THE TRADING DRAGON: BOOSTING CANADA'S TRANSPORTATION INFRASTRUCTURE TO ACCOMMODATE THE NEW CHINA SYNDROME

POLICY PLUS OPTIONS

Christopher Jones

China's emergence as an economic superpower and hyper-trader demands new strategies, not just in trade policy but in managing the growing volume of goods entering, leaving and traversing Canada. Christopher Jones of the Railway Association of Canada writes, "At the same time that bulk resource exporters are looking to seize upon opportunities in China, Chinese exports of containerized merchandise are flooding our shores. Canada has only 1 percent of China's export trade and is struggling to cope with the stresses and strains that recent traffic growth in containerized freight has imposed." Here, Jones lays down a plan for the next stretch.

L'émergence de la Chine comme superpuissance économique et commerçante réclame l'adoption de nouvelles stratégies commerciale mais aussi de gestion des volumes de biens qui entrent au Canada, en sortent et le traversent en nombre croissant. « Tandis que les grossistes canadiens tentent de saisir le maximum d'occasions en Chine, note Christopher Jones, de l'Association des chemins de fer du Canada, les exportations chinoises sont déversées sur nos côtes à plein conteneurs. Le Canada, qui ne compte que pour 1 p. 100 du commerce d'exportation de la Chine, s'efforce donc d'atténuer les tensions et contraintes imposées par le récent afflux de ces marchandises. » L'auteur propose ici un plan pour la prochaine étape.

The impact of China's recent dynamic growth and commercial integration within the world trade system is, arguably, of the same magnitude as the emergence of England as the dominant 18th century industrial power, or the industrialization of the United States of America beginning in the late 19th century. In each case, the balance of global economic might shifted decisively. The convergence of global technological expertise, investment capital, cutting edge logistics and supply chain management along with cheap and plentiful labour, new infrastructure, and a mercantilist Chinese state, has created the conditions for another great revolution in the international economy. The post-collectivist Chinese economy is highly open. The degree to which Chinese growth is dependent on trade is remarkable: the sum of its total exports and imports of goods and services amounts to around 75 percent of China's GDP. By way of comparison, in 2002, Canada's figure was 39.7 percent, the US was 11.7 percent and the G-7 average was 25.2 percent, according to the OECD 2005 Factbook.

As the audit and consulting firm Deloitte has noted, what we are seeing are new patterns of global integration by large companies and offshore investors, who are now seeking to integrate China-based sourcing into their global supply chains. The larger firms are rolling up smaller competitors and concentrating their manufacturing in a few key Chinese locations, taking advantage of scale economies and a low cost, well trained and largely docile labour force. Distribution is facilitated by China's enormous investments in transportation and containerization. In a sense, as the *Financial Post* puts it, the country has become a gigantic *maquiladora* (Mexican processing plant using duty-free imports in the production of exports) zone. All of this is taking place under the direction of a Chinese state committed to growth and industrialization at all costs.

China's presence in the global economy impacts in ways that are paradoxical. As the author Ted Fishman has noted, at the same time that China's insatiable demand for industrial commodities has run up the price for steel, copper, aluminum, nickel and plastics in 2003 and 2004, the price of cars in major markets dropped. Cheap car parts produced in Chinese factories were one reason, notes Fishman. In a country as reliant on trade as Canada, the emergence of China raises hard questions for government decision-makers about the adequacy of existing economic and transportation policies. One crucial consideration is what the impact of the massive increase in Chinese-driven, trans-Pacific commercial trade may be on the port-rail complex in Canada, and what the contours of an adaptive and appropriate policy response might be.

> In essence, we are exporting to China raw materials such as wood pulp and various ores, metals, chemicals, fertilizer and foodstuffs and importing from them mechanical appliances, electrical machinery and parts, toys, sporting goods, furniture and apparel. China's industries are moving rapidly up the value chain, absorbing foreign expertise and technology very quickly, which raises questions about the potential displacement of Canadian manufactured exports in the US market by Chinese ones.

China's accession to the World Trade Organization in December of 2001 did not precipitate its near-double digit GDP growth; that trend had been long under way. China has achieved an average annual GDP growth rate of 9.7 percent since 1979. But from the mid-1990s, the substantial economic strides registered by the Chinese were being obscured by the West's preoccupation with the information and high technology boom and its subsequent meltdown. The hyperbole about technology stocks and the IPOs of start-up firms concealed the reality that a China of 1.3 billion people was steadily integrating into the global market economy. Only now is Chinese economic integration getting the attention it merits; the *Economist* recently trumpeted that China is driving, "in a new and pervasive way," economic developments and trends that many countries had assumed to be domestically determined. Many analysts contend that China alone has been responsible for much of the increase in global commodity prices and that Chinese demand for oil has been notably responsible for the steep rise in world oil prices.

These facts illustrate the transformative changes underway in China:

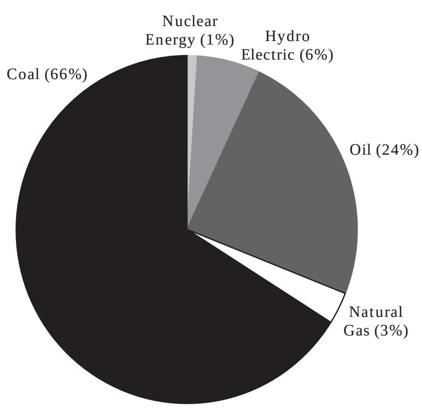
- It is the world's largest recipient of foreign direct investment ($53 billion in 2003), $33.9 billion in the first half of 2004)
- It has the world's largest foreign currency reserves
- It became the world's third largest exporter in 2004, pushing Japan into fourth place
- By purchasing power parity, the size of its economy is second only to that of the US.
- A dramatic expansion in the private sector has produced 2.5 million firms, increasing by some 200,000 per year
- Less than 50 percent of its GDP is now state-controlled and virtually no prices are controlled
- About 400 of the Global 500 companies have investments in China
- It has a large consumer class of 300 million people
- There is massive urbanization underway such that by 2010, the top 30 cities will have populations in excess of 450 million
- There are already 31 Chinese cities with populations greater than Toronto's; there are over 100 cities with more than 1 million inhabitants (the US has nine)
- It recently surpassed Japan as the world's second largest importer of oil, after the US, importing 1.75 million barrels a day
- It adds the equivalent of Britain's entire electrical generating output every two years

In 2003, China became Canada's second largest trading partner. In 2002, Canada ranked 13th in terms of China's export destinations (1.8 percent of their global exports). In the last decade, two-way trade between Canada and China increased almost five-fold, from $4.8 billion in 1993 to $23.3 billion in 2003. However, Canada's trade deficit with China grew last year (2004) to $17.5 billion. In essence, we are exporting to China raw materials such as wood pulp and various ores, metals, chemicals, fertilizer and foodstuffs and importing from them mechanical appliances, electrical machinery and parts, toys, sporting goods, furniture and apparel. China's industries are moving rapidly up the value chain, absorbing foreign expertise and technology very quickly, which raises questions about the potential displacement of Canadian manufactured exports in the US market by Chinese ones. In 2003, the US accounted for 21.1 percent of China's total merchandise exports, up steeply from 7.1 percent in 1998. While Industry Canada expects China to gain market share in the US at the expense of other Asian countries, Japan and the EU, there are fears that Canada will soon face robust competition from China in the US automobile and auto parts market. According to Statistics Canada, while auto production in China was slightly below Canada's in 2001, it jumped by 1 million units in 2002 alone, to surpass Canada's total by 50 percent.

In other respects, Canada is well situated. Canada possesses a lot of the raw materials, including coal, scrap, synthetic resins and chemicals, that are needed to fuel what former Canadian ambassador to China, Howard Balloch, has described as "a dragon at full gallop." This has a number of important implications for domestic policy makers. First of all, we must recognize that many of our resource industries and producers are located a long way from tidal water, which makes the transportation component of final unit cost highly important. Source competition from Australia, whose mines and mineral producers are located much closer to ports, means our railways, for example, must be able to continue helping our exporters compete for Chinese market share. To take another example, the Australians have recently agreed to provide huge amounts of natural gas to China, contracts worth tens of billions of dollars. It is clear that to continue to benefit from the huge Chinese demand for energy products such as bituminous coal, we must, among other things, position favourably our domestic transportation industries (see chart 1).

Canada is also an important gateway for in-transit, US-bound Chinese exports destined for Chicago's distribution and logistics depots, which are central to the NAFTA marketplace. The onus is on us, therefore, to do what we can to make our ports, especially those on the west coast, as efficient as possible in handling North American-bound Chinese and North Asian marine freight.

CHART 1. CHINA'S PRIMARY ENERGY COMPOSITION



Source: U Zheng, "Polygeneration Based on Coal Classification: A Strategy Technology for China," Tsinghua BP Clean Energy Research and Education Centre, presented at the 3rd US-China Clean Energy Workshop, October 18, 2004.

This flow of commerce is described in industry circles as the eastbound, trans-Pacific container trade. Containerization has become the preferred method for moving merchandise because of its standardization, its ability to move seamlessly from one mode (marine) to another (rail or truck), and the reduction it offers in damage/loss to cargo. The capacity, cost, efficiency and reliability of port gateways and their inland rail/intermodal and truck distribution systems are key criteria for shipping lines and freight-forwarding companies as they select their ports of call.

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These statistics illustrate the staggering growth in the container market in recent years:

- World container port traffic grew by more than 750 percent between 1980 and 2003
- In 2004, US $25 billion was invested in new cellular containerships
- China remains the hotspot for container shippers, with Chinese ports experiencing 29 percent growth in 2004
- Three of China's major ports — Shenzhen, Shanghai and Qingdao — together have moved from handling 2.4 million TEUs in 1995 to 33.3 million TEUs in 2004.
- Between 1992 and 2004, the average annual growth in trans-Pacific eastbound container trade was 17 percent from China/Hong Kong
- The new Yangshan port complex is under construction near Shanghai, in the Yangtze delta region, at a cost of US $12 billion; by 2020 Shanghai and area will easily be the largest port in the world

The Port of Vancouver handled 1.66 million TEUs in 2004, which was an increase of 8 percent over 2003. Container TEUs in Vancouver have increased 43 percent since 2000, and 835 percent since 1985 (see chart 2). The Vancouver Port Authority (VPA) is predicting container numbers will grow to 6 million TEUs by 2020. The Port of Vancouver is Canada's busiest port, adding $1.6 billion to the nation's GDP in 2003. It is important to bear in mind that Vancouver is predominantly an export port, with 80 percent of its volume consisting of bulk exports of Canadian resource commodities. However, at the same time that bulk resource exporters are looking to seize upon opportunities in China, Chinese exports of containerized merchandise are flooding our shores. Canada has only 1 percent of China's export trade and is struggling to cope with the stresses and strains that recent traffic growth in containerized freight has imposed. The shipment of ocean-going containers on flat-bed, double-stacked intermodal trains is a large and growing part of the business for Canadian class 1 railways (CN and CPR). In 2004, the global or port-related business of the two class 1s amounted to 27 percent of their total freight revenues (see chart 3). We must not discount the possibility of further increases in the size of the trans-Pacific container trade. As a trading nation, Canada has an interest in expanding and modernizing its port-rail complex, and the government must act upon the commitment of International Trade Minister Peterson, who indicated earlier this year that it was his responsibility to "help put in place an infrastructure that will galvanize commercial flows between both countries."

A number of recent developments in the port and rail sectors highlight how industry is attempting to grapple with the unprecedented volume of containers originating from China.

> The development of a new container terminal in Prince Rupert at an estimated capital cost of $173 million is driven by the desire to capture container traffic from China. Prince Rupert is located the shortest distance to Hong Kong in nautical miles of all west coast ports in North America. At 440 miles closer to Asia than other North American ports, the Port of Prince Rupert will be able to offer shipping times 1.5 days closer to markets.

Deltaport, located at Roberts Bank in the Lower Mainland of BC, houses both a coal terminal and a container facility. It is part of the Port of Vancouver, along with the Vanterm and Centerm container facilities located on Burrard Inlet. Deltaport has a container handling expansion program on the books that would see it eventually increase total TEUs handled to 3.2 million from the current 900,000. Subject to federal and provincial regulatory approvals, the program will initially add a third berth to the existing two-berth Deltaport container terminal, followed by the development of a new three-berth container terminal —Terminal 2. The Deltaport Third Berth project will be built at an estimated capital cost of approximately $272 million and will be jointly financed by the VPA and private terminal operator TSI Inc. The new berth is expected to be completed by mid-2008. The VPA is also planning to expand its Centerm and Vanterm container handling facilities on Burrard Inlet at a cost of nearly $190 million. The Fraser River Port Authority also has a $190 million containerization handling upgrade underway to address growing TEU volumes.

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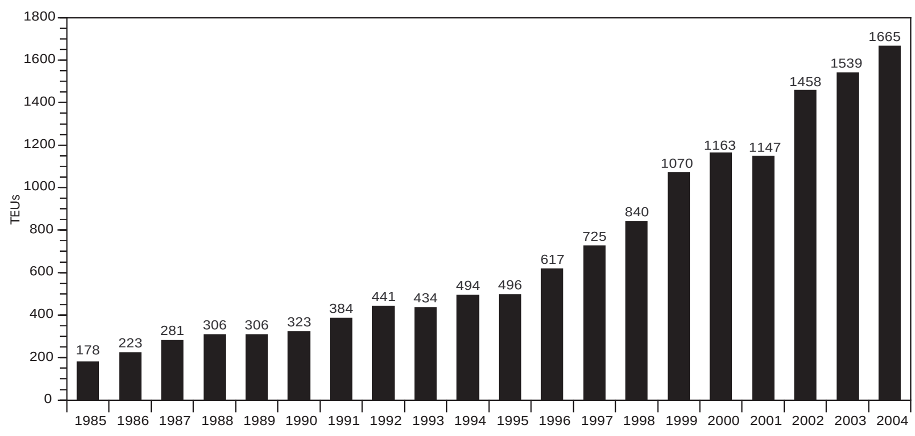
Railways have been making gains in efficiency and capacity over the last two years by improving their use of technology, asset utilization (longer and heavier trains) and operating practices (improved

CHART 2. THE PORT OF VANCOUVER CONTAINERIZED CARGO, TEUs (1985-2004)



Source: Port of Vancouver Statistics, 1985-2004.

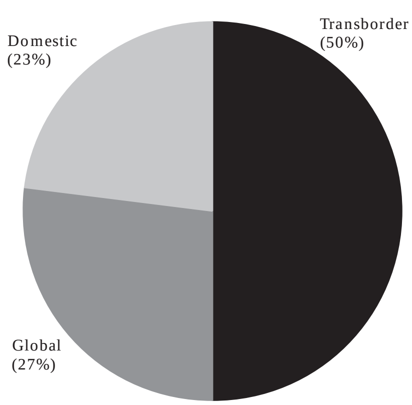
cycle times). In 2004, CN and CPR announced a series of co-production agreements to make rail operations more efficient for Port of Vancouver freight traffic. Essentially, the agreements jointly increase capacity on key sections of track in the Vancouver area to improve the fluidity of rail operations over existing infrastructure. The objective is to improve the flow of traffic destined for the Port of Vancouver. The agreements provide for reciprocal access over each others' track to optimize route distances, grades and interchange arrangements. They build on the joint CN and CPR directional running agreement though the Fraser River Canyon, which was implemented in 2000 to expedite the flows of export traffic.

The CN purchase of BC Rail in 2003 at a cost of $1 billion saw the Crown retain ownership of the railbed and CN assume responsibility for rail transportation and infrastructure maintenance on a lease basis for a 60-year period. The main benefit of the purchase is the improved access by BC resource industries and shippers to an integrated, continental rail network with faster shipment times to Chicago and points east. Also, grain shippers and the forest industry will now have improved access to Asia through the container terminal expansion planned for Prince Rupert. As part of the deal, CN agreed to re-open the Dawson Creek-to-Hythe line to facilitate grain handling from Alberta's Peace region. The transaction creates the possibility of new opportunities to enhance BC's northern transportation and trade corridor with Alberta. CN also agreed to keep the line to the Tumbler Ridge/Northeast Coal mining region open for at least another five years. With the robust Chinese demand for metallurgical coal and the surge in commodity prices, a number of the deposits/mines that had lain dormant are now coming back on stream. While it is too early to tell whether the north will experience an economic revival as a result of the China-related economic and transport activity, the prospects for the region have improved.

Canadian Pacific Railway announced this year a $160 million expansion of its track network in its western corridor extending from the Prairie region to the Port of Vancouver. The project is designed to increase capacity by 12 percent, or more than 400 freight cars a day. Once completed, it will help to expedite the flow of western commodities such as coal from the BC interior and grain, sulphur and fertilizers from the Prairies to the west coast for shipment to Asia. As mentioned earlier, the capacity and efficiency of inland corridors serving port gateways often determines the success of that port in attracting business. This $160 million expenditure is incremental to CPR's planned or base capital investment of approximately $760 million in 2005.

These changes are important and necessary, but it remains to be seen whether they will be sufficient to cope with the trade flows being generated by the ascendant Chinese economy. The container handling industry in Vancouver was caught off-guard last spring by the massive spike in container volumes originating from Asia. This increased dwell times for containers arriving at Deltaport, a situation that was eventually resolved by a new protocol between the terminal manager, TSI, and the railways serving the port. However, as the president and chief executive of Maersk Inc, one of the largest shipping companies in the world, has said recently, "The issues of 2004-05 will seem inconsequential by comparison with what's coming down the road."

CHART 3. RAILWAY FREIGHT DESTINATION MIX 2004



Source: Railway Association of Canada, 2004.

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Many countries are looking to profit from the China phenomenon. Factors of production in today's world such as capital, technology and commercial expertise are highly mobile, and competition for market share and joint ventures with Chinese firms is tenacious. Furthermore, there are strains appearing in Canada's trading relationship with the US: border delays stemming from security concerns, massive US current account and domestic budgetary deficits, and a troubling US penchant for unilateralism and arbitrariness in commercial dealings with Canada (i.e. softwood lumber, beef, and wheat) are portents we should not ignore. The US will continue to be our largest market, and action is being advocated to protect that relationship, but prudence suggests further trade diversification would be a wise move.

The former Canadian ambassador to China, Howard Balloch, has argued forcefully that there is significant evidence of Canada's "competitive torpor" as regards China. As he puts it: "We all need to understand how deeply China can and will likely impact our environment, as part of every global supply chain, as a market for everything, and as a competitor for everything from white collar jobs to American political attention." The port and railway sectors have been seeking a number of enlightened policy changes for some time now. The robust growth of

China ought to serve as the catalyst for adoption of these policy proposals now.

In the case of the port sector, chart 4 below illustrates some of the key differences in the US and Canadian treatment of their respective port industries. Under the rubric of the *Canada Marine Act* changes, the ports would like to see:

- Improved access to capital
- Lowered cost of capital
- Elimination of stipend payments to the federal government
- Broadened eligibility for all ports for direct federal investment in port infrastructure and security, when in the national interest

More generally, the ports would like to see a greater focus by provincial and federal governments on a fair and balanced system of taxation, the provision of investment incentives to stimulate economic growth, and the expediting of environmental and permitting approvals for development projects. The British Columbia Ports Strategy also calls for the establishment of a joint federal-provincial management entity for the west coast ports system to coordinate planning across the supply chain. They allege the new entity would have the critical mass to allow a cost-effective means of funding priority infrastructure projects and investments. The stated goal of Canada's port authorities is to aggressively grow their share of two-way Chinese and Asia-Pacific trade. The Port of Halifax is also laying claim to a share of the burgeoning Chinese trade by touting the benefits of the Suez Canal route to the eastern seaboard of North America.

The railways, as highly capital intensive members of the supply chain, also have a number of policy proposals that they believe should be adopted in a timely fashion by governments:

- The capital cost allowance rate for rail rolling stock should be increased to at least 30 percent. This rate should apply to railways and to Canadian private owners such as leasing companies relative to these assets. This will foster faster asset renewal.
- The federal fuel excise tax on rail should be reduced from the current 4 cents per litre to put it on par with the current US federal rate and match planned US rate reductions.
- Government should invest in public-private partnerships with the railway industry to ensure that short-line infrastructure investment needs are met. Short-line railways connect shipper and industries in regional and remote parts of the country to the class 1 trunk lines and, in turn, to the ports on our coasts.
- A policy of land-banking in order to protect industrial land that is adjacent to rail corridors should be instituted. The disappearance of industrial land situated on rail corridors is a particularly acute problem in the Lower Mainland of BC. Rezoning by local councils to take advantage of retail or residential developments is hastening the departure of firms to areas where road-only access is the norm while creating new "proximity" problems between established railways and new residential tenants.
- The existing running rights provisions in the CTA should remain in place as written. They have fostered a modern, efficient and well invested rail sector which offers competitive rates to Canadian shippers and industries. Regulatory stability is critical for owners of the infrastructure.

These kinds of regulatory and fiscal changes will facilitate investment by the railways to accompany current and predicted growth of international (port-related) traffic. As the railways spend currently about 20 to 25 percent of their retained earnings on investments in physical plant and rolling stock annually, these measures would help to foster the modernization and renewal of the industry as it faces up to Balloch's galloping Chinese dragon.

CHART 4. CANADA-US PORT COMPARISON

United States	Canada
Ports are local government agencies and viewed as a requirement for industrial support	No explicit recognition of the importance of marine transport to the economy in our National Marine Policy
• Ready access to local government funding • Raise taxes for port development • Direct federal investment • Tax-exempt municipal bond financing • Federal government investing in port security	• Different property tax regimes • Pay stipends to federal government • No federal investment • Taxable market debt financing • Limited federal investment in port security

Canada has a long-standing relationship with China, touching on immigration, cultural and political relations, and now trade. But China's current zeal for export-driven growth trumps other considerations. Canada must therefore adopt a proactive, realistic and forward-looking stance. The port-rail complex is a vital part of Canada's commercial prosperity. As our window on the world, it ensures the seamless flow of Canada's trade in bulk products, parts and finished merchandise to our trading partners. Ensuring that Canadians benefit from the rampant growth of the Chinese economy will require a well-invested and efficient surface transportation system based on modern logistics and the latest technology. Several investments have been made by key players in the transportation industry, but more are required. Governments must foster the adaptive commercial instincts that reside within Canada's ports and railways by creating the most conducive fiscal and regulatory context possible. If the rise of China does herald the coming of the Pacific century, then Canada will be well-placed to compete.

Christopher Jones is director of government relations at the Railway Association of Canada. chrisj@railcan.ca