Rebalancing priorities for prosperity

Task Force on Competitiveness, Productivity and Economic Progress

FOURTH ANNUAL REPORT, NOVEMBER 2005
The Task Force on Competitiveness, Productivity and Economic Progress was announced in the April 2001 Speech from the Throne. Its mandate is to measure and monitor Ontario’s competitiveness, productivity, and economic progress compared to other provinces and US states and to report to the public on a regular basis.

It is the aspiration of the Task Force to have a significant influence in increasing Ontario’s competitiveness, productivity, and capacity for innovation. This, we believe, will help ensure continued success in the creation of good jobs, increased prosperity and a high quality of life for all Ontarians. The Task Force intends to seek breakthrough findings from our research and to propose significant innovations in public policy to stimulate businesses, governments, and educational institutions to take action.

The Institute for Competitiveness & Prosperity is an independent not-for-profit organization established in 2001 to serve as the research arm of the Task Force. The Working Papers published by the Institute are primarily intended to inform the work of the Task Force. In addition, they are designed to raise public awareness and stimulate debate on a range of issues related to competitiveness and prosperity.

Comments on this Fourth Annual Report are welcome and should be directed to the Institute for Competitiveness & Prosperity.

The Task Force and the Institute are funded by the Government of Ontario through the Ministry of Economic Development and Trade.
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On behalf of Ontario’s Task Force on Competitiveness, Productivity and Economic Progress, I am pleased to present our Fourth Annual Report to the public of Ontario. In it, we summarize the findings and implications of our work over the past four years and propose actions for all stakeholders in Ontario’s prosperity.

We conclude that we Ontarians need to rebalance our priorities and policies toward investing for the future, if we want to achieve our full economic potential and close our widening prosperity gap with our peer states and provinces across North America.

What stands in the way of realizing our potential? In our four years of research, the Institute has found nothing fundamental about our economy that precludes us from achieving at least median status in our peer group. But our research also shows that the major challenge we face is to strengthen our capabilities to improve our productivity. Higher productivity is the key to closing our prosperity gap.

Simply put, this will require us to shift to a different path than the one we are currently on. We need to make important tradeoffs between consuming today and investing for future prosperity.

We have shown that stakeholders in Ontario’s prosperity – individuals, businesses, and governments – are under investing for tomorrow in favour of consuming today. The flawed logic for choosing this consumption path is that we can continue to consume the fruits of our past investments without worrying about investing for future prosperity.

We urge Ontarians to choose the investment path. The compelling logic for this choice is that investing today will lead to significantly higher prosperity down the road.
Investment can take many forms. We can invest more in education to upgrade people’s skills. We can also make additional investments in machinery, equipment, and software to produce more capital goods for business and for government services. Fundamentally, higher investment is the means to making Ontario more prosperous. With that greater prosperity, we will be able to sustain future investment and enjoy more consumption – the benefit of prudent past investment. For example, individuals could afford the extra vacation; businesses could contribute more to their communities; and governments could spend more on social services.

**Investing today will lead to significantly higher prosperity that will sustain future investment and higher consumption**

By following the consumption path – either by choice or by default – we Ontarians have been limiting our prosperity growth, now and for the future. Our choice is clear. We need to change course.

We gratefully acknowledge the research support from the Institute for Competitiveness & Prosperity and the funding support from the Ontario Ministry of Economic Development and Trade.

We look forward to sharing and discussing our work and our findings with all Ontarians. We welcome your comments and suggestions.

Roger L. Martin, Chairman
Ontario Task Force on Competitiveness, Productivity and Economic Progress
Ontario is one of the most competitive and prosperous economies in the world.

All Ontarians should be proud of the economic legacy of our ancestors and what we ourselves have accomplished. We have significant strengths:

Our people are our asset
* We are a highly skilled and educated population and work force
* We have a richly diverse culture with talented immigrants

Our businesses drive our economy
* Our economy is based on an enviable mix of industries to drive productivity and wealth creation
* The attitudes among the general population and our business leaders match those of our peer state counterparts in embracing the challenges of competition and innovation
* Firms in Ontario have preferred access to the world’s largest and most sophisticated economy

Based on our strengths, we can confidently say that, outside of North America, no other region of equal or greater size and geography has accomplished what we have here in Ontario

Our governments support our well being
* Ontario has built a first-rate educational system that supports world-class research and provides excellent training opportunities
* We have achieved both a high level of income overall and distribution of this income that is more equitable than those in other large jurisdictions
* We have strong social safety nets to provide support for all Ontarians.
And yet we come up short when we compare Ontario’s competitiveness and prosperity with performance in a peer group of sixteen North American jurisdictions (the fourteen peer states, Quebec, and Ontario). We have a widening prosperity gap with the fourteen US states that are of similar size to Ontario. Compared to these jurisdictions, we are less successful in adding value to our human, physical, and natural resources. In 2004, this gap was $6,000. That means that our Gross Domestic Product (GDP) per capita was 12.6 percent lower than the median GDP of the peer jurisdictions. And we ranked 15th out of sixteen jurisdictions.

Although we have one of the world’s highest performing economies, Ontarions are not living up to our full economic potential – worse, we have fallen behind our peers.

A balanced view of Ontario’s competitiveness and prosperity has to conclude that Ontario has one of the world’s highest performing economies, but that we are not living up to our full potential. And we have fallen behind. As recently as fifteen years ago, Ontario was in the upper half of this group (Exhibit 1). We think it is possible to close this gap, regaining our place among the most prosperous jurisdictions in the world.

Exhibit 1  Ontario’s prosperity gap with peer states has widened

*1997 shows the break in the US method of calculating state-level GDP from SIC-based to NAICS-based.
Source: Institute for Competitiveness & Prosperity based on Statistics Canada; Bureau of Economic Analysis, Regional Accounts; and OECD.
What stands in the way of realizing our potential? In our four years of research, the Institute has found nothing fundamental about our economy that precludes us from achieving at least median status in our peer group. But our research also shows that the key challenge we face is to strengthen our capabilities to improve our productivity. Simply put, this will require us to shift to a different path than the one we are currently on.

In recent years, productivity in Ontario has fallen further behind that in the peer states. Productivity measures how much value the average Ontario worker creates hourly, daily, or annually. Productivity is truly about working smarter, not harder. Higher productivity leads to higher wages and higher standards of living. Our research indicates that Ontarians work as hard as our counterparts in the peer states. More of our adult population enters the work force, and we have made great strides recently in closing the difference in unemployment rates with the peer states. Recent evidence indicates that in hours worked, we trail the peer states significantly. But taking these factors together, we conclude that, over the past five to ten years, Ontarians have made good progress in increasing our work effort, defined as hours worked per capita. We can do better in this area, but we have to recognize that working harder has limited potential for closing the prosperity gap. Instead, improving our productivity has higher leverage for raising prosperity (Exhibit 2).

Why is our productivity lagging? We continue to conclude that Ontarians have consistently under invested for future prosperity. First, we under invest in ourselves. Individuals, businesses, and governments spend less on education than those in our peer states. This under investment is particularly acute at the post secondary levels. Recently, Ontario’s productivity gap is the major source of its prosperity gap.
provincial government announced significant increases in funding for post secondary education, a positive turnaround in public policy; individuals and businesses will now have to do their part. Second, our businesses under invest in the machinery, equipment, and software that enables workers – and the economy – to be more productive. Third, our governments have shifted their spending balance away from investment in infrastructure and post secondary education toward consumption, mainly in health care and social services.

With the fruits of prosperity generated from past investments, individuals, businesses, and governments can choose between two paths: invest for tomorrow or consume today (Exhibit 3). The underlying logic for the consumption path is that prosperity will continue at an adequate level without investing in it, and that we should enjoy to the maximum the fruits of our prosperity today. The underlying logic for the investment path is that investing today and forgoing some consumption of current prosperity will create even higher prosperity down the road.

In one sense, these are the often tough choices that all societies must make. But in another sense, investment is a means to an end – greater future prosperity – that will enable jurisdictions to achieve their goal of higher future consumption. Setting aside a judicious portion of current prosperity for investment will increase future prosperity, which will then sustain greater future consumption as well as the capacity for robust future investment.

Exhibit 3  Stakeholders in prosperity consume current prosperity and invest in future prosperity

Source: Institute for Competitiveness & Prosperity.
Ontarians need to invest more in building their own skills and knowledge and in attracting and integrating highly educated immigrants into our economy
The balance between the two is important. Advanced societies that over invest at the expense of consumption run the risk of losing social cohesion. This can come about when segments of society are unwilling to share the fruits of past investments; for example, via social transfer programs. But societies that over consume and under invest do not create the conditions for increased future prosperity. By doing so, they constrain their ability to increase consumption in the future. Worse, their capacity for future investment will be reduced because prosperity has not moved toward its potential.

**Investment spending is a means to an end, and consumption spending is the end goal of prosperity**

The choice requires societies to make important tradeoffs. How we make these tradeoffs and choose the path forward will decide the prosperity of future generations. Investment can take many forms – investing in upgrading people’s skills or investing in capital goods for business and government services. But fundamentally, investment is a means to generate future prosperity. Consumption can also take many forms – for individuals, it can be the extra vacation; for businesses, it can be greater community involvement; for governments, it can mean higher spending on social services. But fundamentally, consumption is the benefit of prosperity. Ontarians need to invest in our future prosperity – and that requires forgoing some current consumption.

### Exhibit 4  Investment leads to prosperity; consumption is the benefit of prior investment

<table>
<thead>
<tr>
<th>Investment</th>
<th>Consumption</th>
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</thead>
<tbody>
<tr>
<td>Forgoing current consumption for future prosperity</td>
<td>Benefitting from prior investment</td>
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<tr>
<td><strong>Government</strong></td>
<td></td>
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<tr>
<td>Infrastructure</td>
<td>Social services</td>
</tr>
<tr>
<td>Education</td>
<td>Health care</td>
</tr>
<tr>
<td>Research &amp; Development</td>
<td>Transfer payments to support less advantaged regions</td>
</tr>
<tr>
<td><strong>Business</strong></td>
<td></td>
</tr>
<tr>
<td>Machinery, equipment, &amp; software</td>
<td>Community involvement</td>
</tr>
<tr>
<td>Research &amp; Development</td>
<td>Charitable contributions</td>
</tr>
<tr>
<td>Brand building through advertising</td>
<td>Employee perquisites</td>
</tr>
<tr>
<td><strong>Individuals</strong></td>
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<tr>
<td>Education</td>
<td>Early retirement</td>
</tr>
<tr>
<td>Skills development</td>
<td>Leisure time</td>
</tr>
<tr>
<td>RRSP</td>
<td>Recreation</td>
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</tbody>
</table>

Source: Institute for Competitiveness & Prosperity.
Some expenditures are pure investment — that is completely forgoing current benefit for the long-term prospect of long-term prosperity. Investment in machinery and equipment, R&D, and retirement savings are examples. Very few expenditures are pure consumption; many are a mixture of consumption and investment. For example, a vacation consumes some of a family’s current prosperity; yet the family leisure time can recharge energy and ultimately make its members more productive (Exhibit 4).

Health care is an interesting and complicated mix of consumption and investment. In many respects, it is a prototypical consumption item; societies that are sufficiently prosperous can afford to provide the benefit of health care to all citizens. Perhaps the most pure form of health care consumption is care for retired citizens. However, care that enables a child who would otherwise never enter the workforce to get a job and work for forty years is an investment; there is zero economic payoff today, but huge payoff in the future.

The important point is that these types of spending are not fundamentally opposed to each other, but are, in fact, complementary. Investment spending is a means to an end, and consumption spending is the end goal of prosperity (Exhibit 5).

Over the past decades, Ontario has clearly been on the consumption path — as has Canada overall. And that is hurting our prosperity. We need to change course.

Exhibit 5  **Investing to increase future prosperity raises long-term opportunities for consumption**

- **Consume today**
  - Consuming too much of current prosperity
    - Lowers prosperity potential
    - Reduces consumption opportunities in the future

- **Invest for tomorrow**
  - Increases prosperity potential
  - Creates opportunity for greater consumption and investment in the future

Higher prosperity

Lower prosperity

Source: Institute for Competitiveness & Prosperity.
The most pervasive challenge to achieving the adequate levels of investment in Ontario’s productivity and prosperity is to rebalance consumption and investment. We see this need in several areas.

INDIVIDUALS NEED TO INVEST IN THEIR OWN FUTURE

As individuals, Ontarians need to invest more in building their own skills and knowledge. Across all sources of funding, we invest less in education than our counterparts in the peer states. This under investment is most pronounced at the post secondary level, particularly in university education. Compared with our peer states, fewer of our workers have university degrees; we produce fewer graduate degrees; and this deficit is even more pronounced among the managerial levels in our businesses. Since higher educational levels translate into higher incomes, our lower educational levels have a significant impact on our productivity and prosperity. We need to encourage more investment in our skills if we are to realize our prosperity potential. This should be reinforced by immigration policies that ensure that we both attract highly educated immigrants to Ontario and – equally importantly – integrate them more readily into our economy.

A comparison of Ontario and Massachusetts investment in education highlights how we have fallen behind. In 1977, Ontario and Massachusetts were peers in prosperity. Both were around the median of the peer jurisdictions we have identified. As such, we both had equal capacities to invest in future prosperity. But since that time, the two jurisdictions have taken two different paths. In post secondary education, Massachusetts out invested Ontario at triple the per capita rate (EXHIBIT 6).

Exhibit 6 Massachusetts out invested Ontario in post secondary education through the 1990s

Note: Total expenditures comprise operating expenditures and capital expenditures; auxiliary enterprises (e.g. bookstores, student residences) are excluded from Massachusetts to make data comparable; year 1990 represents fiscal year 1990-1991; private spending data for fiscal years 1996-1997 and on are estimates due to US accounting standards change.
How we make the important tradeoff between investment and consumption will decide the prosperity of future generations.
BUSINESSES NEED TO INVEST MORE IN PHYSICAL CAPITAL

Our businesses under invest in productivity-enhancing machinery, equipment, and software. Every year we fall further behind our counterparts in the upgrading of our capital stock. Without the most up-to-date capital support, our workers are limited in how much they can increase their productivity. This limits our wages. We found that businesses are under investing because our tax structure does not motivate business investment. They are also under investing because our market structures do not provide the specialized support and competitive pressure from rivals and customers so necessary to spur innovation and upgrading in their companies.

While results are not available for individual US states, like Massachusetts, we do know that versus all states, Ontario businesses under invest in productivity-enhancing machinery, equipment, and software (EXHIBIT 7). If anything, we would guess that, if we were able to compare Ontario to the major industrial states in our peer group, the gap would widen.

GOVERNMENTS NEED TO INVEST MORE FOR FUTURE PROSPERITY

Our governments also need to re-orient their spending so that we invest more for future prosperity and consume less current prosperity (EXHIBIT 8). During the 1990s, our governments attacked high deficits by reducing their spending. Governments in Ontario lowered real per capita spending on consumption – largely on social services and health

Exhibit 7  Ontario continues to under invest in machinery, equipment, and software

Private sector machinery, equipment, and software investment, 1981 – 2004

Source: Statistics Canada; US Department of Commerce, Bureau of Economic Accounts; Institute for Competitiveness & Prosperity analysis.
care – by 9 per cent between 1993 and 2003. Over the same period, they cut investment spending – on education and infrastructure – by a remarkable and unfortunate 18 percent. In the meantime, government spending in Massachusetts took a different path. Through the 1990s, governments there increased real per capita spending – and they also increased investment spending at a dramatically faster rate than they did consumption. The path they chose put a priority on investment.

It could be argued that in fighting the deficits, our governments had to make tough choices and that it was imperative that we had to forgo investments temporarily. This argument is unpersuasive. As we have subsequently seen, when the large deficits were overcome – and Ottawa’s new fiscal challenge was what to do with unanticipated surpluses – the federal government chose the consumption path. Between 1994 and 2004, the federal government spent $39 billion of “found money.” For every dollar of new consumption spending, it invested only 31 cents – dreadful investment performance. Choosing the investment path would have helped generate future prosperity and that, in turn, would provide more capacity for spending on current consumption down the road.

Our governments need to re-orient their spending so that we invest more toward our future prosperity and consume less of today’s wealth.

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**Exhibit 8** Governments in Massachusetts placed greater priority on investment than governments in Ontario

<table>
<thead>
<tr>
<th>Year</th>
<th>Consumption (C$ 2004)</th>
<th>Investment (C$ 2004)</th>
<th>Investment/Consumption Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>1993</td>
<td>-9%</td>
<td>-18%</td>
<td>0.51</td>
</tr>
<tr>
<td>2002</td>
<td>+13%</td>
<td>+49%</td>
<td>0.60</td>
</tr>
</tbody>
</table>

Source: Statistics Canada, CANSIM II, Table 385 0001, 0510001; US Census Bureau (State and Local Government Finances), Statistical Abstract of the United States: 1994-95 and 2004-05 (Federal Government Outlays by Detailed Function); Institute for Competitiveness & Prosperity analysis.
Consumption of current prosperity through spending on adequate social safety nets and accessible health care has to be the first priority for government spending; but it is not the only priority. Why? Because choosing consumption today too much at the expense of investment means that we reduce our potential for future consumption of these vital services. Our federal, provincial, and municipal governments must find ways to re-orient spending from the consumption path to the investment path.

As we have seen, in 1977 Massachusetts and Ontario were at the same level of per capita prosperity. However by 2004, Massachusetts had moved $19,100 (or 46 percent) in GDP per capita ahead of Ontario (Exhibit 9). With significantly higher prosperity than Ontario, governments in Massachusetts are able to invest nearly $1,000 more per capita per year on investment while spending virtually the same on consumption. With its productive bias toward investment in future prosperity, Massachusetts has become the richest jurisdiction of meaningful size on the planet. And as the richest jurisdiction, it has the greatest capacity to invest in still greater future prosperity.

In Ontario, the Canadian approach to fiscal federalism pushes us further along the consumption path. The structures that drive the flow of resources from have to have-not provinces in Canada are geared almost entirely to transferring prosperity from have provinces like Ontario to assist residents of have-not provinces to consume health care and social services. We have created a system that transfers resources from Ontario at the rate of $1,600 per capita from high-productivity uses to low-productivity uses, lowering Canada’s absolute level of investment and
productivity. Fiscal federalism in the United States takes an average of $400 per capita from Ontario’s peer states. Rich Massachusetts experiences an outflow of $1,800 – only $200 or 9 percent more than does Ontario.

On the positive side, fiscal federalism raises the level of personal disposable income in the have-not provinces. But the system does little to stimulate investment in future prosperity in the have-not provinces. One result is that we have a system that perpetuates itself – with limited convergence of prosperity potential by the have-not provinces in GDP per capita. This has a profound effect on Ontario. We transfer four times more of our resources to the rest of Canada than our peer states do to the rest of the United States. Consequently, we are less able to invest in our own future prosperity.

The Canadian approach to fiscal federalism pushes us further along the consumption path

It is incumbent on the federal government to rethink the way fiscal federalism works, because it is too costly to the prosperity of Ontarians and Canadians. It should consider providing substantial tax relief to stimulate investment in the have-not provinces rather than have them continue to depend on transfer programs. Increased capital investment in Canada’s have-not provinces will help boost productivity, and this will increase their capacity for wealth creation. In turn, this will free up resources for Ontario and other have provinces to invest in their own prosperity.

GOVERNMENTS NEED TO RETHINK APPROACHES TO TAXATION AND MARKET STRUCTURES

Our governments also need to rethink our tax system, which does not adequately motivate investments by businesses or individuals. Canada and Ontario are becoming the industrialized world’s least attractive jurisdictions in the taxation of business investment. Around the world, governments of our trading partners and competitors are realizing that tax systems can motivate investment for productivity and prosperity. They are reducing the rate at which they tax business investment through a variety of ways – reducing tax rates on corporate earnings, avoiding taxation of existing capital, ensuring sales taxes are not applied to capital investments, speeding up depreciation schedules, and implementing other initiatives. In Ontario and Canada, we need smarter taxation that would drive us toward greater business investment and adjust the balance toward investing in future prosperity.

For individuals, our tax system, combined with how we structure our social programs, creates perversely high marginal tax burdens for lower income Canadians trying to scale the economic ladder. As individuals progress from annual income levels of $22,000 to $54,000, they face higher
marginal tax rates on their income and they experience clawbacks of tax credits, social benefits, and transfers. The combined effect of the rising marginal tax rates and the clawbacks is that a single earner couple with two children faces a marginal effective tax rate of 60 percent on their higher income after they pass $31,000 in taxable income. In other words, these families are keeping only 40 cents of each new dollar they earn. As their taxable income reaches $36,000, the marginal rate climbs to an absurd 90 percent. And research shows that the potential negative impact of high marginal effective tax rates caused by clawbacks is greatest for single-parent families, which are usually headed by women. At these high marginal rates, there is no incentive to invest for the future, but rather the need to consume with every last after-tax dollar.

Our challenge in designing personal tax and benefit systems is to balance the need to support lower income individuals and families and the need to ensure that individuals have incentives to work and upgrade skills.

Other imbalances also need to be corrected. Innovation policy needs to rebalance support and competitive pressure in the supply of and demand for innovation. Currently, too much of our public policy focuses on providing support – R&D spending, publicly financed venture funding, tax incentives – for innovation. But we have not adequately balanced these initiatives with policies and investments that build competitive pressure for innovation. Nor do we have an adequately educated management cadre in Ontario to insist on more innovation in their businesses. Added to this, we lack enough knowledgeable and demanding customers that would provide beneficial pressure to make available the most innovative products and services.

We need smarter taxation that would drive us toward greater investment and adjust the balance toward investing in future prosperity

Financing for innovation needs to rebalance toward quality and away from quantity. Our public policy has focused on creating supply of capital and funneling it into organizations that have neither the incentives nor the capability to help Ontario succeed in commercialization and innovation. In sum, we have emphasized the quantity of risk capital at the expense of quality. We need to stimulate demand from venture capitalists with expectations of the highest returns. The recent decision by the Ontario government to eliminate tax credits for labour sponsored investment funds is a positive step toward raising the quality of risk capital. However, its subsequent decision to phase out the tax credits over five years is disappointing.
OUR RECOMMENDATIONS REQUIRE A FUNDAMENTAL REBALANCING OF PRIORITIES

We recommend a shift in the course of our current economic path so that we are investing for future generations. To close the prosperity gap, we need to:

* Raise Investment by individuals, governments, and businesses in our human capital, particularly through post secondary education. As well, we need to raise investment in machinery, equipment, and software.

* Tax smarter to encourage Motivation to invest for long-term prosperity. This will promote job creation, higher physical and capital investment, more innovation, and the adoption of new technology.

* Fix the Structure of fiscal federalism to improve the prosperity potential of all regions in Canada. The goal is to increase the potential for productivity-enhancing investments in all provinces.

* Strengthen market Structures to provide a balance of pressure and support that will drive innovation and upgrading in Ontario. This will shift the focus from support for the supply of innovation to demand for more innovation and higher quality commercialization capital.

Ontarians need to choose a new path to close the prosperity gap

| REBALANCING POLICIES AND PRIORITIES TOWARD |
|---------------------------------|-----------------|
| **Consumption** of current prosperity | **Investment** for future prosperity |
| Taxation that **discourages** business investment | Taxation that **encourages** business investment |
| Fiscal federalism to **narrow** income disparities | Fiscal federalism to **enhance** prosperity |
| Policies supporting the **supply** of innovation | Policies pressuring the **demand** for innovation |
| Policies supporting **quantity** of commercialization capital | Policies supporting **quality** of commercialization capital |
To achieve a prosperous and equitable country, individuals, businesses, and governments need to engage in discussions on rebalancing priorities and setting the prosperity agenda.
In our view stakeholders in Ontario’s prosperity agree on what we want from our economy. We want more opportunities for our children; we want good jobs and the means to acquire the skills to secure those jobs. We want a clean environment and a strong social safety net. But there is less agreement on whether we are on the right path to these goals. We conclude that the current path will not get us what Ontarians desire.

Strong and committed leadership is required when there is consensus on the goals, but not the path toward those goals. In Canada overall and in Ontario, we have consensus on the goals – a prosperous and equitable country. However, we lack consensus on the path toward those goals. For that reason, we need political leaders to set the prosperity agenda and to back the agenda with the will to shift policy and spending priorities. Equally, we need business leaders with the vision to invest in skills, capital, innovation, and upgrading. Last but not least, we need all citizens to show personal leadership by investing in their own future.

To make all of these shifts possible, we will need to have all stakeholders engage in the discussion about rebalancing our priorities for prosperity. The lesson of the last fifteen years is clear. Inattention to prosperity policy has put us on the lesser path – to the detriment of all Ontarians. Switching to the more attractive and effective path will not be easy. It will require leadership at many levels and the development of a strong reinforcing culture.

*The choice is clear. The time is now.*
Prosperity matters for all Ontarians’ quality of life

In carrying out its mandate to measure and monitor Ontario’s competitiveness, productivity, and economic progress, the Task Force has focused on the importance of prosperity to Ontario. While economic prosperity is only one dimension of our quality of life, it is an important base requirement for achieving the elements of the quality of life that Ontarians value – the potential to enjoy a high standard of living, opportunities for personal development, sound social safety nets, adequate health care, and a clean environment. Without a growing economy, these are difficult to achieve, and the fight against poverty and inequality is harder to win, as there is less for everyone to share.

We have argued that Gross Domestic Product (GDP) per capita is the best measure of our economy’s economic success. GDP measures the value added by Ontarians in converting our human, physical, and natural resources into products and services that consumers buy here and around the world. Over the last four years, the Task Force has focused on deepening our understanding of Ontario’s prosperity potential, explored reasons why we are not realizing this potential, and developed recommendations for closing the prosperity gap we have identified.

In our First Annual Report, Closing the prosperity gap, we set out the arguments for why competitiveness is a necessity, not an option, for a region in today’s globalizing economy. We concluded that Ontario is one of the world’s most competitive and prosperous economies in the world; outside North America, no other region of similar or greater size is as prosperous as Ontario. However, we also concluded that a more robust comparison is with a peer group of US states that resemble Ontario in size and economic diversity, and Quebec. Against that group, Ontario ranked near the bottom in GDP per capita, and there was a significant prosperity gap between Ontario and the leading jurisdictions on this measure.

Our concern was that the prosperity gap indicated that Ontarians were not fulfilling their economic potential, since we could identify no fundamental reason for us to trail these peer states. We identified productivity as the key challenge we faced and proposed that Ontarians aspire to close the prosperity gap in the next decade; increase productivity-enhancing investments in areas such as machinery and equipment and post secondary education; encourage motivations to invest through tax reform; and strengthen market structures.

In our Second Annual Report, Investing for prosperity, we identified the importance of under investment in explaining Ontario’s prosperity gap. We concluded that, in several key areas, Ontarians were making the base level of investments, but compared to our
counterparts in the peer states, we stopped short of making additional productivity-enhancing investments. In education, for example, we traditionally kept pace with peer states in investing in primary and secondary education but trailed at higher levels of education. In business, we found that Ontario firms invest less than their US counterparts, especially in machinery, equipment, and software. We also identified other areas where Ontario individuals, businesses, and governments were under investing to close the prosperity gap.

Our tax system, Canada’s fiscal federalism structures, and our market structures are all reasons for the under investment. Our recommendations reinforced those in our First Annual Report – calling for greater encouragement for students to pursue higher education, strengthened processes for integrating immigrants into the economy, higher investment in machinery and equipment, smart reform of our tax systems, and improved market structures.

Last year, in our Third Annual Report, Realizing our prosperity potential, we focused on the inadequacies in our market structures, particularly with respect to lack of adequate specialized support and competitive pressure in our clusters of traded industries – the backbone of an economy’s competitiveness and prosperity. We proposed an ambitious set of recommendations for all stakeholders in realizing Ontario’s prosperity.

This year, in our Fourth Annual Report, Rebalancing priorities for prosperity, we continue to urge Ontarians to take action to close the prosperity gap we have with the most advanced regional economies in the world. Not closing the prosperity gap could put Ontarians in a vicious circle that could spiral downward from our currently healthy economic situation. Not realizing our prosperity potential would reduce the pressure and support for innovation and upgrading so necessary for future investments. With investment stalled, productivity would fall further behind our peers, tax revenues would slip, and higher marginal effective tax rates would be required. Positive attitudes embracing competition and innovation would be dampened. Closing the prosperity gap would overcome these challenges and sustain a virtuous circle of prosperity.

Ontario’s prosperity gap with North American peers has widened

Ontario has an enviable economic position. Among countries with a population that is similar to or greater than Ontario’s, no other country in the world has achieved Ontario’s success in building such a competitive and prosperous economy (Exhibit 10).

<table>
<thead>
<tr>
<th>Country</th>
<th>GDP per capita (C$ 2003)</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>$45,800</td>
</tr>
<tr>
<td>Ontario</td>
<td>$40,300</td>
</tr>
<tr>
<td>Switzerland</td>
<td>$39,900</td>
</tr>
<tr>
<td>Austria</td>
<td>$37,600</td>
</tr>
<tr>
<td>Netherlands</td>
<td>$37,100</td>
</tr>
<tr>
<td>Canada</td>
<td>$37,100</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>$36,700</td>
</tr>
<tr>
<td>Australia</td>
<td>$36,700</td>
</tr>
<tr>
<td>Belgium</td>
<td>$36,100</td>
</tr>
</tbody>
</table>

* Among countries with at least half of Ontario’s population.
Source: OECD Main Accounts, National Data, Statistics Canada; Institute for Competitiveness & Prosperity analysis.
As solid as our record is in the international sphere, however, Ontario lags economies that most closely resemble ours. We continue to measure our competitiveness and prosperity against a peer group of the most populous jurisdictions in North America. Against these fourteen US states and Quebec in 2004, we estimate that Ontario’s prosperity stood at $41,800 per capita, while the median of the 16 peer jurisdictions was $47,800. Ontario was fully $6,000 behind or 12.6 percent behind our peer median (Exhibit 11). Against the leading peer state, Massachusetts, Ontario was fully $19,100 behind in per capita GDP.

This $6,000 gap is significantly higher than the $3,100 reported for 2003 in our annual report last year. As we have seen, since the median of the prosperity gap has widened significantly (see Exhibit 1). In fact, this year, we have raised our estimates of the gap we reported for recent years. Two factors contribute to this increase. First, US government statistical agencies have significantly revised their historical state-level GDP calculations. This accounts for 50 to 60 percent of the increased gap (depending on the year) in recent years. Second, the rate at which we convert US dollars into Canadian dollars has changed, accounting for the remaining 40 to 50 percent of the change in the reported gap (see Measuring the prosperity gap).

While the level of results is higher than in our previous reports, the historical trend remains unchanged. Before 1990, Ontario’s economic results compared favourably with those in the peer states. In fact, as recently as 1990, we had a prosperity lead, as our GDP per capita stood higher than the median of the peer jurisdictions. However, the Canadian recession that began in the second quarter of 1990 and ended in the fall of 1992 marked a turning point for Ontario against the peer states. While the United States was in recession at about the same time, it began later than Canada’s. Canada’s recession was also more severe than the US downturn – and Ontario’s was more severe than that in the rest of Canada.

According to University of Toronto economists Tom Wilson, Peter Dungan, and Steve Murphy, Canada’s recession was caused primarily by tight money supply and tax increases. The transition to the GST and the US recession were minor factors in Canada’s recession. The authors found little evidence that free trade caused Canada’s severe recession. By 1992, Ontario’s prosperity lead had turned into a significant gap. The gap widened through the mid-1990s and reached a maximum of $6,700 in 1997. Since 1997, the gap trended downward until 2002 when it reached $4,000. But since 2002 the gap has begun to widen again, reaching $6,000 in 2004.

### Exhibit 11 Ontario has a $6,000 prosperity gap versus its peer states

<table>
<thead>
<tr>
<th>Province</th>
<th>GDP per capita for peer states and provinces (C$ 2004)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Massachusetts</td>
<td>$60,900</td>
</tr>
<tr>
<td>New Jersey</td>
<td>$57,000</td>
</tr>
<tr>
<td>New York</td>
<td>$54,800</td>
</tr>
<tr>
<td>Virginia</td>
<td>$53,300</td>
</tr>
<tr>
<td>California</td>
<td>$52,100</td>
</tr>
<tr>
<td>Illinois</td>
<td>$51,000</td>
</tr>
<tr>
<td>North Carolina</td>
<td>$46,800</td>
</tr>
<tr>
<td>Texas</td>
<td>$47,800</td>
</tr>
<tr>
<td>Median</td>
<td>$47,800</td>
</tr>
<tr>
<td>Georgia</td>
<td>$47,300</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>$46,600</td>
</tr>
<tr>
<td>Michigan</td>
<td>$46,400</td>
</tr>
<tr>
<td>Ohio</td>
<td>$46,100</td>
</tr>
<tr>
<td>Indiana</td>
<td>$45,900</td>
</tr>
<tr>
<td>Florida</td>
<td>$45,800</td>
</tr>
<tr>
<td>Ontario</td>
<td>$41,800</td>
</tr>
<tr>
<td>Quebec</td>
<td>$44,700</td>
</tr>
</tbody>
</table>

Source: Institute for Competitiveness & Prosperity, based on data from Statistics Canada, US Department of Commerce – Bureau of Economic Analysis, and OECD

Closing the prosperity gap would benefit Ontario

The revisions to the US data remind us to treat reported results with a grain of salt. However, the trends seem clear. Not long ago, Ontario performed on a par with our peer states and through the last decade has fallen behind them in competitiveness and prosperity. Ontarians need to address this challenge.

Closing the prosperity gap would add $75 billion to Ontario’s output. The average Ontario household would gain $8,300 in after-tax disposable income. This would assist families in meeting financial needs. For example, among mortgage holders, more than half their average annual payment ($11,500) would be covered. Among tenants, average rental payments ($8,200) would be totally offset. Many renters would choose to own their own homes. Closing the prosperity gap would make more affordable home renovation ($5,800 current annual spending among renovators), recreation spending ($3,900), RRSP contributions ($3,700) and other expenditures. In addition, realizing our prosperity potential would make more affordable home renovation ($5,800 current annual spending among renovators), recreation spending ($3,900), RRSP contributions ($3,700) and other expenditures.

Measuring the prosperity gap

As we reported in last year’s annual report, the US Bureau of Economic Analysis (BEA) has been undertaking a significant review of its state-level GDP estimates. The revisions were twofold.

First, the BEA conducted a thorough revision of its state-level GDP estimates. This review, which is conducted every five years, is known as benchmarking. As part of this benchmarking, the BEA converted the way in which it classifies data from industries from Standard Industrial Classification (SIC) to North American Industrial Classification (NAICS). The work resulted in significant revisions to state-by-state GDP. By and large, the benchmarking and the SIC-to-NAICS revisions shifted GDP between states.

Ten of Ontario’s peer were on the receiving end of GDP shifts – the median increased 1.5 percent in 1997. Two of the states that we have reported to be at or below Ontario’s GDP per capita, Indiana and Florida, had significant increases in their estimate – 2.4 percent and 2.0 percent, respectively. The largest increase was for Michigan, 7.2 percent. The revision resulted in a general increase in GDP across the United States of 0.8 percent. Downward revisions of the population estimate for the years 1991–99 also increased reported GDP per capita.

One result of the BEA’s revisions is that state-level results before and after 1997 are not strictly comparable. This is because the BEA has produced NAICS-based state-level GDP results going back to 1997. Before 1997, state-level results were SIC-based. The BEA has produced results in both bases for 1997, and we show this difference in Exhibit 1 as a discontinuity on our trends in GDP per capita.

Second, the OECD has recently reported significant revisions in purchasing power parity (PPP) rates – the exchange rate that reflects differences in cost of living, rather than fluctuations in the currency markets. These revisions are based on 2002 data provided by Canadian and US statistical agencies and cause the OECD to revise its PPP for the years 2000 to 2004. On average, the PPP had stood at 1.20 during that period; the revised estimates show a steady climb between 2001 and 2004 with the latest year standing at 1.27.

In the meantime, Statistics Canada has published a paper explaining why its estimates of Canada/US PPP are more reliable than the OECD’s. Essentially, they argue that the OECD provides a complete range of PPPs across all major currencies, while Statistics Canada makes a more thorough estimate of the Canada-US PPP. We are persuaded by their logic and would prefer to use their PPP. Unfortunately, their most recent estimates are based on a 1999 benchmark study, and reliable estimates for 2004 are unavailable.

However, by comparing Statistics Canada PPPs against OECD PPPs, we find that the former is typically below the latter. And by applying the different inflation rates experienced in Canada and the United States against the last year of comparable data, we arrive at an estimate PPP of 1.23 for 2004. In 2003, we used a PPP of 1.21. This higher revised PPP accounts for about 45 percent of the difference in the prosperity gap we report for 2003 this year versus what we reported last year.

Statistics Canada will publish its updated PPP estimates later this year or early next year – and we will revise our results accordingly.

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3 Statistics Canada, Spending Patterns in Canada 2003, Catalogue no 62-202-XIE; figures reflect Ontario results; annual spending among renovators represents national results.
would generate another $28 billion in tax revenues for federal and Ontario governments. This would significantly increase their revenues without raising tax rates.

**Improving productivity is the key challenge for closing the prosperity gap**

To understand the reasons for the prosperity gap and its recent trends, we draw on the same framework we have used in previous reports to disaggregate Ontario’s prosperity gap into four measurable elements of our GDP per capita (*Exhibit 12*):

- The demographic **profile** in a jurisdiction – the percentage of the population that is of working age and can therefore contribute to economic prosperity
- The **utilization** of the working age population – the percentage of the working age population who are seeking and succeeding in finding work
- The **intensity** of work – the number of hours workers on average spend on the job
- The **productivity** of the workforce – the success in translating working hours into products and services of value to customers in Ontario and around the world.

To gain further insight into these elements we sub-divide two of them further.

Within utilization, we examine the rate at which working-age Ontarians participate in the job market by searching for work, whether they are successful or not, and the rate at which those who are participating in the job market are employed.

Within productivity, we examine seven sub-elements:

- mix of industries into traded clusters, local industries, and natural resources
- sub-industries that make up our clusters of traded industries
- effectiveness of our clusters of traded industries
- degree to which our population lives in urban areas
- educational attainment of our population and its impact on productivity
- degree to which physical capital supports our workers’ productivity
- a residual value that relates to productivity but remains unexplained.

---

**Exhibit 12  The Task Force assessed measurable elements of GDP per capita**

<table>
<thead>
<tr>
<th>Prosperity</th>
<th>Profile</th>
<th>Utilization</th>
<th>Intensity</th>
<th>Productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP per capita</td>
<td>Potential labour force</td>
<td>Employed persons</td>
<td>Hours worked</td>
<td>GDP</td>
</tr>
<tr>
<td>Population</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>Hours worked</td>
</tr>
<tr>
<td><strong>Profit</strong></td>
<td><strong>Profile</strong></td>
<td><strong>Utilization</strong></td>
<td><strong>Intensity</strong></td>
<td><strong>Productivity</strong></td>
</tr>
<tr>
<td>Participation</td>
<td>Employment</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note that the first three factors result in hours worked per capita – what economist call “labour supply.” Combined, these three factors measure the physical effort Ontarians are expending to create economic value. The fourth factor, productivity, measures how effectively our labour efforts are in translating resources into economic value and prosperity. As we shall see, the key factor in our widening prosperity gap through the 1990s was labour supply, especially utilization and its two sub-elements participation and employment. Since 1995, we have been successfully recovering to 1990 performance levels. The key opportunity for closing the prosperity gap and realizing our economic potential is in raising productivity.

Ontario has mixed performance in labour supply factors
Ontario now out performs the median of the peer jurisdictions in profile and utilization, but under performs in intensity. 

Profile remains an advantage. The first factor in a region’s potential to create relates to demographics – what percentage of the population is of working age? All other things being equal, a region with a higher percentage of its population between the ages of 16 and 64 will have greater prosperity potential than a region with a lower percentage. Ontario’s demographic profile represents an advantage versus our peer states. Currently, 67.5 percent of our population is between 16 and 64 – and, as expected, this ratio has been stable over the past decade. Only Quebec has a higher percentage. The median of the peer group stands at 65.5 percent.

Ontario therefore has a 3.0 percent advantage versus the median in demographic profile. Holding all other elements constant, demographic profile represents a $1,200 advantage in GDP per capita versus the peer states. Much has been written about the transition of the baby boomer bulge into retirement age (Exhibit 13). The earliest baby boomers, those born in 1946, will be reaching retirement age in less than six years. What do these demographic trends imply for Ontario’s prosperity potential?

Obviously, a smaller percentage of the population of working age means fewer workers will be available to create prosperity. Demographic projections by Statistics Canada and projections by the US Census Bureau indicate the phenomenon will be similar in the two countries. Note that Quebec’s current demographic profile advantage will erode as its low birthrate catches up with it. These two sets of projections indicate that Ontario’s relative advantage in demographics will not fall. Nevertheless, the projections in both countries – and across all industrialized

Exhibit 13  Ontario’s demographic profile will worsen in the coming years – but will still be at an advantage versus its peers

<table>
<thead>
<tr>
<th>Working age (16–64) population as % of total population</th>
<th>Projection of profile for Ontario, Quebec, and peers, 2000 – 2025</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quebec</td>
<td>Ontario</td>
</tr>
<tr>
<td>50</td>
<td>70%</td>
</tr>
<tr>
<td>55</td>
<td>65%</td>
</tr>
<tr>
<td>60</td>
<td>60%</td>
</tr>
<tr>
<td>65</td>
<td>55%</td>
</tr>
<tr>
<td>70</td>
<td>50%</td>
</tr>
</tbody>
</table>

Source: Institute for Competitiveness & Prosperity based on Statistics Canada. CANSIM II: US Census Board.

4 As the retirement age advances, the 16-64 age bracket becomes less useful in measuring profile, participation, and employment. However, at this point it is still a good range, and most government statistics report on this basis.

5 Calculated as \[((67.5 (Ontario)-65.5(median))/65.5)\] = 3.0
countries – point to the growing importance of generating more prosperity from fewer workers.

Utilization has out performed peers. Ontario has achieved remarkable progress in utilizing its potential work force through the 1990s and in recent years. In fact, in 2004 Ontario led all peer jurisdictions in the percentage of working age population who were working. Ontario has performed well on both sub-elements of utilization – participation and employment.

Participation is high. The participation rate measures the percentage of the working age population who are in the labour force, comprising people who have successfully found a job as well as those who are continuing to look for work. In the early 1990s, Ontarians had a higher participation rate than their counterparts in the peer states and Quebec. In fact, in 1990, with its 69.9 percent participation rate, Ontario led all 16 jurisdictions (Exhibit 14). As Ontario fell into the 1990-92 recession, its participation rate fell significantly, even after the recession ended, and reached a low point of 66.0 percent in 1995. In that year, Ontario ranked 9th among peer jurisdictions. In 1996, Ontario’s participation rate began to climb and regained leadership in this element of prosperity by 2003.

In 2004, Ontario’s participation rate stood at 69.1 percent versus the median results for the sixteen peer jurisdictions of 66.4 percent. This difference in participation rates is a 4.1 percent advantage for Ontario; if the participation rate were the only prosperity element, then Ontario would lead the median peer jurisdictions by $1,600 in GDP per capita.

Employment gap has narrowed. Ontario has traditionally trailed its peer jurisdictions in employment, which measures the percentage of those participating in

---

Exhibit 14  Ontario has experienced a rebound in its participation rate since the mid-1990s

<table>
<thead>
<tr>
<th>Year</th>
<th>Peer leader</th>
<th>Ontario</th>
<th>Peer median</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>1</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>1995</td>
<td>8</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>2000</td>
<td>8</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>2001</td>
<td>5</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>2002</td>
<td>3</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2003</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

the labour force who have successfully found work. The recession of the early 1990s had a dramatically negative effect on Ontario’s employment rate. In 1990, before the recession, 93.9 percent of Ontarians in the labour force held jobs – just below the 94.3 percent rate for the median peer jurisdiction. By 1993, Ontario’s employment rate fell to 89.1 percent (in other words the unemployment rate reached 10.9 percent) and ranked 15th out of the 16 jurisdictions. The peer states also experienced a dip in employment, but their decline was not as severe as Ontario’s (Exhibit 15).

In 1994, as Ontario climbed out of the recession, its employment rates began to improve, growing each year through the rest of the decade and outpacing US performance. By 2000, Ontario had considerably narrowed the employment gap with the peer states. The 2001/02 recession was milder in Ontario than in the peer states, and the gap narrowed further. By 2004, Ontario’s employment rate of 93.4 percent was 0.9 percentage points lower than the median of the peer jurisdictions.

Our lower employment rate relative to our peer jurisdictions cost Ontario $400 in lower GDP per capita. However, this performance is an improvement over earlier years, and the employment rate represents a much less significant part of our prosperity gap than it did in the mid-1990s.

Utilization is the combined effect of participation and employment. It indicates what percentage of the working aged population is actually employed and contributing to Ontario’s competitiveness and prosperity. As we have seen, Ontario suffered significant declines in participation and employment during the early 1990s from the recession. This double impact on the utilization of human capital caused the rate to fall from 65.6 percent in 1990 to 59.9 percent in 1993 (Exhibit 16).

Exhibit 15 Ontario’s employment rate has improved relative to its peers’ rate

In ranking terms, Ontario fell from 2\textsuperscript{nd} to 11\textsuperscript{th} over that period. Ontario’s utilization remained stuck around the 60 percent rate until 1996 as employment rates recovered but participation rates stalled. But beginning in 1997, Ontario’s utilization rate increased absolutely and relative to the peer states. This performance has continued to 2004 when Ontario achieved a 64.5 percent utilization rate – the second highest of all 16 peer jurisdictions and well above the median rate of 62.4 percent. This superior performance translates to a $1,200 advantage (the net effect of a $1,600 participation advantage and a $400 disadvantage in employment) in GDP per capita.

**Intensity gap is significant.** Intensity represents the number of hours the average worker works in a week or a year. In our work to date, we have reported that hours worked represented a small difference in prosperity potential between Ontario and the peer states. Getting this measure right has been a challenge for us and others as we compare Canadian and US economic performance. US statistical agencies have two sources of hours worked data – the Current Population Survey and the Current Employment Survey – neither of which is directly comparable to Canada’s source of hours worked, the Labour Force Survey. Earlier this year Statistics Canada published the results of its attempts to reconcile the two sources of data. Statistics Canada researchers assembled the original data from the US surveys and recreated the hours worked data to match Canada’s and the OECD’s approach to calculating hours worked data.

Their research indicated that Canada had a persistent and significant disadvantage versus the United States in hours worked per employee and per job. Following publication of these results, the Institute engaged Statistics Canada to calculate hours worked data for the fourteen peer states to compare with Ontario and Quebec. These results, which are available only back to 1997, indicate a similar disadvantage for Ontario versus the peer states in hours worked.

In 2004, the average Ontario worker worked 34.5 hours per week, while in the median of the peer jurisdictions the average worker worked 37.5 hours (Exhibit 17). This disadvantage has remained fairly consistent since 1997. We are unable to determine the impact of the 1990-92 recession, but we do know that Ontario’s hours worked fell significantly during the recession and slowly recovered beginning in 1994. For the years 1997 to 2004, hours worked in the peer states were fairly constant; and using the traditional measures of hours worked in the United States, we estimate that the US intensity record was flat between 1990 and 1997.

![Exhibit 16](https://example.com/exhibit16.png)

**Exhibit 16** *Ontario now leads its peers in utilization of working aged population*

Utilization rate for Ontario and peers, 1990 – 2004

<table>
<thead>
<tr>
<th>Year</th>
<th>Ontario’s rank in peer group</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>2</td>
</tr>
<tr>
<td>1995</td>
<td>12</td>
</tr>
<tr>
<td>2000</td>
<td>12</td>
</tr>
<tr>
<td>2001</td>
<td>10</td>
</tr>
<tr>
<td>2002</td>
<td>5</td>
</tr>
<tr>
<td>2003</td>
<td>4</td>
</tr>
<tr>
<td>2004</td>
<td>2</td>
</tr>
</tbody>
</table>

Based on the hours-worked-per-employed person differences between Ontario and the peer jurisdictions in 2004, we estimate the intensity factor hurts Ontario prosperity by $3,700 per capita.

**Lower productivity is the biggest challenge to closing the prosperity gap**

As we have seen, in the factors related to the supply of labour, Ontario’s advantage in percentage of our population of working age has strengthened slightly, and we have made remarkable progress in the percentage of Ontarians who are working. The number of hours worked continues to be a disadvantage for Ontario.

Clearly, the 1990-92 recession exacted a significant toll on Ontarians’ prosperity in the early 1990s, and we spent much of the recent past recovering from that, especially to get Ontarians back to work. Even with these gains, our prosperity gap has widened. Productivity accounts for the greatest share of the prosperity gap with our peers (Exhibit 18).

We assess seven sub-elements of productivity to determine the impact of this key driver of our prosperity gap.

**Cluster mix and cluster content contribute positively to our productivity.** The Task Force continues to conclude that Ontario benefits from a good mix of clusters of traded industries. The Institute has described the theory and evidence behind the importance of clusters of traded industries. Traded industries are those that are typically concentrated in specific geographic areas and sell to markets beyond their local region. Research by Michael Porter of the Harvard-based Institute for Strategy and Competitiveness has shown that clusters of traded industries increase productivity (as represented by wages) and innovation. In addition, the presence of traded clusters in a region has a spillover effect in that they typically generate opportunities for increased success of the local economy.

Drawing on Porter’s methodology, the Institute has determined that fully 39.8 percent of employment in Ontario is in traded industries versus 31.4 percent in the peer jurisdictions. Ontario’s employment strength in financial services, automotive, metal manufacturing, publishing and printing, and others has created an attractive mix of traded industries. Our analysis of Ontario’s cluster mix indicates a $2,400 per capita advantage over our peers. This benefit is derived from a higher output than would be likely if Ontario’s mix were the same as the peers’ mix.\(^6\)

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7 It is important to note that our measure focuses on the mix of industries only. It calculates the productivity performance we could expect in Ontario if each cluster were as productive as its US counterpart. It does not measure the effectiveness of each cluster.
Sub-clusters make up each cluster of traded industries. There are also wage and productivity differences across sub-clusters that make up clusters. As we analyze the sub-clusters that make up our clusters of traded industries and compare these with the mix in the peer states, we conclude that the impact of cluster content on GDP per capita is a $400 advantage for Ontario.

Our weaker clusters are a significant part of Ontario’s productivity gap. While Ontario has an excellent mix of clusters, cluster effectiveness is much lower than in the peer states. As we discussed in last year’s Annual Report, our structures of specialized support and competitive pressure are inadequate relative to the experience in clusters of traded industries in the peer states. In Ontario and the peer states, traded clusters are more productive than local industries, as represented by wages. As Porter has observed, the greater competitive intensity from sophisticated customers and vigorous rivals, along with specialized support from excellent factor conditions, capable suppliers, and related industries pushes productivity higher in traded clusters. In Ontario, the productivity premium is 47 percent. Across the peer states, the median productivity premium is 63 percent. Taking the prevailing wage in local industries as a given, our clusters are underperforming their counterparts in the US peers by 10 percent (the difference in the peer performance index of 1.63 versus Ontario’s 1.47).

If our clusters were as effective in the Ontario environment, wages would be $5,500 per worker higher. As traded clusters account for 39.8 percent of Ontario employment and given the relationship between wages and productivity, our overall productivity would rise by 5.4 percent. From this, we estimate the productivity loss from our weaker clusters to be $2,200 per capita.

Adding together the effects of cluster mix (+$2,400), content (+$400), and effectiveness (-$2,200), Ontario’s clusters provide a net benefit of $600 in GDP per capita versus the peer states.

Relatively low urbanization is a significant contributor to our productivity and prosperity gap. We have established the higher level of productivity that results from greater rates of urbanization. This is the result of the

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**Exhibit 18  Productivity accounts for most of Ontario’s prosperity gap**

<table>
<thead>
<tr>
<th>Elements of GDP per capita (C$ 2004)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median GDP per capita</td>
</tr>
<tr>
<td>Profile</td>
</tr>
<tr>
<td>Participation</td>
</tr>
<tr>
<td>Employment</td>
</tr>
<tr>
<td>Intensity</td>
</tr>
<tr>
<td>Mix of clusters</td>
</tr>
<tr>
<td>Cluster content</td>
</tr>
<tr>
<td>Cluster effectiveness</td>
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<tr>
<td>Urbanization</td>
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<tr>
<td>Education</td>
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<tr>
<td>Capital investment</td>
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<tr>
<td>Productivity residual</td>
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<tr>
<td>Prosperity Gap</td>
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Note: median of 16 peer jurisdictions.
Source: Statistics Canada, Bureau of Economic Analysis; Institute for Competitiveness & Prosperity analysis.

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11 We have netted out the effects of Ontario’s lower urbanization, our under investment in capital, and our lower educational attainment in this calculation.
increased social and economic interaction of people in firms in metropolitan areas, the cost advantages of large-scale markets, and a more diversified pool of skilled labour. The interplay of these factors promotes innovation and growth in an economy. Since fewer of our people live in metropolitan areas than in the peer states, our relative productivity and prosperity potential is reduced. Our estimate of the impact of urbanization on Ontario’s productivity is lower than in previous years as we have revised our methodology to incorporate the longer-term relationship between urbanization and productivity across the peer jurisdictions. Our analysis this year indicates that we have a $3,100 per capita disadvantage against the peer median related to our lower level of urbanization.12

Lower educational attainment weakens our productivity. Most economists agree that a better educated workforce will be more productive. Education increases workers’ base level of knowledge necessary for improved job performance. It increases workers’ flexibility so that they are able to gain new skills throughout their lifetime. Many studies show the increased wages that accrue to more highly educated individuals.13 Increased wages are the result of higher productivity.14 Ontario’s population has, on average, a lower level of educational attainment compared to those living in the peer states, particularly at the university graduate level. Adjusting the mix of educational attainment in Ontario to match the US mix and holding wages constant at each attainment level, Ontario’s productivity and prosperity would be higher by $1,300 per capita.

Lower capital investment in Ontario reduces our productivity relative to the peer states. As we discuss later, Ontario businesses have under invested in machinery, equipment, and software relative to their counterparts in the United States.15 The capital base that supports workers in Ontario is not as modern as that which supports their counterparts in the peer states. As a result, Ontario workers are not as productive. We estimate this under investment in capital equipment lowers Ontario’s productivity by $800 per capita. This estimate is based on our simulation of Ontario GDP if we had matched the rate at which the US private sector invested in machinery, equipment, and software. For our estimate, we assumed that a higher growth in this investment would translate directly into higher growth in GDP.

The productivity residual is the unexplained gap. We have been able to account for the impact of profile, utilization, and intensity on prosperity. We have also accounted for the effects of several elements of productivity. The $100 per capita gap that remains is related to productivity on the basis of like-to-like cluster mix and strength, urbanization, education, and capital intensity.

Productivity gains count

Since our First Annual Report three years ago, we have consistently urged Ontarians to address the productivity challenges we face. As remarkable as our recent progress in the utilization of our labour force has been, we have not closed the prosperity gap with the peer states – because we have fallen further behind on productivity.

Productivity is limited only by human ingenuity, and over the long term there has been no indication that this is a limiting factor. There are natural limits to the amount of work we can carry out – limits of population and time. But through better quality workers, greater capital supporting their efforts, more creative ways to organize work, and ongoing pressures for improvement, productivity growth is not constrained. But a key requirement for achieving productivity growth and reaping its rewards is investment for the future.

Achieving prosperity creates the opportunity for a higher standard of living. To the extent that we are more productive and more prosperous, we have greater access to the things we value most – economic opportunities, quality health care, strong social safety nets, and a safe environment for work and play. But to get them, we need a better balance of consumption and investment. We also need a more effective balance of labour supply and labour productivity. Rebalancing these is a highest priority for Ontario.

12 See Task Force on Competitiveness, Productivity and Economic Progress, First Annual Report, Closing the prosperity gap, November 2002, p. 26 for a discussion of our methodology in measuring the productivity disadvantage resulting from our lower rate of urbanization.
14 First Annual Report, Closing the prosperity gap, p. 27.
15 Capital investment results are not available at the state level. Our analysis uses US results to estimate peer state investments and compares these to Ontario.
In our AIMS framework, we see that, despite positive attitudes toward competitiveness, Ontarians spend more on consumption today than they invest for tomorrow – that trend needs to be rebalanced.

In our work to date, we have attempted to determine the important factors that drive the productivity and prosperity gaps with our peer jurisdictions. What are the drivers that can strengthen our capacity for innovation and upgrading? To help us guide our analysis and recommendations, the Task Force developed the AIMS framework (Exhibit 19). AIMS is built on an integrated set of four factors:

- **Attitudes toward competitiveness, growth, and global excellence.** Our view is that an economy’s capacity for competitiveness is grounded in the attitudes of its stakeholders. To the extent that the public and business leaders believe in the importance of innovation and growth, they are more likely to take the actions to drive competitiveness and prosperity.

- **Investments in education, machinery, research and development, and commercialization.** As businesses, individuals, and governments invest for future prosperity, they will enhance productivity and prosperity.

- **Motivations for hiring, working, and upgrading as a result of tax policies and government policies and programs.** Taxes that discourage investment or labour will reduce the motivations for investing and upgrading.

- **Structures of markets and institutions that encourage and assist upgrading and innovation.** Structures, in concert with motivations, form the environment in which attitudes are converted to actions and investments.

Within the AIMS framework, we have found that Ontarians invest less in future prosperity than their US peers, and that this under investment results from inadequate structures and inappropriate fiscal motivations, even though Ontarians’ attitudes encourage innovation and upgrading.

As we work with the AIMS framework, we are concluding that its factors can create an ongoing reinforcing dynamic. That is to say, when AIMS drives prosperity gains, each one of the four factors would be reinforced. In an economy of increasing prosperity, attitudes among business and government leaders and the public would...
be more optimistic and welcoming of global competitiveness, innovation, and risk taking. Given these positive attitudes and with the greater capacity for investment generated by prosperity, Canadians would invest more in machinery, equipment, and software and in education. Motivations from taxation would be more positive, as governments would not see the need for raising tax rates. And greater economic prosperity would improve structures as greater opportunities for specialized support were created. Then increased economic activity would drive more competitive intensity. These developments would lead to even higher prosperity, which would further strengthen each AIMS element, and so on in a virtuous circle.

But this AIMS-prosperity dynamic can create a vicious circle. Unrealized prosperity potential may create pessimism and concerns about competitiveness and innovation rather than openness to them. These less positive attitudes would be less conducive to investments, and reduced prosperity would also lead to fewer investment opportunities anyway. Unrealized economic potential means tax revenues would not meet fiscal needs, leading governments to raise tax burdens, thereby de-motivating investments. And reduced economic activity would create fewer nodes of specialized support and less openness to the public policies that would result in more competitive intensity.

We are concerned that if we do not address our current challenges in under investment, de-motivating tax burdens, and inadequate market structures we may be on the trail to a vicious circle. We must avoid this trend and put our economy on the virtuous circle track.

Ontarians have positive attitudes toward competitiveness

Our research into Ontarians’ attitudes toward competitiveness and prosperity indicate that our public leaders and business people have a positive outlook on what it takes for the province to move forward – differing little from the views of their counterparts in the US peer states.

Attitudes that lead to high aspirations, self-confidence, the desire to succeed, the entrepreneurial spirit and creativity are important drivers of economic success. To measure attitudes, the Institute conducted research among public and business communities.\(^\text{16}\) In contrast to commonly held perceptions, we differ very little from our counterparts in how we view business and business leaders, risk and success, and competition and competitiveness.

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In the response to most questions in the survey, we show similar attitudes toward risk and success; and on several questions, Ontarians’ responses indicated more positive attitudes toward competitiveness and innovation than their peers’ answers (Exhibit 20). More generally, we found no differences in the attitudes toward risk-taking and innovation and the importance and the causes of personal success.

**Despite these positive attitudes, Ontarians under invest for future prosperity**

As we have seen in previous reports, Ontarians are not investing as aggressively as our counterparts in the peer states. A more balanced approach to the consumption/investment tradeoff is necessary if we are to close the significant prosperity gap.

As we have observed, Ontarians invest in the basic requirements for keeping our businesses and individuals competitive in the global setting. But after we spend our last investment dollar, our counterparts in the peer states continue right on investing. This pattern of attenuation is true for individuals, businesses, and governments.

Our pattern of under investment is wide ranging. Relative to the peer states:

- We under invest in productivity-enhancing machinery, equipment, and software
- We under invest in education as students move through the system, limiting the benefits to the economy from more capable human resources
- We under invest in integrating immigrants and do not benefit from their economic potential
- We under invest in future prosperity as our governments’ spending has been shifting from areas that are investments for future prosperity to those that consume current prosperity.

**Under investment in post secondary education is likely affecting the quality of student engagement in Ontario’s universities**

As we have shown in the past, Ontarians under invest in education, particularly in the post secondary area. Some recent research indicates that our under investment at the university level is affecting the quality of the student experience in Ontario. The National Survey of Student Engagement (NSSE) annually assesses the extent to which undergraduate students are involved in educational practices empirically linked to high levels of learning and development. Based on its research, it has created five sets of benchmarks to measure effective educational practice in university settings:

- **Level of academic challenge.** To what degree does the university emphasize academic effort by setting high expectations for student performance and creating a challenging intellectual and creative work environment?
- **Active and collaborative learning.** How well does the university prepare students for the unscripted problems they will encounter in their daily life by providing the opportunity to collaborate with others in their studies?
- **Student-faculty interaction.** Do students have the opportunity to interact with faculty members inside and outside the classroom, thereby learning firsthand how experts think about and solve practical problems?

<table>
<thead>
<tr>
<th>Exhibit 20</th>
<th>Ontarians have positive attitudes toward competition and prosperity</th>
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<tr>
<td><strong>Ontarians agree slightly more than peer state citizens, managers, and business leaders with the following statements:</strong></td>
<td></td>
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<tr>
<td>“People who start their own businesses deserve all the money they make”</td>
<td></td>
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<tr>
<td>“When businesses do well, we all win”</td>
<td></td>
</tr>
<tr>
<td>“Business is the most important contributor to prosperity”</td>
<td></td>
</tr>
<tr>
<td>“Competition between businesses is a good thing”</td>
<td></td>
</tr>
<tr>
<td>“Being globally competitive makes a firm stronger”</td>
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Enriching educational experiences. Are universities providing students with complementary and diverse learning opportunities through use of technology, internships, and community service?

Supportive campus environment. Does the campus setting cultivate positive working and social relations among different groups in the university?

To measure how well Ontario universities are succeeding in these benchmarks, seven Ontario universities participated in the 2004 annual survey conducted by NSSE. Students at these universities were sampled as part of the NSSE process and results were compared against a peer group of US universities as well as the national average.

On one of the five benchmarks, Ontario universities ranked high among the US counterparts – “level of academic challenge” (Exhibit 21). These results indicate that Ontario universities are providing to their students a rigorous academic experience.

On two benchmarks, “supportive campus environment” and “enriching educational experiences,” Ontario universities’ results were close to but below the US benchmarks.

On two of the measures, “active and collaborative learning” and “student faculty interaction,” Ontario universities fell well below US results. Fewer than 10 percent of the US universities in the survey reported lower average scores than Ontario. In student-faculty interaction, Ontario results were very close to the bottom. Clearly, Ontario universities are providing students with reduced opportunities for interaction with their teachers and their peers. Ontario students are far less likely to agree that they ask questions in class or contributed to class discussions or that they discussed ideas from their readings or classes with faculty members outside of class.

These results signal that student-faculty ratios in Ontario may be too high in relation to US peers. As we have shown above, Ontarians invest significantly less than our US peers in post secondary education. The NSSE results indicate that lower spending may be lowering the quality of educational experiences our students are receiving.

In fact, findings from our previous research indicate the negative impact of our under investment in education. In general, our population and work force are less well educated than their counterparts in the peer states. According to the most recent census data, 22.4 percent of Ontarians aged 25–64 have a university degree.

<table>
<thead>
<tr>
<th>Exhibit 21</th>
<th>Ontario university students report lower levels of engagement than their US counterparts</th>
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<tbody>
<tr>
<td>Student engagement</td>
<td>Percentile ranking of seven Ontario universities versus US counterparts* (2004)</td>
</tr>
<tr>
<td>Level of academic challenge</td>
<td>65%</td>
</tr>
<tr>
<td>Supportive campus environment</td>
<td>45%</td>
</tr>
<tr>
<td>Enriching educational experiences</td>
<td>35%</td>
</tr>
<tr>
<td>Active &amp; collaborative environment</td>
<td>5%</td>
</tr>
<tr>
<td>Student-faculty interaction</td>
<td>1%</td>
</tr>
</tbody>
</table>

* US counterparts – 46 US universities with doctoral extensive programs
** 3rd or 4th year depending on the program.
Ontario of immigrants through their high levels of educational attainment. According to some estimates, educated immigrants to Ontario counteract the “brain drain” of Ontario talent to the United States by a margin of four to one.18 But, as we have also pointed out, Ontario is not fully realizing this potential, as many immigrants are having difficulty entering the professions and careers they once held.20

Ontario’s Ministry of Training Colleges and Universities and the Ministry of Citizenship and Immigration are working to address this issue. It has identified four key challenges and is working at each of them:

Raising awareness among immigrants of the challenges they will face. Most observers agree that, for a long time, foreign-trained persons often arrived in Ontario without knowing the requirements for working in their profession. The Government, through the Access to Professions and Trades Initiative (APT) in collaboration with regulatory bodies, has developed the Opening Doors website, which provides prospective immigrants with career maps in twenty-one professions and thirteen skilled trades. These career maps spell out the criteria for certification or licensure, the cost of registration, and the relevant labour force conditions.

Assessing and recognizing prior learning. A challenge for employers and regulatory bodies is to develop a systematic understanding of the knowledge, skills, and language proficiency of immigrants gained in their country of origin. Without this, employers are deterred from hiring immigrants because of the time and cost involved in conducting these assessments. Since 2000, the Government has funded the World Education Service (WES) program to develop a systematic approach to international academic recognition. To date, WES has developed associations with more than 220 professions, educational institutions, and regulatory bodies; it has received 21,000 applications.

Providing targeted training to fill skills gaps. Once knowledge or skills gaps are identified, there needs to be targeted training for immigrants. Two years ago, in our Second Annual Report, we described the initial “bridging programs” in pharmacy and nursing. These programs assist newcomers filling specific gaps to enable them to be licensed to practise their profession or trade in Ontario. Since then, the Government, in collaboration with regulatory bodies and educational institutions, has increased the number of bridging programs to 35. This year more than 3,000 internationally trained individuals will have participated in a bridging project, and the Government projects this will increase by more than 2,000 next year.

Other programs are in place to enhance immigrants’ knowledge and skills. The Colleges of Ontario Network for Education and Training (CON*NECT) is an alliance of the province’s 24 Colleges of Applied Arts and Technology that provides training and testing at 850 sites in 200 communities. Earlier this year, the Colleges Integrating Immigrants to Employment project under the CON*NECT umbrella was granted $5 million over the next two years to expedite the transition of skilled immigrants into college and then into employment.

In its May 2005 Budget, the provincial government announced a significant increase in its investment in colleges, universities, and training. Between the fiscal years 2004/05 and 2009/10, it will add $6.2 billion in funding for student financial assistance, operating grants to colleges and universities, training and apprenticeship, and other initiatives. The goals of this funding include increasing access to colleges and universities through greater student financial assistance, significantly expanding graduate education and apprenticeships, enhancing student experience, and improving pathways for students between colleges and universities. This increased investment in post secondary education is an important step in increasing Ontario’s productivity and prosperity potential, and the Task Force applauds the provincial government.

Investing in integrating immigrants strengthens our economy

In our previous work, we have identified the potential economic benefit to
Career Bridge, an initiative sponsored by the Government in coordination with the Toronto City Summit Alliance and the Toronto Region Immigrant Employment Council, has successfully offered skilled immigrants the required apprenticeship and Canadian work experience. It has successfully assisted 235 immigrants gain entry to their desired work field.

Establishing appeal processes for immigrants. The final challenge that has been identified by the Government is the need to provide a fair and open process for immigrants to appeal registration and licensing decisions by regulatory bodies. The Government has appointed an outside advisor to review and improve the accountability of the regulatory appeals processes.

This is an exciting area for Ontario and for Canada, as stakeholders in the professions and the trades are working together to find creative solutions for integrating immigrants into Ontario’s economy and helping close Ontario’s prosperity gap. Obviously, more needs to be done, and investments need to be increased. But we are making progress.

Under investment in physical assets limits productivity
Ontario under performs in investment in machinery, equipment, and software. Capital investment enables workers to be more productive. Given the relationship between capital investment and growth in GDP per worker, our lower investment in equipment contributes to our productivity gap.

Private sector investment trails the United States. In Ontario and the United States, the private sector accounts for about 80 percent of all capital investment, and thus is crucial in the overall picture. Ontario’s private sector trails the US counterparts in investing in machinery, equipment, and software, the component that research has identified as the most crucial for productivity growth. Ontario’s business community under invested by an average of 9.9 percent below the United States from 1991 to 2004. In 2004, Ontario’s private sector invested 6.6 percent of GDP in machinery, equipment, and software compared to the 7.7 percent investment in the United States.

As with utilization of human resources, Ontario’s capital investment performance fell during the 1990-92 recession (see Exhibit 7). It began its recovery in 1993, earlier than participation and employment rates began their recovery. However, since 1998 Ontario’s private sector investment in machinery, equipment, and software per GDP dollar has been falling. US experience had been similar, but in 2004 its investment performance strengthened. As a result, our lag in capital investment has widened. Not since 1990, the last year Ontario’s GDP per capita matched the median of the peer jurisdictions, have our businesses invested as much as their US counterparts in machinery, equipment, and software.

The other component of private sector investment is structures (excluding residential building). In both the United States and Ontario, the rate at which the private sector is investing in structures has been declining since 1989. Since 1993, Ontario businesses have under invested in structures by an average 13.6 percent annually.

Public sector capital investment trails the United States. While public sector capital investment accounts for a smaller part of overall capital investment than private sector investment, it is still an effective driver of growth in an economy. Public investment in infrastructure stimulates private sector investment in plant and equipment and the two sources are complements in raising productivity. Ontario’s public sector investment was relatively stable from 1981 to 1996, when the rate of investment generally matched the US public sector. But between 1996 and 2003, Ontario’s rate of public sector investment was behind the rate in the United States. In 2004, with an increase in Ontario’s rate and a decrease in the United States rate, Ontario’s public sector investment was 2.8 percent of GDP while the United States was at 2.5 percent.

Under investment is costly
The Institute calculated that under investment in physical capital costs Ontarians $800 in lost GDP per capita. This estimate is conservative, as it only focuses on our under investment in private sector machinery, equipment, and software. Because there is little research into the productivity impact of investment in other areas, we have not included it in our assessment in Exhibit 18.

However, recent research indicates that productivity in Canada also benefits from public and private investment in structures. And as stated earlier, public sector infrastructure investment complements private sector machinery, equipment, and software investment. If we use the same analysis for all public

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21 Capital investment has two major components: machinery, equipment, and software; and structures. Structural investment includes infrastructure such as highways, streets, buildings and public transit.


23 US investment in the military is excluded from this analysis.

and private capital investment, we estimate GDP would have been $1,100 per capita higher in 2004.

**Government expenditures continue to trend away from investment**

The majority of governments’ expenditures are for consumption of current prosperity or investment in future prosperity. At the base level, governments must fund their own administration, protect citizens and the environment, and pay interest on the public debt. In both Ontario and the peer states, this accounts for about 30 percent of spending by federal, state/provincial, and local governments. In allocating the remaining 70 percent, a tradeoff between consumption and investment occurs. Consumption expenditures include health care and social services; investment expenditures include transportation, communication, and housing.

Relative to our peer group, governments in Ontario continue to shift away from investment expenditures toward consumption. Between 1993 and 2003, governments in Ontario decreased spending on investment from 51 cents to 46 cents for every dollar of consumption, while our US counterparts raised investment spending from 51 cents to 54 cents for every dollar of consumption.

During that period, total government expenditure as a percentage of GDP declined in Ontario, as governments worked to rein in breakaway deficits. Governments in Ontario were more aggressive in reducing investment expenditure than consumption expenditure, and in recent years, health care expenditure increases have fueled rising consumption spending, increasing from $2,200 per capita in 1999 to $2,700 in 2003. In the last five years, governments in Ontario have spent about $7,500 per capita on consumption annually – about the same as in the peer states.

Meanwhile, governments in the US chose to increase per capita investment spending by 33 percent, from $3,300 to $4,300. However, on a per capita basis, governments in Ontario invested about 17 percent less than governments in the US by 2003, decreasing spending from $4,300 to $3,600.

Ontario governments’ inability to match the peers’ investment spending limits our progress in raising productivity. Our US counterparts spent $4.6 billion (using spending in Ontario as a base) or $400 more per capita in 2003 on improving productivity after our last public investment dollar was spent. This is in stark contrast to 1992, where Ontario was out investing the US governments by $1.5 billion.

In summary, an economy must balance consumption and investment for spending to ensure future growth and prosperity. In the important areas of post secondary education and investment in machinery, equipment, and software, Ontario has under invested dramatically compared with its peer jurisdictions. Without addressing this under investment, it is unlikely that Ontario will be able to make progress in raising our peer group ranking or in our quest for higher prosperity.
Our taxation system is inhibiting Ontarians’ motivations to invest for tomorrow and needs to be rebalanced toward a smarter tax regime.

**Taxing smarter to motivate investment**

Our taxation system is inhibiting Ontarians’ motivations to invest for tomorrow and needs to be rebalanced toward a smarter tax regime.

**Motivations refer to the incentives or disincentives in our tax system toward investments in upgrading and innovation.** The Institute for Competitiveness & Prosperity carried out significant research in the area of motivations in the past year. Our findings point to a need for a smart tax system that will encourage investment for prosperity.

**Smart taxation balances equity and efficiency**

As in other areas, governments face a balancing act in fiscal matters. They need to make the appropriate expenditures for Ontario’s quality of life and its business environment. They also need to ensure that the necessary taxes for these expenditures are not unduly hindering motivations to work, invest, and engage in entrepreneurial activity. Achieving the right balance requires smart taxation. Ontario’s tax system is not as smart as it could and should be.

Smart taxation is not about choosing other values. It is about efficiently and equitably raising the funds for the public services and infrastructure that Ontarians value. Currently, Ontario and Canada have the worst of both. Our tax burdens are higher than those in the United States, and our mix is not as smart as Sweden’s.

The smart way to stimulate prosperity through tax policy is to shift taxation away from capital investment toward consumption. Higher levels of capital investment that would result would increase productivity and wages. We also need to find ways to reduce perversely high marginal tax burdens on low income Canadians as they climb the economic ladder.

**Some taxes are smarter than others**

Work done by the federal Department of Finance indicates that, relative to taxes on consumption, taxes on business and personal investment work against prosperity.\(^25\) Their estimates indicate that the smart way to stimulate prosperity through tax policy is to shift the mix away from taxing capital investment and toward consumption. Reducing taxes on capital investment increases the rate-of-return on capital and encourages investment in capital goods, such as machinery, equipment, and software. Reducing or eliminating sales taxes on capital inputs is helpful, because they apply on new capital investment. Higher levels of capital investment result in higher levels of productivity and wages.

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This shift would lead to higher taxes on consumption and employment income. Consumption taxes include value-added taxes (the federal GST) and provincial sales taxes that apply to consumer spending only. While taxes on consumption and employment income also lower real wages, they are relatively more efficient than taxes on investment, because labour supply is less sensitive to changes in wages than investment is to the cost of capital.

In sum, analysis by the federal Department of Finance indicates that our economic well being would be enhanced most by reducing taxes on investment. This conclusion is consistent with work done by other economists and tax experts.26

A key weakness is our taxation on business investment

Unfortunately, Ontario and Canada do not have smart taxation. Overall, our tax rates are in the middle among OECD countries. However, the combination of high corporate tax rates, sales taxes on capital goods, and capital taxes means that Canada and Ontario have significantly higher taxes on business investment (Exhibit 22). In a sense, this exhibit distinguishes between levels of taxation and smartness of taxation. Some countries, like Ireland, have both low overall tax rates and smart taxes. Some, like Denmark and Sweden, have high rates of taxation, but tax in a way that motivates business investment. Some, like the United States and Japan, have low rates of taxation overall but do not have particularly smart structures that stimulate business investment. And some countries, like Italy and France, have the worst of both—high rates of taxation overall and not very smart taxation. Canada’s tax rates are in the middle of the pack—but we have the highest marginal tax rate on business investment.

Ontario has many options for smarter taxation of business and individuals to increase equity and efficiency—and investment in our long-term prosperity. One key taxation challenge is to motivate productivity-enhancing investments by businesses. We identify some improvement opportunities within the current system before putting forward a proposal for fundamental change—the elimination of corporate taxes altogether.

Eliminate or reduce taxes levied on capital investments. The first improvement opportunity is to eliminate federal and provincial taxes on existing business capital. They are particularly damaging to investment, because

Exhibit 22 Canada’s tax levels are about average, but the structure inhibits business investment

<table>
<thead>
<tr>
<th>Marginal effective tax rate on business investment (%)</th>
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<tbody>
<tr>
<td>United States</td>
</tr>
<tr>
<td>Japan</td>
</tr>
<tr>
<td>New Zealand</td>
</tr>
<tr>
<td>Australia</td>
</tr>
<tr>
<td>Switzerland</td>
</tr>
<tr>
<td>OECD median</td>
</tr>
<tr>
<td>Total Tax receipts (% of GDP)</td>
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they are levied even if the business is not profitable. Few other advanced economies levy business capital taxes. On a positive note, the federal government has announced that its corporate capital tax will be eliminated in 2006. The Ontario government is scheduled to eliminate its capital tax by 2012.

The second opportunity is to reform Ontario's sales taxes on capital goods. While most people regard the provincial sales tax (PST) as a retail tax aimed at personal consumption, it also applies to many items for capital investment – such as steel for construction and office equipment. These taxes raise overall prices to businesses making capital investments and can affect their decisions to invest or when to invest. Currently, some exemptions are in place, but the province could allow businesses to recover the sales tax paid on all investments by claiming input tax credits. Converting the PST into a broad-based value-added tax covering goods and services would be even better.

Finally, we need to consider taxing corporations on cash flow, not accounting earnings. With a cash flow tax, a firm's taxes essentially would be based on its cash receipts less its cash expenditures. In years when a firm made a large capital expenditure relative to sales revenue, it would pay relatively low taxes. In the current system, the tax benefits businesses receive from capital investments are spread over the life of the asset – even though the business must raise and invest the capital at the start of the asset's life.

Consider eliminating corporate income taxes. However beneficial each of these measures would be, eliminating all corporate taxes, including the corporate income tax, could be a breakthrough approach to increasing productivity and prosperity. Governments in Canada should explore this fundamental shift to a smarter tax system.

A corporation's taxes are actually paid by its workers, whose wages are lower than they would otherwise be; by its customers, who must pay higher prices; and by its stockholders, including individuals' pension funds and mutual funds in their registered retirement savings plans (RRSPs). Eliminating corporate taxes has the potential to enhance prosperity by increasing wages, lowering prices, and increasing investment returns.

This is an unconventional solution and further research is required to assess the long-term impact on tax revenues, patriotism of earnings by foreign companies, and other issues. But we encourage the Ontario and federal governments to examine this approach further.

Our other taxation challenge is to lower perversely high marginal tax rates for individual Canadians

A major weakness of our personal tax and benefit system is the high marginal tax rates it imposes on individuals and families trying to scale the economic ladder or to retire comfortably. In addition to statutory income tax rates, the marginal effective tax rate – the tax rate on the last dollar of income – is determined by tax credits and income-tested government transfers. Because of clawbacks of social benefits, the marginal rate can be very high at relatively low income levels.

Thus, while benefit programs provide valuable assistance to low-income families, an unintended consequence of clawbacks is that families progressing toward higher income levels can face dramatically higher marginal tax rates. A single-earner family of four faces a marginal effective tax rate of 60 percent on income increases shortly after taxable income passes $31,000. In other words, because of clawbacks, these families are keeping only 40 cents of each new dollar they earn. At $36,000, the marginal rate climbs to an absurd 90 percent.

Seniors face marginal rates exceeding 70 percent on employment earnings between about $4,800 and $9,100 – largely because of the stiff clawback rates to the Guaranteed Income Supplement and Spouse Allowance.

Any progressive tax and benefit system will have the feature of high marginal tax burdens at certain points of the income scale. The problem in Ontario is that our system is characterized by plateaus, not by spikes. Lower income Ontarians face the highest marginal effective tax burdens. We see several smart ways to redress this inequity.

Smooth marginal effective tax rates.

The province, in collaboration with the federal government, can smooth the high marginal tax rates through closer integration of the tax and transfer systems to reduce the adverse incentives to persons at workforce entry levels.

Reduce the basic personal allowance and marginal rates. Currently, any income below the Basic Personal Allowance (BPA) is exempt from federal and provincial income tax. But the BPA...
benefits all taxpayers, not just low-income earners. Consequently, marginal tax rates are higher than they need to be, as governments must replace the tax revenue lost by the BPA. A better approach would be to lower – or scrap – the BPA, find more efficient ways to help low-income earners, and reduce marginal tax rates on all other taxpayers. That way, income earners would face lower tax rates not on the first dollar they earn, but on the last dollar, when most make decisions on how much more to work or to save and invest.

Reduce taxation on savings and personal investment income. The tax and clawback system affects seniors with low levels of employment income most. Reform is needed to promote savings and investment and to provide relief to low-income seniors. One option is to expand programs such as registered retirement savings plans even further – possibly eliminating contribution limits.  

Consider breakthrough proposals
These options would be positive steps in making our taxation of individuals smarter. But we think Ontarians and Canadians should consider two breakthrough proposals: switching to a consumption-based tax system, or basing personal taxation on lifetime, not annual earnings.

Tax consumption, not investment or earnings. If the goal is to have more savings, investment, and work incentives, then governments should lower or eliminate the taxes on these activities. To replace lost revenue, they should focus taxation on consumption. Ultimately, individuals work and invest to generate income for consuming goods and services – so tax revenue opportunities will not be lost.

One approach, drawn from experience in many other countries, would be to increase the federal goods and services tax (GST) and convert Ontario’s PST to a value-added tax and raise its rate above the current 8 percent rate. Some are concerned that the GST is regressive, but there are others who contend this criticism is misplaced. And there are opportunities to provide offsetting tax relief to lower income Canadians.

Base personal taxation on lifetime earnings. Much of the perversion in individual taxation that we have identified exists because we tax individuals on the basis of one-year slices of their life. Assessing income taxes on the basis of lifetime earnings, rather than annual earnings would potentially be far better for Canada’s poor and enhance prosperity for all Canadians.

Our current system gives all taxpayers in Canada an annual basic personal exemption and taxes income above that at progressively higher rates. A lifetime approach would give each Canadian a lifetime exemption instead of an annual basic personal exemption. This exemption would be the equivalent of five to ten years of average income – say $250,000. Any income beyond this would be taxed at say 14 percent until the next level is reached, when rates would rise again, and so on. The exact rates and ranges would have to be massaged to achieve tax neutrality.

With a system based on lifetime earnings, poor Canadians would be dramatically better off and have better prospects for advancement. For years, even decades for lower wage earners, they would face a zero marginal tax on work, savings, and investment, and they would have greater incentive and greater capacity to grow out of poverty. And even when they have used up their lifetime tax exemption, they would face a lower marginal rate than currently, because the marginal tax rate would fall for all Canadians. Taxation of lifetime earnings would also make Canada a tax-attractive place for young Canadians.

This can work because the elimination of the annual basic personal exemption would save the federal tax revenue that is currently forgone because of the BPA. These savings can be applied to lowering the marginal tax rates for all and improving the prospects of the neediest. A critical element of lifetime earnings approach is to disentangle social benefits from the tax system, so that we provide assistance to those in need without complicating the income tax system and creating perversely high marginal tax rates for low-income people.

A lifetime earnings system represents a significant departure from the current taxation regime and a workable implementation plan will be complex. But we should not be deterred and accept the current counter-productive, complicated, and confusing system.

Governments should consider all options for smart taxation that will increase equity and efficiency. They should not shy away from exploring breakthrough approaches. These reforms may be complex to implement but merit further investigation because of their potential to contribute to higher prosperity for all.

29 However, this is not the best option for all individuals because withdrawals from RRSP accounts are taxable, triggering clawbacks of income-tested transfer programs for seniors. Instead, some argue that Canada should introduce a “tax pre-paid” option for individuals. A tax pre-paid system would allow individuals to pay taxes on investment income earlier in life and eliminate taxation on subsequent withdrawals from these tax pre-paid savings accounts.
30 See sidebar “Value-added taxation can be fair” in Working Paper 7, Taxing smarter for prosperity, p. 34.
In summary then, our research suggests two broad themes for taxing smarter to enhance Ontario’s competitiveness and prosperity:

- **On the business side**, we should shift away from taxing productivity-enhancing investment, through measures such as the elimination of the capital tax and sales taxes on capital investment and even breakthrough options such as cash flow taxation or the elimination of corporate taxation. Revenue lost through these measures could be replaced by a provincial value-added tax that is harmonized with the federal GST.

- **On the personal side**, our focus needs to be on removing the perversely high marginal tax burdens on those with lower incomes. To do this, we should consider several options to fix this, including the breakthrough option of taxing lifetime earnings.

A shift to a smart tax structure will promote job creation, higher physical and capital investments, more innovation, and the adoption of new technologies. This environment will enhance future economic growth, laying the foundation for a dynamic and prosperous economy and the strong government financial position necessary to fund the quality of public services and infrastructure that the people of Ontario value.
Markets and governance structures are important components of AIMS that drive our capacity for innovation and upgrading to increase Ontario’s and Canada’s future prosperity. In our work, we have identified weaknesses in both areas. We face challenges in our innovation and fiscal federalism systems that hamper our ability to increase our prosperity. We need to strengthen our market structures to rebalance the pressure and support in our innovation system and fix fiscal federalism to redress the imbalance in the focus on consumption at the expense of investment for tomorrow’s prosperity.

Market structures require strengthening

A robust innovation system is a prerequisite for an environment that provides the support for research and development for new products and services and competitive pressure from consumers and business leaders to get innovative products and processes to market. This pressure and support drive the three components of a vital innovation system (Exhibit 23):30

- **Supply of innovation** – the activities and resources that increase the stock of innovation, usually including highly qualified researchers in universities, labs, and corporate R&D departments. Government funding is a major source of support, as is the training of master’s and doctoral students. Beneficial pressure for upgrading innovation supply comes from peer reviews of research and sophisticated financiers.

- **Demand for innovation** – the requirement for innovative products and services. Support is provided when CEOs allocate corporate resources to generate and implement new ideas. Pressure comes from customer insistence for breakthrough products and processes and the rivalry of competing firms.

- **Financing of innovation** – an important bridge between supply and demand, significant funding is typically required to commercialize new ideas and scientific breakthroughs. Favourable tax treatment and skilled investors provide support. Pressure comes from capital providers who insist on high returns and from competition among them.

Pressure and support are essential in all three components to ensure the whole system performs to its potential.

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An imposing strength in one element will not compensate for weakness in another. For example, significant expenditure on R&D without competitive pressure to use the results will not drive innovation.

One way of measuring innovation performance is to compare patent performance in Canada and the United States. In both countries, patenting rates are strongest in traded industries, but Canada trails considerably. While not a perfect measure, this is a good indication of the innovation gap between the two countries. Another measure of our gap is Canada’s poor standing on the World Economic Forum’s innovative capacity index. We look at all three components of the innovation system to explain why this gap exists.

R&D spending is overly focused on innovation supply and support

Currently, policy makers focus mainly on support for the supply of innovation to the detriment of the other components and pressures in the system. Governments tend to think about scientific and technical innovation in universities, hospitals, and research centres, rather than about business innovation. They have invested primarily in the supply of a scientific and technical labour force and funds for R&D through various federal innovation programs. The results are mixed.

We evaluate support for innovation supply by looking at gross expenditure on R&D in performing sectors, comprising business, higher education, and government spending. Our research shows that Ontario has outperformed its peers in higher education and trails in business investment.

Another measure of support for innovation supply is the level of education achieved by Ontario’s students. As we have seen in previous reports, Ontario graduates fewer students with master’s and doctoral degrees. On this front, the Task Force applauds the Ontario Government’s decision to fund an additional 14,000 graduate students in Ontario as part of its last Budget.

While there is some pressure to ensure the academic soundness and rigour of this research based on the traditional review process in funding decisions, we see little pressure from business and risk capital providers. The challenge is how to improve the quality of the mix of expenditure to increase the supply of innovation, not only through increasing support but also by applying greater pressure.

Innovation financing is directed toward the quantity of funding support – not quality

Governments have recognized the importance of innovation financing and have implemented several policies.
and programs that support funding. Specifically, several federal funding programs provide support for raising venture capital through generous tax credits, help for start-ups, technology partnerships, and networks of centers of excellence.

We have seen that the availability of venture capital in Canada is generally in line with US experience. But Canada’s returns are much lower than those in the United States (Exhibit 25).

The quality of venture capital support seems to be more of a problem than the quantity of funds. The evidence shows that innovative firms in Ontario are not benefiting as expected from the expertise and skills of venture capital firms to help drive innovation and commercialization.

More difficult, it seems that adequate pressure to enhance funding quality is not forthcoming. To date, it has been small retail investors that have been drawn to innovation financing, rather than larger, more sophisticated investors with expectations for higher returns – though recent changes in foreign holdings’ regulation ought to increase investments from pension funds.

As the Institute has concluded, labour sponsored investment funds have succeeded in increasing the quantity of venture funds but not necessarily the quality. Through generous tax incentives, labour sponsored funds have been successful in raising large amounts of venture capital. However, given the nature of investor – largely individuals, not sophisticated funds – and the geographic and time constraints placed on their investments, labour sponsored funds have earned poor returns. In addition, some research suggests that their presence has crowded out other funds.

Earlier this year, the Ontario Government indicated that it would be eliminating the preferential provincial tax treatment for labour sponsored funds, and the Task Force supported this decision. The Task Force was disappointed, however, when the Government announced the elimination would be achieved through a five-year phase out.

Ontario’s still young venture capital industry lacks the pressure of a long track record of returns, consistently applied valuation standards, private equity products, and industry information. Breakthroughs in innovation financing will come from broadening and strengthening the quality of support provided by venture capitalists to innovative start-up firms. And creating the environment for pension funds to invest in venture funds and ratcheting up the pressure to upgrade their quality will generate better results.

**Exhibit 24** Ontario had been closing the gap in business R&D until 2001, but it has widened again

![Graph showing R&D expenditures as a percentage of GDP for Ontario and peer group over time.](image)
Demand for innovation is not driven by appropriate support and adequate pressure

Public policy has aimed at strengthening support for the demand for innovation, largely through the R&D tax credit. But the evidence shows that tax policies are ineffective. In addition, management is not being pressured by demanding customers and capable rivals to provide more innovative products and services.

Through several programs, Canada has a generous plan of tax credits. Unfortunately, compared with other nations, Canada still fares poorly in R&D investments as a proportion of GDP, especially in business investment. One explanation is that the tax credits only give them a tax break for research they were planning to do anyway. Another explanation is that our high marginal tax burdens have a negative effect on companies’ motivation to invest in innovation, even with attractive R&D tax credits.

Ontario also lacks the support of highly trained managers. Our managers have lower educational attainment than their US counterparts and tend to have less formal business education at the graduate level. The more educated managers are, the more they are likely to think innovatively and to operate more effectively. Our lower level of management education means that we are less able to compete in a technology-based economy and to serve sophisticated and demanding customers in a global market place.

A larger challenge is to increase the pressure for management to demand more and more winning innovations. If CEOs are not pressured to choose strategies that require innovation, they will seek only modest innovations rather than breakthroughs. In an environment of low expectations, there will not be market pressure for greater supply of innovation capacity or for higher quality of financing support.

The evidence from the World Economic Forum Business Competitiveness Index results reinforces our view that Canadian businesses are not facing high levels of pressure from competitors and sophisticated customers and are not benefiting from local specialized support. The result is that companies are not being driven to develop and implement strategies that rely on innovation. Our firms’ strategies do not focus on building innovative capacity; nor do they depend on company research and development.

In research conducted for the Institute among successful innovative firms in Ontario, one of the most significant challenges they faced in their development was in gaining access to “managerial talent to hire” not “qualified scientific or technical talent.” Importantly, this challenge was

Exhibit 25  Venture capital returns in Canada have been weak

5-year Venture Capital Returns

United States

Canada

Source: Canadian Venture Capital Association, Venture Economics and NVCA.

perceived to be a significant disadvantage versus their most important competitor, typically a US-based firm (Exhibit 26).

Policies need to be rebalanced
We conclude that public policy on innovation is unbalanced. It focuses too much in areas that support the supply of innovation and its financing but has not adequately encouraged initiatives that provide pressure across all the innovation system components, but especially in areas that pressure business leaders to demand more innovation. Both governments and businesses need to think about how they can make the innovation system more effective, so that both support and pressure are embedded in innovation supply, financing, and demand.

Based on these findings, we have identified some policy prescriptions for strengthening our innovation system:

- On the supply of innovation, in addition to technology-based innovation, public policy needs to widen its focus to include the less technical aspects of innovation that lead to commercial breakthroughs in process improvements in goods production and service delivery as well as in innovative business strategies.

- On the financing of innovation, the federal government should identify opportunities to raise the quality of venture capital, perhaps by attracting venture capital leaders and managers to Canada. Either new immigrants with funds and expertise or returning Canadians who have been successful venture capitalists abroad would be welcome.

- On the demand for innovation, the federal government should scrap the R&D tax credit in favour of more fundamental tax reform that lowers the taxes on business investment in Canada; encourage the attainment of higher degrees to increase management capability; and identify opportunities for eliminating regulations that reduce competitive pressure.

It is not enough to address one element; individuals, businesses, and governments must work to rebalance approaches to the entire innovation system.

Exhibit 26  Access to management talent is a key weakness for Canadian innovative start-ups relative to US competitors

Q for X-Axis: “Thinking specifically of your company, and of your local situation, I’d like you to think about access to various resources. Please rate your company’s access to each of the following resources as either excellent, very good, average, poor or very poor.”

Q for Y-Axis: “Now I’d like you to think about your most important competitor and how their access to the same list of resources compares to you own. Please tell me whether their access to each resource represents a significant competitive advantage for them, somewhat of an advantage for them, neither an advantage nor a disadvantage, somewhat of an advantage for you, or a significant advantage for you over your competitor.” Note: Re-percentage to exclude “Not Applicable”.

Governance structures are hurting Ontario’s prosperity – and Canada’s

Over the past year, there has been much discussion about Ontario’s $23 billion fiscal gap – the difference in the amount that Ontarians contribute to federal revenues versus the amount returned to the province through federal spending. We recognize that, as Canada’s largest and most prosperous province, Ontario will always be a large contributor to Confederation and to the well being of have-not provinces. But fiscal federalism – the system that governs how federal funds are raised and spent – is not realizing its full potential to reduce regional disparities in prosperity.

Few would deny that Ontario’s fiscal federalism gap is significant. And the $23 billion is a good estimate of the size of the gap. But the Institute’s detailed analysis of the gap, based on the latest available data in the Provincial Economic Accounts from Statistics Canada, reduces the gap to $16 billion as a result of adjustments for federal interest expenditures and the surplus. Nevertheless, the difference in the numbers is less important than the fact that the impact for Ontario is costly, and that the fiscal gap is an important part of Ontario’s prosperity gap with its peer states.

Today, we see that Ontario is disadvantaged versus its peer US states and that, while some regional disparities are narrowing under the current fiscal federalism system, on critical economic indicators, such as investment and unemployment, convergence is much slower. In addition, surprise budget surpluses and the Employment Insurance (EI) program have contributed to the problems of fiscal federalism.

Ontario contributes significantly more to fiscal federalism than the peer states

In Canada, Ontario contributes more per capita to federal revenues than all other provinces except Alberta. Ontario receives less spending than all other provinces. This is a result of Canada’s formal equalization system to reduce regional income inequalities.

Both Ontario and in the peer states have progressive tax systems, so that higher income jurisdictions generate an above average share of federal tax revenue. For example, Ontario, which accounts for 38.6% of Canada’s population, generates 43.3% of federal revenue. Among Ontario’s peer group, the six states with the highest GDP per capita – Massachusetts, New Jersey, New York, Virginia, California, and Illinois – make up 31.0% of the population and contribute 36.7% of federal revenue.

Federal expenditure patterns in the two jurisdictions are, however, quite different. While the level of federal expenditure in the average US state is similar to the Canadian average, the transfers are not based on income as is the case in Canada. The result is that regional balances track prosperity more in Canada than the United States.

The differences in fiscal federalism create significant disadvantages for Ontario versus our peer states (Exhibit 27). Over the five-year period from 1998 to 2002, federal revenue and spending patterns cost Ontarians $1,600 annually per capita. This contrasts sharply with the average contribution of $400 per capita across the peer states. In 2002, we also trailed the median performance of our peer states by $3,700 per capita (C$ 2002). The clear conclusion is that our fiscal federalism system is harming Ontario’s competitiveness and prosperity.

Fiscal federalism is not narrowing regional disparities in GDP per capita

In a successful fiscal federalism program, the resources transferred to the have-not provinces would lead to higher productivity and competitiveness in the recipient provinces. In the long-term, we would then see a shift to higher investment in these jurisdictions. This would justify diverting resources from higher productivity jurisdictions to those with lower productivity to drive faster economic growth than would occur without the transfer. That has not happened. Overall, fiscal federalism has transferred resources from high- to low-productivity regions, lowering Canada’s absolute level of prosperity.

It is also important to assess the impact of fiscal federalism on the consumption and investment balance. We measure the consumption side of the equation by personal disposable income – the after tax income that flows to individuals – or the ability of individuals to consume current income. The investment side is captured by GDP per capita – the value created by converting human, physical, and capital resources into goods and services and building future prosperity.

Over the last two decades, the positive story is that disparities in personal disposable income across the provinces have narrowed. Canada has also achieved more equality in personal...

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disposable income across the provinces than the United States has experienced across its states over the twenty-year period.\textsuperscript{32}

It is hard to imagine that federal transfers have not contributed to that success. But we are concerned that a significant portion of the shifted resources has been aimed at consuming current prosperity – through equalization payments, health and social transfers to provinces, transfers to individuals, and Employment Insurance benefits. Much less has been aimed at investing in future prosperity.

Over the same period, regional disparities in GDP per capita have stayed higher in Canada than in the United States. In seventeen of the past twenty years, the United States has had lower levels of inequality in regional GDP per capita than Canada, and the trend indicates that, without a change in course, Canada will never match US convergence performance. We also see that the rankings of have and have-not provinces have changed little, with the same provinces remaining stuck at the bottom of the list. In the United States, there has been more fluidity among the states, with more up and down shifts in the rankings.

Our more detailed research shows that Canada has also achieved less convergence than the United States in the elements that drive prosperity growth as measured by GDP per capita – profile, utilization, intensity, and productivity (see Exhibit 12). The levels of regional inequalities over the past two decades were higher for almost all the elements among the provinces than they were among the US states. And these levels of inequalities were not being reduced any faster than in the United States. On profile, the inequalities between the US states are converging faster. On utilization, the provinces are converging faster, but regional differences remain higher than in the United States; the provinces are not converging on employment, and the level of disparity is growing versus the US states. On the productivity element, the provinces are diverging, while the US states are converging. Closing the prosperity gap would require a major turnaround of most of these convergence trends.

\begin{verbatim}
Exhibit 27 Fiscal federalism creates significant disadvantages for Ontario versus peer states
\end{verbatim}
We conclude that fiscal federalism is missing opportunities for increasing Canada’s prosperity potential. The structure of the system is the main reason it is not working as well as it should. A truly effective fiscal federalism system would lead to greater and faster convergence, a more effective balance between consumption and investment, and greater competitiveness and prosperity. More targeted investment in the have-not provinces would create more jobs and improve productivity. In turn, this would boost the potential for long-term prosperity and reduce the need for interprovincial transfers.

**How Ottawa deals with surplus surprises hurts productivity**

Since fiscal year 1997/98, the federal government has generated surpluses every year, accumulating more than $61 billion in surpluses. This is the positive result of the determined battle to eliminate deficits through a variety of expenditure controls, including reduced transfers to provinces, begun in 1994/95. But, when the government consistently under forecasts the size of the annual surplus, the result has been unplanned spending and continuing growth in transfers to provincial governments – and these are not always good for prosperity growth.

One problem is that the federal government does not have to undergo the rigorous discipline that accompanies the budget process and spends these unplanned surpluses mainly on current consumption. The government could have spent the windfall on reducing the debt, lowering taxes in future years, or increasing spending.

In reality, the government opted for the last option. Over the last decade, it spent $39.2 billion through in-year policy initiatives. Of this spending, $23.4 billion was for consumption of current prosperity – primarily on health care and social spending, divided evenly between transfers to the provinces through the Canada Health and Social Transfer and direct spending on consumption by the federal government. Investment in future prosperity – expenditures on research and development and post secondary education – amounted to $7.2 billion. The rest of the unplanned spending – $8.6 billion – was for protection and international relations, government administration, and the environment.

This pattern illustrates the tradeoff between consumption and investment. For every dollar the federal government spent on current consumption, it invested only 31 cents on future prosperity. As we have seen, governments in Ontario have shifted away from investment to consumption, and the use of federal budget surplus surprises has contributed to that imbalance.

The growing budget surpluses – planned and unplanned – have allowed the federal government to commit to increases in transfers and equalization. Federal transfers to the provinces for health care are set to increase from $18.5 billion in 2004/05 to $30.5 billion in 2013/14 – an annual growth rate of 5.9 percent over the next nine years. In addition, the federal government has concluded several ad hoc deals with individual provinces that do not fit within a disciplined framework. This is the result of ongoing demands by premiers.

What is surprising is that the have provinces are among those demanding higher levels of transfers, even though every dollar of per capita transfers costs taxpayers in Ontario $1.16, and in Alberta $1.19. A more logical approach for the have provinces would be to call for the federal government to reduce its tax rates in specific areas and allow each provincial government to determine if it should replace the reduced federal taxes with higher provincial taxes or not to replace the federal taxes and effect a lower overall tax rate for the province.

Both the planned and unplanned federal spending is dramatically biased toward consumption of current prosperity instead of investing for future prosperity. When the federal government has extra resources, good stewardship ought to lead to the spending of these resources on investments that will generate future prosperity, including debt reduction. This has not been the case to date. And the federal government with its significant increase in equalization payments is signaling that it does not hope to reduce the requirement for these payments. Fiscal federalism should have a built-in obsolescence – this goal ought to reduce regional prosperity inequalities so that the need for transfers is reduced.

**Employment insurance perpetuates regional disparities**

Canada’s Employment Insurance (EI) program has created, according to the Provincial Economic Accounts, excessive surpluses and the wrong kinds of transfers. Every year since 1993, the federal government has collected more EI revenue than it has paid out,
accumulating a surplus of $67.2 billion by 2002. Effectively, EI is a tax on labour, rather than a true insurance program.

On top of that, its design perpetuates regional inequalities. First, it interferes with the labour supply by providing higher benefits after shorter qualifying periods for unemployed workers in regions with higher unemployment. In effect, it creates disincentives to work in the regions with the highest and most persistent unemployment rates. Second, it creates perverse incentives for employers, allowing firms to avoid the natural consequences of high rates of layoffs and closures. The system encourages firms with seasonal fluctuations to lay off workers rather than bear the costs of retaining them during the off season.

In a study of the incidence of EI at the firm level, Miles Corak and Wen-Hao Chen found that only 6 percent of firms were “always subsidized.” These firms accounted for 6 percent of jobs but 28 percent of benefits and only 4 percent of premiums. At the other extreme, 22 percent of firms were “never subsidized.” They accounted for 48 percent of jobs, but only 28 percent of benefits paid out and 60 percent of the premiums. The EI benefits claims for “always subsidized firms” were mostly for temporary layoffs – 71.5 percent of claims versus an all-firm average of 47.8 percent.

Overall, the EI system plays havoc with both the supply of and demand for employment. And significant amounts of money are transferred from Ontario to other regions of the country. EI accounts for $3.7 billion of the $16 billion fiscal federalism gap, in the process diminishing Ontario’s competitiveness with its peer states – and Canada’s competitiveness with the United States and other trading partners.

Fiscal federalism hurts Ontario’s prosperity – and Canada’s

The current structures of fiscal federalism have been successful in narrowing regional disparities in personal disposable income across Canada. But they have not matched that success in eliminating differences in GDP per capita. Nor have they achieved a better balance of consumption and investment in our future prosperity, as much of the transfer spending is on current consumption.

We are worried that the design of the current system and the programs that support it will perpetuate and perhaps exacerbate regional disparities. Instead, we should rethink fiscal federalism to build in obsolescence through reduced regional disparities. For Ontario, this will mean a smaller fiscal gap and greater opportunity to invest in productivity growth to close our own prosperity gap with our peers.

Ontario’s prosperity is hindered by inadequate market and governance structures. We need to rebalance our market structures to increase competitive pressure throughout the innovation system. We also need to rebalance fiscal federalism to strengthen investment for sustainable prosperity in all regions.

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Throughout this report and previous reports we have set out recommendations for all stakeholders – individuals, businesses, and governments – in Ontario’s prosperity. Taken together, they signal a fundamental rebalancing of our consumption and investment priorities. With higher investment today we will enjoy greater prosperity in the future. That will enable us to sustain investment and to enjoy higher consumption well into the future.

Most Ontarians agree on what we want from our economy. We want a wide variety of opportunities available to people; we want good jobs that use our skills and pay good wages; we want a healthy and clean environment, great health care, and strong social safety nets.

There is less agreement on how we can achieve these ends. Many will agree that prosperity is necessary to achieve these ends. That can only come from trading off investing more for tomorrow than consuming today. But we conclude that there is not widespread agreement on the need for pursuing the investment path. We need a cultural shift that re-orient us toward an investment path.

Where people agree on the goals but not the means, leadership is required to set out a way forward. We need governments to set an agenda for prosperity that includes a will to shift public spending priorities, a commitment to smarter taxation, and a real desire to design fiscal federalism for prosperity across Canada. We need business leaders who have the foresight and energy to invest in skills and capital. And we need all citizens to be heavily involved in developing their own skills.

On our current path, we risk falling into the vicious circle where a lower level of investment will mean prosperity that lags further and further behind our potential. Unrealized prosperity can lead to pessimism and concerns about competitiveness and innovation rather than openness to them. These less positive attitudes will not be conducive to investments, and reduced prosperity means fewer investment opportunities. Unrealized economic potential means tax revenues will not meet fiscal needs, leading governments to raise tax burdens, thereby reducing motivation for investments. And reduced economic activity will create fewer nodes of specialized support and less openness to the public policies that result in more competition.

Instead, we are urging a fundamental shift in the path we are following. Investing in future prosperity will create a virtuous circle which, in turn, will provide the quality of life we want for ourselves and our children.

The choice is clear. The time is now.
References


Institute for Competitiveness & Prosperity:
- Working Paper 5 – Strengthening structures: Upgrading specialized support and competitive pressure, July 2004
- Working Paper 8 – Fixing fiscal federalism, October 2005


Statistics Canada:
– (2005) CANSIM II: Table 0510001 (Population)
– (2005) CANSIM II: Table 3850001 (Revenue & Expenditures)
– (2004) CANSIM II: Table 3840012 (Personal Income)
– (2004) CANSIM II: Table 3840002 (GDP – Expenditure-based at current prices)
– (2004) CANSIM II: Table 3830010 (SNA Average number of hours worked)
– (2004) CANSIM II: Table 4780014 (Total public and private elementary school expenditure)
– (2004) CANSIM II: Table 4780008 (Total university expenditure)
– (2004) CANSIM II: V3840163 (GDP)
– (2004) CANSIM II: V2533321 (Average hours worked)
– (2001) CANSIM II: Table 4780004 (Postsecondary non-university education expenditure)
– (2001) CANSIM II: Table 4780007 (Total university expenditure)

Task Force on Competitiveness, Productivity and Economic Progress:
– First Annual Report, Closing the prosperity gap, November 2002
– Second Annual Report, Investing for prosperity, November 2003
– Third Annual Report, Realizing our prosperity potential, November 2004
Toronto: Institute for Competitiveness & Prosperity. Available online: www.competeproser.ca


Previous publications

Institute for Competitiveness & Prosperity

Working Papers


Working Paper 5 – Strengthening Structures: Upgrading specialized support and competitive pressure, July 2004


Working Paper 8 – Fixing fiscal federalism, October 2005

Canadian Reports

Partnering for investment in Canada’s prosperity, January 2004

Realizing Canada’s prosperity potential, January 2005

Task Force on Competitiveness, Productivity and Economic Progress

First Annual Report – Closing the prosperity gap, November 2002

Second Annual Report – Investing for prosperity, November 2003

Third Annual Report – Realizing our prosperity potential, November 2004

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