

Ontario Pension Board Business Plan 2018-2020

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OPB Overview

Ontario Pension Board (OPB) is the administrator of the Public Service Pension Plan (the Plan) and manages the investment of \$25 billion of assets (the Fund) that fund the benefits under the Plan. This Business Plan speaks to the three-year period from January 1, 2018 to December 31, 2020; however, the primary focus is on 2018.

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 the performance of OPB 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 Advisors who are Certified Financial Planners[®].

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, 2016, the Plan had a strong funded status of approximately 96%. 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.

To ensure we continue protecting the pension promise not just for today's members but for tomorrow's members as well, we need to closely monitor the cost of providing benefits to Plan members so we can determine whether the current contribution rates are adequate to fund the Plan's benefits. To do this, we regularly conduct a number of studies as part of our prudent management of the Plan, including a Long-Term Funding Study (LTFS), which helps us assess whether the economic and demographic assumptions we use to determine the contribution rates are still appropriate.

Typically we conduct this study every three to five years. However, since our 2014 LTFS started showing changes in our experience, we decided to conduct another LTFS in 2016. The results of the study confirm what we saw in our 2014 study – that the cost of benefits, has in fact, increased. The main factors driving the increased cost are the current economic environment, in which we expect investment returns going forward to be lower on average than over the past 25 years, and the fact that pensioners are living longer, which means that we're paying out pensions for longer.

When benefits cost more to provide, there are two ways to fund that increase – investment returns or contributions. If investment returns are lower, then to ensure the long-term sustainability of the plan the Plan Sponsor needs to increase contributions to fund the pension promise. Given the economic and investment outlook, we believe returns are likely to be lower going forward; as a result, it's likely that OPB will be recommending that the Plan Sponsor make a modest contribution rate increase for both members and employers.

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 highly 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.

On the Investment side, the Investment Management Corporation of Ontario (IMCO) commenced operations in July 2017, assuming the Plan's investment management functions. As part of the delegation of OPB's investment management responsibilities to IMCO, OPB's investments and investment finance team were transferred to IMCO. More information on IMCO's role and the impact upon OPB's operations and investment strategies are presented on page 8.

Investment Environment: Current economic and geopolitical factors present a challenging investment environment globally characterized by the following key themes.

The global economy is experiencing a period of synchronous growth after a near-decade long period of unprecedented monetary easing by central banks. The global growth outcome coexists with interest rates at or near record lows and inflation everywhere below target, although recently moving up. For financial markets, this has meant that volatility in all asset classes has moved to near all-time lows and the valuations of risk assets (particularly equity and credit) have moved to the higher end of historical levels. For private markets assets, notably real estate and infrastructure in major markets, competition is high and acquisition prices remain very expensive.

As a result of these economic and financial conditions the following are some expected outcomes:

- Policy makers are either directly taking action (US Federal Reserve, Bank of Canada and the Bank of China) by tightening policy or have become increasingly vocal (European Central Bank, Bank of England and the Reserve Bank of Australia) about forward looking expectations to do so. As a result, interest rates are expected to start to rise.
- With the tightening of monetary policy on a global scale, it is expected that volatility across all asset classes will return to more normal levels as a result of the effective liquidity withdrawal, implying a repricing of the risk premium for risk assets.
- With the valuations for global risk assets having been supported by two of the strongest quarters for earnings in many years, expectations are for earnings gains to remain firm through the remainder of 2017. At some point in 2018, however, the impact of monetary tightening should lead economic indicators to inflect lower, resulting in a potential drawdown in risk assets.
- Geopolitics continues to be an important and relevant factor impacting markets and
 creating future uncertainty. Although populism appears to have lost some of its
 momentum, particularly in Europe as indicated by recent elections, provocative actions of
 the North Korean regime continue to be a concern and the implications of Brexit still remain
 unknown.

Pension Administration Environment: Over the next several years we will be focusing on modernizing our business processes, our pension administration system and the digital tools to allow us to meet the evolving needs and expectations of our clients and stakeholders. Another key consideration for this project is the need to ensure our technology remains current and our clients' personal information remains secure. 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 better serve our members. This legacy system puts limits on how responsive OPB can be in providing service to our members, especially in terms of introducing new digital tools that can enhance the client experience.

Reinventing our business processes and replacing our systems will take several years and will require a significant capital investment to ensure what we implement will meet our members' current and future needs and enable us to provide cost effective and efficient service.

Our Pension Modernization Initiative will require significant involvement from our pension subject matter experts, IT and HR resources. As we transform our systems to compete in an increasingly digitized environment we must ensure we have the proper technology in place to mitigate increased cyber security risks, which has an upfront cost and will also add to the ongoing annual operating costs of the Plan.

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 taken or being considered by the Government of Ontario 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. Potential contribution rate changes and plan changes to address the CPP enhancement could also have a significant impact on the Plan and our resources. Asset Pooling 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 OPB's case, this has been largely addressed by strengthening the mortality assumption used to value the liabilities of the Plan. OPB will continue to monitor this 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.

Rising service expectations: Our members, retired members, employers and other stakeholders expect faster and more sophisticated service. 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. Our current IT infrastructure and systems are not capable of meeting these service demands and expectations, which is one of our key drivers to modernize our systems so we can continue to enhance the client experience for our members.

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, full 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 Initiatives for 2018-2020

The first stage of the Province's asset pooling initiative that started several years ago culminated with the commencement of IMCO's operations in July 2017 when IMCO assumed the management of the almost \$60 billion of combined assets owned by OPB and Workplace Safety and Insurance Board (WSIB).

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. These Directors were appointed by each of the Government of Ontario and by the two founding members of IMCO (OPB and WSIB).
- IMCO will create its own Business Plan and Budget that will require the approval of its own Board.
- IMCO carries on the day-to-day investment operations and will provide the personnel, technology and processes to successfully carry out and report on its investment activities.
- OPB continues to own the Plan's investment portfolio.
- 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 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.

The outsourcing of investment management activities to IMCO means that the costs of OPB's asset management function will be charged to OPB as external investment management fees, rather than being internal investment operating costs as was the case in past years. OPB's operating expenses that were associated with these functions are also being transformed into external asset management fees.

Asset Management Fees projection

2018 will be IMCO's first full year of operations. At the time of writing, IMCO's full business planning cycle is not scheduled to be completed. However, we have received some preliminary estimates of the investment management fees for 2018 that will be billed to OPB including:

- 1. Fees paid by IMCO to its own external asset managers \$59.5 million, and
- 2. Costs of IMCO's operations, including custodial fees totaling \$54.6 million.

As these amounts are subject to IMCO's own Business Plan and Budget approval process; they are not included in OPB's 2018 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 believe that the 2018 amounts will be lower at 60 bps.

Asset/Liability Study

Prior to the commencement of IMCO's operations, OPB completed an Asset/Liability Study in order to optimize its SAA for the next few years. The study supported changes already in progress to shift assets from public to private markets overall, and continues to increase allocations to private equity and infrastructure assets, and making a small decrease to the real estate allocation. OPB will continue to oversee IMCO's investment activities to ensure that OPB's new SAA is being implemented by IMCO. In this regard, IMCO will continue to implement OPB's strategy of internalizing certain investment activities to improve investment performance and achieve cost efficiencies.

Initiatives

While the operations of IMCO were established in 2017, work remains to be done in order for IMCO to become fully self-sufficient. For example, OPB is currently providing IMCO with transitional support services including technology infrastructure, payroll, facilities maintenance and financial reporting. It is expected that by mid to late 2018, these services will be largely self-contained within IMCO.

Future work will also be done to ensure that IMCO becomes a best-in-class 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 implementation of new investment strategies and the creation of asset pools for OPB and WSIB and new clients who will join IMCO in the future.

Pension Modernization Strategy and Business Plan Initiatives 2018-2020

On the Pension side, our key focus in 2018 will be to start to modernize our aging pension business processes and systems. This is a multi-year initiative. Over the past year, we've focused on mapping out the reinvention of our business processes and our high level systems and applications needs to ensure that what we implement fully supports OPB's Advisory Services and the tools our clients want and need to make sound decisions about their pension. In addition to mapping out our high level needs, we also met with a number of our peer plans who've gone through this type of transformation. Their valuable insights have positioned us well to move forward on this initiative. During 2018, we expect to complete our business needs

review so we can work with IT to determine the solutions required to move this initiative forward. We anticipate finalizing and issuing an RFP by mid-2019.

There are a number of components to the Pension Modernization Initiative. These include ensuring we have the most up-to-date cyber security technology in place to protect our clients' data and our systems, continuing to introduce more online service transactions and implementing a digital strategy to help us move our advisory services forward.

In addition, as part of the Pension Modernization Initiative, we are identifying which business processes we need to reengineer and prioritize the order in which they need to be completed. Reengineering our business processes will streamline our practices and 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.

In addition to pension modernization, there are a few other initiatives OPB will be focused on including refreshing the public website to improve the client experience by improving the content and navigation, making the site AODA-compliant, and mobile-access friendly so members have a seamless experience regardless of the device they use to access our site. The refresh will also make the website update process more efficient. We will also be finalizing enhancements to the employer portal to improve efficiencies and enhance the employer experience.

OPB is also engaged in a growth strategy initiative that supports the government's plan of consolidating smaller broader public sector pension plans into the PSPP. This not only supports the government's initiative, it also grows our client base which in turn enhances the sustainability of the PSPP. Some broader public sector plans have an opportunity to enhance their effectiveness, cost efficiencies, service and sustainability by joining a larger plan. This is driving them to explore joining/partnering with larger pension plans so they can focus on their core businesses while still providing pension benefits for their employees.

In 2018, we expect to experience higher service demands as we bring on new employers and support the final implementation phase of OLG's modernization. We anticipate providing advisory and transaction support to over 2000 divested deferred clients for the final groups of OLG employees who will be transferring their employment to the new private sector providers. Additionally, we will need continued commitment from our subject matter experts as we implement additional systems changes to support the government's new insured benefit rules.

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 process beginning in 2017. We expect to begin the transition of these services from the current model and/or vendor(s) to the successful respondents in 2018.

Corporate Strategy and Business Plan Initiatives 2018-2020

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, 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. For example, in 2016, we developed an Operational Risk Assessment program to further enhance OPB's ability to monitor and manage risk. 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 2018-2020:

- **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;
- records management work has begun within key areas of OPB to update appropriate
 retention schedules and manage electronic records. Work will continue through 2018 and
 beyond to introduce better systems and processes to comply with the government policies
 and directives on records management as part of the overall Pension Administration
 systems review;
- security and cyber security in 2017 OPB acquired 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 be implemented in 2017 and throughout 2018. This will position OPB to take a more proactive and continuous improvement based approach to the evolving security threat landscape;
- accessibility work will continue to improve the accessibility of OPB's website and secure
 portals. OPB's public site will be AODA compliant and responsive in 2018 as part of our
 website refresh. Over the next few years, OPB will also focus on developing plans to ensure
 its member and employer portals are also compliant with Web Content Accessibility
 Guidelines 2.0 by January 1, 2021 as required by Ontario's Integrated Accessibility Standards
 under the Accessibility for Ontarians with Disabilities Act, 2005.

Outputs from these initiatives will support our activities to comply with Ontario's new Open Data Directive.

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 2018-2020, planned risk management initiatives will focus on continuous improvement of our governance and reporting processes. As we look to the future and embark on large 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. Four specific areas we are targeting for risk management initiatives include:

Assurance: We will advance our tailored five lines of assurance model to institutionalize a right-sized approach to ERM. This approach will elevate and clearly define roles and responsibilities of stakeholders in the ERM framework.

Assessment: As part of advancing the sophistication of our objective-centric enterprise risk assessment approach, we plan on making enhancements to support additional rigor in our risk assessments. We will apply a new residual risk status rating system to provide an effective check on the level of confidence that risk treatments are sufficiently on target.

Maturity: An assessment of our ERM framework effectiveness and level of maturity based on a recognized standard will be conducted.

Segmentation: To facilitate effective management of risk, a differentiated view of the types of risk we face is required. We will refine how we segment risks into three principal categories:

- 1. 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.
- 2. 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.
- 3. 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.

As noted throughout this Business Plan, OPB continues to invest in both Pension Administration and Investments 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 and the OLG modernization

Investment Risk

OPB mitigates Investment Risk in several ways:

- OPB formally reviews its SAA 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. This 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 Asset/Liability Study was completed in late 2016 and a new SAA was approved by the Board in March 2017. The new 2017 SAA's phase-in allocation targets to mid-2020 continue to call for a shift of 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 the 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 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 new 2017 SAA transition plan; and
- As mentioned earlier, IMCO will continue building in-house 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, our performance to date against them and our target performance as at the end of 2018 are set forth in the table in Appendix IIA, "Metrics and Key Performance Indicators".

In 2018, 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

As an agency of the Province of Ontario, Management respects that OPB is operating in an environment of cost constraint and ensures that it judiciously manages the Plan's expenses. OPB's expense ratio (expense per dollar of assets under administration) continues to be among the lowest in the industry. 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.

OPB respects the Government of Ontario's ongoing objective to restrain expense growth. In preparing this Business Plan and Budget, Management continues to review all expenditures with a view to ensuring that any proposed increase in expenses only be included in the Business Plan if deemed absolutely necessary. Management defines initiatives as necessary if they meet the following criteria:

- expected to generate a return on investment that is greater than the incremental expense;
- 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, or IMCO transition support); or
- required to manage key risks (e.g. cyber security threats or end-of-life IT systems).

The Business Plan and Budget submitted by Management and approved by its Board of Directors provides for a decrease of 30% in 2018 operating expenses compared to 2017 budgeted operating expenses. This is driven by the transition of the investment operations from OPB to IMCO. Further detail is provided in the Budget Overview that follows.

Financial Budget and Staffing - 2018

(All numbers in the tables are expressed in thousands of dollars unless otherwise stated)

Budget Overview

Our budget is comprised of three main expense categories: Base Operating Expenses – our recurring operating expenses; Initiatives Budget – incremental expenses we expect to incur to advance discrete projects during the year; and Capital Expenditures – typically a very minor part of our budget.

Table 1 shows these categories of expenses. Total operating expenses for 2018 are budgeted to be \$38.2 million, or 30% less than the 2017 budget. The outsourcing of our investment operations and the transfer of the investment, investment finance and investment risk personnel to IMCO removed a significant portion of our Base Operating Expenses and transforms them into external investment management fees. This is the primary factor that is driving the year-over-year decline in OPB's operating expenses.

The external investment management fees from IMCO are subject to their own budget process with their own Board. The preliminary projections for those fees that have been received from IMCO for 2018 are discussed on page 8.

The 2018 Budget reflects a full year of having OPB's primary operations dedicated to pension administration. OPB has moved from having an asset management mandate to that of overseeing IMCO's management of the OPB assets.

The budget discussion is presented in two parts:

- 1. Base Operating Expenses. A 2018 budget of 34.3 million represents an overall decrease of 33.5% in the ongoing operational cost from 2017.
- 2. Initiatives. At \$3.9 million (including the IMCO initiative), there is substantially more focus on three major projects in 2018: Pension Modernization; the tendering of our IT outsourced service contract; and the residual work to finalize the transition of IT services to IMCO.

Table 1 - Total Budget

Consolidated Operating Expenses (in thousands of dollars)	2018 Budget	2017 Budget	Change in \$	Change in %
Operating Expenses				
Base Expenses	34,320	51,618	(17,299)	(33.5%)
Initiatives	3,359	2,025	1,334	65.9%
IMCO Setup/Transition	500	724	(224)	(30.9%)
Total Operating Expenses (A)	38,179	54,367	(16,189)	(29.8%)
Capital Expenditure				
Base	175	420	(245)	(58.4%)
Total Capital Expenditures (B)	175	420	(245)	(58.4%)
Total (A + B)	38,353	54,787	(16,433)	(30.0%)

Contingencies and Risk

Management has identified the following factors that may adversely impact the costs as set out in the 2018 Budget:

- 1. Costs and staffing resources related to implementing any new or modified legislation or to government workforce amendments that have not already been considered as part of the 2018 Budget;
- 2. Costs associated with unexpected events or litigation; or
- 3. Efforts that would be required should the announced Canada Pension Plan changes lead to adjustments to the PSPP integration formula. This would then require policy, communication and substantial system changes.

To mitigate the above-noted risks, the Senior Executive 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

90% of OPB's operating expense budget is in base operations. Overall, these base operations are budgeted to decline by 33.5% compared to the 2017 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)	2018 Budget	2017 Budget	Change in \$	Change in %
Staffing Costs	19,749	31,706	(11,957)	(37.7%)
Office Operations	4,943	6,488	(1,545)	(23.8%)
Technology	6,607	8,789	(2,183)	(24.8%)
Professional Services	1,084	2,637	(1,553)	(58.9%)
Depreciation	795	801	(6)	(0.8%)
Communication, Board				
Remuneration & Audit	1,142	1,196	(54)	(4.5%)
Total	34,320	51,618	(17,299)	(33.5%)

As can be seen from Table 2, all categories of costs are showing drops in absolute amounts, resulting from the outsourcing of investment operations. The larger of these will be discussed in the sections following.

The IMCO Impact

With the transfer of our investment operations and staff over to IMCO, OPB's operating budget has decreased. For comparative purposes, we have created Table 3, which shows the impact of removing the 2017 costs of the departments that moved from OPB to IMCO - Investments, Investment Finance and Risk areas. This allows us a view on budget changes between 2017 and 2018 for those departments that remain in OPB.

Table 3: Base Operating Expenses, excluding 2017 costs for departments transferred to IMCO

Base Operating Expenses	2018	2017	Change	Change
(in thousands of dollars)	Budget	Budget	in \$	in %
		(Excluding		
		IMCO		
		depts.)		
Staffing Costs	19,749	19,694	55	0.3%
Office Operations	4,943	5,819	(876)	(15.1%)
Technology	6,607	7,012	(405)	(5.8%)
Professional Services	1,084	902	183	20.2%
Depreciation	795	801	(6)	(0.8%)
Communication, Board	1,142	1,196	(54)	(4.5%)
Remuneration & Audit				
Total	34,320	35,425	(1,105)	(3.1%)

In addition to a significant decrease in our costs due to our investment expenses shifting over to IMCO, our overall operating budget for remaining departments has also dropped by 3% when compared to 2017.

The largest decrease is in our office operations budget since we are able to recover a portion of our rental expenses through subleasing our 23rd floor to IMCO. The increase in our professional services budget is for the legal support required for the investment oversight function in OPB.

Budget Highlights

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

1. Staffing Costs

Operating Expenses for Staffing costs	2018	2017	Change	Change
(\$ thousands)	Budget	Budget	in \$	in %
Full time Salaries	18,920	30,122	(11,202)	(37.2%)
Temporary Staffing Costs	773	1,459	(687)	(47.1%)
Recoveries	(400)	(400)	ı	0.0%
Staff Development Costs	457	525	(68)	(13.0%)
Total Staffing Costs	19,749	31,706	(11,957)	(37.7%)
Staff Complement end of Year	161	205	(44)	(21.5%)

Overall, our staffing costs have decreased by 38% mainly due to the transfer of 42 staff in the investment and investment finance departments over to IMCO, including three of our senior executives. Given the transition of our Investment Management function to IMCO, we introduced a new organizational structure with a smaller senior executive team and two new VP positions, which we filled internally – both of which helped lower our costs. Additionally, we have appointed a Chief Investment Officer to help us set our investment policies and strategies and to oversee IMCO and ensure that IMCO is managing our assets in accordance with our investment policies and the Investment Management Agreement. The Chief Investment Officer was appointed in mid-2017 and the 2018 budget reflects a full year cost for this position.

OPB's full-time salaries reflect base compensation, incentives and benefits. The collective agreement for bargaining unit employees expires at the end of 2017 and the next agreement has yet to be negotiated. However, for budgetary purposes we have estimated inflationary increases for all staff, both bargaining and non-bargaining. Incentives for 2018 have been budgeted at an average rate of payout for 2017.

Our temporary staffing costs include contract and temporary employees as well as overtime. Our decreasing expenses in this area are directly attributable to the completion of investment staff contracts during 2017.

Our recoveries relate to staff time spent administering benefit programs outside the PSPP on behalf of the Province of Ontario.

Staff development costs include education, conferences and association fees. While there are decreases in conference and association fees from the transfer of IMCO staff, an additional \$41 thousand over the 2017 budget is being invested into education for the remaining staff. Our learning and development spend has been fairly conservative in prior years given organizational time commitments and priorities, but as OPB continues to increase our commitment to staff development and engagement, and evolve our learning culture, we expect our staff development costs to increase. OPB believes that learning and development is an investment in our people, and a critical aspect of our commitment to being a high-performing organization. With pension modernization underway and our commitment to improving the services and supports we provide our clients, OPB will need to invest accordingly in our staff to enhance current skill sets to meet business objectives in the years ahead.

2. Office Operations

Office Operations (in thousands of dollars)	2018 Budget	2017 Budget	Change in \$	Change in %
Total	4,943	6,488	(1,545)	(23.8%)

Overall expenses for office operations are dropping by 24%. This primarily reflects the net impact of the sub-leasing of the 23rd floor of our premises to IMCO, offset by an additional 1/5th of a floor that has been leased by OPB. Other IMCO-related reductions include a reduction of travel expenses and subscriptions. Increases of \$200 in telecommunications and equipment maintenance are planned as OPB continues to support IMCO during 2018. The other expenses are in line with continued support to pension operations.

3. Technology

Technology costs	2018	2017	Change	Change
(in thousands of dollars)	Budget	Budget	in \$	in %
Total	6,607	8,789	(2,183)	(24.8%)

The technology budget consists of both oversight and maintenance of current pension administration within the existing framework of the outsourcing and other services under contract. It also includes the cost of purchase of software and maintenance of licenses. With cyber security being a major focus, budget on tools and mechanisms to protect and monitor our systems will increase compared to 2017. This partially offsets the decrease in the 2018 budget of \$2.2 million primarily due to the removal of IMCO's investment applications and data.

4. Professional Services

Professional Services costs (in thousands of dollars)	2018	2017	Change	Change
	Budget	Budget	in \$	in %
Total	1,084	2,637	(1,553)	(58.9%)

Decreases in professional services costs of \$1.7 million are due to the IMCO transition. The offsetting increase of \$147 thousand is primarily driven by additional legal fees that are planned for support to OPB's oversight of the investment function.

2018 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 and objectives. 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 incremental external costs of the initiatives. The internal costs (such as salaries and related benefits of internal staff), while considered in the planning and execution of the projects, are not included as part of the initiatives budget; they are included as base operation expenses.

The budget for initiatives in 2018 is \$3.859 million, up from \$2.749 million in 2017. There are three primary initiatives that drive the budget in 2018: (1) Pension administration business process and IT systems modernization; (2) A mandatory RFP of the outsourced IT services; and (3) Completion of the transition to IMCO of the IT support that is currently provided by OPB.

2018 Initiatives (in thousands of dollars)

	2018 (in thousands of dollars)						
Initiative	Budget	Short Description	Deliverable				
Pension Modernization	1,507	Business process and IT system modernization of our pension administration systems which are end of life and do not support service excellence.	Develop a multi-year pension administration strategy and associated information technology plan/strategy. Requirements documentation completed, RFP for systems provider ready to be issued by mid-2019.				
RFP and transition of our IT Services Contract	1,150	Tendering and transition of IT Service Management contract.	RFP complete, vendor selected and transition/implementation for IT operations and application management underway.				
Complete transition of IT	500	Transition out of IT shared services for IMCO.	Successfully completed transition of IT services to IMCO.				
Employer Portal Enhancement Project	100	Enhancements to the Employer Portal to improve client experience.	Improvements implemented into production.				
Police Divestment 2018	98	Pensions divestments of 4 municipal police forces from OMERS to PSPP.	Divestments successfully completed to the extent that these are within OPB's control.				
Managed Security Service Provider (MSSP)	130	Advanced real-time threat prevention across all facets of OPB's computing environment.	Implementation of additional security services per the Cyber Security Roadmap.				
Potential Contribution Rate Increase	88	Costs associated with communicating and implementing the contribution rate increase based on the results of the recent long-term funding study.	If a contribution rate increase is introduced, we will need to communicate the changes and implement them				
Growth Strategy	106	Upfront costs associated with marketing the PSPP to potential employers and providing support and information to employers and staff to support their decision to merge into the PSPP.	Mergers of two identified employers completed (to the extent that these mergers are within OPB's control).				
Insured Benefits Phase 4	180	Completing technology changes to accommodate government's changes to retiree insured benefits.	System enhancements successfully implemented in production.				
Total	3,859						

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 2018-2020.

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

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

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

Appendix IIa: Metrics and Key Performance Indicators

Category	Objective	Long-term Objective	2016 Performance ⁴	2018 Objective
Investments	Return vs.	Exceed Discount Rate	Outperforming 2016 annual	6.2% or higher
	Discount	(5.7%) over rolling 4	return of 8.07% is 1.87%	over a rolling 4
	Rate	year period by 50 bps	over the discount rate	year period
			objective (5.7% + 0.5%).	
	Return vs.	Exceed SAA	Outperforming 2016 annual	Exceed
	SAA	Benchmark over	return of 8.07% is 0.95%	benchmark by 50
	Benchmark	rolling 4 year period	over the 1 yr benchmark	bps over a rolling
		by 50 bps	(6.62% + 0.5%)	4 year period
Pension	Client	8.5/10 or higher	Outperforming (8.6/10 in	8.6 or higher
Services	Satisfaction		2016)	
	Score			
	CEM Service	85/100 or higher	Outperforming (90 for 2016	87 or higher
	Score		CEM Survey)	
	CEM Peer	4 th or higher	Outperforming (2 nd in 2016	4 th or higher
	Ranking		per CEM Survey)	
Expense	Consolidated	70 bps or lower	Outperforming (50 bps ¹ in	60 bps or lower
Management			2016)	
(cost per				
Assets Under				
Management)				
	IMCO costs	50 bps or lower	N/A ³	45 bps or lower
	OPB costs	20 bps or lower	N/A ³	16 bps or lower
PSPP	Going	100% by 2020	Underperforming	98% or better
Sustained	Concern		(approximately 97% at	
	Funded		Dec.31, 2016)	
	Ratio			
	Contribution	9% or lower blended	Met (Current blended rate is	9% or lower ²
	Rates	rate on average salary	7.64%)	
		for non-OPP members		
		(currently \$85,000)		
	Benefit	Current benefits	Met	Current benefits
	Levels	maintained		maintained

¹This ratio is based upon a simple average of the net assets available for benefits.

² It is recognized that this metric is not completely within the control of OPB since the Plan Sponsor can make decisions that impact this KPI. Nevertheless, Management strives to attain the noted objective. Even with a potential rate increase the blended contribution rate would remain below 9%.

³ IMCO commenced active operations in July 2017. Thus the 2016 and June 2017 individual organization performances are not comparable to the metrics established for the two organizations going forward.

⁴ At time of writing, full year comparators for 2017 are not available.

Appendix IIb: Key Goals / Objectives for 2018

Description of Key Goals / Objectives	Metric / Measurement
Optimize the implementation of OPB's new 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 2018 Initiatives section on page 20	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 2018 items identified on security/cyber security road map in 2018 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 Vacancy rate < 5%, measured quarterly
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 2018 – 2020

The following 3 year projection builds upon the 2018 budget. While most costs are planned to have inflationary increases, we expect some declines resulting from finalizing the transition of support costs to IMCO. Permanent staff complement is expected to be stable during the course of the next few years. The amounts to be expended on Pension modernization have yet to be fully understood, based on this early stage of the program. As such, the amounts may vary significantly from the amounts shown.

Operating Expenses (in thousands of dollars)	2018 ¹	2019 ²	2020 ²
Staffing Costs	19,749	20,143	20,546
Office Operations	4,943	5,041	5,142
Technology ³	8,860	7,507	7,658
Professional Services	1,183	1,207	1,231
Depreciation ⁴	795	755	717
Communication, Board Remuneration & Audit	1,142	1,165	1,188
Pension modernization ⁵	1,507	2,500	3,500
TOTAL OPERATING EXPENSE (A)	38,179	38,319	39,983
TOTAL CAPITAL EXPENDITURE (B) ⁶	175	175	175
TOTAL EXPENDITURE (A + B)	38,353	38,494	40,158
Planned Staff Complement ⁵	161	161	161

Notes and Assumptions for 3 Year Projected Expenditures 2018-2020

- 1. The amounts for 2018 are taken from the 2018 Budget.
- 2. For 2019 and 2020, an overall 2% increase is assumed for each category, except as noted below.
- 3. Technology costs are planned to be lower in subsequent years with the completion of the IT service management and IMCO transition initiatives.
- 4. Depreciation is expected to come down by 5% each year due to retirement of assets at the end of cycle and replaced with service usage contracts.
- 5. The Pension Modernization program is expected to last several years. At the time this budget was written, these costs were not determinable. After we complete our requirements and define the full scope of the program in 2018, the program cost and staff complement requirements may vary from these early estimates.
- 6. No increases have been projected on capital expenditures. Should the 2019 expiry of the current lease of the premises result in an office move, both capital expenditures and moverelated expenditures will be required in 2019.

Appendix V: Organizational Chart – Management Level

