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Engaging the Dragon

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Engaging the Dragon

Developing Sustainable Canada-China Relations through Policy Dialogue

Jean-Pierre Voyer
Executive Director
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China has captured the attention of the world with its phenomenal economic growth. When China plays host to the upcoming 2008 Summer Olympics in Beijing and the 2010 World's Fair (Expo) in Shanghai, the dragon will continue to be in the spotlight on the global stage. With a large population base, competitive labour costs, and a burgeoning middle class, businesses are eager to ride on the rising economy while international organizations as well as developed countries are eager to offer policy expertise to bring the dragon into the global community. This special issue of *Horizons* offers some insights on Canada-China relations in the context of social and economic policies.

While the United Sates remains Canada's largest trading partner, trade and investment between Canada and China has soared in recent years. China's rise has drawn the attention of all sectors of the Canadian society, including academics, businesses, the media, and consumers. Hence, for Canada, the question is not simply whether but how to engage the dragon in a North American context. Yet, as Evans acknowledged in his feature article, 'putting Chinese dumplings and American apple pie on the same Canadian menu is a daunting task, intellectually and politically.' A number of issues are identified by Evans, some of which are borne out by the research articles that follow.

Being trading nations, trade and investment are no doubt vital components of Canada-China relations. In this issue, Ghosh and Wang dispell the notion that Canada is underperforming in its exports and foreign direct investment, while Woo and Zhang raised the concern that, when it comes to outward investment, Canada does not seem to be on the radar screen of Chinese companies. Drawing from its China mission last fall, the Canadian Council of Chief Executives highlighted a number of opportunities and challenges for Canadian industrial sectors. Readers will find more discussions on sectoral impacts of China's export to the United States in the paper by Sawchuk and Yerger. The authors show that China's exports to the United States could have serious impacts on certain Canadian export sectors, and that provinces where these sectors are concentrated could be disproportionately affected.

For nearly a decade, China has been one of the top source countries of international students to Canada. This trend will continue, only if Canada steps up its efforts in promoting its educational institutions as have other countries, such as Australia. While China continues to be a top source country of immigrants to Canada, increasingly many return home partly due to China's drive to attract talent from overseas (as described by Zweig) and the barriers to integration in Canada. Reducing barriers to integration is a must, as Ley maintains, in a world that is increasingly connected.

Hence, Canada-China relations are as much about trade and development as about enhancing Canada's internal capacity on the global stage. According to Sydor and Boileau, Canada currently still has the ability to attract and retain research and development facilities. That said, the authors do caution that research and development capacities may move east as countries, such as China and India, strengthen their capabilities.

This issue also features three papers by policy researchers from China, all of whom participated in policy and academic exchanges with Canada. Two of the participants in the Public Policy Options Project (sponsored by the Canadian International Development Agency), Yan and Zheng, highlight some of the labour market issues that China is experiencing. Yan's paper outlines China's labour market challenges and ponders the application of Canada's sector council approach in addressing them. Drawing on current and future labour supply and demand in Guangdong Province, one of the more prosperous regions in China, Zheng offers insights to the notion of migrant labour shortages in China. Ecological migration, the relocation of inhabitants from economically depressed and environmentally fragile areas to places with better economic prospects and environmental outcomes, is another major policy initiative vital to China's development. In his analysis of three such cases, Du posits that the preservation of the cultural heritage of ethnic minorities should be taken into consideration in these processes.

Finally, to succeed in China, Canadians must think trans-Pacific. This may not be easy, as most policy analysts are accustomed to thinking in the context of North America or even Europe. Further, many Canadians have yet to recognize that Canada is part of the Asia-Pacific region. Mutual understanding and dialogue are vital in cultivating sustainable relations between the two countries. It is in this context that we bring you this special issue of *Horizons*. Happy reading!

Call for Papers

Horizons will be accepting a limited number of unsolicited papers on horizontal policy research for upcoming issues.

Original manuscripts should be of interest to a broad community of federal policy researchers and analysts, should be written for the non-specialist, and be no longer than 3000 words. Shorter submissions of 1000-1500 words are particularly encouraged. Submissions will be subjected to a rigorous peer-review process for quality and suitability. Due to page limitations, even excellent submissions may be declined. Authors are encouraged to contact *Horizons* at <horizons@prs-srp.gc.ca> with a proposal prior to completing their manuscript.

The deadline for submissions for the next issue is October 15.

Interview with His Excellency Lu Shumin, Ambassador of the People's Republic of China to Canada

Jean Lock Kunz
Associate Project Director
Policy Research Initiative
Government of Canada

with notes from
Stuart Sykes
Senior Policy Research Officer
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Government of Canada

On the occasion of the publication of this special issue, *Horizons* spoke with the Ambassador of the People's Republic of China to Canada, His Excellency Lu Shumin. Below are excerpts from the interview.

Canada-China relations were elevated to a strategic partnership in 2005. As a first step in moving this partnership forward, President Hu indicated during his visit to Canada last year that China is ready to work with Canada to tap potential co-operation in all fields. What do you see as some areas of collaboration in the immediate term?

The strategic partnership was a very important outcome of the president's visit. I believe the upgrading of our relations to that of a strategic partnership is of the greatest significance. China is one of the largest developing countries in the world while Canada is the most spacious developed country, rich in natural resources, and technologically advanced, with a well-developed finance sector, and a high-quality skill base.

There is potential here. We are separated by an ocean, but we can also see this as a strip of water. Mutual co-operation will lead to mutual growth and progress. We must continue to develop China-Canada economic co-operation in a manner that is win-win for both sides.

Now that Canada has a new government it is ever more important to develop this relationship. To support the strategic partnership, one of the first tasks to be done is to continue to maintain very frequent contact at a high level between the two leaderships. I believe that most people would agree that nothing is a substitute for personal contact. There have been many visits from Canada to China and vice versa – it is very important to maintain this face-to-face contact.

In terms of China's development, not only do we want to develop fast but, at the same time, we wish to do so at a lower cost. We also care about the environment; this is important to people and cannot be forgotten. From this perspective, China's development is now at a crucial point. We will have to find a way to fulfill these desires and foster world development.

President Hu has pointed out on many occasions the five areas where we should pool our efforts in developing our strategic partnership.

The first area is to expand mutual investment. We have a western development project. We are also seeking to revitalize the northeast region to support these efforts. In addition, we are focusing on building a new socialist countryside. These are opportunities for Canadian businesses to put their advantages into useful play. At the same time, China is encouraging its businesses to go to Canada and invest. Chinese investments are now increasing at a rapid pace, amounting to $100 million in 2005. While still small in the global scheme of things, this investment is growing.

Second, we wish to enhance co-operation on energy and resources. Canada has a number of valuable resources while China has a large, growing, and stable market for those resources. China is seeking a long-term and stable relationship. For this to happen, a "system of co-operation" is needed. We can step up this co-operation and expand our efforts to explore clean and efficient sources of energy.

Third, we can promote co-operation in service trade. China is encouraging its businesses to invest in the service trade, such as banking and telecommunications. Additionally, China is opening its service industry more fully to the open market. To date, we are seeing very encouraging progress in the areas of telecommunications, investment, and research and development.

Fourth, we hope to strengthen trade policy and improve the climate for future progress to be made on this issue. This will make it easier for goods and service investments to enter their respective markets. There is a need to sign an agreement as soon as possible to secure the floor of trade and investment. This will contribute to improving the climate for further progress on trade policy issues.

Last, mutual promotion and continual development is an area where significant progress can be made. We need to step up personnel exchanges so we can learn from each other and support common development. This will also help facilitate face-to-face, high-level contacts that will permit progress in other areas.

At the end of 2004, two-way trade between our countries reached $15 billion. Last year it reached $19 billion, a 27 percent increase. During President Hu's visit a target of $30 billion was set for 2010. At our present rate of trade growth, it may only take a few years to reach this level.

With this growing trade, the Pacific Gateway is another development of very important significance as it marks out a plan for trade, investment, and transportation to Asia-Pacific countries. This will support the growth of all countries, an outcome that, from China's perspective, is very encouraging. Canadian businesses should look into how to make this initiative work. From the Chinese side, we are also exploring how to facilitate this effort.

China focuses on developing ties not only at the political level, but in the areas of culture, education, tourism, trade, and investment.

How do you see your role in facilitating/building such a partnership? What is the role of the Embassy?

We oversee and nurture our day-to-day relations. We also play a key role in ensuring the high level visits, such as that by President Hu, are fruitful and smooth. Following these visits we ensure the implementation of the results. These duties occupy much of our time.

However, we also want to promote mutual understanding and friendship between our two countries. To accomplish this, we focus on developing ties not only at the political level, but in the areas of culture, education, tourism, trade, and investment.

Improving Canadian's understanding of China is a key objective of the Embassy's activities. We want Canadians to better understand what China is doing, what Chinese people are doing, and where we are heading.

I often go to conferences and speak in forums to explain Chinese policy and address concerns. I want to encourage an understanding of Chinese culture and history, and what this means to China and its people.

This understanding is important as it helps communicate that China's rise is very different from that of the powers of the past. Rapid development does not mean we are a threat to other countries. China's development is a peaceful development. We are opening up to the outside world, and we are doing so by choice. We believe that only through opening up can we have sustainable development.

We believe that only peaceful development is sustainable. This is why we deepen and expand our relationships; we believe we must think of the needs of our partners. This is what we try to explain to Canadians.

Canadians are fascinated by China's rise, but many are still not familiar with China's emphasis on "peaceful rise." Can you elaborate more on this concept?

To explain this concept properly, it is necessary to explain to people how China sees itself from a historical point of view. Previous powers all followed the same sort of path: they seized resources. Their growth was always at the expense of others through military means and territorial expansions.

China's development is not going to follow this pattern. We see China developing through co-operation. We stress common development, so it is not just China that develops. For example, we have basically settled our border disputes. Some debates remain to be fully resolved, such as with India, but these outstanding issues are being addressed through peaceful means.

We pursue a policy of a friendly neighbourhood. We want our neighbours to prosper. Countries of the Association for Southeast Asian Nations (ASEAN) used to have a very deep suspicion of us, but now they see China as a friend; they see China as a partner. As evidence of this new relationship, events surrounding the publication of an inflammatory story last year in the Ottawa Citizen serve as an excellent example. The article wrongly indicated China is a threat to its neighbours, but it was not necessary for the Chinese Embassy to respond. The High Commissioner of Malaysia did so, stating clearly that they do not see China as a threat.

This action on Malaysia's part is telling regarding the type of relationship China has with that country and others in our international neighbourhood. We have realized that a stable neighbourhood is needed if China's prosperity is to last. We apply this philosophy around the world in all our relations. We want partnerships based on mutual benefit, equality, and mutual respect. Two concepts underpin China's foreign policy: independence and respect. This philosophy is not just rhetoric; it is there and can be seen in action.

What do Chinese policy makers understand about Canada?

Canada is a major western industrial country with a strong technological edge and substantial managerial expertise. In our eyes, Canada enjoys a long-standing relationship with China; Canada was one of the first countries to recognize the People's Republic of China (PRC), and ever since, our relations have developed in a manner that is smooth and steady. We view Canada as a friendly country.

Two concepts underpin China's foreign policy: independence and respect. This philosophy is not just rhetoric; it is there and can be seen in action.

People understand this is the homeland of Norman Bethune. I was once told a story of a Canadian tourist who wore a pendent identifying himself as a Canadian from the same country as Bethune. He was treated very warmly wherever he went.

We want to use this as a good base for future development. Economic trade between our two countries began in the 1970s. While initially very limited and largely restricted to wheat, it has now become "multi-layered" and "comprehensive" as it has expanded greatly in both the areas of trade and investment.

Nevertheless, it is still not easy to travel between our two countries. It is getting better, but we need more contact – more visitors from Canada to China, more visitors from China to Canada, to see opportunities for partners.

There is a tremendous and endless amount of work to be done, but we are confident. This issue of *Horizons* will contribute to this mutual understanding.

How could policy communities in the two countries work together?

It is important for policy makers to have more frequent contact with each other to improve their ability to co-operate.

Already, while not always pleasant, it is evident that a connection exists between our two countries. In addition to Norman Bethune, during World War II more than 500 Canadians went to Hong Kong to defend it with their Chinese colleagues. The Chinese community came to Canada to help with the railroad. Most recently, the current government formally apologized for the Head Tax.

It is important that policy makers explore and discover, so they may understand our past, our present, and what we will do in our future. To forward this, we need more exchanges. Already there is an exchange between the Social Sciences and Humanities Research Council (SSHRC) of Canada and the Chinese Academy of Social Sciences (CASS). There are also exchanges with policy research sections in Foreign Affairs Canada. These policies are excellent for mutual development. More of these exchanges would permit policy makers to better understand one another and each others' countries.

In addition to CASS, there are other institutions that could have potential for dialogue, such as the Development Research Centre under the State Council, similar to the Policy Research Initiative. Partnership exchanges would foster an understanding of specific national conditions and encourage the incorporation of the interests and needs of other states and actors into policy.

More exchanges are encouraged between parliamentarians, senators, and other senior political officials so they may see the context in which decisions are made, contributing to positive developments between our two countries. The Canada School of Public Service (CSPS) is working with the Organizational Department of the Communist Party of China to train very senior leaders, such as governors and mayors. This is an activity of very great importance and is worthy of emulation.

I encourage you to read the transcript of the press conference by Premier Wen Jia-bao following the sessions of the National People's Congress. At the conference, Premier Wen stressed the issues that China would address in relation to its own development, such as developing the countryside, opening up reform, as well as sustainable development in a scientific way, at lower cost and in an environmentally friendly manner.[1]

Note

1 Highlights of China's 11th 5-year plan are available in an article by Wang in this issue.

The Chinese Century

Based on his extensive research, Oded Shenkar offers an in-depth look at the magnitude of China's economic ascent and its potential impact on businesses, employers, workers, and consumers around the world.

Excerpt

"The rise of China at the dawn of the twenty-first century is not only about a flood of cheap imports, the decline of certain segments of the manufacturing sector in other countries, or the offshore transfer of jobs – as important as these trends are. It would be no exaggeration to say that China's rise is a watershed event that will change the global landscape and that is on par with the ascent of the United States of America as a global economic, political, and military power a century earlier."

Oded Shenkar. 2005. *The Chinese Century: The Rising Chinese Economy and Its Impact on the Global Economy, the Balance of Power, and Your Job.* Upper Saddle River, NJ: Wharton School Publishing.

Introducing Global China

Paul Evans[1]
Co-CEO
Asia Pacific Foundation of Canada

Atlases in Canadian homes invariably display a vast expanse of blue separating the land masses of Asia and North America. The two continents comfortably occupy different pages, usually in separate sections.

We need a new kind of map. Globalization has increased Canada's connections around the world through multiple bands of diplomacy, commerce, migration, culture, and communication. That new map will shrink oceans, especially the Pacific, and show that human interactions are expanding in remarkable ways.

Responding voraciously to global opportunities, China has been transformed from being a place "out there" across the blue sea to a daily reality for Canadians. In part, this reflects the large number of immigrants from greater China over the past two decades and more Chinese tourists in the past three years. But even more tellingly, trips to the shopping centre reveal how China's manufacturers have reduced the price of consumer goods. At the gas station, China's racing economy is pushing up demand for energy and natural resources. At the bank, mortgage and interest rates are tied to China's purchase of US securities.

Global China

The idea of "global China" underscores China's new gravity and signals that it has grabbed the world's attention by opening its door to the forces of globalization and connecting to supply chains, production networks, and foreign investment with both regional and global reach. The product and beneficiary of a period of intensive globalization, it serves as a model that other developing economies are scrambling to replicate or follow. If Japan once led a formation of flying geese in Eastern Asia, China is provoking a buffalo charge that extends across Asia and into emerging markets around the world.

China has become part of the global economy at the same time that it is changing it. In the course of a generation, it has emerged as the shop floor of the world by crafting a production system that fuses high-end technology with low-wage, labour-intensive activity, cut-throat domestic competition, a reliable, docile, and capable industrial work force, utilization of huge sums of foreign investment and technology, and the new appetites of a billion domestic consumers. The historical parallel that best captures the scale and implications of this economic transformation is the emergence of American industrial capacity a century ago.

The factoids are arresting. China has achieved average annual growth rates of more than nine percent over 25 years. Currently, it is Canada's second largest trading partner. It is poised to overtake Mexico to be the United States' second largest trading partner, and may well surpass Canada as the largest by the end of this decade. China generates 13 percent of world economic output in purchasing parity terms, second only to the United States; is the world's largest consumer of commodities including steel, copper, coal, and cement, and is the second biggest consumer of oil after the United States. It is also the world's third largest trading country, accounting for six percent of the world's total, received in excess of $60 billion in foreign direct investment (FDI) in 2005 and its total accumulated inward FDI in the past 20 years is about $610 billion. China holds more than US$750 billion in foreign currency reserves and some $224 billion in US Treasuries, making it the second largest creditor to the United States.

China is the leading producer of household electronics, toys, clothing, and textiles, and is quickly becoming a key producer of component parts and intermediate goods that are essential to increasingly refined supply chains in which research and development, software development, physical production, and after-sales service are geographically dispersed but precisely integrated. And it is quickly moving into higher-end assembly and export including trucks, aircraft, ships, telecommunication equipment, and machinery.

Paralleling its economic capacity, China has become more self-confident, more sophisticated, more assertive, and frequently more constructive in international institutions, including the UN and the World Trade Organization that deal with issues ranging from economics and trade policy to non-proliferation, chemical and biological weapons, missile technology control, export control, arms control and disarmament issues, pandemics, terrorism, and trans-national crime. Regionally, Beijing in the last decade has moved quickly from a defensive presence to active participation and now leadership in groups including the Asia-Pacific Economic Cooperation, the Association of Southeast Asian Nations (ASEAN) Regional Forum, the ASEAN + 3, and the East Asia Summit processes. It has created the Shanghai Cooperation Organization and is hosting the Six Party Talks focusing on the North Korean nuclear issue. With this has come a reputation for "soft power" that at once reassures its neighbours and increases its long-term influence.

The idea of "global China" underscores China's new gravity and signals that it has grabbed the world's attention by opening its door to the forces of globalization...

Decisions made by China's government – and by its consumers – have enormous impact beyond its borders, including in Canada.

Canadian Reactions

In Canada, as elsewhere, these new realities have excited various emotions including admiration and awe, anxiety and fear. An Ipsos-Reid poll in April 2005 found that about 60 percent of Canadians do not see China's emergence as a threat to world peace even though about 40 percent believe China "will soon dominate the world." Forty-five percent of Canadians indicated they were concerned about the level of Chinese investment in Canada, 51 percent said that China is a serious threat to jobs in Canada, yet 61 percent see China's economic development as an opportunity, and 68 percent see expanding trade relations with China as a good idea, because it helps reduce trade dependence on the United States (Ipsos-Reid, 2005). A poll by the Asia Pacific Foundation of Canada in May 2004 revealed that only 24 percent of respondents felt the Chinese economy was more of a threat than an opportunity.

Corporate Canada is coming to understand that the challenge posed by China is much deeper than short-term trade and investment matters. Canadian manufacturers are caught in the pincers of competing with the dread "China price" at the same time the cost of their inputs are rising, because of Chinese demand. Canada is losing manufacturing jobs. To survive, manufacturers need to compete with Chinese producers at the same time that they co-operate with them in benefiting from supply chain innovation.

Businesses have been scrambling to devise strategies to take advantage of opportunities afforded by global China or to protect themselves against the competitive pressures it brings to bear. The Canadian media are abuzz with China-related stories. The CBC opens a bureau in Shanghai. Canadian educational institutions scramble to recruit more Chinese students (there are now estimated to be 55,000 in the country) and create new kinds of programs to connect Canadian and Chinese universities (Holroyd, 2006). Provincial and municipal leaders travel to China in unprecedented numbers.

Policy Responses

The previous federal government went some distance down the path in formulating a comprehensive Canadian strategy for dealing with a global

China. Diagnostically, its international policy statement noted that China is "poised to become the most important national economy in the 21st century" and "is at the heart of regional and global supply chains that are vital to the Canadian and world economy" (Canada, 2005).

Diplomatically, it pursued the same path as its predecessors in building relationships via high-level visits and contacts. It expanded the size of the Canadian Embassy in Beijing and opened new offices in several Chinese cities. It established intergovernmental strategic working groups with Chinese counterparts on topics including energy, multilateralism, and foreign investment. Bilateral negotiations continue on approved destination status for Chinese tourists wishing to visit Canada and expanded air links.

The strategic partnership with China announced unexpectedly during the visit of Chinese President Hu Jintao in September 2005 raised official relations a notch. The specifics included seven new agreements to deepen co-operation in the areas of transportation, food safety, health sciences, and nuclear energy, and a joint declaration on science and technology that includes a program of collaborative research on climate change and sustainable energy. Ottawa signalled an interest in a deeper commercial relationship as well as a willingness to open Canadian energy markets to Chinese investment on a commercial basis.

The previous federal government also opened free trade negotiations with Korea as part of the same approach for fostering deeper economic connections with Asia. This reflected a calculation that the competitive challenge posed by Korea, and in broader terms by China, would not be handled through raising protectionist barriers, but through restructuring domestic industries to integrate more closely with Asia. The same outlook underpinned Canadian resolve to move toward a comprehensive economic framework with Japan. And it was reflected in the plans for a Pacific gateway strategy to expand Canada's transportation facilities and innovative capacity to connect to dynamic markets in Asia.

Putting Chinese dumplings and American apple pie on the same Canadian menu is a daunting task, intellectually and politically.

These activities amounted to a new chapter in expanding Canadian bilateral connections with China and across the Pacific. But they were not fully integrated with priorities and activities within continental North America and especially Canada's relations with the United States. Putting Chinese dumplings and American apple pie on the same Canadian menu is a daunting task, intellectually and politically.

China is not an alternative to the American market. Nor are Canadian and Chinese values likely to converge in any significant way. For reasons of history and values, there are limits to Sino-Canadian co-operation as is made clear by simply invoking words like human rights, Falun Gong, Tiananmen, Tibet, or Taiwan.

But, it is equally illusory to think that our commercial and political relations within North America and what has been called "the Anglo-sphere" will be unaffected by our interactions with a global China. The American market and cross-border transfers are our geographic destiny. Yet the way goods and services are produced, their connection to global supply chains, and their value to Canadians increasingly will be influenced by China and Asia.

Putting China and North America on the same page in Canadian thinking will need work in three areas. The first is the competitive challenge raised by Chinese export capacity. North American integration can either be conceived as a platform for increasing productivity and competitiveness or, alternatively, as an instrument for insulating or protecting the continent from Asian competition. The North American Free Trade Agreement will have to be made stronger or will become irrelevant in the surge of trans-Pacific trade and investment that includes Canada, Mexico, and the United States expanding their bilateral free trade agreements with Asian countries.

The challenge is how to structure production such that the higher-value added aspects remain within North America and the connection to China is part of a platform for production for end markets in North America, Asia, and around the world. The implications of these new realities hit hardest in the automotive sector where parts manufacturers are already shifting production to China even as assemblers tend to favour various forms of protection. The competitive pressures repeat in virtually every manufacturing sector including textiles, furniture, and machinery, and even in agricultural products including apples. Conversely, the Chinese demand for energy and natural resources including minerals, and timber, is opening enormous export markets and increasing prices for Canadian producers.

The second is in the energy sector where aspirations to an integrated North American energy market collide with increasing Chinese and Asian demand for oil. The promise extended to China as part of the strategic partnership bargain collides with views in some quarters in the United States that Canadian energy is a strategic North American asset and part of an intra-North American integration scheme.

The third is in transportation infrastructure, and port and border security. As the volume of trans-Pacific flows of goods, services, and people (legal and illegal) increases, pressures will rise on facilities and resources that connect Canada and the United States. The infrastructure investments in the Pacific Gateway aim to open a wider door for flows between Canada and China, and between China and the United States. Whether Canada and the United States maintain separate facilities, move to closer integration of inspection services, or eventually move to a common security perimeter, there will be substantially more pressure to harmonize rules and procedures in areas including visas, refugee claims, and container security.

Issues for the Federal Government

The new federal government has not yet enunciated a comprehensive foreign policy or a specific approach to Asia in general or China in particular. Foreign policy was scarcely mentioned in the election campaign and is not part of the Government's five priorities. However, six months into the Government's mandate there are some straws in the wind that suggest aspects of continuity with the previous government's approach to China as well as the possibility of some radical departures.

The lines of continuity include maintaining a financial and legislative commitment to the Pacific gateway concept, albeit with a narrower focus on transportation infrastructure; resisting protectionist measures against Chinese exports in areas including bicycles and barbecues and pursuing bilateral free trade agreements with Asian countries; framing North American integration as a means of competing in global supply chains rather than a way of resisting them; and keeping the door open to large-scale immigration including from China.

There are at least four areas where a significantly different approach may well be developing. First, Prime Minister Harper has not yet built the personal relationships with Chinese leaders that have been a distinctive feature of the approach of successive prime ministers since diplomatic relations were established in 1970. The tone of the relationship is changing and there is diminished support for the concept of a strategic partnership with China. Instead, the democracies of Asia, especially Japan and India, may well receive more diplomatic and prime ministerial attention, a significant re-ordering of priorities.

Second, there may be less enthusiasm for promoting Chinese investment in Canada, especially in the energy sector. China's accumulated FDI in Canada amounted to $220 million in 2004 with an inflow in 2005 of an additional $130 million. This is less than 0.15 percent of total FDI stock in Canada. The total Chinese investment in Canada was less than three percent of China's total outward flow. The current levels are low, but have the potential to rise quickly and dramatically if encouraged. It is not clear if this is likely to happen.

Third, new primacy is being attached to traditional alliances and partners, with the themes of democratic commonalities and democracy promotion receiving more attention. This is a conscious shift beyond support for human rights and good governance. Conservative backbenchers and parliamentary staffers already echo voices in the United States calling for more robust instruments to promote democracy globally and in China in particular. A parallel idea in some US think-tanks is deeper co-operation among Pacific democracies, possibly including the creation of some kind of alliance of the democracies or an Asian equivalent of NATO. China is unlikely to be a member and in some formulations is the target.

Fourth, there are voices supporting a recalibration of the content and tone of Canada's political relations with Taiwan. The Government has already adopted a new position on Taiwan's participation in the World Health Organization. In some quarters there is agitation for putting Taiwan and China on more equal footing in Canadian policy and adjusting our One China policy.

These inclinations and measures have not yet been codified in a new policy framework or statement. And they may well be modified in the months to come. But they do seem to reflect a vanguard calculation that, first, strong economic relations with China can be insulated from a cooler political relationship and, second, that rather than keeping one eye on China and a second on relations with the United States, the new approach will be to see China through the lens of our primary relationship with the United States.

Another possibility is that the new federal government will embrace an Australian-style approach that includes strong support for the United States simultaneous with an independent and vigorous political and economic involvement in Asia and especially China. The choice of approach, and priorities, hangs in the balance.

Remaking Canada?

The emergence of a dynamic Asia is already having an impact on the political economy of Canada. The recent prosperity seen in higher growth rates in Western Canada is in part driven by Asian imports of natural resources and the increase in commodity prices fuelled by Asian demand. British Columbia and Alberta are trading almost as many goods with Asia by value as the rest of the country combined. The trans-Pacific container flow that means jobs and opportunities in Western Canada is part of the same process that, at least in the short term, means the loss of jobs in Central Canada. Certainly, the wrenching costs of adjustment are greater in the manufacturing heartland of Ontario and Quebec.

A legion of Sino-skeptics feel that China will be unable to sustain its rate of growth and that it faces a myriad of domestic and external problems that will slow or reverse its global rise. They may well be right. But it would be very difficult to base Canada's domestic and foreign policies on the prediction that China's influence will decrease. Any government in Ottawa will face the reality that China is far more important than simply being a trade partner and that the road to solving virtually every global issue from climate change through to human security and the future of the Doha round runs through Beijing.

Note

1 Reprinted in abridged and modified form from Evans (2006). Paul Evans is Co-CEO of the Asia Pacific Foundation of Canada on secondment from the University of British Columbia. The views expressed are his own.

Full references are available in the online version of this issue. It can be accessed by visiting the PRI web site at <www.policyresearch.gc.ca>.

BOOKMARK

The Ambition Gap

In his book, *The World Is Flat,* Thomas Friedman, columnist for the *New York Times,* demonstrates the ways in which globalization has changed the way companies do business. He identifies the challenges the developed world will face as the race to the top intensifies with the rise of China and India, as well as other developing countries.

Excerpt

"One cannot stress enough: Young Chinese, Indians, and Poles are not racing us to the bottom. They are racing us to the top. They do not want to work for us; they don't even want to be us. They want to dominate us – in the sense that they want to be creating the companies of the future that people all over the world will admire and clamor to work for. They are in no way content with where they have come so far."

Thomas L. Friedman. 2005. *The World Is Flat: A Brief History of the Twenty-First Century.* New York: Farra, Straus and Giroux.

Promoting the Sector Council Approach of Employment Policy in China

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Editor's Note

This article is a summary of the Canadian International Development Agency-sponsored project report, *Policy Framework for Promoting the Sectoral Council Approach of Employment Policy in China*. The project explored and assessed employment policy priorities in China in an era of reform and globalization, and considered the adoption of a sector council approach in this context, drawing on Canadian experience and expertise.

China's Labour Market, Employment Policy, and Emerging Challenges in the Era of Reform and Globalization

Reform and Globalization

China is the largest developing country in the world *and* the largest economy in transition from central planning to a market economy. Since the late 1970s, the Chinese government has adopted a series of reform measures in two major areas: internally, the transformation from a planned economy to a market economy and, externally, from a closed economy to an open economy.

Undeniably, great achievements have been made over the last two decades, judged by key economic and social indicators. Official statistics show, for example, that China's gross domestic product (GDP) grew annually by nine percent on average between 1979 and 2004. The growth rate is estimated to have reached 10 percent in 2005. The market mechanism plays an increasingly decisive role in allocating resources, capital, and labour.

At the end of 2001, China regained its full membership in the World Trade Organization (WTO) after 13 years of arduous negotiations. Being the third largest trader in the world since 2004, China's economy is now closely integrated with the world economy. In 2005, China's foreign trade is expected to have hit a record US$1,400 billion, with a surplus of US$90 billion.[1] In 2004, China attracted a total of US$61 billion foreign direct investment – number one in developing countries and third in the world following the United States and United Kingdom.[2]

Labour Force

China is the most populous country in the world, with a population of 1.3 billion. At the end of 2004, China's total labour force stood at 752 million. This huge force is considered a heavy burden to the economy as well as a competitive resource, depending on how it can be used effectively and efficiently. According to a 2003 estimate, China's total labour participation rate stood at 76.2 percent. Of the total labour force, 46.9 percent worked in primary industry. The secondary and tertiary industries accounted for 22.5 and 30.6 percent of the labour force respectively.[3] Compared with other developing countries, the proportion in the tertiary industry is considered relatively small.

Labour Market and Employment Policies

In the old system of central planning, labour was not considered a resource, and employment was subject to government plans. Every able-bodied person, at least in urban areas, could be assigned a job and hold it for life until retirement. The assigned job has two marked features: fixed wage/salary and little mobility. The idea of central planning was abandoned by the Chinese government when it adopted a series of market-oriented reform measures in the late 1970s. The reform of the employment system and the creation of a labour market are thought to be part of the efforts to establish a complete market system in China. In the market system, labour, like other productive elements, such as land and capital, is allocated through market mechanisms, instead of government plans, for better economic gains. Nevertheless, there is a price to pay in equity, since people might lose their jobs or income due to market selection. The government's current employment policy stresses three principles: individuals choose jobs by their free will, the market allocates labour as a resource for better results, and the government promotes employment through sound policy making and quality services. Four major measures have been adopted to facilitate the labour market reform: the introduction of a labour contract system, the reform of social insurance programs, the reform of the household registration system, and the promotion of employment services and job training programs.

Emerging Challenges

One unwanted side effect of the reform is the emergence of massive unemployment, particularly in urban areas. Although the official urban unemployment rate looks rather low at around four percent, the number of people affected is very large, up to 40 million according to some estimates. Most of them were laid off from unprofitable state-owned enterprises (SOEs). The problem is particularly serious in the old industrial bases like northeast China and in the so-called sunset sectors like mining, textiles, and machine building. Older workers, those with poor education or low skill qualifications, and women are more likely to be laid off work. In addition to city dwellers who lost their jobs, there are as many as 100 million labour migrants from rural areas competing for jobs.

The impact of China's WTO entry on the labour market is mixed. As for opportunities, the WTO entry will facilitate China's integration with the world economy, which provides a gateway for the Chinese economy to maintain fast and steady growth over a long period. The WTO entry will facilitate the process of establishing a functioning market system in China, including the labour market. For the long run, faster economic growth will certainly boost employment. If the GDP grows by three percent annually, as many as 12 million new jobs will be created. As for challenges, many inefficient and obsolete Chinese firms might be out-performed by foreign competition, leading to massive job cuts in the short run, up to 20 million according to some estimates. Also, the current level of qualification and skills of the work force cannot meet the rising requirements of globalization and modernization.

> *China is the largest developing country in the world and the largest economy in transition from central planning to a market economy.*

To achieve better economic returns, China obviously needs a large qualified labour force. Current statistics show that the overall level of education and qualification of the work force is still low. For example, the average urban worker had 12.2 years of education; rural workers had 7.7 years of schooling in 2002. A 2004 survey by the labour ministry found that in 40 cities less than four percent of the urban work force fell into the skills category of technician and senior technician, compared with the industry's need of at least 14 percent.

Boosting Vocational Education and Skill Training as a Key Government Response

Massive unemployment is considered a threat to economic growth and social stability. To build a harmonious society, the Chinese government gives top priority in its 11th five-year plan (2006-2010) to job generation and employment development. Labour departments at various levels have adopted many measures to promote employment, including the introduction of various employment services and training programs. At the second national meeting on re-employment in Beijing in 2002, four major policies were announced to boost re-employment. As a follow-up activity, a national meeting was held later that year to promote vocational education and skill training.

Recent evidence shows that many programs have produced satisfactory results. For example, a special "training 10 million in three years" project was introduced between 1998 and 2000. As many as 13 million unemployed workers benefited from the project by taking various skills training courses, and 60 percent found a job within six months after completion. The second round of the project started in 2001. At the same time, a business start-up project with special emphasis on entrepreneurial skills was introduced in 30 large cities. People who finish the course successfully are entitled to a micro-credit program, designed to help catalyze and support business start-ups.

Canadian Experience in the Sector Council Approach of Employment Policy

The Relevance of Canadian Experience to China

Being one of the most industrialized countries in the world, Canada has a labour market that differs substantially from that of China, in terms of size, structure, maturity, and external environment. Canada's economic and labour market transition in the context of the North American Free Trade Agreement (NAFTA) provides parallels to China's entry into the WTO in the way governments and industries have responded. The scope of Canada's skills and learning and innovation agendas, and the more recent Workplace Skills Strategy, reflect the ongoing need for development and adaptation to this more competitive, globalized economic environment. Building and sustaining a competitive advantage in the face of the rapidly evolving, knowledge-intensive economy requires a foundation of skilled human resources, technological innovation, and a culture of continual learning. The key policy challenges in Canada in this context are the same as those of concern in China. An important initiative developed by Human Resources Development Canada (HRDC) to address these issues has been the sectoral partnerships approach.

The Sector Council Approach

In Canada, it is widely understood that labour markets must function with increasing effectiveness in response to the new economic environment. No single player in the labour market or economy is capable of creating conditions and an environment that promotes and sustains opportunities for human capital development. This challenge can only be achieved through a co-operative effort – a strategic alliance of all the players – individuals, employers, corporate leaders, labour, government, and educators. In the early 1990s, the Government of Canada initiated the sector council approach to provide focus and an institutional means by which industry can achieve a range of skills development goals in an evolving labour market environment. Three components define the sector council approach:

- Companies, managers and workers providing common products, services, or technologies come together on a voluntary basis to explore common concerns related to human resource development, and to identify possible solutions through diagnostic sector studies.
- A strategic management framework identifies the current and future requirements for human resource development and provides recommendations for collective action that will enable the sector to become more globally competitive.
- Stakeholders may choose to establish a permanent structure (a sector council) to address these human resource issues on a sustained basis, continually responsive to changing economic and labour market circumstances.

Human Resources and Social Development Canada (HRSDC) facilitates and supports the bringing together of industry partners – business, workers, and learning institutions – to examine collectively and then act on human resource issues and skills challenges facing particular sectors. Partners first conduct diagnostic studies that identify shared human resources and skills development issues in a sector. Sector councils are then established, governed by representative boards of industry stakeholders that provide firms with the institutional capacity to address the issues identified in a collective and collaborative manner. Sector councils focus the attention and commitment of employers, workers, educators, and governments on human-resource issues of common concern and enable sector partners to pool resources in developing and implementing solutions to address them.

Industrial Associations and Work-Force Development in China

Industrial Associations in China

Currently, the concept of the sector council as known in Canada is yet to be introduced into China. The most comparable organizations we can find now are the industrial councils and associations. During the central planning era when all enterprises were government controlled, industrial associations were almost non-existent. Since the early 1980s, however, industrial associations have mushroomed as a result of market-oriented reform. In China, industrial associations usually fall into two categories: associations directly sponsored by the government and associations independently organized by the industry under government guidance. Many industrial associations in the first category are actually former ministries downgraded in the late 1990s as part of the government's decentralization and streamlining efforts. Industrial associations in the second category are non-profit institutions organized voluntarily by economic entities in a specific sector/trade. According to 2002 statistics, as many as 39,149 national and local associations had registered officially. Industrial associations now play an increasingly important role in boosting economic development in China.

Work-Force Development in China

The Chinese government always attaches importance to work-force development as an effective way to raise the productivity and competitiveness of China's labour force to meet the challenge of globalization and the knowledge-based economy. As a major policy, a law on vocational education was approved by the National Congress and went into effect in 1996. In 1999, a labour preparatory system was introduced by the State Council requiring that all young people take proper vocational education or skills training courses before entering the labour force. In China, vocational education and skills training are administered by different government departments at both national and local levels, although the two areas are closely interrelated. Vocational education is considered part of the formal education system and administered by the Ministry of Education. It refers primarily to formal and long-term (one to three years) specialized education targeting young people yet to enter the labour force. Administered by the Ministry of Labour (renamed as the Ministry of Labour and Social Security in 2002), skills training does not belong to the formal (one year) specialized training courses targeting employed or unemployed people. The Ministry of Labour is also responsible for developing China's occupational classification system and the corresponding occupational standards. Based on these standards, the Ministry provides, through its agencies at various levels, skill testing and certification services.

Recommendations for Promoting the Sector Council Approach of Employment Policy in China

In China, a sound employment policy should be effective in tackling the massive unemployment and layoffs in the short term, but also in fostering a work force competitive enough to face the challenge of globalization and the knowledge-based economy in the long run. Canada's experience with sector councils is valuable for China in formulating its own strategy of industrial association development as part of employment policy in the future. The following recommendations are put forward in this regard.

Formulate and Implement Work-Force Development Law

Currently, China has a law regulating vocational education in the formal education system. It is not sufficient to cover the full range of work-force development issues. Therefore, the National People's Congress needs to speed up drafting a special law on work-force development and skill training, as a complement or an amendment to the existing vocational education law. With this law, the position and role of work-force development in China's economic development should be stipulated, and a promotion policy set up.

Enhance Co-ordination and Co-operation in Work-Force Development at the Ministerial Level

In China, work-force development is administered by both the Ministry of Education and the Ministry of Labour. To introduce the sector council approach, the Ministry of Civil Affairs oversees the registration and operation of industrial associations. It is suggested that an inter-ministerial task force or working group be set up under the State Council to co-ordinate all work-force development efforts between key stakeholders. Close co-operation is required between the Department of Vocational and Adult Education of the Ministry of Education and the Department of Employment and Training of the Ministry of Labour in areas like policy making, strategic planning, curriculum development, standardization and certification, monitoring, and supervision.

Prioritize Work-Force Development in Employment Policy

In recent years, the government's employment policy has focused on measures to solve massive unemployment triggered by state-owned enterprise reform. Skill training is considered in most cases just an instrument to help laid-off workers get re-employed. Employment policy should be more strategic and responsive, ensuring that industry can anticipate and prepare for the skill needs of workers and employers, upgrading the work force to raise China's productivity and competitiveness on the world market. Therefore, work-force skills development should be given more importance in employment policy. Continuous education and training should target the unemployed as well as the employed, the would-be employed, and the self-employed.

Raise the Awareness of Work-Force Development in the Industry

The Chinese government is very much concerned about the continuous upgrading of the work force in terms of professional and skills qualifications. However, government concern has not always been matched by a positive or active response from industry. There might be two reasons for industry not attaching sufficient importance to work-force development. First, one of the fastest growing sectors in China is the export-oriented manufacturing industry, as we often hear that China is going to become the workshop of the world. Unlike Canada, which relies on high-tech products for export (in addition to raw materials), China mostly exports mass-produced, down-market, low-tech, and labour-intensive products that do not need advanced technology and well-developed skills. As long as products still find a market, domestically or internationally, Chinese managers do not feel an urgent need to upgrade their products and, hence, their work force. Second, unlike Canada where labour shortages often occur, China faces a persistent oversupply of labour. It seems that managers can always find somebody in the labour market with the required professional or skill qualifications. Therefore, it becomes a personal responsibility for employees or job seekers to raise their own professional or skill level through training, to find or hold a job. It is, in many respects, a buyers market. Industry does not have to pay too much attention to and invest in training the work force.

To promote work-force skills development in general and the sector council approach in particular, it is suggested that special efforts be made, under the leadership of the proposed State Council task force on work-force development, to raise the awareness of work-force development in the industry according to the following steps:

- a national advocacy and communication plan;
- national and international conferences, seminars, and workshops;
- books, special reports, advocacy pamphlets, and posters; and
- advocacy via mass media and the Internet.

No single player in the labour market or economy is capable of creating conditions and an environment that promotes and sustains opportunities for human capital development. This challenge can only be achieved through a co-operative effort – a strategic alliance of all the players – individuals, employers, corporate leaders, labour, government, and educators.

Strengthen the Role of Industrial Associations in Work-Force Development

In China, many industrial associations have functions similar to the sector councils in Canada, such as training and capacity building of the work force. However, they are yet to have a more complete understanding that the qualification and skill level of the work force can be a decisive factor in taking an upper hand in market competition. As a result, training and capacity have not always been given top priority. More often, association workers are preoccupied by urgent issues, such as helping member companies get access to bank loans, exploring new markets, solving disputes with consumers, clarifying misunderstandings with law enforcement, settling lawsuits with foreign partners or competitors, and so on. Based on the Canadian experience with sector councils, it is recommended that the role of industrial associations in work-force development be strengthened.

Consolidate the Industrial Association's Responsibility in Work-Force Development

Industry is urged to come to a consensus that work-force development is important in raising productivity and competitiveness. To translate consensus into action, industrial associations should take more responsibility for work-force development promotion and make it a major focus. Under the supervision of industry representatives, industrial associations are responsible for formulating strategies and plans, developing occupational standards, providing training courses in association with other education and training institutions, organizing examinations and skill testing, and issuing certificates.

Strengthen Co-ordination Between Relevant Ministries and Departments

At present, the Ministry of Labour is in charge of most work-force development activities in China, ranging from policy making, standard setting, curriculum development, training program organization to skill testing and certification. Policy making is carried out largely by the Department of Employment and Training of the Ministry, while employment development programs are managed mainly by the China Guidance Centre for Employment Training (OSTA), one of the Ministry's many affiliates. On the other hand, industrial associations are considered independent social organizations or entities supervised by the Ministry of Civil Affairs. Officially, the Ministry of Labour has limited influence on the daily operation of industrial organizations. As mentioned above, there are now nearly 40,000 industrial associations in China covering a wide range of sectors and trades at both the national and local levels. Obviously, it is difficult for the Labour Ministry alone to handle all their needs in work-force development. Therefore, close co-operation is needed between the two ministries and between the Labour Ministry and various industrial associations. With a special division, the Division of Industrial Association Co-ordination, being set up in 2000, the OSTA has already strengthened its co-operation with industrial organizations in areas like formulating state occupational standards, developing training programs, and organizing skill testing and certification.

Provide Necessary Technical and Financial Assistance to Industrial Associations

As former ministries, the government associations remain very powerful, and well established in terms of finance and personnel. For them to attach more importance to work-force development, a significant organizational culture change is required. In contrast, the situation faced by independent associations is mixed. Some are quite well endowed financially and technically, mostly in large profitable sectors like information technology and telecommunications, while others have limited resources at their disposal. For the poorly equipped associations, additional technical and financial assistance is needed in areas such as organization and management if they are to promote work-force development. As the Canadian experience shows, the Labour Ministry can play a leading role in this respect, by setting up a special department in association with the Ministry of Civil Affairs. This department could be authorized to provide qualified associations with necessary financial and technical aid, within its budget and capacity.

Notes

[1]《中国对外贸易形势报告(2005年秋季)》蓝皮书，商务部，2005年10月28日。
[2]《2005年世界投资报告》，UNCTAD。
[3]《2004年度劳动和社会保障事业发展统计公报》，劳动和社会保障部，2005年5月19日。

These are references published in Chinese.

Selling to the United States

Is China's Rise Canada's Loss?

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Editor's Note

This article highlights findings of a PRI working paper, *With Whom Does Canada Compete in the US Marketplace: Consequences of China's Export Growth and Shifting US Import-Market Shares* (2006), and is part of the PRI's ongoing research on key issues related to North American Linkages. Future PRI research by the authors will examine the Canadian and provincial impacts of China's rapid rise in exports destined to Canadian domestic markets. This will permit further insightful comparisons with respect to the rising importance to Canada of China's exports to the United States, Canadian, and overall North American marketplaces.

Canada's economic prosperity and standard of living depend on Canada's success as a trading nation. Indeed, Canada is one of the most open countries in the world, with a trade to gross domestic product (GDP) ratio that is among the highest in the industrialized world – about 72 percent in 2004. However, for all its openness, Canada is actually very dependent on the US market. In 2004, exports to the United States accounted for 79 percent of total Canadian exports. Canada, in turn, has been the major supplier of imports to the United States. With so much riding on the US market, it has been a matter of current debate whether Canada should prioritize and build on US markets or look to other markets. But a more relevant question might be whether Canada can even keep its pre-eminent position in the US marketplace in the face of new challenges from the East.

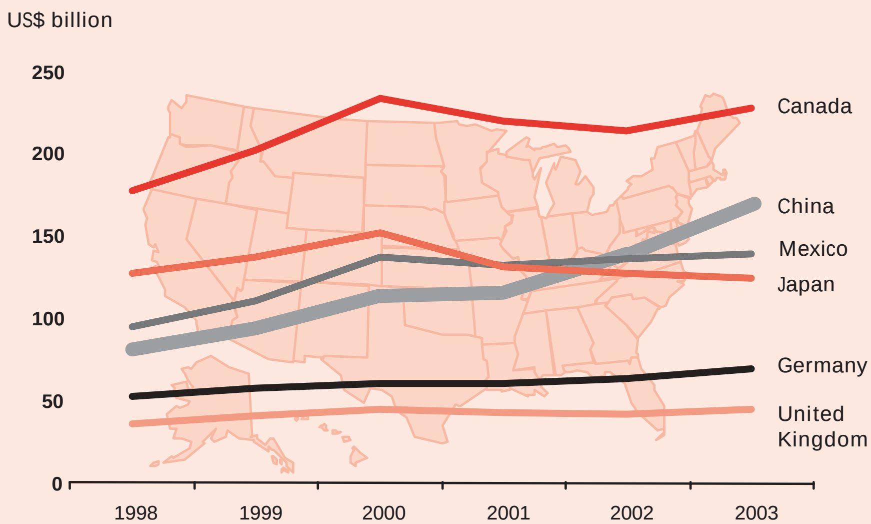
In recent years, the United States has witnessed some rapid shifts in imports, both in terms of volume and their source. In addition, there has been considerable variation across industry sectors within the United States in the extent of import growth and shifting market share. The largest changes in US market share have been caused by the recent rapid rise of China's share of US markets. In July 2005, China's monthly sales to the United States edged out Canada's sales for the first time in history.[1]

Of course, this does not necessarily mean that China is a significant or growing competitor with Canada in US market sales. What matters is the extent of market overlap at the detailed industry level between Canada and China on their US sales. Arguably the most commonly held perspective is that any threat from China on Canada's US sales is still a looming future concern, because of differences in Canada and China's key export sectors to the United States. A recent Industry Canada (2005) study pointed out that Canada and China do not compete much in the top 60 percent of Canada's exports to US markets. Consequently, to date, most analysts have focused on what will happen once China achieves substantial US market penetration in sectors key to Canada's US exports, such as motor vehicle parts (for instance, see Asia Pacific Foundation of Canada, 2005).

This focus on the current differences between China and Canada in their key export sectors to the United States, and the appropriate speculation about potential future impacts on Canada from Chinese US market penetration in sectors key to Canada, may be causing analysts to miss the reality that there already exists a significant cumulative effect from a growing Chinese US market share in nearly every non-natural resource industry sector for which Canada exports to the United States. Our analysis, explained in detail in Sawchuk and Yerger (2006), suggests that the "China threat" to Canada's US market share is closer than many think, and that the market overlap between China and Canada in US markets is becoming large enough that Canada needs to consider China as an important competitor on sales to US markets.

We base our conclusions on an analysis of shifting market overlaps based on the Market Overlap Measure, or MOM. The MOM analysis quantifies

FIGURE 1
Recent Changes in US Import Levels



	Share of US Imports		Share of US Market *	
	2003 %	1998-2003 % Change	2003 %	1998-2003 % Change
United States			74.2	-4.9
Canada	17.3	-1.3	4.5	0.6
China	12.7	4.6	3.3	1.6
Mexico	10.6	0.6	2.7	0.7
Japan	9.4	-3.8	2.4	-0.3
Germany	5.3	-0.2	1.4	0.2
United Kingdom	3.3	-0.4	0.9	0.1
Korea	3.0	0.3	0.8	0.2
Taiwan	2.6	-1.1	0.7	-0.1
France	2.3	-0.3	0.6	0.1
Italy	2.1	-0.3	0.5	0.0

* US imports plus US production for domestic consumption.
Source: Author's calculations based on data from US Bureau of Economic Analysis and US International Trade Commission.

and compares Canada's exposure to China against other nations exporting to the United States and identifies the industry sectors most responsible for Canada's exposure to China on its US sales. The analysis also quantifies the differences across provinces in their exposure to China on US sales.

China: Already a Threat

China's rapid increase in US market penetration is seen in the two left-most data columns of Figure 1 showing US import shares for the top 10 exporters to the United States in 2003. Between 1998 and 2003, China increased its overall US import share by 4.6 percent and surpassed Mexico to become the second leading export supplier after Canada to US markets. Over this same period, Canada's overall share fell by 1.3 percentage points. Only Japan suffered a larger loss of US import share. However, focusing on overall import shares can be misleading, for two reasons. First, it is measuring import, not actual US market shares, so it is possible that Canada is maintaining or even expanding its share of US markets even as its import share falls if US-based production has declined in its home market share. In addition, the aggregate market share values do not account for differences across industry sectors in Canada and China's US sales.

To address each of the above shortcomings, we constructed a data set that matches detailed industry-level US production data with US export and import flow data. The aggregation across all 105 NAIC sectors[2] for each of 200 plus nations that had sales to the United States gives the US Total Market referred to in the two right-most columns in Figure 1.

Moreover, China's gains in US market share have been widespread across industry sectors. For the 105 NAIC sectors having US imports, in 1998 China was the top exporter to the United States in 18 of these sectors and a top five exporter in 49 of the sectors. However, by 2003, China was the top exporter in 27 of the sectors and a top five exporter in 70 of them. As China increasingly establishes itself as a key exporter to US markets in the majority of the non-natural resource based sectors, Canada's exposure to China on its US sales will increase.

New Findings

To assess more accurately Canada's growing exposure to China on its US sales, we compute the MOM statistic between Canada and each of the 200 plus nations (see Figure 2). Our MOM analysis does not refute conventional wisdom. But in providing a more comprehensive treatment of all exports to the United States from all nations, it shows that Canada's exposure to China may already be larger than many believe.

For each reported nation, the MOM statistic can be interpreted as that nation's weighted average market share across the 105 four-digit NAIC sectors where the weights reflect the importance of the sector to Canada as an export market. Specifically, the weight assigned to any given NAIC sector is the percentage share of Canada's US exports in that year from that sector.

Note the still overwhelming importance of US-based production in US markets for Canadian sales, and the significant rate of decline from 1998 to 2003 in the US-based production home market share. In 1998, US-based production accounted for 69.0 percent of the market share in markets important to Canada while Canada's share was 9.7 percent, and the rest of world had a 21.2 percent market share. By 2003, the US share had fallen to 63.7 percent, Canada's share had risen to 10.3 percent, and the rest of world share increased to 26.0 percent.

We also see that while Canada slightly increased its average US market share from 1998 to 2003, it failed to maintain its same share of US imports. In 1998, Canada had 31 percent of the non-US share in these markets (9.7/(9.7+21.2)). If Canada had maintained a 31 percent share of US imports over the 1998 to 2003 period, then Canada would have gained 0.31 x (69.0 - 63.7) = 1.6 percent points in average market share from 1998 to 2003 and its 2003 MOM value would have been 9.7 + 1.6 = 11.3 percent rather than its actual

What Precisely Is MOM? (And What Is Its Usefulness?)

The Market Overlap Measure is a versatile and rigorous new tool for measuring the extent of market overlap between two nations selling in the same national market – analyzed simultaneously across all detailed industry sectors and all nations selling in the market. As such, it is a better tool for monitoring the effects of trade overlap than, say, similarity indices such as the Finger-Kreinin Index, Revealed Comparative Advantage (RCA) indices, or even industry-by-industry market share analyses.

For instance, Similarity Indices can be quite useful for comparing profiles across nations, but these indices suffer a potentially damaging shortcoming when used to analyze one nation's exposure to another nation in its sales to a specified market. Namely, these indices make no adjustment for the absolute size of the market share held by the nations being compared. Likewise, RCA indices can highlight how specialized a country is in its exports, but they are not able to show how exposed these exports are to competition from any other specific country. These concerns are well accounted for by the MOM.

Industry-by-industry market share analyses, on the other hand, must by necessity be ad hoc in nature and in Canada's case would typically focus only on some subset of all the industries for which Canada sells to the United States. However, analyzing each industry independently does not provide any quantifiable accounting of the impact of the breadth of detailed industry-level market share interactions between the two nations, and can underestimate impacts. The MOM is a summative measure of the market overlap between two nations across all industry sectors. As such, it can provide a better identification of key competitors by capturing both the depth and breadth of market overlap, and still be used to highlight the relative importance of individual industry sectors to the market overlap between two nations.

Although our focus with MOM has been on Canada and China's interactions in the US market, the framework can be used in many other settings as pointed out in Sawchuk and Yerger (2006). A complete derivation of the MOM index, and its useful properties, is found in the working paper.

TABLE 1

Who Are Canada's Major Competitors in the Marketplace?

Based on Canada's MOM indices,* sorted on 2003 values

	1998 %	2003 %	Rank 2003	Simulated 2008 %	Rank 2008**
Canada's Market Share	9.7	10.3		10.8	
Canada's Market Exposure to Others	90.3	89.7		10.8	
United States	69.0	63.7	**1**	60.6	1
Mexico	3.3	4.2	2	4.4	2
Japan	4.2	3.8	3	3.1	4
Germany	2.0	2.4	4	2.0	5
China	0.9	1.8	**5**	4.0	3
United Kingdom	1.2	1.4	6	1.3	6
Korea	0.6	0.9	7	0.7	10
Venezuela	0.3	0.7	8	1.2	8
France	0.6	0.7	9	–	–
Saudi Arabia	0.3	0.7	10	1.3	7

Note: * Canada's MOM indices focus on US markets in which Canada has sales.
** Nigeria hold 9th place in the simulated 2008 rankings.

10.3 percent. Canada's inability to "hold its own" against non-US suppliers in US markets led to its actual market share in 2003 being 10 percent smaller (10.3 vs. 11.3) than it would have been had it maintained its 1998 market share position.

In an absolute sense, the two nations with the largest gains in average US market share in sectors important to Canada were Mexico and China as both nations increased their MOM values by 0.9 percentage points from 1998 to 2003. On a growth rate basis, however, China had by far the fastest growing market overlap with Canada on sales in US markets. Canada's MOM value for China doubled between 1998 and 2003. By 2003, Mexico, Japan, and Germany were the only non-US nations having larger market overlaps with Canada in the US than does China.

Relative to the other major US trading partners and OECD nations, Canada already has a significant market exposure to China on its sales to US markets. Based on 2003 MOM values, Canada's market overlap with China is already 30 percent larger than its market overlap with the United Kingdom, more than twice its overlap with France, and more than four times its overlap with Italy. Moreover, based on recent trends it seems likely that Canada's market overlap with China will soon surpass that of Germany and if Japan's downward trend continues Canada's overlap with China may pass that of Japan in the next several years.

In sum, the MOM indices indicate that Canada's exposure to China in US markets is larger than one would forecast based solely on a comparison of the most important sectors for exports to the United States for each nation. China's widespread market penetration across most US markets already makes China the fourth most significant non-US supplier to US markets from a Canadian perspective.

Industries Driving Canada's Increased Exposure to China

As demonstrated in Sawchuk and Yerger (2006), the change in any MOM statistic can be decomposed to show the contribution of individual industry sectors to the change in MOM value. In Figure 2 we report the top 15 industry sector contributors to the near doubling in Canada's China MOM statistic from 1998 to 2003 as shown previously in Table 1. Ignoring the special classifications sector, the furniture and kitchen cabinets sector was the largest contributor to the rise in Canada's China MOM, accounting for 12.4 percent of the total increase in Canada's exposure to China on US sales as measured by the rise in Canada's China MOM value.

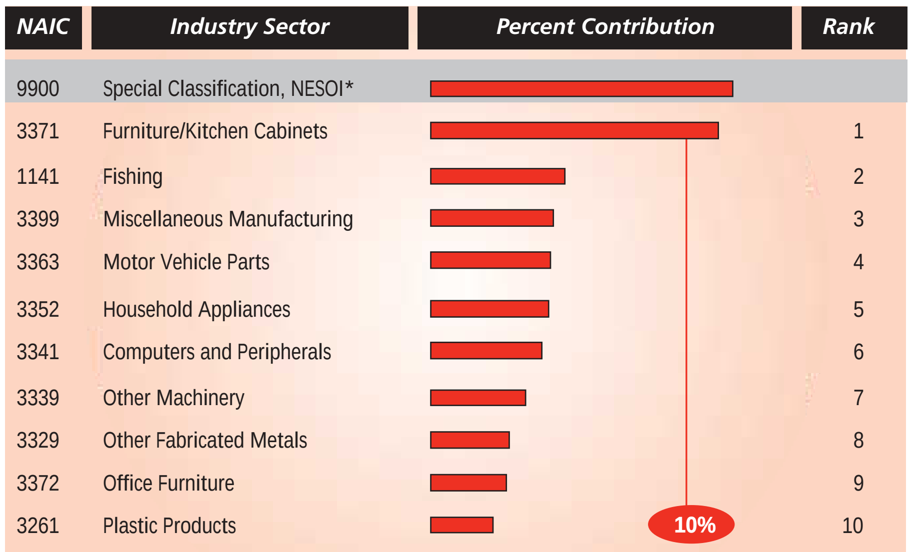
The contribution by sector declines quickly, however, as only four other industry sectors accounted for more than five percent of the rise in Canada's China MOM from 1998 to 2003. The rapid decline in contribution from any one sector provides further evidence that Canada's rising overlap with China in US markets is coming from increased Chinese market share in many industry sectors rather than in just a few US markets which are very important for Canadian sales to the United States. It is this diffused nature of the growing market overlaps between Canada and China in US markets that has made it difficult for observers to appreciate fully how extensive these overlaps already have become.

Also, it is worth noting that although current Chinese motor vehicle parts exports to the United States are well below the levels many industry analysts are forecasting for a few years from now, China's motor vehicle parts sales in US markets already grew enough from 1998 to 2003 to be the fifth largest contributor to Canada's growing market overlap with China. Clearly, if China continues to grow its motor vehicle parts export sector at

FIGURE 2

Competition from China, Faced by Canada, in US Markets

Top 10 Industry Sectors Contributing to Canada's Increased Exposure to China, 1998-2003



Note: * NAICS is able to classify a broad range of economic activities into an extensive 4-digit industry framework. However, not all activities are easily classified, and, as the economy continues to evolve, new types of activities also emerge whose information cannot be properly captured under any of the existing 4-digit NAIC codes. The Special Classification, NAIC 9900, provides overall information on activities 'Not Elsewhere Specified or Included' (NESOI).

rates similar to its growth from 1998 to 2003, then there will be a material increase in Canada's exposure to China and a likely crowding out of some of Canada's motor vehicle parts sales to the United States.

Provincial Variations

We also examined the differences across provinces in their market overlap with China on sales to US markets using the same methodology. We found considerable variation across provinces in their market overlap exposure to China (see Figure 3). For each province, the importance of its market overlap with China is highlighted by ranking its 2003 China MOM value against all other foreign countries. In addition, China's fraction of the total market share held by non-Canadian exports to the United States in 2003 is reported.

From Figure 3, it is clear that Quebec is more exposed to competition from China on its sales to US markets than is any other province. China has the largest market share of all other countries exporting to US markets important to Quebec, accounting for nearly 15 percent of non-Canadian US export sales in sectors key to Quebec. Quebec's exposure to China is more than 40 percent greater than is Ontario's measured exposure. For the remaining provinces, China has the

FIGURE 3

Competition from China, Faced by Provinces, in US Markets

China's Rank and Share among Foreign Country Sales in US Markets, 2003

China's Share	
Quebec	14.9%
Prince Edward Island	11.3%
British Columbia	10.8%
Manitoba	10.7%
Nova Scotia	9.8%
Ontario	8.5%
New Brunswick	6.3%
Newfoundland and Labrador	2.8%
Saskatchewan	2.7%
Alberta	1.6%

second largest market overlap exposure among non-Canadian exports to US markets for four of them: Prince Edward Island, British Columbia, Manitoba, and Nova Scotia where the fraction of non-Canadian US export sales accounted for by China ranges from 9.8 percent to 11.3 percent.

The provincial measures of market overlap with China are appreciably lower for the other provinces, and no simple geographic rule can explain the provincial variations. For example, China accounts for four times the market overlap with Manitoba as it does with neighbouring Saskatchewan (10.7 percent of the non-Canadian US exports share versus a 2.7 percent share) while representing more than three times the market overlap with Nova Scotia as it does with Newfoundland and Labrador (9.8 percent versus 2.7 percent). The provincial China MOM values indicate that the Canadian adjustment costs associated with China's rising share of US markets will be unevenly distributed across Canada, and that Quebec is likely to experience more China-induced industry-sector reallocations than the other provinces.

To better understand the causes of differences across provinces in their market overlap with China, each province's 2003 China MOM value was decomposed into its contribution by NAIC industry sector. Each province's exposure to China is found to be more concentrated in the top few industry sectors than is true for the national data; and there is significant diversity across provinces in the industry sector sources of their market overlap exposure to China. The fraction of a province's 2003 China exposure accounted for by its top two industry sectors ranged from a low of 20.4 percent of its total market overlap with China for British Columbia to a high of 68.0 percent for Newfoundland and Labrador. In total, 10 different sectors rank either first or second in importance of contribution across the 10 provincial China MOM values, and 41 different sectors are contained across the provinces' top 10 industry sector contributors to the China MOM. This diversity highlights the impact of China's increasing US market penetration across most industry sectors.

For Quebec, one quarter of its 2003 China MOM value is attributable to market overlaps with China in US markets for miscellaneous manufacturing and household and institutional furniture and kitchen cabinet manufacturing. Fully one half of Quebec's total market overlap exposure with China can be accounted for by also including cut and sew cloth manufacturing, semiconductor and other electronic component manufacturing, household appliance manufacturing, and footwear manufacturing.

What Does the Future Hold?

To get a sense of what is potentially in store for Canada, we conducted a simple simulation exercise (Table 1), assuming that each US home market grows (or shrinks) by the same percentage amount from 2003 to 2008 as it did from 1998 to 2003. Next, for each NAIC sector, it is assumed that each nation's market share changes by the same percentage amount from 2003 to 2008 as it did from 1998 to 2003. If the resultant sum of market shares for a sector does not equal 1.0, then each nation's market share is given the same proportional adjustment needed to make the summed market shares = 1.0. Once these simulated market shares are estimated for each sector across all nations, then the simulated MOM values can be computed.

We are not claiming that this simulation is the most likely outcome and acknowledge that at some point the deterioration in the US trade balance will have to halt. At that point, further decreases in US-based production's home market share in many sectors will stop. Nonetheless, the implications of recent market share trend developments, if continued for several more years, provides useful information regarding the potential magnitudes of changes in Canada's market overlap exposure to China and other nations on its sales in US markets.

Should market share trends of the past several years continue, our simulations indicate that by 2008, Canada's market overlap in US markets with China will be larger than for all other nations except Mexico. Given these trends, there is a good chance that by the end of the decade, Canada's market overlap with China in the United States will exceed that of all other foreign nations. Canada's market overlap with Japan and Western Europe will decline as China's US market penetration increases.

Concluding Thoughts

So, how much does China matter as a competitor with Canada on sales to US markets? Our MOM analysis suggests several responses to this important question. First and foremost, we must keep in mind that however quickly China's US market share positions may be growing, US-based production remains by far the dominant supplier of those US markets important to Canada for its US sales. Canada's cost competitiveness position vis-à-vis the United States will remain the most important pairwise comparison for Canada in determining its US market shares.

That said, our analysis indicates that China is likely already a more important competitor with Canada on US sales than many analysts believe based on similarity indices and industry-by-industry market share analyses. The cumulative impact of China's widespread US market penetration across many industries by 2003, an impact hard to quantify without the MOM framework, led to Canada's market overlap with China exceeding all other nations exporting to the US except for Mexico, Japan, and Germany. At the provincial level, our MOM analysis shows that Quebec is likely to suffer larger adjustment costs than the other provinces due to rising Chinese US market shares.

China's rapid pace of US market penetration also makes it quite likely that by the end of this decade Canada's US market overlap with China will have passed Japan and Germany, and possibly Mexico as well. While Canada-China economic integration involves much more than interactions in US markets, including the notable benefits for Canada of increased export sales to China, this one aspect of the relationship has the potential to impose meaningful sectoral adjustment costs on the Canadian economy. As such, it will be important for Canada to watch closely how China's increasing spending on R&D and high-tech output will impact Canadian and provincial-level US-bound exports in the near future.

Notes

1 Statistics Canada (2005). Canada maintains its historical spot in first place as far as annual exports to the United States go, but China's top ranking in July 2005 is still a wake-up call that China has been making rapid in-roads into the US marketplace.

2 The North American Industry Classification System (NAICS) was developed jointly by Canada, the United States and Mexico, and adopted in 1997 to replace the Standard Industrial Classification (SIC) System.

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A Demographic Analysis of the "Peasant-Worker Shortage" Problem

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In 2004, the "peasant-worker shortage"[1] became a hotly contested issue in China. In particular, Guangdong Province, where the shortage is felt most acutely, became the centre of intense debate. This article analyzes the various dimensions of this perceived shortage of migrant workers in Guangdong Province and evaluates the policy implications of these findings.

Demographically, a Peasant-Worker Shortage Does Not Currently Exist in China

The phrase "peasant-worker shortage" has numerous meanings. Typically, it is interpreted in the context of population structure to mean a scarcity of peasant-workers or labourers. As will be seen, however, there is no concrete data supporting such assertions in either China as a whole or in Guangdong Province.

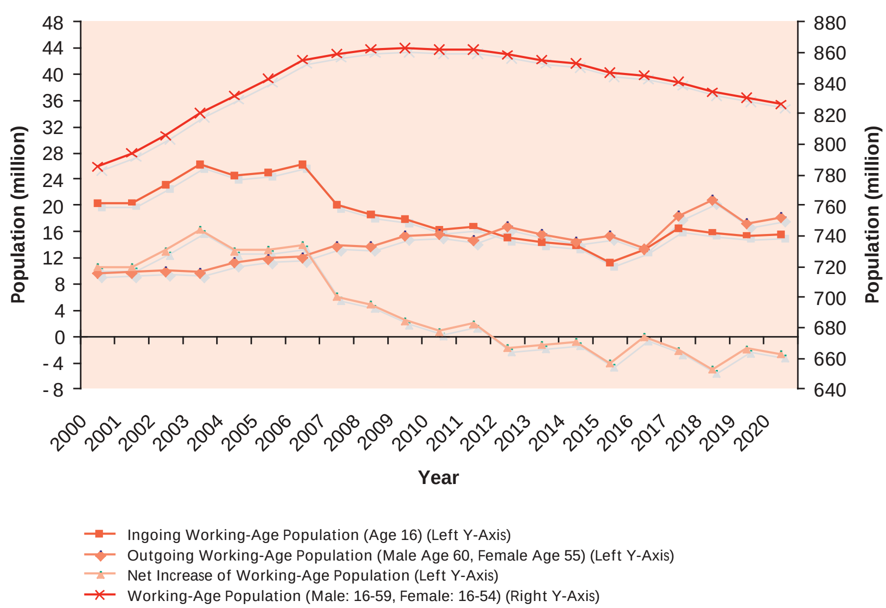
By structuring and combining four indices based on official sources, the current situation and emerging trends of the working-age population resource reserves of both Guangdong and China can be constructed. The annual working-age population of China and of the Guangdong Province registered population, and moving trends of the four indices from 2000 to 2020, have also been computed and forecasted.

The findings (summarized in figures 1 and 2) are based on the following assumptions.

- The starting age of the incoming working-age population has been set at 16.
- The urban retirement age (60 for men, 55 for women) is used to unify the outgoing working-age of both rural and urban populations.
- Each year, populations that deferred employment and seek employment after deferment cancelled each

FIGURE 1

National Registered Working-Age Population Change (2000-2020)



Source: National Bureau of Statistics of China (2002).

other out, so the whole incoming working-age population is considered as seeking employment.

The National Supply of the Working-Age Population

In recent years, job growth in China stood at nine million positions per annum. These new employment opportunities have to respond to the demands of the urban population for employment and address the demand from peasant-workers from rural areas who enter the urban labour market. For a peasant-worker shortage to exist, the number of jobs available would have to exceed the total number of workers from these two groups. These nine million new jobs, however, are insufficient to meet the projected aggregate labour force increase. As shown in Figure 1, between 2000 and 2007, at least 20,000,000 new workers will join the urban labour force each year, with two peaks of 26,247,000 and 26,142,000 in 2003 and 2006 respectively. The number will fall below 20 million in 2008 (18,685,000), but between 2008 and 2020, annual inflows into the working-age population will surpass 15,000,000 in most years. Of specific note, the working-age population reached 24,533,000 in 2004, the year when the peasant-worker shortage debate was at its peak. Therefore, even if the employment opportunity growth rate described above was sustainable at nine million positions per year, it is evident that labour demand will not exceed labour supply for the foreseeable future.

Even if it is assumed that every year employment opportunities surrendered by members of the working-age population who exit the labour force are taken up by incoming people of working-age (such a recovery implies no population urbanization), the annual incoming working-age population will still remain enormous and increase every year, causing net annual increases of the working-age population. Until 2006, the net annual increase in the working-age population exceeded 10 million, reaching 13,972,000 in 2006. Such increases are projected to continue until 2012, when growth will begin to taper off (Figure 1).

However, this does not necessarily mean that the situation will improve after 2006. After 2012, although the working-age population will no longer be growing at the same rate as before, the aggregate working-age population will still increase until 2020. (Between 2000 and 2020, the working population will increase from 785,368,000 to 825,934,000.) This projected increase takes on a convex shape: it grows rapidly at first to a peak of 862,923,000 in 2009 – nearly 80 million over nine years; then it decreases slowly to 825,934,000 in 2020 – no more than 40 million in 11 years. In short, after 2006, a nine million per year increase in employment opportunities will not satisfy pressures brought about by the ever increasing aggregate working-age population.

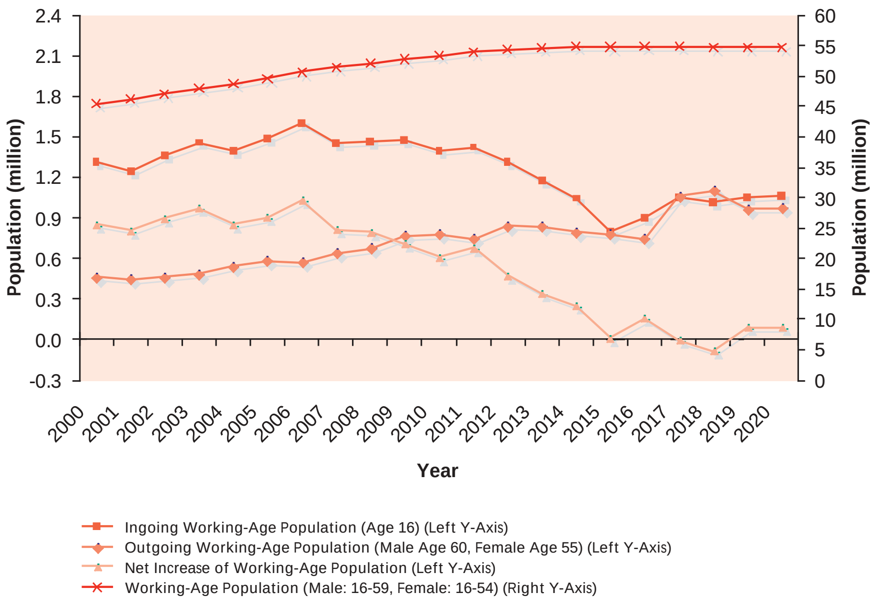
The preceding analysis stems from calculations by the author and is in line with opinions from government departments. The Ministry of Labour and Social Security has indicated that more than 24 million workers in urban populations will need employment each year. Currently, only 12 million employment opportunities can be provided every year, of which nine million comes from keeping the economy growing at eight percent per year, and three million comes from attrition. This will leave a shortfall of roughly 12 million jobs.

In China, for at least the first 20 years of the 21st century, there will be no significant changes in the national supply and demand of the labour force population.

In summary, the labour supply and demand situation between 2000 and 2020 can be divided into two periods. For the first decade, the huge number of individuals reaching working-age, the rapid growth of the aggregate working-age population and urbanization of rural populations will result in significant employment pressures. During the following decade, annual decreases of the working-age population will reduce the pressure for employment but the sheer size of the aggregate working-age population and continuing urbanization of the rural population will exert pressure for the creation of more jobs. In China, for at least the first 20 years of the 21st century, there will be no significant changes in the national supply and demand of the labour force population; labour redundancies and employment hardship will continue to exist.

These demographic findings cause one to re-evaluate the effects of the family planning policy. The argument that the family policy is one of the reasons for the peasant-worker shortage disregards the facts. Not only do the demographics not indicate a shortage but, it

FIGURE 2
Guangdong Registered Working-Age Population Change (2000-2020)



Source: Population Census Office of Guangdong (2002).

would appear, there are and will continue to be surpluses of labour in the foreseeable future. Were it not for the implementation of the family planning policy, the current labour force population would likely be even larger, resulting in labour redundancy pressures being higher and such situations lasting even longer. From this perspective, the family planning policy is effective in controlling population growth and could conceivably be tailored to reduce the total population, including those of working-age. Nevertheless, if the aim is to decrease the population in China, especially of the working-age population so its quantity aligns with or even undersupplies labour demand and fits within the social and economic development context of China, then this would only be possible after at least the 2040s. Due to the inertia of population growth, the total population of China will keep increasing until 2009, but even then redundancies will continue to exist and there will still not be a shortage for 20 years.

The Labour Supply and Registered Working-Age Population in Guangdong

Figure 2 shows that for the first 20 years of the 21st century, the working-age population and registered populations of Guangdong are projected to have similarities as well as differences with those of the nation.[2] Like the nation as a whole, Guangdong's incoming working-age population will peak in 2006 (1,598,000), the peak year for workers to leave the working-age population will occur in 2018 (1,101,000), and the year of peak net increase for the working-age population is 2006 (1,028,000). The differences are in the growth rate and quantity: national net increases of the working-age population are projected to turn negative in 2012 and continue thereafter; for Guangdong, however, the working-age population is not expected to start shrinking before 2017, and growth in the working-age population is expected to become positive again and to continue to increase after 2019. Another difference is that the national working-age population reaches its peak in 2009 and then decreases slowly, showing a convex shape. In contrast, the working-age population of Guangdong keeps increasing until 2016, reaching the peak (54,888,000), and then levels off.

Realistically, Guangdong should not have any labour employment problems, because the Province has been importing labour from other provinces ever since China adopted the reform and opening-up policies. In recent years, Guangdong has paid considerable attention to employment challenges and has achieved a great deal of success. Aggregate employment opportunities, new urban employment and new rural labour force transfer employment have all increased significantly. Laid-off workers in state-owned enterprises and annual total urban registered unemployment have also decreased significantly.[3] Compared to 2003, the year-end provincial urban registered unemployment rate in 2004 decreased by 0.2 to 2.7 percent (Populations Census Office of Guangdong, 2005). Nevertheless, about five million peasants are still in need of employment due to migration. The Provincial Land and Resource Management Meeting has pointed out that the per capita cultivated land area in Guangdong is 0.46 mu (unit of area equals to 0.0667 hectares), less than half of the national average (Population Census Office of Guangdong, 2005).

These facts suggest that Guangdong continues to receive workers from other localities while the registered working-age population is underemployed, and rural surpluses of labour within the Province continue to wait for new jobs. Based on the trend of working-age population growth in Guangdong and assuming that Guangdong keeps adding one million new employment opportunities annually (the highest number realistically possible), if the transfer employment rate of the rural labour force and the demand for urbanization by rural populations were included, the labour supply would still exceed demand and Guangdong would still experience serious challenges in employment.

The Peasant-Worker Tide in Guangdong Is Still High

Already it is clear that the most obvious interpretation of the phrase "peasant-worker shortage" is not supported by facts. Another interpretation, however, is that the term refers to the receding peasant-worker tide in Guangdong, or indicates that the flow of the tide has changed direction and no longer flows into Guangdong. As with the previous analysis, however, this is not the case.

Results from the fifth national census in 2000 showed that in that year the population flowing into Guangdong was about 15 million, of which 90 percent were of working age. Population flows into Shenzhen, Dongguan, and Guangzhou had already exceeded 10 million, suggesting that the population in these three cities was enough to represent the aggregate trend of population from other localities in Guangdong, and could serve as a barometer of changes in the population. In 2004, research conducted by Dongguan and Shenzhen government departments and research institutions suggested that individuals from other localities outside of Guangdong Province accounted for over 10 million people in each of the two cities. Since there is no reason to believe that Guangzhou's population growth has changed since 2000, current estimates of population inflows from other provinces exceeding 15 million are credible. Growth of the out-of-province population may become slower, but the total quantity will still be on the rise.

The Essence of the Problem

It is true that labour shortages have occurred in some parts of Guangdong and in some industries; however, as shown by the analyses above, it is unjustifiable to assert that such a phenomenon is a sign of a large-scale decline of peasant-workers in Guangdong, or even a sign of peasant workers migrating to other provinces. According to some investigations, even if there was a shortage of two million peasant-workers in Guangdong, it would still be wrong to conclude that the labour force flows into Guangdong have changed.

Instead, the sources of the labour challenges are to be found elsewhere. The lack of a scientific approach to labour management (such as putting "people first"), industrial restructuring, and upgrades, the labour intensity of many industries, the introduction of a market-oriented labour market, and the low overall educational and skill level of the population are the five factors that contribute to the challenges typically attributed to a shortage of peasant-workers.

The Lack of a People First Approach to Labour Management

Guangdong is the national leader in developing a social security system. According to 2004 year-end statistics, compared to the previous year, participation in a basic pension increased by seven percent, while participation in medical, work injury, and unemployment insurance programs increased by 17.9, 8.5, and 5.4 percent respectively. Over 10 million people were enrolled in each, the highest number in the country. While such achievements definitely benefit migrant workers, significant problems continue to exist, such as paying back wages and overtime, poor working and safety conditions, as well as various forms of discriminatory treatment and violations of migrant worker rights and benefits. These factors significantly affect the experiences and stability of the migrant labour force. At the root of these challenges, is a lack of a "people first" philosophy, which differs fundamentally from old and obsolete ways of valuing labour over people. There has been no adjustment made to the ways labour is used under the strategic state philosophy of allocating rural labour, advancing population urbanization and establishing a harmonious society. As a result, conflicts among migrant workers, local governments, enterprises from where the workers come, and the rest of society become increasingly intense, resulting in highly distorted perceptions of labour shortages on the one hand and a peasant-worker surplus on the other.

The lack of a scientific approach to labour management (such as putting "people first"), industrial restructuring, and upgrades, the labour intensity of many industries, the introduction of a market-oriented labour market, and the low overall educational and skill level of the population are the five factors that contribute to the challenges typically attributed to a shortage of peasant-workers.

Effects of Industrial Restructuring and Upgrades

After more than 20 years of growth and development, it is natural, rational, and irreversible for Guangdong to upgrade and restructure its industries. In fact, this is the only way Guangdong can increase its competitiveness, meet the requirements, and face the challenges of economic globalization, and continue to develop socially and economically. Industrial structural adjustments involve fundamentally transforming Guangdong's mostly labour-intensive enterprises, impacting their development and survival and, subsequently, changing the nature of the labour supply and demand. In recent years, the labour market has been able to support technology-intensive and capital-intensive enterprises in Guangdong; during this process, there were generally no recruitment difficulties and labour has been relatively abundant. The success of such industries, however, affects the labour supply, as workers are increasingly inclined to enter these industries and reject opportunities in more labour-intensive sectors. Alternatively, it can also lead workers to hesitate or take a wait-and-see attitude to the jobs available. Taken together, this causes labour-intensive enterprises, which once dominated the labour employment market, to be in an inferior position when recruiting.

Predicament of Labour-Intensive Industry

The labour-intensive industries in Guangdong face critical choices in terms of future development. Costs of raw materials, energy fuels, and land resources are continuously rising. Additionally, the effects of international competition are increasingly felt. In particular, developing countries and regions, especially those in Southeast Asia and East Asia that are adjacent to Guangdong, have an abundance of low-cost human resources, presenting a huge challenge to the Province. International market actors make use of this situation to place pressure on Chinese labour-intensive enterprises to lower prices and put in place conditions that would negatively affect those enterprises and the Chinese government. Under such pressures, even if labour costs remain unchanged, profit margins would be reduced, resulting in cutbacks to education and training, as well as poorer work environments and weakened job security. Consequently, these industries are particularly vulnerable to labour shortages. Given the long-term existence of a huge rural surplus of labour in China and the great number of rural labourers from other provinces waiting for transfer employment in Guangdong, there would be significant negative consequences if labour-intensive industries were improperly or unwisely restructured.

Development of a Healthy and Rational Market-Oriented Labour Market

The long-term existence of a ready supply of labour in China's rural areas is the core cause for the inelasticity of labour price and the excess supply of labour in cities and enterprises. Industries and enterprises in the cities maintain extremely low costs, because the price of labour does not reflect supply and demand realities within the labour market. This also leads to conditions where the legitimate rights and benefits of workers are neglected or infringed upon. Although labour and employment systems and regulations are more and more market-oriented, distortions continue to exist, causing labour supply to favour businesses and firms. The positive sign of a peasant-worker shortage is that workers become aware of their rights and start to "vote with their feet" to fight against such injustice and assert their legitimate rights and benefits. Therefore, it is evident that self-adjustment within the labour market has begun. In this way, the so called peasant-worker shortage may help the labour market develop in a healthier and more rational manner.

The Constraint of Lower Skill Levels of the Working Population in General

The peasant-worker shortage is in fact a skilled worker shortage. Its ultimate cause is the lower education and skill levels of the overall labour supply. This phenomenon also exists in other coastal cities and industrial regions and is one of the major characteristics of present-day China, which could impede its long-term social and economic development in the 21st century. Already identified by demographers at the end of the 20th century, this challenge cannot be solved in the short term. The current shortage of skilled workers is merely one of its most recent manifestations; others will follow. Therefore, all sectors of the society should be aware of this skills issue and be prepared for additional challenges in the future.

Considerations of Solutions

Lewis' (1954; 1958) argument that there would be an unlimited supply of labour in developing countries under the rural-urban dual-sector model has yet to be disproved. China clearly has a work-force surplus. The movement of this surplus population and how it is developing are not yet clear. There is a need to further observe and investigate. However, the rise of such a phenomenon is sufficient to indicate that the Chinese government as well as other sectors of society should begin to work toward addressing the challenges discussed above.

In line with the preceding analysis, the following approaches would be effective first steps in managing the challenges China faces.

- Recognize that China is a country with an immense population that exerts pressures on labour supply and demand.
- Establish a "people first" approach for labour management in all enterprises.
- Develop the skills and improve the education level of peasant-workers.
- Develop innovative systems to support the urbanization of the rural population.
- Make equity the key to the support system for urbanization of the rural population.

If there is a system that is market oriented, fair, equitable, and respectful of basic rights, then one can identify a proper way to urbanize rural populations and develop a strategic plan for urban-rural population development. In this way, governments will be able to make policies while the market makes choices through competition.

Notes

1 "Peasant-worker" refers to rural populations that seek urban employment opportunities, but are not covered by urban social security and insurance systems and welfare systems under the Household Registration System of China. They do not enjoy the same welfare benefits as the urban population.

2 In the 1950s, China established the Urban-Rural Population Household Registration System; the changing from rural to urban registration must be approved by relevant government departments. Urban and rural populations enjoy differentiated social and economic treatments and benefits, with urban being better. Peasant-workers hold rural household registration; when working in cities, they cannot enjoy the same treatment and benefits as the registered urban population. As a result, the Urban-Rural Population Household Registration System became a key system that determines whether a person is able to enjoy treatments and benefits given only to the urban population. It became a critical factor that greatly restricts migration and urbanization as well as social fairness.

3 There are two restrictions to the bounds of the city-town unemployment rate of China: the data are obtained from cities and towns only, excluding rural areas, and the data are for the registered population only, excluding non-registered population.

Full references are available in the online version of this issue. It can be accessed by visiting the PRI web site at <www.policyresearch.gc.ca>.

China Goes Global

The Implications of Chinese Outward Direct Investment for Canada

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The emergence of China as a global economic powerhouse is now widely recognized among business and policy circles in Canada. It has become conventional wisdom, for example, to speak of the imperative for all businesses, indeed all government departments, to develop a China strategy, regardless of whether these entities do any direct business with China.

Most of the attention on China's economic prowess has been directed at its sustained high economic growth of the last two decades, driven in part by massive inflows of foreign direct investment (FDI) and by the rapid expansion of exports. China's openness to foreign investment, chiefly in the manufacturing sector, has reshaped global supply chains, and affected production, sourcing, and investment decisions from Turin to Toronto. China has, in fact, overtaken the United States as the leading destination for FDI, accounting for 9.4 percent of global cross-border flows in 2004.

In contrast, much less attention has been given to China's role as a source of outward direct investment (ODI). The flow of Chinese ODI has risen from virtually nil at the start of economic reforms in 1978 to US$5.5 billion by the end of 2004. While Chinese ODI is still very small relative to global flows, the rate of growth is among the fastest compared to other source countries.

The prospect of China becoming a major source of FDI is received with a mixture of enthusiasm and apprehension by many recipient countries. While most economies would welcome the inflow of long-term equity investment, there are concerns – especially in industrialized countries – about the motivations and quality of Chinese capital. These concerns include the fear of ceding sensitive technologies to a potential military competitor; loss of control over natural resources in the event of global scarcity; poor management and governance practices; and the unsavory human rights reputation of the Chinese government and, by extension, of its stable of state-owned companies. The public debate in late 2004 around the proposed acquisition of Noranda Inc. by China's Minmetals exposed many of these fears. Likewise, the failed attempt by China National Offshore Oil Corporation (CNOOC) to purchase a small US energy company (Unocal) generated much heat and passion among US legislators and editorialists.

While some concerns around Chinese ODI have merit, it would be foolhardy for recipient countries, including Canada, to ignore the phenomenon of China as a capital exporter or, worse, to reject Chinese investment on the basis of gross generalizations about the motivations and practices of the Chinese government and of Chinese industrial concerns. It is beyond the scope of this paper to chart the possible trajectory and form of Chinese capital exports, but China will very likely continue to be an exporter of capital for the foreseeable future, inasmuch as it will continue to run large current account surpluses (estimated to exceed four percent of gross domestic product in 2005). Furthermore, the October 2005 shift to an "exchange rate basket" management system will likely lead to a gradual appreciation of the Yuan, which will increase the purchasing power of the Chinese currency, making the acquisition of overseas assets all the more attractive to Chinese firms.

This article traces the evolution of the Chinese government's policies on FDI and presents findings from a recent survey on Chinese outward investment intentions conducted by the Asia Pacific Foundation of Canada and the China Council for Promotion of International Trade. It also discusses the current state of Chinese FDI in Canada and prospects for future investments.

Chinese Outward Direct Investment: Policy and Performance

Compared with major source countries for FDI, Chinese outward investment is highly regulated. In fact, Chinese ODI was generally discouraged by the central authorities until 2002, when the leadership announced a new strategy to encourage enterprises to "step out" by investing in overseas markets. Before the new strategy was articulated, China's ODI policy was driven chiefly by central government priorities. There were many shifts in the policy through the 1980s and '90s, but many of these adjustments were of a political or administrative nature. The impetus for deeper reform in ODI policy has only come about in the last few years, coinciding with China's increased presence on the global economic scene, and with the ability and desire of Chinese firms to spread their wings internationally.

Broadly speaking, Chinese ODI policy can be divided into five stages.

STAGE ONE (1979-1983): Case-by-Case Approval

The only entities permitted to invest overseas were state-owned trading corporations and provincial or municipal-based international economic and technology co-operation enterprises, on a case-by-case basis. The State Council was the sole authority responsible for examining and approving overseas investment. Outward investment was, in effect, prohibited unless specifically approved by the State Council; hence, there were no regulations on ODI as such.

STAGE TWO (1984-1992): Standardization of Approval Procedures

Prohibitions against ODI were liberalized during this period as the government allowed a wider range of enterprises to invest overseas. Non-state firms, for example, were permitted to establish subsidiaries in other countries. Prior approval was still required from the central authorities, but the approvals process moved gradually from a case-by-case approach to more standardized procedures.

STAGE THREE (1993-1998): Greater Scrutiny of Overseas Investment Projects

A surge in outward investment in the previous period, encouraged both by the relaxation of ODI rules and by an overvalued exchange rate, led to a number of debacles by Chinese entities speculating on the Hong Kong real estate and stock markets. As a result, Beijing introduced a more rigorous process for screening and monitoring ODI projects to ensure that these investments were for "genuinely productive purposes."

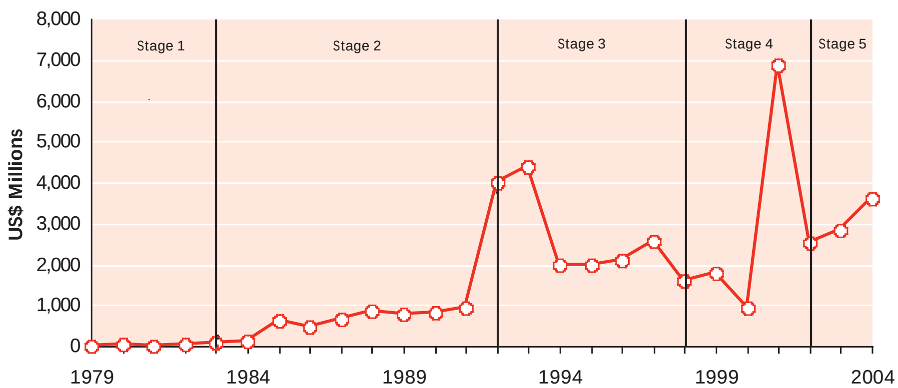
STAGE FOUR (1999-2002): Overseas Investment in Processing Trade Activities

The period straddling China's entry into the World Trade Organization was a turning point in Chinese policy toward ODI. Recognizing the increasingly important role of Chinese enterprises in global trade and production networks, Beijing put in place new policies to encourage firms to engage in overseas activities that augmented China's export drive, also known as "processing trade" projects. The light industrial goods sector, for example textiles, machinery and electrical equipment, was encouraged to establish manufacturing facilities overseas that would use Chinese raw materials or intermediate goods. The Chinese government offered a variety of incentives including export tax rebates, foreign exchange assistance, and direct financial support.

STAGE FIVE (2002-Present): The "Stepping Out" Strategy

At the Chinese Communist Party's 16th congress in 2002, the leadership announced a new strategy aimed at encouraging Chinese companies to "step out" into the global economy through exports and investing overseas. This policy shift was seen as a necessary concomitant to the successful inward investment and export policies of the 1980s and '90s, and as part of the ongoing reform and liberalization of the Chinese economy. It also reflects a desire on the part of the Chinese government to create world class companies and brands, whereby Chinese firms are seen as more than secondary nodes in production networks that are ultimately controlled by multinationals based in industrialized

FIGURE 1
China's Annual FDI Outflows: 1979-2004



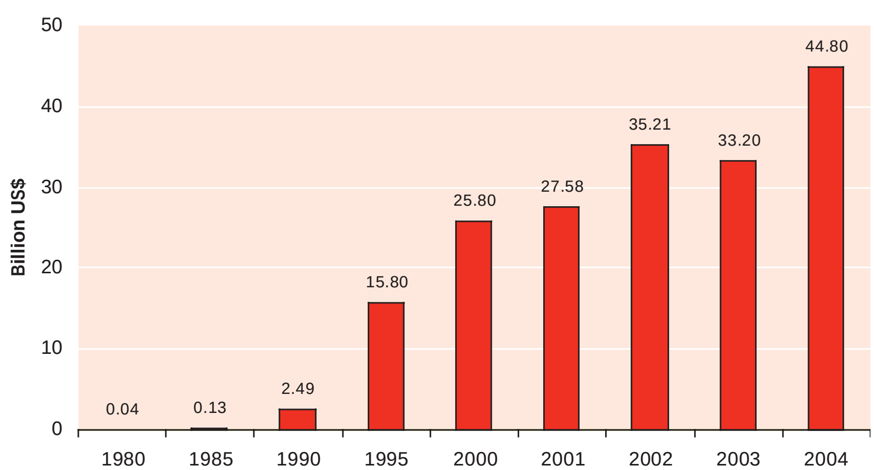
Source: 1979-1993: Wong and Chan (2003); 1994-2002: UNCTAD (various years); 2003-2004: MOFCOM (2004; 2005).

countries. Recent changes in ODI policy have focused on five areas: creating incentives for outward investment; streamlining administrative procedures, including greater transparency of rules and decentralization of authority to local levels of government; easing capital controls; providing information and guidance on investment opportunities; and reducing investment risks.

While there is no guarantee that ODI policy will continue on a path of liberalization, the last 20 years testify to the dramatic change that has already occurred in Beijing's attitude toward outward investment. Since 1980, the emphasis on political objectives in determining Chinese ODI policy has gradually given way to the primacy of commercial interests. At the same time, the approval process for ODI has been greatly simplified, with decision-making authority delegated first from the central government to local governments, and more recently to the enterprise itself. The motivation for outward investment, in turn, has generally evolved from one that was based largely on accessing natural resources to a more complex set of objectives related to securing access to markets, technology, and brands, as well as the traditional interest in natural resources.

The evolution of Chinese ODI policy over the last two decades is reflected in Figures 1 and 2. China's flow of overseas non-financial investment reached a record US$5.5 billion in 2004, up 93 percent from the previous year. By the end of 2004, cumulative overseas investment from China was around US$45 billion. It is estimated that there are some 5,163 Chinese enterprises with investments in 149 countries or regions.

FIGURE 2
China's Outward FDI Stock: 1980-2004



Source: UNCTAD, World Investment Report, various years; MOFCOM, 2004; 2005.

Outward Direct Investment Intentions of Chinese Enterprises

In May-June 2005, the Asia Pacific Foundation of Canada partnered with the China Council for the Promotion of International Trade (CCPIT) to carry out a survey on Chinese companies' outward investment intentions. The survey covered 296 member companies of CCPIT and included questions on current investments, the motivations for future investment, and targeted sectors/destinations. Some of the main findings include the following.

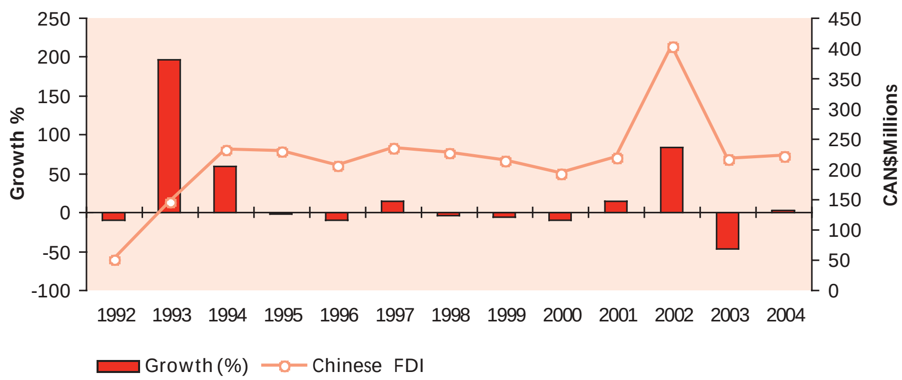
Chinese ODI is set to rise in the years to come. The survey found that 23 percent of respondents intend to increase their ODI within the next 12 months and that over 40 percent intend to invest overseas within two to five years.

Motivations for outward investment will increasingly be driven by market considerations rather than by policy directives. The survey results suggest that respondents' current investments overseas were driven as much by the Chinese government's stepping out policy and related incentives, as by pure business considerations. When asked about future investments, however, the importance of policy direction and incentives is given much less weight by respondents. "Business potential," on the other hand, is seen as the primary motivation, which suggests that Chinese ODI is entering a more mature phase of growth.

Outward investment is not limited to large, state-owned enterprises. While state-owned enterprises are the dominant players in Chinese overseas investments, the survey suggests that non-state-owned enterprises, particularly private companies, also nurture global ambitions. Many of these are small and medium-sized companies. In general, publicly listed Chinese companies are more likely to invest abroad than their state-owned counterparts.

Chinese enterprises favour majority control of joint ventures for their overseas investments. Our survey results show that over 60 percent of existing ODI was carried out through joint ventures, as opposed to greenfield investment or mergers and acquisitions. According to the survey, some 90 percent of existing Chinese overseas projects are wholly owned or majority owned by Chinese investors.

FIGURE 3
Chinese FDI in Canada



Source: Statistics Canada, CASIM 376-0051, May 2005.

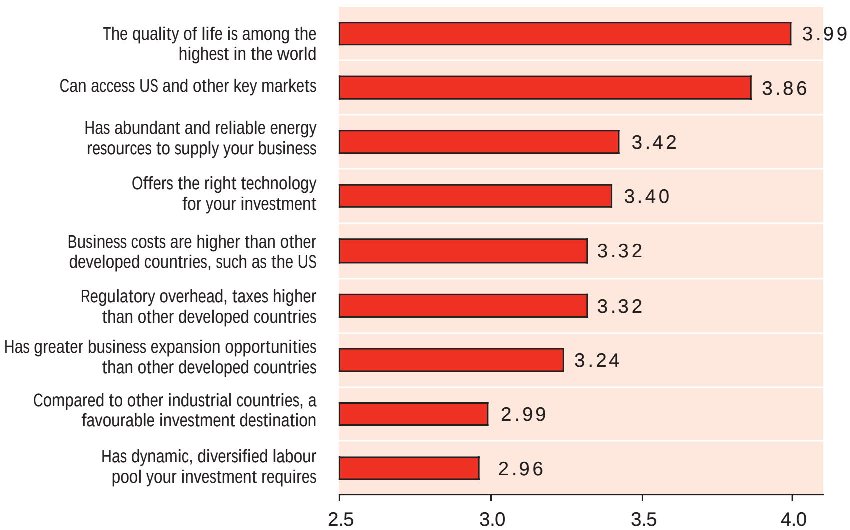
Chinese ODI interests extend well beyond energy projects. Recent Chinese investments or attempted investments in energy projects have generated worldwide attention. Our survey suggests, however, that Chinese enterprises are interested in a much wider range of overseas investment opportunities. The top three target industries named in our survey are auto and auto parts, food and beverages, and mechanical and electrical machinery.

Chinese FDI in Canada and Examples of Recent Investments

According to Statistics Canada, the stock of Chinese FDI to Canada in 2004 was CAN$220 million, which represents 0.06 percent of the total FDI stock in that year. To date, China has been an insignificant source of FDI for Canada, ranking 27th among source countries. There is reason to believe, however, that Chinese FDI in Canada is underreported, as is the case with most international investment flows. Recent announcements of Chinese acquisitions in Canada suggest that the extent of investment activity may be greater than the statistics suggest.

The bulk of recent Chinese investment in Canada has been in the energy and resource sectors. In October 2005, Jinchuan Group Ltd., China's largest nickel producer and smelter operator, invested CAN$3.06 million in GobiMin, a nickel producer headquartered in Vancouver, by acquiring 5.1 million GobiMin common shares or 9.996 percent of the total shares issued and outstanding. Earlier in the year, SinoCanada, a subsidiary of China-based Sinopec Group and Calgary-based Synenco Energy Inc., entered into a series of agreements under which Sinopec will pay approximately CAN$105 million for a 40 percent interest in the Northern Lights oil sands project located in north-eastern Alberta. Similarly, CNOOC Ltd. announced that its wholly owned subsidiary, CNOOC Belgium BVBA,

FIGURE 4
Key Considerations for Investing in Canada



Source: Zhang (2005).

had signed an agreement with Calgary-based oil sands company MEG Energy Corp. (MEG), to acquire a 16.69 percent stake in MEG. CNOOC Ltd. acquired 13,636,364 common shares of MEG for CAN$150 million.

There are a growing number of Chinese investments in Canada outside of the energy and resource sectors, even though these deals are small in value terms compared to resource sector acquisitions. Some examples from 2005 include the following.

China Telecom Corporation Ltd. (a US subsidiary of the Chinese telecom giant) opened an outlet in Toronto as part of its international expansion strategy. Toronto-based TCM Inc., which exports Canadian wood frame construction technology and building materials to China, signed joint-venture agreements with Wuhu Shijie Hardware Co. Ltd. to open a branch outlet in Toronto; with Taizhou Baile Pumps Ltd. to open a branch outlet in Toronto; and with Zhejiang Huarong Exhaust Purification Co. Ltd. to open a branch outlet in Toronto. Jilin Provincial Huang Investment Group Co. Ltd. signed a letter of intent with Regina-based A1 Soybean Enterprises Ltd. to invest in reforestation activities in Canada using Jilin Provincial's irrigation technology. And Chinese national retail giant, Hualian Supermarket Co. Ltd., opened a store in Richmond, British Columbia marking the first major Chinese investment in the Canadian retail sector.

It is not clear that all of these deals will count as Chinese FDI in Canada, since some of them involve the use of subsidiaries in other countries and the use of capital that is technically sourced from within Canada, but which may well have originated in China.

Prospects for Increased Chinese Investment in Canada

While Chinese ODI is still small compared to major source countries, the economic fundamentals of rapid gross domestic product growth, deepening integration into global production networks, persistent current account surpluses, and a rising currency suggest that outward investment will expand steadily in the years ahead. A shift in policy to support outward investment since 2002 has accelerated the liberalization of regulations on ODI and has led to the creation of incentives and other mechanisms to encourage Chinese enterprises to "step out" as global investors. Our recent survey confirms that a significant percentage of Chinese firms intend to invest overseas in the next two to five years.

The same survey suggests, however, that Canada is generally not on China's ODI radar screen. Only eight percent of respondents said they would consider investing in Canada. Moreover, 40 percent of respondents said they did not have a basic knowledge of investment opportunities in Canada. Curiously, respondents ranked the auto industry last among sectors in Canada considered to have good investment potential even though the same sample listed the auto and auto parts industry as the top priority for global investments Table 1). When asked about the key considerations for investing in Canada, respondents ranked quality of life as the most important factor, followed by access to the US market and availability of abundant and reliable energy resources (Figure 4). A number of core business attributes often touted as key draws for investment in Canada, such as the availability of a skilled labour force, ranked surprisingly low on the scale of Chinese investor perceptions.

It is not clear why Chinese enterprises do not rank Canada highly as an investment destination (setting aside a number of high profile energy-related opportunities, such as the oil sands in Alberta, which have clearly captured the attention of the Chinese, among other potential investors). During the Minmetals-Noranda acquisition talks, the antipathy and, in some cases, outright opposition expressed by some civil society groups, public intellectuals, and government officials was portrayed in the mainland Chinese press as a more generalized rejection of Chinese investment in Canada. This interpretation is, of course, unfounded, but it may play an enduring role in conditioning Chinese attitudes toward investment opportunities in Canada. Government and business leaders have attempted to dispel these misconceptions through a series of public pronouncements and promotional activities in Canada and in China. Recent visits by the premiers of Quebec, Saskatchewan, and Ontario underscored the attractiveness of the respective jurisdictions as destinations for Chinese outward investment. Premier Dalton McGuinty of Ontario put it most directly, in a speech to a largely Chinese business audience: "We understand China's strategy of encouraging its enterprises to 'Go Global', and we welcome Chinese investment in Ontario." The federal government, in turn, is placing greater effort to target China as a source of potential FDI for Canada, including seminars in China on Canadian investment opportunities. If the survey results are anything to go by, there is much work to be done in educating Chinese industrialists on Canada's business climate and on investment opportunities outside of the resource sector.

TABLE 1
Most Promising Sectors for Investment in Canada

Ranking	The most promising sectors for investing in Canada are:
1	Information and communication technology
2	Energy
3	Biotech
4	Forestry
5	Minerals
6	Agriculture and agri-food
7	Autos and auto parts

Source: Zhang (2005).

More importantly, the recent visit to Canada of President Hu Jintao resulted in the creation of a "strategic partnership" between the two countries. Implicit in the idea is the need to be open to two-way investment flows, including the possibility of Chinese investment in so-called sensitive resource sectors in Canada. While any such investments will obviously have to meet a market test, the signal from political leaders may be the encouragement needed for Chinese and Canadian counterparts to put deals to such a test. It will take no more than a handful of high profile Chinese investments in Canada to serve as a demonstration effect for other Chinese enterprises to take a closer look at opportunities in this country. A little success can go a long way.

Full references are available in the online version of this issue. It can be accessed by visiting the PRI web site at <www.policyresearch.gc.ca>.

Engaging the Dragon by Riding the Transnational Tide

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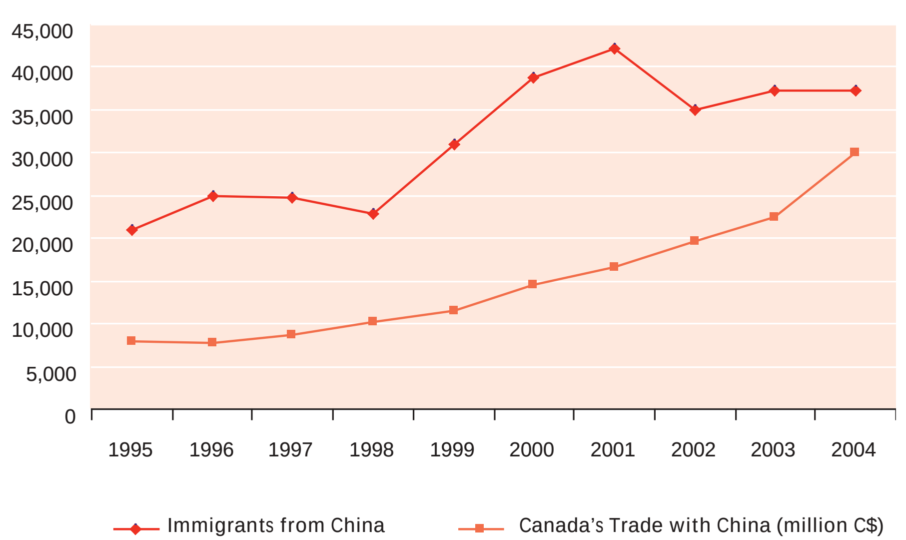
Introduction

China has played an increasingly important role in the global economy, both as the world workshop of cheap consumer goods and as an emerging market with a huge demand for goods, services and, more recently, energy. The world is learning to live with an awakening Chinese dragon. How to make the most of the great potential among immigrants has been a key policy concern in Canada. However, there has been little discussion of the impact of Chinese immigrant entrepreneurship on Canada's economic relationship with China. This article explores this important issue based on our Transnational Immigrant Entrepreneurship (TIE) Study which collected survey and interview data on Chinese transnational entrepreneurship during three years of field work in Toronto and Beijing from 2003 to 2006. For the purpose of this article, transnational entrepreneurship is defined as border-crossing entrepreneurial activities and transnational entrepreneurs as ethnic entrepreneurs whose business success relies on contacts and associations in Canada and their home countries.

Transnational entrepreneurship has policy implications. First, it offers an alternative way of immigrant economic integration into the host society (Sanders and Nee, 1996; Zhou, 2004). Second, it has great impact on economic development in China. Third and most important, bilingual and culturally versatile immigrants provide Canada with a shortcut for entering international markets (Light et al., 2002). Many immigrant entrepreneurs in Canada have been involved in transnational economic activities (Hiebert and Ley, 2003; Wong and Ng, 2002). However, the impact of transnational entrepreneurship on Canada's economic relationship with China and other countries of origin has largely been ignored (Filion et al., 2001).

FIGURE 1
Immigrants from China and Canada's Trade with China (1995-2004)



Sources: Industry Canada (2006); Statistics Canada (2004).

To unleash the entrepreneurial potential among Chinese Canadians to assist Canada in accessing the China market, the first step is to make this hidden advantage visible and understand the dynamics that drive Chinese transnational entrepreneurship. In this article, we discuss the patterns and causes of Chinese transnational entrepreneurship in Canada. We also examine the impact of state policies and business associations on promoting transnational entrepreneurship. We conclude with recommendations aimed at strategically managing immigrant transnational entrepreneurship.

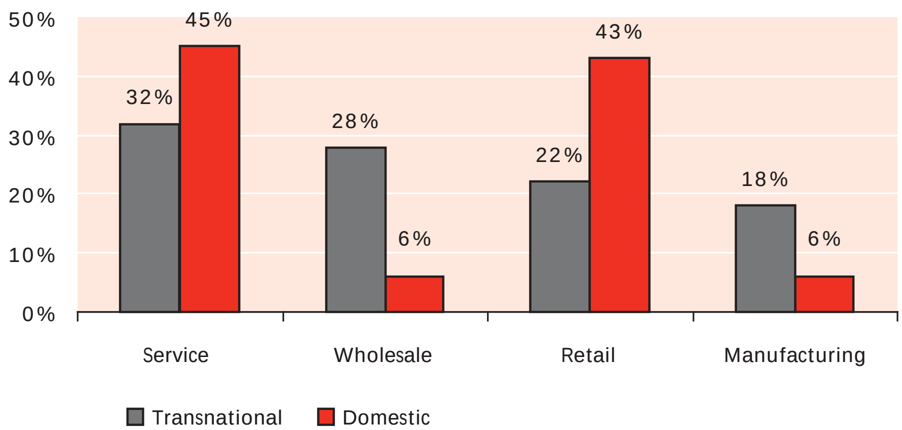
Make the Hidden Advantage Visible

Canada's trade with China increased remarkably from $7.9 billion in 1995 to $30 billion in 2004 (Industry Canada, 2006). However, in comparison, Canada has been left behind by key competitors like Australia and smaller players like Brazil or the Philippines. Important economic indicators, including Canada's share in China's import and export and Canada's investment in China, have hovered around one percent: what experts call "the one percent relation" (Gee, 2004). A pessimistic view has become dominant in the discussion of Canada's role in China. Pundits and politicians are concerned about an even bleaker future where Canada's role in China would be limited to being an exporter of trees and rocks.

This situation is in stark contrast to the new wave of Chinese immigrants to Canada and the growing Chinese ethnic entrepreneurship since the 1980s. The Chinese population now forms the third largest ethnic group in Canada, with China being the largest source of immigration to Canada since 1998 (Statistics Canada, 2004). The growing population has provided the market, labour, and capital for Chinese ethnic entrepreneurship (Wang, 1999). The inflow of immigrants from China has been positively related to bilateral trade between Canada and China (Figure 1). From 1995 to 2004, each 1,000 increase in the number of immigrants from China was associated with about a $700 million increase in Canada's trade with China.

FIGURE 2

The Industry Distribution of Chinese Transnational and Domestic Enterprises



Source: Transnational Immigrant Entrepreneurship Study (2006).

The TIE Study found that more than 40 percent of ethnic Chinese entrepreneurs are transnational. By contrast, 80 percent of Canadian small businesses rely heavily on the local market. Transnational entrepreneurship consists of the more dynamic part of ethnic entrepreneurship. Compared with domestic enterprises that primarily focus on the Canadian market, transnational enterprises have larger revenues, hire more employees, and grow faster. Transnational enterprises have successfully expanded to the manufacturing sector, while domestic businesses are concentrated in the service and retail sectors (Figure 2). Transnational entrepreneurship significantly contributes to international trade. On average, international trade makes up 30 percent of transnational enterprises' annual revenue, 15 times that of non-transnational businesses (Table 1).

China is the market on which the success of most transnational enterprises depends. Locating at the frontiers of two cultures and markets, ethnic entrepreneurs are in a unique position to identify, synthesize, and capitalize on new ideas and practices. The type of transnational business (such as international trade, education, telecommunications, tourism, media, or immigration services) suggests that

TABLE 1

Transnational Entrepreneurs and Domestic Entrepreneurs

Transnational Characteristics	All %	Transnational Entrepreneurs %	Domestic Entrepreneurs %
International Trade			
Proportion of import in total purchase	19	40	4
Proportion of export in total sales	9	20	1
Proportion of import and export in revenue	14	30	2
Bridge Building	51	73	34
Travel			
Proportion of entrepreneurs reporting that business required frequent travel abroad	29	57	8

Source: Transnational Immigrant Entrepreneurship Study (2006).

many such businesses are based on the trading of information, goods, services, technologies, knowledge, and culture between Canada and China.

As importantly, the social, cultural, and geographical distances between Canada and China have created opportunities for Chinese Canadians to act as bridge builders; more than 60 percent of transnational entrepreneurs have helped Canadian firms do business in their home countries and vice versa.

Understand the Dynamics of Transnational Entrepreneurship

Border-crossing networks, cross-cultural knowledge, and new communication technologies give ethnic entrepreneurs a head start to participate in transnational economic activities. Transnational entrepreneurs have larger, more resourceful, and more diverse networks than non-transnational entrepreneurs, both in Canada and in their home countries. Geographically dispersed networks require continual maintenance and strategic planning. Transnational entrepreneurs travel at least once a year to the home countries for business reasons. The Internet is especially instrumental in building and maintaining border-crossing networks. Facilitated by modern telecommunication technologies, transnational entrepreneurs keep intensive contact with business partners in their countries of origin. Having a business web site significantly increases the chance of participating in transnational entrepreneurship as well as the intensity of that participation.

More importantly, transnational entrepreneurs and their networks are grounded in opportunity structures based on the interaction of states, markets, communities, and personal resources in Canada and China. The macro conditions – Canada's immigration policies, China's development strategies, and the economic ties between the two countries – set the stage for transnational entrepreneurship. Without such conditions, there would be little room for even the most creative and networked entrepreneurs to manoeuvre.

The Chinese government has made it a national project to attract ethnic Chinese to return and do business. The Chinese government has built more than 60 industrial incubators for overseas Chinese, accompanied by a series of programs providing seed capital, tax reductions, and expedited government services. Chinese diplomats frequently attend business events in the immigrant community to promote these programs. Overseas Chinese have invested US$336 billion in China, accounting for more than half of the total foreign direct investment that China has received since the 1980s (Levitt and Glick-Schiller, 2003). Enterprises launched by transnational entrepreneurs have grown exponentially in China. For instance, the Zhongguancun Science Park in Beijing – the flagship of the state-sponsored transnationalism – has established offices in Toronto, the Silicon Valley, Amsterdam, and Tokyo. The mission of these offices is to facilitate overseas Chinese to start up high tech businesses in the Science Park. More than 2,000 businesses have been founded by overseas Chinese in the Science Park since 2000.[1]

Ethnic business associations actively promote trans-Pacific trade and investment by organizing trade shows, workshops, seminars, and networking events, inviting and hosting business delegations from China, and reaching out to mainstream firms and business associations. Transnational entrepreneurs are significantly more likely to be members of business associations than domestic entrepreneurs. A survey identified 85 Chinese ethnic business associations in Canada. More than half of them reported that a majority of members were involved in transnational businesses (Asia Pacific Foundation of Canada, 2004). Yet, our interviews with business association leaders suggest that they face considerable challenges and obstacles in promoting transnational entrepreneurship.

Canada's immigration policy has also affected transnational entrepreneurship. Our study shows that immigrants under different categories of admission have different patterns of transnational entrepreneurship. Two thirds of entrepreneurs who came to Canada under the business class category are transnational, significantly higher than those who came under other categories. Entrepreneurs who came to Canada under the skilled immigrant class category also have a higher than average rate of participating in transnational business activities. However, compared with the Chinese government, it seems that Canada lacks a strategy to ride the transnational tide and tap into the potential of Chinese transnational entrepreneurship.

Managing Transnational Entrepreneurship

If the current trend continues, Chinese transnational entrepreneurship – embedded in border-crossing networks and facilitated by modern communication technologies – will follow an upward curve in the near future. Entrepreneurship is an important dimension of the policy mix for a Canada that aims to excel in the global economy. We conclude with policy recommendations on strategically managing transnational entrepreneurship that would enhance Canada's economic relation with China and beyond.

Ride the transnational tide: The TIE Study found that ethnic entrepreneurs have obtained relatively little assistance from Canadian government agencies. Six out of ten entrepreneurs did not obtain any type of assistance. Government business programs should reflect the possibilities opened up by transnational entrepreneurship. Existing programs that promote the international expansion of Canadian businesses can be expanded by actively engaging ethnic entrepreneurs and their associations.
Modelling on initiatives promoting Aboriginal entrepreneurship and women's entrepreneurship, specific programs can be developed to support transnational businesses by setting up pilot projects with Export Development Canada, the Business Development Bank of Canada, and International Trade Canada's Program for Export Market Development.

"Mainstream" transnational entrepreneurship: Our TIE Study found that the most successful transnational enterprises often have a management team of diverse ethnic backgrounds. To grow, ethnic entrepreneurs need to be part of the mainstream business networks. However, this is a daunting task for most immigrant entrepreneurs who have to go through a time-consuming process to build their networks in Canada. Moreover, many ethnic business and professional associations lack experience in the Canadian way of advocacy and networking. Government agencies and main-stream business associations can bring together ethnic and mainstream businesses through facilitating cross-cultural buddy programs and mentoring programs. Role models and best practices should be featured and celebrated. It will benefit both ethnic and mainstream businesses.

Increase awareness of governmental resources: During our field work in the last three years, we found that valuable information and resources relevant to transnational entrepreneurship have not been integrated into a comprehensive resource database in a user-friendly fashion. Many entrepreneurs are not aware of such information and resources. Partnering with experienced think tanks, research institutes, and business associations, the federal government can establish an integrated resource database with limited cost. Our study found that transnational entrepreneurs are Internet savvy. A resource database linked to key web sites could greatly facilitate information searches and networking.

Fund regular research on transnational entrepreneurship: Governments at the federal and provincial levels should commission more research on transnational entrepreneurship. Up until now, there has been little Canadian research on transnational entrepreneurship.

Among the few existing studies, most have been qualitative and shed little light on the scope and mechanism of transnational entrepreneurship. Yet, regular, long-term, and comparative research on transnational entrepreneurship is much needed. Such research will provide policy makers with valuable knowledge with which to tackle issues on engaging the Chinese dragon and other key international markets.

Acknowledgement

We express our appreciation for the financial support provided by the Social Science and Humanities Research Council of Canada, New Initiatives in the New Economy (2003-2007), the Vivienne Poy Chancellor's Fellowship in the Humanities and Social Sciences, and the Dr. David Chu Fellowship in Asian Pacific Studies.

Note

1 See <www.zgc.gov.cn>.

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BOOKMARK

The Chinese Diaspora in Silicon Valley

Professor Bernard Wong of San Francisco State University conducted extensive field work among Chinese immigrants working in the hi-tech sectors in the United States. The findings have led to this book on the Chinese in Silicon Valley. He offers an in-depth look at the diversity of this community, the interaction among its members and the mainstream US society, as well as the role of networks in the global economy.

Excerpt

"Amid cultural diversity, there is a need for unity. Globalization pushes forward some of these unifying elements. Ethnic pride (China's winning bid to host the 2008 Olympics), common tragedy (discrimination against the Chinese in Indonesia, the Wen Ho Lee incident), and international politics (the unification debates) can come to the forefront because modern communication tools quickly unify the Chinese in Silicon Valley. Even though the transnational flow of information and people in the modern world can create differences as well as unity, from my study it is this far obvious that among the Chinese there is a great deal of shared interest in maintaining a Chinese culture in Silicon Valley. Yet theirs is not a diaspora in the strictest sense of the word, because the common outcome is a hybridization of American life-style and Chinese culture. The Chinese want to have material affluence, and to enjoy the benefits of the American political system, but they prefer Chinese interaction patterns. *Luo di sheng gen* (establishing roots) in America is the desire of the majority of the Chinese in Silicon Valley."

Bernard P. Wong. 2006. *The Chinese in Silicon Valley: Globalization, Social Networks, and Ethnic Identity.* Lanham, Maryland: Rowman & Littlefield Publishers, Inc.

Grain for Green and Poverty Alleviation

The Policy and Practice of Ecological Migration in China[1]

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Ecological Migration: Definition and Objectives

Ecological migration (*shengtai yimin*) refers to a special type of human migration for reasons of changes and problems in ecological environments.[2] Chinese academics have yet to agree on a common definition of ecological migration (Shiyuan, 2005), but generally, discussions about this concept focus on two aspects. One is the relocation of people from areas that are ecologically fragile to other places that are less vulnerable. This is done for a number of reasons including environmental preservation or protection, recovery of damaged ecosystems, poverty reduction and elimination, or economic development. The other concerns the well-being of those affected in the process, mostly farmers and herders (Linlin and Zhiming, 2004). Typically, Chinese scholars have focused on the former, that is, the scope and objectives of ecological migration.

A consideration of ecological migration from this more common perspective can be further broken down based on the place of origin or the destination. Regarding place of origin, it refers to areas that are ecologically fragile and of important ecological function. Ecologically fragile areas include those of severe and medium drought, as well as deteriorated ecological environments. Areas with important ecological function include the source regions of the Yangtze and Yellow rivers, ecological barrier regions, and nature preserves. The gradual out-migration of people from these areas could alleviate the pressure of population on the ecological environment, and achieve the "win-win" of economic development and environmental protection. With regard to place of destination, it involves the relocation of communities either to a different area in the same county/village, or resettlement away from one's own county/village (Jianjun, 2005). The latter usually happens in China.

Origins of Ecological Migration in China

In China, ecological migration came into being in the early 1980s, along with the process of poverty alleviation. In 1982, because of the environmental degradation in the mountainous areas of Southern Ningxia Hui Autonomous Region, some residents could not sustain their livelihood due to drought and the erosion of water and soil. These areas were later identified as "poverty-stricken" by the Chinese government. Residents, most of whom are ethnic Hui and Muslim, were encouraged to resettle collectively to a different area. *Diaozhuang*, or migration of the whole village, was then carried out. This is the beginning of ecological migration in China. By the mid-1980s, this migration policy to alleviate poverty was expanded to the arid areas in western China, mainly in Dingxi County in central Gansu Province and the Hexi Corridor Region, in the northwest of the Province. Meanwhile, the regional comprehensive activities of poverty reduction and development had been carried out (Ning, 2003). In 1994, the Chinese government began to implement the "Eight-Seven Poverty Alleviation Reinforcement Plan" (1994-2000), that is to assist 80 million people in obtaining sufficient food and clothing within seven years (The State Council, 1994). Accordingly, most provinces and autonomous regions in China took measures to implement this policy to alleviate poverty and protect the ecological environment.[3] Many families were relocated (Jiletu, 2005).[4]

Ecological migration became even more popular in China after the Chinese government began to implement the West Development Strategy. The Government identifies the betterment of the ecological system as one of the major objectives, in addition to infrastructure construction and attracting investment capital. Three cases in particular garner much attention. The first is the relocation of herders in the Alashan District, western Inner Mongolia, in a "grain for green" effort (i.e., returning farmland to forests, and animal breeding grounds to pastures), and to control dust storms. The second one involves 152 Ewenki hunters in Aoruguya, northeastern Inner Mongolia. This last hunting tribe in China migrated to the outskirts of Genhe City (260 km away from Aoruguya) from the Greater Hinggan Mountains, to improve the living conditions of the minorities. The third case centres on the grain for green and ecological migration project in San Jiang Yuan region in southern Qinghai Province, where nearly 80,000 herders, mostly Tibetans, finished their migration process by the end of 2005. San Jiang Yuan gets its name from the fact that it is the source of three rivers in China, the Yangtze, the Yellow River and the Lan-cang-jiang. When these cases were reported, ecological migration began to gain popularity and publicity. So far, 0.7 million people in western China have been relocated in the context of ecological migration since 2000; additionally, more than seven million people will do so in the near future.

Key Geographic Areas of Consideration

The western regions, which accounts for 60 percent of the country's total land area, include five autonomous regions (Inner Mongolia, Xinjiang, Ningxia, Guangxi, Tibet) and seven provinces (Yunnan, Guizhou, Qinghai, Gansu, Sichuan, Shanxi, Chongqing). Unfortunately, however, these regions face a deteriorating ecological environment where desertification and soil and water erosion have become great threats to people's livelihood and a barrier to economic development. Eighty percent of China's 3.6 million km^2 area is affected by water and soil erosion, and 90 percent of the nation's 2.6 million km^2 desertified area is in the western regions. In addition, 90 percent of China's natural grasslands are being destroyed to varying degrees; about 180 million hectares have been severely damaged. Every year, deteriorated grasslands increase by two million hectares and natural grasslands shrink by more than 650,000 hectares (The State Environmental Protection Administration, 2004). The unlimited exploitation of resources, such as unrestricted farming, overgrazing, and deforestation, has been the driving factor for the ecological degradation.

The ethnic composition of these regions is distinct. China is a unified multi-ethnic (*duo min zhu*) country with 56 ethnic groups. Compared with the Hans (*Han chu,* the majority) which make up 91.6% of the population, the other 55 ethnic groups are relatively small in number, hence the term, "ethnic minorities" (*Shao su min zhu*). Nevertheless, China's ethnic minorities are mostly distributed in the western regions.

Major Ecological Migration Policies in China

Relocation falls under the government's mandate of poverty alleviation. In June 2001, the State Council of the People's Republic of China declared the Outlines of China for Poverty Relief and Development in Rural Areas (2001-2010). Its 19th article states as objectives: "To push forward voluntary migration stably" and; "To cast off poverty by grain-for-green migration for the poverty-stricken people living in areas in poor condition area with few natural resources" (The State Council, 2001). In the same year, the former State Development Planning Commission (SDPC) announced Implementation Suggestions to the Poverty Reduction and Development by Migration Trial Project. It outlined six principles: combine poverty alleviation with ecological construction, be voluntary-based, give overall arrangement and policy guarantees, be sure there is development before migration, focus on efficiency and adjust measures to local conditions, and make steady progress according to one's abilities (SDPC, 2001).

Since January 2003, the grain for green project has been carried out in a number of rural areas. The State Council published *Regulations on Reforesting Cultivated Land,* Decree No. 367 of the State Council, in which the fourth article states:

> Protection of the ecological environment should prevail in the process of grain for green. Apart from that, grain for green needs to be premised on the following: the adjustment of the rural industrial structure, the development of rural

economy, the prevention and control of water and soil erosion, the protection and construction of the basic farmlands, increasing production of food, as well as promotion of the country's resource construction and the implementation of the ecological migration.

In addition, its 54th article reiterates that "ecological migration in the process of grain for green is encouraged. People who were relocated will be given appropriate subsidies for their producing and living facilities" (State Council, 2002).

Meanwhile, the project of turning animal breeding grounds to pastures has been implemented in the pastoral areas. In 2003, the government created a plan to recover nearly one billion *mu* or about 66.7 million hectares of pastures in five years. This represents almost 40 percent of the degraded pastures in China. At the same time, the project of turning animal breeding grounds into pastures begins in eastern and northern Inner Mongolia, northern Xinjiang Uygur Autonomous Region, and the east part of the Qinghai and Tibetan Plateau. Accordingly, shifting cultivation and rotational grazing based on a division of areas and cattle enclosure in feedlots is carried out.

The grain for green project includes the migration of farmers and herders; subsequently, the relevant compensation policy is a key component of this undertaking. The migration in the Alashan District of western Inner Mongolia is a case in point. The project of ecological migration affects three counties and 36 townships (Xiang zhen or Sumu), and the migration of 6,624 households, including 24,467 peasants and herders, in five years. Herders who were transferred into planting and irrigation areas will get 20,500 yuan or US$2,530 per household for housing, shed building, as well as migration and living subsidies. They are also given enough plough land (1.3 to 2 hectares, with water, electricity, a shelter belt, and other facilities) as compensation for their original land or pasture and the producing facility. No compensation for the means of production and livelihood that could be shared in both farming and pastoral areas is offered. The allocation policy for the herders employed in the secondary and tertiary industrial sectors includes transferring their *hukou* (residence registration) from rural to urban, and free transfer of business areas with a minimum of 600 m^2 per household. In addition, each household will be awarded 30,500 yuan or $3,765 as compensation, of which 1,000 yuan or $123 is for transportation costs, 1,000 yuan is a subsidy for cattle sheds and producing materials, 10,500 yuan or $1,296 is a subsidy for household establishment (30 m^2/household, 350 yuan/m^2), and 18,000 yuan or $2,222 is a living allocation to help get production restarted (4,500 yuan/person, four people/household) (Shi Guoqing, 2005). For the ecological migration project in San Jiang Yuan region in southern Qinghai Province, the local policy says that the duration of the grazing prohibition would be 10 years; feedstuff subsidies could be given to those who were relocated involuntarily and the amount of the cattle should be limited.

According to the relevant statistics, in recent years around a quarter of the herders (5,000 households, about 20,000 people) in the region left voluntarily and relocated to the outskirts of the cities and towns (Yunxiang, 2005). Qumarlêb County, located in Gyêgu Tibetan Autonomous Prefecture in Qinghai Province, has become the first county in the source region. During 2005-2009, 1,000 households of herders from Qumarlêb will settle in Golmud City, west of Qinghai Province. The ecological migration project in Qumarlêb County, with a total investment of 67 million yuan or $8.27 million, plans to recover all of the country's 8.73 million *mu* or 0.582 million hectares of degraded pasture in 10 years (Shoude and Qinhua, 2005).

Sustained and ongoing efforts resulted in the improvement of the ecological environment and the living standard of the farmers and herders in western regions. Some of the places mentioned above have demonstrated that these efforts are beneficial ecologically, economically, and socially, offering hope in the recovery of the western ecosystem. Nevertheless, the ecological migration is still a pilot project. Some issues warrant further exploration.

Challenges and Strategies of Ecological Migration

Ecological migration in China is mainly a government-led initiative to develop the western regions while improving the standard of living of its inhabitants. That said, ecological migrants face big challenges, such as resettlement in different places, transition of occupation, adaptation to urban life from rural areas, and maintaining cultural traditions. In some cases, migrants even went back to the mountains the very day after they were settled down in the modern houses offered by the government for free, embarrassing the local government officials. But how can these issues be solved in an appropriate and reasonable manner? In my opinion, the answer is to approach solutions from the perspective of cultural ecology.

Ecological migration is a rather complex process that requires considerations in terms of ecological and environmental issues as well as social and cultural issues. Since China's ecological migration is mainly in western areas that are home to many ethnic minorities, the implementation of migration needs to take into account both the need for environmental protection and biological diversity as well as cultural diversity. The continued degradation of the ecological environment will lead to the disappearance of traditional knowledge. Therefore, ecological migration itself is a kind of economic behaviour, but contains cultural meaning.

Cultural ecology is a sort of environment that respects/tolerates differences and stimulates creativity. To some extent, cultural ecology in a certain place means the whole historical and cultural scene. It is the vital cultural characteristics that differentiate one place from the other. As for the protection of the cultural ecology in certain places, we could not consider it just as a protection for the conservation of cultural artifacts and nature preserves, but rather, the continuation of the cultural tradition in the region.

How do we protect cultural ecology during the ecological migration? First, the government should fashion the overall plan from the perspectives of the ecological environment, people's livelihood, construction of infrastructure, construction of public service facilities, and so on. Second, we should approach ethnic-cultural diversity comprehensively. During the ecological migration, we should take into account people's influence on the environment and the relationship between adaptation and decision making. Consider "pasturalogy" or the study of the pastoral nomads as cultural anthropology, or cultural ecology rather than only economics. As for the ecological migration, we need to recognize the economic, cultural, environmental, and psychological costs of migration. Third, when we review past experiences, we find that we need to build national ecological reserves, perfect the system of ecological compensation, and establish the mainstay industries to achieve harmonious and comprehensive development. Furthermore, the ecological wisdom accumulated over time in every ethnic group should be summarized systematically. Finally, more community resources should be explored and utilized instead of using only investments and assistance from the government.

Notes

1 The production of this paper is supported by the research program, the Ecological Migration of Nomadic area in North-west China, thanks to a grant from the National Social Sciences Foundation of China (Also, I am thankful for the suggestions from Professor Jiiang Deshun (Chinese Academy of Social Sciences) and for the help from Liu Hai (Central University for Nationalities).

2 The term "ecological migration" can be traced back to Henry Chandler Cowles (1869-1939), an American scientist and a pioneer investigator of plant ecology in the United States. Cowles studied sand dune vegetation and developed the concept of plant succession. His thesis, the "Ecological Relations of the Vegetation of the Sand Dunes of Lake Michigan"(1899), which outlined the concept of ecological succession, introduced the concept of "biological community migration" to ecology. Cowles' concepts became a fundamental tenet of modern ecology in terms of communities and succession and helped bring attention to the dynamic nature of biotic populations (New Encyclopedia Britannica).

3 This course of action in particular was pursued in the western regions of Ningxia, Inner Mongolia, Yunnan, and Guizhou, all of which have a fragile natural environments as well as large, poor populations.

4 According to a survey done by the National Bureau of Statistics in China, by the end of 2003, the absolute poor population in the rural areas throughout China was 29 million, with a poverty rate of 3.1 percent. That was calculated on the standard of 637 yuan ($76.90) of annual net income per capita.

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China as a Link in Global Value Chains

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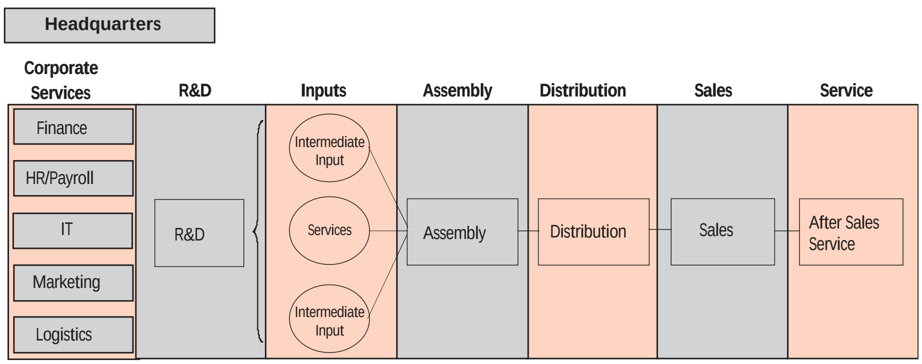
The rise of China has been nothing less than spectacular. Annual growth in real gross domestic product (GDP) has averaged 9.7 percent since 1990 – roughly four times that of Canada over the same period and by far the fastest in the world for any large economy. While this rate of growth is on par with the rise of the Asian tigers in the late 1970s and early 1980s and Japan before them in the 1960s, one must remember that China's population is more than four times larger than all of those countries combined making this rate of growth even more impressive and greater in its potential implications for the global economy. Thus, while 30 years ago few would have recognized what have now become household names, such as Toyota, Sony, and Samsung, it is almost impossible to imagine what the global economic landscape may look like 30 years from now and what companies of Chinese origin may be added to our lexicon if these growth rates continue.

We must be careful, however, not to overstate the impact for Canada of China's growing prosperity. The gravity model is one of the most widely used in international economics and is useful to illustrate this point. Under the gravity model, international economic interactions depend primarily on two factors; economic size of the parties and the physical distance separating them. Specifically, the volume of trade or other commercial relations between two countries should increase with their real GDPs and diminish as the distance between them becomes greater. Applying this simple analysis to the Canada-China relationship, even given the current and future potential economic size of China, which should increase economic relations between the two countries, it is important to remember that distance still matters, and simply put, for Canada, China is far away. This will naturally place a limit on the extent to which Canada will be impacted by the rise of China. Japan, as an example, is the second largest economic country in the world – approximately three times the current economic size of China. Yet Canadian exports to Japan still only accounted for 2.1 percent of total Canadian merchandise exports in 2004 and 2.9 percent of foreign direct investment (FDI) in Canada. Thus while the large and fast growing Chinese consumer market is important for Canada, we must be careful to not overstate that importance. Even with China as Canada's second most important source for imports and rising in importance as a destination for exports, the United States, due to the size and proximity of that market, remains Canada's most important international commercial partner for the foreseeable future. To further illustrate this point, Canada exports about the same amount of merchandise to the US state of Georgia as it does to China. Even if Chinese GDP were to double, the gravity model would suggest that, in terms of importance as a trading partner, China would be on about the same scale as Texas is today.

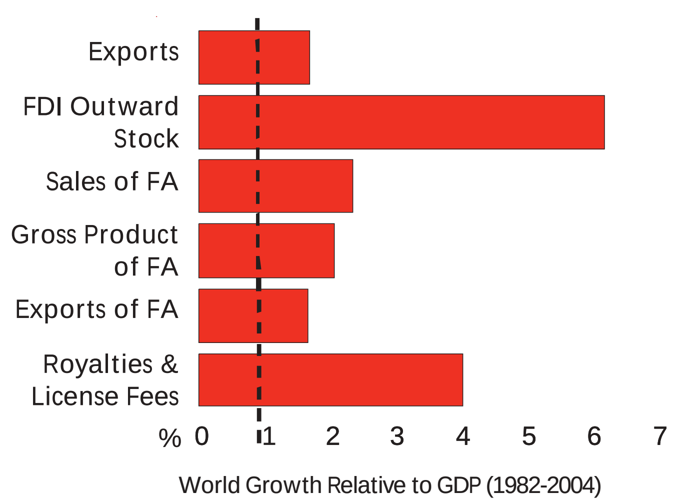
What distinguishes China's growth today from that of its Asian neighbours in the past is the global context in which this growth is occurring. The last two decades have seen a convergence of a number of international

FIGURE 1
A Simplified Value Chain



trends. Many countries have moved away from strategies of import substitution toward outward-oriented market economies. This, combined with ongoing liberalization of trade and investment, opens up vast new markets and locations from which to conduct business. In addition, declining transportation costs, particularly for air travel, and improvements in telecommunications technologies allow operations to be controlled from greater distances, more easily, and at lower costs. At the same time, an increasingly competitive and open global economy forces all companies to lower costs and find more efficient ways of doing business. These trends have led companies to diversify and locate their production process in different countries based on comparative advantage, giving rise to the global value chain.

FIGURE 2
Growth in Global Value Chains
Growth in Nominal GDP



Source: World Investment Report 2005 and IMF Direction of Trade Statistics.

Figure 1 depicts a stylized value chain. Historically, multinational enterprises, in many cases, served international markets through the establishment of branch plants (horizontal investments). These plants were essentially smaller-scale versions of the parent company replicated throughout the world with many, if not all, of the functions within the value chain reproduced at each location. Under this system, there is little room for specialization and economies of scale except in the largest of markets, and there is little incentive to locate functions beyond what is needed to serve the local market. With the changes in the global business environment, this is now giving way to the formation of global value chains. Firms are increasingly driven and able to locate individual stages within the production process anywhere in the world, based on where it is most efficient to do so (vertical investment). This includes manufacturing and, increasingly, functions that were previously associated with the headquarters, research and development (R&D), and many services – what many refer to as offshoring. Under global value chains, those locations that offer a competitive advantage have the potential to attract vast amounts of investment with a mandate to provide a particular function to a larger operation which, in turn, also serves a larger regional or global market. The emergence of global value chains has made a significant contribution to the rapid growth of the Chinese economy and it is within this context, as a competitor in global value chains, through which the rise of China will have the greatest impact on the Canadian economy.

Global value chains are not new, but their development has intensified in recent years, and they are now reaching a sufficient size to warrant further emphasis for policy development. It has been well established that growth in international trade has significantly outpaced growth in domestic production. Between 1982 and 2004, growth in global merchandise trade grew 413 percent compared to 246 percent for world GDP – roughly 1.7 times faster. While some of this would undoubtedly be trade in new products, much of it is trade in intermediate inputs as characterized by global value chains (Conference Board, 2005: 89-90). But global value chains are much more than the fragmentation of only the production process; all stages in the value chain are becoming increasingly footloose. No one statistic measures the rise of global value chains, but combined, they paint a fairly vivid picture. Since 1984, world outward foreign direct investment (FDI) expanded 6.2 times faster than production, sales of foreign affiliates (FA) by 2.3 times and royalties and licence fees (trade in knowledge) by 4.0 times (see Table 1).

TABLE 1
Source of Imports

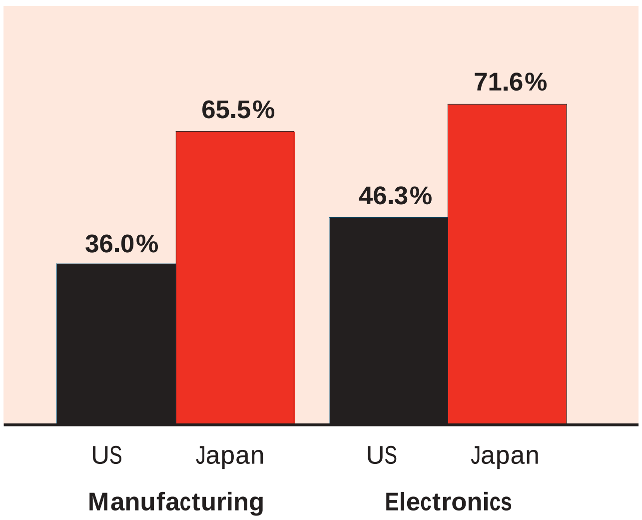
Importer	Source of Imports: NAFTA	EU	Asia	Rest of the world
NAFTA	35.8%	17.1%	32.2%	14.9%
EU	6.4%	63.7%	12.8%	17.1%
Asia	11.5%	11.7%	55.8%	21.0%
Rest of the world	32.9%	32.9%	15.8%	42.7%

Source: IMF Direction of Trade Statistics.

To some extent, what is referred to as global value chains may be more correctly characterized as regional value chains. Trade within the Asia region, for example, and despite no formal integrating trade agreement, is actually very integrated. As seen in Table 1, in 2004, 56 percent of Asian trade was inter-regional, that is, it took place with other Asian countries. This is up from 44 percent in 1989. Despite formal trade agreements in North America and Europe, trade within those regions is relatively unchanged over time but is fairly high at 36 percent for the North American Free Trade Agreement (NAFTA) region and 64 percent for trade within the European Union (EU) in 2004, with the number and size of countries involved playing a large role in the difference between the two numbers. Again, a prominent feature is not only the rise of China, but also other less developed countries with the rest of the world accounting for a larger share of global trade with all regions (DFAIT, 2005: 26-28; CanadExport, 2005: 7). China is, in particular, well integrated into the Asian region with 44.6 percent of its exports going to and 54.0 percent of its imports coming from the region. Many countries in the region now rank China among their largest trading partners in both directions. Likewise, other Asian countries account for a large share of foreign direct investment in China. In total, the region accounts for more than 60 percent of FDI in China, although Hong Kong alone accounts for 34 percent of this. It is estimated that as much as 25 percent of FDI in China may be round tripping by Chinese companies through third countries and back into China (Harold and Lall, 1993).

Manufacturing is one of the most internationalized stages of the production process and the most relevant for a discussion about China. China has emerged as a manufacturing hub within Asia and, to a certain extent, the world. Currently, this production focuses on labour-intensive manufacturing and assembly operations, but is quickly increasing in complexity and skill intensity. The impact of this for Canada is the same as for other countries in the region, only moderated by distance. Where many products, such as toys and basic electronics, once carried the "made in Taiwan" or "made in Hong Kong" moniker, they are now stamped "made in China." This forces countries within the region to adjust by occupying more skill-intensive stages of the production process. This has been the case for Japan. Japan has run trade surpluses consistently since 1980 as Japanese manufacturers became competitive in international markets.[1] Since 1995, however, income

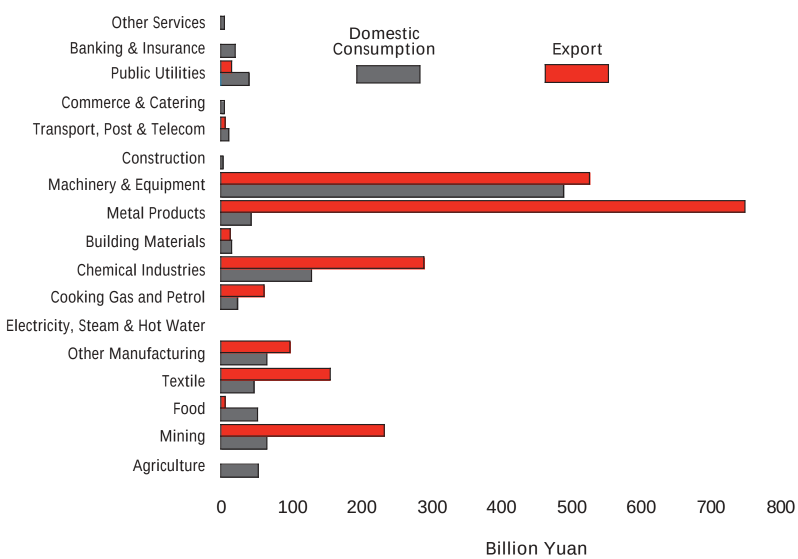
FIGURE 3
Share of Foreign Affiliate Sales from Exports



Source: U.S. Bureau of Economic Analysis and METI.

generated from outward investments has roughly matched those from trade surpluses, illustrating the shift of the Japanese economy from a manufacturer to a generator of knowledge as China and other countries within the region are better suited toward manufacturing. More than 65 percent of sales by Japanese manufacturing affiliates operating in China come from exports. This compares to 36 percent for US affiliates, which are more focused on producing consumer goods to the local Chinese market (see Figure 3). Both US and Japanese affiliates in the electronics sector are more outward oriented but again, Japanese affiliates are much more so. But the movement of manufacturing to other countries in the region is just beginning; Japan is still a relatively small investor abroad by international standards.

FIGURE 4
Final Use of Chinese Imports, 2000



Source: China Statistical Yearbook, 2003 – Input/Output Accounts.

Chinese import statistics provide further evidence of the extent to which trade in the region is linked to the location of production facilities rather than simply to serve growing domestic demand. More than two thirds of Chinese imports, for example, are for use in exports, with only one third going to domestic consumption (see Figure 4). In China's single largest import category in 2000, machinery and equipment, more than half of all imports were used directly in the production of exports. Furthermore, China's role in global value chains is also responsible for a significant share of Chinese growth. Foreign-controlled firms are expanding at a rapid pace in China. In 2004, 10.3 million Chinese were employed by affiliates of foreign multinationals; this is a nearly 50-fold increase since 1987. Similarly, as of 2004, 57.8 percent of Chinese exports were made by foreign affiliates compared to only 18.3 percent in 1991. These data also capture the extent to which global value chains exist outside of an equity ownership structure.

To this point, we have largely limited ourselves to describing global value chains as multinationals locating their operations abroad, but this only describes those activities that remain inside the firm (an equity ownership position). Arm's-length transactions conducted through contracts also play a role in global value chains, but are much more difficult to measure. There is evidence that in sectors where proprietary knowledge is more important, equity-based value chains dominate. For example, domestic Chinese companies account for only 7 percent of Chinese exports of electronic circuits, 15 percent of data processing machines and 4 percent of mobile phones. But in industries, where there is less proprietary knowledge to protect, arm's-length transactions dominate. Chinese-owned firms account for 72 percent of yarn and fabric exports, 55 percent of toys, and 63 percent of travel bags, even though they may still be selling into global value chains through contractual relationships where design functions and branding are performed by the multinational.

Global value chains describe much more than the internationalization of manufacturing production. All stages of the value chain are becoming increasingly footloose and able to locate where the function in question can be performed most efficiently. Research and development is one of the most sought after functions within the production process. In addition to providing high-skilled and high-paying jobs, it is believed that R&D also produces many benefits to the host country through positive externalities. As a result, many countries, including Canada, have policies and programs with the express purpose of increasing R&D performed within the borders of the country. For the most part, these programs focus on increasing R&D performance of domestic firms, and rightfully so given that R&D has traditionally been one of the least internationally mobile functions (UNCTAD, 2005: 121). There is however, evidence that these functions too are becoming increasingly mobile internationally. A number of factors driving the internationalization of manufacturing production also enable the internationalization of R&D, such as the opening of markets, liberalizing of trade and investment barriers, and improvements to information and communication technologies. More open markets also contribute to greater competition, which drives firms to reduce the cost of research while increasing the need to speed up the process as the complexity and scale of projects also increase. German multinational enterprises (MNEs), for example, established more foreign R&D units in the 1990s then in the preceding 50 years (UNCTAD, 2005: 124). Between 1993 and 2002, R&D spending by MNEs at their affiliates abroad grew at twice the rate of spending in their home country. As a result, 16 percent of all R&D spending by MNEs was outside their home country in 2002; this is up from only 10 percent in 1993. While this increase of six percentage points may not seem like much, just the increased share of R&D spending by US MNEs abroad was about $2.9 billion. This is more than total spending on R&D in Ireland in 2002. With the 700 largest R&D spenders accounting for 69 percent of the world's business spending on R&D, attracting and retaining this internationally mobile R&D is key for countries to improve their R&D performance. Canada has the highest share of R&D performed by foreign affiliates among the G7 at 34 percent, roughly the same share of foreign controlled firms in the economy. Retaining this spending in Canada is critical.

Thus while the current focus may be on China's implications for global manufacturing and the so-called "China price," it may not be long before higher skilled manufacturing, services and R&D face similar competition and price pressures.

Not only are R&D services becoming more footloose, but developing countries are increasingly able to compete for these functions. Historically, the majority of spending by MNEs outside of their home country was in other developed countries, but this too is changing. Again using US multinationals as an example, while all major regions saw an increase in US R&D spending, the developing world witnessed the fastest rate of growth with China leading the pack. China's share of R&D spending by US multinationals abroad increased 25-fold between 1990 and 2003, and spending in other less-developed countries also increased. As manufacturing production continues to move to China, there will also be a greater incentive to locate a certain amount of R&D there as well. Furthermore, the capacity to undertake research is increasing quickly. Although still small in terms of the total population, China has a growing pool of highly skilled workers. In 2001, China had 568,000 university graduates, 337,000 of them in science and engineering. In 2003, it is estimated that China graduated 13,000 Ph.D.s in science and engineering, compared to 18,000 in the United States. A recent study by the Economist Intelligence Unit (2004: 9) supported this finding with China appearing as the number one location for planned R&D expenditures by multinationals. Thus while the current focus may be on China's implications for global manufacturing and the so-called "China price," it may not be long before higher skilled manufacturing, services and R&D face similar competition and price pressures.

The implications for policy development of the increasing importance of global value chains and the emergence of China are not yet clear. One potential impact is that as the importance of other factors affecting location decision diminish, there will be scope for government policies and services offered to play a potentially larger role in shaping the comparative advantage of alternate locations. Governments will be forced to choose their policy mix carefully and maximize the efficiency of government services offered as the cost of not doing so may be rising.

Note

1 Some would also argue that an undervalued yen played a role in this trend.

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BOOKMARK

China's Rise Is as Unavoidable as the Arrival of the Internet

In *The Beijing Consensus,* Senior Advisor to Goldman Sachs and professor at Tsinghua University in Beijing, Joshua Ramo observes that the current approach to China policy in the United States and other countries still follows the engage-contain dualism. Such an approach, according to Ramo, is antiquated. Instead, the author advocates a more holistic approach that builds on common interests and a shared future. Ramos argues that China's rise is a fact of life. Just as the onset of the Internet, China's rise will change the existing world order and our perspectives. This report is a must read for those who wish to succeed in China policy.

Excerpt

"China is marking a path for other nations around the world who are trying to figure out not simply how to develop their countries, but also how to fit into the international order in a way that allows them to be truly independent, to protect their way of life and political choices in a world with a single massively powerful centre of gravity. I call this new physics of power and development the Beijing Consensus."

"The essential ideas of what is happening in China — innovation, asymmetry, a focus on equality, the exploration of new ideas of citizenship — are appealing to nations that have ambitions for development and security but have seen hundreds of years of failure of development models that rely too much on developed nations for assistance."

Joshua Cooper Ramo. 2004. *The Beijing Consensus.* London: The Foreign Policy Centre.

Is Canada Under-performing in Foreign Direct Investment and Exports to China?[1]

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Introduction

During the last couple of decades, increased economic integration led by a reduction of barriers to trade and investment, economic reforms and technological progress have resulted in a dramatic increase in trade and investment flows and economic growth in some countries.[2] In this matter, China is an economy that draws the attention of academics as well as policy makers. The average annual growth rate of per capita gross domestic product (GDP) in China exceeded eight percent during the last decade. In 2003, China received about 10 percent of the world foreign direct investment (FDI) and became the world's largest recipient of FDI for the second time. Similarly, China's exports of goods and services registered more than a 23-fold increase, reaching US $322 billion in 2002. In nominal terms, China accounts for almost four percent of world output – more than 1.5 times bigger than Canada. Measured in purchasing power parity, China's share of global output rose from close to 11 percent in 2000 to over 13 percent in 2004 (Krueger, 2005).

China's sheer size, coupled with its rapid growth, low wages, and increasingly skilled work force makes it a major destination for international investments and a low-cost supplier of a wide range of goods and services. This paper examines how Canadian and US investors and exporters have responded to increased international market opportunities in general, and to China in particular. Are Canadian exporters and investors able to tap the increased market opportunities in China? Is Canada underperforming in exploiting its FDI and export opportunities in China? How does Canada's performance compare with that of the United States?

FDI and Exports to China from Canada and the United States

China's share of world inward FDI as well as exports has increased dramatically in the past decade. Between 1992 and 2002, China's share in world inward FDI increased from a little over one percent in 1990 to over six percent in 2002, and its import share almost doubled to 5.3 percent during the same period (Table 1). Casual observation suggests that while both the United States and Canada have somewhat followed the global trend in FDI and trade flows into China, Canada lags behind the United States. China's share in Canada's stock of outward FDI increased significantly during the early 1990s to 0.23 percent in 1995, but it fell to 0.14 percent in 2003. China's share in US outward FDI increased from 0.11 percent in 1992 to 0.68 percent in 2002. In trade, the share of China in Canadian exports declined slightly, while it doubled to 3.2 percent in US exports between 1992 and 2002 (Table 1).

In absolute terms, Canada's total outward FDI stock nearly quadrupled between 1990 and 2003, and its stock in China increased from a low of CAN$25 million in 1991 to CAN$542 million in 2003, a 22-fold increase. The US outward FDI also followed the same pattern. While its total stock of outward FDI increased five times between 1990 and 2003, its

TABLE 1

FDI and Exports from the World, Canada, and the United States to China

	1992	1995	2000	2002
Chinese share in world merchandise imports (%)	2.7	2.5	3.4	5.3
Chinese share in Canada and US exports (%)				
Canada	1.4	1.3	0.9	1.0
United States	1.7	2.0	2.1	3.2
Chinese share in world inward FDI (%)	1.1*	4.5	5.7	6.1
Chinese share in Canada and US outward FDI stock (%)				
Canada	0.04	0.23	0.16	0.14
United States	0.11	0.40	0.85	0.68

Note: *Data for 1990.

Source: Trade data: Trade data online (Canada), USITC online database, International Trade Statistics, WTO. FDI: US Bureau of Economic Analysis (2003, 2004).

stock in China increased by 24 times from a level of US$426 million in 1991 to US$10 billion in 2002. The inward stock of total FDI from all sources in China increased by 22 times from $21 billion in 1990 to US$448 billion in 2002. These findings suggest that increased inflow of FDI into China from the United States and Canada are very much a part of global trend.

Several factors may be responsible for the observed patterns in global, US, and Canadian FDI and export flows in China. Below, we discuss variables of the econometric model used in this study that played a key role behind the observed pattern of Canadian and US FDI and exports.

The Model and Data

Our empirical model is based on earlier theoretical as well empirical works in line with the gravity model.[3] Both FDI and export flows in our model depend on a set of variables, namely GDP and its growth, labour compensation, openness of the host countries, linguistic ties, and the geographical distance between the source and host countries. Similar sets of variables are used to explain the FDI outflows as well as exports although some variables, such as geographical distance, matter more for exports and some other variables, such as labour cost, matter more for FDI outflows.[4] Gross domestic product measures the "mass" or size of an economy and is the attraction for trade and FDI flows.[5] Gross domestic product growth is also used as an explanatory variable to test the effect growth has on trade and FDI flows. Higher GDP growth might indicate changes in consumer behaviour (which may raise demand for imports and FDI inflows) and institutional changes (which may reduce trade and investment barriers).

Geographical distance between host and source countries is used as a proxy for bilateral barriers to trade and investment. Longer geographical distance implies higher transaction costs of trade and investment between two countries. A higher degree of openness in the host country positively influences both trade and FDI.

Two countries that share a common language may have lower transaction costs for trade and investment between them.[6] We use a dummy variable to represent the linguistic tie and include labour cost as an explanatory variable to test whether countries with lower labour costs will attract more FDI. In other words, is FDI looking for cheap labour? We also use labour cost to explain exports, because part of exports is FDI-induced.[7] Any special relationship between a pair of countries, such as bilateral agreements, and cultural and historical ties, may not be captured by the variables mentioned above. Some country dummies are included to capture these effects.[8]

Annual data on each of the variables for Canada and its 54 partner countries and for the United States and its 95 partner countries for which data are available are assembled for the period 1989-2001 from various sources including the OECD OLISNET, the World Bank's World Development Indicators, IMD WORLD Competitiveness Yearbook (WDI), Statistics Canada, the United States, and the Bureau of Economics Analysis.[9]

Empirical Results

Separate estimations were undertaken for FDI and export equations for both Canada and the United States. As expected, GDP, trade openness, distance, and linguistic ties have a positive and statistically significant impact on both Canadian and US exports. The income elasticity of exports is almost the same for the two countries and close to one, while the distance elasticity is about 0.6 for Canada and close to one for the United States. The impact of GDP growth is positive but only statistically significant for Canada's exports, and the impact of labour costs is negative but only statistically significant for US exports.

The behaviour of the US and Canadian FDI outflows follows what gravity models predict and is quite robust across various model specifications. The income elasticity of the US FDI outflows is slightly higher than 1.0 and that of Canada's FDI outflows is slightly lower than 1.0. Geographical distance negatively affects both Canadian and US FDI outflows, but the coefficient is close to 1.0 for Canada and about 1.4 for the United States. Both are higher in the case of exports. As expected, the impact of FDI openness and linguistic ties is positive and statistically significant. The crucial difference is that while the US FDI outflows increase with GDP growth in the host countries, Canada's FDI outflows are indifferent. In addition, Canada's FDI outflows are sensitive to labour compensation in the host countries, while the US FDI outflows are not. Dummies for the United States (Canada), Mexico, and China are not significant in the Canadian (US) equation, implying that no other variables are needed to explain Canada's (the United States) FDI outflows to these countries.

Concerning Canada's ability to exploit its full potential in foreign markets in terms of exports and FDI and its performance with respect to the United States, a few observations can be made from the regression results. First, Canada's exports are positively related to economic size as well as economic growth in the host countries, which seems to suggest that Canada is on its way to exploiting market opportunities. Second, in FDI, although Canada is not underperforming in China, regression results suggest that economic growth in the host country is not a factor that Canadian investors rely on; it is the economic size that is more important. For the United States, in addition to economic size, economic growth in the host countries also influences the FDI flows.

Although in-depth research at the industry level is needed to understand why Canadian investment behaviour looks somewhat different from that of the United States, we provide some plausible explanations. First and foremost market opportunities in particular areas of investment have to match with the comparative advantage of source countries. While the manufacturing sector dominates the phenomenal growth of FDI in China, the overall composition of Canadian FDI abroad is dominated by finance and mining. The US FDI base is more diversified and compares more readily with the Chinese appetite for FDI than does the Canadian FDI.

TABLE 2

Comparing the Composition of Canadian and the US Outward FDI with Chinese Inward FDI: Average Share (%) by Industrial Sectors, 1992-2003

	Canada*	United States*	China**
Agriculture and fishing	–	0.10	1.87
Mining and quarrying	21.20	6.76	0.63
Manufacturing	18.10	27.96	70.03
Electricity, gas, and water supply	–	1.44	2.42
Construction	2.52	0.16	1.14
Trade and repair	–	9.78	2.09
Hotels and restaurants	–	0.88	–
Transport and communication	9.66	2.14	1.62
Financial activities	35.92	26.90	0.43
Real estate and business services	–	22.60	13.00
Other services	8.16	0.85	6.26
Unallocated	4.43	0.43	0.51
Total	100	100	100

Source: * Data for Canada and the United States are based on information from page 70 (Canada) and 379 (United States) (OECD, 2004).

** Data for China relate to 2003, and were downloaded from China (2004).

As shown in Table 2, from 1992 to 2003, over 70 percent of inward FDI in China was in the manufacturing sector, while the share of services was about 24 percent. During the same period, financial activities accounted for 35.9 percent of Canada's outward FDI, followed by mining (21.2 percent), manufacturing (18.1 percent), transport and communications (9.7 percent), other services (8.2 percent), and construction (2.5 percent). This suggests that Canada concentrates on financial services and the mining sector when investing abroad. These two sectors accounted for over 57 percent of Canada's outward FDI stock during the period. Financial markets and the mining sector are highly protected by most countries through ownership restrictions. There has been very little inward FDI flow in China in mining and finance, as shown in Table 2, perhaps due to entry barriers. The share of mining in Chinese inward FDI in 2003 is 0.63 percent and finance and insurance is 0.43 percent.

The industrial composition of the US outward FDI is less concentrated. During the same period, manufacturing accounted for 28.0 percent, followed by financial activities (26.9 percent), business activities (22.6 percent), trade (9.8 percent), and mining (6.8 percent). This suggests that the industrial composition of outward FDI for the two countries is quite different. The United States invests relatively more abroad in manufacturing, business services, and trade than Canada. These sectors (especially manufacturing) are much less protected than financial markets and mining. Actually, many countries, such as China, try to attract more foreign investment in manufacturing through lower taxes and other policy tools.

Canadian manufacturers invest less abroad than their US counterparts and there is a big demand for FDI in manufacturing in China.

Therefore, it seems that US outward FDI is more demand-based and Canada's outward FDI is more supply-based. This might partly explain why the United States invests more in big and dynamic economies than Canada does. These economies have huge demand for investment in manufacturing, and US investors can do better than Canadian investors at meeting that demand. Foreign direct investment from Canada flows to countries with fewer restrictions in the mining and financial sectors. These countries do not have to be big or dynamic. Such a mismatch between what Canada can provide and what China needs might be the major reason for the difference in the behaviour of FDI outflows between Canada and the United States.

Concluding Remarks

In brief, our econometric results suggest similarities as well as dissimilarities in the pattern of FDI and export flows from Canada and the United States. Both Canadian and US FDI and export performance in China are consistent with their overall patterns. Regression results do not suggest underperformance in China either by the United States or Canada. The crucial difference is that while US investors tend to invest more in the growing economies, Canadian investors are indifferent with respect to economic growth. In exports, it is the opposite. While exporters from Canada have responded positively, US exporters are not sensitive to economic growth in the destination countries.

Canadian manufacturers invest less abroad than their US counterparts and there is a big demand for FDI in manufacturing in China. China has become a significant location for the export-processing link in the global supply chain. As pointed out in Dobson (2004), processed exports accounted for 56 percent of total exports in China from 1997 to 2002. The export share of foreign invested enterprises (FIEs) was 48 percent in China in 2002.

Further studies at the industry/firm level are needed to understand why Canadian manufacturers invest less abroad. Based on conditions for China to be a WTO member country, China's local financial and related markets will be more open in the near future, which is a good opportunity for foreign financial companies. We expect Canada's investment position in China will gradually improve.

Notes

1 This is an abridged version of a paper entitled, "Do Economic Size and Growth Matter for FDI and Exports? A Comparison of the Canada and US Experience with Special Reference to China and India," which has been presented at the Canadian Economic Association Meetings, May 26-28, 2006. The authors thank Someshwar Rao and participants at MEPA brown bag presentations for suggestions and comments on an earlier draft. Views expressed in this paper are our own and do not necessarily reflect those of Industry Canada or the Government of Canada's Policy Research Initiative.

2 The global stock of FDI almost tripled during the 1980s followed by a twofold increase during the 1990s reaching US$8.2 trillion in 2003.

3 See, for example, Anderson (1979), Bergstrand (1985), and recently Anderson and Wincoop (2003).

4 The only difference is that the trade-to-GDP ratio is used for the exports equations while the FDI-to-GDP ratio is used for the FDI outflow equations.

5 Some researches use GDP per capita and population separately instead of GDP. For example, see Razin et al. (2003, 2004).

6 See Frankel (1997), for example.

7 Due to the globalization of the world economy, manufacturers can produce components in one country and ship them into another country for processing into final goods, which implies that FDI may induce exports. Foreign direct investment is expected to be negatively correlated with labour compensation; so are exports.

8 For example, China, India, the United States, and Mexico dummies are used in Canada's equations to check whether special relations between Canada and these countries (if any) have an impact on the FDI flows from Canada to these countries. Similarly, China, India, Canada, and Mexico dummies are included in the US equations.

9 Detailed descriptions are available on request from the authors.

Full references are available in the online version of this issue. It can be accessed by visiting the PRI web site at <www.policyresearch.gc.ca>.

Towards a National Pacific Gateway Strategy

Asia Pacific Foundation of Canada

There is no question of the need for better port and transportation facilities on the West Coast, to cope with the larger volumes of cargo that are projected to cross the Pacific Ocean. But a larger port alone will not create deeper and broader links across the Pacific. Final demand for products from Asia is not in the West Coast, but in the more populous regions of central Canada and the American mid-west. The receptivity and openness of North American markets to Asian imports cannot be taken for granted; neither can the willingness and ability of Canadian firms to ship products in the opposite direction.

A durable Pacific Gateway Strategy should therefore include the development of broader Asia-focused policies in the area of international affairs, training and education, commercial programs, innovation, and the arts and culture. In this sense, the Pacific Gateway has the potential to be a strategy for all of Canada, rather than a collection of transportation projects on the West Coast. It is telling that in a 2004 national opinion poll conducted by the Asia Pacific Foundation of Canada, only 30 percent of respondents agreed with the statement: "Canada is part of the Asia Pacific region." Until and unless Canadians include Asia in their mental maps, the Pacific Gateway will be just another portal.

China Rising

Summary Reflections on the Canadian Council of Chief Executives' Mission to Beijing and Shanghai

November 20–24, 2005

Canadian Council of Chief Executives

The CCCE, founded in 1976, has been Canada's private sector leader in the promotion of international trade and investment liberalization.

The CCCE's membership consists of the chief executive officers of 150 leading Canadian corporations.

China represents an important global priority for the Canadian Council of Chief Executives (CCCE). With a gross domestic product (GDP) of US$1.6 trillion and real economic growth running at just over nine percent annually, China has become a world leader in trade. More than 64 percent of its GDP depends on exports and imports.

But China's growing importance as a trading partner is only part of the story. Gross domestic product per person increased from US$178 in 1978 to US$1,700 in 2005; meanwhile, the share of its population living below the poverty line (US$2 per day) declined from 73 percent in 1990 to 32 percent in 2003. China's entry into the World Trade Organization and its membership in other multilateral institutions further signal its arrival on the global economic stage. China is increasingly integrated into the world economy and is poised to become a significant international investor.

All of this helps to explain why, from November 20-24, 2005, the CCCE led an ambitious mission to the People's Republic of China. Member CEOs of the Council representing a broad cross-section of industries – oil and gas, manufacturing, financial services, communications, construction, transport, and asset management – travelled to Beijing and Shanghai. The itinerary included meetings with senior officials of key departments, regulatory bodies and state-owned enterprises, as well as in-depth briefings from top China-based academics, journalists, private sector leaders, and consultants.

The objectives of the mission were to develop a better understanding of the trends that underpin China's growth, promote a stronger economic partnership between Canada and China, enhance Canadian awareness of business and investment opportunities, encourage greater co-operation in trade, investment, and global supply chain management, signal to the political and business leadership of China the strong desire of Canadian chief executives to build and develop stronger Canada-China linkages, and advance Canada as a gateway to North America.

What follows is a summary of the key insights and lessons from the mission.

Key Insights

China will probably not see a continuation of the nine to fifteen percent annual growth rates it has experienced in recent years. Instead, it is expected to settle into a steady but still impressive growth rate of eight to nine percent. In part, this is due to the sheer scale of activity. Consider that the Yangtze River Delta region alone has an economy as large as that of Russia. By 2020, the economy of Zhejiang Province will rival Canada's.

But more importantly, China seems to have learned a great deal about how to manage its economy. It is working hard to improve political and economic relations with the United States, while privatizing state-owned enterprises, initiating land reforms and working to accommodate massive urbanization by building more housing in cities.

The commitment by Chinese leaders to grow the economy cannot be overstated. Accession to the World Trade Organization in 2001 made China one of the world's most open economies, reflecting a cultural confidence that many other nations simply lack.

While there remains a significant rural-urban divide in China, this is slowly decreasing through massive migration to cities (50 percent of the entire population will be urban by 2010) and a steadily growing urban per capita income of US$1,138 (in real terms, double what it was in 1995). This, in turn, has led to a massive rise in consumption, which contributes 35 to 40 percent of total GDP growth. Today's consumption patterns reflect 50 years of pent-up demand.

Businesses that hope to succeed in China must cultivate relationships with local and municipal governments as well as with officials in Beijing. China is not a monolith but a sprawling country of 23 provinces, five autonomous regions, four municipalities and two special administrative regions. About 80 percent of decisions affecting national GDP are in the hands of city mayors. Mayors conduct 60 percent of all polling, a sign of the extent to which they are responsible for day-to-day levels of public satisfaction. Serious cultural and economic differences across China are reflected in the large number of interprovincial trade barriers.

Challenges

Although the overall outlook for China's economy remains very positive, foreign investors and business partners do need to consider a wide range of risks to the sustainability of its growth. For example, ongoing actions will be necessary as a follow-up to China's ratification of the United Nations Convention Against Corruption. A real estate bubble remains a real if distant possibility. Ongoing privatization and streamlining of state trading enterprises will be required if China is to sustain current rates of profitability and productivity growth.

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Similarly, China needs to accelerate the process of recapitalization and restructuring of its largest banks (including opening up the financial services industry to private equity). From the United States and elsewhere, there is continuing pressure on China to revalue the *renminbi*.

At a more basic level, demands are growing for more investment in infrastructure to keep pace with China's rapid economic expansion. Greater investments in cleaner and renewable energy sources and a more extensive environmental infrastructure are desperately needed.

The Canada-China Relationship

The Strategic Working Group, a deputy minister-level forum for discussions on bilateral and multilateral issues, is a positive and important process. However, China is constantly changing, and Canada's strategy must adapt. China is eager to deepen the bilateral commercial relationship. Hu Jintao, President of the People's Republic of China, has directed his government to further pursue the relationship, but there are real concerns that Canada is losing market share in China to other countries, such as Australia.

Significantly, Chinese officials asked mission members why Canada is aiming only to double total trade with China over the next five years from CAN$30 billion to CAN$60 billion. A more ambitious goal of CAN$100 billion seemed achievable to analysts in Beijing and Shanghai. Moreover, Council members were informed that Canada needs a more flexible strategy. Ireland, New Zealand, and Singapore, to cite three examples, are targeting the Chinese provinces for trade links, to great success.

China is clearly important to Canada. However, several commentators suggested that bolder steps should be considered. In developing its bilateral commercial relationships, Chinese leaders generally favour broad free trade agreements. This concept is worth investigating.

It was further suggested that, at the very least, Canada should conclude a foreign investment protection agreement with China to take the commercial relationship to the next level. We should address challenges and opportunities to work more closely together in a forthright manner through a broad strategic framework with private sector input.

Key Sectoral Opportunities

China represents a remarkable opportunity for Canada and Canadian companies, but perhaps no sector stands to benefit more than energy. Energy demand overshadows almost all other factors in China's growth. The country is moving toward a 60 percent dependency on coal, and energy demand is rising by 1.5 percent for every one percent increase in GDP. Senior Chinese officials view the Athabasca oil sands as a key area for increased co-operation. Other areas of co-operation highlighted during the mission include nuclear energy, forestry products, and renewable energy.

In services, the insurance market is slowly opening up as more foreign insurers settle in China. The average salary in China has increased 316 percent over the past 10 years, representing extraordinary opportunity for the 76 insurers currently operating in China (split evenly between domestic and foreign insurers). At present, fewer than three percent of Chinese workers have life insurance policies, but this figure is likely to rise with further increases in disposable income. Areas of growth within the insurance market and the capital market generally include group life and health insurance, private pensions, and wealth management.

Conclusion

It is clear to all that China presents great opportunities. But the challenge for Canada and for Canadian enterprises will be to convert opportunity into success. The winners will be those companies and countries that make a sustained effort to understand the underlying trends of the Chinese economy and the cultural nuances that influence political, consumer, and investor choices in China.

China is a complex market, and it takes enormous effort to achieve even a moderate understanding of its commercial relationships, society, and people. As many have said, the longer one spends in China, the less one knows. It is impossible to ignore China. Enthusiasm, patience, and knowledge will bring rewards.

Canadian Diaspora

A Concept Whose Time Has Come?

Dispatches from the Eighth Metropolis Conference

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with notes from
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The Eighth National Metropolis Conference was held in Vancouver, Canada, March 23-26, 2006. Organized by the Metropolis Project's Vancouver Centre of Excellence for Research on Immigration and Integration in the Metropolis (RIIM), this event brought together about 500 delegates from all three orders of government, non-governmental organizations, and academe. The theme this year was Immigration and Canada's Place in a Changing World. This marks a departure from traditional discourse on immigration and diversity, which tends to focus on what Canada can do to improve the outcomes of immigrants and ethnic minorities. Such a departure is timely for two reasons. First, Canada now competes with traditional immigrant-receiving countries such as Australia, the United States, and the United Kingdom, as well as with emerging economies, especially China and India. Second, the flow of population in Canada has increasingly become two-way. While Canada is still a desired destination for immigration, more Canadians are living in the United States and more recently, in Asian countries, especially China and India.

In this global environment, human resources are the most valuable asset in the race to the top. At the first plenary of the conference, participants learned of Australia's strategies to attract skilled migrants on the one hand, and China's strategies to draw its diaspora to return on the other. To expedite the integration of skilled workers to the country, the Australian government implemented pre-qualifications, requiring applicants to have their qualifications and language proficiencies assessed before application. In addition, Australia actively recruits international students to study in the country. On graduation, international students can apply for permanent residence status in-land. Such a practice has resulted in enclaves of students choosing fields of studies deemed desirable by the host society.

How is Canada doing in this regard? According to David Ley, Professor of Geography at the University of British Columbia, there has generally been an implicit contract between immigrants and their host society where the receiving society offers an opportunity for immigrants to better their economic outcomes and, in return, immigrants contribute to the prosperity of the receiving society. Such an implicit contract may not be working in today's Canada, argued Ley, as more immigrants face barriers to participating fully in Canadian society. Canada, however, is not the only society where immigrants encounter labour market challenges. Drawing from his recently published book, *The Chinese in Silicon Valley,* Bernard Wong of San Francisco State University demonstrated that some highly skilled Chinese professionals returned home, because of a lack of career advancement opportunities in the United States. Rather than being "high-class coolies" restrained by the glass ceiling, many opted to be their own boss or return home. The decision to return to China is also made easy as the Chinese government has embarked on various strategies to recruit Chinese scholars and students overseas. These strategies were described by David Zweig of the

Hong Kong University of Science and Technology. David Ley's and David Zweig's papers appear in this issue of *Horizons*.

While China has been the top source country of immigrants to Canada, such a trend may be slightly offset by the return migration to China as shown in an empirical survey on Chinese leavers/stayers from/in Canada presented at a workshop jointly organized by RIIM and the Asia Pacific Foundation of Canada (APF). The authors of the study, Don DeVoretz and Shibao Guo, showed that most of the respondents who left Canada did so within the first few years after their arrival. The top three pull factors for returning to China are more opportunities for promotion, higher-paying jobs, and more job security. On the Canadian side, the top three push factors are Chinese qualifications and experience not being recognized and the lack of Canadian work experience. In light of this reverse tide of migration, what could the federal government do to improve the outcomes of immigrants to Canada? Moreover, how could the government maximize the potential of those who emigrated? The latter question was at the centre of the RIIM/APF workshop, National Diaspora Strategies: India, China and Canada. The workshop had three objectives: learn from India and China's experiences of leveraging their diaspora communities, to explore the presence of a Canadian diaspora and its implications, and consider policy options for Canada to cultivate links with the Canadian diaspora.

Both India and China have been countries of emigration for a long time. The Chinese diaspora is one of the largest diaspora communities in the world. As early as the 12th century, Chinese, mostly traders and craftsmen, started to move throughout Southeast Asia. In the 19th century, more Chinese moved to North America and beyond, in the coolie trade and gold rushes. More recently, skilled and highly educated Chinese moved to immigrant-receiving countries, including Canada, the United States, and Australia. Through its extensive business network, this large and wealthy group has been investing its rich capital in their country of origin.

Having recognized the important roles of its diaspora, China has implemented a systematic policy and created government institutions to deal with diaspora issues. The Chinese Constitution clearly protects the legitimate rights of Chinese nationals residing abroad as well as the rights and interests of returned overseas Chinese. The Constitution also mandates the State Council (Cabinet) to exercise the above powers and functions, and to set up the Overseas Chinese Committee of the National People's Congress (NPC, i.e., Parliament). The NPC has passed a number of laws, some safeguarding the legal rights of overseas Chinese with a focus on political and civil rights, the right to participate in politics, and the right to visit, settle, and study in China. Others lay out the preferential treatment to be given by governments at all levels to overseas Chinese when they return or invest in China.

All levels of government have departments to deal with overseas Chinese affairs. At the central government level, the Overseas Chinese Affairs Office of the State Council (SCOCAF) is the highest executive body. With a staff of 120, the office is headed by one minister and four deputy ministers. There are similar offices (OCAF) at the provincial, city, township, and county levels. Chinese embassies act as principal conduits linking with overseas Chinese.

All levels of OCAFs provide assistance to overseas Chinese in a number of ways, including establishing databases for the purpose of finding roots, networking, and leveraging; providing services for investment and facilitating preferential treatment. Those preferential treatments include tax benefits and exemptions, location and preferential allotment of land, reduction or waiver of land tax, and others. In addition, these OCAFs are also active in organizing large-scale fairs for business matchmaking, implementing policy and laws protecting legal rights and interests, problem solving, providing advisory services on tourism, and implementing policy relating to preferential treatment for children of overseas Chinese.

More recently, the Chinese government has been more aggressive and flexible in attracting overseas talents. Some measures include granting long-term residency (similar to the US Green card system), and encouraging overseas Chinese to serve the country (*weiguo fuwu*) rather than returning to serve the country (*huiguo fuwu*). Serving the country could be more accomodating including setting up joint positions in universities, establishing joint education or research programs, and encouraging them to set up businesses in China.

In the case of India, there are over 20 million in the Indian diaspora across 110 countries, and they play five significant roles as investors, customers, suppliers, ambassadors, and philanthropists. The Indian diaspora has experienced considerable growth in capital formation, as well as major investment in social infrastructure, business expansion, and new venture funds. The India diaspora could be an attractive market segment for Indian exports. For example, one of the fastest growing Indian exports is not computer software, but the entertainment industry (e.g., Bollywood films) mainly for its diaspora. Emigrants can participate in and help their companies expand into this growing market. The Indian diaspora is already a virtual representative of India, and provides business and policy insight to the country where they currently reside, markets Indian projects and services, and promotes Indian culture. As philanthropists, the Indian diaspora have contributed in education, health care, and project support as needed.

In 2000, the Government of India established a high-level committee on the Indian diaspora to look into the policy issues related to the Indian diaspora and to make policy recommendations for the Government. One recommendation was to create an annual event, Pravasi Bharatiya Divas (PBD, non-resident Indian day) in 2003. The main goals of the first PBD were to develop awareness of the global Indian community, promote a web-link relationship between India and all her diaspora communities, create better awareness about the diaspora among Indians and vice versa, define India's new approach toward the diaspora, and announce dual citizenship and other cultural programs. In the following years, the PBD expanded into broader areas, including developing the diaspora networks in business, science and technology, culture and education, developing strategy for the youth of the diaspora, and defining the nature of relationship between the diaspora and a rapidly developing India.

While China has been the top source country of immigrants to Canada, such a trend may be slightly offset by the return migration to China.

The India case clearly indicates that the destinies of India and its diaspora are intertwined. It is in the interests of both to develop a mutually beneficial relationship. The diaspora is an important resource in India's aspirations to be a developed country and a knowledge superpower by 2020. However, giving preferential treatment to the diaspora population could generate a sense of unfairness for the population back home. For example, some Indian or Chinese professionals might feel they would have received better treatment had they not left the country and returned as expatriates.

Is there a Canadian diaspora? According to a recent study by the APF, nine percent of the Canadian population (2.7 million) currently live abroad, mostly in the United States. The share of Canadians living overseas is larger than that of Australia, China, the United States, or India. Unlike the Chinese and Indian diaspora, the Canadian diaspora is diverse in ethnic background and not all of them are Canadian born. A recent Statistics Canada study estimates one third of male immigrants between 25 and 45 (at the time of arrival) left Canada within 20 years of coming here, with about half of those relocating within the first year. Newcomers from the United States and Hong Kong are most likely to leave within 10 years of their arrival (Aydemir and Robinson, 2006). This finding was especially striking in the case of Hong Kong immigrants who arrived between 1990 and 1994, a few years before the handover of the former British territory to Chinese rule. There are an estimated 200,000 Canadians living in Hong Kong today, most of whom are natives of Hong Kong and return migrants from the 1990s.

There was consensus among workshop participants that there is a data gap regarding the Canadian diaspora, its size, distribution, and social and demographic characteristics. Also absent is quantitative research on the role of the Canadian diaspora in Canadian trade and investment at home and abroad. A growing body of anecdotal evidence indicates that return migrants to China and Hong Kong facilitate trade and investment with Canada, through taste and technology transfer, as well as social networks.

As the Canadian diaspora is expected to grow in size and importance, is it time to rethink Canada's diaspora strategy as it has been the case in

China and India? Employers in different sectors continue their efforts to recruit Canadians currently working or studying abroad. Public policy discussion on overseas Canadians has generally focused on consular services, taxation, and voting. If there were to be diaspora policies, one needs to know the objectives these policies intend to achieve and the cost of doing so. In terms of objectives, would it be to draw Canadians back home, or to leverage their influence overseas in facilitating business links between Canada and the country of their residence as well as advocating policies that are favourable to Canada? Further, if people leave Canada for better economic opportunities but return home later in life, they might be considered "free riders" of Canada's generous social benefits system. The question then becomes how to make these individuals pay their fair share in the system. A worldwide tax system was one suggestion put forth at the workshop. That said, a diaspora policy is not simply about taxes and trade; more importantly, it is about building Canada's competitiveness in the global community. Discussions should pivot on the issue of making Canada an attractive place to invest, work, and live. Hence, there needs to be a whole of government approach to a diaspora policy.

A diaspora policy is not simply about taxes and trade; more importantly, it is about building Canada's competitiveness in the global community.

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BOOKMARK

Canada–China Symposium on Social Inclusion and Economic Development: Improving Mutual Understanding and Forging Future Collaborations

December 12-15, 2006
Beijing, China

Call for papers

The Institute of Ethnology and Anthropology (IEA) of the Chinese Academy of Social Sciences (CASS) in partnership with the Policy Research Initiative (PRI), the Canadian Embassy in Beijing, and the Organizing Committee for the 16th International Congress of Anthropological and Ethnological Sciences (ICAES 2008), is holding a Canada-China Symposium on Social Inclusion and Economic Development. We invite paper submissions on the following topics:

- Social inclusion and Ethno-cultural diversity in Canada and China; and
- Economic prosperity

Interested participants should send an abstract of not more than 400 words in Times New Roman 11, to the Scientific Committee at <fachundu@yahoo.com> and <J.Kunz@prs-srp.gc.ca>, along with the name, title, affiliation, and contact information of the author(s).

Deadlines

August 30 – Abstracts

September 15 – Notification acceptance

November 15 – Completed papers

For more information, consult the PRI's web site.

Canada as a Competitor in the Global Market for Immigrants

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Editor's Note

Speech presented at the plenary session, "Canada as a Competitor in the Global Market for Immigrants," the Eighth National Metropolis Conference, Vancouver, March 24, 2006.

I begin by reviewing the implicit contract between immigrants and Canada, because that contract may be unravelling in an era of transnationalism, with the growing labour mobility and geographical sophistication of skilled and business migrants.

Here is the conventional contract. Canada needs immigrants to sustain its population, its labour market, and its purchasing and tax-paying base. There is also a humanitarian stream to immigration policy, but it is secondary to the larger goal and, indeed, refugee selection off-shore has until recently paid particular attention to the human capital of applicants. To meet its needs, Canada maintains high entry levels, and expects superior human capital standards. Initial settlement services and the immigrant-friendly policy of multiculturalism facilitate a welcome. These programs are valuable, as Irene Bloemraad's (2003) important research has shown, especially in comparison to the United States.

The expectation is that on their side, pursuing their own self-interest, immigrants will become national citizens, productive members of society, integrating socially, economically, and politically. In many respects this immigration contract has worked well historically. Immigrants have agreed to the territorial containment of their labour. Levels of naturalization have been relatively high. To varying degrees, we immigrants have transferred our loyalties to Canada. We are part of the reproduction of a national citizenry. The self-interest of the immigrant has matched the self-interest of the state.

But this contract is now more complicated with globalization, which challenges the jurisdiction of the nation state, as capital, commodities, labour, and information move ever more freely across national borders. The logic of the market reaches deeper into everyday life; it erodes the sentiment and symbolism that are part of any nation-building project.

The Canadian state plays the new globalization game. The assessment of immigrants and refugees is increasingly defined in terms of their market value. The Business Immigration Program is the most transparent example of the marketization of citizenship, but we see it too in the demanding entry threshold for skilled workers. Like every country, Canadian policy is governed by self-interest; national needs come first. And up to the present, Canada has been successful in getting people through the door, in maintaining substantial immigrant landings.

Now here's my key point. With globalization, the self-interest of the state may no longer coincide with the self-interest of immigrants, challenging the implicit citizenship contract.

Consider two examples: first, the Business Immigration Program. Each year a report is produced by government asserting the economic success of this program measured by millions of dollars invested and thousands of jobs created. Though inflated, the numbers remain impressive. My own research endorses the general message from this annual scorecard. We interviewed 90 entrepreneur-class immigrants in Greater Vancouver, the region landing the highest share of business immigrants (Ley, 2006). The respondents were wealthy, typically bringing up to $500,000 to Canada, and with additional off-shore reserves. Between them, these 90 business persons declared local investment of over $25 million, and, with a couple of very high achievers, they employed almost 400 people who were not family members. Significant investment occurred; jobs were created.

But this success for national policy is not necessarily a success for the entrepreneurs. What have they secured for their investment? The answer in general is very little in terms of business achievement. There is a high level of frustration and sense of injustice when one speaks to these business immigrants. Their operations were typically economically marginal. Financial losses were significant. After two years in business, median net revenue was zero; 58 percent lost money or just broke even. Shortly after the two-year term, half the businesses were sold, commonly to new immigrants, leading to a double counting of the operation in future annual statistics. Many reached the conclusion they could do better elsewhere and re-migrated to their native country. An internal government study (Glover and Sim, 2002) of a large sample showed a similar outcome, with over 40 percent selling their operation, and among these 38 percent stated that the reason for sale was that they could earn more by running a business in their home country. This figure is particularly high when one considers that many other entrepreneurs would be unavailable for questioning, because they would already have returned to pursue such opportunities. Among the business class, there has been a heavy return to East Asia, either the whole family, or the principal wage earner. The declared incomes of households that continue to live in Canada are modest, reflecting the weak performance of their Canadian business activities. Policy here has achieved an initial national self-interest, but not the self-interest of the business immigrant, and thereby not the long-term interest of Canada either. Getting them through the door is not enough.

There has been impressive success in attracting these talented migrants. But can we retain them? To their deep disappointment, economic integration has been severely impeded, with the waste of human capital from non-recognition of foreign credentials, and the inadequacy of many language training programs for workplace effectiveness.

Second, consider skilled workers, who include thousands of engineers from China and India, the top two source regions for recent immigrants to Canada. Again, there has been impressive success in attracting these talented migrants. But can we retain them? To their deep disappointment, economic integration has been severely impeded, with the waste of human capital from non-recognition of foreign credentials, and the inadequacy of many language training programs for workplace effectiveness. A rational response is to move on. Bringing skilled workers through the door is not an adequate policy success, when, by disregarding their success here, we also encourage their departure.

Elizabeth Chacko's (2006) work on the return of Indian engineers from the United States is informative. She discovered among them a view that there are greater business and creative opportunities in India than in the United States, indeed a sense that it is in India where cutting edge information technology innovation is being undertaken. In addition, our own research on return migration by business persons and the highly skilled to Hong Kong (Ley and Kobayashi, 2005) and Sin Yih Teo's (2006) ongoing research on the return of engineers and other professionals from Canada to Mainland China share the common finding that economic and job gradients for Asian nationals often favour East Asia over Canada (also Tian and Ma, 2006).

More generally, Statistics Canada research by Aydemir and Robinson (2006) showed the significant attrition of business immigrants and skilled workers among working-age males who landed between 1980 and 1996. Using the failure to file serial tax returns as an indicator of either onward or return migration, an assumption supported by census data, they concluded that a good deal of immigration to Canada is no longer permanent, but temporary. Those who leave the tax rolls have a well-defined profile, displaying high levels of human capital. Some 40 percent of the business class and skilled workers leave in the first 10 years, a majority of those in their first 12 months.

Despite short-term oscillations, there is good reason to suppose that the loss of skilled immigrants returning to Asia is likely to increase in the medium term. Some forecasts expect the Chinese and Indian economies to grow by as much as 10 percent this year, multiplying opportunities for valued staff, especially those with North American experience. Accelerated growth also intensifies the perception that it is in East and South Asia where economic opportunities are highest, where mobile labour should move. Chacko (2006) noted the brain gain that is helping to staff more than 1,000 information technology companies in Bangalore, the leading centre in South Asia. The high tech R&D divisions of American multinationals in India are now filing more patents than Bell Labs, while the scale of demand has drawn California developers to build six townships for returning non-resident Indians at a cost of $4.5 billion. Similar initiatives exist in Mainland China, where industrial and R&D campuses, and western-style housing subdivisions, are designed to compete with North American sites (Luo et al., 2002).

Compare these options with the growing perception that Canada is no longer a land of unrivalled economic opportunity. Each entrepreneurial failure by a business class immigrant, each refusal of credential recognition against a skilled worker, is amplified through well-connected global networks. As a result, many immigrants now arrive in Canada with uncertain economic expectations. Indeed, though they may be called economic migrants that may not be the reason they migrate. Among the 90 business immigrant households we interviewed, admitted to promote economic development, only 12 percent stated that economic motives had brought them to Canada (Ley, 2006). Far more important were the quality of life, prospects for children's education, and political anxieties concerning their homeland. This significant result may be reflected in the initially surprising finding from the Longitudinal Survey of Immigrants to Canada that even for skilled workers, job prospects were not the dominant reason for determining place of settlement. Among those settling in Toronto only 23 percent identified job prospects as the leading locational factor, in Montréal only 16 percent, in Vancouver just six percent (Chui, 2003).

What we are seeing is growing geographical strategizing among economic immigrants in a transnational era. There is substantial population churning: onward migration, return migration, astronaut movement, temporary settlement and, for some, early retirement, another form of departure from the labour force. At some stages in the life cycle, Canada's high quality of life is a benefit, but this will not often compensate for unsatisfactory economic outcomes (Ley and Kobayashi, 2005). The older immigrant contract is no longer as binding; with greater mobility, people are no longer allowing themselves to be so territorially contained, particularly where they confront economic barriers. And there is evidence that people engaged in significant transnational activity are less likely to attain Canadian citizenship or to self-identify as Canadian (Hiebert and Ley, 2006).

Like national policy, immigrants too are pursuing their self-interest and, in a transnational era, those with the highest human capital have the most options for labour migration. They will avoid locations with limited returns and barriers to economic integration. Canada is becoming recognized as less a place to make money and more a place with a high quality of life. In the words of the slogan that became common in Vancouver in the 1990s: Hong Kong for making money, Canada for quality of life.

What all this amounts to are new challenges in the reproduction of national citizens. Canada as a settler society needs to see the immigrant's interest as also the national interest. I am not being a moralist or stating a political position here, though such arguments could be, and have been, made. It is in Canada's self-interest that barriers to economic integration, such as the ongoing credentials fiasco, be resolved, that language deficits at landing be addressed by adequate language training that carries conversation to the level required by the market place. The alternative is that Canada risks being by-passed as a leading permanent destination for skilled workers and business migrants seeking real economic opportunities.

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Is China a Magnet for Global Talent?[1]

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For 30 years, China and Hong Kong have supplied human talent to Canada. But as the transfer of sovereignty over Hong Kong to China transpired smoothly, many Hong Kongers, particularly males, chose to return home, where they can earn more money. A similar "reverse brain drain" is underway in mainland China. The number of returnees hit 30,000 in 2005, up from 7,000 in 1999.

Is Canada's heyday of extracting human capital from Greater China over? Is China now a magnet for expatriate human capital, attracting talent that previously stayed in Canada? This discussion of China's future as a market for global talent makes six points.

First, the Chinese government at all levels – national, provincial, and municipal – actively encourages overseas scholars to return to China. The central government creates a favourable political climate that makes overseas scholars comfortable with returning, and it supplies funds to universities and the government controlled Chinese Academy of Sciences (CAS) to target returnees.

Returnees say: "Rely on Deng Xiaoping to go overseas, rely on (Former President) Jiang Zemin to return." Jiang recognized that under globalization, China could no longer stop people from going out; therefore, it had to compete with other countries to attract mainlander talent to return, stating: "Competition in scientific research is competition for talents." Attracting returnees is a national priority, part of Building China through Science and Education (*ke jiao xing guo*) and Strengthening the Country through Human Talent (*rencai qiang guo*). Being part of a national program enhances the status of returnees, directs the Finance Ministry to allocate funds to programs that encourage returnees, and mobilizes bureaucrats to expend their time and effort to increase the reverse flow of overseas talent. Former Premier Zhu Rongji, at the sixth session of the Worldwide Chinese Businessmen's Association (2001), stressed that China would stress the infusion of human talent and technical skills, rather than attracting foreign capital, reflecting the strategy of Strengthening the Country through Human Talent.

The new generation of leaders legitimize the goal of attracting returnees. In 2003, President Hu Jintao and Vice President, Zeng Qinghong, in a series of three talks (*san pian jiang hua*), called returnees "irreplaceable" (*buke daiti*) with an "outstanding historic role" (*dute de lishi zuoyong*). In Chinese politics, calling something of "historic" importance carries great weight. Since 1996, 10 new programs encourage people to return, including the Seed Fund for Returned Overseas Scholars (1990), Cross Century Outstanding Personnel Training Program (1991), the National Science Fund for Distinguished Young Scholars (1994), and The One Hundred, One Thousand, and Ten Thousands Program (1995) (Cong, 2004).

In May 1998, Jiang Zemin visited Beijing University (Beida) on the occasion of its 100th anniversary. His speech forgave Beida for sponsoring the April-June 1989 "political storm," and called on Beida and other top schools to become world-class universities. Under the 985 Plan, named for the date of Jiang's speech, the central government invested billions of *renminbi* (Chinese currency, also known as RMB) in nine universities to make them world class and insisted that 20 percent of the funds be used to hire overseas scholars. Between the late 1980s and the end of 2003, the Ministry of Education's Financial Support for Outstanding Young Professors Program (*youxiu qingnian jiaoshi zizhu jihua*) awarded 2,218 returning professors 144 million RMB. The Cheung Kong Scholars Program (*Changjiang xuezhe jiangli jihua*), funded by Hong Kong's Li Ka-hsing, between 1998 and 2004, brought 537 scholars from overseas to become leaders in key research fields.

For several years, the Ministry of Finance has given CAS funds for its 100 Talents Program (*Bairen jihua*). Winners of this fellowship, who are selected after presentations of current and future research to CAS research committees, are allotted two million RMB; 20 percent of which can go for extra salary. Most awardees get new housing, a new laboratory, imported equipment, and a research team composed of graduate students and talented research staff, who may have a home-grown Ph.D. These returnees immediately become full professors, regardless of their status overseas. The focus of these programs is cutting edge, scientific sectors, such as biotechnology, nano-technology, energy efficiency, environmental protection, material sciences, and information technology. One institute under CAS, specializing in biotech, received 13 such awards in two years.

Local governments, too, compete among themselves for overseas talent. Cities offer various incentives to make themselves the preferred destination of returning businessmen. The preferences they grant include housing discounts, imported cars, computers, free office or factory floor space, jobs for wives and special schools for their children, and residence permits for foreign passport holders, which allow them to come and go freely, without having to relinquish their foreign citizenship. Most large cities and county towns have parks for overseas scholars to establish businesses, where returnees receive help navigating the bureaucratic maze that new businesses face. Beijing and Shanghai each have 14 such zones for overseas scholars.

Do governmental efforts work? Surveys show that only a few returnees cite government efforts as a key reason for returning, suggesting that the government's impact is indirect. Among a group of scientists from four cities – Wuhan, Kunming, Guangzhou, and Changsha – 22 percent chose changes in the domestic environment as their second reason for returning. Freedom to come and go, an important policy innovation in 1993, was the first choice of three percent, the second choice of 10 percent, and the third choice of another 10 percent. Political stability, an important concern triggering the brain drain in the early-1990s (Chen, 1995), is now a positive force, the second choice of seven percent, and the third choice of 3.5 percent. Finally, changes in how the government uses people was the third choice of nine percent of returnees.[2]

What about the quality of the returnees? Is China a magnet for the best and the brightest who went overseas? Or are returnees people who did not quite make it overseas? Data tend to support the latter hypothesis. The director of a CAS research institute in Northeast China said that the people he attracts fall into the top 50 to 80 percent of overseas scholars, but the top 20 percent remain overseas. As of 2003, Beijing's High Energy Physics Laboratory under CAS had attracted no Ph.D. returnees; all were abroad or in business in China. Rao Yi, of Washington University, St. Louis, argues that, in terms of international reputation and prestige, few academic returnees are comparable to those who stay abroad. He believes that there are 800 to 1,000 life scientists of Chinese origin running independent labs in the United States and that these people are unlikely to return.[3]

Getting the very talented to return is one thing; getting them to stay is another. A stellar recipient of the CAS 100 Talents fellowship, who had published in Science magazine, received a huge apartment and a similar fellowship for his wife. Interviewed in Northeast China in 2003, he was uncertain if they would stay in China in the long term.

Interviews in China in 2001-2002 show that returnees to CAS were not successful overseas. Among 86 scientists interviewed in China in 2001-2002, only two out of 82 had earned over US$50,000/year on the eve of returning to China. Another three out of 82 earned between US$35,000 and $49,000. Very few had patents, even though 20 percent had earned Ph.D.s overseas. Of 109 academics interviewees in six cities in 2002, only eight had earned over US$25,000/year overseas, while 77 percent earned under US$12,500/year. Thus, very few left stable positions to return to China; in fact, most were on short-term postdoctoral fellowships.

Still, if one asks the question differently, the government's role emerges. When we asked people in 2002 and 2004, why the number of returnees increased, 47 percent said that good government policy was important, while 19 percent cited political stability.

Still, the rewards in China's domestic market rather than government policy is key to bringing people back to China, as many Chinese believe bringing back a technology that is new for China – even if it is not globally at the cutting edge – can reap rich profits in the mainland. In the summer of 2004, we interviewed 100 returnee entrepreneurs in Beijing, Shanghai, and Guangzhou. When asked why they had returned to China, 27 percent selected "I have a technology that I believe will have a good prospect in China" as their primary reason for returning. For 28 percent, it was their second choice. A study in 2001 showed the rewards available to technology importers. Of 145 returnees and employees in science parks, 41.2 percent of non-importers earned under 40,000 RMB/year, while only 12.5 percent of technology importers fell into this income category. At the other end, 31.2 percent of technology importers earned over 80,000 RMB/year, while only 8.3 percent of non-importers did so. The findings were statistically significant at the 0.01 level.[4]

Finally, a massive jump in the number of returnees in the past three years suggests great success for government policy. But many returnees gained only limited skills overseas and on returning face great difficulties finding employment. Pejoratively called "seaweed" or *hai dai* by jealous people who had not gone overseas, they are as much a burden as a benefit to the Chinese state. According to government officials, 50 percent of the 30,000 returnees in 2005 had just finished a B.A. or one-year M.A., mostly in Britain, which gives a one-year M.A., but allows no after-graduate training. Without jobs, these not-so-well-trained students MUST return to China. They are not the well-trained scientists, academics or entrepreneurs who will propel China's economy in the 21st century. Had they been excellent students, they would have gone to top universities in China or abroad. At best they can fill in middle-level positions in the administrative hierarchy or entry-level jobs in the commercial sector.

So, why is the government so concerned about this situation? Because many unemployed returnees are children of recently retired government officials, who invested their life savings in their single child. But instead of bringing them security, these children face great difficulties finding lower-paying jobs. So the personnel bureau in many municipalities, as well as officials in the national Ministry of Education, have begun many programs, such as linking the *hai dai* to enterprises that might hire them. Some programs encourage them to start their own firms, but without entrepreneurial skills, that is a path fraught with difficulty. Much official anger over this turn of events is targeted at Britain, which treats Chinese youths as a source of foreign exchange for low-quality British universities, but then abandons them on graduation, forcing them to return to China with little professional training.

Conclusion

Clearly China's government has successfully created an environment that is attractive to returnees. As such we should expect the number of returnees to grow. Moreover, as the number of students who pay their own way to go overseas rises, the number who return to China is likely to rise as well. Though not addressed in this paper, a large cohort of Ph.D.s, with professional experience could see a brighter future in China than in Canada. As foreign firms expand, middle-level managers may return, while senior executives of Chinese origin may prefer the rich lifestyle of Shanghai over Toronto or Vancouver. But, again, don't be fooled by the numbers; increased flows may reflect problems for China as well as indicate that the efforts to reverse the brain drain are a success.

Notes

1 This paper was presented at the Eighth National Metropolis Conference, "Immigration and Canada's Place in a Changing World," Vancouver, 24 March 2006. Funding was provided by the Research Grants Council, Hong Kong, a Direct Allocation Grant from The Hong Kong University of Science and Technology, and the Social Science and Humanities Research Council of Canada.

2 Interviews with CAS scientists in 2001 and 2004 in Beijing and Changchun.

3 Cited in Cong (2004).

4 Technology importers include both returnees and people who have not gone overseas.

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Social Security Law

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Public Management Teaching Series (Tsinghua University) and the Joint Publication of Policy and Law Research Series (2003)

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The book *Social Security Law* is informative on a number of levels. Edited by Yansui Yang of Tsinghua University, it incorporates articles by Chinese and Western European scholars on a wide variety of conceptual and design issues. While at times a dense read, the book is rich in detail and is well suited to serve as either an introduction to these issues for the uninitiated or as a ready reference guide for the more experienced.

The book is broken down in a way that greatly simplifies the learning curve of those not familiar with Chinese labour law and social security support systems. It starts with a chapter outlining the basic theories underpinning social insurance and builds on this by exploring the state's responsibilities in the Chinese context, the social security legal system and connections between social security law and economic law. Chapters completed by European authors on issues and approaches in Western Europe are interspersed among these chapters and provide additional context against which to evaluate the Chinese situation. After this introductory section, more detailed information is provided on specific aspects of social security legislation and approaches in China and elsewhere. Taken together, this format results in a book that is both easy to use and highly detailed, a significant accomplishment given that the subject matter is not always the most easily accessible for even the most experienced social policy analyst or researcher.

This article does not attempt to catalogue or summarize the various observations and findings presented throughout the book. Rather, it

focuses on key insights gleaned from a consideration of all the articles as a whole to improve our understanding of what policy makers in the West and in China share and what challenges they see differently.

Many of the same forces affect both China and Western Europe. Globalization, particularly in regards to competition and associated changes within the labour market (such as an increased prevalence of non-standard work) are identified as pressing issues by authors from both China and Europe. As noted by Dr. Zhou Baomei, policy makers in both labour markets are trying to find a balance between the state and the market within this emerging economic environment that is respectful and responsive to the unique characteristics of each country (p. 206).

Here, however, many of the similarities end. Aside from the pressures of globalization, China also faces large demographic shifts associated with urbanization and industrialization.

While undoubtedly also felt in Western Europe, these challenges appear much more pronounced within the Chinese context and contribute significantly to the socio-economic challenges with which Chinese analysts struggle.

Also notable is the difference in tone that is apparent between Western scholars and their Chinese counterparts when discussing the challenges they face. Western scholars articulate their analyses as adaptations to be made to existing structures to better address emerging pressures and ensure sustainability. From this perspective, Western scholars depict the challenges Western European nations face as emanating primarily from existing programs that need to be reformed to ensure sustainability and continued effectiveness in the face of global competition (pp. 193-203).

Chinese scholars, in contrast, appear to view the challenges from globalization from a fundamentally different perspective. Frequently, the pressures China faces are articulated as intrusions from outside of the country which threaten to erode their competitive edge (p. 204). Exact reasons for this difference in tone are difficult to pinpoint, but likely emanate from the fact that the transition, begun in the late 1970s and early 1980s, from a mostly state-centred economy to that of a market-oriented economy, remains incomplete (p. 207). As a result, vestiges of classic Chinese labour economics, based on premises very different from those underpinning the free-market economic systems of both the global economy and the economies of Western Europe, remain.

For example, China's system is premised on the theory that, within the context of a planned economy, a worker can only have a single labour relationship (p. 240). As a result of this fundamental belief, China did not have a Western-style social security system until very recently. Instead, supports commonly associated with such systems were delivered through China's labour law. Everybody of working age was identified as a labourer who had certain "rights" to supports that the state delivered through employer units (which were organs of the state). Unlike in the West, the worker's connection with the employer could never be severed; even if retired or disabled, within the context of Chinese labour law, a worker was still an employee who received support through an employer. In regards to rights and supports, their status as an employee was and in large part remains their identity. With the introduction of market forces and international competition, however, non-standard employment and workers with multiple jobs began to appear and employers could be permitted to fail. As a result, coverage gaps have begun to emerge, creating challenges that will require more than basic reforms to existing programs (pp. 229-242). Fundamental conceptual shifts are underway, and more will be required, in regards to how individuals and the labour market interact and how labour laws from the past and emerging social security laws should relate to one another.

It must be understood that as China endeavours to reform its system within the context of its own social realities, it may reach an equilibrium and use means that are very different from what we would do within the Canadian context.

This does not mean, however, that over time Chinese social security will begin to look more like systems in European states. Whereas Europe's debates often fixate on who should do and pay for what, in China the state continues to be identified as the principal actor in most analysts' minds and the law the primary policy lever through which action should be taken (p. 202). In response to the challenges China faces, a number of changes have taken place regarding rights and responsibilities within the PRC; in particular it is noteworthy that laws in China no longer just state the responsibilities of the state in fulfilling the "rights" of its citizens to labour, material assistance, and safety and health. It now also speaks of other social “parties,” such as employers, employees, and civil society (p. 209).

Nevertheless, by continuing to rely on legislation to define roles and responsibilities, the state remains at the centre of social policy. Incentives for other social actors to pursue activities of positive social value were mentioned nowhere throughout the book. No role is defined for a voluntary sector; indeed, no voluntary sector is apparent. Last, although it could be an issue of translation, the use of the word “parties” rather than “partners” in the description above may be telling. The former is much more hierarchical than the latter. Together, these observations suggest that the state remains the primary actor in social protection while other sectors play only a supporting role.

At its core, it would appear that China views workers as units to be acted through while the West views workers as entities to be acted upon. This has a number of implications for policy. To begin with, if, as the Chinese ambassador advocates in another article in this edition of *Horizons,* Canada and China pursue expanded personnel and knowledge exchanges, analysts and researchers from both countries must understand that they are coming from very different intellectual families and environments. As a result, even though both Western Europe and China face very similar challenges, their distinct histories, traditions, and intellectual heritages means that scholars from each community may articulate the challenges they face and possible solutions very differently. If misunderstandings are to be avoided, this difference in outlook must be understood. Additionally, if Canadian analysts and researchers are to provide assistance to their Chinese counterparts, they should be mindful and respectful of these differences. It must be understood that as China endeavours to reform its system within the context of its own social realities, it may reach an equilibrium and use means that are very different from what we would do within the Canadian context.

At the same time, this difference in outlook and context also presents opportunities. From the perspective of social policy, even though coming from a different family of socio-economic thought, China’s unique perspective may permit it to identify new and innovative approaches that can be applied within the Canadian context. As suggested by Valerie Vervliet in her article, labour activation policies may be one such area where Canada can learn from China’s experiences (pp. 216-219). Additionally, in regards to economic development, an improved understanding of how China’s social security system interacts with its economic system may permit Canadian policy analysts and researchers to identify ways to improve economic competitiveness.

In short, given the increasingly important role China will play in the future of Canada and the opportunities that country’s ascendancy will present, an expanded understanding of the Chinese situation would be useful in a number of contexts. Toward this goal, *Social Security Law* is an extremely informative book and would be a useful addition to the library of any policy analyst or researcher.

An Overview of China's 11th Five-Year National Economic and Social Development Plan

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Covering the five-year period of 2006-2010, China's 11th Five-Year National Economic and Social Development Plan was debated and adopted by the National People's Congress in March 2006. This is a highly important document in that it sets out the general policy directions for the country's overall economic and social development in the next five years.

Table 1 provides a summary of the major accomplishments of China's socio-economic development during the 10th Five-Year Plan period (2001-2005).

Compared to the previous five-year period, the next five years will see greater emphasis on balanced growth in the economy, social development and environmental protection. The 11th Five-Year Plan outlines 22 main indicators, and eight of them are related to issues, such as population, natural resources, and the environment. Table 2 provides a summary of the main objectives for the 11th Five-Year Plan.

The 11th Five-Year Plan has three priority areas, namely, the New Countryside initiative, balanced and co-ordinated regional development, and environmental protection and restoration of damaged ecosystems. The New Countryside initiative is an amalgamation of all existing programs related to various aspects of rural development. The main thrusts of the initiative include:

- developing modern agriculture to ensure food security, specifically, maintaining food production at the level of 500 million tonnes per year and preserving 120 million hectares of cultivated land;
- increasing peasants' incomes from various sources, especially off-farm activities;
- reducing taxation and financial burdens of peasants;
- investing in infrastructure in rural areas;
- promoting the establishment of a rural health care system; and
- investing in education and training for rural residents, with up to 100 million peasants to be trained during the five-year period.

Balanced regional development is a concept that aims at developing a policy framework for co-ordinated regional economic growth. This framework promotes the continuation of existing policies, such as the Western China Development Program and the program of revitalizing the industrial centres in Northeast China. A new initiative launched recently aims at boosting the development of the central part of the country that comprises six provinces, namely, Shanxi, Henan, Hubei, Hunan, Anhui, and Jiangxi. The priority areas of this initiative include grain production, raw materials for the energy sector, and infrastructure, such as highway systems.

Environmental and ecological protection has received significant emphasis in the 11th Five-Year Plan. The main objectives for the period include:

- reducing energy consumption per unit of GDP by 20 percent;
- reducing major pollutants emissions by 10 percent;
- reducing water use per unit of industrial value added;
- attaining a minimum of 70 percent in the treatment of urban wastewater and 60 percent in the treatment of urban household garbage; and
- increasing national forest cover to 20 percent.

TABLE 1
Facts and Figures about China's 10th Five-Year Plan (2001-2005)

Indicator	Target for the Period	Average Annual Growth (%)
GDP annual growth (%)	7	9.5
Five-year new urban employment (million)	[40]	[42]
Five-year resettlement of rural labour force (million)	[40]	[40]
General prices	stable	1.4
Commodities trade (billion US$)	6.8	24.6
Total national population (billion)	1.33	6.3‰
Reduction in major pollutants emissions (%)	[10]	<[10]
Annual growth rate of urban residents' disposable income (%)	5	9.6
Annual growth rate of rural residents' net income (%)	5	5.3
Urban residents' per capita housing floor space (m^2)	22	5.1

Notes: [] indicates a cumulative figure for the five-year period.

TABLE 2
Principal Indicators for the 11th Five-Year Plan

Indicator	Actual Level for 2005	Target for 2010	Expected Annual Growth (%)
Total GDP (trillion yuan)	18.2	26.1	7.5
Per capita GDP (thousand yuan)	13.99	19.27	6.6
R&D share of total GDP (%)	1.3	2	[0.7]
Urbanization (%)	43	47	[4]
National population (billion)	1.31	1.36	<8‰
Cultivated land (million ha)	122	120	-0.3
Forest cover (%)	18.2	20	[1.8]
Average years of education	8.5	9	[0.5]
Urban population in health care plans (million)	174	223	5.1
Rural health care coverage (%)	23.5	>80	>[56.5]
Disposable income of urban residents (thousand yuan)	10.49	13.39	5
Net income of rural residents (thousand yuan)	3.26	4.15	5

Notes: GDP and incomes are measured in 2005 prices; 1 Canadian dollar = 7.18 yuan RMB in May 2006.
[] indicates a cumulative figure for the five-year period.

FACT SHEET

China and Canada at a Glance

General Information

	Canada	China
Capital city	Ottawa	Beijing
Land area	9,922,385 km^2	9,597,000 km^2
Population (2005)	32.4 million	1,307.6 million
Ethnicity	200+ ethnic groups	Han Chinese (92%) and 55 other ethnic groups
Official languages	English and French	Mandarin

Human Development Indicators

	Canada	China
Human Development Index Ranking in the world (2003)	5/177	85/177
Life expectancy at birth (2000-2005)	79.9 years	71.5 years
Combined gross enrolment ratio for primary, secondary, and tertiary schools (2002-2003)	94%	69%
GDP per capita (PPP US$, 2003)	30,677	5,003

Source: United Nations Human Development Report 2005.

Economic Indicators

	Canada	China
Total GDP - US$ billion (2005)*	1,121.4	1,908.9
Real GDP growth - % (2005)*	2.9	9.9
GDP per capita - US$ (2005)*	34,782	1,464
Growth competitiveness index ranking (2005)**	14	49
Business competitiveness index ranking (2005)**	13	57
Networked readiness index ranking (2005)**	6	50

Notes:
* International Monetary Fund.
** World Economic Forum.

Commodity Trade Between Canada and China, Millions of Canadian Dollars

	2003	2004	2005	% share of Canada's Total		
				2003	2004	2005
Canada's imports from China	18,581.3	24,099.9	29,498.5	5.53	6.77	7.75
Canada's exports to China	4,798.0	6,654.6	7,060.3	1.26	1.62	1.62
Trade volume = EX + IM	23,379.3	30,754.5	36,558.8	3.26	4.01	4.45
Trade balance = EX - IM	-13,783.3	-17,445.3	-22,438.2			
Canada's imports from China Top 3 categories:						
Machinery	3,033.8	4,716.3	6,028.4			
Electrical machinery	3,256.8	4,326.1	5,589.4			
Toys and sports equipment	1,932.7	2,056.6	2,179.3			
Canada's exports to China Top 3 categories:						
Organic chemicals	422.2	869.2	930.2			
Wood pulp	838.1	1,038.8	874.6			
Machinery	289.5	365.2	455.5			

Notes:
From Canada's perspective, China ranks number two among the countries from which it imports commodity goods (only next to the United States), and number four among the countries to which it exports commodity goods (following the United States, Japan, and the United Kingdom).

Source: Statistics Canada.

Social Indicators

	Canada	China
Total population – million (2005)	32.4	1,308.6
Annual population growth rate – % (1975-2003)	1.1	1.2
Urban population – % (2003)	80.4	43.0 **
Population under age 15 (% of total)	18.2	20.3 **
Population ages 65 and above (% of total, 2003)	11.1	7.7 **
Total fertility rate – births per woman (2000-2005)	1.5	1.7
Public expenditure on health as % of GDP (2002)	6.7	2.0
Health expenditure per capita – PPP US$ (2002)	2,931	261
Physicians per 100,000 people (1990-2004)	209	164
Number of universities	90 *	1,731 **
Full-time university students (million)	0.81 *	16.6 **
Adult literacy (%)***	99.4	86.6

Notes:
* Association of Universities and Colleges of Canada; the numbers refer to that of 2005.
** National Bureau of Statistics of China; the numbers refer to that of 2005.
*** Euromonitor International; the numbers refer to that of 2004.

Source: United Nations Human Development Report 2005, unless indicated otherwise.

Technology Indicators

	Canada	China
Telephone main lines per 1,000 people (2003)	651	209
Cellular subscribers per 1,000 people (2003)	419	215
Patents granted to residents per million people (2002)	40	5
Research and development (R&D) expenditures as % of GDP (1997-2002)	1.9	1.2
Researchers in R&D per million people (1990-2003)	3,487	633

Source: United Nations Human Development Report 2005.

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