPB is confident that its Foundations and Strategies, as well as the initiatives outlined in this Business Plan, are appropriate to manage the Plan, to support the Government in its efforts to improve the Province's finances and to manage the impacts and seize the opportunities presented by the current environment.

Investment Strategy and Business Plan for 2019-2021

The Province's asset pooling initiative for Ontario's broader public sector entities that started in 2011 culminated with the commencement of IMCO's operations in July 2017 when IMCO assumed the day-to-day investment management of the almost \$60 billion of combined assets owned by OPB and Workplace Safety and Insurance Board (WSIB). As noted earlier, the creation of IMCO which was driven by OPB was intended to improve, over the mid-to-long term, investment performance and cost efficiency and to remove duplication in investment management of smaller asset portfolios across the broader public sector. This is aligned with the principles articulated in the *Managing Transformation* report. While, IMCO is now operational, much work continues to be done by OPB to support IMCO's development.

Under the legislation establishing IMCO (the *Investment Management Corporation of Ontario Act, 2015*) and regulations thereto and the contractual agreements between IMCO and OPB, a number of defining responsibilities have been created. In particular:

- IMCO is an independent legal entity with its own Board of Directors. The initial 7 Directors were appointed by each of the Government of Ontario and by the two founding members of IMCO (OPB and WSIB).
- IMCO is responsible for the creation of its own 5-year Business Plan and Budget that will require the approval of its own Board.
- IMCO carries on the day-to-day investment management operations and will provide the personnel, technology and processes to successfully carry out its investment responsibilities activities and report on its investment performance.
- OPB continues to own the Plan's assets.
- OPB will continue to own its Statement of Investment Principles and Beliefs (SIP&B).
- OPB will continue to approve its Statement of Investments Policies and Procedures (SIP&P) and the development of its Strategic Asset Allocation (SAA). IMCO will invest the Plan's assets in accordance with OPB's SIP&P and SAA.
- As part of the IMCO appointment, the Board has delegated to OPB Management the responsibility to monitor IMCO on a regular basis and to assess and report to the Board on IMCO's performance of its duties, responsibilities and obligations under the IMCO Act and regulations and the contractual agreements between OPB and IMCO.

IMCO will continue to implement OPB's strategy of expanding its in-house investment management expertise in certain asset classes to generate incremental risk-adjusted returns in a cost-effective manner.

Future work will be undertaken by IMCO to ensure that it becomes a best-in-class professional investment manager that will offer a value proposition to all members. Future initiatives in this regard will include enhancements to IMCO's risk management systems, performance reporting

and internal controls. This work will also involve the development of new investment strategies and products and the creation of asset pools for the benefit of OPB and WSIB and new clients who will join IMCO in the future.

Asset Management Fees projection

IMCO's costs of managing OPB's assets are investment management fees, not part of OPB's operating expenses.

2019 will be IMCO's second full year of operations. IMCO charges fees to its clients based on the recovery of IMCO's costs. At the time of writing, IMCO's planning cycle is not scheduled to be completed. However, we have received some preliminary estimates of the investment management fees for 2019 that will be billed to OPB including:

1. Fees paid by IMCO to external asset managers, custodial services and investment transaction costs totaling \$66.0 million, and
2. Costs of IMCO's operations, totaling \$59.7 million.

As these amounts are subject to IMCO's own Business Plan and Budget approval process; they are not included in OPB's 2019 operating expense budget.

OPB has included as a metric in assessing its expenses for both IMCO and OPB, a long-term expense of 70 bps (basis points) or lower. With these projections, and combined with the OPB retained in-house investment expenses, we expect that 2019 expenses will be lower at approximately 60 bps.

Asset/Liability Study

In late 2016, prior to the commencement of IMCO's operations, OPB completed an Asset/Liability Study (A/L Study) in order to optimize its SAA over the next several years. The A/L Study supported changes already in progress to shift assets from public to private markets investments, and continued to increase the Plan's target investment allocations to private equity and infrastructure assets, and made a small decrease to the real estate target allocation. OPB will continue to oversee IMCO's investment activities to ensure that OPB's current SAA is being implemented by IMCO.

Pension Modernization Strategy and Business Plan Initiatives 2019-2021

Moving forward with our Pension Modernization Program (a business transformation program enabled by technology that will advance client and stakeholder experiences as well as generate business efficiencies) and starting the process of replacing and modernizing our aging pension business processes and systems will require significant time and people resources from all areas of the organization. This is a multi-year initiative designed to mitigate the future risk posed by our legacy systems as they near end-of-life. This process began in 2017 as we mapped our current state business processes and the high level systems and applications in need of replacement. We want to ensure that this work allows us to further improve our efficiencies

while fully supporting our Advisory Services model and the tools our clients require to make sound decisions about their pension.

During 2019, we expect to finalize our requirements and procure the vendor we'll work with to replace our online portal platforms which are set to expire in the next few years. Since both our online portals exchange sensitive member information, ensuring we keep the technology current to mitigate cyber security threats is a must. As part of this initiative, we will also be looking for opportunities to make things more efficient and effective. We'll also ensure this work makes both portals compliant with the AODA accessibility standards. We expect to issue an RFP for this first phase of work by mid-2019.

During this business plan cycle (2019–2021), Pensions and IT will work closely together to develop a multi-year Roadmap that will identify and prioritize other parts of our pension business processes and systems that must be modernized.

Pension modernization is essential in order to keep our cyber security technology up-to-date and protect our clients' data and our systems as we continue to move our digital strategy forward and shift more transactions and retirement planning tools online.

We are also re-engineering our business processes, which will streamline our practices, lead to service efficiencies and further improve our cost effectiveness. In order to be effective, our business process reengineering must be done in conjunction with the systems development during each phase of the process.

OPB also continues to be engaged in an initiative that supports the government's stated objective of operating more cost effectively by consolidating smaller broader public sector pension plans into the PSPP. Joining a larger plan helps these broader public sector employers provide pensions that are more cost effective and secure and improves their operational efficiency by allowing them to focus solely on their core business and not on pension administration. This not only supports the government's objective, it also grows our client base and enhances the sustainability of the PSPP. In 2018, we welcomed the first two public-sector plans under this initiative with approximately 400 contributing members from TV Ontario (TVO) and approximately 800 contributing members from Ontario Northland Transportation Commission (ONTC).

Properly implementing plan mergers requires significant resources from Client Services, IT, Stakeholder Relations and Policy teams. There are a number of regulatory requirements that must be satisfied, data received from the incoming employers must be reviewed and in many cases "scrubbed" more than once to ensure proper reconciliation, systems must be modified to properly track the new members and these systems must be tested before going into production. These new members must also receive communications materials and statements that explain their new benefits in compliance with the *Pensions Benefit Act*. While this initiative will provide the province with cost efficiencies in the long-term, properly implementing it will require upfront resource investment (dollar and human) – all while we continue to conduct ongoing business.

Finally, OPB's IT services, both Application Development/Support and IT Infrastructure management, are currently outsourced. This contract will expire in late 2018. OPB will be procuring a replacement set of services in a public procurement that began in 2017. We expect to begin the transition of these services from the current model and/or vendor(s) to the successful respondents in late 2018/early 2019.

Corporate Strategy and Business Plan Initiatives 2019-2021

OPB is a significant financial institution and has fiduciary duties and a duty of care to more than 84,000 active and retired members. OPB is accountable to the Government of Ontario as the Plan Sponsor and has legal obligations to a number of regulatory bodies, such as the Financial Services Commission of Ontario and the Canada Revenue Agency. OPB is also required to comply with many of the Government of Ontario corporate directives. As such, OPB is committed to the highest standards of business practice in matters of governance, risk management, compliance, transparency, business continuity and resilience, records management and privacy. Over the past several years OPB has made great strides in strengthening its practices in each of these areas, which has led to increased expenses for compliance and risk management. As part of our commitment to continually strengthen and evolve our risk and compliance practices, a few areas were identified where we must focus our resources between 2019-2021:

- **procurement process** – work has commenced in an effort to automate, streamline and improve the efficiency of the overall procurement function and ensuring compliance with government policies and directives on procurement activities;
- **information and data governance** – OPB recognizes that protecting our client information, including data, is one of its greatest responsibilities and continues to invest in its management and protection. This is critical as technologies, tools and channels for communication continue to evolve. Work has begun to enhance our information governance program including restructuring of our team supporting information governance activities and a review of our information inventory. In conjunction with pension modernization work, better systems and processes for managing electronic records will be reviewed.
- **security and cyber security** – in 2018 OPB began implementing the services of a Managed Security Service Provider. These services are intended to further enhance the prevention and response capabilities of OPB. These enhancements will continue to be implemented through 2019. This will position OPB to take a more proactive and continuous improvement based approach to the evolving security threat landscape;
- **accessibility** – OPB's public website was rebuilt in 2018 and steps were taken to make it compliant with accessibility standards. Over the next few years, OPB will rebuild its member and employer portals including making them compliant with Web Content Accessibility Guidelines 2.0, as required by Ontario's Integrated Accessibility Standards under the *Accessibility for Ontarians with Disabilities Act, 2005*.

Enterprise Risk

We continue to advance the maturity of our Enterprise Risk Management (ERM) practices. To take advantage of opportunities in service delivery and cost management we use ERM to effectively manage resources while planning for the future. Between 2019-2021, planned risk management initiatives will focus on continuous improvement of our governance and reporting processes. As we look to the future and embark on technology transformation, changes in how we manage risk become critical. We fully anticipate that a transformational program such as Pension Modernization will introduce new challenges and opportunities. By planning early and refining how we manage risk, we can confidently advance opportunities and protect value at the enterprise level.

In 2018 we began a process to re-assess the principal risks facing OPB and ensure that our ERM program continues to evolve to meet changes in our business and the environment in which we operate. This process included a series of workshops involving the Executive Leadership Team. The intention behind these workshops was to:

- identify and prioritize key risks that may impact OPB's strategy;
- build our collective consensus and commitment to managing strategic risk in a proactive manner; and
- further develop risk-based strategic leadership values and demonstrated behaviors which are vital for OPB's collective success.

As a result of the work completed in 2018, we will be able to move forward with a refreshed view of the key risks facing OPB and segmented into the following categories:

Strategic: These are risks taken to obtain benefits and capture long-term value for the Plan. They generally represent the risks with the highest over-all potential to affect achievement of OPB's objectives.

Operational: These are the risks that arise from day-to-day business, emergency planning and project processes. In the normal course of service delivery, we face threats and vulnerabilities. To manage these risks, operational risk management will be further embedded at the business unit level through awareness training and targeted assessments.

Emergent: These are primarily external and uncontrollable trends that may impact OPB over a long-term horizon. In 2017, we implemented a Board of Directors-approved Emerging Trends Scanning Process. This process formalized how Management identifies, assesses and responds to emerging risks. Routine surveillance of emerging trends allows us to assess the business impact of threats and opportunities presented by changes in the external environment.

In 2019, we will embark on a number of risk management initiatives including:

ERM Software: Implementing an ERM software solution is central to advancing OPB's ERM program. Cloud-based technologies have made entry-level risk systems, designed for small-

medium sized organizations such as OPB, accessible and deployable with low complexity and minimal investment.

The basis behind any successful ERM program is the effective communication of high quality data. OPB must be able to communicate data quickly through a picture or a dashboard, backed by quality risk profile data details to supplement a full written report. An ERM software solution will provide these capabilities to improve communication among the senior leadership team, Board, rating agencies and potentially stakeholders or new clients. ERM software will help us collaborate on risk matters across the organization quickly and effectively.

Maturity: An assessment of our ERM framework effectiveness and level of maturity based on a recognized standard will be conducted. OPB first implemented its ERM program over ten years ago. Over the next year, we will have an independent assessment on the maturity and future opportunities for ERM.

Risk Appetite: OPB's risk appetite will be reviewed by the Board in 2019. OPB's Board approved risk appetite statements are an important risk management tool. OPB's risk appetite statements outline the Board's expectations of the level of risk that is appropriate for Management to take on. As part of good governance practice, reviewing risk appetite in 2019 will ensure that the level of risk we are willing to take is at a level that the Board can tolerate to achieve our strategic objectives and over-all risk capacity of OPB.

As noted throughout this Business Plan, OPB continues to invest in both our Pension Administration and Investments lines of business to ensure OPB maintains industry-leading practices in a cost effective manner and with regard to stakeholder expectations. Ongoing investment is needed in OPB's risk mitigation activities related to:

- governance, particularly with respect to ensuring that OPB maintains an effective internal control framework as its activities become more complex;
- compliance with legislation, regulations and Government directives;
- maintaining robust cyber security, particularly concerning the protection of personally identifiable information and responses to new and emerging cyber threats;
- sustaining a highly reliable business continuity management program;
- meeting increased service demands from members, retired members and employers, particularly as a result of the Government's announced changes to retiree insured benefits, the OLG modernization and consolidation of smaller broader public sector pension plans into the PSPP.

Investment Risk

OPB mitigates Investment Risk in several ways:

- OPB formally reviews its SAA at least every three years so that Management and the Board of Directors can align the Plan's asset mix relative to its pension obligations taking into account the Plan's funded status, the then-current economic environment and the changing demographics and composition of the Plan membership. The ultimate goal of OPB's SAA is to design an asset mix that, when implemented, will generate investment returns in excess of the Plan's actuarial discount rate. As noted earlier, an A/L Study was completed in late 2016 and a new SAA was approved by the Board in March 2017. The 2017 SAA's phase-in allocation targets to mid-2020 continue to call for a shift in Plan assets from public to private markets strategies;
- OPB's performance measurement and attribution platform was enhanced in 2016 to support the increased portfolio reporting and monitoring required with increased internal asset management. The continued internalization of investment activities by IMCO will result in further enhancements to risk monitoring and reporting functions;
- OPB developed a Risk Dashboard providing Management with the ability to attribute, monitor and manage Total Risk, Active Risk and Surplus at Risk. The model is able to report at the SAA, asset class and mandate level and was designed so that investment risk levels can be managed within the parameters established by OPB's Investment Risk Policy. The Risk Dashboard also enables Management to integrate Surplus at Risk analysis into the investment decision process to optimize incremental returns and mitigate the risk that returns are insufficient to meet OPB's liabilities. OPB's Risk Dashboard and its Investment Risk Policy were transferred to IMCO, and IMCO will continue to assess, manage and report on the foregoing risks as they pertain to OPB's investment portfolio;
- The in-house long-term pacing model developed by Management to manage the timing of new private market investments and the roll-off of existing investments will continue to be used by IMCO to ensure alignment with the 2017 SAA phase-in plan; and
- As mentioned earlier, IMCO will continue building risk management capabilities.

Key Performance Indicators

OPB has adopted a number of key performance indicators (KPIs) to measure the success of our vision and strategies as well our success in executing them. The KPIs represent the outcomes relating to the Plan that are most important to the Plan stakeholders. The KPIs are set forth in the table in Appendix IIA, "Metrics and Key Performance Indicators".

For 2019, we are aligning select KPIs to risk appetite to better inform our executive and Board of Directors on how we are performing relative to residual risk on a quarterly basis. By measuring risk appetite on a periodic basis, we can provide assurance that enterprise activities are adhering to Board approved risk appetite.

Alignment with the Government's Fiscal Objectives

OPB respects the Government of Ontario's objective to restrain expenses in the Ontario Public Service and broader public sector. In preparing this Business Plan and Budget, Management reviewed all expenditures with a view to ensuring that any proposed increase in expenses only be included in the Business Plan if deemed necessary. Management defines initiatives as necessary if they meet the following criteria:

- required to comply with legislation or Government directives, including tendering practices;
- required to align OPB's activities with current Government policies (e.g. plan changes);
- required to manage key risks (e.g. cyber security threats or end-of-life IT systems);
- expected to generate a benefit that more than justifies the incremental expense;
- required to meet appropriate service expectations; or
- required to prudently manage the funding of the PSPP.

In 2018, we established a small internal investment function (two positions) to develop our investment strategy which remains OPB's fiduciary responsibility after the establishment of IMCO and to oversee the outsourced investment management relationship with IMCO. The full year costs of that capability also contribute to the year-over-year increase in expenses.

Despite the increase in client service demands, our initiatives to manage risk in our end-of-life IT systems, as noted on page 6, and the establishment of a small investment team, the Business Plan and Budget submitted by Management and approved by its Board of Directors provides for a below-inflation increase in our 2019 operating expense budget of 1.4% compared to our 2018 budget. Further detail is provided in the Budget Overview that follows.

Financial Budget – 2019

(All amounts are expressed in thousands of dollars unless otherwise stated)

Budget Overview

Our operating budget is comprised of two main expense categories: Base Operating Expenses – our ongoing business operating expenses; and Initiative expenses – expenses we expect to incur to advance discrete projects during the year.

Table 1 shows these categories of expenses. Total combined operating expenses for 2019 are budgeted to be \$38.7 million, or 1.4% more than the 2018 budget.

The 2019 Budget reflects a second full year of having OPB's primary operations dedicated to pension administration – that is, without significant investment management operations. In 2017 OPB moved from having day-to-day asset management mandate to that of overseeing IMCO's management of the OPB assets. We do maintain a two person investment team to set investment strategy and oversee IMCO.

Table 1 - Total Budget

Combined Operating Expenses (in thousands of dollars)	2019 Budget	2018 Budget	Change in \$	Change in %
Base Expenses	35,411	34,320	1,091	3.2%
Initiatives	3,314	3,859	(545)	(14.1%)
Total Operating Expenses	38,725	38,179	546	1.4%

Budget and Risks

Management has identified the following factors that may adversely impact the costs as set out in the 2019 Budget:

1. Costs and staffing resources related to implementing any new or modified legislation or to government workforce adjustments that have not already been considered as part of the 2019 Budget;
2. Costs associated with unexpected events or litigation; or
3. Initiatives that are dependent upon decisions outside of OPB that could impact the timing or scope of implementation (some of which are captured in Table 4 below, as Budget Risks)

To mitigate the above-noted risks, the Executive Leadership Team regularly meets to consider the impact of unplanned events on planned projects and the budget. Where possible, priorities are adjusted to ensure that the overall budget impact is managed.

Base Operating Expenses

A significant portion of OPB's operating expense budget is base expenses. Overall, these operations are budgeted to increase by 3.2% compared to the 2018 budget. Table 2 below shows the breakdown of the expenses into the various operational components.

Table 2: Base Operating Expenses

Base Operating Expenses (in thousands of dollars)	2019 Budget	2018 Budget	Change in \$	Change in %
Staffing Costs (Table 2.1)	20,717	19,749	968	4.9%
Office Operations (Table 2.2)	4,770	4,943	(173)	(3.5%)
Technology (Table 2.3)	6,832	6,607	225	3.4%
Professional Services (Table 2.4)	1,174	1,084	90	8.3%
Depreciation	675	795	(120)	(15.1%)
Communication, Board & Audit (Table 2.5)	1,243	1,142	101	8.8%
Total	35,411	34,320	1,091	3.2%

Budget Highlights

We've provided additional information on our largest budgeted expenses below, including information explaining the changes from last year's budget.

2.1 Staffing Costs

Staffing costs (in thousands of dollars)	2019 Budget	2018 Budget	Change in \$	Change in %
Total	20,717	19,749	968	4.9%

Staffing costs (full-time and non-permanent staffing), includes benefits, staff development costs and recoveries. Recoveries relate to staff time spent administering benefit programs outside the PSPP on behalf of the Province of Ontario. These programs include administrative services for the Provincial Judges Pension Plan, some insured benefits programs, and supplementary pension plans.

The overall staffing costs are guided by a number of factors:

- Complement in 2019 remains at the 2018 number.
- Staffing costs reflect new positions approved in early 2018 to support evolving business priorities that have been budgeted for 2019 and beyond.
- The full-year impact of non-permanent staffing requirements added in 2018 to address the increased service demands (noted earlier on page 8) of the Province of Ontario changes in

retiree insured benefits, the OLG modernization and the pension consolidation initiatives already underway in 2018.

- Base salaries for all designated executives have been frozen at their current levels. The incentive envelope for the group of designated executives also remains frozen.
- Wage increases for other employees including for bargaining unit employees as per the negotiated settlement.
- OPB’s benefits costs have increased from 2018, primarily as a result of the pension contribution increases for employers (including OPB as an employer) of the Public Service Pension Plan in 2018 and 2019.
- Recoveries have been trending higher in the last two years and the 2019 estimate is reflective of current experience and expectations of billings.
- Staff development budgets have been reduced.

2.2 Office Operations

Office Operations (in thousands of dollars)	2019 Budget	2018 Budget	Change in \$	Change in %
Total	4,770	4,943	(173)	(3.5%)

Office operations include rent, office expenses, ADP payroll processing, pension regulator fees and travel. Cost savings in equipment and hardware maintenance help bring down these costs in 2019.

2.3 Technology

Technology costs (in thousands of dollars)	2019 Budget	2018 Budget	Change in \$	Change in %
Total	6,832	6,607	225	3.4%

The technology budget consists of both oversight and maintenance of current pension administration and business infrastructure needs. It is expected that some savings with existing software licenses and maintenance arrangements will be offset by higher operating costs to address cyber security and web maintenance requirements.

2.4 Professional Services

Professional Services costs (in thousands of dollars)	2019 Budget	2018 Budget	Change in \$	Change in %
Total	1,174	1,084	90	8.3%

Professional services include consulting, actuarial, and legal costs. We have added additional budget for anticipated higher legal costs due an increasing trend of litigious activities, including being named as a co-defendant to litigation that does not necessarily expose the plan to any liability. We have planned some additional consulting costs to support the transition of a new Chief Investment Officer, following the planned retirement of our current CIO in 2019.

2.5 Communication, Board & Audit

Communication, Board & Audit (in thousands of dollars)	2019 Budget	2018 Budget	Change in \$	Change in %
Total	1,243	1,142	101	8.8%

This includes communication activities with our clients and other stakeholders, our Board of Directors' compensation, and both our internal and external audit services. The primary contributor to the increase is increased client survey activity with our members and pensioners in order to continue to improve our client service.

2019 Initiatives

Expenses for initiatives are generally one-time or project-based costs that support a specific objective or initiative identified as furthering the progress towards fulfilling OPB's various key goals, objectives and risk management imperatives. The costs of these initiatives, which may include costs from multiple expense categories, are listed below. Certain details related to these initiatives have been described throughout this Business Plan. The expenses are the external costs of the initiatives. The internal costs (such as salaries and related benefits of permanent staff), while considered in the planning and execution of the projects, are not included as part of the initiatives budget; they are already included as base operation expenses.

The budget for initiatives in 2019 is \$3.3 million, down from \$3.9 million in 2018.

There are three primary initiatives that drive the Initiatives budget in 2019: (1) Pension Administration Systems Risk Mitigation; (2) Business Process Modernization; and (3) IT Service Provider Transition. All the initiatives included in the 2019 Budget are summarized in Table 3, below.

Table 3: 2019 Initiatives

	Business Objective	2019 Budget <i>(in thousands of dollars)</i>	Initiative Description	Deliverable
1	Pension Administration Systems Risk Mitigation – Client Systems	825	The client systems of PRISM/PenPay and the content management systems are using technology that is nearing the end of its support life. Work will move forward in identifying the systems requirements in moving to a more modern platform.	The accumulation of inventories identifying the data, business rules, calculators, flows and processes. This will underpin the plan for modernization.
2	Pension Administration Systems Risk Mitigation – Re-Platform of e-Services and Employer Portal	225	The technology supporting our client and employer portals is reaching end-of-life and requires re-platforming for cybersecurity, continued service and AODA compliance requirements.	2019 deliverable is a vendor selected via RFP and budget for 2020 portal renewal.
3	Business Process Modernization	929	The determination of future requirements for efficient client service and support to the immediate technology transitions of the Portal systems. This also involves freeing up current knowledgeable staff to support the development of this insight.	Client Engagement & Experience Strategy and a Future State Design. A business case for future business redesign and systems development.
4	Transitioning as a result of the tendering of our outsourced Information Technology Service Provider Contract	700	The IT Service Management contract RFP has been issued. In 2019, this will entail the completion of the contract negotiation with the selected service provider and the transition plan to a new, possibly cloud-based, service model.	Transition and return to regular operations with the selected IT service manager, including management and maintenance of any required infrastructure hardware or software, equipment.

	Business Objective	2019 Budget <i>(in thousands of dollars)</i>	Initiative Description	Deliverable
5	Enhance OPB's Cyber-Security	100	Create and document an application coding framework which will be the basis of all future development.	An application coding framework and quality assurance process will be defined.
6	Update and improve our plain language communications with our Members	200	A bundle of automated letters will require updates stemming from legislated changes, plan changes to beneficiary designation and improved alignment with our advisory language.	Letters produced efficiently through the client workflows that reflect these current requirements.
7	Expanding client education program offering	34	Achieved through expanding our education programs and finding cost-effective ways to offer these programs to clients who live outside the GTA.	More non-GTA and early- and mid-career presentations.
8	Replace our end-of-life HR systems	163	The current HR tools consist of three separate systems that are nearing end-of-life.	A unified solution to efficiently and securely manage HR processes.
9	Adapting our space to our post-IMCO needs	33	IMCO will be moving in 2020, leaving the OPB sub-leased premises. Planning is occurring in 2018 to determine space requirements, some further planning and preparation will be expected in 2019, before the partial relocation in 2020.	A refined space plan.
10	Improving the efficiency of our Enterprise Risk Management processes	48	Select and implement ERM & Risk Assessment Software-updating of the inefficient manual processes driving the ERM data collection and reporting.	Delivery of a cloud-based ERM platform.

	Business Objective	2019 Budget <i>(in thousands of dollars)</i>	Initiative Description	Deliverable
11	Centralizing and improving the quality and efficiencies of our procurement processes	57	E-Procurement Automation-enhancing the value and efficiency of the outdated procurement systems.	Implement an automated spend-management software application, with centralized administration, improved controls and enhanced reporting.
	Total	3,314		

2019 Budget Risks – Potential External Service Demands

We have identified potential material increases in service demand that have not yet become sufficiently likely to include them in our Business Plan and Budget. These are listed on Table 4 along with an estimate of the potential cost associated with meeting the service demand should these occur.

Table 4: Budget Risks

	Risks to Budget	Potential 2019 impact estimate <i>(in thousands of dollars)</i>	Short Description	Additional Commentary
A	Pension Consolidation – potential for additional small pension plans to be merged into PSPP	325	There are a number of small pension plans that may be merged into the PSPP during 2019, as ONTC and TVO were in 2018.	The decision to proceed and timing of these potential mergers/transfers is not certain, thus the work effort cannot adequately be judged. The dollar amount is an estimate under a set of scenarios to illustrate the size of the budget/gating impact that might be needed.
B	Insured Benefits Changes	80	The Province may be requesting further changes to the insured benefits support for our current and future retired members.	System changes to accommodate different benefits plans or administrative mechanisms. The dollar amount is an estimate under a set of scenarios to illustrate the size of the budget/gating impact that might be needed.
C	Police Divestments	80	There are a number of municipal police forces in the Province which may be transferred to the OPP. This creates material service demand to address the pension implications for affected personnel.	Divestment costings for each applicable member joining the PSPP. Divestment transfers completed.

2019 Capital Expenditures Budget

While not part of operating expenses (other than the associated depreciation of these assets), there is no substantial spending planned on capital items in 2019 (Table 5 below).

Table 5: Capital Expenditures Budget

Capital Expenditures (in thousands of dollars)	2019 Budget	2018 Budget	Change in \$	Change in %
Base	125	175	(50)	(28.4)%
Total Capital Expenditures	125	175	(50)	(28.4)%

Appendix I: Defined Terms

In this Business Plan:

Asset Pooling means the asset pooling initiative contemplated by the *Investment Management Corporation of Ontario Act, 2015*.

bps means basis points, a measure equal to one one-hundredth of a percentage point of assets.

Budget means the budget contained in this Business Plan.

Business Plan means this Ontario Pension Board Business Plan 2019-2021.

CEM means CEM Benchmarking Inc., an independent benchmarking company.

ERM means Enterprise Risk Management, a continuous, proactive and systematic process to understand, manage, and communicate risk from an organization-wide perspective. It integrates the risk management process into planning and decision-making by aggregating all types of risk from all parts of an organization and managing them on a comprehensive (portfolio) basis.

IMCO the Investment Management Corporation of Ontario (IMCO) commenced operations in July 2017.

Investments mean all activities relating to the investment and management of the Plan's assets, including front-, middle- and back-office resources.

Management means, collectively, employees of OPB holding the position of or senior to manager.

Pension Administration means all activities relating to the management and administration of the Plan.

Pension Modernization is a business transformation program enabled by technology that will advance client and stakeholder experiences as well as generate business efficiencies.

Plan Sponsor means the Province of Ontario in its capacity as sponsor of the Plan.

Appendix IIa: Metrics and Key Performance Indicators

Business Objectives	Performance Metrics
Investment Execution	OPB's investment return versus the Strategic Asset Allocation Benchmark
Investment Risk Management	OPB's Actual Risk versus Risk Budget
Member & Pensioner Service	Overall Satisfaction with Client Services (8.7 or higher)
Employer Service	Employer Satisfaction Scores (7.8 or higher)
Business Plan Achievement	Level of completion of initiatives for each strategy and foundation in the Business Plan
Managing to Budget	Actual vs Budgeted Expenses
Cost-efficiency	Expense Management Ratios (cost per Net Assets Available for Benefits): <ol style="list-style-type: none"> 1. OPB Operating Expenses (15 basis points or lower) 2. IMCO Costs (50 basis points or lower) 3. Consolidated (65 basis points or lower)
Financial Health of PSPP	Level of, and year-over-year change in, Going Concern Funded Status

Appendix IIb: Key Goals / Objectives for 2019

Description of Key Goals / Objectives	Metric / Measurement
Continue the implementation of OPB's 2017 SAA	IMCO meeting OPB's SAA phase-in target allocations
Develop a multi-year pension administration strategy and associated information technology plan/strategy	Strategies/Plans presented to, and approved by, OPB Board of Directors
Deliver agreed projects as noted in the 2019 Initiatives section on page 21	Deliver implementation of solutions per agreed project charters
Meet or exceed core Application & Infrastructure service levels while improving IT compliance and productivity	Meet standards set in Service Level Agreements or as amended for service transition
Manage cyber security threats	Implement 2019 items identified on security/cyber security Roadmap in 2019 Continue training employees on cyber threats
Attraction and retention of staff, especially those positions defined as critical to the organization	Voluntary turnover < 10% for full year
Continue to manage internal operating expenses judiciously	Budget variance for year within +/- 5%

Appendix III: Foundations and Strategies

To implement OPB's strategic vision, all organizational, departmental and individual objectives align with one or more of the following Foundations and Strategies.

State of the Art Governance – our approach to governance is to ensure that structures and processes are in place to provide appropriate oversight with respect to the strategy of the organization and management of its key risks.

Strategic and Responsible Financial Management – this is a fundamental fiduciary responsibility, and essential for maintaining the trust of our stakeholders. We must demonstrate value for money as we invest in programs that improve service to clients and stakeholders, ensure build out support for investment activity, meet legislative requirements, and improve the efficiency, reliability and security of our networks.

Better, Faster, Smarter Systems and Processes – OPB is committed to continuous improvement and looks for opportunities to automate and streamline routine pension administration transactions in order to ensure efficiency and to enable the delivery of advisory services at reasonable cost.

High Performing People – we believe strong leaders facilitate a culture of high performing teams, and that each individual employee contributes to the organization's success. We view programs and initiatives aimed at developing and retaining our internal talent as a crucial investment.

Disciplined and Astute Investing – to achieve Plan funding objectives, OPB has developed a strategic approach with an emphasis on capital preservation. On behalf of OPB, IMCO will seek to generate strong, stable, long-term investment returns within acceptable risk parameters.

Unmatched Client Service Excellence – OPB is committed to providing outstanding service to our clients. This means delivering the pension promise with proactive, knowledgeable, timely and accurate service and support.

Outstanding Stakeholder Relations – we believe our role is one of a trusted advisor. This means providing stakeholders with balanced recommendations that reflect our fiduciary duty, our commitment to the long-term sustainability of the Plan, and the Government of Ontario's need for cost constraint.

Educate and Advocate – OPB has a significant role to play in contributing to public discourse, and policy making on the topic of pension coverage and retirement income adequacy, not just for the benefit of members of the Plan, but for the benefit of all Canadians.

Appendix IV: 3 Year Projected Expenditures 2019 – 2021

The following 3 year projection builds upon the 2019 budget. We have factored inflationary increases for most expenses and no complement increases from 2019 onwards. The initiative costs on the risk mitigation of the pension administration systems and business process modernization have yet to be fully understood and may pose upward pressures on the budget.

Operating Expenses (in thousands of dollars)	2019 ¹	2020 ²	2021 ²
Staffing Costs	20,717	21,046	21,377
Office Operations	4,770	4,817	4,865
Technology	6,832	6,900	6,969
Professional Services	1,174	1,261	1,286
Depreciation ³	675	641	609
Communication, Board & Audit Initiatives ⁴	1,243	1,181	1,192
	3,314	3,450	3,550
Total Operating Expenses	38,725	39,296	39,848
Total Capital Expenditure	125	200	200
Planned Staff Complement ⁵	166	166	166

Notes and Assumptions for 3 Year Projected Expenditures 2019-2021

1. The amounts for 2019 are taken from the 2019 Budget.
2. For 2020 and 2021, an overall 1% increase is assumed for each category.
3. Depreciation is expected to decrease by 5% every year.
4. Initiatives are estimated to increase by 100 thousand dollars each subsequent year anticipating continuous systems and process improvements. Risk mitigation and business process modernization activities are expected to last several years.
5. Staff complement would be maintained at 2018 levels.

Appendix V: Organizational Chart – Management Level

