

# A Fine Balance\*

The Buying and Selling of Canada



# About the authors



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# Executive summary

## *Poor data quality*

- No one knows the extent and nature of global shifts in knowledge work. Governments internationally have failed to track the phenomenon with rigour. The World Trade Organization states that in 2002 India reported services exports of US\$24.9 billion, while the sum of reported imports from India by the U.S., E.U., Japan and Canada was \$4.3 billion—a difference of 83%.

## *Canada as a user of offshored knowledge work*

- Offshoring is spreading through the fabric of business in rich, industrialized economies. This is especially true of the U.S., Britain, and Australia.
- Canada compares well with other countries in domestic outsourcing, but lags competitors like the U.S. and U.K. in the use of offshore knowledge resources. Evidence exists that the lag will be reduced—but it remains to be seen.
- The vast majority of firms we surveyed are taking action to become more cost effective in response to the offshoring trend. However, Canadian companies are behind in making the productivity investments they need to respond effectively.
- The lag in adoption of offshoring by Canadian organizations is related to their low adoption of information technologies and innovative business practices. This lag threatens Canada's competitiveness, its standard of living, and its ability to sustain social programs in an increasingly competitive global environment.
- The so-called Global Delivery Model is increasingly masking offshore sourcing and placing competitive pressure on India-based firms.

## *Canada as an exporter of knowledge work services*

- OECD data suggests that Canada's rank as an exporter of business services slipped dramatically between 1995 and 2002, from sixth to thirteenth place. Its growth momentum is much lower than that of several countries which rank behind it, so its rank may slip even further.

## *Canada is at risk as a venue for nearshore services*

- Canadian business leaders are confused about the implications of offshoring for their companies, the Canadian economy, and its workforce.

## *Strategic imperative*

- To protect and improve our standard of living in the era of global knowledge work, Canadian business and government leaders must embrace the global division of knowledge work while ensuring that our businesses and workforce have the strategies and capabilities they need to compete.

## Conclusions and recommendations

*The looming iceberg of the aging population, combined with the developing flood of cost-competitive talent and capabilities in emerging economies, both lead in the same direction: Canada must respond constructively and competitively to the globalization of knowledge work.*

## *Leadership*

- Canada's business leaders, politicians, and academics must exercise clear and vocal leadership on this critical topic. They must state categorically that Canada has no choice but to offshore activities that can best be performed elsewhere. At the same time they must identify and lead in the growth of those industries, human resources, and capabilities, where Canada can compete in the 21<sup>st</sup> century.

## *Business strategy*

- To be globally competitive and maximize their ability to keep good jobs in Canada, organizations in all industries and of all sizes—including the public sector and education—need to increase their strategic investments in next generation information and communications technologies (ICT), and innovative business practices.
- As part of this initiative, organizations need to systematically identify what knowledge work is most cost-effectively done in-house and what is best done by a third party supplier. They also need to decide where—here in Canada, in another wealthy economy (like the U.S.) or an emerging economy (like India or Russia).
- Organizations should seek not just cost savings, but other competitive benefits like time to market, ability to free up domestic resources for higher priority tasks, access to global markets—and, perhaps most important, access to new ideas, intellectual property, and sources of innovation.
- Every organization should mandate a senior business-oriented, strategic executive to lead this initiative.

## *Government policy*

- Governments should consider systematically, and in a highly targeted way, increasing their supports and incentives for the

initiatives previously listed. For example, accelerated tax credits for ICT investments, technology education and education credits for small and medium business, and coaching (both through government sponsored organizations and industry associations).

- Governments should use their procurement and policy powers to simultaneously reduce costs, improve performance and customer service, and build Canadian-based knowledge industries. For example, in health care they could offshore routine activities like dictation transcription and radiology diagnosis, domestically outsource a next generation health ICT infrastructure, and require winning suppliers to build export-oriented global centres of excellence that employ high-value Canadian knowledge workers. If used effectively, government projects would generate critical mass for centres of excellence that would deliver work to U.S. and other countries.
- Canadians have chosen—whether explicitly or implicitly—which market “races” to support in the industrial economy (e.g., oil extraction and car manufacturing). They must do the same for the knowledge economy—despite the risks and negative connotations of choosing winners. Several provinces have already taken steps in this direction. Alberta has invested in nanotechnology, Ontario in biotech, Quebec in IT services, and New Brunswick in call centres. This thrust must be further intensified, focused and clarified. We must also team up nationally on some of these initiatives (e.g., biotech, which is as large or larger in Quebec than Ontario). Remember that Canada’s population would fit in a tiny corner of China or India—not to mention the U.S.
- In support of all this, governments must do a much better job of tracking the imports and export of knowledge-based services of all kinds and in all business contexts (in-sourced, outsourced, etc.)

## *Education*

- Canadian primary and secondary school students perform well on international math and science benchmarks—much better than their counterparts south of the border. But according to Statistics Canada, the one major field to register a decline in university enrolments in 2003-04 was mathematics, computer and information sciences, where the student population fell 3.2%, the second consecutive annual decline. This decrease was driven by a 7.5% drop in enrolment in computer and information sciences. This process must be reversed. Targeted programs must reach high school guidance counselors, parents, and, of course, students themselves.
- Similarly, many workers require retraining for the global knowledge economy. Some will need upgrading of core skills, as their jobs migrate elsewhere. Others will require fine tuning. As software coding becomes a commodity—through a combination of technological innovation and offshoring—IT developers will require new technical skills and strengthened business skills, including

industry knowledge, interpersonal communications, project management, and so on.

Canadian firms and governments must identify how and where the country can compete in the global division of knowledge work. There is no one single answer, but rather what we describe as a *portfolio of niche opportunities*. These will be characterized by one or more of the following, though it's important to recognize that even when the conditions are present, global competitors remain in the game:

- Activities that benefit from geographic or cultural proximity to the U.S., such as call centres.
- Specialty areas for which Canada has strong talent clusters. These include British Columbia's video game industry, Toronto's Hollywood North, Montreal's biotech industry, and the technology centres of excellence that we've mentioned.
- Services where, for reasons of business continuity and security, Canada makes sense. This applies, for example, to backup data centres—which may be located in multiple geographies for the sake of redundancy.
- Activities where Canada remains price competitive, or price competitive enough that the other benefits (e.g. proximity) make it easy to bring the work to this country.

Significant structural obstacles stand in the way of these critical steps. Canada's governments are fractured—despite the small size of the country in the face of global competitors, regional interests at various levels repeatedly trump the national interest. Equally challenging is the country's industry structure. Many of its industries, such as ICT and automotive, are dominated by international firms. Though their Canadian leaders may wish to favour Canada, they must adhere to the economically rational global strategies of their firms.

India has a national trade association (the National Association of Software and Service Companies - NASSCOM) which promotes the development of its domestic offshoring industry—and includes as members many global players. Canada has industry groups (like the Information Technology Association of Canada - ITAC) that have made huge contributions to the national discussion on this topic. But no organization plays a rallying role comparable to NASSCOM. Add all these issues up, and the challenges appear daunting. Clearly a national wake-up call initiative comparable to NASSCOM, and involving many kinds of stakeholders, is needed.

# Foreword

I offshored my shirts...

Set in India in 1975, the book *A Fine Balance* (Rohinton Mistry, Toronto: McClelland & Stewart, 1995) follows two tailors, Om and Ishvar, who leave their village in search of work in the city. The emergence of factory-made shirts had dramatically reduced demand for hand-made shirts which was their livelihood. As they struggled to survive in the overcrowded city they remained eternally optimistic about their future even during a difficult period in India's history.

I cannot help but think that things have changed while staying the same. Without thinking about it I have offshored my shirts. The shirts I wear are measured in Toronto by a tailor—who makes a special trip three times a year—tailored in China, and couriered to my home in only a few weeks. If they were to see me wearing these shirts while we talk of India's emerging dominance in offshoring, Om and Ishvar would shake their heads and laugh.

Maybe Rohinton Mistry left out the final chapter of *A Fine Balance*; the chapter in which Om and Ishvar scraped together a handful of Rupees and started a modest services venture in the brand new “data processing” field.

Looking back now it seems clear that it is far too soon to know what effect global sourcing will have on Canada. When we wrote *A Fine Balance: The Impact of Offshore Services on Canada's IT Landscape* we spoke of “triggers” which would ignite a wave of offshoring... a tsunami to hit Canada and sweep away 75,000 jobs, or leave behind 165,000 new jobs.

In the past eighteen months we have seen that global sourcing is real. Even though Canada lags many other developed nations in adopting offshoring as a business strategy, many leading Canadian companies have quietly but effectively leveraged offshore centres to save money and increase their speed to market and access to skills. They have progressed past low value IT services into core business processes. Sometimes they have gone offshore quietly using captive centres. Sometimes they have celebrated their innovation with a press release. Whatever the approach or service, it is real in Canada.

The image, we think, is likely more accurate that global sourcing is like waves on a shore. The effect may be gradual or dramatic, either way it is unrelenting. We can ignore it but with time even the Canadian Shield would be worn down by waves. Global sourcing may deliver riches to our shores in the form of nearshoring of work to Canada. But, with time it will most certainly change the landscape which is Canada.

A handwritten signature in black ink, appearing to read 'Rob Scott', with a long horizontal line extending to the right from the end of the signature.

Robert W. Scott

# Introduction

In April 2004, PricewaterhouseCoopers (PwC), in conjunction with David Ticoll, published *A Fine Balance: The Impact of Offshore Services on Canada's IT Landscape*.

At the time, offshoring was a hot potato issue, fueled by growing numbers of deal announcements by buyers and sellers of services. It was debated in the media and in the U.S. election campaign. In the U.S., the debate seemed like a battle between two extreme, and equally wrong, perspectives. The pro-offshoring camp argued that only good things would come of this practice, and the country has nothing to worry about it. Anti-offshorers, predicting that vast numbers of knowledge workers would become unemployed, promoted protectionist responses. It was Pollyanna vs. Chicken Little.

We sought to frame the Canadian debate more rationally. We argued that the globalization of knowledge work is necessary and inevitable. As a result, many desirable Canadian jobs will move offshore. This will create benefits for Canadian companies and our economy. But it also means risks. Canada has the advantage of being a cost-competitive “nearshoring” venue for the U.S. and Europe. However it faces new, even lower cost global competitors for the production of high-end knowledge-based goods. There is no guarantee that the country will emerge as a net winner. Protectionism, however, is the wrong response. Instead, Canada must improve the quality of its workforce and build a portfolio of specialized knowledge-based services where it can compete to win.

*Globalization of knowledge work  
is necessary and inevitable.*

More recently, companies around the world sought to minimize the flow of bad publicity, and, with a few exceptions, stopped announcing their offshoring plans. At the same time, the debate gathered steam. In the U.S., leading analysts Thomas Friedman and Clyde Prestowitz published books that raised the visibility and quality of debate<sup>1</sup>. Economists (such as the University of Toronto's Daniel Trefler) began to examine the topic with rigour.<sup>2</sup> Think tanks and industry groups (like the Information Technology Association of Canada – ITAC, and the Canadian Advanced Technology Alliance - CATA) tackled the issue.<sup>3</sup> Government agencies, such as Industry Canada, took action to get their arms around the problem. Meanwhile, the growth of India-based offshoring firms continued unabated, and Western-based services firms announced big plans to expand operations in India and other low cost economies. So, although some may have stopped discussing it publicly, knowledge work globalization continues.

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1. Thomas L. Friedman, *The World is Flat: A Brief History of the Twenty-First Century* (New York: Farrar, Straus and Giroux, 2005) and Clyde V. Presotwitz, *Three Billion New Capitalists: The Great Shift of Wealth and Power to the East* (New York: HarperCollins, 2005)

2. For example, “Policy Responses to the New Offshoring” by Daniel Trefler, [http://www.chass.utoronto.ca/~trefler/Outsourcing\\_Final\\_TeX.pdf](http://www.chass.utoronto.ca/~trefler/Outsourcing_Final_TeX.pdf)

3. “IT Industry Trade Associations and the Globalization of Knowledge Work” by David Ticoll for ITAC, and “Sourcing Success and Canadian Advantage in a Global Competitive Environment”, by CATA

The question remains: what are Canadian business leaders thinking and doing about offshoring today? In particular, we asked ourselves:

- What has changed in the marketplace since we published *A Fine Balance* eighteen months ago?
- How are Canadian executives responding to the threat and opportunity of offshore services?
- Is the offshoring of IT services the start of something bigger? Are companies locating other services like human resources, finance, and engineering in offshore locations? If so, what are the opportunities and threats for Canada?

To address these questions our current research includes:

- An online survey of 59 business executives. Respondents are from the information and communications technologies (ICT) industries and other industries such as financial services, retail, and manufacturing. This report includes highlights of results from the survey.
- In-depth interviews with buyers of knowledge-based services which leverage offshore resources. Industries represented include financial services, manufacturing, telecom, healthcare, retail, education, and high tech.
- Interviews with services providers, both domestic and offshore, of business process services including IT, finance, human resources and engineering services.
- Interviews with other stakeholders including government, industry associations, educators, and market analysts.
- A quantitative assessment of the potential impact on Canada by adopting a new approach to the offshoring decision making and applying it to the Statscan Census data.
- Experience and lessons learned from PwC's experience with advising clients around the world and our own experiences within our own global networks.
- Review of countless articles, reports, and studies.

*Canada now faces new global competitors for the production of high end knowledge-based goods, and there is no guarantee that the country will emerge a winner.*

Our research is thorough, but quantitative, statistically sound data remains elusive. We offer this report to further the debate, not to end it. Only through thoughtful, passionate discussion will we truly understand the opportunities and threats which arise from the global supply chain of knowledge work.

# Outsourcing vs. offshoring

Before we jump into the findings and our analysis, we define two words which are often used interchangeably:

**Outsourcing:** Refers to *who* does the work. It is the contracting of work to a third party which has been previously done in-house—meaning by your own employees.

**Offshoring:** Refers to the *location* of the work. It is delivery of work from a location generally in a different country from that of the buyer or user of the service. Recently the term has become popular due to manufacturing companies sourcing product from locations like China and India, and from the sourcing of IT and call centre services from low cost centres.

A company can “offshore” without “outsourcing” by transferring work from a location in Canada to a so-called “captive” operation that it owns in, for instance, India. While much of the attention to offshoring focuses on outsourcing, in fact *captive* offshoring outpaces outsourced offshoring in nearly all areas.

Alternatively, a company can “outsource” without “offshoring” by contracting with an external firm for services delivered from within Canada.

Strategically, offshoring happens in four different formats:

**Offshore outsourcing.** A third party firm delivers outsourced work from a lower cost destination. Here, the outsourcing supplier takes on a former internal function, with all the complexities and handoffs that this implies. For it to work across time, space and corporate boundaries, the work must be well-defined and relationships well-governed.

**Global delivery model.** The service provider (whether a Western-based company like Accenture or EDS, or an Asia-based company firm like Satyam or TCS) divides the work among suitable locations around the globe, including the client’s home base country. These decisions are determined by cost, availability of expertise, presence of function-specific “centres of excellence”, and productivity-related issues such as proximity and cultural requirements. Typically in such cases the vendor provides, as a minimum, some project management resources in the customer’s home country—a local face to its global resource pool. Cross corporate boundary issues remain, but time and space issues are mitigated, and the “offshoring” is less apparent.

**Captive offshoring.** A company establishes its own facility in a lower cost destination to perform the work. This is foreign direct investment, focused not so much on the domestic market of the host country, but on providing services to a company’s business units and customers in other countries. In the past five years, more than 100 multinationals,

including General Electric, Boeing and Exxon-Mobil have set up R&D centres in India. Microsoft is moving most of its customer-service functions, except those for its “premier” corporate customers, to India. Morgan Stanley employs Ph.D.s to do high-end quantitative market analysis in India. Since the work remains internal to the firm, the cross-corporate boundary issues are mitigated.

**Global knowledge supply chain.** A company draws on participants in a global supply chain to support key innovation or value-creation processes, such as when an Ottawa-based microelectronics firm licenses part of a chip design from a Taiwanese patent owner, or when Canadian Tire selects a new barbecue design proposed by a Chinese company, or when a biotech company partners with an India-based firm for a clinical trial. Such decisions are often driven by competitive considerations beyond cost, for instance, access to new intellectual property or time-to-market. Sometimes such arrangements look like one-time commercial purchases rather than ongoing process outsourcing. At the same time, the structural implications (not doing work that a firm would otherwise need to do itself, shifting of knowledge work opportunities to other geographies) are similar to those of mainstream offshoring.

Other variations on these themes are *Joint Venture*: where two firms share risks and rewards, and *Build Operate Transfer*: where a firm such as General Electric, sometimes with the assistance of an outsourcer such as TCS, sets up a captive operation, irons out the kinks, and sells it.

*Canada is both a buyer and a seller of knowledge-based services.*

This report deals with all dimensions of the flow of work across borders. Coming and going, because Canada is both a buyer and a seller of knowledge-based services. Canadian-based firms source services from low cost locations like India, Mexico, and China. Canadian-based firms also compete with India, Mexico and China to sell low cost/low risk “nearshore” services to the U.S. and Western Europe.

Offshore	Captive offshoring	Offshore offshoring
U.S., Europe	Captive nearshoring	Nearshore outsourcing
Canada	Close quarters	Domestic outsourcing
	Insource	Outsource

Figure 1 – Elements of a global sourcing strategy

In summary, we define offshoring as the moving of work that would typically have been done domestically, to another country. This work could still be performed by your company—“captive” offshoring. Or, you could use a third party firm, in which case it would be offshore outsourcing. Of course, you could also outsource within Canada. If you send the work to another country it could be a developed location (like the U.S. or Europe) or an emerging economy (like India or Russia). For a global sourcing strategy end-user firms should consider all these options (Figure 1).

# Global knowledge work is now mainstream

*Global distribution of all sorts of knowledge work—such as product research and development, accounting, to information technology and customer service—has moved from the periphery to the mainstream. It is (or should be) in the decision portfolio of every executive and strategic planner.*

One problem with this topic is the poor state of data collection. International organizations like the OECD and World Trade Organization have observed that governments have so far failed to track the offshoring phenomenon with rigour. Official estimates vary wildly. For example, in 2002 India reported services exports of US\$24.9 billion, while the sum of reported imports from India by the U.S., E.U., Japan and Canada was US\$4.3 billion—a difference of 83%! Analysts attribute these differences to varying definitions, the invisibility of many transactions, and similar factors.

Offshoring is not the steamroller that many had feared a year or two ago. But one way or another, it is spreading through the fabric of business in rich, industrialized economies. This is especially true of the U.S., Britain, and Australia—countries with which Canada has deep affinities and relationships.

*Governments are not tracking the offshoring phenomenon with rigour*

Globalization occurs in a variety of ways, some obvious and others not so obvious. Though most deals go unannounced here are a few that have gone public between July and October 2005:

- ABN Amro, a Dutch financial services group, signed outsourcing contracts worth US\$1.8 billion. The deal has three parts. IBM will manage infrastructure and PC maintenance. Infosys and TCS will handle application maintenance. Application development will be handled by Infosys, TCS, Patni Computers, IBM, and Accenture.
- Orange, a European mobile phone operator, after a successful pilot, announced plans to outsource 700 call centre positions to India by the end of the year.
- Spheris, a fast growing Tennessee-based medical transcription outsourcer, opened a new centre in Coimbatore, India with plans to hire 1,000 people. It had earlier acquired Healthscribe, an Indian firm.
- British financial major Barclays Bank is set to terminate a £6 million annual outsourcing contract with TCS. This is despite the British firm's plans to triple its quantum of offshoring to India. The financial services conglomerate, which is planning to consolidate all its outsourcing deals to one company, will offer existing and future contracts in India to Intelenet Global Services—a 50:50 joint venture between the Housing Development Finance Corporation and Barclays.

Researchers continue to see growth:

- Datamonitor, a market research firm, projected that the U.S. market share of outsourced outbound call centre agent positions will shrink from 37% in 2004 to 25% in 2008, with the majority of jobs going to Canada, India, and the Philippines.
- Santa Clara University found that over 50% of Silicon Valley firms offshore at least some support services and IT services, and nearly a quarter offshore some R&D activities. The top ranked primary destinations are India (42% of those who offshore), “other Asia” (20%) and China (15%). Canada is the primary destination for 2%.



# Canada lags

*Canada compares well with other countries in domestic outsourcing, but lags competitors like the U.S. and U.K. in the use of offshore knowledge resources. Evidence exists that the lag will be reduced—but it remains to be seen.*

We found distinct differences between firms in the ICT industries, and those in other (non-ICT) industries. A big majority (68%) of ICT firms already use captive offshore employees to perform work that would ordinarily be done in Canada. However this appears to apply more to big Canadian-based firms.

Meanwhile, among respondents to our survey, only a handful of non-ICT firms say they do captive offshoring today.

*A big majority (68%) of ICT firms already use captive offshore employees to perform work that would ordinarily be done in Canada.*

This reflects two trends. First, many ICT firms, which themselves are outsourcers, use offshore resources to support Canadian and international clients. Second, ICT firms use captive offshore resources to improve their own costs, innovation capacity, and time to market. An executive of a telecommunications manufacturer told us, “Determining the functionality that customers want, identifying emerging technologies that can best deliver the specifications, and designing how to put this all together in a desirable, affordable product—all this we do in North America. Then we take the specifications from the design creators and job off the detail work to specialized R&D centres in low cost economies.”

<b>For work typically done in Canada:</b>	<b>ICT</b>	<b>Non-ICT</b>
Already captive offshoring	68%	8%
Expect to hire more people offshore within 24 months	45%	29%
Already offshore outsourcing	23%	29%
Expect to additionally offshore outsource within 24 months	32%	25%

Our survey suggests the weak performance of Canadian non-ICT firms in the use of captive offshoring may be about to change. Though only 8% said they’ve done it in the past, nearly one in three plans to get into captive offshoring in the next two years. At the same time, one in three non-ICT firms already buy offshore *outsourcing* services from third parties, and most of these offshore outsourcing users plan to increase this activity in the future.

*Nearly one in three non-ICT firms uses offshore outsourcing, and nearly one in three plans to get into captive offshoring over the next two years.*

Today’s investment in offshoring is small. Nearly all offshore projects—whether captive or outsourced—employ fewer than 100 people. One offshore outsourcer told us that his customers include most of Canada’s major banks as well as several other companies, yet noted that every deal but one is “shy of \$10 million”. Another respondent said,

Canadian firms “dabble” in offshoring. This observation was echoed by respondents from eight global services firms.

Research by IDC Canada released in April 2005 corroborates these findings. The study, which focuses only on IT services, found that only 15% of large firms (with over 500 employees) currently are considering or doing offshoring. No smaller firms are actively engaged in this practice. By contrast, over half of American C-level or senior level respondents surveyed by IDC would consider procuring IT or business services from an offshore or nearshore location.

We asked our survey participants to rank their priority considerations when making a decision to move work offshore. Based on a weighted ranking where the highest possible score was 10, three priority clusters emerged. Highest ranked was a set of quite traditional requirements: access to skills and human capital, net cost/benefit, quality and service. A second-ranked item was security. The third-ranked cluster was more interesting: keeping pace with competitors, knowledge transfer, and ease of set-up.

Access to skills and human capital	7.9
Net cost/benefit	7.8
Quality	7.7
Service	7.6
Security	7.0
Keeping pace with competitors	6.6
Knowledge transfer	6.4
Ease of set-up	6.3
Legal/regulatory or political issues	5.6
Impact on Canada and Canadian employees	5.4
Public relations inside Canada	5.3
Need for face to face contact with stakeholders and customers	5.2
Global sales initiatives	4.9
Immigration and work visa issues	4.4
Currency fluctuation	4.3
Tax issues	4.1
Public relations in host country	4.1
Other	0.5

# Offshoring has an impact in Canada – even to those who choose not to go offshore

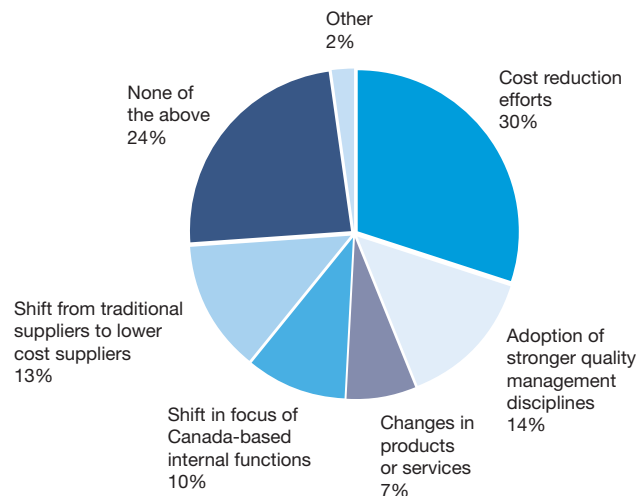
*We asked the survey participants what actions they are taking in response to the offshoring trend. The vast majority indicated they are taking action to become more cost effective. However, Canadian companies are behind in making the productivity investments they need to respond effectively.*

While not everyone is offshoring, Canadian businesses have responded to the offshoring trend in other ways. Over 70% of our respondents have taken action to minimize the movement of jobs from Canada. Nearly half have cut costs, and one in five have adopted stronger quality management or changed suppliers. Others have changed the focus of some Canadian operations, and some have gone so far as to change their products or services.

*Over 70% have taken action to minimize the movement of jobs from Canada.*

Several respondents predict that Canadian offshore outsourcing is on the eve of growth. We believe it remains to be seen. Canadian-based organizations do as much or more domestic outsourcing (within their own country, in this case Canada) as their counterparts in other countries. But for now Canadian firms lag competitors in the U.S., U.K. and other leading economies in the use of offshoring—whether captive or outsourced.

Has your company taken any of the following specific management actions to minimize the movement of jobs outside of Canada? Select all that apply.



# Respondents have various explanations for Canada's low use of offshoring

These are our survey respondents opinions on why Canadians are offshoring “dabblers”:

## Values

- Canadian companies are more socially and politically conscious than those in the U.S., U.K. and Australia. They believe they have a responsibility to create employment in places where they do business.
- Canadian companies are more family oriented than Americans—they want to build careers for their people.
- There's a loyalist attitude about doing everything in Canada.

## Economics

- Companies that have tried small projects have not obtained the desired benefits, and concluded that offshoring is a bad investment. They miss the fact that an offshore project needs to be big enough to justify the learning curve and start-up costs.
- Canadian banks don't want to get on the wrong side of the Department of Finance by sending jobs offshore before they get permission to do mergers. (U.S. and U.K. financial services firms are the largest users of offshore knowledge work).

## Structural inertia

- Canadian industries—banking, insurance, health care, utilities, transportation and (until recently) telecommunications—that are ripest for offshoring are highly regulated and face little competitive pressure. They see offshoring as a limited cost-cutting tactic rather than a strategic competitive initiative.
- It's a microcosm of Canadian business reaction to the revalued dollar: “the house isn't on fire so why incur the pain?”
- In U.S. companies the IT function reports to the chief financial officer (CFO) more often than in Canada, where the chief information officer (CIO) more typically reports directly to the chief executive officer (CEO). Radical cost cutting moves that challenge a CIO's turf are less likely to succeed.
- Government accounts for some 30% of the Canadian economy, including public services like education and health care. It plans to improve efficiencies by moving to shared cross-agency, outsourced services. But this is a slow process.

We believe the economic and structural reasons listed above all have some truth.

*Canadian companies, and the Canadian economy, must be globally competitive if they are to continue distributing social benefits. The solution is to continually renew the mental muscularity and agility of Canada's knowledge-based workforce and business activities—not to hide them from inevitable competition.*

But the values-related reasons, while laudable, are misguided. In the not-so-long run, a socially conscious economic strategy depends on a competitive strategy. Canadian companies, and the Canadian economy, must be globally competitive if they are to continue distributing social benefits. The solution is to continually renew the mental muscularity and agility of Canada's knowledge-based workforce and business activities—not to hide them from inevitable competition.



# Canada's low adoption of offshoring links to low investment in ICTs and innovative business practices

*The lag in adoption of offshoring by Canadian organizations is related to their low adoption of information technologies and innovative business practices. This lag threatens Canada's competitiveness, its standard of living, and its ability to sustain social programs in an increasingly competitive global environment.*

There is no longer any doubt that investments in information technology—when combined with the right kinds of business practices—makes a critical contribution to the productivity and competitiveness of individual businesses and a nation's economy. Research studies at MIT, McKinsey, ITAC and other places have proven that IT investment, when combined with effective business practices, leads to productivity growth. The resulting lower prices, higher incomes, increased market share, and/or bigger profits improve a country's standard of living and enable social investments in infrastructure, health and education. A virtuous, self-sustaining cycle occurs when the right kinds of social investments strengthen business productivity and vice versa.

The bad news is that Canada has not been performing as well as it could or should in these areas. Since 1990, Canada's ICT investment per worker has been in more or less steady decline in comparison with the U.S. In 2003 it hit a disturbing low of 42.4% of the U.S. level. On average, Canadian companies invested US\$1,332 in ICT per employee, while U.S. firms invested US\$3,137.

The country's relative output per hour dropped during the same period, leaving Canadian productivity at 76.6% of the U.S. level in 2003 (and then 73.7% in 2004).<sup>4</sup> The trail of decline roughly follows the pattern of Canada's relative decline in ICT investments by two to three years. This suggests a cause-effect relationship between declining ICT investments and declining productivity, since it takes a while to recover the payoffs (or lack thereof) of ICT investments.

*Since 1990, Canada's ICT investment per worker has been in more or less steady decline in comparison with the U.S.*

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4. Our thanks to Andrew Sharpe at the Centre for the Study of Living Standards for this data.

Output (GDP) per hour worked in the Business Sector in Canada as percentage of the U.S. level, and Total ICT investment per worker in the Business Sector in Canada as a proportion of the United States level (current U.S. dollars), 1987—2004



Source: Statistics Canada and United States Bureau of Labour Statistics and Bureau of Economic Analysis

Economists point out that many factors—not just ICT—affect labour productivity. But it’s unquestionably true that companies which harness ICT effectively outperform their competitors more often than not—and then the aggregate results ripple across the economy. We believe the parallel between Canada’s declining relative ICT investment and its declining relative productivity is more than a coincidence.

*When collaborating effectively with networks of global partners, firms gain not just cost benefits, but innovation.*

The offshoring industry began as a means of providing access to large numbers of low cost ICT professionals to customers in higher cost regions. Today, ICT remains the largest portion of the offshoring industry, and a common starting point for major companies starting down the offshoring path. Canada’s relatively low investment in ICT over the past fifteen years means there has been less reason to seek cost reductions offshore. But does that mean we have missed the opportunity to benefit from ICT investment and broader offshoring? Far from it. Effective ICT investment and offshoring are linked and together drive productivity growth:

1. Effective investments in ICTs—ones which lead to improved productivity and competitive advantage—entail big changes to business practices.
2. When ICTs are implemented well business processes become rationalized and more efficient. Employees, customers and suppliers gain access to information and the ability to take action at the time and place of need. They get better at collaborating across time, space, and organizational boundaries.
3. The use of modern, flexible technologies allow firms to focus on what they do best, and rely on others—customers, channels, partners and suppliers—to do the rest.

4. When collaborating effectively with networks of global partners, firms gain not just cost benefits, but innovation—access to new ideas, new markets, and new approaches to doing business.

At their best, firms generate entirely new business models—like eBay and RIM’s Blackberry—which only become possible on an ICT foundation.

In other words, the very actions that companies take to ensure effective return on ICT investments are activities that prepare the way for outsourcing and offshoring. Modularization, networked collaboration, and focusing on what you do best—these are the preconditions of outsourcing and global knowledge work. To the extent that Canadian companies fall behind in ICT investment, they fall behind in the ability to capitalize on global knowledge work. Meanwhile, U.S. firms in every industry—whether financial services, telecommunications, health care, retail or manufacturing—are in the midst of an aggressive series of projects to make these very sorts of organizational changes that capitalize on ICTs. In this context, Canadian protestations about “doing the right thing” carry a weak ring.

# Canada has a fat problem

In *The World is Flat*, Thomas Friedman presents a “coefficient of flatness” theory: flatter countries—those which can’t rely on rich natural resources to cover up their poor productivity—are more likely to succeed in today’s increasingly flat world. The flat, like Taiwan, Japan and coastal China, tap the creativity and entrepreneurship of their people better than the resource-rich fat.

Arguably, high prices and growing demand for commodities have led to complacency among Canada’s business leaders. Canada, even more resource-rich than its competitor to the South, has a fat problem that has enabled it to build walls around protected and resource-laden industries, reducing pressures and incentives to invest and innovate.

The data is shocking. Across the board, Canadian companies invest 43% as much as their U.S. counterparts in ICT per worker. Compared to the U.S., most of Canada’s protected industries—health care (42% of U.S. levels), telecommunications and cultural industries (48%), and finance and insurance (60%)—invest about half as much in ICTs per worker. But regulation doesn’t explain the whole problem. Several less regulated Canadian sectors under-invest even more woefully: mining, oil and gas extraction (11% of U.S. ICT investment levels), manufacturing (25%), construction (29%), and professional and scientific services such as accountants, lawyers and architects (30%).

*Canada, even more resource-rich than its competitor to the South, has a fat problem that has enabled it to build walls around protected and resource-laden industries, reducing pressures and incentives to invest and innovate.*

Because Canadian firms under-invest in ICTs, they also under-invest in the ICT-based innovative business practices that increase productivity and competitiveness—including those, like modularization and the use of technology to support business processes and collaboration—which facilitate outsourcing and offshoring. And of course, offshoring itself is an innovative, technology-based business practice. Canada, behind in all of this, is falling ever further.

# Global delivery model increasingly masks offshore sourcing—putting competitive pressure on India-based firms

For large corporations seeking to outsource knowledge work, using suppliers that offer a so-called global delivery model is increasingly the approach of choice. This model can provide the best of possible worlds. Western companies buy services from western firms whose names they recognize, and with which they have relative cultural affinity—like Accenture, CGI, EDS, and IBM. At the same time, they capture the cost savings proffered by the India-based competitors of Western suppliers. This is because most Western IT and business process outsourcers are now rapidly ramping up their operations in low-cost economies. In our earlier study, we predicted that Western and emerging economy business models would begin to intermingle and converge. This trend is increasingly visible.

- Accenture, which already has 15,000 employees in India, plans to increase its numbers there by 50% over the next couple of years, and to add 30-50,000 employees in India, China and the Philippines over the next three years.
- A month after IBM released 13,000 mainly European employees in May 2005, an internal memo revealed plans to increase the company's India-based workforce this year by 14,000, bringing the total to 38,000.
- Similarly, France-based Capgemini announced plans to cut its European workforce while quadrupling employment in India to 10,000.

India-based firms like Infosys and TCS are feeling the pressure. Their domestic employees are leaving by the thousands for Western-based firms, lured by salaries, working conditions and career paths. Merger and acquisition rumors are widespread. These firms have responded by expanding their operations in North America and cutting prices. Meanwhile, days before our scheduled interview, Accenture hired the Canadian country leader of one of India's largest offshoring firms.

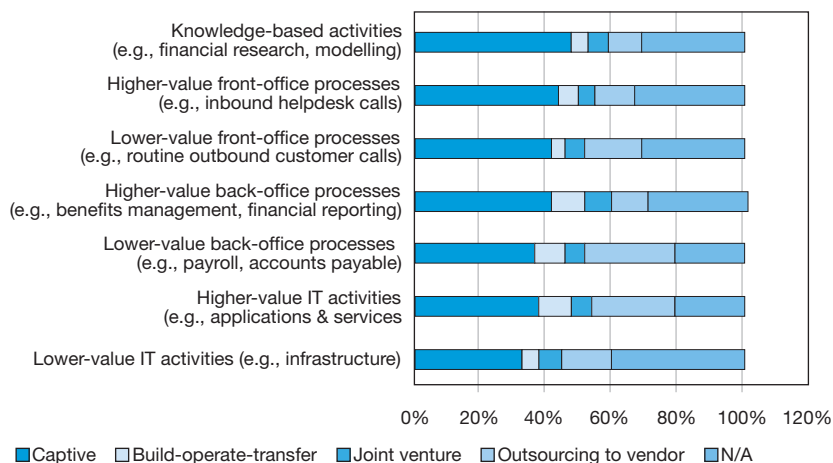
*Increasingly, for large corporations seeking to outsource knowledge work, the so-called global delivery model is seemingly the approach of choice. This model can provide the best of possible worlds.*

# Captive offshoring beats outsourced offshoring

*When offshoring the use of captive centres outpaces the use of outsourcing.*

One major factor companies consider when selecting between captive and outsourced is *what kind of knowledge work to be sourced*. The impact that Type of Work has on the delivery model was documented in research conducted with over 150 financial institutions from around the world. Published in September 2005 by the Economist Intelligence Unit (EIU) for PwC, the research looked at offshoring in financial services including which models were preferred by those already offshoring. The results show that for lower value IT activities, like infrastructure, respondents prefer an outsourced model over a captive model. Even for high-value IT services, such as application development and application maintenance, the use of captive centres outpaces the use of outsourcing. In general, the closer the work is to the buyer’s end client the less likely that work is to be turned over to a third party.

Which operating model does your organization currently favour for its various offshoring activities?



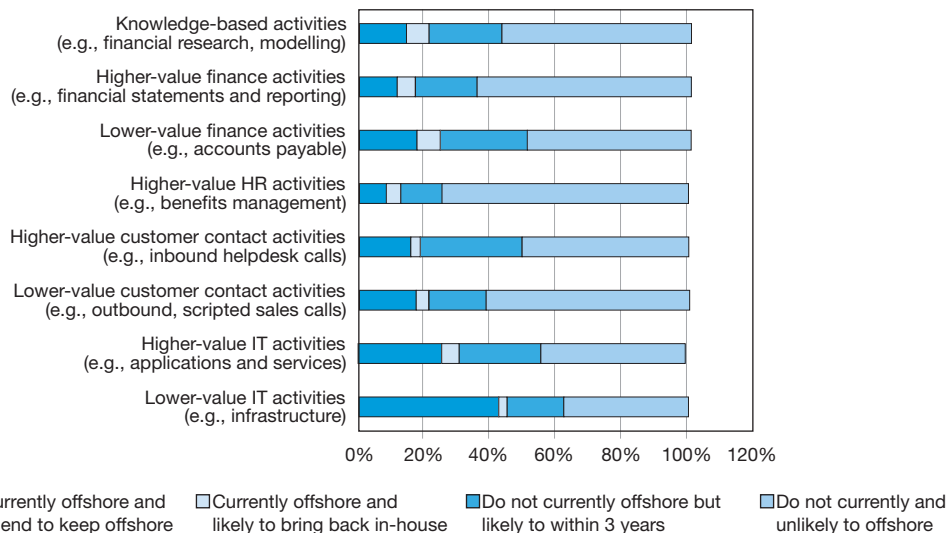
Source: *Offshoring in the financial services industry: Risks and rewards*, PricewaterhouseCoopers Sept, 2005

So why use a captive centre over outsourcing? Keeping high-value work within your control seems like a logical approach, particularly for security and privacy sensitive financial institutions.

The EIU research also asked respondents to forecast which models they intend to use in three years time. There are marked increase in the planned use of the outsourcing model. Key factors driving the move from captive offshore to outsource offshore include both rising confidence in the offshore service providers and an underlying interest in freeing up capital to invest into other parts of the business. In general, for the large global players there is a preference for “Lift then Shift”: to first move the work offshore, then re-engineer it. In some cases, offshoring has facilitated the creation of shared services. “You

can lift and drop similar processes from multiple units into one offshore centre, where the co-location gives visibility to process differences. So why not take the best processes and standardize to create high quality, true shared services,” says Andrew Robinson, Offshoring Centre of Expertise head for ABN Amro, a leading international bank.

Which of the following activities do you currently offshore and which do you intend to offshore over the next three years?



Source: *Offshoring in the financial services industry: Risks and rewards*, PricewaterhouseCoopers Sept, 2005

# Canada's rank as an offshoring destination is slipping

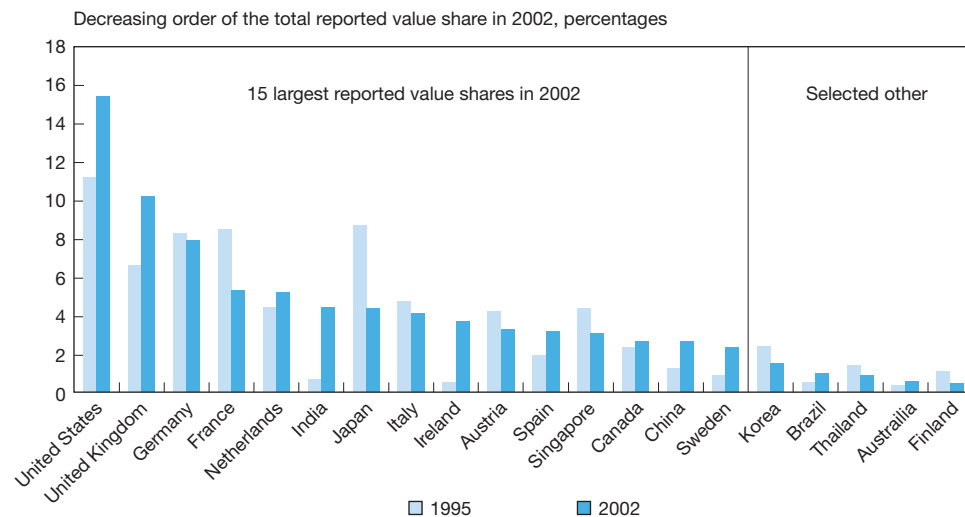
The fuss about emerging economies veils the fact that developed economies remain the biggest suppliers of knowledge services to one another, as OECD data illustrates (Figure 2). This should come as no surprise. U.S. companies provide many outsourcing services to Canadian firms. For example, most Canadian banks obtain credit card processing services from the U.S., where scale economies make the cost of computer-based transaction processing much lower than in Canada. Big outsourcing contracts awarded by the British Columbia government gained notoriety in late 2004 precisely because some of the work was to be performed in the U.S. And of course, U.S. headquarters invisibly consolidate all sorts of activities which their Canadian subsidiaries would otherwise need to perform locally.

*Developed economies remain the biggest suppliers of knowledge services to one another.*

The reverse is also true. If you include activities that nobody counts in typical statistics on Canada's "nearshoring" economy (such as Hollywood North and, for example, services that the Bank of Montreal provides to its Chicago-based Harris Bank subsidiary), Canada's knowledge services exports would be a lot bigger than the OECD data suggests. But so would those of other G-7 countries. What's the bottom line? No one really knows.

Figure 2

Share of the value reported total<sup>1</sup> exports of other business services and computer and information services, selected countries, 1995 and 2002



Source: OECD Information Technology Outlook, 2004

The OECD data also suggests that Canada's rank as an exporter of business services slipped dramatically between 1995 and 2002, from sixth to thirteenth place. Its growth momentum is much lower than that

of several countries which rank behind it, so its rank may slip even further.

Our 2004 report said Canada was in “A Fine Balance”—meaning that its imports of knowledge-based services approximately equaled its exports. The OECD data supports this hypothesis. We said that in future the balance might tip either way, making Canada a net winner or loser of services jobs as the global supply chain evolves.

*Canada’s rank as an exporter of business services slipped dramatically between 1995 and 2002, from sixth to thirteenth place.*



# Canada is at risk as a venue for nearshore services

*Canada's reputation as offshoring destination has grown, but it's still not meeting its potential, and risks to its position are real.*

Canada has significant advantages as a nearshoring destination for U.S. and European companies. Its dollar remains cheaper than the U.S. dollar. Wages, even at-par, are lower, and Medicare is a huge plus. Canada has an educated, ethnically diverse, productive labour force. Its culture, business practices, and laws are very similar to the U.S. In smaller centres like Halifax, Chicoutimi and Kelowna, many of these advantages are magnified due to lower average salaries, higher employee retention, and cheaper real estate. On the flip side, Canada's population is small, and in many knowledge specialties, lacks critical mass.

*Canadian executives of global services firms tell a mixed story about their ability to bring work to this country.*

Canadian executives of global services firms tell a mixed story about their ability to bring work to this country. Some proudly describe their track record in setting up centres of excellence to serve global clients: IBM in insurance and Accenture in utilities. CGI—Canada's largest home grown global IT and business processing services company—has grown dramatically on the strength of labour arbitrage and entrepreneurial zeal from its Canadian base. At the same time, many executives of global firms say they must compete internally to bring international projects to Canada—and they are too frequently at a disadvantage. Costs are simply not competitive with low cost economies. Distinctive high-end capabilities have not been brought “into focus.”

This article appeared in a respected Indian newspaper. It reminds us of that which we sometimes take for granted.

## **Is the Canadian stealing your BPO job?**

Harsimran Singh  
5 May 2005  
The Economic Times

Great cultural compatibility with the U.S., similar legal framework, low real estate prices, excellent telecom and power infrastructure and an accent indistinguishable from that of the U.S. make Canada one of the most attractive BPO hotspots of the world. Similar TV and pop culture and excellent education system also make it the most attractive nearshoring destination for U.S. companies.

According to NeoIT, a global outsourcing consultant, the U.S. and Canada share the world's largest trade partnership. Trade worth more than \$1.3 mn per minute occurs between the two giants. The US trades more with Canada than with all of E.U.

Some of the factors responsible for making Canada the most alluring nearshoring destination are:

**Culture:** Approximately 200,000 people immigrate to Canada every year. Many of these are from Africa and Asia, willing to work for low wages. A plethora of diverse cultures offers BPOs capability to serve in multiple languages. A great number of people possess Spanish, Cantonese, French and German skills. The Canadian accent is almost indistinguishable from the American. Canadians are well versed in American politics and pop culture. TV habits of Canadians are identical to that of Americans. All these factors contribute to a labour pool highly suited to service U.S. customers.

**Excellent education system:** Canada spends about 8.4% of its GDP on education making it one of the best among G7 nations. India spends a meager 2.8%. Canada churns out 145,000 bachelors, 23,000 post-grads and 5,000 PhDs every year. In 2002, four Canadian B-schools were among the top 10 B-schools ranking released by Businessweek.

**Low attrition rates:** Attrition rates in Canadian call centres is much lower (18%) as compared to the U.S. (50%). According to NeoIT, there are about 14,000 call centres in Canada employing more than 5 lakh agents.

**Low labour costs:** Labour costs are much less in Canada as compared to the U.S. According to a survey by KPMG, labour costs in Canada are up to 37% less in ICT industry. A Canadian software programmer costs 27% less as compared to an American. R&D costs are 30.6% less in Canada.

**Low real estate prices:** Commercial real estate costs much lower in Canada as compared to the U.S. Leasing and purchasing adhere to same standards as those in the U.S.

**Excellent infrastructure:** Canada enjoys an excellent rail road infrastructure. It has the world's best system of highways. The commonwealth nation is the largest producer of hydroelectric power in the world. Many provinces like Quebec and British Columbia export electricity to the U.S. Canada is the number one supplier of oil and gas to the U.S. It has the world's largest fibre optic and IP broadband network. It deployed the world's first national optical internet research and education network.

**Similar laws:** Like the U.S, Canada enjoys a democratic system of government. The two economies are so finely interwoven that a U.S. slowdown inadvertently affects Canada. The countries enjoy similar accounting standards. Says Sabyasachi Satpathy, research director at NeoIT: "The tax sheets certified by Canadian accountant is very much valid in the U.S. due to similar accounting standards." The NAFTA and U.S.-Canada Free Trade

Agreement has led to a sharp increase in mutual trade. U.S.-Canada trade amounts to more than \$670 bn per annum.

**A home to major BPOs:** Global call centre majors like Convergys, Teletech and Sykes have set shop in Canada. IT consultancies like Accenture, Keane and KPMG have a major presence. Other fortune 500 firms include Microsoft, SAP, Intel, and Oracle.

So, can Canada be a threat to Indian BPO supremacy?

India offers high-end BPO services at a much lower rate than Canada. So, it's much better for a CEO of a troubled U.S. IT firm to outsource to India to show good financials on the balance sheet.

The services from India are of global standards. Some Indian call centres show much higher quality figures than their U.S./U.K. counterparts.

India offers a vast labour pool of IT workers. India churns out around 450,000 IT graduates every year as compared to only 30,000 from Canada. So, India is a much safer option for those wanting to scale operations.

But, for those driven by risk and security concerns, Canada remains the best nearshoring bet. Says Satpathy: "Firms these days are going for a gamut of global locations under their belt. So, the most critical work is done onshore, a little less critical on the nearshore while the least critical like customer support on the offshore."

For example: A U.S. bank may outsource its retail and accounting processes to India while the more critical B2B and core banking services are outsourced to Canada. A similar time zone and lifestyle also act as a booster in Canada's case.

Also, most U.S. firms want Canadians as their customers. So, developing an outsourcing relationship is the best way out.

#### **The future...**

When it comes to data protection and IPR laws, Canada scores over India. The recent call centre fraud by some BPO agents in Pune is a case in point. So, all high-end risk involving work will keep going to Canada. But, for most cost effectiveness and better quality for low risk work India seems to be the best bet for BPO.

Over the past eighteen months we have witnessed a good number of exciting announcements as leading companies chose Canada for global delivery of services.

- Dell announced a major call centre in Ottawa.
- IBM announced creation of 200 jobs in support of the aerospace and automotive industries.
- Koei, a Japanese videogame developer, announced an expansion with a state-of-the-art studio in Toronto for the company's North American product development.

These announcements support Canada's place in the global delivery model of several major firms. These companies choose locations after extensive analysis of cost, service quality, availability of skills, and supporting infrastructure.

Note that global providers do not view government incentive offers as major decision drivers because they:

- Tend to be matched by competing jurisdictions.
- Are difficult to understand and collect on.
- Are transient (come and go with government changes).

The exception is broad-based tax programs which are seen to be less likely to change in the short term, more well-defined, and consistently applied. While there are exceptions to this, and few companies will turn down incentives, government incentive programs remains a questionable strategy for positioning Canada as a preferred location.

Service providers that operate globally but have traditionally served Canada from Canada all report adoption of global delivery models. They use a mix of onshore, nearshore and offshore resources to meet client needs. The mix changes continuously to reflect availability in the network, changing costs, and the risk tolerance of the client. Increasingly, service providers are negotiating with their clients the right to decide, without consultation, where they will perform work.

Most buyers of services that we spoke to indicated that they are contracting for results and are not concerned where the work is done as long as it is delivered on time, within budget, to specification, and in compliance with relevant laws, regulations, and business practices. One provider forecasts that within three years 50% of its contracts will give it freedom to decide where it performs work for Canadian clients. Of that work, 50% moves to low cost jurisdictions outside of Canada. What's keeping the other 50% off the table for offshoring? Mostly government work and work for unionized firms.

*Increasingly, service providers are negotiating with their clients the right to decide, without consultation, where they will perform work.*

*Most buyers of services that we spoke to indicated that they are contracting for results and are not concerned where the work is done as long as it is done on time, within budget, to specification, and in compliance with relevant laws, regulations, and business practices.*

So if offshore based and domestic service providers are both migrating work offshore, should service providers be obliged to deliver a certain percentage of their work domestically? Is that realistic? Discussions with one large global system integration and outsourcing firm provided some interesting insights.

**Question:** What do you see happening in offshoring/nearshoring from your perspective as a service provider?

**Response:** The threat from India is increasing. We are moving work from Canada to India because we don't have critical mass in all areas locally. The savings are real. For example, we were paying \$117,000 annually for a telecom expert in Ottawa versus \$76,000 that we pay now in India. We did not have enough work for him in Canada, so it made sense to transfer the work to our Indian centre of excellence where they serve many clients. If we are to keep these high tech jobs in Canada we will need to expand our Canadian business and focus efforts on certain areas. We are too small to be all things to all people. Mumbai centres of excellence are massive.

**Question:** Why this is happening?

**Response:** India is coming to America. They are competing head to head for high end work with major domestic vendors and are winning major customers in the U.S. We're ramping up and doing alliance deals with Indian players to compete by increasing our capacity offshore. Our operation in Canada provides offshoring, but maybe our model isn't as aggressive or competitive as it needs to be. We need to bring in more offshoring power. We're getting pressure from within our company that we need to be better at offshoring. It is serious when a company like ours is willing to lose market share by partnering with alliance partner.

**Question:** What do you see outside of Canada?

**Response:** The market for offshoring is growing globally. My international colleagues are swimming in it. Not so in Canada. We're a small, conservative market.

**Question:** Any thoughts on how we address our challenges?

**Response:** One area worth exploring is government work. We're starting to see acceptance of outsourcing as a means of saving money while transforming government—like the recent announcements in British Columbia. Many of Canada's largest companies have used outsourcing for years, but governments have been slower to adopt the strategy in Canada. While acceptance of outsourcing may be growing, there is built in resistance to offshoring in government due to potential job losses.

**Question:** If governments ignore offshore options will it hurt Canada's competitiveness?

**Response:** Absolutely. Effective and efficient government enables broader efficiency of the country. It hurts private sector efficiency when we spend more tax dollars to deliver government services than we need to.

With proper use of outsourcing and selective offshoring in IT management and back office processes we could be 30% more efficient in delivery of government services. If it is done strategically with the service provider community the outsourced work could also provide the critical mass upon which our Canadian centres can build to compete effectively within our own company's global supply chain. The key is to keep the things domestically where we can build a world class centre of excellence and leverage cost effective sources where we cannot.

**Question:** Do you think it will happen?

**Response:** We're at a crossroads. Canada's governments have a chance to influence the future of the domestic ICT and business process outsourcing industries, but, there are differing opinions. Some say we should change government procurement to favor Canadian firms. Our response is that you will not build a globally competitive industry and make Canada an effective player in the global supply chain by closing our borders to the best the world has to offer.

Canada faces growing pressure to maintain a competitive environment as a venue for global knowledge services. Global service providers will act rationally within limits of the law and client commitments. India-based service providers will continue to expand by aggressively driving down costs to win over conservative Canadian decision makers and to compete with entrenched domestic service providers. Like it or not, we are already part of the global supply chain within our local market. It is a supply chain which is more aggressive and effective at taking out costs than those in which Canadian companies and governments have previously participated.

If we are to ensure that Canada remains a key component of the global delivery model for global service providers we must we define the areas Canada will be famous for—then ensure we provide an abundant supply of hot skills to supports that focus. Around that competency area we must maintain a globally competitive total cost of operation, protect intellectual property and privacy, and constantly invest to stay ahead of the market. Remember, executives working in the Canadian operation of service providers would love to see a strong Canadian ICT sector which creates meaningful jobs today and into the future. They have children too.

The decline is real. Ontario's Ministry of Economic Development and Trade reports that over the past two years it has seen a "major drop in the number of new leads" for call centres situated in Canada, though leads began to "tick upwards" during the second half of 2005.

As these decisions occur within organizations they are not visible in the market. No press release is required. Statistics are difficult, if not impossible, to locate. While we can be optimistic that Canada will enjoy its share of the work in these transitions, without data it will be difficult to know.

To net it out, Canada has established its position as an outsourcing venue. But its position remains vulnerable, growth has been slow, and Canadian-resident companies will—and should—send more of their own jobs offshore one way or another. So what's the strategy for protecting and increasing Canada's position as an offshoring/nearshoring destination?

*Canada has established its position as an outsourcing venue. But its position remains vulnerable, growth has been slow, and Canadian-resident companies will—and should—send more of their own jobs offshore one way or another.*

### **What is the story behind the story?**

*Sun Microsystems: a Canadian success story*

Sun Microsystems is well known for its innovative servers and workstations and its controversial CEO Scott McNealy. It is also known as the inventor of the Java programming language which has created a revolution in the software development world. Less well known is that Sun has produced a broad range of software tools, utilities and applications based on Java, and that many of these applications are maintained and enhanced in Toronto, Canada. As the portfolio grew, so has demand for new capabilities. The Toronto team of highly qualified Java programmers was being stretched thin. Sun decided to rethink its approach. How could it free the team to work on innovation while maintaining service and quality levels – and keep the lid on costs?

Sun had successfully leveraged offshore services to reduce costs and increase delivery capacity in non-engineering disciplines such as finance, legal and operations. While Canadian development staff were less costly than those in the US, a shortage of skilled developers was limiting growth. The solution identified was to engage a qualified third party to take on the software maintenance work and free up the company's experienced Java developers to concentrate on development of new functionality.

To select the right service provider Sun undertook a formal RFP with five vendors. The process included a rigorous evaluation including use of an online reverse auction to establish competitive pricing. With assistance from PwC's Outsourcing Advisory team, Sun Microsystems selected a preferred vendor.

At time of writing the contract was in transition. Key lessons learned include:

Transition takes more time with an offshore outsourcing contract. While both sides are working hard to bring the service provider's team up to speed, challenges resulted from staff misfits, resistance to change from internal customers, and a lack of previous experience in the transition team; The service provider must be proactively managed to deliver on commitments made during the sales process, even if commitments described in the contract. For example, even after an extended transition time the service provider has resisted agreeing to service level agreements (SLAs) against which their performance can be assessed.

Negotiation with the India based vendor proved more difficult to complete than expected. In particular, convincing the service provider to assume even moderate levels of risk proved a challenge not worth pursuing.

Despite such challenges, the Sun Microsystems team is confident it selected the right partner, and that it will obtain the desired benefits. This appears to be a good solution for the company's customers and shareholders. But it's also good news for Canada. Some one hundred Canadian-based Java developers can now focus on exciting new applications. Meanwhile, one hundred software professionals in India will maintain Java applications for Sun Microsystems, the firm that invented Java.

**Epilogue:** When you start down a path you do not always know where it will lead. Consequent to the success of the project, its sponsor, Omid Afnan, has taken on a new challenge. He is moving from Toronto to Beijing to lead Sun's efforts to build an application development and maintenance team in China. If things go as planned, Mr. Afnan's team will double in each of the next several years.

# Will offshoring help or hurt Canada? There is no consensus or clarity

*Unfortunately, our survey suggests that there is little basis for leadership in Canada's business community. Opinions about the benefits and risks to businesses, Canada's economy, and its workforce are all over the map. Confusion reigns. We conclude that our respondents are, on balance, worried about whether global knowledge work is an opportunity or a threat. In such a climate, leadership and bold investments will be hard to find.*

Two thirds of respondents from ICT firms think that offshoring will benefit their own firms in the short and long term—but nearly 20% believe they will be hurt competitively both short and long term. Just under half of non-ICT respondents see short and long term benefits for their companies, while 40% of the remainder see short term threats from offshoring. Over half of these (i.e. 21% of non-ICT respondents) think they will be hurt competitively both short and long term.

Respondents are even more unsure about on the implications of offshoring for the Canadian economy. Nearly 40% of ICT industry respondents see both short and long term benefits to Canada, but only 11% of non-ICT respondents agree. Most non-ICT respondents (61%) predict short term pain and long term gain. But a surprising 26% of ICT respondents expect the opposite: they think the economy will benefit over the short term (presumably because of Canada's successes as an offshoring venue), but negative impact over the long term (presumably because they think today's successes will turn out to be fleeting).

*Two thirds of respondents from ICT firms think that offshoring will benefit their own firms in the short and long term—but nearly 20% believe they will be hurt competitively both short and long term.*

Confusion and doubt are greatest regarding the impact of offshoring on Canada's workforce. A plurality of ICT respondents (39%) think the impact will be bad in the short and the long term (though 29% are at the opposite pole, expecting both short and long term benefits). Non-ICT respondents are more optimistic: 57% think offshoring will hurt Canadian workers in the short term, but benefit them over the long run. However the bulk of the remainder (29%) agree with the ICT people who think that short and long term, offshoring is bad for Canadian workers.

When opinion leaders are all over the map, someone needs to put a stick in the ground.

Canadian political leaders and policy analysts have recently identified the country's aging population as a risk factor for the future. As baby boomers retire over the next 20 years, leaving a smaller working population, how will the economy support them? Proposed answers include immigration and investments in productivity-enhancing technologies—including ICTs.

The aging population heightens the challenges we've been discussing. As the labour force shrinks and energy costs drive up the dollar,

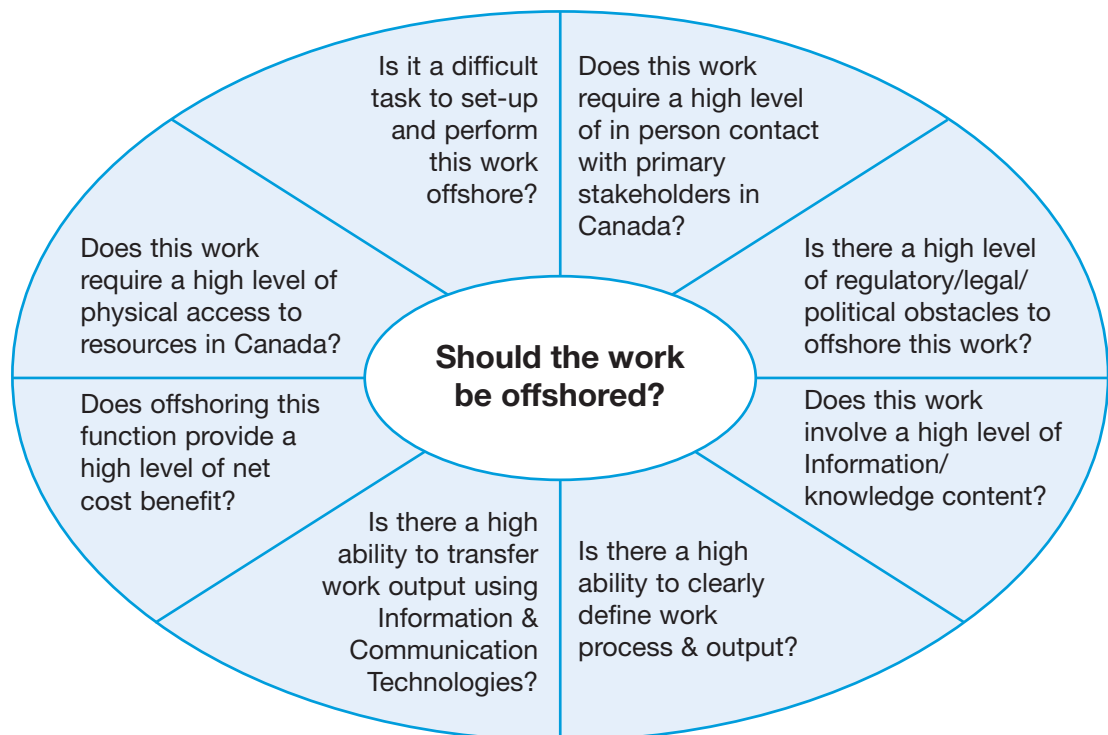
Canadian talent will become harder to find and more expensive. A shrinking population of young people will be expected to support a large aging population. Immigration will mitigate the problem, but not entirely. Meanwhile, global competition and technology will combine to drive wages down. The solution is to take charge of these changes, and ensure that every human resource in the economy is as productive as possible. Firms must increase investments in ICTs, focus on employing high value talent in select areas of specialization, and at the same time move more knowledge work—high value and low—offshore.

*Firms must increase investments in ICTs, focus on employing high value talent in select areas of specialization, and at the same time move more knowledge work—high value and low—offshore.*

# PricewaterhouseCoopers knowledge work “Offshoring Decision Wheel”

Decisions about moving manufacturing offshore are relatively straightforward. Is the offshore location cheaper? Can we find qualified workers? Is the time or cost of shipping goods from overseas a showstopper? Can we move raw materials to the offshore plant in an economic way? If you can get the right answers to these questions, the core business considerations are resolved.

Moving knowledge work around is a bit more subtle. Every company has “knowledge supply chains”, but they can be harder to define and modularize than supply chains for physical goods and services. Then there’s the issue of the “personal touch”: for many knowledge-related interactions, face to face contact seems crucial. Deciding whether to move knowledge work off shore—whether to a captive or outsourced site—is neither simple nor easy. Through our research we have developed an “offshoring decision wheel” to assist firms in developing their strategies.



PwC applies a proprietary weighted scoring toolkit to the practical use of the Decision Wheel. Some questions—such as the need for access to Canadian-based physical resources —can, in some situations, stymie an offshore initiative all by themselves. In other situations, weighted application of even the most pertinent of questions makes sense.

Also, depending on the nature of the work, some questions may be more or less relevant. For example, the ability to clearly define work process and output is the hallmark of a highly offshoreable business process. At the same time, companies have chosen to offshore some crucial activities whose outcomes are difficult or impossible to predict—such as R&D. When we apply the model, we take these and other special considerations into account.

## Global knowledge work impacts 2.4 million Canadian jobs

To assess the impact of global knowledge work on Canada, we performed an analysis on the most recent StatsCan data using the Offshoring Decision Wheel previously described. The bottom line is this: of 15.4 million Canadians employed in 2001, 2.4 million (15.6%) work in jobs that will be affected by this phenomenon. For some occupations, many jobs will move to lower cost economies. For others, wages and productivity will come under increased competitive pressure. A third group of occupations, with unique skills specially suited to Canada's place in the global knowledge economy will grow and, perhaps, command premium wages. A fourth, and likely the smallest group of all, will remain relatively unaffected.

As mentioned, our analysis begins with a population of 15.4 million Canadian jobs. We disqualified from consideration the following:

- 1.2 million jobs in public administration as well as those in religious, civic and professional organizations.
- 3.3 million manufacturing production occupations (also affected by globalization).
- 6.4 million other occupations (e.g., in hospitality, resources, construction, primary health care which are almost entirely location dependent).

This left a total of 4.7 million employees in knowledge-based services occupations to which we applied the Offshoring Decision Wheel analysis. Over half of these—some 2.4 million—in 80 knowledge occupations, are highly susceptible to globalization. These include, for example: financial managers, purchasing agents, desktop publishers, scientists, mechanical engineers, economists and insurance agents. This group includes a number of occupations (like purchasing agents and industrial engineers) which could be associated with a production plant that moves offshore. Less susceptible are occupations like geologists, employee recruiters, and medical technicians.

# Conclusions and recommendations

*To protect and improve our standard of living in the era of global knowledge work, Canadian business and government leaders must embrace the global division of knowledge work while ensuring that our businesses and workforce have the strategies and capabilities they need to compete.*

The looming iceberg of the aging population, combined with the developing flood of cost-competitive talent and capabilities in emerging economies, both lead in the same direction: Canada must respond constructively and competitively to the globalization of knowledge work.

## Leadership

- Canada's business leaders, politicians, and academics must exercise clear and vocal leadership on this critical topic. They must state categorically that Canada has no choice but to offshore activities that can best be performed elsewhere. At the same time they must identify and lead in the growth of those industries, human resources, and capabilities, where Canada can compete in the 21<sup>st</sup> century.

## Business strategy

- To be globally competitive and maximize their ability to keep good jobs in Canada, organizations in all industries and of all sizes—including the public sector and education—need to increase their strategic investments in next generation information and communications technologies, and innovative business practices.
- As part of this initiative, organizations need to systematically identify what knowledge work is most cost-effectively done in-house and what is best done by a third party supplier. They also need to decide where—here in Canada, in another wealthy economy (like the U.S.) or an emerging economy (like India or Russia).
- Organizations should seek not just cost savings, but other competitive benefits like time to market, ability to free up domestic resources for higher priority tasks, access to global markets—and, perhaps most important, access to new ideas, intellectual property, and sources of innovation.
- Every organization should mandate a senior business-oriented, strategic executive to lead this initiative.

## Government policy

- Governments should consider systematically, and in a highly targeted way, increasing their supports and incentives for the initiatives listed above. For example, accelerated tax credits for ICT investments, technology education and education credits for small and medium business, and coaching (both through government sponsored organizations and industry associations).

- Governments should use their procurement and policy powers to simultaneously reduce costs, improve performance and customer service, and build Canadian-based knowledge industries. For example, in health care they could offshore routine activities like dictation transcription and radiology diagnosis, domestically outsource a next generation health ICT infrastructure, and require winning suppliers to build export-oriented global centres of excellence that employ high-value Canadian knowledge workers. If used effectively, government projects would generate critical mass for centres of excellence that would deliver work to U.S. and other countries.
- Canadians have chosen—whether explicitly or implicitly—which market “races” to support in the industrial economy (e.g., oil extraction and car manufacturing). They must do the same for the knowledge economy—despite the risks and negative connotations of choosing winners. Several provinces have already taken steps in this direction. Alberta has invested in nanotechnology, Ontario in biotech, Quebec in IT services, and New Brunswick in call centres. This thrust must be further intensified, focused and clarified. We must also team up nationally on some of these initiatives (e.g., biotech, which is as large or larger in Quebec than Ontario). Remember that Canada’s population would fit in a tiny corner of China or India—not to mention the U.S.
- In support of all this, governments must do a much better job of tracking the imports and export of knowledge-based services of all kinds and in all business contexts (in-sourced, outsourced, etc.)

## Education

- Canadian primary and secondary school students perform well on international math and science benchmarks—much better than their counterparts south of the border. But according to Statistics Canada, the one major field to register a decline in university enrolments in 2003-04 was mathematics, computer and information sciences, where the student population fell 3.2%, the second consecutive annual decline. This decrease was driven by a 7.5% drop in enrolment in computer and information sciences. This process must be reversed. Targeted programs must reach high school guidance counselors, parents, and, of course, students themselves.
- Similarly, many workers require retraining for the global knowledge economy. Some will need upgrading of core skills, as their jobs migrate elsewhere. Others will require fine tuning. As software coding becomes a commodity—through a combination of technological innovation and offshoring—IT developers will require new technical skills and strengthened business skills, including industry knowledge, interpersonal communications, project management, and so on.

Canadian firms and governments must identify how and where the country can compete in the global division of knowledge work. There is no one single answer, but rather what we describe as a *portfolio of niche opportunities*. These will be characterized by one or more of the following, though it’s important to recognize that even when the conditions are present, global competitors remain in the game:

- Activities that benefit from geographic or cultural proximity to the U.S., such as call centres.
- Specialty areas for which Canada has strong talent clusters. These include British Columbia's video game industry, Toronto's Hollywood North, Montreal's biotech industry, and the technology centres of excellence that we've mentioned.
- Services where, for reasons of business continuity and security, Canada makes sense. This applies, for example, to backup data centres—which may be located in multiple geographies for the sake of redundancy.
- Activities where Canada remains price competitive, or price competitive enough that the other benefits (e.g. proximity) make it easy to bring the work to this country.

Significant structural obstacles stand in the way of these critical steps. Canada's governments are fractured—despite the small size of the country in the face of global competitors, regional interests at various levels repeatedly trump the national interest. Equally challenging is the country's industry structure. Many of its industries, such as ICT and automotive, are dominated by international firms. Though their Canadian leaders may wish to favour Canada, they must adhere to the economically rational global strategies of their firms.

India has a national trade association (NASSCOM) which promotes the development of its domestic offshoring industry—and includes as members many global players. Canada has industry groups (like ITAC) that have made huge contributions to the national discussion on this topic. But no organization plays a rallying role comparable to NASSCOM. Add all these issues up, and the challenges appear daunting. Clearly a national wake-up call initiative comparable to NASSCOM, and involving many kinds of stakeholders, is needed.

*Clearly a national wake-up call initiative involving many kinds of stakeholders is needed.*

### **South Africa and Offshoring**

In the late 1990s South Africa was attempting to provide socio-economic consolidation of hard-won political gains that culminated in the democratic elections of 1994. The challenge it then faced was to achieve the stability and satisfaction of its citizens. A small number of business leaders decided to lead a focused intervention to achieve job creation, human capacity development and crime reduction.

The Business Trust, as it came to be known, was established in 1999 to help to create jobs and build capacity while enhancing trust and building co-operative relationships between business and government. The Trust is an initiative of 145 companies in South Africa working in partnership with government. It

undertakes targeted job creation and capacity building programs, aimed at sustained improvements in the lives of the majority of South Africans. Member companies provide 0.15% of their market capitalization or 2% of after tax profits to fund Business Trust programs.

In August 2005, the Business Trust approved a Business Process Outsourcing Program to establish South Africa as a preferred location for the offshoring of work from outside the country, with the objective of creating 100,000 new jobs by 2009.

The program aims to achieve the following outcomes:

- Support the marketing of South Africa as a competitive location.
- Development and deepening of a pool of internationally competitive talent.
- Creation of an enabling environment of incentives and infrastructure.
- Control over the quality of the South African offering.
- Development of an industry body capable of mobilizing and representing the key stakeholders.

# Conclusion

When we released *A Fine Balance* in April 2004 we reported that Canada's IT services industry imports and exports were in balance. Eighteen months later we see that balance tipping slowly but surely toward adoption of offshore services of all kinds, not just IT services. We forecasted the migration of 75,000 IT jobs as well as an equal number of non-IT jobs by 2010. We also said that this migration could be offset by growth of Canada's global knowledge exports, leading to a potential net gain of 165,000 jobs.

We stick by our forecasts for job migration to lower cost economies. However, in light of this new research we realize that we may have underestimated the size and scope of the impact on Canada. With this research we have looked beyond IT at the broader range of knowledge work and found that all sorts of work is being sourced offshore. Some Canadian companies are responding by going offshore, but many are responding by cutting costs and seeking local efficiencies. In a select number of knowledge specialties—the ones with greatest potential—Canada can compete and win as a global leader. Altogether, we estimate that at least 2.4 million Canadian jobs are affected by the globalization of knowledge work. As discussed, it is currently impossible to track these shifts accurately. But we know work is flowing regularly to India, and irregularly to Eastern Europe and to China.

On the job growth side of the ledger we believe the jury is out. While we see higher awareness now than eighteen months ago, we do not see a national focus comparable to India and South Africa, or other countries that we have not discussed in this report like Ireland, the United Kingdom, and Australia. As the global supply chain of knowledge work evolves, Canadians must act to ensure their place as buyers and sellers of knowledge work on the global stage. Doing so effectively will increase our productivity, raise our standard of living, and assure bright futures for our children.

To some, the title of this report: *A Fine Balance: The Buying and Selling of Canada* may seem bold or over the top as we are only talking about knowledge work, not the country itself. But we offer this: What is Canada if it is not our ideas, our innovation, our culture, and our brightest minds? While the Canada we live **on** is made of rocks and trees, the Canada we will live **in** will be the result of what we collectively decide to retain and build upon.

# Appendix

## 2004 findings

We predicted that Canada is likely to lose 75,000 IT jobs to low cost economies by 2010, and an equal number of other services jobs. However, we argued, by taking the right action these job losses could be offset, to the point that Canada might enjoy a net gain of 165,000 IT jobs.

We described how the globalization of knowledge work, and specifically its migration to emerging economies, results from a number of structural changes. A key driver is that knowledge work is increasingly enabled by, and dependent on, information technology.

- Tasks and processes have become modularized so that they can be assembled and disassembled in accordance with changing business needs.
- High speed telecommunications and Internet-based communications (including near-free voice calls) are globally available and cheap.
- Software tools including email and project management software reduce the need for face-to-face interactions.
- Emerging economies are putting in place modern legal systems and business practices.
- India and China are churning out technical university graduates by the millions.
- Particularly the larger Indian outsourcing firms have gained the sophistication and critical mass to go after big deals in Western countries. Their costs are competitive, they are qualified, and they are motivated.

In addition to these broad global trends, we reported four unique factors that drive the growth of offshoring by Canadian companies:

1. Rise in the Canadian dollar.
2. Increased media coverage.
3. Investment and marketing in Canada by Indian and global players.
4. Early successes with trial programs.

Our original estimates recognized the rise of the Canadian dollar from \$0.64 to \$0.75 U.S. Since then it has risen to about \$0.84 at time of writing of this report. This increase greatly exceeds the rise of most other currencies. This encourages Canadian companies to more aggressively seek lower cost sources, while making Canada less attractive to U.S. buyers of low-cost services.

*By taking appropriate, proactive action Canada could see an increase of 165,000 skilled IT jobs by 2010. The alternative is that we stand by and watch a potential 75,000 IT jobs migrate offshore or be retrenched back into the U.S.*

*The continued rise of the dollar encourages Canadian companies to more aggressively seek lower cost sources.*

Eighteen months ago we witnessed increased attention and investment in Canada from large Indian-based IT and business process outsourcing (BPO) service providers. In fact, their arrival has been heralded by various levels of Canadian governments as evidence that the country has joined the global services supply chain. Certainly, these firms have changed the game for incumbent suppliers.

*Not everyone believes that offshoring work from Canada is something to celebrate.*

Buyers of offshore services told us they plan to forge ahead. A few have gone public and even issued press releases. Many more quietly go their business, aware that not everyone believes that offshoring work from Canada is something to celebrate.



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