
OFFSHORE OUTSOURCING OF SERVICES – NOT JUST A PASSING FAD

TD Economics

Special Report

November 24, 2005



Bank Financial Group

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Executive Summary

Thanks to reductions in trade barriers and increased globalization over the past two decades, the practice of outsourcing components of a firm's supply chain to offshore low cost providers has grown into a cost-effective strategy that can improve efficiency and free up capital for domestic investment. As economic theory would suggest, these labour cost savings have ultimately accrued to domestic consumers in the form of lower prices. But while consumers have grown accustomed to the fact that many of the goods they purchase are manufactured in countries with lower wages, the provision of some information-based services has only recently begun to move offshore, made possible only thanks to dramatic improvements in information and communication technologies over the past few years.

In fact, almost any service job whose output can be traded with the help of information technology (IT), whose work has a high explicit information content, and whose work does not necessarily require face-to-face contact, can be potentially outsourced offshore to lower cost providers. As a result, offshore outsourcing is not likely to be just a passing fad but rather, the beginning of permanent structural shift similar to that seen in the goods sector.

Still, a higher degree of skill may be required in the provision of many information-based services. Therefore, firms seeking the benefits of offshore outsourcing in services require potential suppliers to provide a balance between both low labour costs and quality. Over the past few years, this unique balance has been specifically found in India, given the country's teeming supply of well-educated, English-speaking workers. As a result, India has emerged as a global leader in the provision of many commercial services including customer service call centres,

back-office administrative help and increasingly, IT development. This reputation is enhanced by India's distinctively different time zone, which has also provided North American and European outsourcing firms with the opportunity to realize the competitive advantages of working around the clock.

Although the phenomenon of offshoring is still limited in Canada, concerns have been raised given this practice's implicit threat of domestic job displacement and its potential for expansion into higher skilled areas of work. However, the good news is that Canada currently remains a net "inshorer" of business related services, predominantly from the U.S. Therefore, its economy has not experienced any significant adverse effects from offshoring so far. But Canada cannot afford to be complacent as more work is potentially moved offshore in the future. That's because emerging countries like India and China are aggressively developing their comparative advantages in an attempt to move higher up in the value chain. Meanwhile, much of what Canada appears to be "inshoring" remains stuck in low-value added services.

As such, Canada's long-term challenge will be to sufficiently invest in its knowledge infrastructure, innovation and skills in order to boost its productivity and remain competitive by moving further up on the value chain. Paradoxically, outsourcing parts of a supply chain offshore may actually provide some Canadian firm's with the deeper pockets necessary to raise Canada's currently sagging rate of productivity growth. To this end, offshore outsourcing should not be viewed as a threat, but as an opportunity that Canadian firms cannot afford to waste.

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Over the last two decades, the globalization of goods production, particularly in manufacturing, has become almost commonplace. Indeed, North American firms have increasingly realized the competitive advantage of locating part, and sometimes all of their production chains with lower cost providers in countries outside of their national boundaries.

In contrast, the offshore outsourcing of commercial services like call centres, is a relatively new phenomenon, made possible only thanks to recent advances in information technology (IT) and in part, to the entry of low-cost emerging markets like India into the business services market over the last few years. However, this service version of globalized production has caused a great deal of consternation in the media and among some policymakers given its implicit challenge to presumed comparative advantages in developed economies such as Canada and its potential for expansion to higher skilled (white collar) areas of work. In fact, any service that can be delivered in bits and bytes and does not require face-to-face interaction appears to be potentially up for grabs.

Given that offshore outsourcing of commercial services is not “just a passing fad” but rather the beginning of a permanent structural shift similar to that seen in the goods sector, an understanding of these trends and what it means for the Canadian economy is crucial. The good news is that so far, Canada remains a net contributor of information and business-related services to the rest of the world. Consequently, its economy does not appear to have experienced any significant adverse effects from the offshoring phenomenon. Still, this trend might prove to be a double-edged sword, as a resistance to develop more offshoring opportunities and a reliance on low value-added

“inshoring” could threaten to limit Canada’s competitiveness in the longer term.

Why outsource operations offshore?

Whether it’s in the provision of goods or services, offshoring typically involves locating parts of a firm’s supply chain to another country. According to the OECD, this could include activities performed either by the firm’s foreign-based affiliates or by independent firms located abroad. But in terms of offshore outsourcing, the latter function may be analytically more appealing since operations by foreign based affiliates merely represent standard notions of trade using foreign direct investment (FDI) as a mode of entry. In this regard, FDI only describes a domestic controlling equity investment in a foreign establishment, not the “arm’s length” transaction between a domestic firm and a foreign firm in the provision of an auxiliary function in the supply chain.

There are three reasons why it has become increasingly easier for firms to either directly invest in foreign countries or to outsource parts of their supply chain offshore:

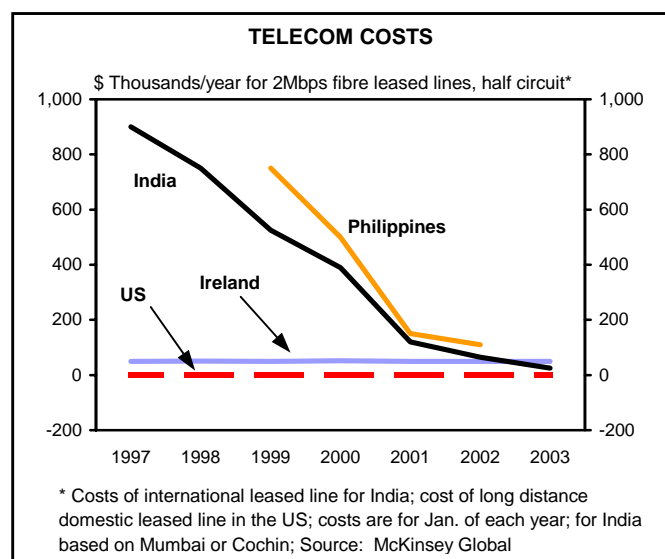
1. Transaction costs have fallen dramatically over the past two decades, thanks in part to recent technological advances, which have allowed North American firms to take a more global view of the potential supply chain for their goods and services. In particular, airfreight costs have fallen by about 40 per cent, railway costs by 60 per cent and water shipment costs by 50 per cent over the last two decades. Admittedly, falling transport costs are also due in a large part to plunging energy prices over the past decade. As such, more recent increases in energy prices have acted like a tariff and

raised real transport costs to some extent and this may partially curb the appeal of globalizing supply chains in the near term.

2. The expansion of international trade agreements along with an easing of trade restrictions, particularly in newly industrialized countries, have provided firms with a broader universe in which to trade (and invest).
3. Related to the second point, significant improvements have recently been made in the infrastructure of newly industrialized countries. In particular, the governments in many emerging countries have recognized that a poor infrastructure was a significant deterrent to foreign firms looking to do business in their country. As such, these governments have increasingly targeted the development of their infrastructure, largely through heavy subsidization and sizeable business incentives.

But just because it has become easier to globalize supply chains, that does not mean that firms will automatically choose to do so. For a profit-maximizing firm, the major motivation to outsource any operation offshore is based on economic grounds. In particular, the removal of the barriers noted above has made offshoring a cost-effective strategy that can improve efficiency and free up capital for domestic investment. That's been especially true with regards to the lower-skilled work usually associated with manufacturing since a potentially infinite supply of labour in common offshore sites like east Asia has resulted in labour costs that are a fraction of what they would be in developed countries such as Canada.

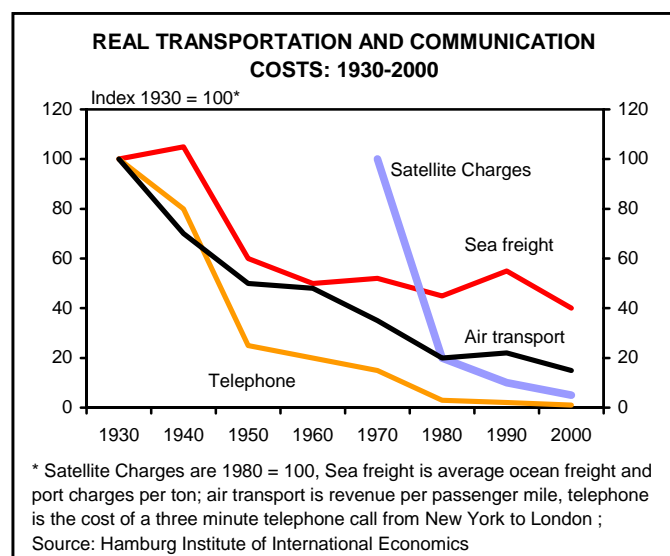
As economic theory would suggest, these labour cost



savings eventually accrue to domestic consumers in the form of lower prices. Moreover, lower capital costs in potential offshoring sites help domestic companies improve productivity. For example, manufacturers in Asia in the late 1980s began to increase their production of memory chips and because of lower production costs, chip-manufacturing firms in the United States began to outsource operations to these countries. The outsourcing of chip manufacturing, however, led to a productivity boom largely thanks to cheaper capital costs. In the end, globalized production and international trade made IT hardware some 10 to 30 percent less expensive than it would have been.

Face-to-face contact made obsolete

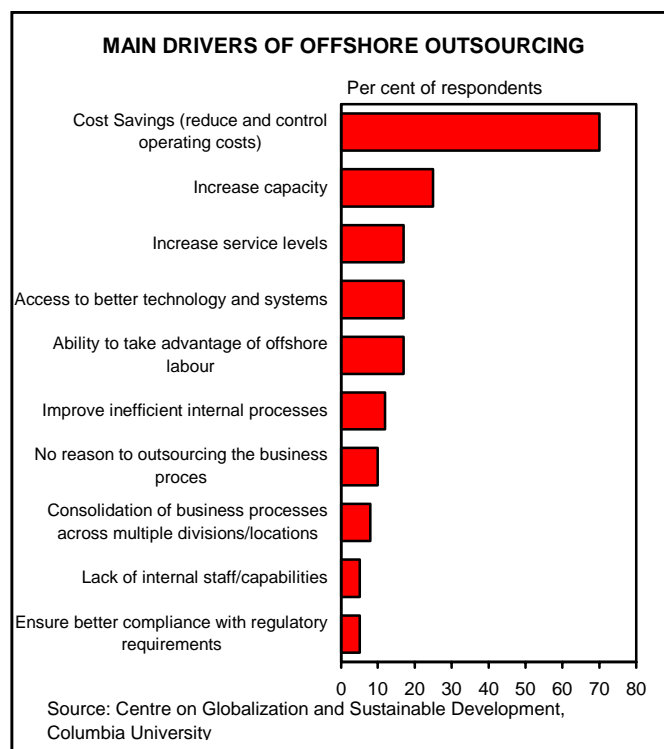
While consumers have grown accustomed to the fact that many of the goods they purchase are manufactured in countries with lower wages, the provision of some information-based services has only recently started to move offshore. That's because falling telecommunication costs thanks to improved and highly developed communications technologies, including the Internet, well developed high-speed data networks, and digitization, has permitted many information-based services to utilize, and benefit from, the same global sourcing model used by manufacturing. These technological advances have made geographic distance less important, enabling substantial quantities of information to be instantaneously disseminated by any low cost provider in the world, without the burden of face-to-face contact. Moreover, in an era when rising fuel costs are acting like a tariff on trade volumes and threatening to deter glo-



balization, these technological advancements help to keep the world a smaller place in which to do business.

Alongside these falling telecommunication costs, many information-based professions and business processes have become increasingly codified, thanks in part to standardized quality and process methodologies, and to computer software harmonization. For example, Generally Accepted Accounting Principals (GAAP) are increasingly used as the basis for the preparation of financial statements in many major markets. Meanwhile, the preparation of those statements typically utilize computer hardware and software applications (i.e., email, the Internet, and Microsoft Windows and Office) that have been almost universally adopted in many parts of the world.

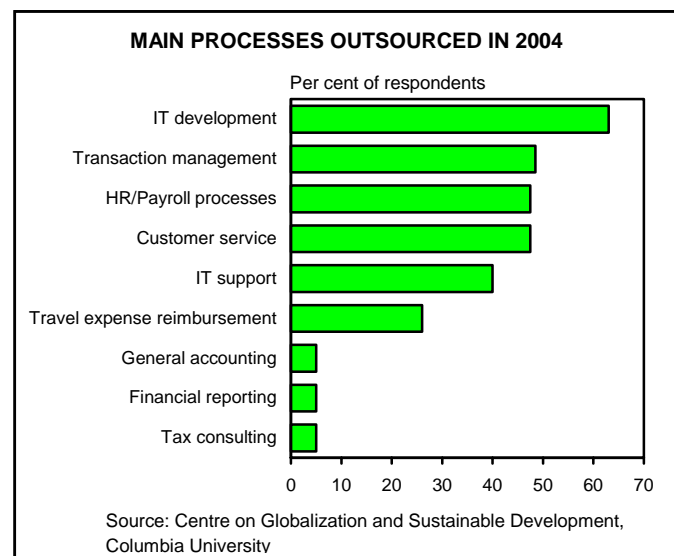
This type of standardization has allowed information-based work to become more modular such that certain types of rote tasks along the supply chain can be separated into increasingly minute pieces. In effect, this industrial-style “division of labour” means that information-based work can be increasingly distributed efficiently among workers, regardless of location or even time. And with parts of the services supply chain no longer a function of location or time zone, increased capacity and client service becomes a more viable possibility as some of these activities are outsourced offshore. As a result, a number of potential offshore sites are aggressively developing their comparative advantages and triggering a permanent structural shift for the global economy, akin to any movement that makes international trade freer. As this free trade in services continues to develop, think-tanks like McKinsey Global Institute have estimated that the volume of offshore



outsourced services will increase by 30 to 50 per cent over the next five years, signifying that this activity is not just a passing fad.

It is important to emphasize that many of the potentially offshoreable services are typically rote in nature. As such, these services fall under the category of development and applications management (labour intensive) rather than infrastructure management (capital intensive) along the firm's supply chain. For example, customer service work (call centres), software design and system support work, some accounting, legal and finance duties (such as, tax preparation, drafting contracts or patent applications), back-office activities (HR services, forms processing) and a variety of industry-specific functions (insurance claims, radiology, product support) retain a largely supportive, and therefore, labour-intensive function. And since fairly little innovation is required in the provision of many of these outsourced services, they are also seen to have limited strategic importance in the delivery of the offshoring firm's end product. Consequently, the value-added from most offshored services is, on average, relatively low in comparison to the more capital-intensive infrastructure management that is typically based domestically.

Still, a higher degree of skill may be required in many



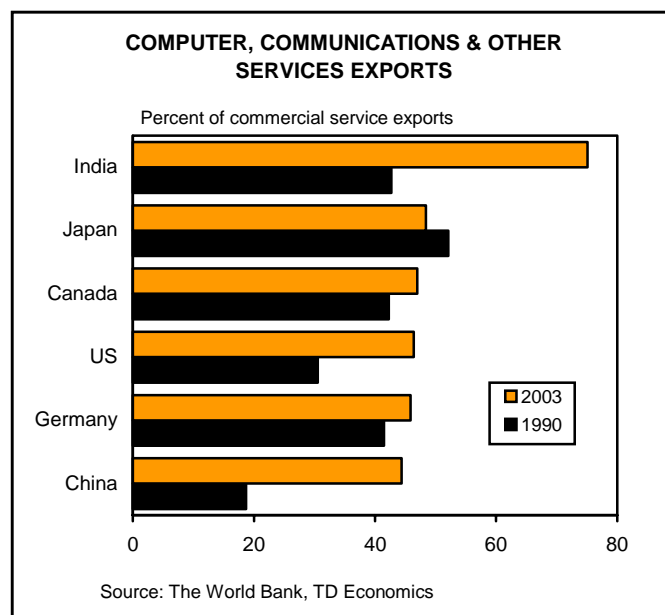
information-based services (especially those in information technology, business management or legal services) compared to most goods manufacturing. As such, low labour costs may not be the only factor that offshoring firms must consider, since a balance between cost *and* quality must sometimes be found as well.

India is the place to go for good quality and cheap wages

Finding an idyllic combination of low cost and high quality in a potential knowledge worker might, at first glance, appear to be counter-intuitive. That's because economic theory would suggest that these workers, all else equal, would ultimately command higher wages given their stronger skill set.

But this mix of low cost and quality has increasingly been found among knowledge workers in India. In fact, India has not only become the world's largest supplier of call centres but is also the home to the largest number of IT service centres in the world. As a result, the percentage of IT-related services as a proportion of commercial service exports from India has surged from about 35 per cent in 1996 to over 75 per cent more recently, of which a large proportion goes to the United States. Ultimately, these figures confirm the strong interest in India as an offshore business services site. But how has India managed to find such an ideal mix between low cost and quality?

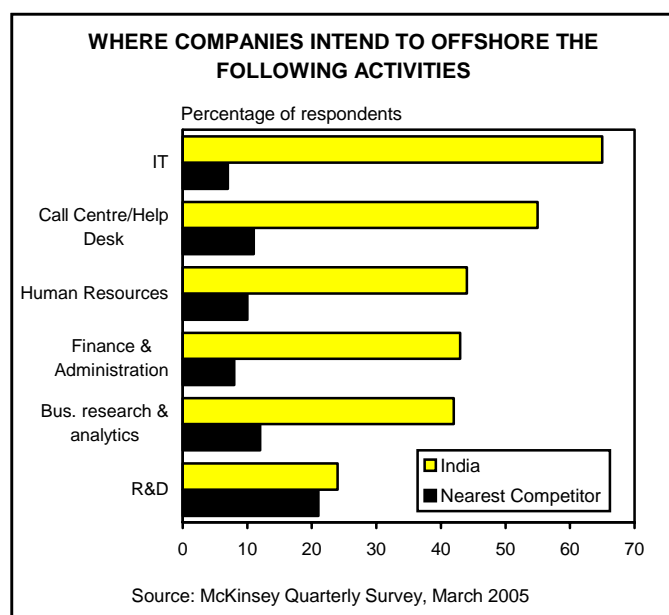
On the quality side of the equation, much of India's success is entrenched in its culture, demography and gov-

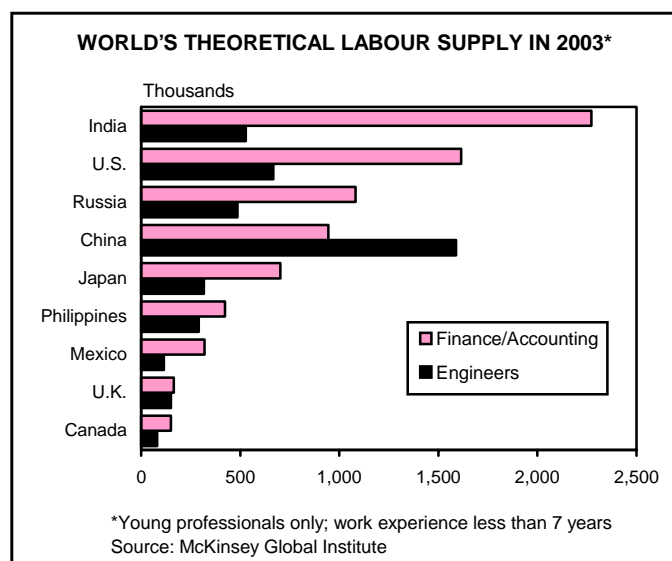


ernment policies. In particular, education is an important value in Indian society and the status of its citizens has been weighted heavily by this parameter. Indeed, being a society driven by casteism, knowledge has been the easiest way to emerge out of the limitations of caste. Cognizant of this, decades of social and affirmative action policies by the Indian government have opened up access to education to even India's most marginalized denizens. Meanwhile, India's British colonial heritage has ensured that English remains the main medium of education and so, the ability to speak this language has, to some extent, been regarded as a status symbol. In addition, India's educational and legal systems, along with its project management styles, continue to be rooted in British tradition. As a result, Indian knowledge workers are extremely comfortable working in an English-based commercial services universe.

Even as overall literacy rates remain dismal vis-à-vis the developed world, India's massive population (which is predicted by the U.S. Population Reference Bureau to overtake China as the world's biggest by 2050), ensures that a large number of well-educated graduates flow into the country's workforce. For example, India's labour force has nearly as many young professional engineers as the United States and has by far, the world's largest supply of young finance and accounting professionals.

This significantly large workforce has, at least for now, been the main factor behind India's extremely low wage rates. And since its salary structure has always been low





given its teeming supply of labour, whatever an Indian worker earns from an outsourced job remains considerably higher than what they would get anywhere else in the country. Thus, highly skilled Indian software programmers typically earn only about 20 per cent of the salary of their Canadian counterparts. For an outsourcing firm, such a disparity in wages represents a substantial cost savings.

Thus, a combination of low cost and high quality has earned India the reputation of being a global leader in the provision of offshore commercial services. That reputation is also enhanced by India's distinctly different time zone, which provides North American and European outsourcing firms with the additional opportunity to realize the competitive advantages of working around the clock. Certainly, other emerging countries such as China have similar time zone and labour cost advantages to India and it has similarly graduated a large number of business service professionals. But the failure of China's workforce to master foreign languages like English and the country's lack of Western style project management has, for now, kept it a second place rival to India especially in IT and call centre/help desk functions.

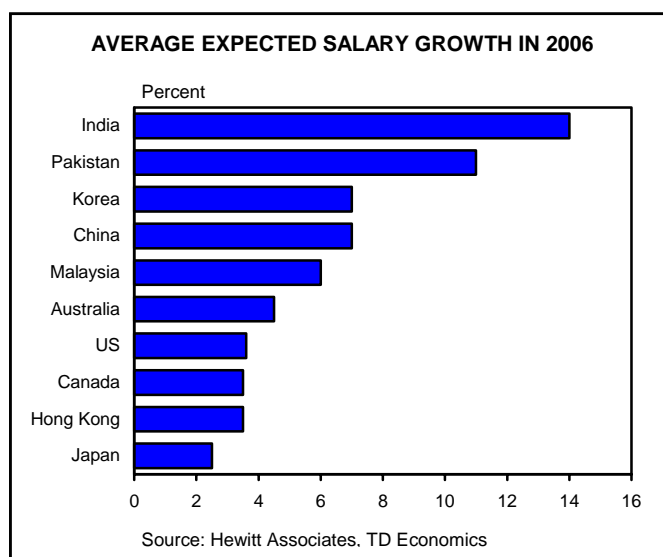
Specialization comes with drawbacks

The willingness of India's government to develop a knowledge infrastructure has also played a significant role in the country's ascendancy in the offshore IT services market. In particular, business subsidies and the expansion of international trade agreements, including intellectual property protection have opened the door to a surge of foreign direct investment in India over the past decade.

And this has contributed to a virtuous cycle of IT specialization by Indian businesses.

For example, foreign investments funding the development of IT infrastructures have resulted in leading-edge telecommunications connectivity in India and greater integration of technology into ordinary business processes. Indian companies thereby have lower barriers to entry in such markets because a system for IT development has already been instituted, a fact which has not escaped offshoring Western firms looking to also capitalize on this advantage. Furthermore, Indian companies have been instrumental in taking the initiative to produce outsourcing opportunities and building a stronger IT industry – a sign that the desire, drive, and experience necessary for more independent and specialized action continues to grow in India.

But increasing specialization comes with potential drawbacks. In 2004, IT workers in India reported double-digit salary gains, while pay for similar work in the U.S. or Canada continues to stagnant. This, however, is a natural by-product of classical supply and demand forces. With interest in specialized offshore IT services continuing to grow by leaps and bounds, India's technology trade association NASSCOM (National Association of Software and Services Companies) is concerned that India's workforce will fall short of the surging demand for IT workers by as many as 235,000 professionals by 2008. This emerging shortage, alongside the new prosperity that has helped to raise the cost of living in some parts of the country like Bangalore, has lit a fire under Indian IT wages.



To be sure, even with such pressures, Indian wages are still far lower than their Western counterparts. However, the recent rise in Indian salaries has prompted some offshoring firms to consider using services from other parts of the world where wages have not seen the same type of pressure. As mentioned, one of these candidates includes China, and some Indian firms have even explored offshoring some of their own IT services to that country too. In addition, Eastern Europe has increasingly become an attractive centre for offshoring IT services. Indeed, the Czech Republic, Poland and even Russia have all reportedly offered a solid low cost, high quality IT workforce. But the main stumbling block for some of these countries is talent retention issues, likely due to the lure of higher salaries in Western Europe.

The Canadian offshoring experience

Canadian firms have been actively participating in the globalization of business over the past two decades as evidenced by the growing importance of international trade

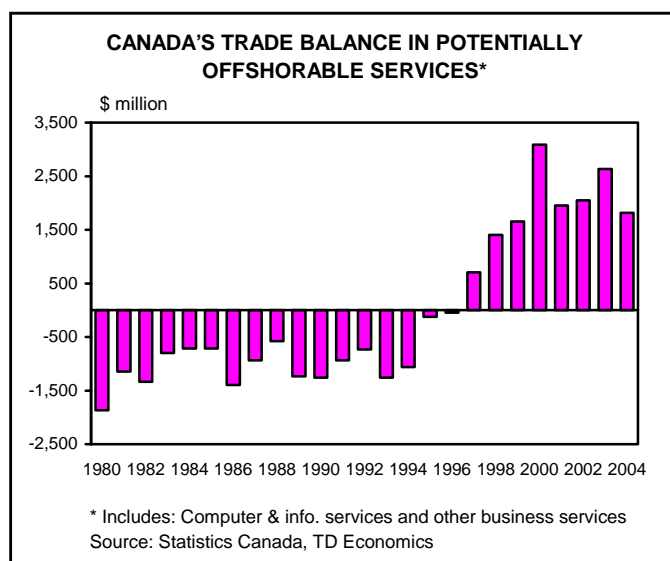
in Canada's economy, from 40 per cent of GDP in the early 1980's to just over 80 per cent today. In addition, Canada's stock of foreign direct investment abroad has risen from about 14 per cent of GDP in 1990 to almost 35 per cent in 2004 while FDI into Canada has grown from 19 per cent of GDP in 1990 to almost 30 per cent in 2004.

But getting a grip on the exact size of the offshore outsourced services market in Canada is relatively difficult, if not imprecise, since the arm's length provision of services from offshore should be distinguished from FDI. As noted earlier, that's because FDI largely describes a domestic controlling equity investment in a foreign establishment, which is not the same as the movement of some operations to another country but contracted out to another firm. To that end, a better proxy for measuring the size of offshore outsourcing is to look at Canada's balance of payments position in commercial services.

On this score, Canada has consistently run a deficit, and in 2004, imports of total commercial services exceeded exports by just over \$4 billion. However, decomposing

POTENTIAL DESTINATIONS FOR OFFSHORING COMMERCIAL SERVICES				
	IT Labour Force	Infra-structure	Advantages	Disadvantages
Czech Republic	Low cost, high quality	Good	Solid infrastructure	Talent retention issues
Poland	Low cost, high quality	Good	Good intellectual capital	Talent retention issues
India	Low cost, high quality	Average		
Ukraine	Low cost, high quality	Poor	High quality engineers	Poor infrastructure
Russia	Low cost, high quality	Poor	High quality engineers	Unstable economy
Canada	High cost, high quality	Good	Nearshore, highly compatible culture to UK & US	High cost of employees
Ireland	High cost, high quality	Good	Large devlpmt. centres of tech firms, significant offshoring precedent	High cost
Israel	High cost, high quality	Good	More shrink wrapped software production	Regional unrest
Singapore	High cost, high quality	Good	Business friendly governance; high tax incentives for IT exports	Limited availability of skilled labour pool
Malaysia	Low cost, moderate quality	Good	High gov't support, investments of \$10 billion in high tech parks	Political instability
Philippines	Low cost, moderate quality	Good	Good English skills	Low availability of project management
Pakistan	Low cost, moderate quality	Poor	Focus on software quality and processes	Geopolitical risk
Mexico	Moderate cost, moderate quality	Good	Nearshore, familiarity with US culture	Scalability may be an issue, limited skilled workforce
Argentina	High cost, moderate quality	Average	Large educated population	High salaries, political instability
China	Low cost, low quality	Average	Large number of IT professionals	Lack of project management
Brazil	Moderate cost, low quality	Poor	IT centres of large MNCs, government support	Language

Source: Evalueserve, NASSCOM (March 2003)



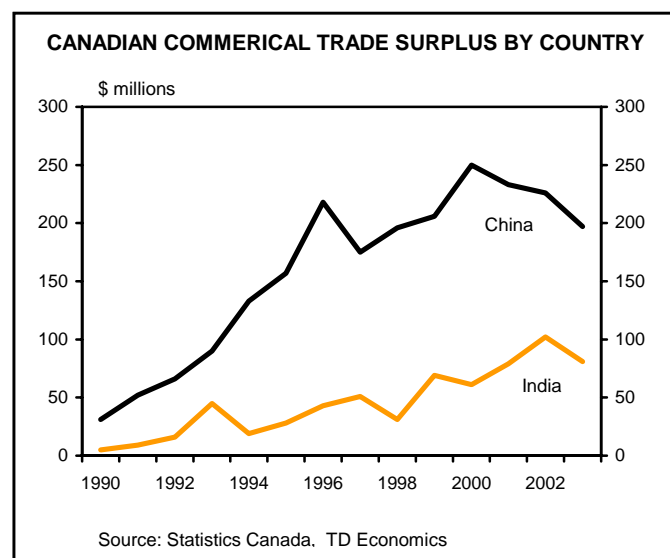
Further, in terms of the countries that one would expect to be net beneficiaries of such outsourced services (such as India and China), Canada maintained a surplus.

In terms of size, Canada's \$2 billion surplus in computer and information services, and other business services, represents just a fraction of Canada's overall economy. This suggests only a small amount of offshore outsourcing is occurring in Canada's economy. Thus, any concern (whether justified or not) about the detrimental economic impact of competition from low-cost service providers like India and China appears, for now, to be misplaced.

Strong ties to the U.S.

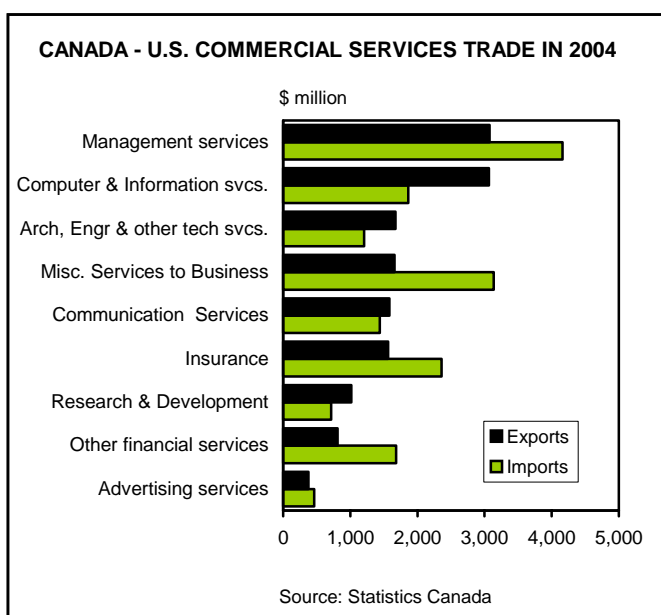
So what accounts for Canada's overall commercial services deficit? Much of it is due to a comparatively large flow of management and other business related service imports from the United States. But again, it is important to make the distinction that some of this deficit might reflect traditional FDI activity in the service sector. For example, the consulting company, Accenture, has set up many offices in Canada that provide management services to Canadian customers. While Canadians primarily staff such offices, most of the executive decisions of the firm are still made in the United States. Regardless, these figures confirm that the bulk of Canada's overall trade in services remains tied to the U.S.

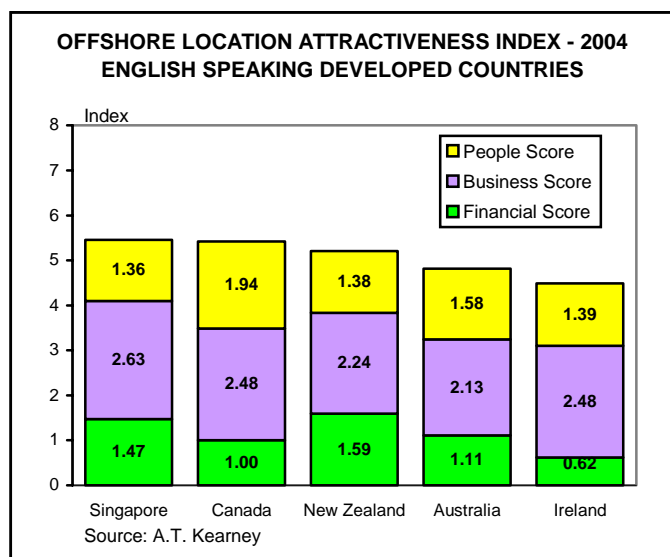
However, in terms of potentially offshorable outsourcing categories such as computer and information services, Canadian exports have outpaced imports from



the data into those components that are potentially offshorable, the picture changes. In 7 out of 9 of these potential commercial service categories, exports actually experienced faster growth than imports.

However, this may not provide a complete picture of offshore outsourcing since some categories like communications services or insurance, might still reflect the activities of domestic companies that are using their own operations in foreign countries to service the local market. Thus, it may be more useful to look solely at the two categories most likely to reflect work provided by offshore service workers: computer and information services, and other business services. Yet, even in these two categories, Canada maintained a surplus of about \$2 billion in 2004.





south of the border. In this regard, Canada appears to be a net beneficiary of information-intensive outsourcing, and that is mostly thanks to “inshored” activity vis-à-vis the U.S. Indeed, Canada has consistently ranked as a top destination for offshored services, no doubt, an accolade delivered mostly by U.S. firms.

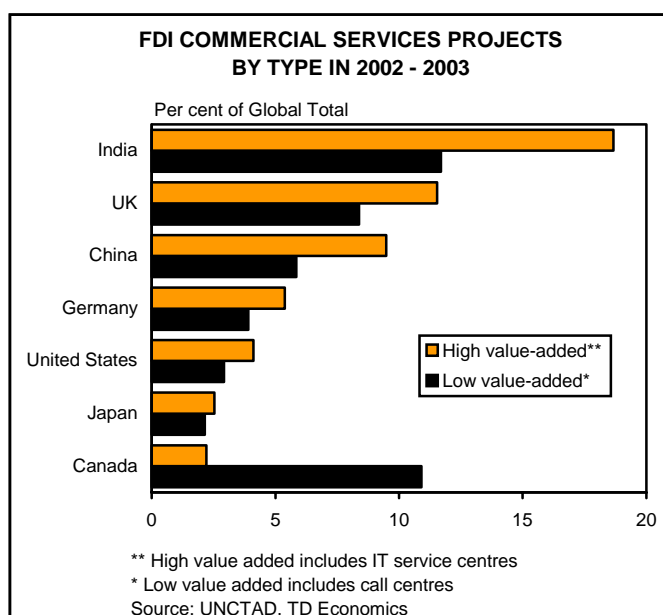
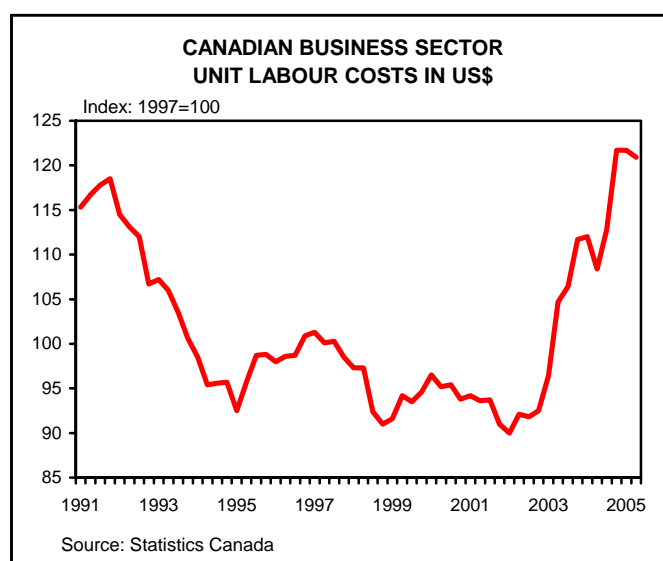
Is Canada at risk of falling behind?

While these statistics suggest a relatively sanguine view of Canada’s current experience with offshore outsourcing services, there are three reasons to be concerned about its future prospects in this area. First, according to a survey by A.T. Kearney, part of Canada’s appeal as an offshore location for services is due to its availability of people skills and business environment. While this is reassuring, Canada was also cited as an attractive destination for offshoring because of costs. That should not be too surprising since labour represents the single largest input cost of services delivery. However since 2002, the sharp appreciation of the Canadian dollar has reduced that advantage. Indeed, Canada’s business sector unit labour costs (expressed in US dollars) have risen by over 35 per cent since 2002. With its cost advantage eroding, Canada’s attractiveness as an offshoring location will only remain in place as long as the country sufficiently capitalizes on its comparative advantages in higher valued knowledge intensive work.

However, that does not appear to be happening, which relates to the second concern. Unfortunately, much of what comprises Canada’s current surplus in computer and information services (or “inshored”) remains stuck in low

value-added activity. For example, according to a UNCTAD survey, Canada was home to 56 new call centres during the 2002-03 period. That represents about 11 per cent of all new call centres globally. Meanwhile, Canada was the base for only 2 per cent of all new higher value-added IT service centres during the same period. In sharp contrast, India and China both had a greater preponderance of these higher value-added centres.

Thus, as these emerging markets increasingly move up the value chain, some observers have pointed out the potential risk that “China and India (could eventually) export high tech goods and services to us, leaving Canadians to mend the socks of Chinese business executives.”¹



Of course, this is an exaggerated prognostication. Yet it emphasizes the point that if Canada takes a complacent approach toward investing in its knowledge infrastructure, innovation and skills, it could eventually fall behind the value chain in comparison to emerging countries. As a result, any comparative advantage Canada currently has in knowledge-intensive goods and services could eventually erode as well.

Third, even Canada's strong position in the low value-added call centre market might not be in place for very long. That's in part because a growing Spanish-speaking population in the U.S., along with a broadening of the free trade zone across the Americas, threatens to divert more new call centre business to South America. And, while Canada maintains a surplus in potentially offshoreable commercial services, the growth rate of service imports remains much smaller compared to other countries like the U.S. or Sweden. As such, there is an increasing risk that Canada will eventually fall behind other countries that are taking advantage of the global trend toward service

offshoring. Before addressing the implications of this, it is useful to first answer why Canadian firms have lagged behind other countries like the U.S. in embracing offshore outsourcing?

To some extent, transaction costs (i.e., including taxes and intellectual property rights) might still present barriers for Canadian firms looking to move certain services offshore.² Additionally, Canadian firms have cited risks related to security, privacy and politics. While compelling, these perceived barriers are no less present for American or Swedish firms, yet their imports of computer and information services, and other business services far outpace Canada. As such, there could be more "home-grown" reasons for Canada's uninspiring engagement of offshore outsourcing.

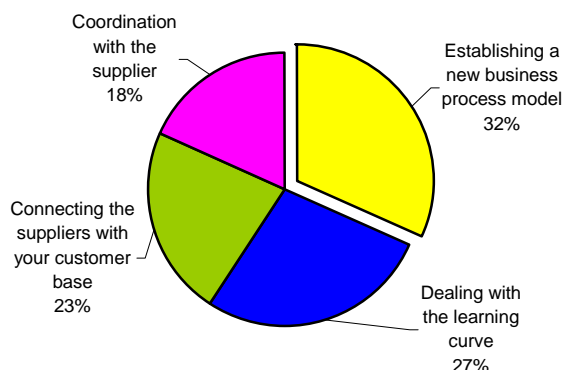
Perhaps a more convincing explanation is that Canada's corporate culture may not be adequately diffusing state-of-the-art managerial practices such as offshoring. That could either be due to a possible lack of sophisticated buyers for Canadian products or because Canadian

POTENTIALLY OFFSHOREABLE SERVICES TRADE							
Computer and Info. Services							
Country	Exports			Imports			Net Exports
	2002 Level*	1997-2002 % ch.	1992-2002 % ch.	2002 Level*	1997-2002 % ch.	1992-2002 % ch.	2002 Level*
Ireland	10,337			545			9,832
UK	4,463	14	14	1,664	18	6	2,800
US	6,930	6	16	4,193	20	34	2,737
Canada	1,960	12	11	883	5	7	1,077
Sweden	1,469	36	24	865	25	21	604
Hungary	194	18		155	13		39
Czech Republic	142	26		121	23		20
Korea	20	37	13	124	13	7	-104
Germany	5,162	17	24	6,096	14	19	-934
Japan	1,140	-4		2,149	-10		-1,008
Other Business Services							
UK	38,824	9	10	18,724	11	10	20,100
US	60,766	9	10	41,647	12	12	19,119
Canada	9,105	3	8	8,738	3	6	367
Hungary	2,226	20	2	2,665	16	5	-439
Czech Republic	1,411	2		2,164	10		-753
Sweden	8,629	19	15	9,416	21	15	-788
Korea	6,245	-6	8	10,696	6	15	-4,451
Japan	17,408	-4	0	24,703	-5	0	-7,294
Germany	27,847	2	6	39,002	6	6	-11,155
Ireland	4,935			18,745			-13,810

* in millions of US dollars

Source: OECD

GREATEST CHALLENGES IN MAKING THE OUTSOURCING ARRANGEMENT WORK



Source: Canadian Technology Human Resource Board, June 2005

firms have simply not developed a set of secondary service providers to help them with any offshoring needs. Unfortunately, both of these factors suggest that Canada's competitive climate is not adequately pushing domestic firms to seek out cost savings opportunities and maximize efficiencies by outsourcing potentially routine back-office activities to lower cost providers elsewhere in the world or otherwise.

Offshoring and productivity growth

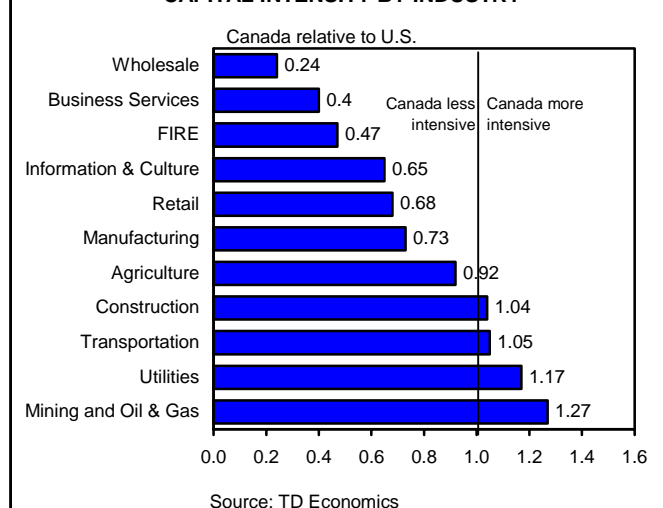
The reluctance to seek out offshore outsourcing opportunities has a serious implication for Canada's economy. In particular, this trend could be a contributing factor behind Canada's recently bleak record in productivity growth. As we noted in a recent paper entitled *Canada's Productivity Challenge*, productivity has grown by next to nothing in Canada over the past two years and grew more slowly than 21 of 23 OECD countries over the same period. The most troubling aspect of this bleak record is that at the most basic level, productivity is a key driver for raising living standards over time.

Our study surmises that part of the explanation for this poor track record, especially vis-à-vis the United States, is due to lower rates of capital intensity in the Canadian economy. In particular, the gap is concentrated in machinery and equipment where Canada is spending 55 per cent less per worker than the U.S. Interestingly, this capital intensity gap also appears to be the largest on the service side (Business services, and Finance, Insurance and Real Estate services) of the private sector.

If Canadian firms in these industries were to utilize offshoring opportunities to the same extent as their American counterparts, it is conceivable that it would help to free up capital to invest in productivity enhancing domestic activities. Recent research at Statistics Canada hints at evidence of such a link. For example, several studies have concluded that plant-level productivity gains in the goods sector were first and foremost, the likely result of directed, strategic change by managers that placed a focus on upgrading and innovation. In effect, this means that successful plants refocused by reducing the number of products produced per plant. These strategic changes certainly sound a lot like the results of offshoring. Second, successful plants experienced increased R&D spending and investment in advanced manufacturing technologies. Again, that may have been due to the reduced costs and higher profits garnered from outsourcing some parts of the supply chain to lower cost locations abroad.

In addition, offshoring firms more often than not, benefit from better and cheaper access to inputs, resulting in another potential source of productivity gain. Once more, evidence of this comes from the goods side of the economy. As noted earlier, globalized production and international trade helped to reduce the cost of IT hardware by 20 per cent, and these lower prices allowed U.S. firms to invest more heavily in IT. The resulting productivity gains are estimated to have raised GDP growth in the U.S. by a significant 0.3 percentage points per year since 1995. Thus, an argument could be made that offshoring services such as software programming would result in a similar decline in software prices, which might in turn lead to similar large

CAPITAL INTENSITY BY INDUSTRY

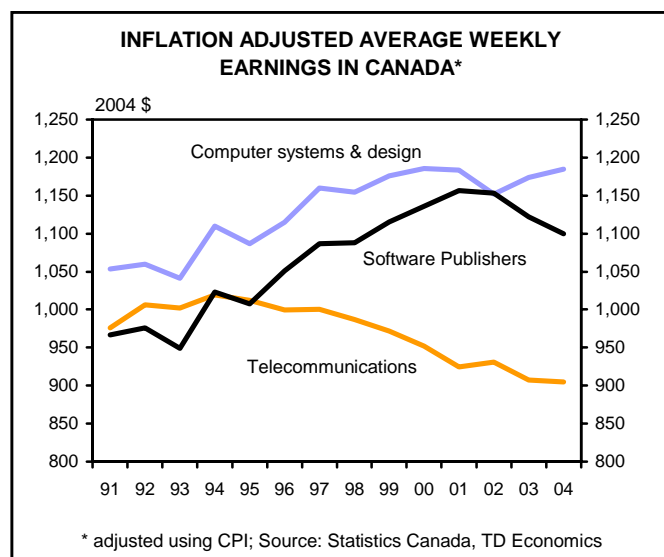


gains in GDP. To this end, Global Insight estimates that by 2010, real GDP in the U.S. is expected to be \$147.4 billion greater in an environment in which offshore resources are used to lower domestic production costs.

Offshoring doesn't necessarily equate to attrition in the labour market

While there is merit in promoting offshoring as a growth driver and a partial solution to Canada's productivity dilemma, fears have been expressed that offshoring will also result in lost jobs and weaker wage growth. Indeed, such concerns have been particularly evident in the U.S. where offshoring has grown considerably over the past few years. As a result, it has become a hot button issue in the political arena south of the border. But as a small net "inshorer" of services so far, many of these employment concerns have not yet registered on the political radar screen in Canada. In fact, Canada's International Trade Minister Jim Peterson has publicly endorsed outsourcing as means for Canadian businesses to remain internationally competitive. Nevertheless, are any fears of lost jobs and lower wages thanks to offshoring warranted?

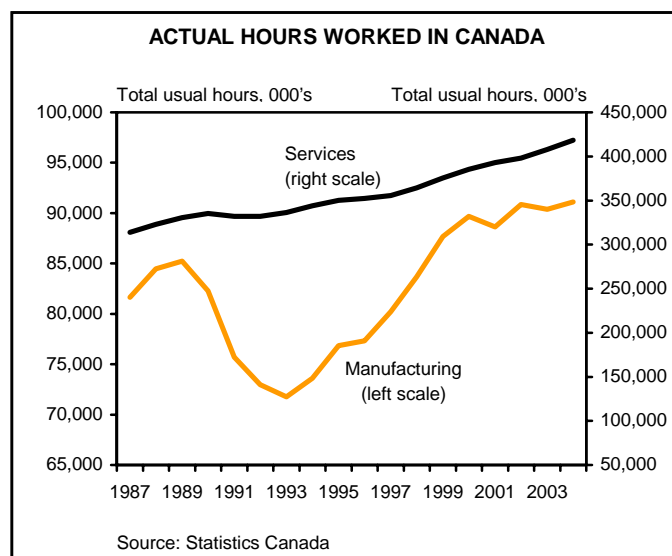
When discussing such issues, it is important to first make the distinction that there have never been "long-run" changes in participation rates and unemployment related to an economic phenomenon.³ However, there can be short-run labour disruptions. For example, the U.S. Bureau of Labor Force Statistics (BLS) reported 993,511 mass layoffs in the U.S. during 2004 of which 2 per cent were specifically due to jobs moving offshore (comparable Canadian figures are unavailable).⁴ But of those jobs moving



offshore, only a quarter of them involved a different company.

So in relation to an economy that experiences over 1 million job transitions a year, incidents of job losses in the U.S. from offshore outsourcing appear to be extremely small.⁵ Moreover, in terms of outcomes, reemployment rates for displaced service workers are estimated to be close to 75 per cent in the U.S., which is significantly higher than in the manufacturing sector. A big reason for the higher reemployment rates among service workers is likely due to their higher education/skill levels, which makes them more far more flexible to deal with changes in labour market conditions. This flexibility is important because over the longer-term, the additional capital spending and economic activity generated by offshore outsourcing should theoretically create more jobs than are initially displaced. Indeed, Global Insight expects that by 2010, the number of newly created jobs in the U.S. economy thanks to offshoring will exceed the number of displaced software and IT service workers by over 337,000.

In terms of the long-run adjustments to the level and distribution of wages from offshoring, the potential impacts are mixed. Theoretically, the lower inflation and higher labour productivity brought about by offshoring should boost real hourly wages throughout the economy. Indeed, Global Insight estimates that offshoring will result in real hourly wages gains in the U.S. of about \$0.06 in 2005 and \$0.12 by 2010. Nevertheless, there is evidence that wage levels in specific potentially offshoreable services, such as software programmers, have directly fallen in tandem with increased offshoring activity. In fact,



a few years ago, it was not unheard of for software programmers in the U.S. or Canada to earn lucrative contracts of about \$200,000 a year. Today, comparable salaries are closer to \$60,000. Certainly, some of that drop can be linked to the fallout from the bursting of “tech bubble” and all its excesses. But it seems likely that much of the adjustment to the increase in international competition brought about by offshore outsourcing has been borne out more in terms of wages than employment in North America.

While the preferred outcome is to have neither jobs nor wages adversely affected by offshoring, most observers would still concede that retaining employment at the expense of lower wages in some sectors is at least a second best outcome. That’s because when the adjustment process is borne out more in terms of sectoral wages, it highlights the flexibility of the labour market in absorbing structural changes that could otherwise be more costly to the economy. Indeed, McKinsey found that the returns to Germany’s economy from IT offshoring were reduced considerably, principally because of rigidities in that country’s labour market.

Interestingly, while IT wages have been declining in North America, they have been rising steadily in some common IT offshore locations such as India. As we pointed out earlier, this of course, is largely due to the inevitable impact of competitive supply and demand forces and this factor could eventually erode India’s attractiveness as an offshoring site in the future.

Still, Indian wages are not likely to rise to comparable

IT EMPLOYEE COSTS IN 2003 (US\$/year)	
Canada	36,000
Ireland	25,000 - 35,000
Israel	25,000
South Africa	18,000
Argentina	10,550
India	5000 - 12,000
China	9600
Brazil	9500
Czech Republic	7500
Russia	7000
Source: Evalueserve, NASSCOM	

levels with Canada any time soon. That’s because such an argument presumes that India (and other emerging markets like China) will become global technological leaders in innovation. But according to modern economic growth theory, rapid innovation cannot occur without institutions: that protect property rights; that support well functioning and liquid capital markets; and that provide a conducive environment to promote creativity. Thus, institutions in India and China will need to resemble those in the developed world if these countries are to command the higher wages of innovative-intensive service providers. Such a prospect is unlikely to materialize for many more years.

Thinking globally, investing locally

Ultimately, the analysis of offshore outsourcing comes down to a discussion of free trade and globalization. From that perspective, theory and evidence have demonstrated

SHARE OF EMPLOYMENT POTENTIALLY AFFECTED BY OFFSHORING IN CANADA - BY SECTOR *	
Top 10 Industries	Share (%) 2003
Credit Intermediation and Related Activities	89.1
Finance and Insurance	83.3
Securities, Commodity Contracts and Financial Investment Related Activities	79.0
Insurance Carriers and Related Activities	67.9
Professional Scientific and Technical Services	66.7
Broadcasting and Telecommunications	38.1
Information and Cultural Industries	34.5
Information Services and Data Processing Services	31.9
Provincial and Territorial Public Administration	30.9
Federal Government Public Administration	30.7
*Selections based on jobs that make use of IT to produce their output; their output can be traded with the help of IT; their work has high explicit info. or "codified knowledge" content; their work does not necessarily require face-to-face contact	
Source: Desiree van Welsum and Graham Vickery - OECD	

that open access to markets, economic integration and dynamic labour markets convey significant benefits and facilitate economic growth. As such, the trend toward offshore outsourcing should be viewed as an opportunity. In particular, it provides firms with the ability to seek out lower cost suppliers of inputs for their businesses and can help domestic firms to streamline their operations and gain economies of scale. As a result, domestic productivity can also experience a remarkable improvement.

Nevertheless, like other movements that have resulted in freer trade, some will likely perceive offshore outsourcing as a threat given that an estimated 20 per cent of total employment in Canada will be potentially affected by the increasing adoption of this practice.⁶ This is especially true, since many of the occupations that are suitable for offshoring are perceived to be of high quality. Consequently, the notion that trade costs jobs, together with the belief that trade-related displacement is particularly costly, could create a persuasive case for targeted adjustment assistance – or what some have deemed “picking winners.” However, as we have pointed out, neither belief is broadly true based on the empirical evidence thus far. As such, any future policy move in Canada that seeks to subsidize or protect potentially offshoreable industries would be futile in the face of inevitable global market forces. Moreover, insulating trade policies would only encourage foreign countries to retaliate by limiting Canadian access to their markets.

A more proactive approach in dealing with the adjustments to offshoring or any form of free trade is to adopt policies that enhance competitiveness. By investing sufficiently in its knowledge infrastructure, innovation and skills, Canada can develop more productive assets, and that would help it to move up the value chain and improve its competitive advantage vis-à-vis the rest of the world. In this manner, Canada can retain its lead as a major global supplier of services.

Still, offshore outsourcing will take its toll on some workers since it will undoubtedly create more churning in Canada’s labour market in the future. As such, it will also be important to have policies that provide assistance to displaced workers of offshoring, but at the same time strive to keep Canada’s labour market as flexible as possible.

While this might suggest greater focus on trade adjustment assistance and retraining programs, it is not clear whether these particular strategies would be helpful since they have had a spotty track record in the past. This might be, in part, because they were directed at workers who had few basic skills to begin with and who lacked the motivation needed to find another job. In contrast, service workers with their higher skill set and greater motivation would not necessarily require such retraining, although such a profile also means that these workers would be helped more easily.

Conclusions

Unfortunately, the lack of official statistics regarding the practice of outsourcing services offshore means that we cannot be fully certain about its extent and ultimate impact. As such, this practice has been regarded as both a threat and an opportunity. Nevertheless, what we can say for certain, is that recent technological advances and standardization, is making the world a smaller place to do business. Consequently, offshore outsourcing is not likely to be just a passing fad but rather, the beginning of a permanent structural shift similar to that seen in the goods sector.

The good news for Canada is that it is currently a net “inshorer” of business related services and therefore, its economy has not experienced any significant adverse effects from any offshoring activity so far. But Canada cannot afford to be complacent as more jobs potentially move offshore and especially as emerging countries like India and China aggressively develop their comparative advantages in an attempt to move higher up on the value chain.

To this end, Canada’s long-term challenge will be to sufficiently invest in its knowledge infrastructure, innovation and skills in order to enhance its productivity and remain competitive. Paradoxically, outsourcing parts of a firm’s supply chain offshore is one way to provide firms with the deeper pockets necessary for those investments needed to raise productivity. As such, offshore outsourcing should not be viewed as a threat, but as an opportunity that Canadian firms cannot afford to waste.

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ENDNOTES

- ¹ See D. Trefler.
- ² PriceWaterhouseCoopers has explored several potential tax implications from offshore outsourcing and found that while migration of functions to lower cost locations such as India may well offer significant cost savings, these locations can also be high tax regimes. Still, some jurisdictions provide tax incentives to promote revenues from export of IT and IT enabled services. Furthermore, tax may not be an issue in many instances when the outsourcing service provider is a third party as the corporate tax cost is rarely passed on to the buyer of the services.
- ³ This does not include demographic changes that can affect the supply of labour or rapid gains in productivity that can result in changes to the labour-leisure decision.
- ⁴ Mass layoff statistics are produced quarterly by the BLS and provide detailed information on a subset of establishments experiencing major job cutbacks and of workers experiencing layoffs and dislocation.
- ⁵ Admittedly, within some specific regions or communities, the extent of job losses attributed to offshoring can be more consequential. However, this phenomenon is more applicable to manufacturing than to services, whose activities are often more widely dispersed across geographical areas.
- ⁶ See D. Van Welsum, and G. Vicery, for a discussion of offshore outsourcing and occupational employment.

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