



CANADA'S STATE OF TRADE

Trade and Investment Update - 2009

Including a special feature on
Canada's Performance in the Emerging Markets



Canada's State of Trade

Trade and Investment Update – 2009

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ABOUT THIS DOCUMENT

Canada's State of Trade—2009 was written by Rick Cameron of the Office of the Chief Economist of Foreign Affairs and International Trade Canada. Contributions were also provided by Erik Ens (Chapter VI), David Boileau and Emily Yu (Canadian Exporters: Selling More Products to More Markets), Bjorn Johannson (Sales Abroad by Canadian Foreign Affiliates), and Lydia Gosselin-Couture (Intra-firm Trade Between Canada and the United States, and statistical assistance), Florence Jean-Jacobs (statistical assistance), and Christine O'Connell (administrative support). The Special Feature was written by Mykyta Vesselovsky, with assistance from Florence Jean-Jacobs, Erik Ens, and David Boileau. Editorial review was provided by Patricia Fuller, Chief Economist.

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Your comments concerning this year's report are welcome. Please direct them to Rick Cameron at: << richard.cameron@international.gc.ca >>.

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A Message



from the
Honourable Stockwell Day,
Canada's Minister of International Trade
& the Asia-Pacific Gateway

As Canada's Minister of International Trade, I am pleased to present the 2009 edition of *Canada's State of Trade*.

The year 2008 presented a challenging economic environment for all nations. Major economies saw sharp contractions, and global output is expected to shrink in 2009. Global trade is also deeply affected. In fact, the World Trade Organization predicts an overall contraction of world trade volumes by nine percent in 2009.

As a trade-dependent economy, Canada is naturally feeling the impacts. But we also enjoy a number of advantages that are helping us through this challenging period. We have a strong financial system and well-managed public finances. We are also committed to free trade and categorically reject policies of protectionism.

Canada has been a strong and vocal advocate for free and open systems of trade and investment during these tough economic times. Our domestic stimulus package includes an elimination of tariffs on a wide range of imported machinery and equipment, making it easier for Canadian firms to source the products they need to compete and succeed in the global economy. We are also reducing barriers to encourage continued foreign investment in Canada.

The North American Free Trade Agreement (NAFTA) continues to be the foundation of our free trade policy. In particular, we are working closely with the United States to deepen and broaden our trading relationship. This vital bilateral relationship will receive even greater attention in the year ahead.

As this year's State of Trade makes clear, there is also broad scope for Canada to continue expanding trade far beyond North America. This is the essential objective of our Global Commerce Strategy.

Since becoming Minister of International Trade and Minister responsible for the Asia-Pacific Gateway in November 2008, I have led Canadian trade missions in the Americas, Europe and Asia. Our government has achieved a number of milestones. As this report demonstrates, our exports in key markets in 2008 increased significantly—by 10 percent in China, 30 percent in Russia, 35 percent in India and 71 percent in Brazil.

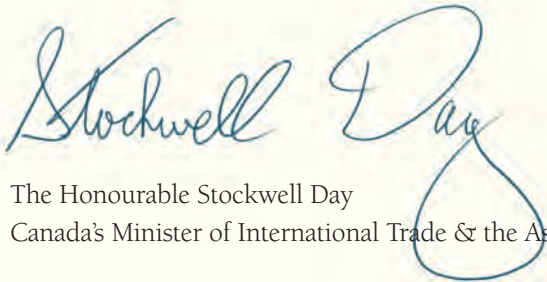
Building on our new free trade agreement with the European Free Trade Association, we also concluded new agreements with Peru, Colombia and Jordan, with other negotiations underway with key partners in Asia and the Americas.

We also recently launched negotiations on a comprehensive economic and trade agreement with the European Union, and exploratory talks with India and Morocco.

We are putting new international agreements in place to promote two-way investment and help our scientists and researchers contribute their expertise to technological breakthroughs around the world.

To support all of this activity, our extensive network of Trade Commissioners continues to connect Canadian companies to global opportunities and promote Canada as an investment location of choice to foreign investors. With offices across Canada and around the world—including new ones recently announced in China, India, and Brazil—we are expanding our services, and giving our team the tools they need to help Canadians succeed around the world.

Through the efforts of government and business alike, I believe that, when the expected global recovery comes, Canada will be in an excellent competitive position. I look forward to working with people from across the spectrum of Canada's business community to address the challenges of today, and build the foundations for the jobs, prosperity and opportunities of tomorrow.

A handwritten signature in blue ink that reads "Stockwell Day". The signature is fluid and cursive, with the first name "Stockwell" and the last name "Day" clearly legible.

The Honourable Stockwell Day
Canada's Minister of International Trade & the Asia-Pacific Gateway

Executive Summary

Buffeted by a deepening crisis in financial markets, global economic activity slowed to 3.2 percent in 2008, from 5.2 percent in 2007. However, the financial crisis entered a tumultuous new phase in September of last year that has badly shaken markets and provoked an unprecedented contraction of economic activity and trade. The advanced economies experienced a 7.5 percent decline in real GDP during the fourth quarter of 2008, and output is estimated to have continued to fall almost as fast during the first quarter of 2009. Emerging economies too are suffering badly and in the fourth quarter contracted 4.0 percent in the aggregate. While the rate of contraction should moderate from the second quarter onward, the IMF projects that world output will decline by 1.3 percent in 2009 as a whole and recover only gradually in 2010, growing by 1.9 percent.

The U.S. economy slowed for the fourth straight year in 2008, as real GDP in that economy managed to expand by 1.1 percent, compared to increases of 2.0 percent and 2.8 percent in the two preceding years. Performance was anaemic over much of the first half of 2008, before turning negative in the second half of the year. Real GDP fell 0.5 percent in the third quarter before plunging 6.3 percent in the fourth quarter, as the full force of the recession took hold. Growth in the euro area slowed to 0.9 percent last year, down two thirds from the 2.7 percent rate registered in 2007. As in the United States, economic activity in the region suffered a sharp contraction in the fourth quarter of 2008, declining by 6.0 percent. Growth in Japan fell 0.6 percent for the year while the U.K. economy managed to expand by 0.7 percent in 2008, as both economies posted

declines in real output over the last three quarters of 2008.

The emerging economies were initially thought to be relatively shielded from the crisis as they had improved macroeconomic fundamentals and limited exposure to U.S. securitized assets. However, the crisis has spread to the emerging economies via the trade channel and has dramatically affected these economies. Growth fell from 13.0 percent in 2007 to 9.0 percent in 2008 in China, from 8.1 percent to 5.6 percent in Russia, from 9.3 percent to 7.3 percent in India, and from 5.7 percent to 5.1 percent in Brazil.

In line with the deteriorating global economic situation, the pace of real activity in Canada fell sharply, as growth in real GDP fell from 2.7 percent in 2007 to 0.5 percent in 2008. The economy contracted in the first quarter, rebounded over the next two quarters, then declined sharply in the final quarter of the year. Half of the provinces—Prince Edward Island, Nova Scotia, Quebec, Manitoba, and Saskatchewan—and two territories—Nunavut and the Yukon—posted growth for the year, while the remaining five provinces and one territory experienced a contraction in economic activity in 2008. Net new job creation, at 259,400, slipped to its lowest level since 2005, as the Canadian labour market was buffeted by the economic downturn experienced in the second half of 2008. Employment had been on an upward trend and reached a peak in October. However, the economy shed 83,700 jobs over the final two months of the year, and the unemployment rate climbed to 6.6 percent to close out 2008. Consumer prices rose by 2.3 percent over the year as the rate of inflation edged up from the 2.2 percent rate posted in 2007.

World trade was characterized by highly volatile prices for primary commodities in 2008. The value of world merchandise trade grew by 15 percent in U.S. dollar terms and world services trade increased by 11 percent. On this basis, Canadian merchandise exports grew at roughly half the pace of world trade—by 8 percent—while Canadian services exports grew by one fifth the world average, or by 2 percent. However, in volume terms world merchandise trade expanded by only 2.0 percent in 2008, down from 6.0 percent in 2007, and well below the 5.7 percent annual average rate registered over 1998-2008. Moreover, much of the decline was concentrated in the second half of the year—the months since September have seen precipitous drops in global trade.

In Canadian dollar terms, the value of Canada's exports of goods and services advanced by 5.2 percent in 2008, with goods exports expanding by 5.8 percent and services exports up by 1.1 percent. On the import side, imports of goods and services grew by 6.3 percent, with goods imports ahead by 6.3 percent and services imports up by 4.7 percent. Over the first half of the year, trade values were greatly influenced by rising commodity prices. However, demand weakened as the global recession became entrenched, commodity prices fell, and trade began to weaken towards the end of the year.

For the year as a whole, exports and imports of goods and services to and from all major markets increased, with the exception of imports of goods and services from Japan, which declined. For merchandise exports, Japan regained third position in the ranking of Canadian export destinations, and China moved back to fourth position, while South Korea moved up three places to become Canada's seventh-largest export destination.

Gains in export values were price driven, as volumes fell 7.7 percent in 2008. The effects of the strong price increases that dominated commodity markets over much of the year were particularly reflected in the trade performance of the resource-based sectors. With the exception of the forestry sector, where the downturn in U.S. housing activity

clearly impacted Canadian exports, increases in the value of exports were restricted to energy products, industrial goods and materials, and agricultural and fishing goods, as exports of machinery and equipment and consumer products declined. The slowdown in the U.S. economy created severe difficulties in the automotive sector as Canadian manufacturers and auto parts industries experienced plant closures and cutbacks in production, output, and exports last year.

On the import side, most sectors recorded increases in 2008. The growth was attributable to a combination of higher prices and volumes. The increase in prices was the result of rising commodity prices over the first part of the year and the depreciating value of the Canadian dollar vis-à-vis the U.S. dollar in the second half of the year. Only forestry products and automotive products experienced lower imports in 2008.

In terms of specific products driving Canadian trade performance in 2008, crude oil, non-crude oil, and other petroleum gases (primarily natural gas) dominated Canada's trade in energy products in 2008, accounting for much of the growth in both trade levels and in the trade surplus. Trade with the United States was the driver behind the growth for much of the 2008 energy trade; however, for coal, it was strong demand from Asia due to regional supply difficulties. In the automotive and automotive-related sectors, again it was trade with the United States driving the changes; however, in this case, trade was contracting and there was a sharp deterioration in the trade balances for passenger cars and motor trucks.

Outside of energy products, other resource products that had considerable influence on Canadian trade in 2008 included wheat and canola, where strong price increases and good harvests in Canada along with poor harvests elsewhere helped boost export levels, but strong prices also raised import values. Gold enjoyed a banner year, as prices reached record highs and demand was strong, boosting both exports and imports, and sulfur also boosted mineral and metal exports. Exports of potash rose

significantly, driven by the U.S. and by major emerging economies, while uranium exports fell sharply to Europe.

In advanced manufacturing, telephone equipment and parts experienced a sharp decline in exports and strong growth in imports in 2008. Both exports and imports of aircraft fell in 2008 with declining demand in both the United States and Canada. However, gas turbines, largely used in the aircraft sector, recorded strong rates of expansion for both exports and imports, mainly on advances in trade with the United States.

Foreign direct investment (FDI) in Canada slowed dramatically in 2008, rising just 2.8 percent versus double-digit rates the previous two years. The new investment came mostly from non-U.S. sources, as U.S. investment in Canada was flat. Total FDI in Canada rose to \$504.9 billion at the end of 2008, up from \$491.3 billion in 2007. This marked the first time that the stock of FDI into Canada surpassed the half a trillion dollar mark.

At the same time, Canadian direct investment abroad (CDIA) surged 23.6 percent (\$121.8 billion) to \$637.3 billion at the end of 2008. Some 68 percent of the increase was due to currency effects as the Canadian dollar depreciated against other currencies. Nonetheless, without the exchange rate changes, the stock of CDIA grew by \$39 billion over 2008. Overall, the difference between outward and inward investment, which is Canada's net direct investment position, widened dramatically to \$132.4 billion in 2008, up from \$24.8 billion in 2007. 2008 also marked the first year that Canada became a net exporter of capital to the United States, as Canada's direct investment position in the United States exceeded U.S. direct investment in Canada.

With respect to the longer-term trends, as discussed in the information boxes in this publication, Canadian trade has been diversifying. Growth in Canadian trade with non-U.S. markets, for both exports and imports, has surpassed that of trade with the United States in every year since 2000, coinciding with an increase in the number of exporters to

Europe and the Asia-Pacific region and an increasing share of sales by Canadian affiliates in non-U.S. locations, particularly in non-OECD markets. At the same time, fewer firms are exporting to the United States, and Canada-U.S. trade has become less reliant on intra-firm relationships, as the share of Canada-U.S. intra-firm trade has been on the decline over much of the present decade.

Special Feature: Canadian Trade Opportunities in Emerging Markets

Advances in information and communications technologies are enabling increased global economic integration. This creates opportunities for emerging and developed countries to generate long-term growth, which will return in force when the current economic crisis abates. The potential for growth in these countries driven by technology-based productivity improvements has barely been tapped into so far. Resulting enhancements in output and efficiency and the access to relatively open global markets will, under conditions of good economic governance, ensure consistent per-capita income growth and enable convergence between rich and poor nations, reducing imbalances in international income distribution.

This process will be accompanied by tremendous growth in the importance of the emerging world. One-tenth of a percent of the import market of the BRIC countries alone is estimated to be worth \$29 billion in 2038, so Canada's share of these markets matters. Econometric modelling of Canadian merchandise exports to the emerging world shows that Canada is exporting some 42 percent more than expected to an average emerging or developing economy, after taking into account trade-influencing factors such as GDP and distance from Canada. Exports are particularly high to East Asia (China, Malaysia, Indonesia), but are lower than predicted to some major destinations such as Brazil and India.

Further insight into Canadian export performance in emerging markets is gained through the framework of comparative advantage analysis in 15 key emerging markets across the globe. Our global

competitiveness benchmark outside of the United States is noted for strength in agri-food, metals and minerals, wood and paper, and aerospace sectors; local differences from this pattern are interpreted as over- or under-exports to these destinations. Most of the advanced manufacturing sectors are over-exporting to the emerging market destinations relative to the global benchmark. Aerospace is the one manufacturing sector that generally under-exports to the selected emerging markets, due to our strong performance in aerospace in advanced economies. Overall, these results suggest that emerging markets will play an important role in the future of Canadian manufacturing.

Global Economic Performance

Overview and Global Prospects

Over the four-year period 2004–2007, the global economy boomed. Global real gross domestic product (GDP) rose at an average of almost 5 percent a year, its highest sustained rate since the early 1970s. In early 2008, the liquidity crisis that had begun in late 2007 deepened, and then entered a tumultuous new phase in September 2008, leading to an unprecedented contraction of economic activity and trade. Industrial production and merchandise trade plummeted in the fourth quarter of 2008 and has continued to fall rapidly in early 2009 across both advanced and emerging economies. Overall, global GDP is estimated to have contracted by 6.25 percent on an annualized basis in the fourth quarter of 2008¹ (a swing from 4 percent growth one year earlier) and to have fallen almost as fast in the first quarter of 2009. For 2008 as a whole, global economic growth slowed by over a third, from 5.2 percent in 2007 to 3.2 percent last year.

All economies around the world have been seriously affected, although the impact of the downturn has varied. The advanced economies experienced an unprecedented 7.5 percent decline in the fourth quarter of 2008, and most are now suffering deep recessions. While the U.S. economy has suffered from intensified financial strains and the continued fall in the housing sector, western Europe and the more advanced economies in Asia have been hit hard by the collapse in trade as well as by rising

financial problems of their own and housing corrections in some national markets.

Emerging economies too have suffered badly and in the aggregate contracted 4.0 percent in the fourth quarter. The damage has been inflicted through both financial and trade channels. Activity in east Asian economies with heavy reliance on manufacturing exports has fallen sharply, although the downturns in China and India have been somewhat muted given the lower shares of their export sectors in domestic production, more resilient domestic demand and, in the case of China, powerful fiscal stimulus. Emerging Europe and the Commonwealth of Independent States (CIS)² have been hit very hard because of heavy dependence on external financing as well as on manufacturing exports and, for the CIS, commodity exports. Countries in Africa, Latin America, and the Middle East have suffered from plummeting commodity prices as well as financial strains and weak export demand.

Assuming vigorous macroeconomic policy support and anticipating a moderation in the rate of contraction from the second quarter of 2009 onward, global activity is now projected to decline 1.3 percent in 2009 (Table 1-1). By any measure, this downturn represents by far the deepest global recession since the Great Depression.³ Moreover, all corners of the globe are being affected: output per capita is projected to decline in countries representing three quarters of the global economy, and growth in virtually all countries has decelerated

1 All estimations and projections in this chapter come from the International Monetary Fund's *World Economic Outlook*, April 2009.

2 The Commonwealth of Independent States comprises Azerbaijan, Armenia, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Turkmenistan, Uzbekistan, and Ukraine.

3 *World Economic Outlook*, Chapter 1.

TABLE I-1
Real GDP Growth (%) in Selected Economies (2005-2008 and forecast for 2009)

	2005	2006	2007	2008	2009
World	4.5	5.1	5.2	3.2	-1.3
Advanced Economies	2.6	3.0	2.7	0.9	-3.8
Canada	2.9	3.1	2.7	0.5	-2.5
United States	2.9	2.8	2.0	1.1	-2.8
United Kingdom	2.1	2.8	3.0	0.7	-4.1
Japan	1.9	2.0	2.4	-0.6	-6.2
Euro Area	1.7	2.9	2.7	0.9	-4.2
<i>of which France</i>	1.9	2.4	2.1	0.7	-3.0
<i>of which Germany</i>	0.8	3.0	2.5	1.3	-5.6
<i>of which Italy</i>	0.7	2.0	1.6	-1.0	-4.0
Developing Economies	7.1	8.0	8.3	6.1	1.6
China	10.4	11.6	13.0	9.0	6.5
India	9.2	9.8	9.3	7.3	4.5
Russia	6.4	7.7	8.1	5.6	-6.0
Brazil	3.2	4.0	5.7	5.1	-1.3
Mexico	3.2	5.1	3.3	1.3	-3.7
ASEAN-5					
Indonesia	5.7	5.5	6.3	6.1	2.5
Malaysia	5.3	5.8	6.3	4.6	-3.5
Philippines	5.0	5.4	7.2	4.6	0.0
Thailand	4.6	5.2	4.9	2.6	-3.0
Vietnam	8.4	8.2	8.5	6.2	3.3
NIEs					
Hong Kong	7.1	7.0	6.4	2.5	-4.5
Korea	4.0	5.2	5.1	2.2	-4.0
Singapore	7.3	8.4	7.8	1.1	-10.0
Taiwan	4.2	4.8	5.7	0.1	-7.5

Source: IMF World Economic Outlook database, April 2009.

sharply from rates observed in 2003–07. Growth is projected to re-emerge in 2010, but at 1.9 percent would still be well below potential.

United States

Real GDP increased 1.1 percent in 2008, compared with an increase of 2.0 percent in 2007. The slowdown in real GDP in 2008 primarily reflected a sharp deceleration in personal consumption expenditures, a downturn in non-residential fixed investment, in particular for equipment and software, and decelerations in exports and in state and local government spending. These were partly offset by a sharp downturn in imports, an acceleration in federal government spending, and a smaller decrease in private inventory investment.

For the year as a whole, consumer spending decelerated sharply, rising only 0.2 percent after increasing 2.8 percent in 2007. Spending for durable goods turned down, mainly reflecting a downturn in motor vehicles and parts. Spending for non-durable goods also turned down and was widespread. Spending for services slowed and, except for medical care, was also widespread. Non-residential fixed investment slowed, increasing only 1.6 percent after having increased 4.9 percent the previous year. The deceleration reflected a contraction in equipment and software. Residential investment decreased throughout 2008—the third consecutive year of declines—subtracting 0.93 percentage points from real GDP growth. Net exports contributed 1.40 percentage points to real GDP growth

in 2008 after contributing 0.58 percentage points in 2007. Exports of both goods and services slowed in 2008. Imports of goods turned down, adding 0.65 percentage points to real GDP growth in 2008 after subtracting 0.25 percentage points in 2007. Imports of services slowed. Government spending picked up, reflecting an acceleration in national defence spending and an upturn in non-defence spending, while state and local government spending slowed.

Performance was weak over much of the first half of 2008, before turning negative in the second half of the year. Real GDP fell 0.5 percent in the third quarter and then plunged 6.3 percent in the fourth quarter as the full force of the recession took hold. This decline was the largest since the first quarter of 1982.

For the final quarter of 2008, consumer spending registered the largest decrease since the second quarter of 1980, shaving 3.0 percentage points off real GDP growth. U.S. households have been hit by large financial and housing wealth losses, lower earnings prospects, and elevated uncertainty about job security, all of which have driven consumer confidence to record lows and have depressed consumption. Non-residential fixed investment recorded its largest decrease since the first quarter of 1975, falling 21.7 percent while residential investment decreased 22.8 percent over the quarter after having decreased 16.0 percent the previous quarter. It was the twelfth consecutive quarter of decline for residential fixed investment.

Exports also turned down sharply, the first decrease since the second quarter of 2003 and the largest decrease since the fourth quarter of 1971. The downturn reflected widespread downturns in exports of goods. Exports of services also fell over the quarter. The downturn in exports of goods reflected large downturns in capital goods, industrial supplies and materials, automotive vehicles and parts, and non-automotive consumer goods. Imports decreased sharply in the fourth quarter, down 17.5 percent compared to a 3.5 percent decline in the third quarter. It was the fifth consecutive quarterly decline

in imports and the largest decrease since the third quarter of 1980. Federal government spending slowed over the quarter, reflecting a deceleration in national defence spending that was partly offset by an acceleration in federal non-defence spending.

Recent data suggest another substantial drop in economic activity in the first quarter of 2009. Although there have been some tentative signs of improving business sentiment and firming consumer demand, employment has continued to fall rapidly—5.1 million jobs have been lost since December 2007—pushing the unemployment rate to 8.5 percent in March 2009. Monetary policy was eased quickly in response to deteriorating economic conditions, and policy rates are now close to zero.

The economy is now projected to contract by 2.8 percent in 2009. The rate of decline is expected to moderate in the second quarter and beyond as fiscal easing supports consumer demand. The U.S. economy is projected to start recovering by the middle of 2010, contingent on fiscal stimulus (equivalent to about 5 percent of GDP) over 2009–11, a continued easy monetary policy stance, as well as on measures to stabilize house prices and stem the tide of foreclosures, and new policies to heal the financial sector. Average GDP growth in 2010 is projected to be zero, but is projected to reach 1.5 percent on a fourth-quarter-to-fourth-quarter basis.

Japan

Japan was one of the few advanced economies to contract in 2008, as real growth fell 0.6 percent following 2.4 percent growth the previous year. In the wake of the global financial crisis, exports and business investment have plummeted, while the yen has appreciated substantially and equity prices have fallen by half.

For the year as a whole, consumer spending decelerated, increasing by 0.5 percent, compared to 0.7 percent in 2007. Non-residential fixed investment contracted—falling 3.7 percent after having increased 5.8 percent the year before—which removed 0.6 percentage points from real GDP growth

in 2008 after having contributed 0.9 percentage points to growth the year before. Residential investment fell again in 2008, down by 6.9 percent after having fallen 9.3 percent in 2007, which subtracted 0.2 percentage points from real GDP growth for the year. Net exports contributed only 0.1 percentage points to real GDP growth in 2008 after contributing 1.1 percentage points in 2007. Exports of both goods and services decelerated in 2008, adding only 0.3 percentage points from real GDP growth. Imports of goods remained fairly stable, rising by 1.1 percent in 2008. Government spending was up by a modest 0.9 percent compared to an increase of 2.0 percent in 2007.

On a quarterly basis, Japan posted declines over the last three quarters of 2008, capped by the fastest rate of contraction posted by Japan in 35 years in the final quarter. GDP fell at an annualized real rate of 12.1 percent in that quarter, the steepest decline since Japan felt the full force of the 1974 oil crisis. The contraction was led by a 44.9 percent (annualized) decline in exports of goods and services in the fourth quarter. Non-residential fixed investment also contracted noticeably—falling by 19.8 percent (annualized)—the fourth consecutive quarterly decline. Household incomes fell as employment stalled and wages declined, resulting in a contraction of household consumption. Growth in personal consumption expenditures turned negative in the fourth quarter.

Three successive fiscal packages introduced since August 2008—which together total about 2 percent of GDP—coupled with the impact of the automatic stabilizers, will mitigate the depth and length of the recession.⁴ However, the current downturn is projected to be the most severe in Japan's post-war history. The yen's strength and tighter credit conditions more generally have added to the problems of the export sector. Output is projected to decline by 6.2 percent in 2009, raising unemployment and pushing Japan back into deflation. A recovery in

domestic demand from mid-2010 is expected to lift output growth into positive territory, although well below potential.

Euro Area

Economic activity in many of the advanced European economies had begun to contract well before the September 2008 financial meltdown, owing mainly to rising oil prices. Growth in the euro area slowed to 0.9 percent in 2008, down two thirds from the 2.7 percent rate posted in 2007.

The initial perception was that advanced European economies would escape a full-blown recession. Healthier household balance sheets in most major economies and different housing and financial market structures than for the U.S. were considered protective factors. However, financial systems suffered a much larger and more sustained shock than expected. Because of the close linkages between Europe's major financial institutions and their high leverage, the financial crisis rapidly transformed into a crisis for the real economy.

As a result, most advanced European economies have suffered sharp contractions since mid-2008. Real GDP fell at an annual rate of about 6.0 percent during the fourth quarter in the euro area. Real GDP is forecast to drop by 4.2 percent in the euro area in 2009 and continuing to fall for several more quarters, making this the worst recession since World War II. Growth is expected to contract by about 0.4 percent on an annual average basis in 2010. The recession is projected to be particularly painful in Ireland, as its construction boom has sharply reversed. As a result of the broad-based fall in output, unemployment rates in the advanced economies are projected to exceed 10.0 percent in late 2009 and climb further through 2011.

The downside risks around the projections for both advanced and emerging European economies are large, particularly for the latter, where external financial constraints could worsen further. The

⁴ OECD *Economic Outlook*, March 2009.

key risk is a disorderly de-leveraging of large intra-European cross-border bank exposures. Such an event could make it impossible for many emerging economies to roll over large amounts of short-term debt and could potentially have a similar effect on some advanced economies that have seen a significant widening of sovereign risk premiums. The result could be a financial and real sector collapse in most emerging and a few advanced economies, with major feedback effects on the other economies. However, there are also some upside risks: if EU countries manage to put in place a forceful, comprehensive, and coordinated response to the financial sector travails, confidence and risk taking might recover faster than expected.

United Kingdom

Real growth in the U.K. fell from 3.0 percent in 2007 to 0.7 percent in 2008 as spending by British consumers decelerated by 1.4 percent in 2008, after increasing 3.0 percent in 2007. Spending slowed for both goods and services. Spending on non-durable goods turned down, while spending slowed for durables and semi-durable goods. Domestic investment fell 3.1 percent after having increased 6.8 percent in 2007, reflecting a downturn in dwellings. Exports of goods and services edged forward in 2008, up 0.1 percent. Imports of goods fell 2.0 percent while imports of services advanced 3.6 percent. Government spending accelerated in 2008, rising 3.4 percent compared to 1.5 percent a year earlier.

The U.K. posted quarterly declines in real output over the last three quarters of 2008, at an accelerating rate of contraction. Real GDP fell at an annual rate of 6.1 percent during the fourth quarter. Looking forward, the recession is expected to be quite severe in the U.K., which is being hit hard by the end of the boom in real estate and the contraction in financial activity. As a consequence, real GDP in the U.K. is forecast to drop by 4.1 percent in 2009 and by 0.4 percent in 2010.

Emerging Economies

Emerging Asia

The impact of the global crisis on economies in Asia has been surprisingly heavy. There were many reasons to expect Asia to be relatively shielded from the crisis: the region was not heavily exposed to U.S. securitized assets, and improved macroeconomic fundamentals and (with a few exceptions) relatively sound bank and corporate balance sheets were expected to provide buffers. Nevertheless, since September 2008, the crisis has spread quickly to Asia and has dramatically affected its economies.

The impact on the real economy through the trade channel has been severe and similar across Asia. The drop in global demand has been particularly focused on automobiles, electronics, and other consumer durable goods that are an integral part of the production structure across east Asia. As a result, exports and industrial production have plummeted.

Spillovers from the global financial crisis to domestic financial markets across Asia have also been substantial. Equity and bond prices have plummeted. Real estate markets have remained under pressure in a number of economies (for example, Singapore and China). Currencies have depreciated in most of the region's emerging economies, although the Chinese renminbi has remained broadly unchanged relative to the U.S. dollar. Portfolio and other flows have dwindled, implying tighter domestic credit conditions. As a result, many banks and firms have begun to experience serious stress.

Growth projections for Asia have been marked down to varying degrees, in line with weaker global demand and tight external financial conditions. The exact channels of transmission of the external shocks and the severity of their impact vary considerably across economies. Despite these impacts, emerging Asia is expected to continue to grow, led by China and India. A modest recovery is projected in 2010, underpinned by a pickup in global growth and a boost from expansionary fiscal and monetary policies.

Given their extreme openness and high dependence on external demand, growth in the **newly industrialized economies** (NIEs) (Hong Kong, Korea, Singapore, and Taiwan) is expected to decline at rates between 4.0 percent and 10.0 percent in 2009 as a result of the collapse in demand for consumer durable goods and capital goods in (non-Asian) advanced economies and, to a lesser degree, the deterioration in global financial conditions. Among these economies, Singapore and Hong Kong are particularly exposed, given their importance as global financial centres. Vulnerable corporate and household balance sheets will exacerbate the impact of external shocks in Korea. Nevertheless, NIE recovery in 2010 will be led by Korea, whose economy is projected to grow 1.5 percent in that year. The rebound will be more moderate in Hong Kong, which is projected to grow by 0.5 percent in 2010. The recovery is expected to take longer for Taiwan and Singapore, for which projected growth rates are zero and -0.1 percent, respectively.

China and India have also been affected by contractions in their export sectors, but their economies have continued to grow because trade represents a smaller share of their economies and policy measures have supported domestic activity. In addition, there were some signs of a turnaround in economic activity in China in the first quarter of 2009. At the same time, inflation pressures are subsiding quickly in most economies, owing to weaker growth and lower commodity prices.

Growth in **China** is expected to slow to about 6.5 percent in 2009, half the 13.0 percent growth rate recorded in 2007 before the crisis, but still a strong performance given the global context. Two factors are helping sustain the momentum despite the collapse in exports. First, the export sector represents a smaller share of the economy, particularly after factoring in its high import content. Second, the government has acted aggressively to provide major fiscal stimulus and monetary easing, which are helping boost consumption and infrastructure investment.

Like China, **India** is less exposed to the decline in global demand than the NIEs because trade represents a smaller share of its economy. Nevertheless, India's economy is still suffering from more difficult external financing for firms and banks, and because it has less room to ease macroeconomic policies, growth is expected to decline sharply from more than 7.3 percent in 2008 to 4.5 percent in 2009. The slowdown is primarily a result of weaker investment, reflecting tighter financing conditions and a downturn in the domestic credit cycle.

Association of Southeast Asian Nations (ASEAN-5) economies are being severely hit by the combined effects of lower global demand and tighter credit conditions, although not as harshly as the advanced economies. For the group as a whole (i.e., Indonesia, Malaysia, Philippines, Thailand, and Vietnam), growth is expected to decline from nearly 5 percent in 2008 to zero in 2009. Although these economies have also been hurt by the drop in global trade, the composition of their exports is less concentrated in the durable goods that have been most affected by the global downturn.

Emerging Europe

In emerging Europe, economic activity has taken a particularly sharp turn for the worse. Because of their heavy reliance on all kinds of capital inflows—notably funding from Western banks to sustain local credit booms—these economies were much more severely affected by the financial crisis than emerging economies in Asia.

Accordingly, real GDP in the emerging European economies is projected to contract by 3.7 percent in 2009 and recover to about 1.0 percent growth in 2010, down from growth rates of between 4.0 and 7.0 percent during 2002–07. The reasons for the sharp reversal in performance include, to varying degrees, overheating during pre-recession booms, excessive reliance on short-term foreign capital that funded these booms, ownership of banks by distressed foreign financial institutions, and a large share of manufacturing in economic activity. The fall in output is expected to be especially large in

the Baltic economies (down 10.6 percent), where fixed exchange rate regimes leave limited room to manoeuvre; and is projected to extend into 2010 when it will likely decline a further 2.3 percent. In Central Europe, Hungary is also expected to experience a prolonged downturn, as output is expected to fall 3.3 percent in 2009 and by a further 0.4 percent in 2010. Poland is forecast to face a mild downturn in 2009 marked by a 0.7 percent decline in output, followed by recovery the following year when projected output will rise 1.3 percent. For Southern and South Eastern Europe, the downturn is projected to be more pronounced and lasting, with economic activity set to fall 3.6 percent in 2009 and by 0.2 percent in 2010.

Latin America and the Caribbean

The global financial crisis spread quickly to Latin American and Caribbean markets after mid-September 2008. Domestic currencies have depreciated sharply, especially in Brazil and Mexico, which are large commodity-exporting countries with flexible exchange rate regimes. Moreover, the economic slump in advanced economies—especially the United States, the region's largest trading partner—is depressing external demand and lowering revenues from exports, tourism, and remittances.

The slump in commodity prices has dampened growth prospects for the region's commodity producers (mainly Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Mexico, Peru, Trinidad and Tobago, Uruguay, and Venezuela), although it has helped commodity importers in the Caribbean and Central America. Furthermore, the collapse in growth in advanced economies, particularly in the United States, has lowered demand for exports, weakened tourism, and lowered workers' remittances—key supports in the Caribbean and Central America. With all these factors playing out, credit growth has slowed abruptly, industrial production and exports have collapsed, and consumer confidence has plummeted across the region.

Considering the very challenging external environment, most countries are weathering the storm relatively well. Nonetheless, real GDP is forecast to contract by 1.5 percent in 2009, before staging a modest recovery in 2010. Domestic demand is projected to shrink by about 2.25 percent in 2009, due to more expensive and scarce foreign financing, as well as lower demand for domestic products. With the exchange rate acting as a shock absorber, activity is projected to decline modestly or even expand in a number of inflation-targeting economies (i.e., Chile, Peru, and Uruguay). The contraction is expected to be more severe in **Mexico**, given its close linkages with the U.S. economy, notwithstanding the mitigating effect of a flexible exchange rate. More precisely, the Mexican economy is projected to contract by 3.7 percent in 2009 before staging a modest 1.0 percent recovery in 2010. **Brazil**, on the other hand, is expected to experience a more limited downturn (of 1.3 percent) in 2009 followed by a more robust upturn (at 2.2 percent) in 2010.

Commonwealth of Independent States (CIS) Economies

Among all the regions in the global economy, the CIS countries are forecast to experience the largest reversal of economic fortune over the near term. The reason is that their economies are being badly hit by three major shocks: the financial turbulence, which has greatly curtailed access to external funding; slumping demand from advanced economies; and the related fall in commodity prices, notably for energy.

The beginning of the financial crisis coincided with slumping prospects for exports and commodity prices because of rapidly weakening activity in the advanced economies. This added to the pressure faced by CIS economies with open banking systems and severely undercut growth prospects for the commodity exporters, including Russia. Prospects differ noticeably between energy exporters and importers: the former are projected to see large current account surpluses evaporate because of falling commodity prices, while the latter see a sharp narrowing

of their external deficits because of tightening financing conditions. Real GDP in the region, which expanded by 5.5 percent in 2008, is projected to contract by just over 5.0 percent in 2009, the lowest rate among all emerging regions. In 2010, growth is expected to rebound to more than 1.0 percent. With currencies under pressure, inflation is expected to remain close to double digits in the net energy exporters, despite slowing activity. Inflation pressures are expected to recede more quickly for the net energy importers. **Russia**, in particular, is projected to contract more (by 6.0 percent) than any other CIS economy in 2009, except for Ukraine, and experience one of the weakest recoveries in the region in 2010.

Middle East

The global crisis has not spared the Middle East. The extremely large fall in the price of oil is hitting the region hard. The deterioration in external financing conditions and reversal of capital inflows are also taking a toll: local property and equity markets have come under intense pressure across the region, domestic liquidity conditions have deteriorated, credit spreads have soared for some firms, financial system strains have emerged in a number of countries, and sovereign wealth funds have suffered losses from investments in global markets. Furthermore, the substantial decline in external demand (including from countries in the Gulf region) is dampening export growth, workers' remittances, and tourism revenues (i.e., in Egypt, Jordan, and Lebanon).

Although highly expansionary policies are set to mitigate their impact, these adverse shocks are expected to have severe negative effects on economic activity. In the region as a whole, growth is projected to decline from 5.9 percent in 2008 to 2.5 percent in 2009. The slowdown in growth is expected to be broadly similar in oil-producing and non-oil-producing countries, even though the forces behind it are quite different.

Among the oil-producing countries, the sharpest slowdown is expected in the United Arab Emirates

(UAE), where the exit of external funds (which had entered the country on speculation of a currency revaluation) has contributed to a large contraction in liquidity, a sizable fall in property and equity prices, and substantial pressure in the banking system. A major financial centre, UAE will also suffer from the contraction in global finance and merger and acquisition activity. At the other end of the spectrum is Qatar, which is projected to grow by 18.0 percent in 2009 (up from 16.5 percent in 2008), since its production of natural gas is expected to double this year. Among the non-oil-producing countries, Lebanon is set to experience the steepest slowdown, as difficult external liquidity conditions raise the cost of debt servicing and the downturn in the Gulf reduces remittances.

Africa

Relatively weak financial linkages with advanced economies have not shielded African countries from the global economic storm. The main shock buffeting the continent is severe deterioration in external growth, which is reducing demand for African exports and curtailing workers' remittances. The sharp fall in commodity prices is also hitting the resource-rich countries in the region hard. Moreover, the tightening of global credit conditions is reducing FDI and reversing portfolio flows, especially to emerging and frontier markets (i.e., Ghana, Kenya, Nigeria, South Africa, and Tunisia). These external shocks are causing a severe slowdown in economic activity. For the region as a whole, growth is projected to decline from 5.2 percent in 2008 to 2.0 percent in 2009. On average, the downturn is most pronounced in oil-exporting countries (e.g., Angola and Equatorial Guinea) and in key emerging and frontier markets (notably Botswana, Mauritius, and South Africa), which have suffered from all three shocks that are hitting the continent. South Africa's economy, for example, is projected to contract by 0.3 percent in 2009, its lowest growth rate in a decade, as capital outflows are forcing a sharp adjustment in asset prices (mainly in equity, bond, and currency markets) and in real activity.

Assumptions and Risks

As indicated earlier, all projections in this chapter stem from the IMF's April 2009 *World Economic Outlook*. In making its projections, the IMF has adopted a number of technical assumptions that underpin their prognostications. Key amongst these assumptions are that (1) for most countries, real effective exchange rates remain constant at their average levels over the February 25-March 25, 2009 period; (2) that established policies (fiscal and monetary) be maintained; and, (3) that the average price of oil, measured as the simple average of prices of UK Brent, Dubai, and West Texas Intermediate crude oil, will be US\$52.00 in 2009 and US\$62.50 in 2010, and remain unchanged in real terms over the medium term. In addition, there are a number of working hypotheses concerning various deposit rates in the world's financial sectors. The interested reader should consult the *Outlook* for further details on these technical assumptions.

The modellers also have made a number of assumptions relating to the policy and macroeconomic environment surrounding the current financial crisis and economic recession. A key factor determining the course of the downturn and recovery will be the rate of progress toward returned health of the financial sector. The current forecast recognizes that financial stabilization will take longer than previously envisaged, given the complexities involved. It also recognizes the formidable political economy challenges of "bailing out" those who have made mistakes in the past. The baseline forecast thus envisages that financial strains in the mature markets will remain heavy until well into 2010, improving only slowly as greater clarity over losses on bad assets and injections of public capital reduce insolvency concerns and lower risks and market volatility.

The projected path to recovery also incorporates sustained strong macroeconomic support for aggregate demand. Monetary policy interest rates will be lowered to or remain near the zero bound in the

major advanced economies, while central banks will continue to seek ways to use their balance sheets to ease credit conditions. The projections build in fiscal stimulus plans in G20 countries amounting to 2.0 percent of GDP in 2009 and 1.5 percent of GDP in 2010, as well as the operation of automatic stabilizers in most of these countries.

Another key assumption is that commodity prices will remain around current levels in 2009 and will rise only modestly in 2010 as a recovery finally gets under way, consistent with pricing in forward markets.

Of course, any real deviations from the above assumptions have the potential to affect the reliability of the projections. Other risks and uncertainties may also hamper economic performance.

The IMF stresses that the current outlook is exceptionally uncertain, with risks still weighing on the downside. The key concern is that policies will continue to be insufficient to arrest the negative feedback between deteriorating financial conditions and weakening economies. On the upside, bold policy implementation capable of convincing markets that financial strains are being decisively addressed could set off a mutually reinforcing "relief rally" in markets, a revival in business and consumer confidence, and a greater willingness to make longer-term spending commitments.

Overview of World Trade Developments

Against a backdrop of slowing world economic growth and highly volatile prices for primary commodities, world merchandise exports in nominal dollar terms rose 15 percent in 2008, to US\$15.8 trillion, while exports of commercial services increased 11 percent to US\$3.7 trillion.¹ The faster growth of merchandise trade may be explained by rising commodity prices during the year, especially the 40 percent increase in energy costs.

The months since September saw precipitous drops in global trade. A notable aspect of the current slowdown in world trade and output is its synchronized nature. Monthly exports and imports of major developed and developing economies fell in unison over the latter part of the year.

In real terms, growth in world merchandise trade plunged to 2.0 percent in 2008, down from 6.0 percent in 2007. The four percentage-point decline brought real merchandise export growth in line with real global output growth, which expanded by 1.7 percent.

The differences in real trade growth between regions remained large, reflecting marked variations in economic activity and relative price movements. The overall picture was one of continuing growth in the first half of the year, with oil exporting countries in particular benefiting from record high commodity prices. This was followed by faltering growth and the beginnings of a severe downturn in the second half, starting in the United States and other developed countries, and then spreading to developing countries.

Merchandise Trade

Trade Values (nominal trade)

The value of world merchandise exports increased by 15 percent in 2008, to US\$15.8 trillion—a pace slightly lower than the 16 percent rate registered in 2007. The annual trade figures in dollar terms were strongly influenced by changes in commodity prices and exchange rates in 2008. Despite the fact that fuel prices ended 2008 at a lower level than at any point in 2007, average prices for 2008 were about 40 percent higher than in 2007, which tended to raise total merchandise imports for most countries.

There was a very evident dichotomy between the developed and developing economies in trade performance over 2008. Slower rates of growth for merchandise exports and imports were recorded by the developed economies than by the developing economies.

Starting with North America, exports advanced 10 percent to US\$2.0 trillion in 2008, while imports rose 7 percent to US\$2.9 trillion. Within this region, exports from the United States advanced at the fastest pace (12 percent), while they lagged from Canada (up 8 percent) and Mexico (up 7 percent). Imports into Mexico rose by 9 percent, while they rose by 7 percent for both Canada and the United States (Table 2-1).

As in North America, European trade expanded at slower rates than did world trade. For this region, both exports and imports grew by 12 percent in 2008, as exports reached US\$6.5 trillion and imports US\$6.8 trillion. Exports from Germany,

¹ Data used in this chapter are taken from the World Trade Organization Press Release PRESS/554 entitled *World Trade 2008, Prospects for 2009*. 23 March 2009. All data are expressed in U.S. dollar terms and rates of growth are calculated from these data. Services data include transportation services, travel services, and commercial services, but exclude government services.

TABLE 2-1
World Merchandise Trade by Regions and Selected Countries (US\$billions and %)

	Exports				Imports			
	Value 2008	2008 share (%)	Annual % change 2007	Annual % change 2008	Value 2008	2008 share (%)	Annual % change 2007	Annual % change 2008
World	15,775	100.0	16	15	16,120	100.0	15	15
N. America	2,049	13.0	11	10	2,909	18.0	6	7
U.S.	1,301	8.2	12	12	2,166	13.4	5	7
Canada	456	2.9	8	8	418	2.6	9	7
Mexico	292	1.9	9	7	323	2.0	10	9
Central & S. America	602	3.8	14	21	595	3.7	25	30
Brazil	198	1.3	17	23	183	1.1	32	44
Europe	6,456	40.9	16	12	6,833	42.4	16	12
EU(27)	5,913	37.5	16	11	6,268	38.9	16	12
Germany	1,465	9.3	19	11	1,206	7.5	16	14
France	609	3.9	11	10	708	4.4	14	14
Italy	540	3.4	18	10	556	3.4	14	10
U.K.	458	2.9	-2	4	632	3.9	4	1
C.I.S.	703	4.5	20	35	493	3.1	35	31
Russia	472	3.0	17	33	292	1.8	36	31
Africa	561	3.6	18	29	466	2.9	24	27
Middle East	1,047	6.6	16	36	575	3.6	25	23
Asia	4,355	27.6	16	15	4,247	26.3	15	20
China	1,428	9.1	26	17	1,133	7.0	21	19
Japan	782	5.0	10	10	762	4.7	7	22
India	179	1.1	22	22	292	1.8	25	35
NIEs	1,033	6.5	11	10	1,093	6.8	11	17

Source: WTO and author's calculations.

France and Italy grew at rates slightly below the regional level while their imports grew slightly faster than the regional level. Trade involving the United Kingdom has been much weaker than that of its three other G7 European counterparts. British exports grew by a modest 4 percent last year after having declined by 2 percent the year before, while growth in imports fell to 1 percent from 4 percent in 2007.

Japanese exports grew in line with their G7 counterparts, with the exception of the U.K., as exports advanced by 10 percent in 2008 to US\$782 billion. However, imports into Japan grew at a considerably faster pace, at 22 percent, to reach US\$762 billion: this increase was also much faster than the 7 percent increase recorded in 2007.

The developing economies experienced much more robust growth in trade in 2008. The Middle East enjoyed the fastest export growth of all regions in 2008, as exports expanded by 36 percent to US\$1.0 trillion, driven by oil revenues. For the region, exports by value grew at more than double the 16 percent rate observed in 2007. Imports into this region climbed 23 percent to US\$575 billion.

The Commonwealth of Independent States (CIS) experienced robust growth of both exports and imports, resting on the strength of the region's extractive industries. Exports jumped by 35 percent to US\$703 billion, while imports were up by 31 percent to US\$493 billion.

Africa, like other regions rich in natural resources, also saw strong growth in exports and imports in 2008. Exports rose 29 percent to US\$561 billion, and imports increased to US\$466 billion, up 27 percent over the previous year.

South and Central America registered faster expansion in both export and imports in 2008 than in 2007. Exports advanced 21 percent last year compared to 14 percent in 2007, while imports climbed by 30 percent versus 25 percent the year before.

A drop in the rate of expansion of Chinese exports helped to limit the growth in exports from Asia to 15 percent in 2008. Chinese exports grew by 17 percent in 2008 compared to 26 percent a year earlier. Imports experienced faster growth in 2008 than in 2007—20 percent versus 15 percent—led by strong increases in the Asian NIEs² and the previously mentioned jump registered by Japan.

Trade Volumes (real trade)

Merchandise trade in volume terms expanded by 2.0 percent in 2008, down from 6.0 percent in 2007 and below the 5.7 percent annual average rate registered over 1998-2008. The region that exhibited the most robust trade performance in real terms in 2008 was the Commonwealth of Independent States. This region recorded the fastest export volume growth, at 6.0 percent, and had the second-highest import growth rate, with a 15.0 percent expansion over the previous year.

Both export and import volumes for Africa slowed in 2008, dropping to 3.0 percent in 2008 from 4.5 percent in 2007 for exports, and to 13.0 percent from 14.0 percent for imports.

The growth of the Middle East's export and import volumes also slowed in 2008, falling from 4.0 percent to 3.0 percent for exports, and from 14.0 percent to 10.0 percent for imports.

South and Central America saw exports expand by 1.5 percent, a rate slightly lower than the world average. However, the region had the highest rate of import growth at 15.5 percent. These rates were down from 2007, when export volumes increased by 3.0 percent and import volumes were up by 17.5 percent.

Growth in Asian trade volumes fell substantially in 2008 compared to 2007. For exports, volumes increased by 4.5 percent compared to 11.5 percent the previous year, while for imports, volumes increased by 4.0 percent, half of the 8.0 percent pace recorded a year earlier. The declines were widespread, but were steepest for China (where export growth slowed to 8.5 percent from 19.5 percent and import growth fell to 4.0 percent from 13.5 percent) and India (where export growth slowed to 7.0 percent from 13.0 percent and import growth slowed to 12.5 percent from 16.0 percent).

Europe registered the slowest growth of any region in 2008, with export volumes up only 0.5 percent and import volumes falling by 1.0 percent. This was in marked contrast to 2007, when both export and import volumes expanded by 4.0 percent.

Finally, in North America, real merchandise exports grew at a pace below the world average for the second consecutive year, expanding by 1.5 percent in 2008, notwithstanding a 5.5 percent increase in the volume of U.S. exports in U.S. dollar terms. For imports, volumes fell 2.5 percent for the region, pulled down by a 4.0 percent decline in U.S. import volumes.

Prices and Exchange Rates

Significantly higher energy prices in 2008 had a strong effect on nominal merchandise trade values and growth rates compared to 2007. The cost of a barrel of oil³ rose to over US\$140 in early July, peaking at US\$145.28 on July 3. However, prices turned down after July and ended the year below US\$45 per barrel on December 31, as world oil

2 The four newly industrialized economies (NIEs) are: Hong Kong, Korea, Singapore and Taiwan.

TABLE 2-2
Leading Exporters and Importers in World Merchandise Trade 2008 (US\$billions and %)

2008 RANK	2007 RANK	EXPORTERS	2008 VALUE	2008 SHARE	2008 RANK	2007 RANK	IMPORTERS	2008 VALUE	2008 SHARE
1	1	Germany	1,465	9.1	1	1	United States	2,166	13.2
2	2	China	1,428	8.9	2	2	Germany	1,206	7.3
3	3	United States	1,301	8.1	3	3	China	1,133	6.9
4	4	Japan	782	5.0	4	5	Japan	762	4.6
5	6	Netherlands	634	3.9	5	6	France	708	4.3
6	5	France	609	3.8	6	4	United Kingdom	632	3.9
7	7	Italy	540	3.3	7	8	Netherlands	574	3.5
8	9	Belgium	477	3.0	8	7	Italy	556	3.4
9	12	Russia	472	3.0	9	9	Belgium	470	2.9
10	8	United Kingdom	458	2.9	10	13	Korea	435	2.7
11	10	Canada	456	2.9	11	10	Canada	418	2.6

Source: WTO and author's calculations.

demand moderated and the global economy slowed. Nonetheless, energy prices rose 40 percent on average last year. Beyond energy, prices for food and beverages increased 23 percent in 2008, while agricultural raw material prices fell by less than 1 percent, and metals prices dropped 8 percent, according to the IMF.

The appreciation of the US dollar against other currencies in late 2008, especially against the euro, also influenced trade developments recorded in nominal terms. The growth of trade in euro-zone countries is probably understated as a result of being expressed in dollars. The strengthened dollar appears in large measure to be the result of a flight to a perceived "safe haven" currency.

The Canadian dollar, British pound and Korean won have followed similar trajectories as that of the euro, first appreciating against the dollar in recent years then reversing this trend sharply as the financial crisis worsened. The Chinese yuan has risen gradually against the dollar since 2005, but remained fairly stable during the latter half of 2008 amid increasing turmoil in financial markets. The Japanese yen also appreciated sharply.

Leading Merchandise Traders by Value

The value of Germany's merchandise exports (up 11 percent in 2008) was slightly larger than faster-growing China's (up 17 percent), as Germany retained its position as the world's leading merchandise exporter (Table 2-2). That country's share in world merchandise exports was 9.1 percent, compared to 8.9 percent for China.

The United States and Japan held onto the third and fourth spots, at 8.1 percent and 5.0 percent of world shares, respectively.

EU nations held onto most of the remaining top ten positions. Amongst the major EU exporting nations, the Netherlands posted the strongest growth, at 15 percent, surpassing France and moving into fifth spot. France fell to sixth spot and Italy held onto seventh place. Slow growth in British exports, at only 4 percent, caused that nation to slip from eighth spot to tenth, while Belgium moved up one ranking to eighth spot.

Backed by strong energy prices, Russian exports vaulted 33 percent to overtake British and Canadian exports and claim ninth spot. As a result, Canada was pushed out of the top ten leading exporters and into eleventh spot.

3 US dollars per barrel, West Texas Intermediate Crude.

TABLE 2-3
World Services Trade by Regions and Selected Countries (US\$billions and %)

	Exports				Imports			
	Value 2008	2008 share (%)	Annual % change 2007	Annual % change 2008	Value 2008	2008 share (%)	Annual % change 2007	Annual % change 2008
World	3,730	100.0	19	11	3,470	100.0	18	11
N. America	610	16.4	14	9	473	13.6	9	6
U.S.	522	14.0	16	10	364	10.5	9	7
Canada	62	1.7	-	2	84	2.4	-	5
Mexico	26	0.7	-	-	25	0.7	-	-
Central & S. America	109	2.9	18	16	117	3.4	21	20
Brazil	29	0.8	26	27	44	1.3	28	28
Europe	1,919	51.4	21	11	1,628	46.9	19	10
EU(27)	1,735	46.5	21	10	1,516	43.7	19	10
Germany	235	6.3	16	11	285	8.2	15	11
France	153	4.1	15	6	137	3.9	15	6
Italy	123	3.3	13	12	132	3.8	21	12
UK	283	7.6	20	2	199	5.7	16	1
C.I.S.	83	2.2	27	26	114	3.3	30	25
Russia	50	1.3	27	29	75	2.2	32	29
Africa	88	2.4	22	13	121	3.5	31	15
Middle East	94	2.5	13	17	158	4.6	29	13
Asia	837	22.4	20	12	858	24.7	18	12
China	131	3.5	33	-	156	4.5	29	-
Japan	144	3.9	10	13	166	4.8	11	11
India	106	2.8	22	-	91	2.6	23	-
NIEs	271	7.3	17	10	247	7.1	15	7

Source: WTO and author's calculations.

Notwithstanding the current recession, and given the appreciating value of its currency, the United States remained far and away the world's largest merchandise importer. Germany and China held the next two positions, unchanged from their 2007 rankings. Japan, France, and the U.K. exchanged positions between 2007 and 2008, with Japan moving to fourth spot, France becoming the fifth-largest importer, and the U.K. falling to sixth place. Similarly, the Netherlands and Italy exchanged the next two positions, with the Netherlands becoming the world's seventh-largest importer and Italy falling to eighth spot. Belgium held onto its ninth spot, while Korea climbed into tenth spot, pushing Canada out of the top ten leading importers into eleventh spot.

Services Trade

World services exports rose 11 percent in 2008, to US\$3.7 trillion (Table 2-3). Exports of transport services rose 15 percent in 2008 while travel services and commercial services both increased 10 percent. Commercial services, which include financial services, accounted for just over half of all services (51.2 percent), while travel and transport each represented about a quarter (25.3 percent and 23.5 percent, respectively) (Table 2-4). The United States remained the largest exporter and importer of commercial services, with exports of US\$522 billion and imports of US\$364 billion.

TABLE 2-4
World Exports of Services in 2008, (US\$billions and %)

	Value (US\$billions)	Share (%)	2007-08 growth (%)
All services	3,730	100.0	11
Transportation	875	23.5	15
Travel	945	25.3	10
Commercial services	1,910	51.2	10

Source WTO and author's calculations.

One indicator of the severity of the global downturn in trade has been the fall-off in international shipping. Using International Air Transport Association (IATA) data, the WTO reports that air cargo traffic was down 23 percent in December 2008 compared to a year earlier, led by a strong decline of 26 percent in the Asia-Pacific region. To put some perspective on the magnitude of this drop, the decline recorded in September 2001, when most of the world's aircraft were temporarily grounded, was only 14 percent.

Another measure that has received a lot of attention recently is the Baltic Dry Index, a measure of the cost of shipping bulk cargo by sea, published by the Baltic Exchange in London, the leading world marketplace for brokering shipping contracts. Movements in the index can be tracked to global demand for manufactured goods. Between June and November of 2008 the Baltic Dry Index fell by 94 percent.

The financial crisis shows up clearly in quarterly data on trade in commercial services for North America. The region's trade, which was growing rapidly in the first nine months of 2008 (13 percent for exports and 10 percent for imports), slowed suddenly in the last quarter (down 2 percent for exports and down 3 percent for imports). The most affected sector was travel, which includes tourism (down 2 percent for exports and down 6 percent for imports). For the year as a whole, North American exports of services increased by 9 percent, to US\$603 billion, while imports grew 6 percent, to US\$473 billion.

In Europe last year, exports of services rose by 11 percent, to US\$1.9 trillion, while imports advanced 10 percent, to US\$1.6 trillion. The impact of the financial crisis is also evident in the quarterly data on European services trade. According to the data, the region's exports of services were growing by 19 percent in the first nine months of 2008, whereas they fell 11 percent in the last quarter. It should be noted that although exchange rate effects in the last quarter of 2008 are likely to have magnified the impact of the crisis on nominal European services trade values, they cannot entirely explain such a large drop.

Leading Services Traders by Value

The United States saw its exports of services rise 10 percent in 2008, to US\$522 billion, leaving it by far the top exporter. The U.S. share in world services exports was 14 percent in 2008. The United Kingdom remained the second-largest exporter with a 7.6 percent world share worth US\$283 billion.

Germany (6.3 percent or US\$235 billion), France (4.1 percent, US\$153 billion), and Japan (3.9 percent, US\$144 billion) rounded out the top five. Japan rose one place in the rankings to replace Spain (3.8 percent, US\$143 billion), which slipped to sixth spot.

China remained in seventh place with exports of US\$137 billion (3.7 percent of the world total), followed by Italy (3.3 percent, US\$123 billion) in eighth place. India ranked ninth with a 2.8-percent share of the 2008 world total, worth US\$106

billion, and the Netherlands (2.7 percent, US\$102 billion) replaced Ireland as the world's tenth-largest services exporter.

On the import side, the United States stayed in first place, with imports rising 7 percent to US\$364 billion (10.5 percent of world imports of services). Germany ranked second, at US\$285 billion (8.2 percent of world imports of services). The next three largest services importers were the UK, Japan, and China at US\$199 billion (or 5.7 percent of world trade), US\$166 billion (or 4.8 percent of the total), and US\$152 billion (or 4.4 percent of the total), respectively. France, Italy, Spain and Ireland also registered services imports in excess of US\$100 billion, at US\$137 billion (3.9 percent of the total), US\$132 billion (3.8 percent), US\$108 billion (3.1 percent), and US\$103 billion (3.0 percent), respectively. The only change in the rankings of the top 10 importers was the addition of the Republic of Korea (US\$93 billion, 2.7 percent of the total) in tenth place, displacing the Netherlands which dropped to eleventh place.

Canadian Economic Performance

Gross domestic product

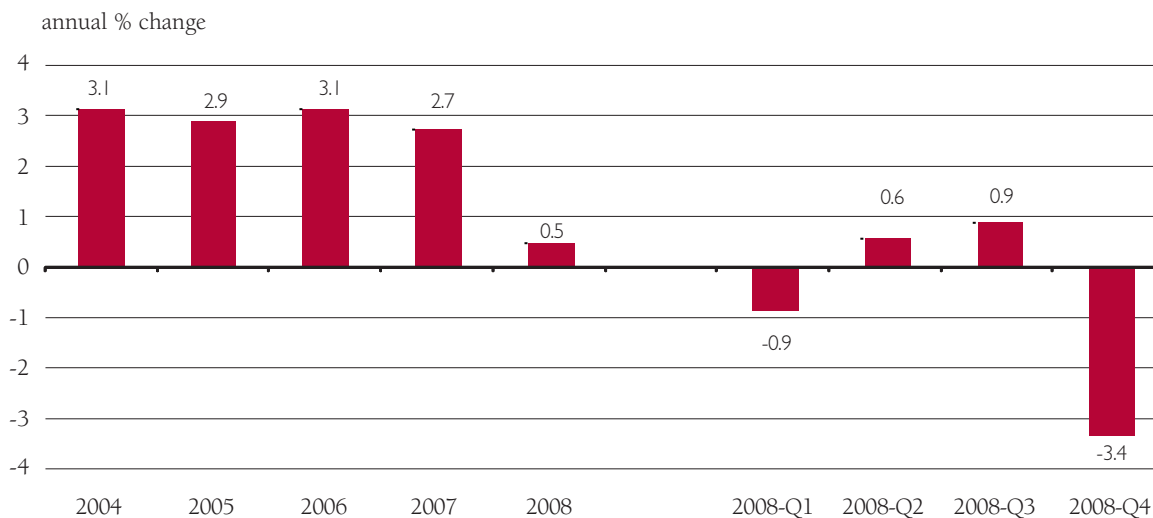
In line with the deteriorating global economic situation, the pace of real economic activity in Canada fell sharply in 2008. Growth in real GDP fell from slightly over 2.7 percent in 2007 to just under 0.5 percent last year.

The year began with a contraction in the first quarter of 2008, after 18 consecutive quarters of growth (Figure 3-1). A slight rebound occurred over the middle part of the year before contracting again in the final quarter.

Turning to the expenditure-based categories of GDP (Figure 3-2), growth in real **consumer personal expenditures** on consumer goods and services decelerated to slightly less than 3.0 percent last year, down from 4.5 percent in 2007—the slowest rate of expansion since 2001.

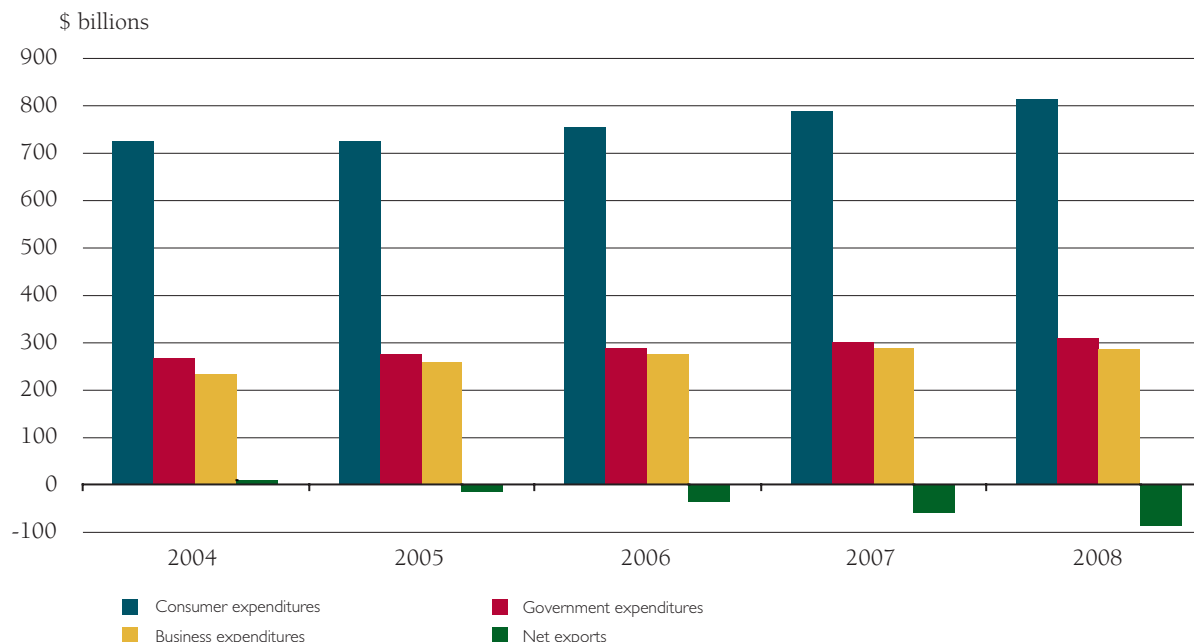
Growth rates for consumer spending on goods and consumer spending on services were nearly identical last year, at 3.0 percent and 3.1 percent, respectively. Spending on durable goods such as motor vehicles and household items contributed to the slower growth in 2008. Nevertheless, purchases of durable goods still expanded by 5.2 percent in 2008 after having grown by more than 7 percent over the previous two years. Even slower growth in semi-durables and non-durables was registered, at 4.0 percent and 1.2 percent, respectively. Overall, the slower growth in spending over 2008 was widespread, and this category of GDP contributed only 1.6 percent to real GDP growth, down from 2.5 percent in 2007. Nonetheless, personal expenditures on consumer goods and services was the largest contributor to growth last year.

FIGURE 3-1
Canadian Real GDP Growth, 2004-2008



Source: Statistics Canada

FIGURE 3-2
Real GDP, Expenditure-based, 2004-2008 (Billions of Chained 2002 Dollars)



Source: Statistics Canada

Real **business investment** in plant and equipment grew by 1.7 percent in 2008. Growth in business investment in machinery and equipment was less robust in 2008, slowing to 2.0 percent, down from 7.1 percent a year earlier. Investment in non-residential structures was up by 1.1 percent for the year, as investment in engineering structures expanded by 1.8 percent whereas investment in other non-residential buildings fell by 0.6 percent. Construction of engineering structures tends to be related to large projects that are difficult to scale back or halt during uncertain times. Once projects are launched, businesses tend to complete a given phase rather than lose their initial investment.

Investment in residential construction, which includes new housing construction, ownership, transfer costs and renovation activity, fell 2.9 percent in 2008, the first decline since 1998. Resale activity, as reflected in ownership transfer costs, posted its largest decline (17 percent) since 1990. In contrast, renovation activity, which has been expanding since 1999, was up 3.2 percent.

Inventories for both non-farm and farm businesses accumulated in 2008. For non-farm businesses, the buildup in stocks was less than half that posted in 2007, while farm businesses added \$3.6 billion to inventories following a draw down the previous year.

Overall, real business investment removed 0.2 percentage points from economic growth in 2008, after having contributed 0.8 percentage points to growth in 2007.

In concert with falling foreign demand for Canadian-produced products, the negative contribution of **net exports** to real GDP growth widened to 1.8 percentage points last year from 1.5 percentage points a year earlier. This was due to a combination of falling real exports and rising real imports.

Export volumes of Canadian goods and services dropped 4.7 percent last year, with goods exports falling 5.0 percent and services exports declining 2.7 percent. Declines in auto exports (down 23.0 percent in real terms) and forestry products

(down 14.2 percent) accounted for the bulk of the declines on the goods side, while all three major services categories (travel, transportation and commercial services) registered smaller receipts in 2008.

At the same time, Canadian demand for foreign-produced goods and services edged up 0.8 percent in real terms, led by a 1.0 percent increase in goods imports, while imports of foreign services fell 0.3 percent. The advances in goods imports were led by energy products (up 10.1 percent) and machinery and equipment (up 3.7 percent). An advance of 3.7 percent in real travel services imports was completely offset by a 2.6 percent decline in commercial services together with a 1.1 percent decline in transportation services.

Turning to **GDP by industrial activity**, weakness in the economy was evident throughout much of the year, becoming more pronounced in the last quarter, especially in November and December.

The production of **goods** fell 2.8 percent in 2008, the first decline since 2001. With the exception of construction, the output of all goods-producing sectors contracted in 2008. In contrast, the **services** sector grew 2.1 percent, with all sectors advancing.

Construction was the strong point for the goods-producing industries in 2008, rising by 2.3 percent. The growth in this sector was led by engineering and repair work, which advanced 4.1 percent over the year, while both residential and non-residential construction grew at slower paces—0.6 percent and 0.4 percent, respectively. A downturn in the building of new single dwellings and a reduction in the construction of industrial buildings were the primary factors behind this weakness.

Manufacturing, the largest of the goods producing industries, fell 5.1 percent in 2008, making this the third consecutive year of decline for this sector. Losses were widespread, led by clothing (down 22.1 percent), wood products (down 17.5 percent), leather (down 14.6 percent), and transportation

equipment (down 12.7 percent). With the exception of aerospace products and parts, most transportation equipment sub-sectors also declined last year; however, the bulk of the declines were felt in motor vehicles, particularly motor vehicle manufacturing and motor vehicle parts. Together, these last two sub-sectors accounted for about half of manufacturing's decline. Of the 21 sectors that comprise manufacturing, only four managed to register an increase in output in 2008: food manufacturing (up 1.6 percent), machinery manufacturing (up 0.3 percent), computer and electronic products manufacturing (up 0.1 percent) and miscellaneous manufacturing (up 3.7 percent).

Forestry and logging was also affected by reduced foreign demand, falling 16.4 percent in 2008, the fourth consecutive annual decline.

Energy products faced sharp fluctuations in their prices on international markets in 2008. In January, the average price of a barrel of crude oil¹ was \$94 in Canadian dollar terms; it continued to rise until it peaked at \$136 in June before closing the year at an average \$52 for December. Natural gas prices followed the same general pattern. Output in the sector fell 3.3 percent in 2008.

All **service-producing** industries expanded in 2008—led by miscellaneous services, retail trade, health care, public administration, education, and finance, insurance and real estate (FIRE), which all expanded between 2.7 percent and 3.1 percent. Within the FIRE sector, finance and insurance advanced 3.1 percent, its slowest rate of growth since 2003. Credit intermediation and insurance were part of this advance, while stock brokerage and related activities were essentially flat after recording an average annual growth of 8.8 percent between 1999 and 2007.

Output in retail trade grew by 3.1 percent in 2008, roughly half the rate registered in each of the previous two years. However, all major sub-sectors advanced.

¹ Canadian dollars per barrel (monthly averages), West Texas Intermediate Crude, as quoted in *Statistics Canada Cat. No: 15-001, Gross Domestic Product by Industry*, December 2008.

Growth in the wholesale trade sector was essentially flat, a weakness not seen since the decline recorded in 1991. Wholesalers, which are also involved in export and import activities, were affected by a lower volume of external trade.

After nine years of essentially uninterrupted growth, the home resale market pulled back as the number of residential units sold fell some 17.1 percent, contributing to a decline in the real estate and brokers industries.

GDP growth by province

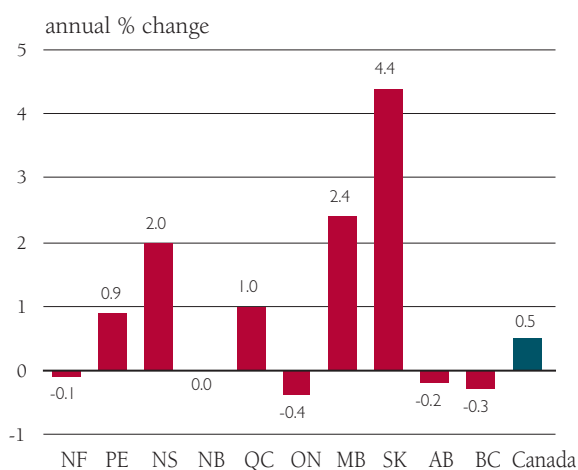
Although Canada's national GDP grew slightly in 2008, the deteriorating global economic situation affected some provinces earlier than others. Five provinces—Prince Edward Island, Nova Scotia, Quebec, Manitoba, and Saskatchewan—and two territories—Nunavut and the Yukon—posted positive growth for the year while the remaining five provinces and one territory experienced a contraction in economic activity in 2008. Many provinces were negatively impacted by the downturn in the United States as well as the ongoing slump in the U.S. housing market. The volume of exports fell 4.7 percent reflecting these developments, with only Nova Scotia, Saskatchewan, and the Yukon experiencing growth in real exports in 2008.

The Newfoundland and Labrador economy contracted by 0.1 percent in 2008, following a 9.1 percent expansion in real GDP in 2007 (Figure 3-3). Growth in the province was dampened by decreases in the production of oil and gas, as output at the White Rose field slipped. Personal expenditures grew at a strong pace, propelled by the strongest gain in employment since 2003 and the first increase in population since 1992. Spending on durable goods such as cars and trucks increased by 13.0 percent for the second consecutive year. Business investment in residential structures was up 7.3 percent, however business investment in non-residential structures fell for the third year in a row. Following two years of strong growth, real exports slid 0.2 percent while real imports accelerated, advancing 3.7 percent.

The economy of Prince Edward Island grew by 0.9 percent in 2008, spurred on by strong consumer spending and accelerating government spending. Crop production was down for the second year as farmers reduced crop acreage and potato production suffered from wet harvesting conditions. Real exports declined by 3.0 percent, reflecting the downturn in crop production as well as for reductions in livestock production and manufacturing. For manufacturing, food processing remained at 2007 levels and transportation equipment manufacturing increased, but a sharp decline in chemical manufacturing curtail growth.

Increased spending also provided a boost to the Nova Scotian economy, as consumer expenditures advance 3.1 percent in 2008, the strongest gain since 2002. Government spending accelerated in 2008, rising by 3.9 percent compared to 2.3 percent in 2007. Business investment in non-residential construction rebounded after a sharp decline in 2007. However, business expenditures on machinery and equipment fell by 20 percent and investment in residential buildings declines as housing starts fell. Real exports slowed, but remained positive, growing by 0.8 percent compared to 1.7 percent a year earlier. Similarly, imports grew more slowly in 2008, slipping to 1.3 percent for the year

FIGURE 3-3
Real GDP Growth by Province, 2008



Source: Statistics Canada

from 2.0 percent in 2007. Overall, real GDP in Nova Scotia advanced 2.0 percent in 2008, up from a 1.7 percent gain in 2007.

Economic activity in New Brunswick was virtually unchanged in 2008 from 2007, as that economy contracted by the slimmest of margins—two one-hundredths of a percentage point. Growth in consumer spending slowed to 3.4 percent from 4.1 percent in 2007. Real exports declined 2.8 percent, hampered by declines in forestry and manufacturing. In forestry, output continued to slow mirroring the drop in the U.S. housing market. Output in the industry slipped 27 percent in 2008, following a 9 percent decline in 2007. The slump has spread to forestry-related manufacturing. Wood product manufacturing was down 23 percent following a decline in 2007 and paper manufacturing also recorded a large downturn. Food processing also fell, down 5.9 percent, after three years of growth. The decline reflected a downturn in crop production as wet summer conditions led to a diminished potato crop. Real imports advanced by 1.0 percent, after registering a 4.4 percent rate of growth in 2007.

The Quebec economy grew 1.0 percent in 2008 as investment in non-residential structures continued to provide a boost to that economy for the third consecutive year. However, investment in residential construction registered a small decline as housing starts slipped. Both consumer and government spending slowed, but still grew faster than the provincial economy overall. Growth in consumer spending decelerated to 3.1 percent from 4.3 percent in 2007 while it slowed to 2.7 percent from 3.2 percent for government spending. Manufacturing output dropped 2.6 percent in 2008, after smaller declines over the previous two years. Clothing and textile manufacturing continued their downward trend of the past several years and wood-related manufacturing also fell, reflecting the broad weakness in the sector. Real exports were down, falling 2.5 percent in 2008, while growth in total imports slowed to 1.4 percent from 4.6 percent in 2007.

Economic activity in Ontario contracted 0.4 percent in 2008, down sharply from the 2.3 percent gain in the previous year. The slump in manufacturing deepened after two years of decline and was a key contributor to the decline. The downturn in manufacturing was widespread, with 16 of 21 sub-groups registering declines. The U.S. economic slowdown continued to create difficulties in manufacturing, particularly for transportation equipment manufacturers. Automobile manufacturing as well as the auto parts industry experienced plant closures and cutbacks in production, and output in this industry declined by 21 percent for the year. Clothing production (down 28 percent) and wood product manufacturing (down 14 percent) also fell sharply. Construction activity declined as investment in non-residential structures was down. Business investment in residential construction also fell for the first time since 1998. Government spending slowed to 3.2 percent from 3.7 percent the previous year and consumer spending slowed to 2.6 percent from 3.8 percent. Real exports and real imports both fell in 2008, the former down by 5.3 percent and the latter down by 2.0 percent.

Manitoba posted its third consecutive annual rate of economic growth above the national average in 2008, as the economy expanded by 2.4 percent. Investment in non-residential structures provided a big boost, registering double-digit growth for the third year in a row. Major projects, such as the completion of the Manitoba Hydro building, continued work at the Winnipeg airport and on the Red River floodway contributed to the gains. Residential building investment also increased on the year. After growing 5.3 percent in 2007, output in manufacturing edged up last year. Gains in printing, transportation equipment, and agricultural machinery were only partially offset by declines in primary metal manufacturing, wood products and paper manufacturing. Growth in personal expenditures slowed to 4.2 percent, down from 5.0 percent growth posted in 2007. Similarly, growth in government expenditures edged down to 2.4 percent versus 2.7 percent a year earlier. Real exports

contracted, falling 1.1 percent while imports expanded by 3.3 percent.

Saskatchewan posted the strongest rate of growth among the provincial economies, at 4.4 percent in 2008. This followed a 2.5 percent gain in 2007. Boosted by strong commodity prices and a bumper crop year, agricultural output jumped 22 percent. Manufacturing increased its output in 2008, notably for agricultural machinery producers and primary metal manufacturers; however, wood products fell for a third straight year. Consumer expenditures slowed to 5.5 percent, still a healthy rate, after having increased 6.4 percent in 2007. Government spending accelerated, rising 3.1 percent versus 2.3 percent a year earlier. Provincial exports managed 0.2 percent real growth down from 2.8 percent in 2007, while total imports slowed to 5.2 percent growth from 5.8 percent.

Economic activity in Alberta contracted 0.2 percent in 2008. Employment and population growth slowed (but still remained the highest in the country), likely affecting personal expenditures which only increased by 2.7 percent in 2008 compared to 6.5 percent in 2007 and 8.7 percent the year before that. Investment in residential structures fell 11 percent. Real exports declined by 1.5 percent, the first such decline since 1986. Growth in real imports slowed to 1.6 percent, down from 3.6 percent a year earlier. Manufacturing activity declined in 2008, as there was widespread weakness in the sector. 16 of the 21 sub-groups contracted. Oil patch related manufacturing suffered as chemical and petroleum refineries reduced their output. Wood products continued to be adversely affected by the downturn in the U.S. housing market as several mills closed. However, iron and steel pipe and tubing manufacturers bucked the trend, posting healthy increases.

British Columbia's GDP fell 0.3 percent in 2008 after having grown by 3.0 percent in 2007. The slowdown in U.S. housing construction along with a high Canadian dollar over the first half of 2008 were responsible for a sharp (18 percent) drop in output of the forestry sector, which had ripple effects on the economy. Output in forestry-related

manufacturing, including sawmills and paper manufacturing, posted large declines. Real exports fell 6.8 percent last year following a small decline the previous year. The 2008 downturn was largely due to a drop in lumber products. Real imports fell into negative territory as they contracted 1.2 percent. Growth in personal spending decelerated in 2008 to 2.8 percent. This was the slowest growth since 2001. Purchases of durable goods fell as sales of cars and trucks declined.

Growth in the Yukon economy accelerated to 5.2 percent in 2008 from 3.6 percent the previous year. A full year of production from a new copper-gold mine resulted in a jump in shipments of metal ore. Reflecting this increased activity, the transportation and warehousing industry advanced. Real exports also expanded with this new production, up 23.3 percent. However, with the completion of the new mine in 2007, construction activity fell off in 2008. Investment fell over the year as investment in residential construction declined for the third year in a row while investment in non-residential structures declined by 37 percent after having expanded by 32 percent the year before. Partial completion of a new transmission line helped spur electric power engineering construction. Government investment in structures increased 23 percent. Growth in personal expenditures slowed to 4.2 percent from 4.5 percent in 2007, while growth in real imports slowed to 3.1 percent from 6.0 percent a year earlier.

The economy of the Northwest Territories suffered a dramatic reversal in fortunes between 2007 and 2008. After having expanded by 11.5 percent in 2007, the territorial economy contracted by 6.5 percent in 2008. Output at diamond mines fell in 2008, responding to a downturn in global demand. Oil and gas extraction also declined. The volume of exports fell 11.3 percent after having grown by 15.7 percent the previous year. However, real imports also declined, down 5.8 percent in 2008. Growth in consumer spending slowed to 2.3 percent from 3.9 percent while that of government spending plunged to only 0.2 percent after having

increased by 3.0 percent a year earlier. Growth in construction activity slowed on the completion of the mine at Snap Lake. Business investment in non-residential construction managed to expand by 0.3 percent following four years of double-digit growth.

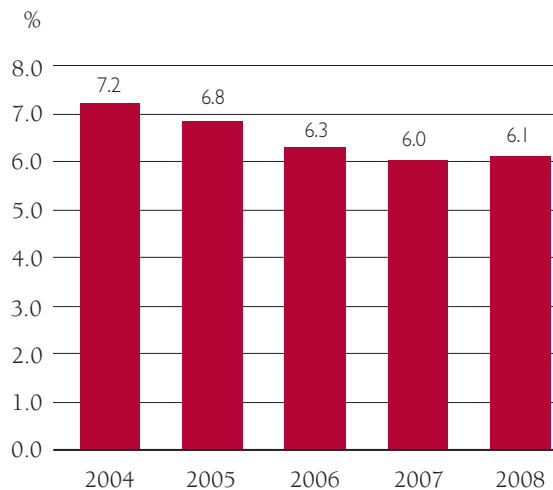
Nunavut has the smallest economy of all the regions in Canada. Economic activity in the Nunavut economy slowed to 5.5 percent following a 9.0 percent gain in 2007. Construction of the Meadowbank Gold Mine continued into this year providing a boost to economic activity. Non-residential business investment climbed 52 percent, while investment in machinery and equipment soared 76 percent. Real imports advanced 17.2 percent, reflecting these purchases. Mining experienced a setback in 2008 as shipments from the Jericho Diamond Mine fell off substantially. Real exports, in turn, declined 14.6 percent. Consumer spending decelerated, slowing to 4.9 percent from 5.4 percent a year earlier, while government spending contracted for the second consecutive year, falling 1.9 percent in 2008.

Employment

In 2008, job creation in Canada slipped to its lowest level since 2005. Employment grew by 1.5 percent, as 259,400 net new jobs were created. Roughly two-thirds of these were full-time jobs, although growth in part-time positions was more than double that of full-time ones (2.8 percent versus 1.3 percent). This was the second consecutive year in which growth in part-time positions outpaced that for full-time positions. However, the national unemployment rate edged up 0.1 percentage points to 6.1 percent (Figure 3-4).

Also for the second year running, all provinces registered annual employment gains, although for some the number of people entering the provincial labour force was greater than the number of jobs being created, resulting in several provinces experiencing an increase in provincial unemployment rates (Figure 3-5). The western Canadian provinces experienced the fastest job creation, led by Alberta,

FIGURE 3-4
Unemployment Rate in Canada, 2004-2008



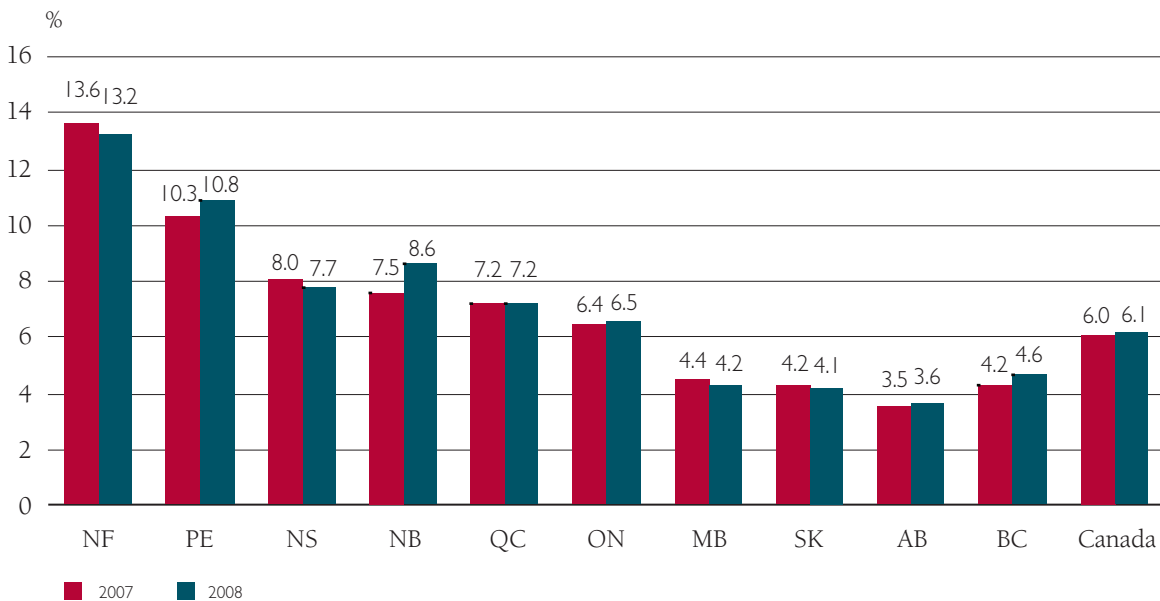
Source: Statistics Canada

Saskatchewan, and British Columbia, at 2.8 percent, 2.2 percent, and 2.1 percent, respectively. Three quarters of the new jobs in Canada were created in Ontario (36.0 percent), Alberta (20.8 percent), and British Columbia (18.5 percent).

For the year, nine of every ten jobs created were in services, with the remaining one job in ten created in the goods-producing sector. A strong expansion of jobs in construction (up 98,700) and utilities (up 13,800) was partly offset by a 10,200 decline in agriculture and a 74,600 decline in manufacturing. For manufacturing, it was the fourth consecutive annual decline in employment. Moreover, manufacturing employment slipped below the 2 million mark in 2008; the last time it was below that level was 1996. Overall, for goods-producing industries, employment expanded 0.7 percent.

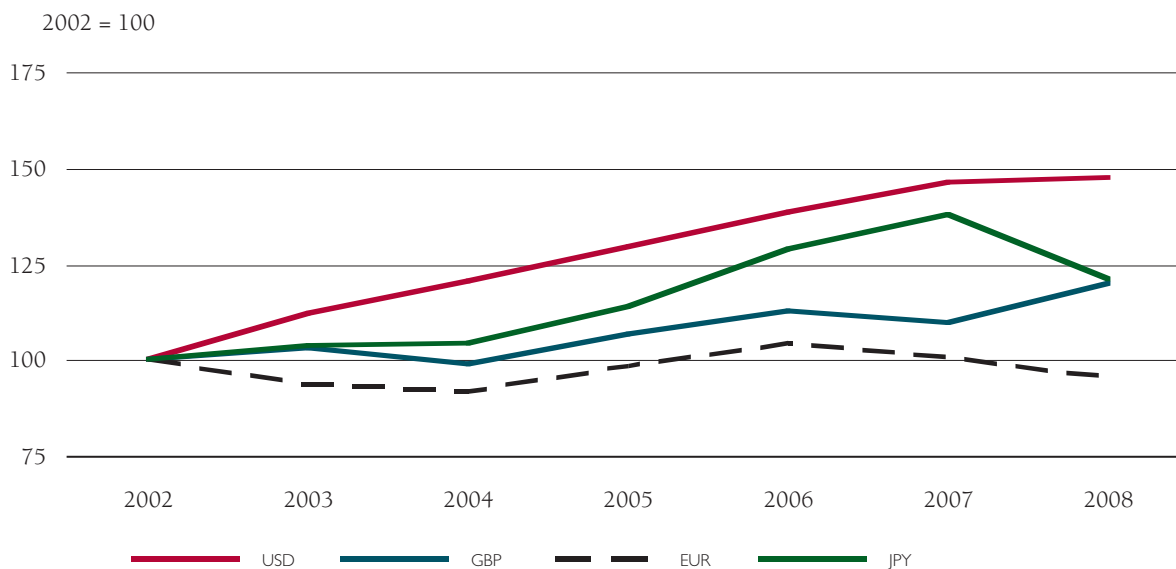
Employment in the services-producing industries grew at a faster 1.8 percent rate, with 231,000 additional jobs on the payroll. Professional, scientific and technical services, public administration, and health care accounted for the bulk of the gains, while setbacks in information, culture and recreation, the trades, and business, building, and other support services put a cap on the advances.

FIGURE 3-5
Unemployment Rates in Canada and Provinces, 2007-2008



Source: Statistics Canada

FIGURE 3-6
Annual Exchange Rate Indexes (Relative to the Canadian dollar)



Source: Bank of Canada

While the above analysis, which is based on annual averages, portrays a fairly positive picture on the employment front, the Canadian labour market has, nonetheless, been buffeted by the economic downturn experienced in the second half of 2008. The year began with the national unemployment rate posting a 33-year record low of 5.8 percent in January, followed by a record high employment rate of 63.9 percent recorded in February. Employment was on an upward trend and reached a peak level in October. Just two months afterwards, employment had fallen by 83,700 and the unemployment rate had climbed to 6.6 percent to close out the year. Moreover, early data at the start of 2009 showed that the pace of job losses was accelerating and the unemployment rate had sharply increased.

The Canadian dollar

Relative to the major currencies and based on annual averages, the Canadian dollar appreciated against the U.S. dollar and the pound sterling in 2008, by 0.8 percent and 9.5 percent, respectively. This marked the sixth consecutive year that the Canadian dollar had appreciated against the U.S. dollar (Figure 3-6). Continuing a trend that began a year ago, the dollar further depreciated against the euro, falling 5.8 percent last year. Finally, the dollar sharply depreciated against the yen, declining some 12.0 percent relative to that currency.

Major currencies were strongly affected by mounting concerns over a global recession, changing expectations about monetary policy rates, and by portfolio adjustments resulting from financial dislocations throughout 2008. The Canadian dollar traded over a wide range of 77.1 cents U.S. to nearly US\$1.03. The Canadian dollar began the year at above parity as high prices for energy and metals supported the currency, and ended the year at around 84 cents U.S. reflecting the substantial pull back in commodity prices from near-record or record-high levels, as well as the factors noted above (Figures 3-7a and 3-7b).

Interest rates

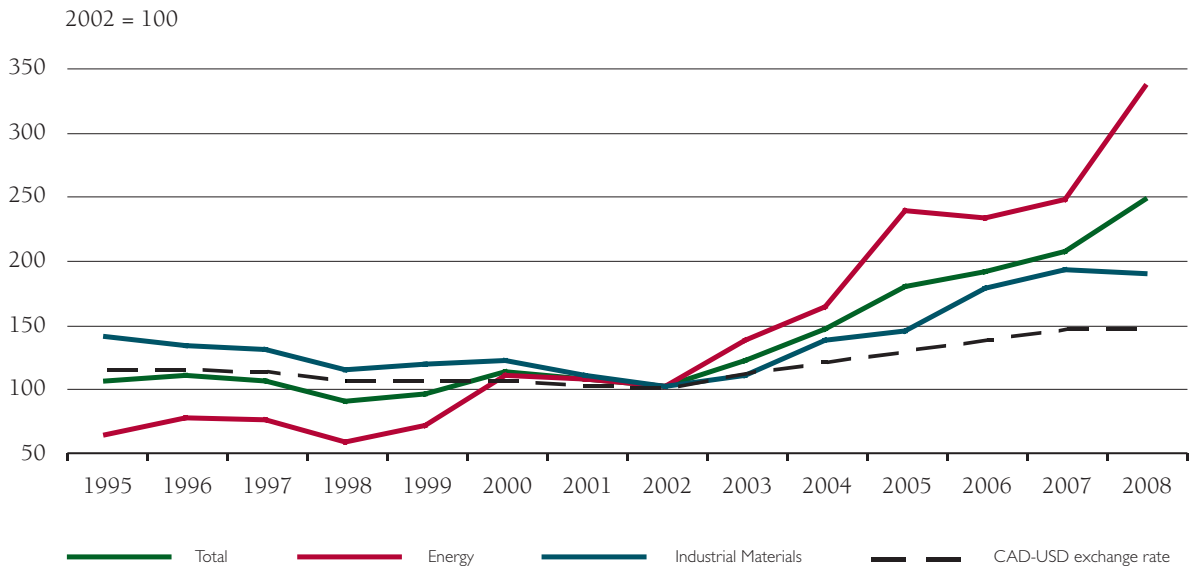
Strains in global financial markets broadened and became more severe as the year progressed, culminating in the early autumn months of 2008 with the failure of Lehman Brothers and transforming the financial turmoil that began in August 2007 into the largest financial shock since the Great Depression. As the strain on financial markets grew, measures were taken by major governments and central banks to encourage credit flows. At the start of the year, weakness in economic activity and tightening credit conditions prompted the Bank of Canada to lower its key policy rate three times, by a cumulative 1¼ percentage points, to 3 percent. However, towards the middle of the year, the Bank became concerned about the risks of increasing inflationary pressures and the overnight rate was left unchanged. In the fall, inflationary pressures started to moderate, the global financial crisis intensified, global economic growth deteriorated, and the Bank resumed lowering its policy interest rate. In addition, on October 8, 2009, the Bank of Canada joined other major central banks to lower the overnight rate by 50 basis points in a coordinated action to reduce strain in financial markets (Figure 3-8). Further policy action to help improve financial conditions continued into 2009, with the Bank further reducing its key policy rate by another half percentage point, to 1 percent, in January, and by another 50 basis points, to ½ percent in March 2009.

Inflation

As suggested above, prices were strong in the first half of the year but weakened towards the end of 2008. Over the course of the year, consumer prices fluctuated significantly on a month-to-month basis. On a seasonally adjusted basis, consumer prices advanced slightly by 0.1 percent in January, then climbed sharply by 0.8 percent in May, before finally posting consecutive price drops in the last three months of the year.

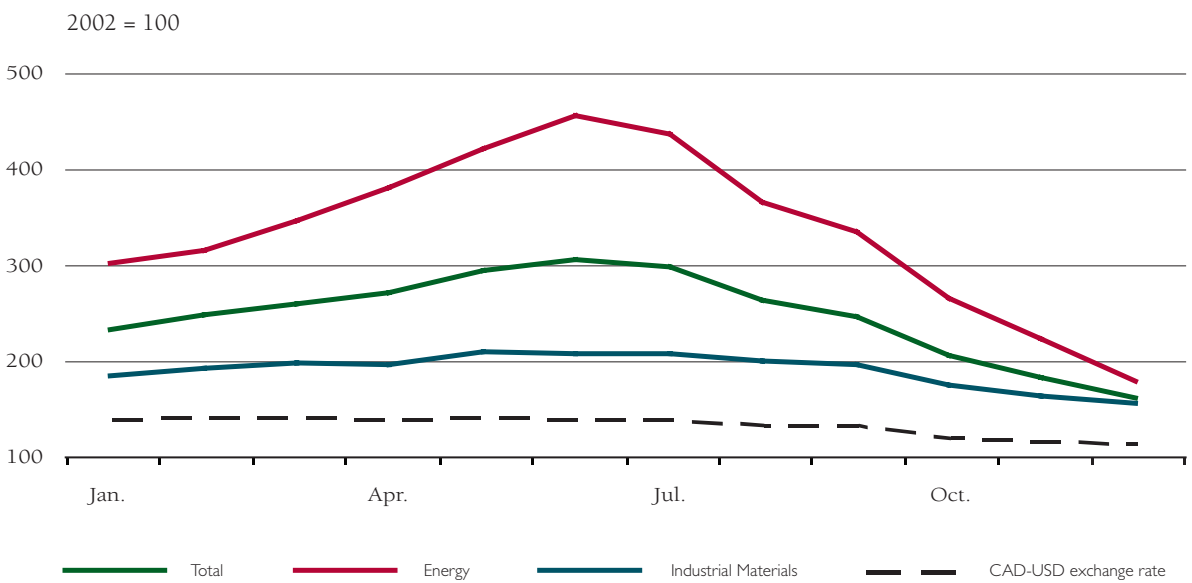
Despite the volatility, for the year as a whole, prices increased at a rate slightly higher than in

FIGURE 3-7A
Commodity Price and Exchange Rate Indexes



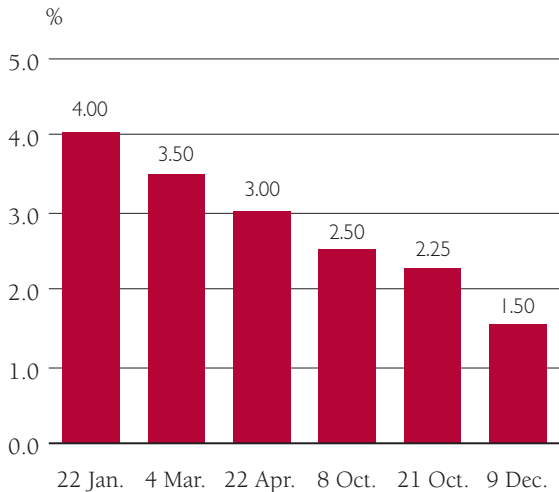
Source: Bank of Canada

FIGURE 3-7B
Monthly Commodity Price and Exchange Rate Indexes in 2008



Source: Bank of Canada

FIGURE 3-8
Bank of Canada Key Policy Rate, 2008



Source: Bank of Canada

2007 (Figure 3-9). Consumers paid 2.3 percent more, on average, for the goods and services in the Consumer Price Index (CPI) basket in 2008 compared to 2007. It was the largest increase in inflation since the 2.8 percent rise registered in 2003.

Prices for gasoline, natural gas, and fuel oil and other fuels rose sharply in 2008 and contributed significantly to the overall increase in the CPI.

However, substantial decreases in prices for gasoline and fuel oil and other fuels were also responsible for falling consumer prices toward the end of the year.

Shelter costs rose 4.4 percent in 2008 and accounted for about half the increase in the CPI in the year. While the housing market has slowed in Canada, it was on balance strong during most of 2008. Continued strength in this market raised costs for owned accommodation and significantly contributed to the annual increase in the CPI last year. As with energy costs, owned accommodation costs also started to abate in the latter part of the year, especially mortgage interest and replacement costs.

FIGURE 3-9
CPI and Core CPI, 2004-2008



Source: Statistics Canada

Rising prices for several food items, particularly those associated with grain products, led to a sharp rise in food prices in 2008. On the other hand, price declines for electronic products, clothing and footwear items, and for purchasing and leasing passenger vehicles also helped to temper the increase in the CPI, as did a reduction in the Goods and Services Tax (GST) from 6 percent to 5 percent in January 2008. Overall, seven of the eight major components of the CPI basket registered increases, led by price increases for shelter and food. Clothing and footwear was the only major component that experienced a decline.

On a provincial basis, growth in consumer prices continued to vary considerably across the country in 2008, but less so than in 2007. Increases ranged from a low of 1.7 percent in New Brunswick to double that in Prince Edward Island (Figure 3-10). Differences in shelter cost increases, which ranged from 3.1 percent in British Columbia to 9.7 percent in Saskatchewan, were mainly responsible for the large disparity amongst the provinces. New Brunswick and Alberta were the only provinces where consumer prices eased between 2007 and 2008.

FIGURE 3-10
Provincial CPI, 2008



Source: Statistics Canada

Overview of Canada's Trade Performance

IV

The 2008 trade year was characterized by strong expansion at the beginning of the year. However, as financial turmoil expanded as the year progressed and a global economic downturn became entrenched, trade began to weaken towards the end of the year.

Canada exported \$557.9 billion worth of goods and services in 2008 compared to \$530.3 billion in 2007. Goods exports reached \$489.9 billion, the result of strong price increases, as volumes fell 7.7 percent. Trade values were greatly influenced by rising commodity prices. Strong commodity prices also affected the value of the Canadian dollar, keeping it at near parity with the US dollar over the first half of the year. However, price increases were limited to the first three quarters of 2008, and fell in the final quarter as the economic crisis began to take hold. Services exports also posted a small gain in 2008, rising to \$68.0 billion.

Goods and services imports into Canada reached \$533.3 billion last year, up from \$501.5 billion in 2007. Both goods and services posted separate increases, reaching \$442.7 billion and \$90.5 billion, respectively. Growth in goods imports was confined to the first three quarters of the year. Imports decreased in the fourth quarter because of volume declines. Import prices, which rose over the first three quarters in part because of rising commodity prices, increased in the fourth quarter, aided by the rapid depreciation of the Canadian dollar.

The following sections examine the performance of Canada's goods and services trade, starting with an overview of the developments in goods and services trade with major partners,¹ followed by examinations of goods trade and of services trade, and ending with a brief explanation of the current account balance.

Goods and Services

The value of Canadian exports of goods and services to the world climbed 5.2 percent last year, with prices for natural resources, especially energy, playing a central role in this performance. Goods exports led the gains, expanding by 5.8 percent, while services exports grew by 1.1 percent (Table 4-1). However, imports of goods and services outpaced exports by a fair margin, advancing 6.3 percent, with goods again leading the gains, growing by 6.7 percent, while services imports gained 4.7 percent. With total imports of goods and services expanding faster than total exports, the total trade balance for Canada narrowed by \$4.2 billion to \$24.7 billion in 2008. The bulk of the decline, some \$3.4 billion, was experienced on the services side, where the deficit expanded to \$22.5 billion. The surplus on the goods side narrowed by \$0.9 billion to \$47.2 billion.

Exports and imports of goods and services to and from all major markets (the United States, the EU, Japan, and the rest of the world) increased, with

¹ "Major partners" is a term used in the Balance of Payments (BOP) to break out international transactions at a more detailed partner level than the aggregate, or total, all-countries level. Within this chapter, the major partners comprise the United States, Japan, the European Union, and the rest of the world (ROW).

IV. OVERVIEW OF CANADA'S TRADE PERFORMANCE

TABLE 4-1
Canadian Goods and Services Trade by Major Partners, 2008 (\$ millions and annual percent change)

	Exports of Goods and Services			Imports of Goods and Services			G & S Balance
	2008	2008 share	% growth over 2007	2008	2008 share	% growth over 2007	2008
World	557,922	100.0	5.2	533,271	100.0	6.3	24,651
U.S.	407,129	73.0	3.8	332,395	62.3	4.6	74,735
EU	52,689	9.4	3.1	62,224	11.7	6.8	-9,536
Japan	13,294	2.4	16.5	14,237	2.7	-6.5	-943
ROW*	84,810	15.2	12.1	124,415	23.3	13.0	-39,605

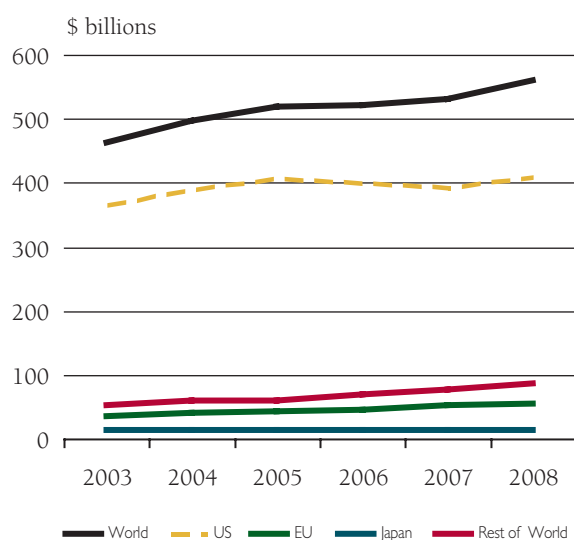
	Exports of Goods			Imports of Goods			Goods Balance
	2008	2008 share	% growth over 2007	2008	2008 share	% growth over 2007	2008
World	489,916	100.0	5.8	442,724	100.0	6.7	47,193
U.S.	369,934	75.5	3.9	280,711	63.4	4.1	89,224
EU	39,650	8.1	3.4	46,591	10.5	10.2	-6,941
Japan	11,874	2.4	18.9	11,615	2.6	-3.0	259
ROW	68,458	14.0	16.8	103,807	23.4	14.1	-35,350

	Exports of Services			Imports of Services			Services Balance
	2008	2008 share	% growth over 2007	2008	2008 share	% growth over 2007	2008
World	68,006	100.0	1.1	90,547	100.0	4.7	-22,541
U.S.	37,197	54.7	3.2	51,684	57.1	7.4	-14,489
EU	13,038	19.2	2.1	15,633	17.3	-2.1	-2,595
Japan	1,420	2.1	-0.2	2,623	2.9	-19.4	-1,203
ROW	16,352	24.0	-4.0	20,608	22.8	7.7	-4,255

* ROW: Rest of World

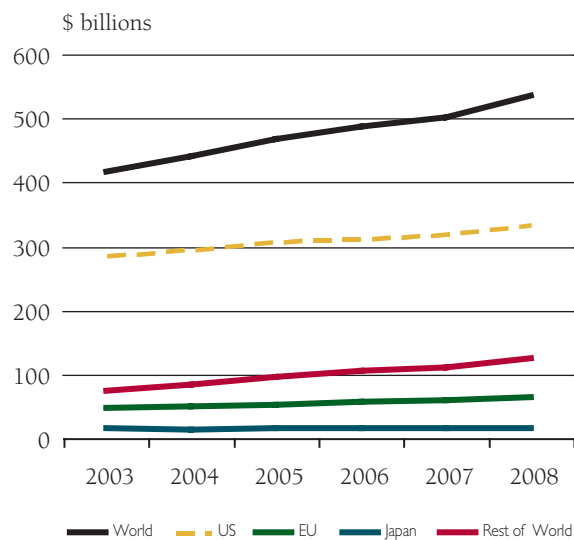
Source: Statistics Canada CANSIM Table 376-0001.

FIGURE 4-1
Exports of Goods and Services by Major Area, 2003-2008



Source: Statistics Canada

FIGURE 4-2
Imports of Goods and Services by Major Area, 2003-2008

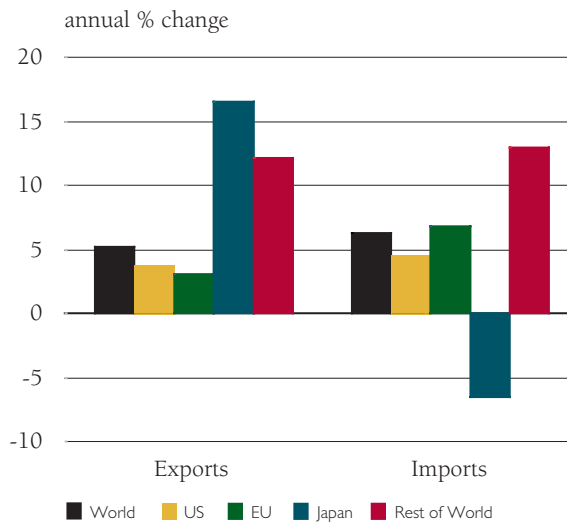


Source: Statistics Canada

the exception of imports of goods and services from Japan, which declined (Figures 4-1 and 4-2).

The Canadian dollar held up fairly well against the U.S. dollar over a good part of the year, placing pressure on exporters. With the U.S. economy already in recession in 2008 (see Chapter 3), it is not surprising that growth in Canada's trade with the United States lagged growth in its trade with the rest of the world. Canada's exports of goods and services to the United States grew by 3.8 percent last year, while imports grew by 4.6 percent (Figure 4-3). Notwithstanding slower growth, there was an absolute increase in exports, and Canada managed to widen its trade surplus with the United States by \$0.5 billion to \$74.7 billion in 2008. The United States is the only major trading partner with which Canada maintains a trade surplus. Moreover, that surplus was sufficiently large in 2008 to offset deficits with the other major trading partners and permit Canada to maintain an overall trade surplus with the world.

FIGURE 4-3
Growth in Exports and Imports of Goods and Services by Major Area, 2008



Source: Statistics Canada

Total exports to the EU grew by 3.1 percent in 2008, as weak growth in goods exports and declining services exports to the U.K. limited the gains. On the other hand, total imports from that region

Diversification of Canada's trade

Over the past five years, Canada's trade has become steadily more diversified. The share of the United States in Canada's trade has fallen sharply over 2004-2008, down 5.3 percentage points to 67.8 percent of total trade. The decline has been steeper on the export side (down 5.5 percentage points) than on the import side (down

4.7 percentage points). Nonetheless, the U.S. is Canada's largest trading partner by far. Japan's share in the total has also declined, as a result of slower growing imports. The EU has gained share, principally on the export side. The biggest gainer in share has been the non-OECD countries, who now account for 13.9 percent of total Canadian trade, up 3.6 percentage points over the past five years.

REGIONAL SHARES OF CANADA'S TRADE IN GOODS AND SERVICES, 2004 AND 2008 (PERCENT)

	Exports		Imports		Total Trade	
	2004	2008	2004	2008	2004	2008
World	100.0	100.0	100.0	100.0	100.0	100.0
US	78.5	73.0	67.1	62.3	73.1	67.8
EU	7.7	9.4	11.2	11.7	9.3	10.5
Japan	2.3	2.4	2.9	2.7	2.6	2.5
Other OECD	3.6	4.6	5.8	6.0	4.6	5.2
Non-OECD	8.0	10.6	13.0	17.4	10.3	13.9

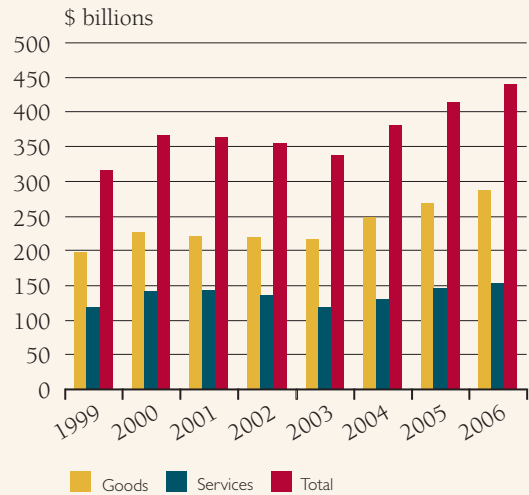
Sales Abroad by Canadian Foreign Affiliates

Sales abroad by affiliates of Canadian companies are an important means by which Canadian companies engage in international business and are equivalent to almost 85 percent of the value of exports of goods and services. The most recently released data shows growth in Canadian foreign affiliate sales outpacing growth in exports, by a growing margin. Canadian foreign affiliate sales grew in 2006 by over 6 percent, while exports, under pressure that year from the high dollar and other factors, grew less than 1 percent. Growth in sales has been strongest for affiliates located in non-OECD¹ countries: a 40 percent jump in the global sales of these affiliates in 2006 brought the value of their sales to almost the same level as sales of affiliates in the EU. Meanwhile, the share of Canadian affiliate sales in the U.S. has declined to just over half of global Canadian affiliate sales. This pattern reflects stronger growth in recent years in Canadian direct investment in the non-OECD countries than in the United States, as well as the effect of the appreciation of the Canadian dollar on sales converted from U.S. dollars.

Sales of goods and services by majority-owned foreign affiliates of Canadian businesses rose to \$441 billion in 2006. This was an increase of \$26 billion (or 6.4 percent) over the previous year, the third consecutive annual increase following three years of decline. It brought total sales to their highest level since foreign affiliate trade statistics were first compiled in 1999.

Sales for both goods-producers and services-producers advanced, with goods sales outpacing services sales (Figure 1). Strong growth in the mining and oil and gas extraction sector was the major driver for the expansion among goods producers. Among service producers, strong

FIGURE 1
Foreign Affiliate Sales of Goods and Services



Source: Statistics Canada – Foreign Affiliate Trade Statistics, FATS (Table 376-0061)

expansion in the non-bank financial and insurance sector was largely offset by a decline in the information & cultural industries sector - thus limiting the annual percentage growth among service producers to only about half of the rate of expansion in the two previous years.

Geographic Distribution of Sales and Employment

The share of total sales by affiliates located in the U.S. has declined from 64.3 percent in 1999 to 54.4 percent in 2006 (Table 1). Several factors can explain this development. First, Canadian direct investment abroad (CDIA) has been diversifying away from the United States. Second, the increase of the Canadian dollar relative to the U.S. dollar converts to lower sales values expressed in Canadian dollars. Third, growth in U.S. consumption has slowed in recent years.

A decline in sales by affiliates in the EU but outside the U.K. in 2006 caused an overall decline in EU sales, reversing an upward trend from prior years. Consequently, the share of affiliates

¹ Non-OECD refers to countries outside the EU, which are not members of the OECD.

TABLE 1.
Geographic distribution of Canadian foreign affiliate sales and employment, 2006

	SALES			EMPLOYMENT		
	2006 \$ millions	2005/06 growth (%)	2006 share (%)	2006 '000's	2005/06 growth (%)	2006 share (%)
World	441,121	6.4	100.0	1,084	-0.3	100.0
United States	240,094	2.7	54.4	595	-4.8	54.9
European Union	86,100	-7.1	19.5	225	1.8	20.8
Other OECD countries	32,875	10.9	7.5	73	0.0	6.7
Non-OECD countries	82,053	40.1	18.6	192	15.0	17.7

in the EU in 2006 (19.5 percent) was in fact slightly lower than the 19.6 percent global share registered in 1999.

On the other hand, other OECD and non-OECD countries (the only other two regions outside the U.S. and EU for which foreign affiliate trade data is available) expanded their respective shares of sales over the same period. The combination of a decline in sales in the EU and a 40 percent increase in the sales of affiliates in the non-OECD markets over the previous year led to affiliates in the non-OECD markets capturing a share of foreign affiliate sales (18.6 percent) approximately equal to that of affiliates in the EU.

Canadian-owned foreign affiliates employed 3,000 persons less in 2006 compared with the previous year - reversing an upward trend in the prior years - bringing employment to 1,084,000 (down by 0.3 percent). Led by mining and oil and gas extraction, goods producers increased their employment by 10,000. However, a decline in employment in the information & cultural industries and management of companies constituted the major factors for employment declining by 13,000 among service producers in 2006.

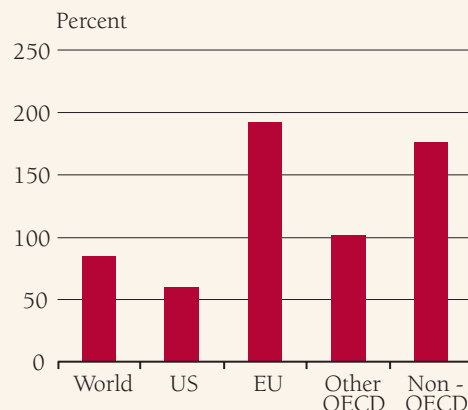
All of the reduction in employment in 2006 occurred in the US, which lost 30,000 jobs over the year. Consequently, over 1999-2006, the share of the U.S. in employment by Canadian foreign affiliates has fallen from over 62 percent to about 55 percent. The EU and Non-OECD countries have captured most of the employment

share lost by U.S. affiliates of Canadian operations abroad.

Value of Foreign Affiliate Sales Compared to Exports

The recent growth in sales by affiliates in non-OECD markets means that these sales now represent 177 percent of Canadian exports to the non-OECD (Figure 2). Sales by affiliates in the EU are now just under twice the value of exports to the EU. As Canadian firms are much more likely to serve the U.S. market through exports than through affiliate sales, sales by affiliates in the U.S. total much less than Canadian exports to the U.S., but the percentage rose slightly in 2006 to just over 60 percent, as growth in affiliate sales outpaced export sales growth.

FIGURE 2
Foreign Affiliate Sales as Share of Total Exports
(percent of Goods and Services Exports, 2006)



Source: Statistics Canada – FATS (Table 376-0061),
Balance of Payment (Table 376-0001)

increased at the much faster rate of 6.8 percent, resulting in a \$2.4 billion widening of the bilateral trade deficit, to \$9.5 billion. This result erased some 60 percent of the \$3.9 billion improvement in the deficit registered in 2007.

The deficit in goods and services trade with Japan fell nearly \$2.9 billion to below the \$1 billion mark (\$943 million) in 2008. Imports of goods fell 3.0 percent while imports of services fell by 19.4 percent, for a combined decline in total imports of 6.5 percent. At the same time, 16.5 percent growth in Canadian exports to Japan represented Canada's strongest export performance among all its major partners recorded in the Balance of Payments. Goods exports to Japan jumped 18.9 percent while services exports edged down 0.2 percent.

Canada's trade with the rest of the world (i.e., the world excluding the United States, the EU, and Japan) was highly robust in 2008. Despite a 4.0 percent decline in services exports, total exports of goods and services advanced 12.1 percent while imports climbed 13.0 percent. The net result was a \$5.1 billion widening of the trade deficit with this region, to \$39.6 billion.

Goods Trade

Goods comprise the largest component of trade, being more than seven times as great as services on the export side and about five times as great on the import side. Exports of goods expanded by 5.8 percent, to \$489.9 billion in 2008, which amounted to a \$26.9 billion increase over the 2007 level. The gains were widespread as exports to all major trading partners increased.

Slightly more than half of the overall gain in goods exports came from increased exports to the United States, which grew by 3.9 percent (\$13.8 billion) for the year. Exports expanded over the first three quarters, but retracted sharply in the fourth quarter, falling 12.2 percent (\$11.9 billion) compared to the third quarter. For the year as a whole, goods exports to the United States reached \$369.9 billion.

With respect to Canada's overall increase in goods exports, the rest of the world category was next in importance. Exports to this region were up strongly—by 16.8 percent (\$9.8 billion) to \$68.5 billion—and accounted for just over a third of the total increase in goods exports.

Higher exports to Japan—up 18.9 percent (\$1.9 billion)—and to the EU—up 3.4 percent (\$1.3 billion)—accounted for the remaining gains.

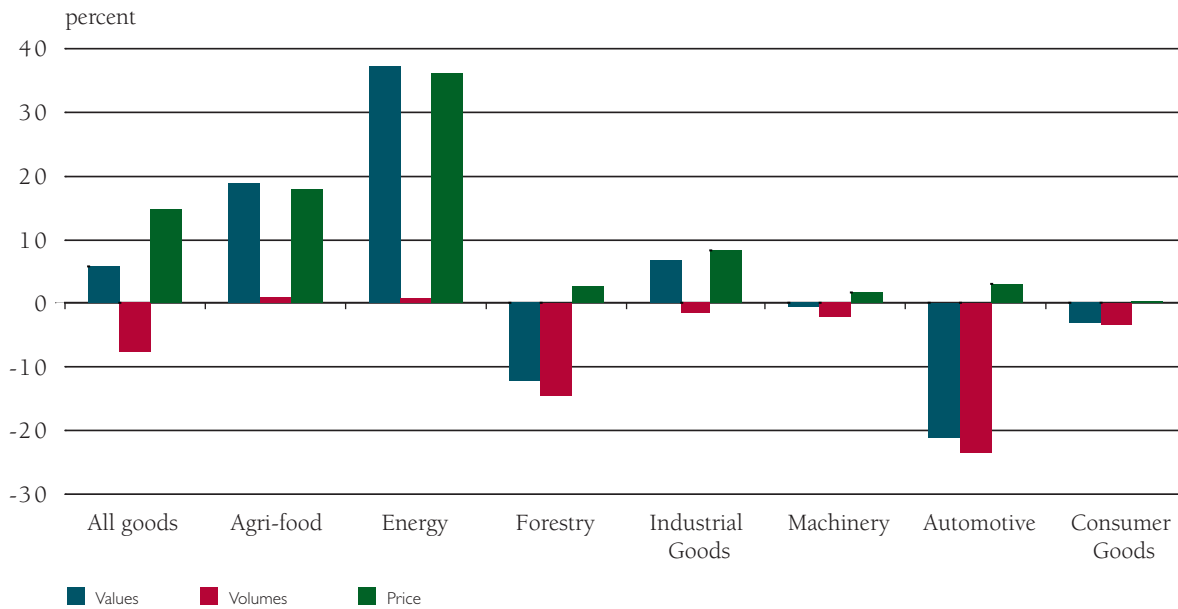
Goods imports expanded by 6.7 percent (\$27.7 billion) to \$442.7 billion in 2008. As with exports, the United States and the rest of the world accounted for most of the gains, with smaller contributions from the remaining major trading partners. In contrast, with respect to imports, the largest gain came from the rest of the world, followed by the United States. Goods imports from the rest of the world increased by \$12.8 billion to reach \$103.8 billion, while goods imports from the United States rose by almost \$11.0 billion to \$280.7 billion.

Next in importance was the EU: imports from that region increased by \$4.3 billion, to \$46.6 billion. Imports of goods from Japan fell \$0.4 billion in 2008, to limit the overall gains.

Notwithstanding the sizeable increase in exports to the United States last year, the U.S. share of Canada's total goods exports fell to 75.5 percent from 76.9 percent the previous year. Nonetheless, the United States remains the principal export destination by far for Canadian goods exports, followed by the rest of the world at 14.0 percent (up 1.3 percent), the EU at 8.1 percent (down 0.2 percent) and Japan at 2.4 percent (up 0.3 percent). On the imports side, the United States accounted for 63.4 percent of total goods imports (down 1.6 percent), followed by the rest of the world at 23.4 percent (up 1.5 percent), the EU at 10.5 percent (up 0.3 percent), and Japan at 2.6 percent (down 0.3 percent).

With goods imports advancing more than goods exports, the goods trade balance narrowed slightly by \$0.9 billion to \$47.2 billion in 2008. Over the past

FIGURE 4-4
Growth in Goods Exports by Major Groups, 2008 (annual percent change)



Source: Statistics Canada

several years, Canada has traditionally run a surplus in its goods trade balance with the United States and deficits with all other major trading partners. However, last year that changed when Canada registered a small goods trade surplus of \$0.3 billion with Japan.

Sectoral Performance of Goods Trade²

The effects of the strong price increases that dominated commodity markets over much of 2008 are reflected in the trade performance of the resource-based sectors—increases in exports were restricted to energy products, industrial goods and materials,³ as well as to agricultural and fishing goods. The gain in exports was price driven as volumes fell 7.7 percent in 2008 compared with a year earlier (Figure 4-4). Export prices started declining in the second half of the year as commodity prices began to fall and the economic downturn set in.

Exports of energy products rose 37.2 percent in 2008 compared with a year earlier, totalling \$125.7 billion. While the United States continued to be the leading consumer of Canada's energy products, growing demand for coal in the Asia Pacific region boosted energy exports to that area. The supply of coal in the Asia Pacific region was disrupted early in the year because of snow storms and flash floods in that region's principal supply areas. Energy export prices, which rose 36.1 percent over the year, were behind most of the gains. Nonetheless, volumes expanded slightly by 0.8 percent.

Gains in barley, canola, and wheat helped raise exports of agricultural and fishing products by 18.9 percent over 2007 levels. The value of barley exports rose 42.8 percent to \$693 million because of increased prices. A resurgence in canola exports was based on demand from the biodiesel industry. A record canola harvest and rising prices led to a

² This section is based on analysis included in Statistics Canada *Catalogue 65-208-X (2009), International Merchandise Trade, Annual Review 2008*.

³ Industrial goods and materials comprise metal ores, chemicals, plastics, fertilizers, metals and alloys, and various other basic products and materials.

71.3 percent increase in exports to \$3.9 billion. Price gains (up 58.6 percent) were also behind the 48.1 percent increase in wheat exports.

Industrial goods and materials recorded their fifth consecutive annual increase, as exports rose 6.3 percent to \$111.3 billion in 2008. Nearly two thirds of the gains came from chemicals, plastics, and fertilizers, and metals and alloys. Chemicals, plastics and fertilizers exports advanced 8.2 percent to \$35.9 billion, driven by increases in uranium and potash. The increases in potash exports were attributable to rising demand from the United States as well as from India, Brazil, China, and Malaysia.

Metals and alloys exports remained strong in 2008, rising 4.5 percent to \$39.9 billion, as both prices and volumes increased. Exports of precious metals flourished because of high demand and rising prices—particularly for gold—on global markets.

Exports of machinery and equipment edged down 0.5 percent in 2008 to \$92.9 billion. Decreases in exports of aircraft and other transportation equipment and of other machinery and equipment were attributable to volume declines. The smaller industrial and agricultural equipment machinery sector expanded its exports by 4.9 percent, as both prices and volumes increased.

For the fourth consecutive year, exports of forestry products fell in 2008, down 12.3 percent to \$25.7 billion. Over 95 percent of the absolute decline came from lumber and sawmill products. These exports plunged 27.3 percent on weak demand and softening prices. Falling exports of wood pulp were partially offset by a rise in newsprint and paper exports.

In line with weakening consumer demand in the United States, Europe, and elsewhere, consumer goods exports fell 3.0 percent to \$18.2 billion in 2008, as volumes fell 3.3 percent.

Exports of automotive products fell 21.0 percent in 2008 from a year earlier, to \$61.1 billion. These products have been on a downward trend since 2002. The decline was attributable to a drop in

volumes, as the economic crisis in the United States depressed car and light truck sales and left auto companies with growing inventories. Exports of passenger autos fell 14.8 percent, and exports of trucks and motor vehicle parts also declined (by 44.4 percent and 18.7 percent, respectively).

On the import side, most sectors recorded increases in 2008 (Figure 4-5). The growth was attributable to a combination of higher prices and volumes: prices advanced 6.2 percent over the year while volumes were up 0.5 percent. The increase in prices was a result of rising commodity prices in the first half of the year and the depreciating value of the Canadian dollar compared with the U.S. greenback in the latter half of 2008.

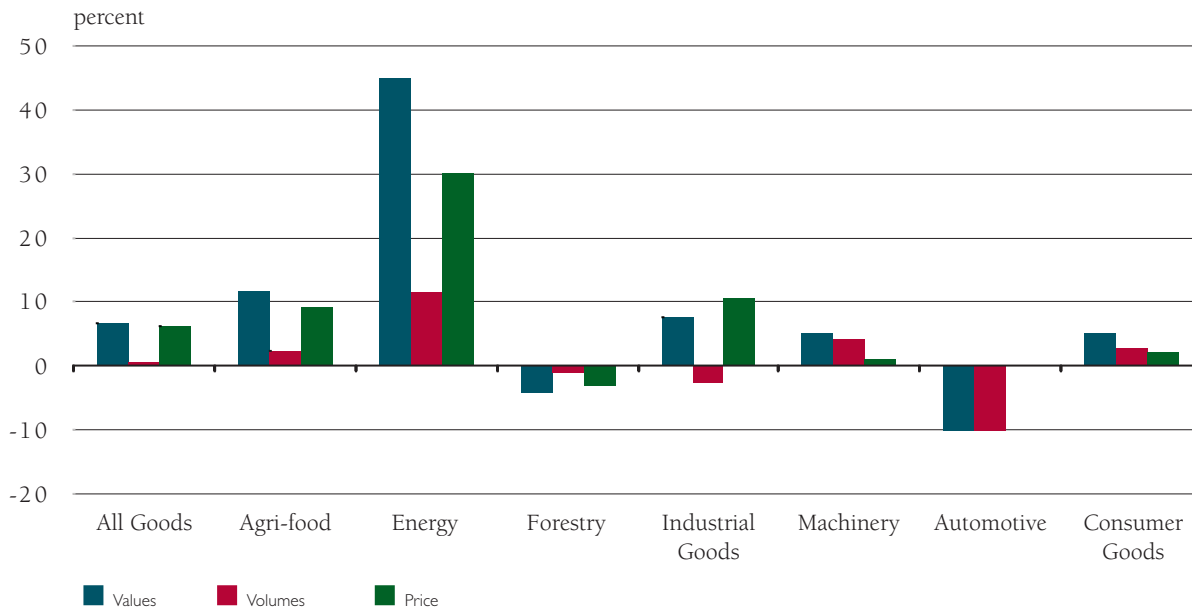
Imports of energy products grew for the sixth consecutive year, increasing 44.9 percent to \$53.0 billion as both prices and volumes rose.

Leading the gain was crude petroleum, which benefited from rising prices in the first three quarters of the year when imports increased 44.4 percent to \$34.2 billion. Imports of petroleum as well as coal and other related products also increased due to a combination of prices and volumes. Also contributing to the rise in energy product imports were gasoline, diesel fuel and aviation fuel, as prices for refined petroleum experienced a strong increase over the first half of the year. Natural gas imports from the United States also rose in 2008.

Rising prices and increased demand led to an 11.8 percent increase in imports of agricultural and fishing products. Imports of fruits and vegetables were up by 8.8 percent last year, while those for other agricultural and fishing products advanced by 13.0 percent.

Rising prices for most of the year were behind the 7.6 percent gain in industrial goods and materials imports in 2008, as the volume of goods imported declined. Contributing to the growth was the increased value of precious metals and alloys imports, which increased by 30.6 percent to \$5.5 billion, as the price of gold strengthened last year.

FIGURE 4-5
Growth in Goods Imports by Major Groups, 2008 (annual percent change)



Source: Statistics Canada

Metals and metal ores benefited from high prices in 2008. Prices were up 12.7 percent, while volumes advanced only marginally. The increases in prices and volumes led to a 13.3 percent increase in the value of metals and metal ore imports.

Imports of chemicals and plastics also increased, rising 4.6 percent to \$31.6 billion. Much of the increase is attributable to the importation of active agents used in the production of various medications.

Imports of forestry products slipped from \$3.0 billion to \$2.9 billion in 2008, due to weaker demand and falling prices.

Consumer goods imports advanced on the strength of both price and volume increases. Demand for apparel and footwear products led the gains as volumes advanced 5.2 percent while those for other consumer goods increased by a more modest 2.1 percent. Prices for consumer products imports increased by 2.2 percent last year.

Finally, imports of automotive products declined 10.1 percent from a year earlier to \$72.0 billion, halting four years of increases. Motor vehicle parts led the decline, falling 14.9 percent, partly due to a strike at a U.S. parts producer early in the year and a weak sales environment.

Imports of trucks and other motor vehicles dropped 13.5 percent, as rising gas prices in the first half of the year led to a slowdown in sales. Imports of passenger autos also slid on declining prices.

Services Trade

In 2008, Canadian services exports grew 1.1 percent to \$68.0 billion while services imports increased 4.7 percent to \$90.5 billion, yielding a services trade deficit of \$22.5 billion for the year. This was \$3.4 billion higher than the deficit in 2007. The increase was largely due to a \$2.6 billion deterioration in the travel deficit and, to a lesser extent, a \$0.8 billion widening in the transportation deficit. The trade deficit for commercial services declined slightly while the trade surplus for government services expanded.

TABLE 4-2
Services Trade by Major Category, 2008 (\$ millions and annual percent change)

	Exports			Imports			Balance	
	2008	\$ Change over 2007	% growth over 2007	2008	\$ Change over 2007	% growth over 2007	2008	\$ Change over 2007
ALL SERVICES								
World	68,006	726	1.1	90,548	4,080	4.7	-22,542	-3,354
U.S.	37,195	1,148	3.2	51,684	3,577	7.4	-14,489	-2,429
EU	13,038	265	2.1	15,633	-330	-2.1	-2,595	595
Japan	1,420	-3	-0.2	2,623	-633	-19.4	-1,203	630
ROW*	16,352	-686	-4.0	20,608	1,465	7.7	-4,256	-2,151
TRAVEL								
World	16,212	-422	-2.5	28,855	2,192	8.2	-12,643	-2,614
U.S.	7,655	-637	-7.7	16,541	1,274	8.3	-8,886	-1,911
EU	3,109	-48	-1.5	5,177	376	7.8	-2,068	-424
Japan	423	-43	-9.2	193	-5	-2.5	230	-38
ROW	5,025	306	6.5	6,945	548	8.6	-1,920	-242
TRANSPORTATION								
World	13,025	869	7.1	21,716	1,683	8.4	-8,691	-814
U.S.	5,355	233	4.5	8,416	928	12.4	-3,061	-695
EU	3,481	111	3.3	5,190	303	6.2	-1,709	-192
Japan	535	31	6.2	509	3	0.6	26	28
ROW	3,655	495	15.7	7,600	450	6.3	-3,945	45
COMMERCIAL SERVICES								
World	36,905	130	0.4	38,870	179	0.5	-1,965	-49
U.S.	23,639	1,471	6.6	26,376	1,360	5.4	-2,737	111
EU	6,194	170	2.8	4,971	-1,012	-16.9	1,233	1,182
Japan	425	6	1.4	1,886	-632	-25.1	-1,461	638
ROW	6,646	-1,517	-18.6	5,638	463	8.9	1,008	-1,980
GOVERNMENT SERVICES								
World	1,864	150	8.8	1,105	23	2.1	759	127
U.S.	546	81	17.4	350	15	4.5	196	66
EU	254	34	15.5	296	4	1.4	-42	30
Japan	37	3	8.8	35	1	2.9	2	2
ROW	1,027	32	3.2	425	5	1.2	602	27

* ROW: Rest of World

Source: Statistics Canada Catalogue No. 67-001.

Canada runs services trade deficits with all of its major partners (Table 4-2). The largest is with the United States, at \$14.5 billion, followed by the rest of the world, at \$4.3 billion. Deficits with the EU and Japan are smaller, at \$2.6 billion and \$1.2 billion, respectively.

Propped up by a relatively strong currency over much of the year, Canadian travel expenditures

abroad grew by 8.2 percent in 2008. At the same time, foreign travel spending in Canada fell 2.5 percent, causing the widening in the travel deficit. Expenditures in the United States, which account for about 57.0 percent of total spending abroad, grew by 8.3 percent, while outlays in the EU and the rest of the world increased by 7.8 percent and 8.6 percent, respectively, and fell 2.5 percent for Japan. A 6.5 percent increase in spending by visitors

from the rest of the world only partly offset a 7.7 percent decline in spending by U.S. visitors. European and Japanese visitors also reduced their spending in Canada last year compared with 2007.

Transportation services exports rose 7.1 percent last year. Exports to all major partners were up, led by the rest of the world (up 15.7 percent). However, the trade deficit increased in this category as imports of transportation services advanced at a faster pace (8.4 percent) than exports. Again, imports were up with all major partners, in this case led by the United States (up 12.4 percent).

Canada's commercial services trade is dominated by trade with the United States. In 2008, that country accounted for 64.1 percent of exports and 67.9 percent of imports in this category. Canadian trade in commercial services with the United States grew strongly last year, as exports to the United States increased by 6.6 percent and imports from that country rose by 5.4 percent. In contrast, commercial services trade with Canada's other partners fell, with exports dropping by 9.2 percent and imports by 8.6 percent. Small increases in exports to the EU and Japan were completely offset by an 18.6 percent fall in exports to the rest of the world. The opposite held true for imports, where large declines in imports from the EU and Japan (16.9 percent and 25.1 percent, respectively) were offset by increases in imports from the rest of the world.

With respect to travel services, the bulk of the deterioration in the deficit arose from falling exports in personal travel (down 3.9 percent) and a 10.0 percent rise in imports. Personal travel accounted for over 80 percent of both exports and imports of travel services. Business travel exports expanded 4.0 percent while imports fell 1.3 percent last year, to limit the growing deficit in overall travel services.

Within transportation services, exports were about \$7.9 billion lower than imports in 2007. The deficit widened in 2008 as export growth lagged import growth. Canada registered deficits in water and air travel and a slight surplus in land travel and other modes of transportation. In 2008, water

transportation advanced the fastest as exports rose by 15.3 percent while imports climbed by 14.1 percent. Imports and exports in air transportation each grew by 4.9 percent. For both water and air modes, export values were about half that of imports, so the absolute increases in exports were lower than for imports and the trade deficits for these two sub-categories widened. For land and other modes of transportation, a small increase in exports of 0.4 percent (\$12 million) was less than the 1.5 percent increase in imports (\$35 million), causing a small reduction in the \$1.0 billion surplus in this category.

Performance was very mixed in commercial services with five of eleven sub-categories registering increases and the other six registering declines for both exports and imports, although not necessarily in the same sub-categories. As noted above, there was a small \$49 million deterioration in the overall commercial services trade deficit in 2008.

Commercial services exports increased 0.4 percent (\$130 million) last year as declines in management services (down 6.9 percent), other financial services (down 6.6 percent), royalties and licence fees (down 5.1 percent), communications services (down 4.9 percent) and computer and information services (down 4.0 percent) were completely offset by increases in construction services (up 64.8 percent), architectural, engineering, and other technical services (up 13.8 percent), research and development (up 9.6 percent), and audio-visual services (up 7.3 percent).

On the import side, increases that were largely centred on royalties and licence fees (up 9.8 percent) and management services (up 5.5 percent) were only partially offset by declines in other financial services (down 15.1 percent), computer and information services (down 11.9 percent), and research and development (down 9.6 percent). Overall, imports of commercial services in 2008 increased by 0.5 percent (\$179 million) over 2007 levels.

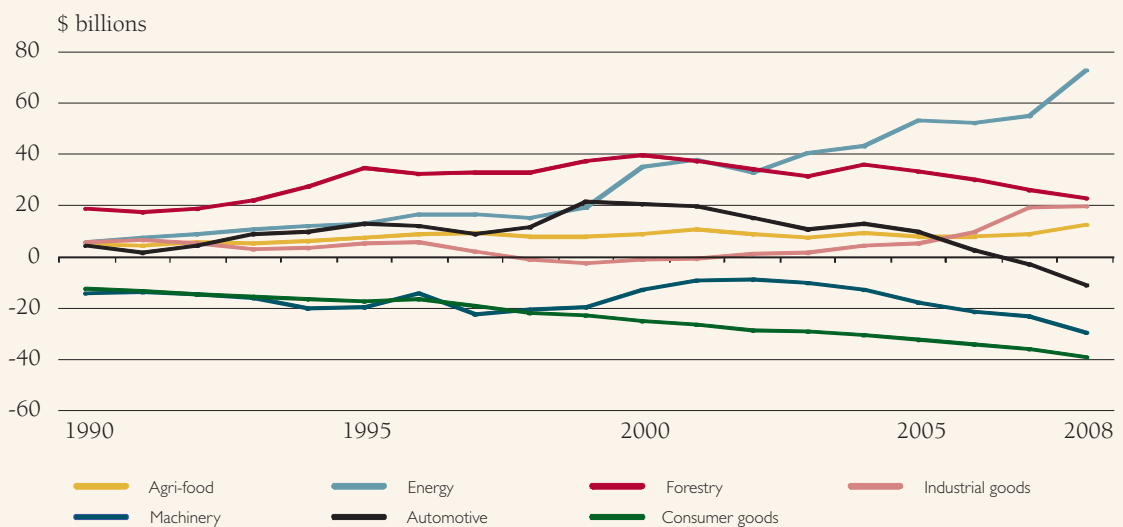
It is notable that in the midst of the financial turmoil that characterized 2008, trade activities in

The Evolution of Canada's Trade Surplus

Of the seven major categories of goods, three products— agricultural and fishing products, forestry, and energy products— have consistently posted trade surpluses since 1990 and remain in surplus, while two other products—machinery and consumer goods—have always posted trade deficits. Industrial goods and materials have posted growing

surpluses since 2002, although that surplus levelled off in 2008. Automotive products were in surplus until 2007 after which they went into a deficit position that widened sharply in 2008. Canadian exports of automotive products have fallen for four straight years while imports continued to grow until 2008 when they finally turned downwards.

Trade Balance by Major Groups: 1990-2008



finance and related services fell off, as credit conditions tightened and it became increasingly difficult to assess the risks associated with a variety of financial instruments. In 2008, aggregate exports for the insurance services and other financial services sub-categories fell by \$187 million while imports dropped by \$603 million.

The Current Account

The current account records the flow of transactions between Canada and its commercial partners. The largest component of these transactions comprises the exchange of goods and services, as discussed above. The remaining two components of the current account capture the flow of payments and receipts of investment income and current transfers.

In 2008, the current account balance narrowed by \$3.4 billion to \$10.2 billion. Although a surplus was recorded for the year, a deficit of \$7.5 billion (on a seasonally adjusted basis) was recorded in the fourth quarter of 2008, the first deficit since the second quarter of 1999.

Goods and services accounted for all of the decline in the overall surplus in 2008, led by a wider deficit in services trade, most notably for travel. At the same time, the goods surplus continued to shrink, as imports rose more than exports.

There was a slight improvement in the investment income deficit, as it narrowed by \$0.2 billion to \$14.0 billion. A large drop in profits earned by

Canadian direct investors was mostly offset by lower interest paid on banking positions. The

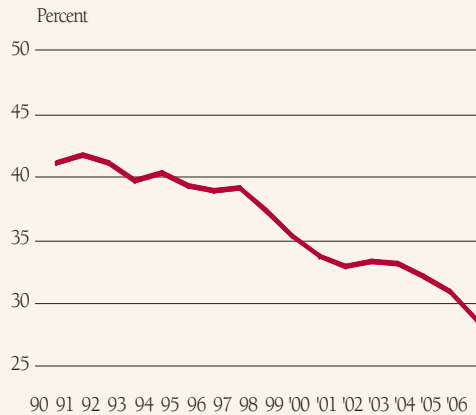
deficit in current transfers contracted by \$0.7 billion to \$0.4 billion, down from \$1.1 billion in 2007.

Intra-firm Trade Between Canada and the United States

The share of Canada-U.S. trade in goods that is intra-firm—that is, trade that takes place between related firms operating on both sides of the border¹—has been steadily declining since the beginning of the 1990s. This suggests that the implementation of the Canada-U.S. FTA (1989) and NAFTA (1994), by facilitating cross-border trade, has lessened the need for U.S. and Canadian firms to have a presence across the border in order to do business. In other words, in a free trade environment supply chains can be built up reliably between unrelated companies. The influence of these two agreements on reducing intra-firm trade between the United States and Canada is further suggested by the much higher share of intra-firm trade between the United States and its other trading partners in the developed world. It is also notable that almost 90 percent of intra-firm trade between the United States and Canada takes place between U.S. parent companies and their affiliates, while the trade between Canadian parents and their subsidiaries is much smaller.

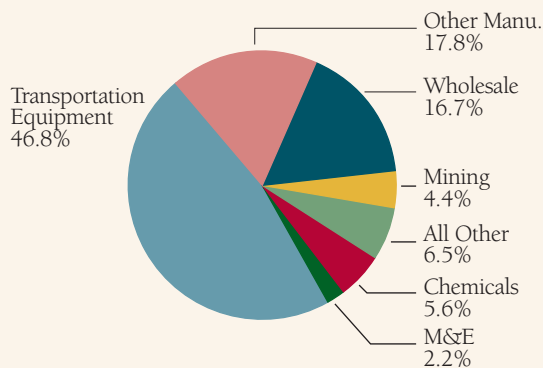
In 2006, the latest year for which data is available, 28.7 percent of Canada-U.S. trade in goods was intra-firm, down from over 40 percent in the early 1990s. This was equivalent to bilateral trade of US\$153.9 billion² in both directions. Although the share of Canada-U.S. intra-firm trade has decreased, its value has doubled since 1990. The fact that bilateral trade in goods between Canada and the United States tripled over the same period explains the drop in the share of intra-firm trade.

Share of Canadian Trade in Goods with the U.S. that is Intra-firm



Source: Office of the Chief Economist, DFAIT
Data: U.S. BEA

Canada – U.S. Intra-firm Trade by Industry (2006)



Source: Office of the Chief Economist, DFAIT
Data: U.S. BEA

In 2006, about 31.0 percent of all Canadian goods exports to the United States were intra-firm, while just over a quarter (25.6 percent) of

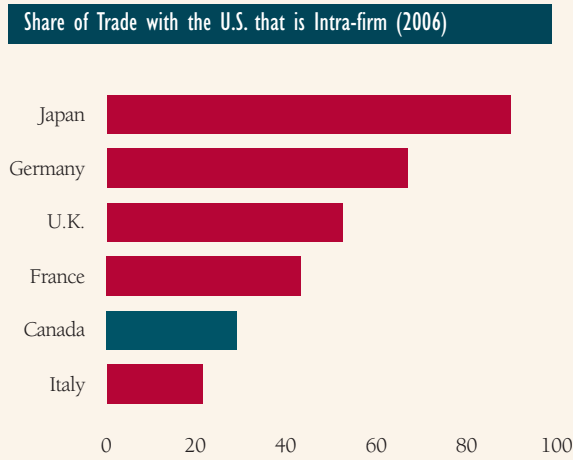
1 For a more detailed explanation of intra-firm trade, see *Canada's State of Trade, Trade and Investment Update - 2008*, p.44.
2 Data comes from the U.S. Bureau of Economic Analysis and covers the operations of foreign multinationals in the U.S. and U.S. multinationals abroad.

Canadian goods imports from the United States were intra-firm. The bulk (87.5 percent) of intra-firm trade involves goods traded by U.S. parent companies rather than Canadian parent companies, and about half of this trade between U.S. parents and their Canadian affiliates was in transportation equipment. More than 80 percent of Canadian intra-firm exports involved Canadian affiliates exporting to their U.S. parents, while only 17.2 percent of Canadian intra-firm exports were shipped by Canadian parents to their U.S. subsidiaries. On the imports side, 95.2 percent of Canadian intra-firm imports involved Canadian subsidiaries importing from their U.S. parents, while only 4.8 percent of Canadian intra-firm imports involved U.S. affiliates shipping back to their Canadian parents.

Some 72.4 percent of Canada-U.S. intra-firm trade was in the manufacturing sector in 2006, down from 79.6 percent in 2000. The manufacturing sector is comprised of transportation equipment, chemicals, machinery and equipment, and other manufacturing. Almost half the overall Canada-U.S. intra-firm trade was in transportation equipment, primarily motor vehicles. The declining importance of intra-firm trade within the transportation equipment sector is responsible for much of the decline in the total share of intra-firm trade between Canada and the United States.

In 2006, wholesaling accounted for a significant share of intra-firm trade (16.7 percent); its share has been stable in recent years. Mining and “all other industries” together accounted for just over 10 percent of total Canada-U.S. intra-firm trade.

Among G7 countries, Canada had the second-lowest share of intra-firm trade with the U.S., after Italy. Japan had by far the highest share of intra-firm trade with the U.S. (89.1 percent), followed by Germany (66.3 percent). Japan's large share underscores the importance of wholesale trade affiliates, which accounted for nearly three quarters of Japan-U.S. intra-firm trade. The U.K.'s and France's shares were 52.2 percent and 42.8 percent, respectively. Notwithstanding its relatively smaller share, the absolute value of Canada's intra-firm goods trade with the United States is not small, but rather comes second only to that between Japan and the United States because of the sheer size of Canada-U.S. trade.



Source: Office of the Chief Economist, DFAIT
Data: U.S. BEA

Key Developments in Canadian Merchandise Trade in 2008

The previous chapter painted the broad picture for Canadian trade. Energy products, with their huge fluctuations in prices over the year, brought about significant changes in Canada's bilateral and regional trade performance. Likewise, high prices for metals and agricultural commodities influenced the shifts in trade for these products. The economic recession in the United States and the ongoing slowdown in U.S. housing activity severely affected automotive and forestry-related trade. The effects were reflected in the contraction of trade for these products and in the pattern of provincial trade performance.

This chapter examines in greater detail the developments in Canada's merchandise trade in 2008—across trading partners, commodities, and provinces—using Canadian trade statistics that are prepared at the detailed commodity and individual country levels.¹

Canadian merchandise exports reached \$484.4 billion in 2008, while merchandise imports were \$433.2 billion. Much of this trade was concentrated in a small number of countries. In 2008, six countries—the United States, the United Kingdom, Japan, China, Mexico, and Germany—accounted for nearly seven of every eight dollars of merchandise exports and six of every eight dollars of merchandise imports. Of particular note, Japan regained third position in the ranking of Canadian export destinations, and China moved back to fourth position, while South Korea moved up three

places to become Canada's seventh-largest export destination.

In terms of specific products driving Canadian trade performance in 2008, crude oil, non-crude oil, and other petroleum gases (primarily natural gas) dominated Canada's trade in energy products, accounting for much of the growth in both trade levels and in the trade surplus. Trade with the United States was the driver behind the growth for much of the 2008 energy trade; however, for coal, it was strong demand from Asia due to regional supply difficulties. In the automotive and automotive-related sectors, again it was trade with the United States driving the changes; however, in this case, trade was contracting and trade balances were deteriorating sharply for passenger cars and motor trucks.

Outside of energy products, other resource products that influenced Canadian trade considerably included wheat and canola. In this case, strong price increases and good harvests in Canada in conjunction with poor harvests elsewhere helped boost export levels, but strong prices also raised import values. Gold enjoyed a banner year, as prices reached record highs and demand was strong, boosting both exports and imports. Sulfur exports also boosted mineral and metal exports overall. Exports of potash rose significantly, driven by demand in the United States and in major emerging economies, while uranium exports fell sharply to Europe.

¹ Canadian trade statistics are provided in two basic forms: Customs basis and Balance of Payments basis. In Chapter Four, the analysis of trade with "major partners" used trade data prepared on the Balance of Payments basis. Trade statistics at greater detailed commodity and individual country levels are provided on a Customs basis only. Since Chapter Five examines trade developments in detail, data is therefore provided on a Customs basis.

Within advanced manufacturing, telephone equipment and parts experienced a sharp decline in exports and strong growth in imports. Both exports and imports of aircraft fell in response to declining demand in both the United States and Canada. However, both exports and imports of gas turbines, largely used in the aircraft sector, expanded strongly, mainly due to heightened trade with the United States.

Trade by Top Ten Partners

Merchandise Exports

Canadian merchandise exports to the world expanded by 7.5 percent to \$484.4 billion in 2008, an increase of \$33.7 billion.

The **United States** was the largest destination for Canadian merchandise exports, accounting for slightly over three quarters of total exports. Despite slumping demand², exports to the United States were up \$20.4 billion (5.7 percent) in 2008 to \$376.3 billion, largely due to commodity price increases in the first part of the year. Energy products, in particular crude oil, up \$25.8 billion (62.0 percent), and natural gas, up \$5.2 billion (18.2 percent), accounted for the bulk of the gains, while exports of automotive products fell sharply. Exports of trucks fell \$6.1 billion (63.8 percent), while exports of passenger automobiles fell \$5.9 billion (14.9 percent). Exports of automotive parts were down \$2.8 billion (22.0 percent).

The **United Kingdom** ranked second, receiving \$13.1 billion (2.7 percent) of Canada's total exports. A severe downturn in the U.K. economy limited Canadian export opportunities to that country hence exports increased by only 2.0 percent. Gold exports contributed to the advance, rising 52.5 percent on account of the strong increase in the price of gold mentioned in the previous chapter. The value of diamond exports more than doubled, reaching almost \$1.4 billion. Heightened demand for gold and diamonds for investment purposes was likely behind the increased exports of these

products since the financial crisis hit the United Kingdom hard in 2008.

Japan reclaimed third position (from China) in 2008, as exports jumped 20.2 percent to \$11.1 billion. Coal exports more than doubled, to \$2.3 billion, as a direct result of disruptions in the region's coal supply from traditional suppliers such as China (affected by snowstorms) and Australia (affected by torrential rains and floods). Exports of canola and wheat also increased due to bumper harvests in Canada and tightened supplies from other countries due to hot and dry weather. Exports of canola were up 56.3 percent to \$1.4 billion, while those for wheat jumped up by 76.0 percent, to \$551 million.

China slipped to fourth spot even though Canadian exports to that country were up by \$10.4 billion (9.2 percent). Sulfur exports to China nearly tripled, rising by \$544.1 million to \$819.6 million. As with Japan, Canadian exports of coal increased to China, advancing by \$158 million, which was twelve times as great as in 2007. Exports of canola seed increased \$451 million to \$781.9 million, while exports of canola oil fell \$75.6 million to \$172.9 million. Results for nickel products were also mixed: exports of unwrought nickel fell \$322.7 million, while exports of nickel mattes and other intermediate products rose by \$166.3 million.

Mexico was Canada's fifth-largest export trading partner in 2008. Exports to Mexico were valued at \$5.8 billion, up \$887.2 million (17.9 percent) from 2007. Leading the gains were canola exports, up \$365.7 million (80.3 percent), and coal exports, up \$127.3 million (593.0 percent). Other notable advances were recorded for electronic integrated circuits and machinery parts, up \$259.1 million and \$140.0 million, respectively.

Germany ranked sixth in 2008, up from seventh spot in 2007. Exports to Germany were up \$594.1 million (15.3 percent) to \$4.5 billion. Three products were largely responsible for this increase: iron

² Recall from Chapter 1, consumer spending decelerated and imports of goods contracted in the U.S.

Canadian Exporters: Selling More Products to More Markets

At the firm level, Canadian exporters have become steadily more diversified both in the number of markets they serve and the number of products they export. In past editions of the *State of Trade*, analysis of Exporter Registry¹ data has shown that the number of firms serving the U.S. market alone has declined, while the number of firms exporting to the U.S. and other markets, or only to non-U.S. markets, has increased. This year's analysis confirms that the average number of markets per exporter has increased, and that the number of multi-market exporters has grown by almost 40 percent, according to the five most recent years of data. In terms of product diversification, outside the North American market, the number of Canadian exporters selling more than one product has grown dramatically.

The latest data indicate that the average number of destinations per Canadian exporter increased from 1.8 in 2001 to 2.5 in 2006. While the number of single-market exporters remains much higher than multi-market exporters—over 32,000 versus fewer than 12,000 (Table 1)—nevertheless, the number of multi-market exporters increased 38 percent between 2001

and 2006. This gain was all the more impressive as the total number of exporters decreased by 8 percent over this period. Indeed, 3,000 more enterprises became multi-market exporters while the number of single-market exporters decreased by over 7,000. This decrease was partly attributable to single-market exporters becoming multi-market exporters.

This growth in multi-market exporters was completely accounted for by SMEs.² The number of SMEs exporting to more than one destination increased 48 percent from 7,046 in 2001 to 10,406 in 2006. During this period, the number of SMEs exporting to Asia and Europe increased significantly, by 56 percent and 42 percent, respectively, while the number of SMEs exporting to the United States declined (Figure 1).

Canadian exporters are diversifying their product lines as well as their markets. Although the total number of multi-product exporters decreased by 6 percent, the proportion of multi-product exporters with respect to the total exporter population rose. Further, there has been a notable increase in product diversification outside North American markets. Although the number of

TABLE 1
Canadian Exporters (2001-2006)

	2001	2006	ABSOLUTE CHANGE	PERCENT CHANGE
Total number of exporters	48,140	44,127	-4,013	-8.3
Average value of exports (\$millions)	7.5	8.6	1.2	16.0
Average number of destinations	1.8	2.5	0.7	38.8
Single-market exporters	39,591	32,296	-7,295	-18.4
Multi-market exporters	8,549	11,831	3,282	38.4
Single-product exporters	19,217	16,969	-2,248	-11.7
Multi-product exporters	28,923	27,158	-1,765	-6.1

1 The Exporter Registry is a database compiled by Statistics Canada comprising data on exporters at the enterprise and establishment level. Data utilized for analysis in this section of the *State of Trade* are at the enterprise level. As of writing, the latest data available are for 2006. Note that data used in last year's edition of the *State of Trade* applied only to exporters with sales above \$30,000, whereas data for all exporters have been included in this year's edition.

2 For the purpose of this analysis SME (small medium sized enterprise) is defined as an enterprise with less than 200 employees.

multi-product exporters decreased, both in total and to North America, as seen in Figure 2, all other regions experienced very high increases in the number of multi-product exporters; this is especially true for Oceania and Africa, where the number of Canadian multi-product exporters doubled.

Diversification, of both markets and products, was likely a major contributor to an increase in the average value of exports per enterprise, which rose from \$7.5 million in 2001 to \$8.6 million in 2006. This trend is particularly strong for SME exporters who saw their average export value rise from \$2.4 million in 2001 to \$3.2 million in 2006.

FIGURE 1
Growth in Number of Exporters in 2001-2006

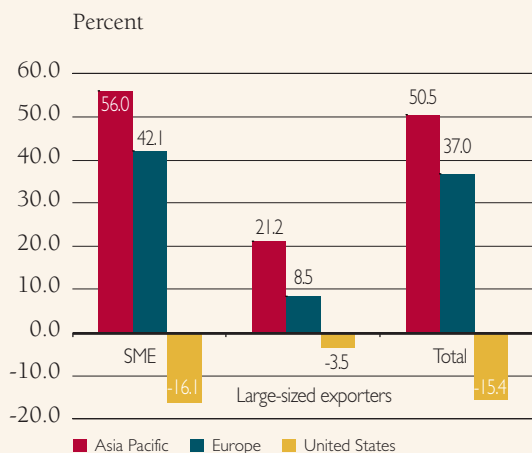
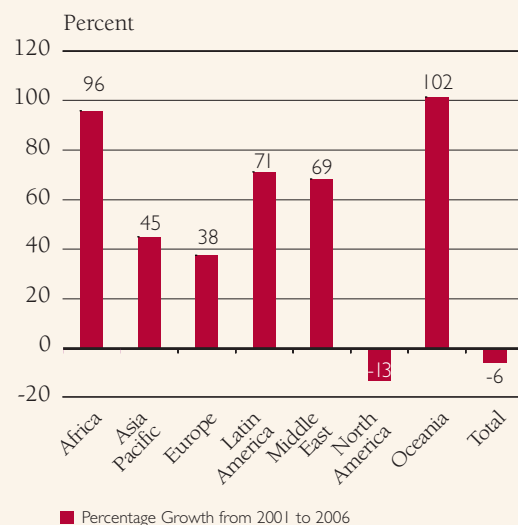


FIGURE 2
Percentage Growth of Multi-product Exporters by Region of Destination from 2001 to 2006



ore, up \$423.7 million (96.2 percent); coal, up \$104.8 million (56.3 percent); and copper ore, up \$99.7 million (66.2 percent).

South Korea ranked seventh in 2008, up from tenth position in 2007. Exports to South Korea were up \$812.7 million (27.0 percent) to \$3.8 billion. Coal exports accounted for the bulk of the increase, up \$717.9 million (129.3 percent).

The **Netherlands** ranked eighth in 2008, with exports falling \$344.7 million (8.5 percent) to \$3.7 billion. Plunging exports of uranium and other radioactive elements and isotopes, down \$453.7 million (84.8 percent), accounted for much of the decline. Other notable declines occurred for exports of unwrought nickel and unwrought aluminum, which fell by \$185.1 million and \$111.0

million, respectively. Partially offsetting the losses was a \$666.8 million increase in exports of heavy petroleum oil preparations.

Belgium ranked ninth in 2008, up from eleventh spot in 2007. Exports to Belgium rose \$435.6 million (14.7 percent) to \$3.4 billion. The increase was mostly due to heavy petroleum oil preparations and linseed, which advanced by \$185.7 million and \$134.7 million, respectively.

Rounding out Canada's top ten export markets was **France**, in tenth spot. Canadian exports to France increased 3.7 percent to \$3.2 billion.

In addition to the increase in exports to China noted above, merchandise exports to the other so-called BRIC countries grew strongly, led by Brazil

(up \$1.1 billion, or 70.7 percent), then India (up \$625.9 million, or 34.9 percent), and finally Russia (up \$348.2 million, or 30.3 percent).

Merchandise Imports

The **United States** was Canada's largest source of merchandise imports, accounting for slightly over half of our total imports. Imports from the United States were valued at \$226.9 billion in 2008, up \$6.4 billion (2.9 percent) over 2007. As with exports, increases in commodity prices affected import trade values. Energy products registered notable gains (up 56.8 percent) led by heavy petroleum oil preparations (up \$1.8 billion), natural gas (up \$1.2 billion), crude petroleum (up \$1.2 billion), and gasoline and other fuels (up \$833.6 million). Precious metals, principally gold in various forms, also rose by \$1.2 billion (44.7 percent). The downturn in the automotive sector curtailed automotive and automotive-related imports, which fell 12.2 percent. Of note, imports of automotive parts fell by \$3.0 billion, imports of transportation trucks fell by \$2.0 billion, and imports of passenger cars fell by \$1.2 billion.

China ranked second as a source of merchandise imports into Canada. Imports from China into Canada were up \$4.3 billion (11.3 percent) to \$42.6 billion in 2008. Gains were widespread led by telephone equipment (up \$515.8 million), computer equipment (up \$426.9 million), video games (up \$396.8 million), and coke (up \$241.5 million).

Merchandise imports from **Mexico**, which continued to be Canada's third-largest source, increased \$727.9 million (4.2 percent) to \$17.9 billion in 2008. Imports of passenger automobiles led the gains, rising \$418.7 million, in contrast to an overall decline in automobile imports in 2008. Televisions, cellular telephones, crude oil, and gold also reported notable gains of \$342.7 million, \$260.8 million, \$249.3 million, and \$163.1 million, respectively. Fewer imports of transportation trucks (down \$206.1 million), motor vehicle parts (down \$121.7 million) and insulated wire and cables (down \$121.6 million) offset the gains.

Japan, which ranked fourth, was the only one of our top ten import sources which supplied fewer imports to Canada in 2008 than in 2007: imports fell \$166.8 million (1.1 percent) to \$15.3 billion. Automotive parts experienced the largest decline, falling \$181.3 million, as smaller gains and losses in other products and commodities effectively cancelled each other out.

Imports from **Germany**, Canada's fifth-largest source, were up \$1.2 billion (10.2 percent) to \$12.7 billion. Passenger automobiles, which accounted for about one quarter of the increase, were up by \$307.0 million. Next in importance were boats, up \$118.3 million, followed by medicaments, which were up by \$110.2 million.

Imports from the **United Kingdom**, which ranked sixth, were up \$1.1 billion (9.4 percent) to \$12.6 billion. Energy products accounted for the increase as imports of crude petroleum were up by \$812.5 million, imports of gasoline and other fuels more than doubled (up \$169.3 million), and imports of heavy petroleum oil preparations were up \$69.1 million.

Imports from **Algeria**, which moved from tenth place to seventh in 2008, increased by \$2.6 billion (51.8 percent) to \$7.7 billion in 2008. The increase was entirely due to crude petroleum, which accounted for 99.97 percent of Canada's imports from Algeria.

Imports from **Norway**, which slipped to eighth place in 2008, increased by a total of \$853.2 million (15.9 percent) to \$6.2 billion. The increase was partly due to a \$868.6 million increase in crude petroleum imports. A \$118.6 million decline in imports of gasoline and other fuels was largely offset by a \$85.8 million increase in iron alloys and an aggregate net increase in all other imports from Norway.

Imports from **South Korea**, which ranked ninth, were up \$638.6 million (11.9 percent) to \$6.0 billion in 2008. Advances were widespread, led by electronic integrated circuits (up \$256.0 million),

TABLE 5-1
 Canadian Merchandise Trade By Top Products (\$ millions and percent)

	2008 EXPORTS	EXPORT GROWTH	2008 IMPORTS	IMPORT GROWTH	2008 BALANCE	2007-08 CHANGE IN BALANCE
TRADE SURPLUS PRODUCTS:						
Large Exports and Large Imports						
Crude Oil	67,439	61.2	34,107	41.4	33,332	15,628
Petroleum Gases	37,203	18.7	4,819	34.9	32,384	4,604
Passenger Cars (Persons)	34,514	-14.7	26,959	-1.1	7,555	-5,632
Oil (Not Crude)	17,913	35.1	10,475	46.6	7,437	1,320
Gold	8,157	38.2	3,788	28.4	4,370	1,418
Aircraft, Powered	6,900	-14.0	3,556	-14.6	3,344	-517
Gas Turbines	5,213	19.0	4,355	14.5	858	281
Sub-total	177,339	22.1	88,059	20.6	89,280	17,103
Large Exports and Small Imports						
Aluminum, Unwrought	7,360	-1.9	342	-9.7	7,018	-105
Wheat And Meslin	7,089	50.9	12	66.2	7,077	2,386
Potash	6,311	109.2	21	20.6	6,290	3,291
Coal	6,176	111.1	1,335	22.7	4,841	3,003
Sawn Lumber	5,370	-28.2	507	-12.5	4,863	-2,037
Chemical Woodpulp	5,226	-5.3	173	14.7	5,053	-316
Newsprint, In Rolls Or Sheets	4,264	6.6	59	47.8	4,205	245
Canola (Seeds)	3,882	71.2	104	28.2	3,778	1,591
Polymers Of Ethylene, In Primary Forms	4,571	9.4	1,352	11.4	3,219	256
Sub-total	50,250	20.8	3,906	9.8	43,125	8,060
TRADE DEFICIT PRODUCTS:						
Large Exports, Large Imports						
Auto Parts & Accessories	11,131	-22.4	18,931	-14.9	-7,800	111
Medicaments, In Dosage Form	5,234	-3.0	8,309	0.1	-3,076	-171
Telephone Equipment & Parts	4,745	-19.0	6,203	11.9	-1,458	-1,775
Vehicles For Transport Of Goods	3,681	-62.8	9,229	-19.7	-5,549	-3,935
Piston Engines	2,497	-24.0	5,375	-12.0	-2,878	-59
Computers and Peripherals	2,435	2.7	8,525	2.3	-6,090	-125
Integrated Circuits & Parts	2,784	22.4	3,691	1.5	-907	456
Aircraft Parts	2,409	5.2	3,703	13.6	-1,293	-324
Sub-total	34,916	-23.6	63,966	-7.2	-29,050	-5,821
Small Exports, Large Imports						
Insulated Cable and Wire	977	-8.2	3,009	-3.6	-2,032	24
Bulldozers, Graders, Scrapers Etc	475	-14.5	3,437	8.5	-2,962	-348
TV Receivers, Incl Video Monitors & Projectors	349	15.3	4,332	9.3	-3,983	-321
Seats (Non-Professional), And Parts	1,679	-18.5	3,083	-6.7	-1,405	-159
Sub-total	3,480	-6.3	13,862	5.1	-10,382	-803
Total of Above	265,985	12.8	169,793	7.0	92,972	18,538
World Total	484,369	7.5	433,242	6.5	51,127	7,416

telephone sets (up \$111.4 million), gasoline and other fuels (up \$70.7 million), and heavy petroleum oil preparations (up \$64.9 million).

Imports from **France**, which ranked tenth, were up \$845.9 million (16.6 percent) to \$5.9 billion. Gains were widespread, led by gasoline and other fuels (up \$101.3 million), and blood products (up \$76.4 million).

Merchandise imports from the BRIC countries, except for China which is reported above, were up for Russia (by \$582.8 million, or 38.9 percent) and India (by \$222.4 million, or 11.2 percent), while they fell from Brazil (by \$675.6 million, or 20.1 percent).

Merchandise Trade by Top Products

Canadian trade is dominated by a few products, more so on the export side than on the import side:³ 28 products accounted for over half of Canadian merchandise exports in 2008, nearly 40 percent of merchandise imports, and all of Canada's merchandise trade surplus. As shown in Table 5-1, these top products fall into two broad categories: trade surplus products and trade deficit products. Within each category, trade can be further subdivided into trade that is substantially two-way and trade that is primarily one-way.⁴

Products for which there was substantial two-way trade (i.e., with both large exports and large imports) and for which Canada reported a trade surplus include energy products, passenger cars, gold and aircraft. The resource-based products within this group experienced strong growth for both exports and imports because of the price effects already noted. The declines in trade of the manufactured items—cars and airplanes—were linked with the economic downturn, although trade in gas turbines expanded.

Products for which Canada reported large exports and smaller imports were principally non-energy resources, such as wheat, potash and wood products. Several of these products experienced strong gains, based on high commodity prices in 2008; lumber, on the other hand, has been declining on a longer term basis.

Products with substantial two-way trade but for which Canada reported a trade deficit include automotive and aircraft parts, motor trucks, engines, communications equipment, and computers and integrated circuits—all advanced manufacturing products. Exports fell widely across these products. On the other hand, declines in imports of these products were restricted to auto-related products.

Finally, products for which Canada reported large imports and smaller exports fall mostly in the advanced manufacturing sector. Television receivers and video monitors registered strong advances while performance was weaker in the other products.

Merchandise Trade by Major Product Groups

This section examines 2008 trade performance in the following product groupings: energy, vehicles and parts, machinery and mechanical appliances, electrical and electronic machinery, technical and scientific equipment, agricultural and agri-food products, minerals and metals, chemicals, plastics and rubber, wood, pulp and paper, textiles, clothing and leather, consumer and miscellaneous manufactured products, and other transportation equipment.

Energy Products⁵

As discussed in Chapter 4, energy products played a leading role in the advances of both Canadian exports and imports of goods in 2008, with strong increases in energy prices accounting for most of the gains.

3 Canada's merchandise trade is usually reported by what is known as the Harmonized System (HS) of Trade Classification, an internationally defined system for codifying traded products. Within the HS system, trade is broken down into some 97 chapters, also known as the HS 2-digit level. Each chapter is then broken down into sub-categories at the 4-digit level and each 4-digit sub-category is further broken down into individual products at the 6-digit level. This section examines Canada's top traded products at the 4-digit HS level.

4 28 commodities are examined, including the top 19 exports and top 19 imports, with 10 products common to both the top exports and top imports.

5 HS Chapter 27.

Canadian exports of mineral fuels and oils surged \$40.5 billion (43.1 percent) in 2008 to \$134.4 billion. Imports of these products increased almost as dramatically, up \$15.8 billion (41.8 percent) to \$53.7 billion for the year. As a result, the trade surplus for energy products widened by \$24.6 billion, from \$56.0 billion to \$80.6 billion. In 2008, the United States was the destination for 86.0 percent of Canada's energy exports, supplied 38.6 percent of our energy imports, and was responsible for all of the increase in the trade surplus.

Three commodities—crude oil, non-crude oil, and other petroleum gases (primarily natural gas)—make up more than 90 percent of the trade in energy products, for both exports and imports. Crude oil is the dominant commodity, accounting for half of energy exports and nearly two thirds of energy imports. Canada's crude oil exports climbed \$25.6 billion to \$67.4 billion, with the United States accounting for all of the gains. At the same time, imports rose by \$10.0 billion to \$34.1 billion. Noticeable gains in our energy imports were registered from Algeria, Angola, the United States, Azerbaijan, and Norway. With the increase in exports exceeding that for imports, Canada's trade surplus in crude oil almost doubled in 2008, rising by \$15.6 billion to \$33.3 billion.

Petroleum gases accounted for 27.7 percent of energy exports and 9.0 percent of energy imports in 2008. Natural gas in a gaseous state is the predominant commodity in this category, accounting for roughly 90 percent of the trade in either direction, virtually all of which was with the United States. Exports were up just under \$5.2 billion while imports increased by \$1.2 billion, as the trade surplus in natural gas expanded by \$3.9 billion to \$29.2 billion.

Heavy petroleum oils accounted for about 60 percent and light petroleum oils (including gasoline) for about 40 percent of non-crude oil trade. Overall exports of non-crude oil increased by nearly \$4.7

billion (led by a \$2.0 billion increase to the United States), while imports advanced \$3.3 billion (imports from the United States alone were up by \$2.7 billion) and the trade surplus widened by \$1.3 billion. The trade surplus for light petroleum narrowed by \$0.4 billion to \$2.2 billion while that for heavy oils widened by \$1.7 billion to \$5.3 billion.

Coal exports more than doubled in 2008, up nearly \$3.3 billion, on strong demand from Asia. With a \$246.9 million rise in imports, the trade surplus in coal widened by \$3.0 billion for the year.

Vehicles and Parts⁶

In 2008, exports of vehicles and parts fell \$14.8 billion (21.6 percent) to \$53.8 billion. The decline was almost entirely accounted for by a \$14.4 billion decrease in exports of these products to the United States. Three products—cars with cylinder capacity of more than 3000 cc, light trucks, and auto parts—were behind the losses, as their exports to the United States fell by \$5.6 billion, \$5.6 billion, and \$2.8 billion, respectively.

Vehicle imports also fell in 2008, by \$5.5 billion (8.0 percent) to \$63.3 billion. Accounting for the decline were falling imports from the United States, which fell slightly more than the total, by \$6.1 billion. Imports from Germany rose by \$349.1 million and those from Mexico rose by \$119.0 million. As was the case for exports, cars with cylinder capacity of more than 3000 cc, light trucks, and auto parts were behind the losses, with imports of these three products from the United States falling by \$1.1 billion, \$1.2 billion, and \$3.0 billion, respectively. In addition, imports from the United States of certain other trucks⁷ requiring compression ignition fell \$1.1 billion.

With exports falling more than imports, the trade deficit for vehicles and parts widened from a near-balance position in 2007 to almost \$9.5 billion in 2008. The increase in the trade deficit with the U.S. accounted for nearly 90 percent of the decline (\$8.3 billion). The deterioration in the trade deficit

6 HS Chapter 87.

7 Specifically, trucks under HS 870421 and HS 870422.

was centred on passenger cars and motor trucks, for which trade balances fell by \$5.6 billion and \$3.9 billion, respectively. The trade balance for automotive parts improved slightly, with the deficit narrowing by \$111.3 million: exports of automotive parts fell \$3.2 billion, but imports fell even more (\$3.3 billion).

Mechanical Machinery and Appliances⁸

Mechanical machinery and appliances (hereafter machinery) comprises a single chapter in the HS classification system. It is also one of the largest categories of goods in Canada's trade. In 2008, machinery surpassed vehicles as the largest import category, at \$63.6 billion; it is also the third-largest export category, at \$36.6 billion, behind energy products and vehicles.

Machinery exports increased by \$0.6 billion (1.6 percent) in 2008. Gas turbines, mainly for aircraft, led the gains as these exports increased by \$833.8 million, mainly to the United States (up \$356.4 million) and France (up \$138.7 million). Parts for a variety of moving machinery such as elevators, cranes, and graders also advanced, by \$483.7 million. Principal destinations were Mexico (up \$140.0 million) and the United States (up \$123.6 million). Exports also increased for non-domestic dryers and temperature-changing apparatus, up \$195.2 million in total, mainly to the United States (up \$55.3 million), Kazakhstan (up \$25.8 million), and China (up \$23.4 million). Notable declines were registered for piston engines, driven by declines in the automotive sector (down \$789.9 million) and office machinery parts (down \$279.0 million)—in both cases, smaller exports to the United States accounted for the reductions.

Overall, gains in machinery exports were strongest to Mexico (up \$173.3 million), France (up \$131.9 million), China (up \$109.3 million), and South Korea (up \$100.7 million), while exports to the United Kingdom and the United States fell by \$115.8 million and \$773.4 million, respectively.

Machinery imports advanced by \$1.1 billion (1.7 percent) in 2008. The increase was led by China (\$583.6 million, mainly in computers and components), Austria (\$256.6 million, mainly in piston engines), Germany (\$143.6 million), and Mexico (\$132.4 million), while notable declines were registered for South Africa (down \$165.4 million) and Japan (down \$139.3 million). Among products, gas turbines posted the largest increase, at \$552.7 million, led by the United States (up \$328.9 million) and Poland and the United Kingdom (each up by \$56.6 million), followed by self-propelled earth-moving equipment, such as bulldozers, graders, and mechanical excavating machinery, up \$267.8 million, and agricultural machinery associated with harvesting, up \$256.4 million. For both earth-moving equipment and agricultural harvesting equipment, the increased imports were mainly from the United States and, to a lesser extent, Germany. As with exports, the largest declines were registered for piston engines (down \$730.7 million) and office machinery parts (down \$469.7 million). The United States and, to a lesser extent, China accounted for declines in imports for both products.

With imports rising more than exports, the trade deficit for mechanical machinery and appliances widened by \$486.5 million, to \$27.0 billion in 2008.

Electrical and Electronic Machinery and Equipment⁹

Electrical and electronic machinery and equipment was the fourth-largest category of trade, for both exports and imports, in 2008.

Exports of electrical and electronic products declined by \$1.3 billion to \$19.1 billion, most notably for the United States (down \$605.4 million), the United Kingdom (down \$265.9 million), Japan (down \$139.6 million), and Australia (down \$111.3 million). In contrast, exports to Mexico increased by \$240.1 million. The declines in this HS category

⁸ HS Chapter 84.

⁹ HS Chapter 85.

were mainly in transmission apparatus for fax machines, radio, television, cell phones and the like, which fell \$553.3 million, and telephone and related equipment, which fell \$1.1 billion. For the transmission apparatus category, about two thirds of the decline was accounted for by the United States (down \$355.6 million); for telephone equipment, losses were widespread, led by the United States, the United Kingdom, and Japan. Exports of integrated circuits gained ground last year, advancing \$509.0 million, on strong gains to Canada's NAFTA partners.

Imports of electrical and electronic products reached \$42.4 billion in 2008, up \$1.8 billion over 2007 levels. Imports from China led the advances (up \$799.4 million), followed by Denmark (up \$541.9 million), and South Korea (up \$351.7 million), while imports from the United States fell \$227.2 million. Five products posted gains of a quarter of a billion dollars or more, led by telephone and related equipment, up \$661.0 million (principally from China and South Korea), and electric generating sets (especially wind-powered), up \$558.9 million (mostly from Denmark). This was followed by television receivers (up \$366.9 million, principally from Mexico), unrecorded DVDs (up \$352.7 million, mostly from the United States), and electrical transformers, static converters and inductors (up \$256.0 million, with widespread gains led by Sweden). Partially offsetting the gains were losses in parts for electronic motors and generators at \$245.8 million, and miscellaneous parts for radios, televisions, and radar equipment, at \$187.7 million.

With falling exports and rising imports, the trade deficit in electrical and electronic machinery and equipment expanded by \$3.1 billion to \$23.3 billion in 2008.

Technical and Scientific Equipment¹⁰

Exports of technical and scientific equipment reached \$5.9 billion in 2008, up \$0.5 billion over 2007, led by a \$299.4 million gain to the United States. At the same time, imports were up \$0.6 billion, to \$11.6 billion, led by advances from Germany (up \$155.2 million) and China (up \$143.7 million). Miscellaneous optical devices, appliances and instruments led the gains in exports, up \$264.6 million (mostly to the United States), followed by miscellaneous measuring or checking instruments, appliances and machines, which advanced by \$100.0 million on gains led by the United States, Japan, and China. The increase in overall imports in this HS category was primarily due to increased imports of medical/surgical instruments and appliances (up \$189.0 million—mostly from the United States and Germany), orthopaedic and other appliances that are worn, carried, or implanted in the body (up \$112.2 million—led by the United States), and medical/surgical apparatus based on the use of radiation (up \$92.1 million—led by Germany). Miscellaneous automatic regulating or controlling apparatus posted a sizeable decline in imports of \$131.9 million; imports of these products from the United States alone fell \$125.9 million.

As imports grew more than exports, the trade deficit in technical and scientific equipment widened by \$62.8 million, to \$5.7 billion.

Agricultural and Agri-food Products¹¹

Boosted by strong price increases over 2008, the value of agricultural and agri-food exports increased by \$7.4 billion (21.2 percent) to \$42.6 billion. Gains were led by advances in wheat, barley, canola, dried legumes, and pork.

Wheat exports were \$2.4 billion higher in 2008, in part due to strong prices and a good harvest in Canada, as well as tightened supplies elsewhere. Gains were led by increased exports to the United States, Algeria, and Japan, while new markets were

¹⁰ HS Chapter 90.

¹¹ HS Chapters 1 through 24.

found in Iran and Pakistan. Partially offsetting the gains were sizeable declines in exports to India and Iraq.

Exports of canola seed shot up \$1.6 billion (71 percent) to \$3.9 billion in 2008 on gains to Japan, China, Mexico, the United States, and the United Arab Emirates, while exports to Pakistan fell. Exports of canola oil to the United States also posted a notable gain, rising by \$723.7 million.

Exports of barley rose by just over \$0.25 billion in 2008, with the United States, Saudi Arabia, and Japan accounting for 95 percent of the increase.

Lentils and peas were responsible for most of the increase in exports of dried leguminous vegetables, as the former accounted for roughly two thirds and the latter one quarter of the overall \$555.1 million increase. Exports to Turkey and India accounted for over half the gains.

Increases in exports to Russia and several Asian countries helped lift Canadian exports of pork by \$262.6 million. Just over half the increase was to Russia and a further \$91.9 million to Japan. Exports to several other Asian markets, in particular to Hong Kong, Taiwan, the Philippines, and Vietnam all increased by more than 200 percent to account for the bulk of the remainder of the gains.

Imports of agricultural and agri-food products rose \$3.2 billion to \$29.2 billion in 2008. Only eleven products experienced an increase in imports greater than \$100 million. The largest of these were for sweetened or flavoured water, up \$179.5 million, bread, pastry, cakes, biscuits and other bakers' wares, up \$176.9 million, and corn, up \$162.0 million.

Minerals and Metals¹²

Exports of minerals and metals increased by \$4.3 billion to \$70.1 billion in 2008. Gains were led by gold (up \$2.3 billion), sulfur (up \$1.5 billion), iron ore (up \$1.1 billion), diamonds (up \$781.1 million), flat hot-rolled products of iron and steel (up

\$718.0 million) and coins (up \$666.9 million). Losses were widespread throughout nickel and aluminum products as exports of these products fell \$3.5 billion and \$0.5 billion, respectively.

The United Kingdom and the United States accounted for much of the increase in exports of precious stones and metals. For the United Kingdom, exports of gold were up \$1.5 billion while exports of diamonds were up by \$714.4 million. For the United States, gold exports were up \$488.4 million over 2007 levels while diamond exports were up by \$45.5 million.

Five destinations—China, the United States, Brazil, South Africa, and Australia—accounted for the bulk of the increase in sulfur exports.

Germany and the United States accounted for about 70 percent of the total increase in iron ore exports, while sizeable export increases were also reported for France, China, Trinidad and Tobago, Belgium, Japan, Saudi Arabia, and Australia.

On the import side, imports of metals and minerals increased \$5.3 billion in 2008, to \$50.4 billion. Precious stones and metals, iron and steel products and iron and steel accounted for the bulk of the gains as they advanced \$2.3 billion, \$1.6 billion, and \$1.1 billion, respectively.

With respect to precious stones and metals, imports of precious metals waste and scrap increased by \$1.0 billion followed by gold (up \$837.0 million), silver (up \$158.6 million) and diamonds (up \$94.2 million). The bulk of imports of precious metals waste and scrap came from the United States, the United Kingdom, and Chile, while the United States and Peru, as well as Mexico, the United Arab Emirates, Surinam, and Switzerland were among the countries posting notable gains in our imports of gold.

The United States, China, and Germany accounted for about three quarters of the increases in Canada's

12 HS Chapters 25, 26, and 68 through 83, except for Chapter 77. Chapter 77 is being held in reserve and presently does not exist in the HS system.

imports of iron and steel products. A rise in imports of a variety of tubes and pipes accounted for the increases from these three countries.

The bulk of the increase in imports of iron and steel was accounted for by the United States as imports of these products increased by nearly \$1.0 billion. Flat hot-rolled products of iron and steel and ferrous waste and scrap comprised about 60 percent of the increase in total imports of iron and steel from the United States.

Chemicals, Plastics and Rubber¹³

Exports of chemicals increased by \$2.6 billion to \$48.2 billion in 2008. Performance in this category was mixed, with fertilizer exports increasing by nearly \$3.7 billion and organic and inorganic chemicals exports falling by nearly \$1.1 billion over 2007 levels. Exports of rubber and plastics also declined in 2008.

The bulk of the increase in fertilizer exports overall was due to a \$3.3-billion increase in potash exports, with nitrogen-based fertilizers accounting for much of the remainder. The United States accounted for \$1.7 billion of the increase in potash exports while \$0.5 billion of the increase went to India. Sizeable increases were also reported for Indonesia, Brazil, China, and Malaysia.

The decline in exports of inorganic chemicals was accounted for by radioactive chemical elements and isotopes, which fell by \$2.0 billion in 2008. This was a result of reduced exports of natural uranium and its compounds. The United Kingdom, the Netherlands, France, and Germany accounted for most of the decline in exports of natural uranium.

Imports of chemicals increased by \$2.5 billion to \$56.1 billion in 2008. Gains were led by imports of plastics (up \$591.2 million), inorganic chemicals (up \$540.7 million), and fertilizers (up \$393.3 million). At the more detailed level, imports of blood and blood preparations were up by \$368.7 million,

with gains split between the United States and several western European countries.

Acyclic hydrocarbon imports also advanced strongly in 2008, up \$336.8 million, with the bulk of the gains coming from the United States. Acyclic hydrocarbons include ethylene, propylene, and butylene.

Imports of rubber pneumatic tires also rose considerably in 2008, up \$245.4 million to \$2.7 billion. Gains were widespread, with some 20 economies registering an increase of at least \$1 million each. Demand for winter tires was strong in 2008 given that their use was made mandatory in Quebec for motor vehicles, effective December 15, 2008.

Wood, Pulp and Paper¹⁴

Exports of wood, pulp and paper fell \$3.7 billion to \$31.7 billion in 2008, with wood accounting for most of the decline, although exports of books and newsprint, pulp, and cork also fell in 2008. In contrast, exports of straw and paper and paperboard products increased for the year.

Exports of wood products fell \$3.7 billion in 2008, the fourth consecutive year of losses of \$1 billion or more. Just over 95 percent of the decline was accounted for by fewer exports to the United States. The declines were widespread, but were felt most heavily in lumber (down \$2.1 billion), particle board (down \$583.5 million), windows, doors, shingles, shakes, and panels (down \$437.5 million), plywood (down \$117.5 million), wood in the rough (down \$104.4 million), fibreboard (down \$87.3 million), and veneered plywood (down \$84.7 million).

Paper and paperboard exports were up \$264.0 million to \$13.2 billion in 2008. Exports of newsprint increased by \$264.1 million, largely on advances to Brazil and India. Exports of uncoated paper and paperboard also increased, while exports of coated paper and paperboard fell.

Imports of wood, pulp, and paper edged up \$16.6 million as advances in books and newsprint (up \$89.7 million), paper and paperboard (up \$65.2

¹³ HS Chapters 28 through 40.

¹⁴ HS Chapters 44 through 49.

million), and pulp (up \$43.2 million) were partially offset by a \$171.8 million decline in imports of wood.

Textiles, Clothing and Leather¹⁵

Canadian exports of textiles, clothing and leather (TCL) have been falling over the past six years. In 2008, they dropped a further \$667.4 million, from \$5.4 billion in 2007 to \$4.7 billion. With the exception of small increases in furskins and footwear, exports fell for all other major categories in this HS group. Exports to the United States fell \$658.8 million, which accounted for the bulk of the losses. Two thirds of the decline came from reduced exports of knitted and woven apparel and manmade filaments.

Exports of knitted apparel fell \$181.4 million in 2008, and the declines were widespread. Exports of woven apparel also fell \$142.7 million, and the losses were also widespread. As with TCL products generally, reduced exports to the United States accounted for the declines.

Other notable changes in 2008 for Canadian exports of TCL products were registered for synthetic filament yarns and plastic coated textile fabrics, which fell \$90.3 million and \$54.7 million, respectively, on declines to the United States. Exports of miscellaneous textile products for technical uses increased by \$37.8 million, on gains to the United States, while exports of raw furskins advanced \$62.5 million, led by increases to Hong Kong.

Imports of TCL products rose by \$494.7 million, led by widespread advances in knitted and woven apparel and in certain leather articles. For knitted apparel, imports increased \$370.5 million in 2008. The gains in woven apparel were both small and widespread, as imports of these products increased by \$147.8 million.

Imports of articles of leather increased \$126.2 million, led by a \$108.8 million increase in imports of leather luggage, golf bags, tool bags, hand bags, and

other similar articles. The bulk of the increase for these products came from increased imports from China, which were up \$93.7 million.

Consumer and Miscellaneous Manufactured Products¹⁶

In 2008, exports of consumer and miscellaneous manufactured products fell by \$1.0 billion, as exports of furniture and bedding fell by \$889.9 million and exports of artwork and antiques fell by \$220.6 million.

Furniture and seats accounted for most of the decline in furniture and bedding. Exports of furniture, other than furniture used for medical, surgical or dental use, declined by \$494.1 million in 2008 on reduced exports to the United States. Exports of seats, other than barber and dental seats, also fell in 2008, down \$381.5 million, again because of fewer exports to the United States.

Exports of art and antiques declined by \$220.6 million, as exports of paintings, drawings, and pastels dropped by \$191.5 million. The Netherlands and Switzerland accounted for most of the losses.

Imports of consumer and miscellaneous manufactured products increased by \$869.3 million in 2008. Toys and sporting goods and furniture and bedding were responsible for the bulk of the increase.

Imports of toys and sporting goods rose by \$313.0 million in 2008, led by articles for video, table or parlour games which increased by \$219.3 million and sporting goods equipment which rose by \$122.5 million.

All but one of the components of furniture and bedding registered increased imports in 2008; the exception was seats, which fell \$222.7 million. Fewer imports of parts for seats were responsible for the decline in seats imports. Furniture for non-professional use led the gains, up \$236.1 million, while imports of prefabricated buildings advanced \$151.9 million.

¹⁵ HS Chapters 41 through 43, and 50 through 65.

¹⁶ HS Chapters 66, 67, and 91 through 99.

Other Transportation Equipment¹⁷

Exports of other transportation equipment fell by \$804.3 million to \$11.6 billion in 2008. The bulk of the decline was in aircraft and related equipment, whose exports fell by \$768.5 million. Exports of ships and boats also decreased by \$72.5 million, and declines were widespread. Exports of railway equipment increased by \$36.7 million.

The decline in exports of aircraft and related equipment was mainly centred on aircraft (which fell \$1.1 billion) as exports of launch gear and ground flight training equipment and aircraft parts rose by \$233.5 million and \$120.1 million, respectively. Airplanes largely accounted for the decline in aircraft exports as exports of helicopters and spacecraft registered gains. Although falling exports to the United States (down \$1.0 billion) contributed to the overall decline in aircraft exports, notable changes were reported in eight other countries. Four of these countries posted an aggregate gain of \$690.7 million: the United Kingdom (up \$221.3 million), Austria (up \$191.7 million), Uruguay (up \$173.9 million), and Australia (up \$103.9 million). The second set of four countries posted an aggregate decline in exports of \$675.7 million: France (down

\$101.2 million), Spain (down \$115.8 million), Mexico (down \$134.3 million), and Italy (down \$324.4 million). These latter four countries effectively cancelled out the gains of the first set of four.

On the import side, gains in railway equipment and ships and boats were partially offset by a decline in aircraft and related equipment, as overall imports of other transportation equipment increased by \$119.0 million to nearly \$9.9 billion in 2008.

Increases in imports of railway equipment were widespread as all components of this group registered increases over 2007 levels. Overall railway equipment imports increased by \$251.5 million in 2008, led by a \$139.9 million increase in imports of locomotives.

For ships and boats, gains in passenger transportation vessels and fishing vessels were partially offset by declines in yachts and other pleasure craft and in light vessels, floating docks and platforms, yielding an overall increase of \$41.8 million in this category.

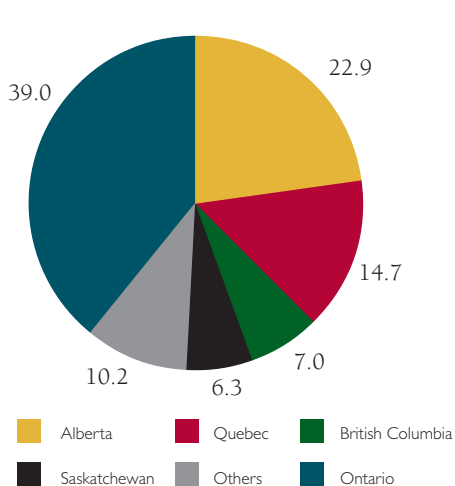
Imports of aircraft and related equipment fell by \$174.4 million as a \$607.9 million decline in aircraft imports was partially offset by a \$443.6

TABLE 5-2
Merchandise Trade by Province and Territory (\$ millions and percent)

	2008 EXPORTS	2008 EXPORT GROWTH	2008 EXPORT SHARE	2008 IMPORTS	2008 IMPORT GROWTH	2008 IMPORT SHARE
Ontario	188,691.4	-6.8	39.0	241,606.5	0.6	55.8
Alberta	110,781.7	33.9	22.9	21,938.7	18.5	5.1
Quebec	71,008.5	1.6	14.7	78,558.5	10.5	18.1
British Columbia	33,753.7	4.2	7.0	42,988.0	11.1	9.9
Saskatchewan	30,635.6	55.2	6.3	9,022.7	29.6	2.1
Newfoundland and Labrador	14,646.5	26.3	3.0	4,255.9	32.5	1.0
Manitoba	12,883.5	3.5	2.7	15,291.5	16.3	3.5
New Brunswick	12,820.6	14.5	2.6	10,889.5	45.8	2.5
Nova Scotia	5,802.0	6.4	1.2	8,432.9	13.0	1.9
Northwest Territories	2,312.2	22.9	0.5	14.6	264.3	0.0
Prince Edward Island	878.2	9.4	0.2	118.8	118.2	0.0
Yukon Territory	132.0	484.9	0.0	92.5	-3.8	0.0
Nunavut	23.5	323.2	0.0	31.9	80.9	0.0
	484,369.3	7.5	100.0	433,241.9	6.5	100.0

17 HS Chapters 86, 88, and 89.

FIGURE 5-1
Share of Merchandise Exports by Province, 2008



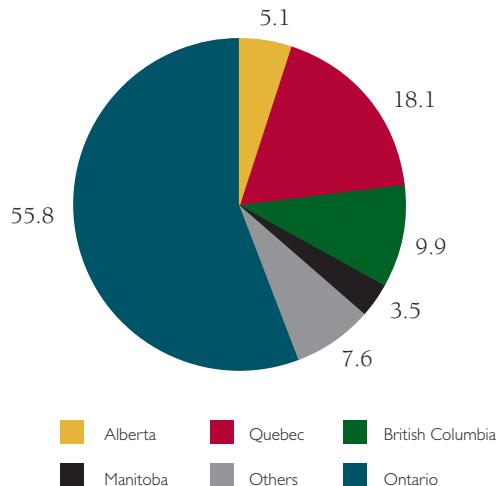
million increase in parts imports. A \$630.0 million decline in imports from Brazil accounted for the decline in aircraft imports.

Trade by the Provinces and Territories

Ontario was the only Canadian province or territory to register a decline in merchandise exports in 2008, as exports fell \$13.8 billion (6.8 percent) to \$188.7 billion (Table 5-2). The declines were centred on nickel and auto-related products. Ontario's exports of unwrought nickel and nickel mattes fell by \$2.2 billion, exports of passenger cars, motor trucks, and automotive parts fell by \$15.1 billion, and exports of piston engines and parts fell by \$930.8 million.

On the other hand, three provinces and two territories reported increases in merchandise exports by more than 25 percent in 2008. The Yukon reported the strongest increase as exports in 2008 were 5.8 times as great as in 2007. A full year of production from a new copper-gold mine contributed to the jump in exports, lifting Yukon's exports by \$109.5 million to \$132.0 million in 2008. Exports from Nunavut increased more than three-fold, from \$5.6 million in 2007 to \$23.5 million in 2008. Iron ore exports accounted for the bulk of the increase, rising from zero in 2007 to \$16.6 million in 2008.

FIGURE 5-2
Share of Merchandise Imports by Province, 2008



Saskatchewan reported a banner year with respect to its total merchandise exports, which were up by \$10.9 billion (55.2 percent) to \$30.6 billion. The province's strong export performance benefited not only from high energy prices and strong price increases for agricultural commodities (described above) but also from strong demand for potash. Exports of energy products increased by \$4.7 billion, while exports of potash more than doubled, increasing by \$3.1 billion in 2008. Exports of agricultural products also made strong gains: the province's wheat exports rose by \$1.4 billion; canola seed exports were up by \$604.8 million; dried leguminous vegetables exports were up by \$531.5 million; canola oil exports were up by \$301.5 million; barley exports were up by \$139.5 million; flaxseed exports were up by \$139.4 million; and exports of oats were up by \$76.7 million.

Exports from Alberta were up \$28.0 billion (33.9 percent) to \$110.8 billion in 2008 largely on the strength of energy products, which advanced \$24.0 billion. Crude oil (up \$19.6 billion) accounted for much of the increase, while petroleum gases (principally natural gas) accounted for \$4.2 billion of the increase and coal for \$246.0 million. Sulfur exports posted a \$1.4 billion increase and wheat and canola exports also benefited from strong prices

and a good harvest, rising by \$713.2 million and \$666.6 million, respectively.

Exports from Newfoundland and Labrador advanced \$3.1 billion to \$14.6 billion in 2008. Energy and iron ore were behind the gains as exports of crude oil were up by \$1.5 billion, exports of non-crude oil were up by \$1.1 billion, and exports of iron ore were up by \$613.9 million.

Ontario accounted for 39.0 percent of all Canadian merchandise exports, followed by Alberta at 22.9 percent, Quebec at 14.7 percent, and British Columbia at 7.0 percent (Figure 5-1). The 6.0 percent decline in Ontario's share was largely offset by Alberta and Saskatchewan, whose shares increased by 4.5 percent and 1.9 percent, respectively.

Imports increased to all regions in Canada, with the exception of the Yukon, where they slipped 3.8 percent. Double-digit advances were registered for the remainder of the provinces and territories, except for Ontario, where imports increased by \$1.3 billion (0.6 percent) to \$241.6 billion. The largest increases, by value, were recorded for Quebec (up \$7.5 billion), British Columbia (up \$4.3 billion), and Alberta and New Brunswick (up \$3.4 billion each). Energy products accounted for much of these increases, due partly to the high energy prices over the year.

Ontario accounted for over half of Canadian merchandise imports (55.8 percent), followed by Quebec (18.1 percent), and British Columbia and Alberta, at 9.9 percent and 5.1 percent, respectively (Figure 5-2).

Overview of Canada's Investment Performance



Global Direct Investment Inflows

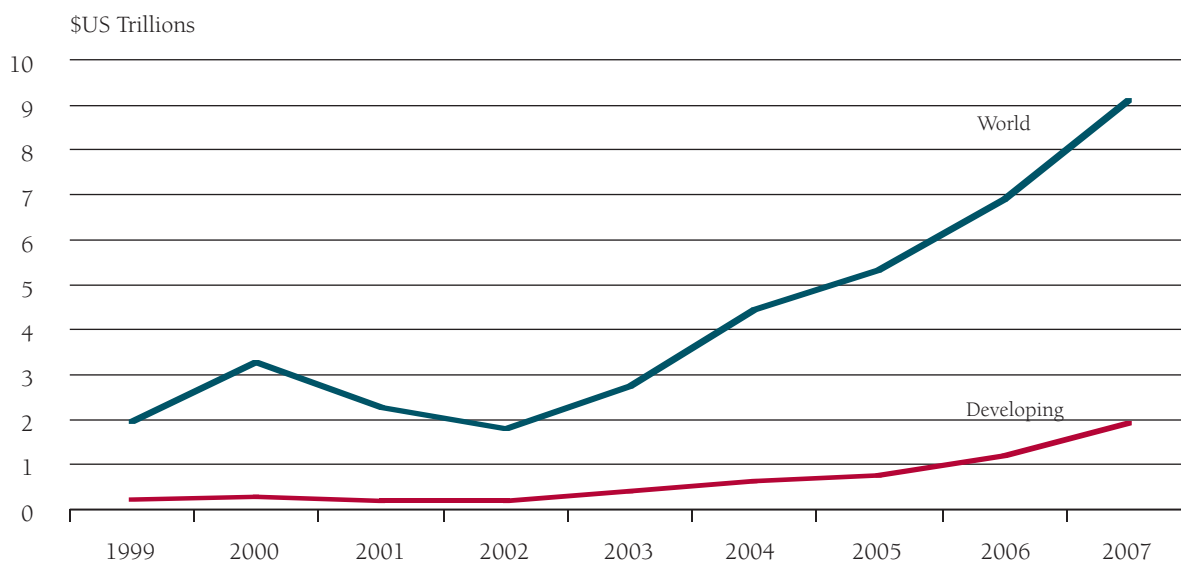
Global capital markets have played a critical role in the rise of globalization over the last few decades, and total cross-border flows have risen dramatically in both the developing and developed worlds (Figure 6-1). Of these flows, the rise in foreign direct investment (FDI) is particularly important as it more directly impacts the real economy. The world stock of FDI has increased dramatically - over 19 fold between 1982 and 2007 - to reach US\$15.2 trillion. This increase in direct investment is linked to the growth of multinational enterprises (now estimated at 64,000), their foreign affiliates (which are estimated to employ 81.6 million workers), and the rise of global value chains.

In 2008, FDI flows remained strong but fell from the record performance of 2007. Between 2004 and

2007, global FDI flows more than doubled as a result of strong global economic growth, increases in corporate profits, higher stock prices, growth in private equity and hedge funds, and the increasing role of state investment agencies in emerging economies.

The global economic crisis which took hold with force in the second half of 2008 has reversed these drivers (with the exception of state investment agencies), generating slower world growth in 2008 (and a forecasted contraction in 2009), tight credit conditions, plunging profits and stock prices, and increased the difficulty in assessing risk. These factors have reduced both the ability of firms to invest internationally and their willingness to do so. Corporate and industry restructuring as well as lower asset prices will provide some new opportunities for FDI flows in 2009 amid otherwise weak flows, but like

FIGURE 6-1
Global Capital Inflows (Direct, Portfolio and Other)



Data: IMF. Includes direct investment, portfolio investment, other investment flows (includes bank loans and deposits), reserve assets.

TABLE 6-1
Global FDI Inflows for Selected Regions and Economies, 2004-2008 (US\$ billions and percent)

HOST REGION/ECONOMY	2004	2005	2006	2007	2008	2008 ANNUAL GROWTH	SHARE OF WORLD INFLOWS
World	717.7	958.7	1411.0	1833.3	1449.1	-21.0	100.0
Developed economies	403.7	611.3	940.9	1247.6	840.1	-32.7	58.0
Canada^a	-0.5	28.1	61.1	117.7	40.2	-65.8	2.8
United States	135.8	104.8	236.7	232.8	220.0	-5.5	15.2
Japan	7.8	2.8	-6.5	22.5	17.4	-22.7	1.2
E.U. 27	214.3	498.4	562.4	804.3	557.4	-30.7	38.5
France	32.6	85.0	78.2	158.0	114.3	-27.7	7.9
Germany	-10.2	42.0	55.2	50.9	26.0	-48.9	1.8
Italy	16.8	20.0	39.2	40.2	2.3	-94.3	0.2
Netherlands	4.6	47.7	8.0	99.4	29.5	-70.3	2.0
United Kingdom	56.0	177.9	148.2	224.0	109.4	-51.2	7.5
Czech Republic	5.0	11.7	6.0	9.1	11.4	25.3	0.8
Emerging and Developing	283.6	316.4	413.0	499.7	517.7	3.6	35.7
Asia and Oceania	171.2	210.6	274.3	320.5	313.5	-2.2	21.6
China	60.6	72.4	72.7	83.5	92.4	10.7	6.4
Hong Kong	34.0	33.6	45.1	59.9	60.7	1.3	4.2
India	5.8	7.6	19.7	23.0	36.7	59.6	2.5
Singapore	19.8	13.9	24.7	24.1	10.3	-57.3	0.7
Latin America and the Caribbean	94.4	76.4	92.9	126.3	142.3	12.7	9.8
Brazil	18.1	15.1	18.8	34.6	41.7	20.5	2.9
Chile	7.2	7.0	7.4	14.5	17.8	22.8	1.2
Mexico	22.9	20.9	19.3	24.7	20.7	-16.2	1.4
Africa	18.0	29.5	45.8	53.0	61.9	16.8	4.3
South Africa	0.8	6.6	-0.5	5.7	12.0	110.8	0.8
SE Europe and the CIS	30.4	31.0	57.2	85.9	91.3	6.2	6.3
Russian Federation	15.4	12.9	32.4	52.5	61.7	17.6	4.3

Source: UNCTAD World Investment Report 2008 and Press Release on Global Investment January 2009

a Since data for Canada is not available from UNCTAD for 2008, these data are from Statistics Canada, converted to US\$ using the end of year exchange rate.

Note: Growth rates may appear different from UNCTAD investment release due to rounding.

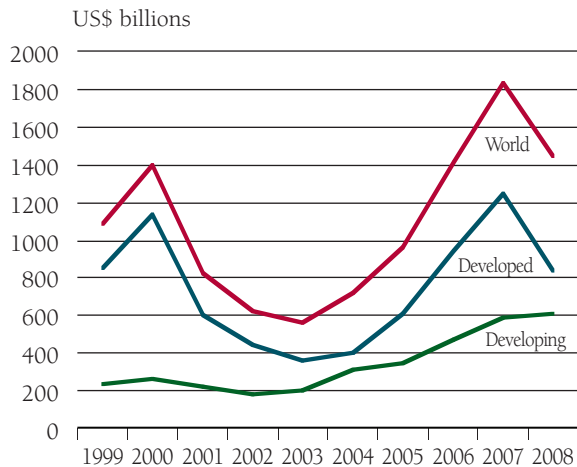
other aspects of the world economy, the speed and the degree to which global FDI flows will revive over the next several years depends on the strength of the overall global economic recovery.

Global FDI inflows fell by 21.0 percent in 2008 to US\$1.45 trillion (Table 6-1, Figure 6-2). This decline was caused by lower inflows in developed economies, which fell 32.7 percent to US\$840.1 billion, whereas inflows to developing economies managed to squeeze out positive growth of 3.6 percent with inflows reaching \$US517.7 billion. The BRIC economies as a group led growth among developing and emerging economies, posting a

combined increase of US\$38.9 billion (up 20.1 percent). Among the types of flows, mergers and acquisitions (M&As) led the worldwide decline, falling 27.7 percent. Despite this drop, cross border M&As continue to dominate world FDI flows (Figure 6-3).

Among developed countries, inflows to the EU fell particularly sharply, by 30.7 percent to US\$557.4 billion. The drop was led by the larger European economies: a 48.9 percent drop in Germany to US\$26.0 billion, a 51.2 percent drop in the U.K. to US\$109.4 billion, and a 94.3 percent fall in Italy to just US\$2.3 billion. The United States remained the largest single country destination for

FIGURE 6-2
Global FDI Inflows



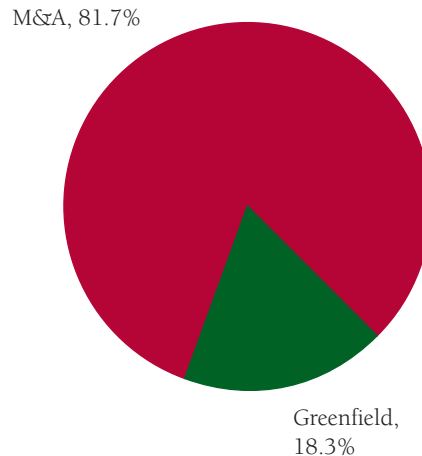
Data: UNCTAD.

FDI inflows and experienced the smallest drop among the G7, down 5.5 percent to US\$220.0 billion. Japan experienced a sharp 22.7 percent contraction to US\$17.4 billion.

Canada experienced a sharp decline in FDI inflows over 2007 levels, down 65.8 percent to US\$40.2 billion. Two factors compounded the effect of the financial crisis on FDI inflows into Canada. First, there were record inflows in 2007 (US\$117.7 billion, equivalent to 9.4 percent of total inflows in the developed world for that year) driven by a series of large cross-border M&As. Second, the depreciation of the Canadian dollar accentuated the decline in U.S. dollar terms. Despite this, Canada's inflows in 2008 were 2.8 percent of global inflows, roughly equivalent to our share of world GDP.

Overall inflows into Asia and Oceania¹ were down 2.2 percent to US\$313.5 billion. Inflows into South, East and South-East Asia grew at slower pace in 2008 than in 2007, rising by just US\$8.3 billion to US\$256.1 billion (up 3.3 percent). There was strong growth in inflows into India (up 59.6 percent to US\$36.7 billion) and China (up 10.7 percent to US\$92.4 billion), which was the fourth-largest

FIGURE 6-3
Mergers and Acquisitions Share of Global FDI Inflows (2008)



Data: UNCTAD.

recipient of inflows. These increases were partially offset by a large decline in inflows to Singapore which were down 57.2 percent to US\$10.3 billion, and smaller drops in other countries such as Indonesia (down 21.3 percent) and Thailand (down 4.4 percent). Flows into West Asia² declined by 21.3 percent to US\$56.3 billion.

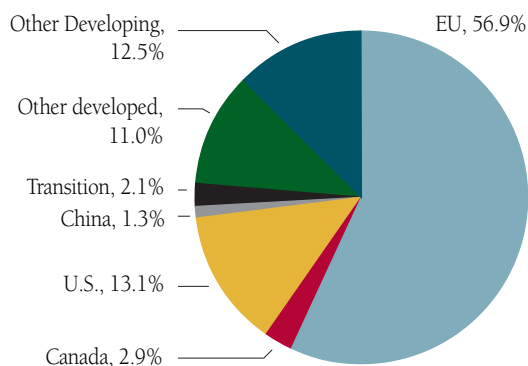
FDI inflows to Latin America and the Caribbean rose to their highest recorded level at US\$142.3 billion, up 12.7 percent. Inflows into Brazil were up 20.5 percent to US\$41.7 billion, up 22.8 percent in Chile to US\$17.8 billion, but down 16.2 percent in Mexico to US\$20.7 billion.

Africa was the other region posting record inflows - up 16.8 percent to US\$61.9 billion, continuing a strong upward trend over the last five years (inflows into Africa for 2007 were revised significantly upward from US\$35.6 billion to US\$53.0 billion). South Africa posted a large increase of 110.8 percent rising to US\$12.0 billion, while declines were seen in both Egypt (-5.6 percent to US\$10.9 billion) and Morocco (-7.0 percent to US\$2.4 billion).

¹ UNCTAD country aggregates are used to report global inflows.

² West Asia includes the Middle East and Turkey

FIGURE 6-4
Global Direct Investment Outflows (2005-2007 average shares)



Data: UNCTAD, WIR 2008.

FDI inflows into countries in South-East Europe and the Commonwealth of Independent States grew 6.2 percent to US\$91.3 billion. Two-thirds of the flows were into Russia, which rose 17.6 percent to US\$61.7 billion.

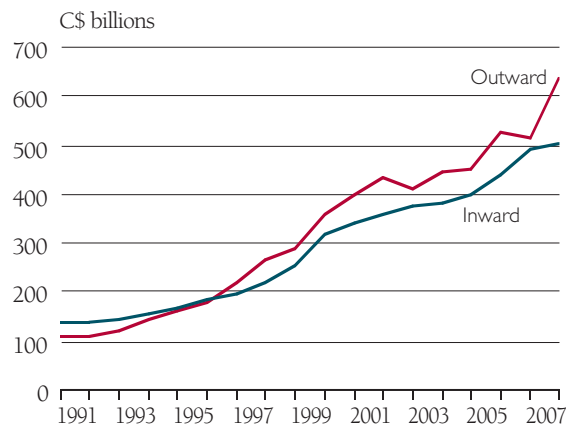
Global Direct Investment Outflows

Direct investment outflows during 2005-07 continued to be dominated by developed countries, but the share of outflows from developing countries has increased (Figure 6-4). EU countries dominated outflows during this period (56.9 percent of total outflows). The U.S. had a 13.1 percent share, just above the share of the developing world excluding China at 12.3 percent. Despite perceptions of a rapid increase in Chinese direct investment abroad, over this period China averaged only a 1.3 percent share of outward flows, although flows from China were on the rise. Canada averaged a 2.9 percent share, slightly above our share of the world economy.

Canadian Performance – FDI Stocks³

FDI provides benefits to Canadian firms through the transfer of knowledge, technology and skills,

FIGURE 6-5
Canada's Inward and Outward Stocks of FDI



Data: Statistics Canada.

and increased trade related to the investment, all of which contribute to productivity growth and competitiveness. FDI is also one of the ways in which Canadian companies can integrate into global value chains.

Canada has experienced significant growth in both inward and outward stocks of FDI over the last 25 years, although our share of world inflows declined over this period. Inward investment picked up significantly between 2004 and 2007 as a result of a jump in cross-border M&As, strong economic growth, and investment in the resource sector, before slowing in 2008.

Canada's inward FDI stock in 2008 rose just 2.8 percent from \$491.3 billion to \$504.9 billion (Table 6-2 and Figure 6-5). This is a large slowdown from the 12.0 percent increase in 2007 and 10.3 percent increase in 2006. The flat performance reflects the almost zero growth (0.3 percent) in U.S.-held stock, as U.S. investors hold the majority of the direct investment stock in Canada. The investment stock for the rest of the world excluding the U.S. grew by 6.4 percent, increasing the diversity of foreign investors in Canada.

³ This section focuses on investment stocks, rather than flows which are more volatile. The UNCTAD data used in the previous section is only available for flows for 2008 at the time of writing. Note that changes in the stocks of FDI are not equivalent to investment flows as the value of investment stocks are also impacted by currency fluctuations and changes in the value of existing investments.

TABLE 6-2
Stock of Foreign Direct Investment in Canada by Region (C\$ billions and percent)

REGION	2003	2007	2008	2003 SHARE	2008 SHARE	2008 ANNUAL GROWTH	2003-2008 ANNUAL GROWTH ^a
World	373.7	491.3	504.9	100.0	100.0	2.8	6.2
North America and Caribbean	242.3	298.0	299.0	64.9	59.2	0.4	4.3
South and Central America	1.1	11.5	12.1	0.3	2.4	5.1	61.8
Europe	111.7	145.2	152.4	29.9	30.2	4.9	6.4
Africa	0.7	1.7	1.4	0.2	0.3	-19.7	14.3
Asia/Oceania	17.9	34.9	40.0	4.8	7.9	14.7	17.5
Top-10 Sources							
United States	238.1	292.7	293.6	63.7	58.2	0.3	4.3
United Kingdom	26.0	52.4	54.4	7.0	10.8	3.8	15.9
Netherlands	17.7	30.6	33.9	4.7	6.7	10.6	13.9
France	36.2	17.1	18.5	9.7	3.7	8.7	-12.5
Switzerland	7.1	13.6	15.3	1.9	3.0	12.5	16.7
Japan	9.9	13.6	13.0	2.6	2.6	-4.6	5.6
Brazil	1.1	11.2	11.9	0.3	2.4	6.0	61.1
Germany	6.9	9.2	9.4	1.8	1.9	2.3	6.4
Luxembourg	3.1	5.4	5.7	0.8	1.1	4.5	13.0
United Arab Emirates	n.a.	3.3	5.2	n.a.	1.0	59.7	n.a.
Emerging Economies							
China	0.2	2.1	2.8	0.1	0.5	31.3	66.4
India	0.1	0.4	1.0	0.0	0.2	137.7	76.9
Russia	n.a.	n.a.	0.4	n.a.	0.1	n.a.	n.a.

Data: Statistics Canada, stocks.

a Compound average annual growth rate

Note: Shares and growth were calculated using raw data, and might not be reproduced with the data in the table, due to rounding.

The stock of Canadian direct invest abroad (CDIA) surged in 2008, jumping in value by 23.6 percent (\$121.8 billion) to \$637.3 billion (Table 6-4 and Figure 6-5). The rise in the value of CDIA in Canadian dollar terms was primarily the result of the depreciation of the Canadian dollar versus other currencies (68.0 percent of the increase). However, even without the changes in exchange rates the stock of CDIA grew by \$39 billion, a substantial increase. Total CDIA has grown dramatically over the last five years, rising 54.6 percent in value since 2003.

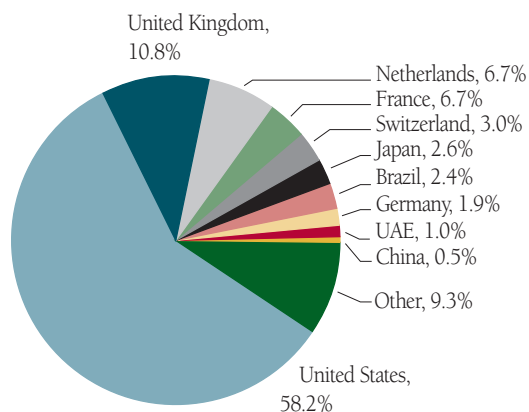
Canada's net direct investment position, which is the difference between Canadian direct investment abroad and FDI in Canada, widened dramatically to \$132.4 billion in 2008, up from \$24.2 billion in 2007. 2008 marked the twelfth consecutive year that Canadian direct investment abroad has

exceeded inward foreign direct investment, making Canada a net exporter of capital since the mid 1990s. 2008 also marks the first year that Canada's direct investment in the United States outstripped U.S. direct investment into Canada (Canada's net direct investment position with the U.S. was positive at \$17.1 billion in 2008, compared with a deficit of \$62.1 billion in 2007).

Regional and Sectoral Shares in the Stock of Canada's inward FDI

Investors from the United States continued to hold the majority of Canada's FDI stock, with a 58.2 percent share at \$293.6 billion (Table 6-2, Figure 6-6). The year 2008 was very weak in terms of investment from the U.S., with the U.S. stock of FDI recording growth of less than \$1 billion, the weakest year for investment from the U.S. for at least twenty years. This continues a longer-term trend of a de-

FIGURE 6-6
Shares of the Stock of FDI in Canada (2008)



Data: Statistics Canada

clining U.S. share of direct investment in Canada, which averaged 66.0 percent in the 1990s and 62.3 percent so far this decade. This share has shifted towards investors from South and Central America, Asia and Oceania, and Africa, which combined now have over a 10 percent share of Canada's inward FDI. Over the 2000s Europe's share also increased from an average share of 25.3 percent in the 1990s to an average of 29.8 percent.

In 2008, the stock of FDI from Europe increased by 4.9 percent to \$152.4 billion. European countries accounted for 6 of the top ten sources of direct investment into Canada in 2008 and 30.2 percent of Canada's total inward stock. The investment stock from the United Kingdom, the second largest source of FDI into Canada, grew by 3.8 percent to \$54.4 billion. The stock of FDI from the Netherlands continued to rise, up 10.6 percent to \$33.9 billion. The value of investments from France increased by 8.7 percent to \$18.5 billion, although this was little more than half the value of French investments in Canada in 2003. Investment from Germany continued to lag behind other large European economies, growing by 2.3 percent to \$9.4 billion.

FDI from South and Central America continued to grow in 2008 albeit at a slower pace than in recent years, rising 5.1 percent to \$12.1 billion. FDI from this region has risen from just \$1.1 billion five years ago. This growth is almost entirely attributable to investment from Brazil, which has 98.8 percent of the region's stock of FDI in Canada. Much of Brazil's growth occurred in 2006 as a result of large M&As like the purchase of Inco by CVRD. Brazil remains

TABLE 6-3
Stock of Foreign Direct Investment in Canada by Selected Industry (C\$ billions and percent)

	2007	2008	2008 SHARE	2008 ANNUAL GROWTH	2003-2008 ANNUAL GROWTH ^a
Manufacturing	178.1	174.5	34.6	-2.0	4.4
Primary Metal	32.1	30.4	6.0	-5.3	40.1
Chemical	22.8	25.0	5.0	9.9	3.2
Transport Equipment	26.2	19.9	3.9	-24.1	-4.8
Petroleum and coal	20.8	24.0	4.8	15.4	11.7
Paper and Wood products	14.0	13.8	2.7	-1.7	-0.3
Mining and Oil and Gas extraction	92.8	101.4	20.1	9.2	17.0
Oil and Gas extraction and support	71.5	76.6	15.2	7.2	13.2
Mining	21.4	24.8	4.9	16.1	37.2
Finance and Insurance	58.7	60.4	12.0	3.0	5.8
Management of Companies	59.9	60.8	12.0	1.4	2.4
Other	10.0	11.2	2.2	12.0	12.9
Information and communication technologies (ICT)	17.2	20.1	4.0	17.1	-2.8
All Industries	491.3	504.9	100.0	2.8	6.2

Data: Statistics Canada.

a Compound average annual growth rate

Note: Shares and growth were calculated using raw data, and might not be reproduced with the data in the table, due to rounding.

in seventh place among all investors in Canada, ahead of all other BRIC and developing countries.

Investments from Asia and Oceania continued to grow strongly in 2008, up 14.7 percent, raising the total stock from the region to \$40.0 billion, (or 7.9 percent of the total inward stock). The largest investment stock from this region remains that of Japan at 32.5 percent of the total Asia/Oceania stock in 2008, although Japan's share has fallen from 55.3 percent in 2003, and its stock declined 4.6 percent in 2008 to \$13.0 billion. Investment from the United Arab Emirates (UAE) has increased from negligible levels in 2003 to \$5.2 billion in 2008, vaulting the UAE into tenth place among foreign investors in Canada. Chinese investments have also grown substantially, up 31.3 percent in 2008, although China's overall share remains small at just 0.5 percent (\$2.8 billion). Investment from India jumped 137.7 percent in 2008, but stands at just \$1.0 billion, up from \$430 million.

The stock of FDI from African countries fell 19.7 percent to \$1.4 billion in 2008. While representing a small share of Canada's total inward investment, this is almost double the amount invested in 2003 and over ten times larger than the \$114 million invested in 2000.

Inward direct investment in 2008 continued to rise at a strong pace in energy related sectors (see Table 6-3). The investment stock in petroleum and coal manufacturing was up 15.4 percent to \$24.0 billion, and FDI in oil and gas extraction and support was up 7.2 percent to \$76.6 billion, and now has a 15.2 percent share of the inward FDI stock, up from just 7.2 percent in 2000. The mining sector also grew strongly at 16.1 percent to \$24.8 billion, and has averaged a staggering 37.2 percent compound annual average growth rate since 2003.

Investment in manufacturing declined by 2.0 percent in 2008 to \$174.5 billion, a 34.6 percent share of total inward FDI, down substantially from its 48.4 percent share in 2000. The stock of investment in the manufacturing of transport equipment

led the decline in 2008, dropping 24.1 percent to \$19.9 billion. Chemical manufacturing was a bright spot for the manufacturing sector with an increase of 9.9 percent to \$25.0 billion. The value of the stock of FDI in the Information and Communications Technologies (ICT) sector jumped 17.1 percent to \$20.1 billion, after declining in 2007.

Regional and Sectoral Shares in the Stock of CDIA

The U.S. remains the most important destination for Canadian direct investment abroad, surging 34.8 percent (\$80.2 billion) in 2008 to \$310.7 billion (Table 6-4, Figure 6-7). Nearly two thirds of this was the result of currency effects (\$52.5 billion), but even without the change in the exchange rate the growth of CDIA in the U.S. would have been strong at \$27.6 billion. This increased the U.S. share of CDIA to 48.8 percent, up from 44.7 percent in 2007, partially reversing the trend of greater diversity in CDIA.

The value of CDIA in Europe increased by 6.1 percent in 2008 to \$150.9 billion, although Europe's share of CDIA has slipped significantly from 30.2 percent in 2003 to 23.7 percent in 2008. CDIA in the United Kingdom, the largest destination for CDIA in Europe, fell 8.9 percent to \$54.0 billion. CDIA in Ireland grew 7.1 percent to \$20.5 billion, and jumped 23.4 percent in France to \$18.7 billion. These three account for \$93.2 billion, or nearly 62 percent of Europe's total CDIA.

Canada's direct investment in South and Central America posted strong growth of 13.7 percent in 2008, reaching a total stock of \$24.8 billion, with most investment concentrated in Brazil (up 3.5 percent to \$9.2 billion) and Chile (up 9.7 percent to \$6.4 billion).

Canada's direct investment in Asia and Oceania posted the second strongest regional growth rate after North America, increasing 16.8 percent to \$36.2 billion in 2008. CDIA to Hong Kong led

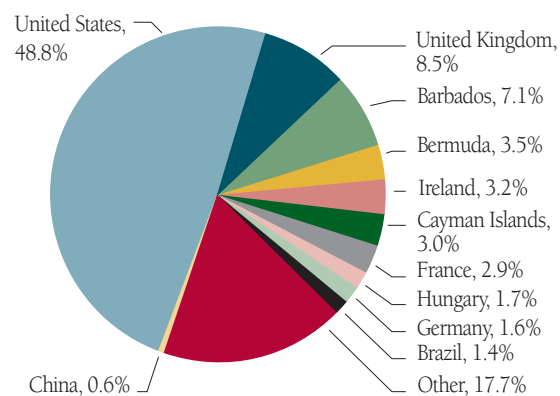
TABLE 6-4
Stock of Canadian Direct Investment Abroad by Region (C\$ billions and percent)

REGION	2003	2007	2008	2003 SHARE	2008 SHARE	2008 ANNUAL GROWTH	2003-2008 ANNUAL GROWTH ^a
World	412.2	515.4	637.3	100.0	100.0	23.6	9.1
North America and Caribbean	232.2	315.8	421.3	56.3	66.1	33.4	12.7
South and Central America	20.3	21.8	24.8	4.9	3.9	13.7	4.1
Europe	124.3	142.2	150.9	30.2	23.7	6.1	3.9
Africa	2.2	4.6	4.0	0.5	0.6	-12.4	12.6
Asia/Oceania	33.2	31.0	36.2	8.1	5.7	16.8	1.8
Top-10 Destinations							
United States	169.6	230.6	310.7	41.1	48.8	34.8	12.9
United Kingdom	43.9	59.2	54.0	10.7	8.5	-8.9	4.2
Barbados	25.7	32.0	45.0	6.2	7.1	40.7	11.9
Bermuda	10.9	18.3	22.3	2.7	3.5	21.4	15.3
Ireland	19.6	19.1	20.5	4.7	3.2	7.1	0.9
Cayman Islands	12.5	16.7	19.2	3.0	3.0	14.9	9.0
France	11.8	15.2	18.7	2.9	2.9	23.4	9.7
Hungary	9.3	9.2	10.8	2.3	1.7	17.3	3.0
Germany	9.0	8.7	10.5	2.2	1.6	20.4	3.1
Brazil	5.7	8.9	9.2	1.4	1.4	3.5	9.9
Emerging Economies							
China	0.8	2.6	3.6	0.2	0.6	37.3	33.7
India	0.2	0.6	0.8	0.0	0.1	24.4	31.5
Russia	0.2	0.5	0.5	0.0	0.1	0.9	25.1

Data: Statistics Canada, stocks.

a Compound average annual growth rate

FIGURE 6-7
Shares in CDIA (2008)



Data: Statistics Canada

growth (up 40.0 percent to \$6.0 billion) as well as China (up 37.3 percent) to \$3.6 billion. CDIA in Australia, the largest recipient of Canadian investment in the region, was virtually flat, rising just 1.4 percent to \$7.1 billion. The distribution of investment across the region is widespread, with 9 countries having over \$1 billion each in Canadian investment.

The stock of Canada's direct investment in African countries fell by 12.4 percent in 2008 to \$4.0 billion, although CDIA in the region is still up by 81.2 percent since 2003.

In 2008, CDIA continued to shift away from the goods sector and towards the services sector (Table 6-5). The largest sector for CDIA, finance and insurance industries, saw a \$93.4 billion or

TABLE 6-5
Stock of Canadian Direct Investment Abroad by Selected Industry (C\$ billions and percent)

	2007	2008	2008 SHARE	2008 ANNUAL GROWTH	2003-2008 ANNUAL GROWTH ^a
Manufacturing	103.2	116.8	18.3	13.2	2.9
Mining and Oil and Gas extraction	78.8	94.0	14.8	19.4	12.2
Oil and Gas extraction and support	58.1	67.6	10.6	16.4	17.3
Mining	20.7	26.5	4.2	27.8	3.4
Finance and Insurance	163.4	256.9	40.3	57.2	11.6
Management of Companies	87.2	68.4	10.7	-21.5	15.0
Transport and warehousing	15.1	17.1	2.7	13.3	2.0
Information and cultural industries	14.6	21.0	3.3	43.4	-5.0
Other	2.4	3.5	0.5	47.2	3.4
Information and communication technologies	15.9	18.3	2.9	14.7	-6.1
All industries	515.4	637.3	100.0	23.6	9.1

Data: Statistics Canada.

a Compound average annual growth rate

Note: Shares and growth were calculated using raw data, and might not be reproduced with the data in the table, due to rounding.

57.2 percent increase in value in 2008 to \$256.9 billion, and is responsible for over three-quarters of the total increase in CDIA in 2008, and 59.0 percent of the increase in the U.S. Some of this increase may be the result of liquidity issues of Canadian owned foreign affiliates⁴. The finance and insurance industries' share of total CDIA has risen to 40.3 percent, up from 28.4 percent in 2000.

There was a 21.5 percent drop (-\$18.7 billion) in the value of CDIA in the management of companies and enterprises sector to \$68.4 billion. There was a large 43.4 percent jump in the value of CDIA in information and cultural industries, which rose to \$21.0 billion.

Growth in the manufacturing sector was positive but below the all industry average at 13.2 percent, raising the value of the total stock to \$116.8 billion. The share of CDIA in manufacturing fell to 18.3 percent in 2008, down dramatically from 31.9 percent in 2000.

⁴ Statistics Canada, Canada's Balance of International Payments, Q4 2008.

VIII

Special Feature

New Horizons for Canada: the Return to a Multi-Polar World

An examination of Canada's trade and competitiveness performance in the emerging markets

by Mykyta Vesselovsky

The Emerging World

An extraordinary change has come over the world in the past twenty years, one that will be obvious to future generations but whose repercussions are not yet fully understood by ours. Technological advances, primarily in the area of transmission and storage of information, have shattered the archaic notions of how things ought to function in most fields, from production and trade to war and politics.¹ The new ways of communicating, organizing and working are inviting the most remote corners of the world to be actors on the global economic stage; their previ-

ously dormant forces are now part and parcel of the broad current of human progress. These **emerging economies** that are organizing themselves to compete in the new global marketplace are enjoying high growth rates, rapid increases in their living standards (Figure 1) and a rising global prominence. In 2008, they accounted for 28 percent of world GDP—up from 17 percent in 1995.²

First among these stand Brazil, Russia, India and China (BRIC), champions of the emerging world. Their prominence is not just due to the high rates of growth they have been recently experiencing, although those are impressive. In real terms, Brazil's

1 Consider that establishing a trans-Pacific communication line cost \$73,000 in 1975, \$2,000 in 1996 and \$200 in 1999 (“*The Internet and Latin America*,” Rockefeller Center for Latin American Studies, 1999). Communication now is nearly instant and costs under \$0.02 a minute; Philip II of Spain, the first trans-Atlantic manager, had to wait several months for a reply from the Americas.

2 Nominal GDP basis, *Global Insight*, March 2009.

At a Glance

- Growing integration of the world economy allows **emerging economies** that have made a firm commitment to free markets and good economic governance to generate sustained growth. In time, their per capita income can be expected to converge with that of the developed world, to the lasting benefit of both.
- As only a small part of the gap has been bridged so far, growth prospects remain favourable, especially for technology-induced growth based on productivity improvements.
- Tapping into these markets is crucial—thirty years hence, a gain of just 0.1 percent in the Canadian share of the import markets of Brazil, Russia, India and China (BRIC) would mean an export gain of \$29 billion.
- Canada is already exporting 42 percent more to emerging and developing markets than predicted by economic modeling based on the factors that drive trade, such as GDP and distance. In particular, exports to China, Malaysia, Indonesia and Algeria are more than double what the model predicts. Key markets where Canadian exports are below potential include India and Brazil.
- In the U.S. market, our comparative advantage lies primarily in the automotive, wood and paper, and energy sectors. Outside the U.S. market, our advantage in the agri-food, metals and minerals, and aerospace sectors is significantly stronger, but we are at a disadvantage in the energy and automotive sectors.
- Competitiveness analysis in fifteen of the biggest emerging markets reveals that Canadian exports in several advanced manufacturing sectors are performing better in most of these markets than they do globally. Aerospace, in contrast, underperforms in these key emerging markets.

economy has grown by 46 percent since 1995, Russia's by 79 percent, India's by 136 percent and China's by a staggering 228 percent.³ But equally impressive is their growth potential in the future. They occupy a vast area (29 percent of the land surface of the globe), contain over 40 percent of the world's population and are rich in human and natural resources. Their influence is felt everywhere, from the carbon footprint in the atmosphere—China's carbon dioxide emissions more than doubled between 1990 and 2004, nearly catching up to the world-leading United States⁴—to the emergence of the G20 as a forum to develop a collective response to the economic crisis. Those

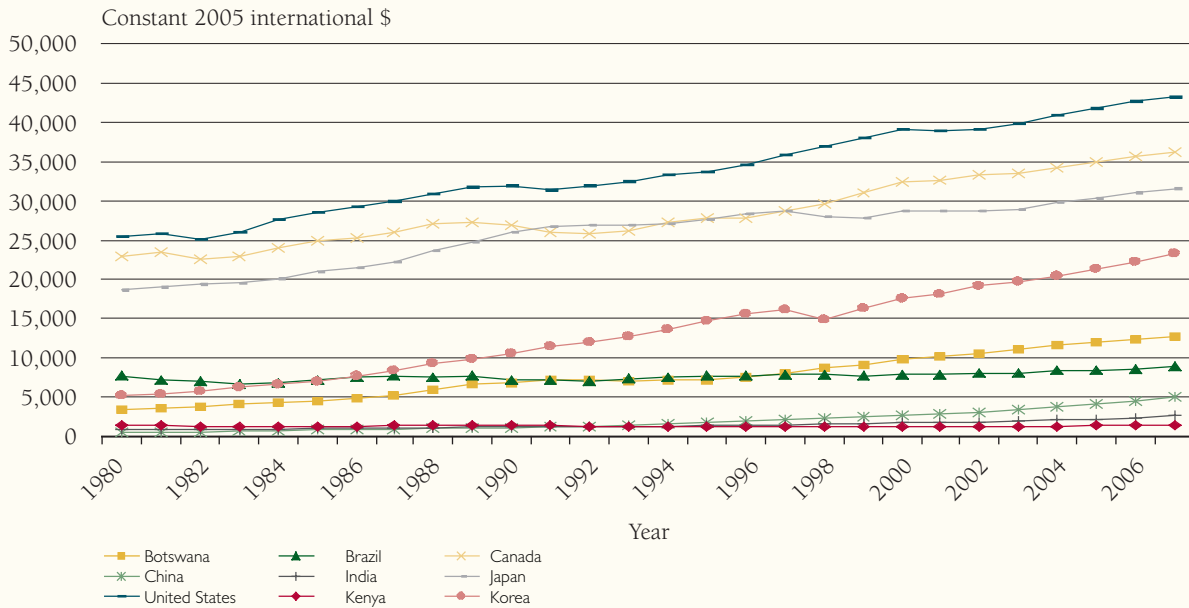
nations and the rest of the emerging world that they represent are finding their voices, and these are increasingly heard in the global debates.

This change, however, is not unexpected if one takes a look into the past. In fact, it is the global imbalance in favour of the West that is a recent phenomenon. Nearly all of human history was spent in conditions of near-universal international income parity. What is striking about the past few centuries of economic development is not the change in country rankings, but the colossal increase in disparity between the rich and the poor countries. The current income gap between one of the richest countries, Luxembourg, and one of the

3 Real GDP growth 1995-2008, *Global Insight*, March 2009. Canada also did well, growing by 47 percent over this period.

4 From 2,399 Mt in 1990 to 5,007 Mt in 2004; U.S. emissions grew 25% to 6,046 Mt in the same period. *Human Development Report 2007/2008*, UNDP.

FIGURE 1
GDP per capita (PPP), 1980-2007



Source: Office of the Chief Economist
Data: World Bank

poorest, Liberia, is over 500 to 1. Two hundred and fifty years ago, it would perhaps have been around 5 to 1, and the broad difference between Europe and East and South Asia was smaller still, somewhere around 1.1-1.5 to 1.⁵ Reliable earlier figures are not available, but one thing is fairly certain: prior to about 1750, no society had experienced sustained growth in per capita income. Average incomes stagnated not far from the level of production of an average farmer (subsistence level) with temporary deviations, quickly corrected by population growth. At any rate, nothing approaching the modern income gap between the rich and the poor nations existed in 1750 or at any earlier time. Inequality on that scale was only made possible by the Industrial Revolution.⁶

This inequality is too great to persist, and economic research predicts that it will not. Income **convergence** between the rich and the poor countries is a prediction of virtually all growth theories, starting with the classic Solow (1956) and Ramsey (1928) models. Growth in these models is a dynamic process that trends towards a certain steady-state income level. This steady income level may be different for different countries, and it may be continuously changed by parameters such as technological progress. Subject to these qualifications, these models state that economic growth is faster in poorer countries, as they are further from their theoretical maximum income than the richer countries.⁷

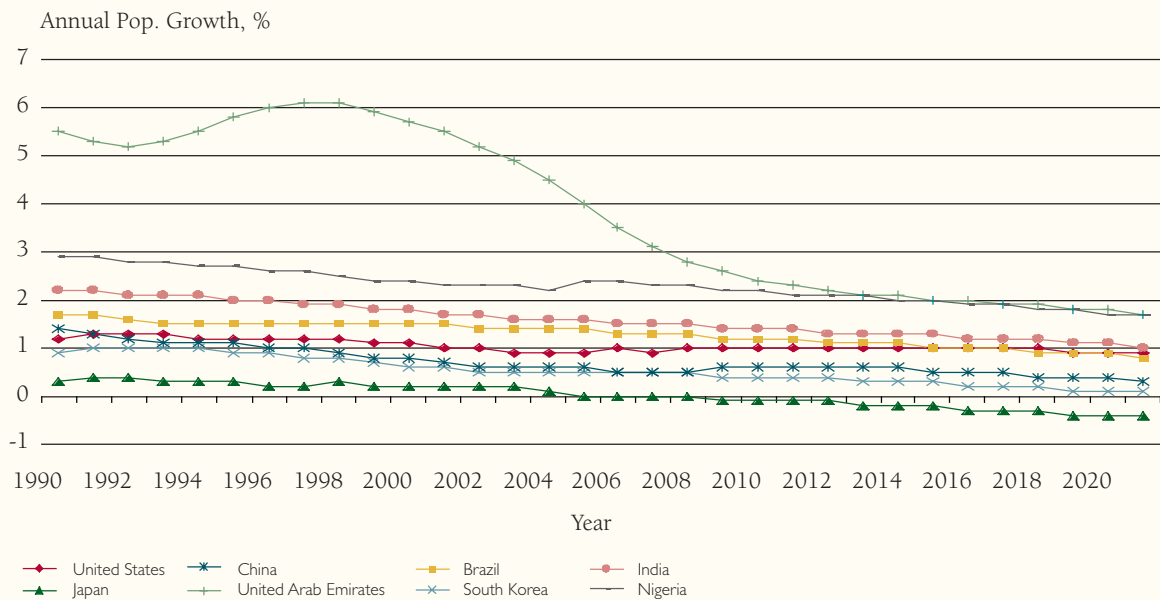
This suggests strongly that the differences in wealth observed today are part of a transitory phenomenon, and that the convergence of poorer nations

5 Estimates by Paul Bairoch, "Economics and World History," University of Chicago Press, 1999.

6 The above points have also been made eloquently in Robert Lucas, "The Industrial Revolution: Past and Future," 2003 *Annual Report Essay*, FRB of Minneapolis.

7 This concept, known as **conditional beta-convergence**, has received strong support in the economic literature.

FIGURE 2.
Convergence in Population Growth, 1990-2021



Source: Office of the Chief Economist
Data: IHS Global Insight

to the living standards of the rich would be a return to the normal historical experience rather than a departure from it. As the emerging economies approach the income levels of the developed countries, they are undergoing a demographic transition and their population growth rates are slowing down, mitigating the greatest historical obstacle to growth (Figure 2). Several countries such as Japan and South Korea have successfully taken the path of growth; other emerging economies are poised to follow them.

Can we be reasonably sure of these predictions? Are these not saying that world poverty is decreasing with every year? Yes we can, and yes they do. World population has grown from 5.3 billion in 1990 to 6.7 billion in 2008, an impressive growth of 27 percent. However, the world's real economic output has grown 67 percent during the same period. And it is the emerging world that led the

way: emerging economies grew by about 120 percent, more than twice the rate of the advanced ones.⁸ Thus by the end of 2008, on average every person on the planet was 30 percent richer in real terms than in 1990.

Certainly, some will find these prospects optimistic. Economic progress rarely occurs in an unbroken fashion and is not without its risks. The challenges of the catch-up process are both difficult and little-explored, and there may be setbacks and crises along the way. Export-based growth of Asian countries must eventually be supplemented and substituted by domestic demand sources as their own economies get closer to the size of the U.S. economy. The ongoing economic crisis is accentuating the need to find a solution to this dilemma. What these growth predictions effectively hinge on is that, as in the past, the emerging economies will find a way to overcome the challenges as they

8 Global Insight, March 2009.

arise, including learning the most effective catch-up techniques from each other.

It should also be emphasized that the sources and consequences of this growth merit attention: internal distributional issues are a problem, and many societies, from the United States to China, are becoming more unequal. In the end, growth must serve other societal goals: “human development is the end—economic growth a means.”⁹ But as we will see below, the integration of the world economy and the growth of global trade has allowed many countries to find the recipe to sustained growth, and has thus at least created the potential for the world to become not only a richer, but also a more equitable place in which to live.

Determinants of Growth and the Importance of Trade

While convergence theory predicts faster growth for poorer countries, the neoclassical exogenous growth models from which it arises do not explain the extent of the observed international income differences. Their main assumption, that the eventual steady income level is largely determined by the savings rate, is not consistent with the evidence that shows that savings rates and income levels are largely uncorrelated. As an example, the leading industrial powers—the United States and Japan—have vastly different savings rates, yet their recent economic history clearly shows them converging to a similar income level. To explain why some countries are rich and others are poor, additional issues must be considered.

The most important of these is **productivity**. The ability to produce more output from the same set of inputs characterizes firms, nations and eras as more productive. Ultimately, when all factors of

production have been accounted for, a large residual remains: **total factor productivity (TFP)**. Interpreted as a combination of changes in technology and changes in efficiency in the use of inputs, it is believed to explain most of the current international income differences.

And this is to the advantage of the emerging and developing world. It has already been noted that knowledge and information—the basis of modern productivity—are now spreading at an unprecedented rate, and at much lower cost than ever before. To catch up with the developed world under these conditions, there is no need to engage in costly creation of new techniques—only to apply the existing ones to the economic activities. Innovation and new technology are also likely to produce large, instant dividends, increasing the likelihood of their adoption. Finally, only the latest technologies need to be adopted, bypassing the long process of iterative invention and improvement. Thus, an updated version of the convergence theory would now state that those countries that manage to adapt and use the existing stock of productive knowledge in producing goods and services more efficiently will grow faster, and those that are currently using less of that stock will be able to catch up with others by adopting more of it.

This catch-up game only became possible recently, due to the increasingly integrated world economy and the removal of many barriers, a process that was accelerated by the end of the Cold War. Globalization benefited the emerging high-growth countries both on the import and export sides. They “imported what the rest of the world knew, and exported what it wanted.”¹⁰ This, then, is the

9 *Human Development Report 1996*. It goes on to add that “policy-makers are often mesmerized by the quantity of growth. They need to be more concerned with its structure and quality”.

10 This passage from the World Bank 2008 *Growth Commission Report* is worth quoting in full: “[emerging markets] imported ideas, technology, and know-how from the rest of the world [and] exploited global demand, which provided a deep, elastic market for their goods. The inflow of knowledge dramatically increased the economy’s productive potential; the global market provided the demand necessary to fulfill it. To put it very simply, they imported what the rest of the world knew, and exported what it wanted.”

paradigm for growth and the role of trade in the integrated global economy.

But have the emerging economies already tapped into productivity increases as a source of potential wealth? Is their growth due to increased productivity or is it largely input-based—in other words, are they simply building new factories or optimizing production processes in the old ones? Evidence on this issue is somewhat mixed, not least because of the pitfalls in aggregate TFP calculations. Bosworth and Collins (2003)¹¹ study the period spanning 1960 to 2000 and show that if China is excluded, TFP among East Asian countries grew no more rapidly than the world average. Rapid growth in that region is primarily explained by large increases in physical capital and contributions from increased human capital. On the other hand, China has exhibited tremendous productivity growth in the 1980-2000 period, reaching 5 percent per year in the last decade. Other studies contend that high growth rates in the emerging world (including China) are input-based, particularly due to increased urbanization and the consequent transfer of rural labour to a more productive urban economy. Overall, there is a broad consensus that China is considerably ahead of India in TFP growth, and that those two are ahead of Brazil and Russia. Yet in terms of overall productivity, evidence shows that emerging markets, BRIC countries in particular, remain far behind. For example, in ease of doing business (a proxy for institutional quality and productive efficiency), the only BRIC country in the top 100 is China and it ranks 83rd.¹²

By any measure then, the evidence indicates that the prospects for long-term growth of the emerging economies are very encouraging. Only a small part of the gap separating them from the developed

world has been bridged so far (Figure 1) and therefore possibilities for both input-based and TFP growth have been barely tapped into.¹³ Conditions for continuing progress include maintaining macroeconomic stability, high rates of saving and investment, good economic governance, and—perhaps most important—being able to rely on the integrated global economy with relatively few restrictions on trade and capital flows. While the current economic crisis may disrupt any or all of these in the short term, a truly seismic change would have to occur to upset the growth promise of the emerging world in the long term.

Trends and Projections for Emerging World Growth

This expected robust growth in the medium and long term will result in a tremendous opportunity for Canadian commercial performance, one that it is important to seize at an early stage. To illustrate the scope of these developments, consider some recent trends and projections in key emerging markets. In the five years from 2003 to 2008, emerging economies grew at an annual average rate of over 7 percent. Although the current global recession is affecting these countries significantly (recent forecasts suggest that their growth could be below 2 percent this year), economists expect that their share of world growth will continue to increase, as the conditions for long-term growth have been achieved in the last decade, namely structural reforms and better macroeconomic policies. In fact, both the global nature of the ongoing crisis and this spectacular growth are largely due to the same factor—the increasing integration of the world economy. While certainly painful, an economic crisis in these countries is a far cry from a traditional crisis involving famines or plagues, or a permanent crisis

11 Barry Bosworth and Susan M. Collins, “*The Empirics of Growth: An Update*,” The Brookings Institution.

12 World Bank, *Doing Business 2009 Report*. Note that Singapore is number one in this ranking.

13 Of course, emerging economies differ widely among themselves and assessing limits to growth should be done with care. For example, Brazil’s urbanization ratio is 85 percent, higher than most advanced countries, so little growth is to be expected from that source; but China at 42 percent and India at 29 percent have the most to gain from engaging their rural population in more productive processes.

of unobserved rural poverty, whose incidence and harm have been drastically reduced by their recent economic progress.

Consider this:

- China already replaced Germany as the third-largest economy in 2007 and is on its way to surpassing Japan around 2010. It is expected to overtake the U.S. economy as the world's largest around 2025.
- PricewaterhouseCoopers (PwC) estimates that by 2050, China's GDP will exceed that of the United States by about 30 percent, both at market exchange and PPP.
- In the same year, India is projected to nearly catch up with the United States, while Mexico, Russia and Indonesia will overtake the German, U.K. and French economies.
- The top emerging economies—consisting of the BRIC countries, Mexico, Indonesia and Turkey, the so-called E7—will overtake the current G7 and are projected to be 50 percent larger than the G7 by 2050. In 2007, E7 economies corresponded to about 25 percent of the size of the G7.
- BRIC international merchandise trade overtook that of the U.S. in 2007.
- PwC projects the following countries will have a larger GDP than Canada by 2050: Mexico, Indonesia, Vietnam, Turkey and Nigeria.

Overall, the currently emerging economies will constitute the majority of the top 10 economies list in 2050, replacing several advanced economies, such as Italy and Spain (Table 1).

TABLE 1.
Largest Economies: 2008, 2039 and 2050

Rank	GDP in 2008	GDP in 2039 (GI)	GDP in 2050 (PwC)
1	U.S.	China	China
2	Japan	U.S.	U.S.
3	China	India	India
4	Germany	Japan	Brazil
5	France	U.K.	Japan
6	U.K.	France	Mexico
7	Italy	Germany	Russia
8	Russia	Italy	Indonesia
9	Spain	Russia	Germany
10	Brazil	Turkey	U.K.

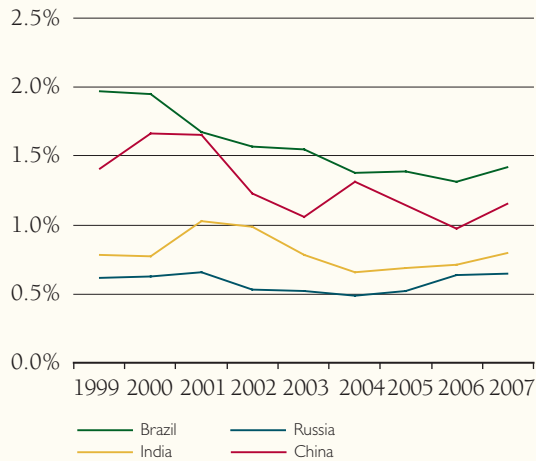
Source: IMF *World Economic Outlook*, IHS *Global Insight* and PricewaterhouseCoopers projections (2008).

Such long-term projections may prove to be overly optimistic as they neither account for any shocks that will affect these economies throughout this period, nor for the inherent risks to macroeconomic stability, governance and free-market commitment. As projections by PricewaterhouseCoopers (PwC) also rely significantly on labour force growth, these may end up being optimistic for countries with fast-growing populations. More conservative estimates by IHS Global Insight (GI) project fewer drastic differences in the top 10 club in 2039. GI estimates that the nominal GDP of emerging economies will exceed that of traditional advanced economies by 2030. But by any accounts, a major realignment will take place in world patterns of trade, output and wealth. By 2039, the combined GDP of emerging markets and developing countries will represent 58.7 percent of the world's total GDP (GI projection, April 2009).

Impact of Emerging Markets Growth on Canadian Commercial Interests

Canada is a trading nation. Our trade openness ratio is second only to Germany's among the G7. Consequently, any major shifts in global output and trade are likely to have relatively strong impacts on Canada. To estimate the effect on Canada's commercial performance, we conducted a brief

FIGURE 3.
Canadian Shares of BRIC Import Markets



market share analysis of Canadian exports to BRIC countries.

First, we compared the evolution of the total imports of BRIC countries with their imports from Canada.¹⁴ For BRIC as a whole between 1999 and 2007, total imports have grown at an average annual rate of 17.8 percent (at current prices, in Canadian dollars), compared to 14.5 percent growth in imports from Canada¹⁵. This indicates that Canada’s market share in these key emerging markets has declined, as shown in Figure 3. Note, however, that this is in line with Canada’s overall merchandise exports falling significantly as a percentage of GDP between 1999 and 2007 (Table 2).

Had Canadian exports kept pace with the growth of the BRIC imports (i.e., assuming a “constant market share”), the increase in Chinese imports from Canada over 1999-2007 would have been approxi-

mately one third greater (\$10.9 billion instead of the actual increase of \$8.3 billion). Thus the overall competitiveness effect over 1999-2007 in China is equivalent to a \$2.6 billion export loss; in Brazil, the export loss is \$0.7 billion. This contrasts with small export gains in Russia (\$73.5 million) and in India (\$19.0 million). Retaining market share in these emerging markets is by no means easy, but given their projected growth in import demand, the rewards of doing so are immense.

How immense? Let us take a look thirty years into the future. To do so, we examined Canada’s exports to the world (top 20 destinations for Canadian merchandise, representing 95 percent of our exports), and developed three possible scenarios for 2038 based on forecasts by GI for the size of BRIC import markets in that year. The first scenario assumes Canada is able to maintain its current market share in BRIC markets. The second scenario posits that Canada is able to increase its market share in these markets by a mere one-tenth of a percentage point.¹⁶ The last scenario (pessimistic) is one whereby our market share decreases by one-tenth of a percentage point, continuing on its current downward path.

The results of this analysis are shown in Table 2. Overall, the potential effect of increasing our market share in BRIC countries by just one-tenth of a percentage point by 2038 is equivalent to \$29.1 billion in extra export earnings in that year.¹⁷ Moreover, if Canada is able to maintain its 2007 market share everywhere in the world, our exports-to-GDP ratio would increase to 39.2 percent in 2038 (exceeding the 1999 level). With an increase of just one-tenth of a percentage point in market share in BRIC

14 Note that data are from Brazil, Russia, India and China official statistical agencies. Trade figures were converted to Canadian dollars to conduct the analysis.

15 Growing regional trade among East Asian economies, particularly with China, is a contributing factor.

16 The choice of 0.1 percentage point allows this analysis to be scaled to larger increases or decreases proportionally. For example, the competitiveness effect of a fall in market share of 0.5 percentage points in China (\$101.9 billion) would be five times as great as that of a 0.1-percent decrease (\$20.4 billion).

17 Total gains depend on the dynamic path of the market share increase.

TABLE 2.
Impacts of Changes in BRIC Market Share

	1999	2007	2038 Constant 2007 MS	SCENARIO 1 0.1% increase in MS	SCENARIO 2 0.1% decrease in MS
Brazil	Market Share	2.0%	1.4%	1.4%	1.3%
	Canadian Exports (\$ bn)	1.4	1.8	10.9	11.6
	Competitiveness effect (\$ bn)			-	0.8
Russia	Market Share	0.6%	0.6%	0.6%	0.5%
	Canadian Exports (\$ bn)	0.2	1.3	7.9	9.1
	Competitiveness effect (\$ bn)			-	1.2
India	Market Share	0.8%	0.8%	0.8%	0.7%
	Canadian Exports (\$ bn)	0.5	1.8	53.3	60.1
	Competitiveness effect (\$ bn)			-	6.8
China	Market Share	1.4%	1.1%	1.1%	1.2%
	Canadian Exports (\$ bn)	3.5	11.7	234.2	254.6
	Competitiveness effect (\$ bn)			-	20.4
BRIC	Total Competitiveness effect (\$ bn)			-	29.1
	Canadian Exports-to-GDP ratio (%)*	36.8	28.8	39.2	39.7
				39.7	38.6

*Calculations based on adjusted top 20 countries' imports from Canada, and GI forecast.

countries, Canada stands to increase this ratio to 39.7 percent in 2038.

If our market share in BRIC countries continues to decline, we stand to lose: \$20.4 billion worth of exports in China, \$6.8 billion in India, \$1.2 billion in Russia, and \$770 million in Brazil.

These figures, based on GI forecasts for the growth of BRIC demand for merchandise imports, underscore the potential consequences for Canada of adopting a policy of active engagement in key emerging markets to benefit from the fast growth in these countries: thirty years hence, a 1 percent increase in our BRIC market share would be worth \$290 billion in exports.

Canadian Trade With the Emerging Markets: Are We Missing Opportunities?

Given the rising importance of the emerging markets, and Canada's relatively large distance from most of them, a crucial question arises: Is our proximity to the United States (and, relatively

speaking, to most of the OECD countries) preventing us from seeing the opportunities in the emerging and developing world? Are we, in effect, over-trading with developed countries and under-trading with the rest? This question can be answered by an inquiry into the roots and causes of international trade according to economic theory. We conducted this exercise by employing the widely used, intuitively appealing and empirically successful **gravity model**. The idea behind this model originated with Newton's law of gravity (hence the name), which simply states that the force of attraction between two objects is directly proportional to their masses and inversely proportional to the square of the distance between them. Similarly, in the economic context, trade flows between two partners are assumed to be positively related to their economic masses (GDP) and negatively to the trading distance. With some additional variables that help explain trade flows, this sets up a powerful and robust model—in the sense of explaining a large proportion of variation in trade

The Gravity Equation

A gravity model expresses an empirical regularity well known to trade economists, stating that trade flows between two countries are directly proportional to their economic size and inversely proportional to the distance between them, as follows:

$$X_{ij} = A \frac{Y_i Y_j}{D_{ij}} \quad (1)$$

(X: trade flows, Y: GDP, D: distance)

Taking logarithms of both sides results in a standard log-linear form of the gravity equation, which is occasionally augmented by several other variables, according to the theoretical origins of the model or else thought to be of empirical importance. Those variables are assumed to be contained in the vector A.

However, the intuitive appeal of this specification was, until recently, not grounded in formal economic theory. Work by Anderson (1979), Deardorff (1998) and Anderson and van Wincoop (2003) established that to avoid the omitted variable bias and ad hoc specification, the gravity equation should be formally derived from theory. Following Anderson and van Wincoop (2003), among others, we used the following gravity equation:

$$\ln X_j = \ln Y_j + \ln D_{Cj} + \ln P_{ij} + \text{WTO}_j + \text{FTA}_j + \text{LAND}_j + \text{EN}_j + \text{FR}_j + \text{EME}_j \quad (2)$$

where X is Canadian exports to country j , Y is its real GDP, D is its distance from Canada, P_{ij} is the relative producer price index, and the other terms are dummy variables for WTO membership, free trade agreement (FTA) with Canada, being landlocked, having English or French widely spoken, and being an emerging or developing economy according to the IMF in 2008.

flows (70-80 percent) and doing so consistently across countries and time periods.

We estimated this equation for the 2000-2007 period, modeling Canadian exports to all destinations where data permits (over 170 countries in all), and allowing for time variation across the years. Exports are explained by GDP, distance, price levels, WTO membership, FTA with Canada, use of English/French, being landlocked, and being an emerging/developing economy. The estimated coefficients were then used to generate predictions for 2007 Canadian export trade values that stem from the gravity theory. The difference between these predictions and the actual observed values determines whether we are, according to the model, over- or under-exporting to a particular country or region.

Our key finding was that the “emerging and developing markets” effect was positive (0.35) and strongly significant. This means that between 2000 and 2007, Canada was exporting **42 percent more** to an average emerging or developing country than to a developed country, after adjusting for size, distance and all other factors considered by the model.

These results show that rather than missing opportunities and under-exporting to the emerging world, Canada is trading more than expected with the emerging and developing world. How can we explain this result? Several factors could be at play. First, the Canadian export product mix may be more attractive and better suited to the current

needs of emerging markets—meaning that we possess a **comparative advantage** in the goods that they predominantly import. Second, Canadian exporters could already be taking advantage of potential opportunities in the emerging world, on account of its expected growth, and establishing themselves in those countries with a view to the future. Further research would be necessary to assess the validity of these hypotheses, as well as to investigate other potential explanations.

Country and Regional Analysis

The vast majority of our exports (93.7 percent) are expected to end up in the advanced economies. Canada slightly under-exports to these (by 1.4 percent), but significantly over-exports to Asia (by

TABLE 3.
Determinants of Canadian Exports

VARIABLES	COEF.	T	P> T
Real Output	1.04	72.95	0
Distance	-1.06	-14.19	0
Price Levels	0.4	4.91	0
WTO	0.46	6.64	0
FTA	0.19	1.21	0.227
Landlocked	-0.49	-7.07	0
English	0.65	10.88	0
French	0.13	1.89	0.059
Emerging or Developing	0.35	3.47	0.001
Constant	-0.57	-0.64	0.524
Observations	1359		
R2	0.89		

Gravity Trade Model: Interpretation of Regression Results (Table 3)

- Overall, the equation explains 89 percent of variation in Canadian exports across the period—a very good fit.
- The reported coefficients are expressed as elasticities, measuring the proportional change in exports in response to a small change in the independent variable.
- The results of the estimation produce significant, expected and robust coefficients.
- The coefficient on the real output is significant and positive, as expected, and close to the theoretical value of 1.
- Distance has the expected negative coefficient close to -1, which is roughly in line with typical estimates.
- Price levels have the expected positive effect: countries with higher internal prices import more.
- The WTO membership of the destination enhances our merchandise exports, while the FTA effect is positive but not proven beyond a doubt (or “statistically significant”)—possibly due to the small number of FTAs Canada has concluded. Being landlocked impacts trade negatively.
- Spoken English has a strong positive effect, while French is positive but not statistically significant.
- The “emerging and developing markets” variable is positive and significant at the 1 percent level, with an “over-export” factor to these equal to $\exp(0.35) = 1.42$.

TABLE 4.
Predicted and Actual Canadian Exports by Region, 2007

GROUPINGS	EXPORTS, US\$ M		OVER / UNDER	OVER/UNDER, %	SHARE		OVER / UNDER
	PREDICTED	ACTUAL			PREDICTED	ACTUAL	
Advanced Economies	391,398	385,937	-5,461	-1.4%	93.7%	92.3%	-1.3%
Africa	1,811	2,660	849	46.9%	0.4%	0.6%	0.2%
Emerging Europe	4,119	3,209	-910	-22.1%	1.0%	0.8%	-0.2%
Eastern Europe	2,753	1,758	-996	-36.2%	0.7%	0.4%	-0.2%
CIS	1,366	1,451	85	6.2%	0.3%	0.3%	0.0%
Asia	8,275	14,397	6,121	74.0%	2.0%	3.4%	1.5%
East Asia	5,382	11,680	6,298	117.0%	1.3%	2.8%	1.5%
South Asia	2,893	2,717	-176	-6.1%	0.7%	0.7%	0.0%
Middle East	1,233	1,673	440	35.7%	0.3%	0.4%	0.1%
Latin America and Caribbean	11,073	10,034	-1,039	-9.4%	2.6%	2.4%	-0.2%
TOTAL	417,910	417,910	0		100%	100%	0%

* Some countries for which 2007 data are missing are not included in these results, notably the UAE.

TABLE 5.
Predicted and Actual Exports by Selected Country, 2007 (US\$M)

COUNTRY	ACTUAL EXPORTS	PREDICTED EXPORTS	OVER/UNDER TRADING	% OVER/UNDER
Malaysia	557	158	399	252.2%
Indonesia	936	312	624	200.2%
Algeria	479	162	318	196.4%
China	8,908	4,340	4,568	105.2%
Netherlands	3,751	1,847	1,903	103.0%
Saudi Arabia	648	490	158	32.3%
South Africa	733	559	174	31.2%
Venezuela	714	627	87	13.9%
Colombia	618	563	55	9.8%
Japan	8,597	8,110	487	6.0%
United States	332,002	330,263	1,739	0.5%
Egypt	326	337	(11)	-3.2%
Russia	1,072	1,116	(44)	-3.9%
United Kingdom	11,932	14,497	(2,566)	-17.7%
Brazil	1,418	1,853	(435)	-23.5%
Mexico	4,637	6,125	(1,488)	-24.3%
India	1,702	2,455	(753)	-30.7%
Turkey	631	995	(364)	-36.6%
Germany	3,632	7,820	(4,188)	-53.6%
France	2,922	6,866	(3,944)	-57.4%

*Although the table shows significant under-exports to Mexico, this finding could be susceptible to export destination data issues (i.e., transshipments to Mexico through the United States incorrectly recorded as exports to the United States.)

74 percent), particularly to East Asian countries such as China and Indonesia, and to Africa (by 47 percent) (Tables 4 and 5). Trade with East Asia is more than double expected, generating over-exports of over \$6 billion. This raises the share of this region in our exports from the expected 2.0 percent to 3.4 percent and largely balances our under-exports to the advanced economies. Other regional results are of interest as well. There is substantial over-exporting to the Middle East (by 36 percent), and under-exporting to Emerging Europe by 22 percent (all due to Eastern Europe, as CIS actually shows modest over-exports). Both South Asia and Latin America are characterized by small under-exports (6 to 9 percent). Note that these estimates take into account the emerging market effect discussed in the previous section, and any over/under-exports are in addition to that effect.

A detailed country analysis shows severe under-exports to the Western European economies such as Germany and France (and the U.K. to a lesser degree). Among BRIC countries, Brazil and India are the two top under-export destinations in the emerging world—with -24 and -31 percent respectively. Conversely, exports to China are more than double expected, and exports to Algeria and Indonesia are triple the expected amounts.

These results are not easily accounted for on the aggregate level;¹⁸ considerable differences exist between countries in our sample that are unaccounted for by the simple model. The theory of international trade provides for several types of trade, depending on the incentive: trade in differentiated goods driven by monopolistic competition, trade driven by factor abundance, and trade driven by unit-labour requirements (comparative advantage). As an example, Canada's reasons to trade with the United States differ from its reasons to trade with South Africa (i.e., intra-industry, intra-firm,

differentiated goods flows versus resource exports). This leads to a divergence of South Africa coefficients from the predictions of the model. Export mix matters, and so does Canadian comparative advantage in areas of specific interest to specific countries. Thus our understanding of the drivers of Canadian exports is enhanced with a regional analysis by sector, undertaken below.

In interpreting the above results, some consideration must be given to the peaking commodity prices, particularly for food and metals, which are the primary Canadian exports to some countries in the sample. However, the appropriate robustness checks showed that excluding 2007 from the sample actually slightly *increases* the over-exporting factor to the emerging markets—i.e., this factor is completely unrelated to the 2007 events. Moreover, while over-exporting to some countries in 2007 can be attributed to higher commodity prices, there are many cases of over-exporting that are not commodity-driven. Overall, despite the scale of these price shocks, they are not found to be the principal driver for the reported results.

Patterns of Canadian Competitive Performance: An Examination of Canada's Comparative Advantage in Emerging Markets

The aim of the analysis that follows is to develop a framework for a detailed analysis of Canada's trade with individual countries of interest. To answer questions about Canada's performance, an analysis of trade by sector is necessary, and we employed the **comparative advantage** approach to identify the patterns of Canada's competitiveness in a given market. We then compared these with the broad sectoral patterns of Canada's competitiveness in the world market as a whole. Supplemented by an analysis of local circumstances, sectors that perform relatively better in a particular market than

18 Analysis of trade flows by sector could shed more light on the issue, allowing for the separation of commodities and advanced industrial products which likely follow different trade patterns.

in Canada's overall global benchmark may then be identified as potential examples to emulate in other countries ("lessons learned"). Sectors that perform relatively worse may in some cases be identified as potential opportunities, and hence targeted for trade promotion efforts.

Measures of Competitiveness

To measure the competitiveness of Canada's exports, we employed the concept of **revealed comparative advantage** (RCA).¹⁹ Dating back to the original motivation for international trade as expressed by David Ricardo, this concept is simply an observation that countries should export goods that they are relatively good at producing, and import the rest. To the extent that world trade can be explained by this simple Ricardian model, the observed competitive patterns may be interpreted as revealing the underlying comparative advantage through a real-life experiment.²⁰

To define comparative advantage, it is usually stated that if the share of a commodity in Canada's exports to a country is greater than the share of the same commodity in the world's exports to the same country, then Canada is said to have a revealed comparative advantage in this particular commodity in this country. This advantage, however, will be compensated for by a disadvantage in some other area, as all commodity shares sum to a value of 1.

For example, the share of construction, mining and lifting machinery in Canadian exports to South Africa is 7.7 percent, while the share of that commodity in global exports to South Africa is 3.9 percent. This means that Canada has a revealed comparative advantage in construction, mining and lifting machinery in South Africa relative to the world.

To actually calculate comparative advantage, we used the normalized RCA (NRCA)²¹ approach, which allows comparisons across different industry sectors, countries and time periods. A positive NRCA value indicates a comparative advantage, and a negative value indicates a disadvantage.²²

Fixing the Benchmark: Canada's Competitiveness in non-U.S. markets

To benchmark Canada's comparative advantage in the emerging markets, we compared it with the Canadian RCA pattern in the *rest of the world* (which, for the purposes this article, is the world market excluding the United States), since the patterns of Canada's RCA in the world as a whole are driven largely by the disproportionate influence of the United States on Canadian trade.

The pattern of Canadian exports to the world is very distinct from its exports to the non-U.S. markets. The NRCA index shows that in 2006²³ (and generally over the 2000-2006 period), in the world

19 The Balassa index (BRCA) was first developed to measure RCA in 1965. See Balassa (1965), "Trade liberalisation and revealed comparative advantage," *Manch Sch Econ Soc Sci* 33:99-123.

20 This Ricardian concept would be very poor at explaining modern trade between advanced nations. However, it is still a plausible simplification for countries that are very different (as is the case for Canada's trade with emerging markets). Note also that in the presence of trade barriers and trade costs, RCA is more accurately interpreted as measuring the competitiveness of a country's export industry against a competitor in a given market rather than the pure underlying comparative advantage—and this is exactly what we intended to measure.

21 Yu, Cai and Lung (2009), "The normalized revealed comparative advantage index," *The Annals of Regional Science* Vol. 43, No.1

22 Note: NRCA is a symmetric index and the sum of NRCA indices across all trading sectors of a country always equals zero.

23 As we are analyzing total world trade by HS commodity, the latest year of available data with sufficient global coverage is 2006. This base year should be borne in mind when we compare these benchmarks to individual country results (most of which are available for 2008), but is not expected to invalidate these comparisons. NRCA results differ slightly from year to year, as the analysis over the 2000-2006 period shows. However, changes are usually small and occur around the middle of the distribution, for products with moderate (positive or negative) advantage.

Normalized Revealed Comparative Advantage (NRCA)

The NRCA index is a refinement of Balassa's RCA index (BRCA). It is symmetric, with 0 being the comparative advantage- neutral point. For a commodity to be at that neutral point (\hat{E}_j^i), the share of that commodity in a country's exports to a destination must be exactly the same as its share in the world's total exports to that destination. Any deviation from this neutral point indicates comparative advantage or disadvantage. NRCA computes this deviation and normalizes it according to the following formula:

$$NRCA_j^i = \Delta E_j^i / E = (E_j^i - \hat{E}_j^i) / E = E_j^i / E - E_j^i E^i / EE$$

where:

$NRCA_j^i$ = comparative advantage of country i in commodity j

E_j^i = exports of commodity j by country i to a destination

E^i = total exports by country i to a destination

E_j = world exports of commodity j to a destination

E = total world exports to a destination

If $NRCA_j^i > 0$ country i has a comparative advantage in commodity j .

If $NRCA_j^i < 0$ country i has a comparative disadvantage in commodity j .

market, Canada held a large comparative advantage in the automotive, wood and paper, and energy sectors; a small advantage in the aerospace, agri-food, and metals and minerals²⁴ sectors; a small disadvantage in chemicals and miscellaneous manufacturing; and a large disadvantage in the machinery and electrical equipment sector.

However, after excluding the United States, the pattern of NRCA in the rest of the world is quite different (Figure 5). Canada's comparative advantage in the agri-food, metals and minerals, and aerospace sectors increases greatly, while the wood and paper sector preserves its advantage. However, automotive products and particularly energy become areas of comparative disadvantage, while the machinery and electrical equipment sector becomes even more disadvantaged than before. These changes reflect

Canada's different areas of specialization outside of the U.S. market.

Due to the enormous size and special character of the Canada-U.S. trading relationship, it dominates the patterns of Canadian RCA worldwide. Thus Canada's RCA in energy in the U.S. market causes Canada to post a high worldwide RCA in that sector, and yet Canada is very disadvantaged in energy exports to the rest of the world (Figures 4 and 5). It may be surprising to think of energy (or even automotive products) as an area of comparative disadvantage for Canada. Yet this is easily explained when we compare the share of energy in Canadian world exports (21.1 percent) with its share when the U.S. market is excluded (4.8 percent). Meanwhile, the share of energy in total global exports is 15.0 percent. Conversely, while Canada's

24 Advantage in metals and minerals dates from 2006 only.

FIGURE 4.
Canada's NRCA Patterns in the World

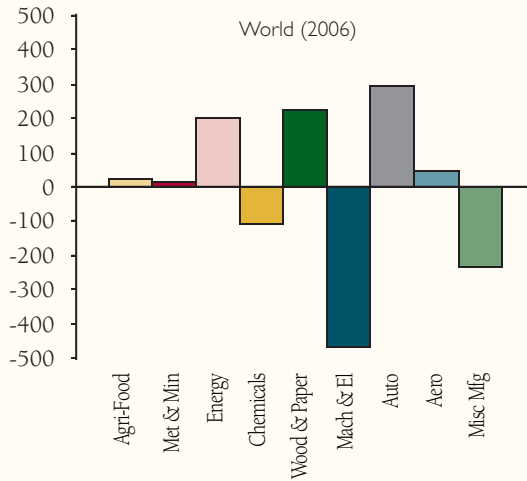
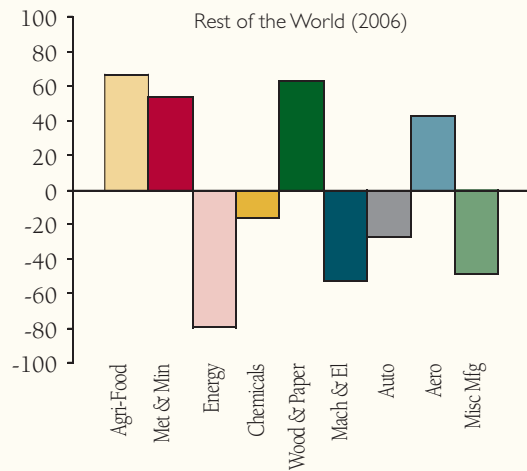


FIGURE 5.
Canada's NRCA Patterns in the Rest of the World (Excluding the United States)



comparative advantage in metals and minerals seems very low in the world as a whole, this sector performs impressively in the non-U.S. markets. This is again due to the fact that the shares of metals and minerals in Canadian exports to the world (13.0 percent) versus the world excluding the U.S. market (19.5 percent) differ greatly.

To address this comparability issue and analyze Canadian export performance in the emerging markets appropriately, we studied Canadian NRCA in the world excluding the United States. Figure 5, therefore, shows the appropriate benchmark for our comparison. It will be referred to in the rest of the analysis for the sake of brevity as the Canadian pattern of global comparative advantage.

Aggregate versus Full Detail Analysis

The nine-sector broad view discussed above may hide crucial information. For example, Canada has a natural comparative advantage in wheat production in the world, which may be expected to result in a higher competitiveness in this area—but aggregation with the rest of the agri-food sector

conceals that fact (Figure 4). Conversely, although Canada is at a comparative disadvantage in the chemicals sector, an RCA analysis at a more disaggregated level shows a significant comparative advantage in fertilizers (Table 6); similarly, in the world market, Canada's RCA performance in the metals and minerals sector shows a disadvantage between 2000 and 2005; however, Canada has a clear advantage in aluminum, nickel and articles thereof, as well as in zinc over that period. Therefore, a more disaggregated view is useful to nuance the broadly presented results.

Therefore, to make the analysis manageable yet informative, we considered two types of sectoral breakdown: a broad aggregation into nine major sectors discussed above and a more detailed analysis based on a DFAIT Clustered Trade Classification (CTC) system comprised of 53 commodities. This more detailed CTC analysis frequently yields insights that a broad aggregation would miss.²⁵

Table 6 shows the top 10 ranking Canadian commodities by their comparative advantage score

25 However, due to the volume of information, we will only refer to these results in the text. These are available for individual countries of interest upon request.

TABLE 6.
Top 10 Commodities by Canadian Normalized Revealed Comparative Advantage (NRCA) in the non-U.S. Markets (2006)

CTC	CTC Name	NRCA	Rank
C44	Wood and wood pulp	55.90	1
C10	Cereals and seeds incl. canola	54.15	2
C75	Nickel and articles thereof	42.12	3
C88	Aerospace	41.88	4
C26	Ores and concentrates	33.64	5
C02	Meat, fish, live animals and their products	23.45	6
C31	Fertilizers	12.96	7
C84.4	Power-generating machinery	11.20	8
C28	Inorganic chemicals incl. uranium	10.77	9
C07	Vegetables, pulses and live trees and plants	6.91	10

in the non-U.S. markets (among the 53 CTC commodities).

Canada's advantage in wood and wood pulp, cereals and seeds, nickel, aerospace, ores, as well as meat, fish and live animals is maintained in both the world and non-U.S. markets. Our lowest NRCA in the rest of the world is in energy, textiles, automotive products, iron and steel and their products, and ICT electrical and electronic equipment. Fertilizers, power-generating machinery and inorganic chemicals rank at a fair advantage.

Regional Competitiveness Analysis by Sectors

An analysis of individual countries is needed in order to compare the specific patterns of Canada's export performance in selected countries to the global benchmark. To this end, we evaluated competitiveness by sector both at the broad (i.e., nine sectors) and detailed (53 CTC commodities) levels on the NRCA basis, with Canadian exports evaluated against total world exports to the countries in question. Note that some commodities

(energy, automotive products and aerospace products) form sectors of their own due to their size and importance.

For analysis, we selected 15 major emerging markets in five regions, all of which are in the top 20 destinations for Canadian merchandise exports in emerging markets. We used country-specific imports data²⁶ to profile a pattern of competitiveness with advantages and disadvantages by sector. Comparing this to the pattern of Canadian global comparative advantage, we identified sectors of better-than-expected performance, using the term "over-exports" to refer to these, and "under-exports" otherwise. Over-exporting may provide lessons to learn for our commerce in neighbouring or similar countries, while under-exporting may indicate potential areas of opportunity.²⁷

Given our definition of comparative advantage as a higher proportion of a commodity in the Canadian exports to a country than its proportion in the world's exports to that country, the following may

²⁶ Country data sources and classifications differ slightly across countries and regions. Import data sources and classifications for NRCA analysis are as follows: UN Comtrade (World-HS1996; UAE-HS2002; Algeria, Egypt, Saudi Arabia-HS2007); domestic statistical agencies through World Trade Atlas (China, India, Indonesia, Malaysia, Mexico, Brazil, Venezuela, Colombia, Russia, Turkey, South Africa-HS 2007).

²⁷ A theoretically optimal Ricardian trading pattern would show high variance from sector to sector, indicating a skilful exploitation of advantage in some sectors combined with an avoidance of involvement in others. In practice, some levelling of this pattern is bound to occur due to product differentiation and other motivations for trade.

Guide to Comparative Advantage Charts and Analysis

- Comparative advantage charts use coloured bars to show Canada's sectoral comparative advantage/disadvantage in a country, while the black outlines show the global benchmarks. The focus is on the difference between the two (i.e., over- / under-exports) when this difference is significant.
 - Above-zero bars show positive comparative advantage.
 - Below-zero bars show negative comparative advantage.
 - If the local advantage (coloured bar) is considerably above the global benchmark (black outline) in a sector, Canada is over-exporting in that sector.
 - If the local advantage is considerably below the global benchmark, Canada is under-exporting in that sector.
- All advantages and disadvantages are relative and sum to zero on the charts.
- Under-exports can occur in sectors with positive advantage in a particular market, providing the performance in that sector is below global performance.
- Likewise, over-exports can occur in a sector with negative advantage if performance exceeds the global benchmark.

be possible reasons for under-exporting a given commodity to a given market:

- abundant local supply of main commodities in the sector, causing unusual import product mix (e.g. Russia will import metals, but not nickel which is locally abundant);
- abundant regional supply of main commodities in the sector, causing imports from that destination to substitute for imports from Canada;
- local free trade agreements, which make it cheaper to import from an FTA partner than from Canada (trade diversion);
- non-tariff barriers that affect Canada more than other exporters;
- Canada's global pattern in that sector (e.g. aerospace) is mainly formed in other countries that are dissimilar to the country in question;

- large over-exports exist in another (dominant) sector in the same country;
- insufficient information or awareness of opportunities in a country.

Identifying which of these factors is relevant in a particular market would be the subject of further work building on the local market knowledge accumulated by the Trade Commissioner Service. Cases of unexploited opportunities which are explained by insufficient information are of the most interest, although the impact of trade preferences or barriers is also relevant to Canada's trade policy development.

In the individual country discussions, **rankings (+/- numbers)** denote the relative standing of the commodity in the local competitiveness ranking versus the global ranking. The more positive the ranking, the more a commodity is over-exported to a particular market, for a maximum possible rank of +52 (53 commodities in total). Tracking

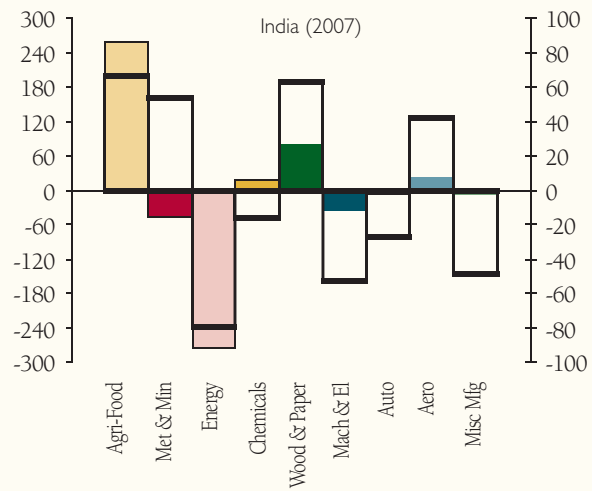
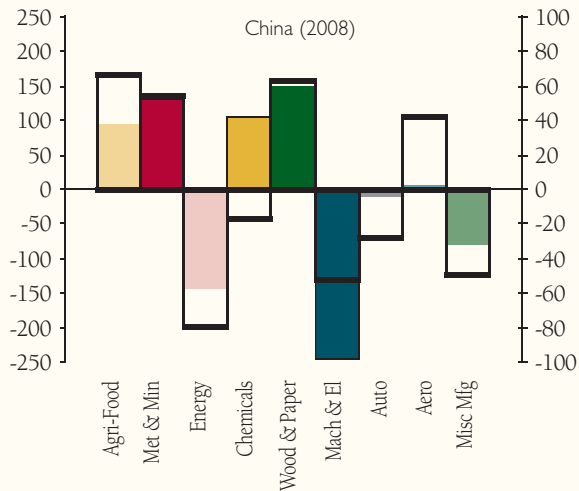
these rank movements was one of our principal means for identifying over- and under-exports.²⁸

When discussing comparative advantage only, it is also useful to speak of a “local top 10” which simply refers to the top 10 commodities in the local competitiveness ranking.

Asia

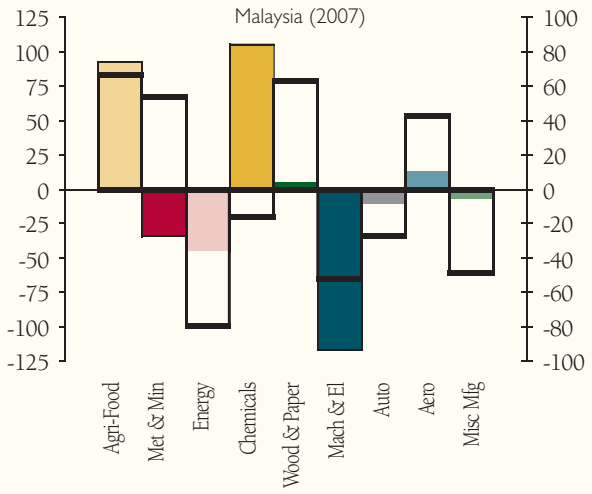
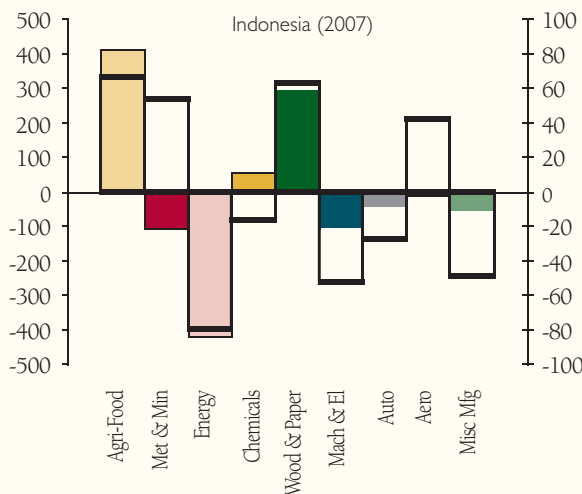
Asia is the key area of the emerging world. It is home to the biggest economic development success stories in history: Japan and the four Asian Tigers, which act as role models for their neighbours. Establishing a solid presence in Asia is crucial to

Normalized Revealed Comparative Advantage (NRCA) in Selected Asian Countries



Black outlines represent global benchmarks (right axis). Coloured bars are specific to the country (left axis).

Black outlines represent global benchmarks (right axis). Coloured bars are specific to the country (left axis).



Black outlines represent global benchmarks (right axis). Coloured bars are specific to the country (left axis).

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28 Tracking rank movements supplements the examination of charts, because the two patterns are not directly numerically comparable (different axes on the charts are used to represent approximate relative magnitudes).

the long-term prospects of any exporting nation. The earlier gravity analysis has shown considerable over-exporting by Canada to Asia as a whole.

We examined in detail Canadian exports to four key emerging markets in Asia: **China, India, Indonesia and Malaysia**. The broad nine-sector pattern of Canadian competitiveness in these countries is depicted in the previous graphs. Our discussion of common trends in these graphs is followed by individual country specifics, with some discussion at the detailed 53-commodity level (CTC).

Common Themes

- With the exception of China, our most competitive sector in these countries is agri-food, where Canadian performance is on par and sometimes surpasses our performance in the rest of the world.
- Canada tends to over-export in the chemicals sector, showing positive NRCA in all four countries, particularly in China and Malaysia, while it is an area of disadvantage in the rest of the world.
- In contrast, the metals and minerals sector is under-exporting to Asian countries compared to Canadian performance in the rest of the world, with the notable exception of China where this sector held the second-highest advantage in 2008.
- The wood and paper sector under-exports to India and Malaysia, but is near par elsewhere.
- Competitiveness in the aerospace sector in Asia could be improved, as we under-export in that sector relative to the benchmark.
- Miscellaneous manufactured products are over-exported to India, Indonesia and Malaysia, although not to China.
- Automotive products are somewhat over-exported to all four countries.

- Machinery and electrical equipment exports exceed the global benchmark to India and Indonesia, but are greatly under-exported to China and Malaysia.

1.1 China

Key Over-Exports	Key Under-Exports
<ul style="list-style-type: none"> • Organic chemicals • Sulfur, salts and minerals • Fats, oils, animal feed • Rubber and its products 	<ul style="list-style-type: none"> • Inorganic chemicals (incl. uranium) • Power-generating machinery • Paper and print • Precious stones and metals

China is by far Canada's largest merchandise trading partner among emerging markets, and second overall. It is the fourth-largest destination for Canadian exports, and the second-largest source of imports.

The key over-exported commodities relative to Canada's global comparative advantage in the **chemicals** sector are organic chemicals (ranked +38 over benchmark), rubber and its products (+23) and fertilizers (+3), although overall success is mitigated by under-exports of inorganic chemicals (-26 under benchmark). In the **metals and minerals** sector, sulphur, salts and minerals are over-exported (+11), but precious stones and metals are under-exported (-27). Fats, oils and animal feed are over-exported (+15) in the **agri-food** sector, although overall its performance is below par. **Automotive** exports are at less of a disadvantage than globally, i.e. over-exported (+8).

Paper and print are under-exported (-21), thus reducing competitiveness in the **wood and paper** sector, although wood and wood pulp are performing well, bringing this sector up to par. Power-generating machinery is significantly under-exported (-30), as is construction, mining and lifting machinery (-21), driving down competitiveness in our **machinery and electrical** equipment sector.

Note that Canada held a high comparative advantage in power-generating machinery in 2000, and remained at an advantage (although declining) until 2008 when it lost that advantage.

Significantly, between 2000 and 2008, Canadian performance in the aerospace and automotive sectors has deteriorated (both were areas of comparative advantage between 2000 and 2003), while our competitiveness in metals and minerals, and chemicals has been growing. This may be an indication that China is moving up the value chain in these areas, and is manufacturing its own aerospace and automotive products using imported raw materials. While Canada retains a large comparative advantage in cereals and seeds, this has decreased compared to 2000. In contrast, our advantage in sulphur, salt and minerals has grown over the last eight years.

1.2 India

Key Over-Exports	Key Under-Exports
<ul style="list-style-type: none"> Vegetables, pulses, trees and plants Paper and print Construction, mining, and lifting machinery Fertilizers 	<ul style="list-style-type: none"> Meat, fish, animals and their products Inorganic chemicals (incl. uranium) Precious stones and metals Power-generating machinery

India is Canada's fourth-largest destination for merchandise exports among emerging markets. In 2008, it ranked second as a destination for both Canadian fertilizers and vegetables after the United States.

The key commodities over-exported to India are vegetables and pulses (+9 over benchmark) that drive our advantage in the **agri-food** sector, fertilizers (+5) in the **chemicals** sector, and construction, mining and lifting machinery (+8) that raises our performance in the machinery and electrical equipment sector. Paper and print (+8) are over-exported,

but under-exports of wood and pulp (-6) lead to overall under-exporting in the **wood and paper** sector. Similarly, lower than expected exports of meat, fish, animals and their products, inorganic chemicals and power-generating machinery are mitigating our advantage in the **agri-food, chemicals** and **machinery and electrical** equipment sectors, respectively. Under-exporting in **metals and minerals** is a significant departure from the benchmark, led by the under-exports of precious stones and metals (-39).

Canadian performance in wood and paper has been generally in decline since 2000, despite our strong competitiveness in paper and print. Metals and minerals, however, generally improved (except for in 2007). The advantage in the agri-food sector improved sharply in 2007 (reversing years of declines), attributable to vegetables and pulses as well as cereals and oilseeds. In 2007, Canada was the leading source of vegetables and pulses in India, holding 37.7 percent of the Indian import market.

1.3 Indonesia

Key Over-Exports	Key Under-Exports
<ul style="list-style-type: none"> Fruit and vegetable preparations Misc. scientific instruments Construction, mining, and lifting machinery Toys and sports equipment 	<ul style="list-style-type: none"> Aerospace Power-generating machinery Meat, fish, animals and their products Ores and concentrates

Indonesia is Canada's seventh-largest merchandise export market among emerging countries. It is an important importer of Canadian cereals—and Canada ranks first as a source of fertilizer and wood pulp imports in Indonesia.

Although the broad pattern of Canadian competitiveness in Indonesia is very similar to the performance in India, there are differences at the detailed

commodity level. Significant over-exports exist in toys and sports equipment (+21 over benchmark), and miscellaneous (non-medical/optical) scientific instruments (+6)—both contributing to over-exporting in the **miscellaneous manufacturing** sector. As in India, construction, mining and lifting machinery over-exports (+12) are behind over-exports in the **machinery and electrical** equipment sector; under-exports of power-generating machinery (-25) are limiting our competitiveness here. Fruit and vegetable preparations (+17) are among the key over-exports to Indonesia in the **agri-food** sector (cereals rank first), but meat, fish, animals and their products are under-exported (-24). Low competitiveness in ores and concentrates (-13) is behind our under-exports in the **metals and minerals** sector; under-exports in the **aerospace** sector (-34) are considerable.

Although Canada is highly competitive in wood and wood pulp globally (first among the 53 CTC commodities), it is notable that Canada has a large advantage in this area in a country that holds wood in abundance. Canada is the leading provider of wood pulp (chemical and mechanical) to Indonesia (which imported \$1.6 billion worth of wood pulp in 2008, almost 20 percent of which came from Canada). Wood pulp's second-place ranking (out of 53 commodities) and our large share of the Indonesian wood and paper import market may be an important lesson for our exporters.

Competitiveness in the chemicals sector has been increasing over 2000-2007, turning positive in 2004. Performance in machinery and electrical equipment has also been improving; while the high advantage in wood and paper has been in decline since 2000, it increased again in 2006 and 2007.

1.4 Malaysia

Key Over-Exports	Key Under-Exports
<ul style="list-style-type: none"> • Plastics • Fertilizers • Fats, oils, animal feed • Zinc and articles thereof 	<ul style="list-style-type: none"> • Precious stones and metals • Paper and print • Ores and concentrates • Meat, fish, animals and their products

Malaysia is the thirteenth-largest destination for Canadian merchandise exports among emerging markets.

The key commodities over-exported to Malaysia are plastics (+38 over benchmark) and fertilizers (+6), both driving the impressive Canadian performance in the **chemicals** sector, with possible lessons to learn for other destinations. Over-exporting fats, oils and animal feed (+18) and fruit and vegetable preparations (+12) raises our **agri-food** sector to a better-than-expected performance.

Key under-exports to Malaysia include precious stones and metals (-34) and ores and concentrates (-26), leading to a relative disadvantage in **metals and minerals**; weak performance in paper and print (-26) is responsible for under-exports in the **wood and paper** sector. Meat, fish, animals and their products are also under-exported, restricting Canadian advantage in **agri-food**.

Canadian competitiveness in chemicals has increased over time, mainly due to fertilizers. Meanwhile, the advantage in wood and paper has been declining, similar to what was observed elsewhere in Asia. The disadvantage in metals and minerals has deepened over the 2003-2007 period.

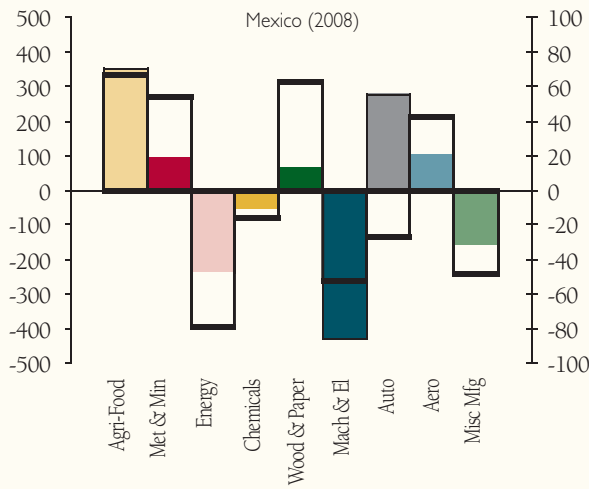
The profound disadvantage in **machinery and electrical equipment** (despite electrical and electronic equipment being the second-largest

Canadian export commodity in Malaysia) is indicative of the sheer size of the Malaysian import market in this sector. This sector, ranked first overall in Malaysian imports, thus remains a potential area of opportunity.

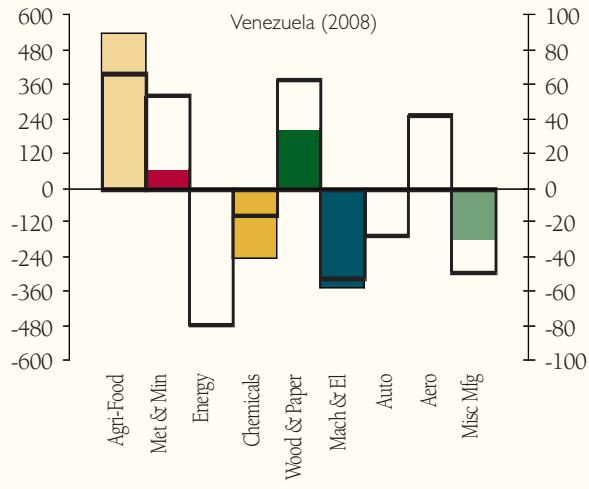
2. Latin America and the Caribbean (LAC)

Increased engagement in the Americas is a priority for the Government of Canada. The gravity model has shown some under-exporting to the region as a whole, particularly to Brazil. Although there is strong variation across surveyed countries, we noted

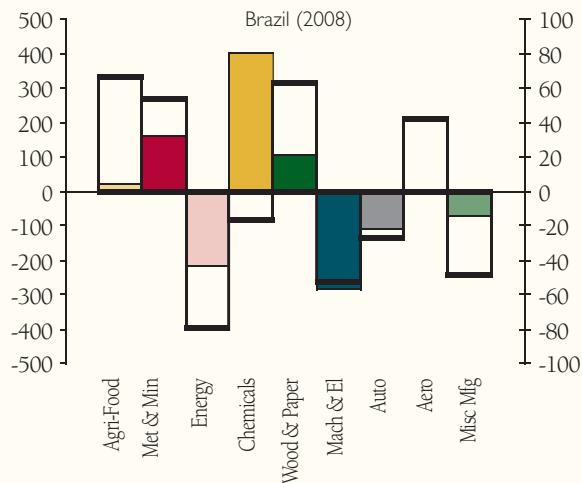
Normalized Revealed Comparative Advantage (NRCA) in Selected Latin American and Caribbean Countries



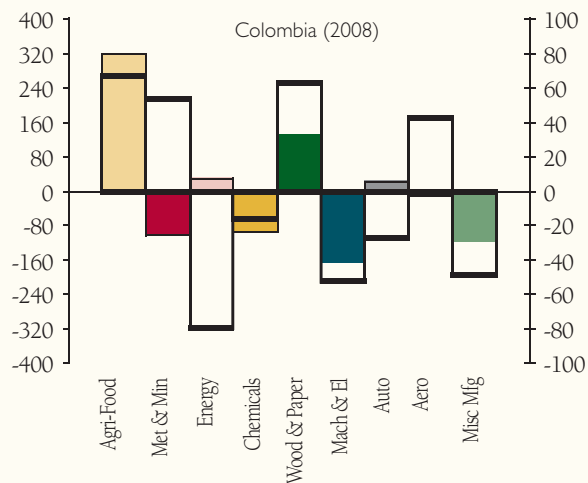
Black outlines represent global benchmarks (right axis). Coloured bars are specific to the country (left axis).



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some general patterns of comparative advantage in the region. We examined in detail Canadian exports to four key LAC countries: **Mexico, Brazil, Venezuela and Colombia.**

Common Themes

- Canadian exports to Brazil feature a pattern of competitiveness that is distinct from other LAC countries surveyed. Its highlights are over-trading in chemicals (primarily fertilizers) and under-trading in the agri-food sector relative to our global comparative advantage.
- For the other three countries, the agri-food sector in the LAC region is very competitive, even compared to strong Canadian global performance. This is driven by the advantage in cereals and seeds (including canola) and vegetables and pulses.
- With the exception of Brazil, the chemicals sector is on par or under-exporting compared with the global pattern (especially in Venezuela). Negative competitiveness in this area persists despite the competitiveness of fertilizers in Mexico and Colombia, where these are in the top 10.
- Metals and minerals are under-traded to all countries, but still show positive comparative advantage, except in Colombia. The types of minerals and metals exported vary according to country.
- Energy is somewhat over-exported to these markets, especially to Colombia.
- Wood and paper exports have less of an advantage than globally, especially in Mexico.
- With the exception of Brazil, automotive products are over-exported considerably, especially to Mexico. Aerospace products are under-exported, although less so to Mexico.
- Miscellaneous manufactured products appear to be less disadvantaged in Brazil than in the rest of LAC or globally.

2.1 Mexico

Key Over-Exports	Key Under-Exports
<ul style="list-style-type: none"> • Automotive products • Iron and steel and their products • Other chemical industry products • Construction, mining, lifting machinery 	<ul style="list-style-type: none"> • Power-generating machinery • Inorganic chemicals (incl. uranium) • Nickel and articles thereof • Ores and concentrates

Mexico is Canada's second-largest merchandise export destination in the emerging markets, and our fifth-largest commercial partner worldwide in terms of merchandise trade.

Canadian exports to Mexico display considerable variability from the global patterns at the detailed level. **Metals and minerals** exports are characterized by a large advantage in iron, steel and their products (+46 above benchmark); however, under-exports in nickel and articles thereof (-13) and ores and concentrates (-13) lead to overall under-exports in this sector. Our performance in the **machinery and electrical** equipment sector displays a similar dichotomy—while construction machinery is over-exported (+13), power-generating machinery is under-exported (-35), resulting in overall exports being below the global benchmark. Near-benchmark performance in **chemicals** masks over-exports of certain commodities, e.g. other chemical industry products (+36), and under-exports of inorganic chemicals (-25).

The **automotive** sector (an area where Canada is generally not competitive globally) performs strongly in Mexico (+49 above benchmark) due to North American integration. At the commodity level, automotive products rank second out of 53 CTC commodities, but have seen a decline in their advantage in recent years. The **aerospace** sector is generally underperforming in the countries under

analysis in the LAC region, but in Mexico it ranks third out of 53 commodities (considerably higher than before 2008).

2.2 Brazil

Key Over-Exports	Key Under-Exports
<ul style="list-style-type: none"> • Fertilizers • Sulfur, salt and minerals • Paper and print 	<ul style="list-style-type: none"> • Power-generating machinery • Ores and concentrates • Inorganic chemicals (incl. uranium) • Meat, fish, animals and their products • Wood and woodpulp

Brazil is Canada's third-largest merchandise export market among emerging countries and the largest economy in the region.

In Brazil, the **agri-food** sector is severely under-exporting relative to the global benchmark, posting an NRCA of practically zero. This is primarily due to the weak exports of meat, fish, animals and their products (-25 under benchmark). An unusually high comparative advantage is shown in the **chemicals** sector, which in combination with the negative benchmark leads to large over-exports. Over-exporting occurs primarily for fertilizers (+6), although inorganic chemicals are under-exported (-27). The advantage in fertilizers has grown tremendously over last eight years; in 2000 it was negative.

By contrast, in 2000 Canada was competitive in the **machinery and electrical** equipment sector in Brazil. In 2008, however, this was an area of disadvantage close to the global benchmark, partly due to the under-exports of power-generating machinery (-35). In the **metals and minerals** sector, sulphur, salt and minerals were over-exported to Brazil (+12), but ores and concentrates were under-exported (-32). Competitiveness in the **wood and paper**

sector trailed our performance in the rest of the world yet displayed a mixed picture: paper and print were over-exported (+8) while wood and wood pulp were under-exported (-16).

Some other commodities that show over-trading include: ships and boats, furniture and bedding, miscellaneous (non-medical/optical) scientific instruments, all in the **miscellaneous manufacturing** sector while the **aerospace** sector is under-exporting considerably.

2.3 Venezuela

Key Over-Exports	Key Under-Exports
<ul style="list-style-type: none"> • Fruit and vegetable preparations • Paper and print • Energy 	<ul style="list-style-type: none"> • Power-generating machinery • Fertilizers • Inorganic chemicals (incl. uranium) • Wood and woodpulp

Venezuela is our biggest market for cereals in the Western hemisphere after the United States. It ranks 11th among emerging countries as a destination for Canadian merchandise exports.

In the **agri-food** sector, our cereals exports dominate, as expected, but it is the high competitiveness of fruit and vegetable preparations (+17) that is interesting. The Canadian **energy** sector seems to be over-exporting to Venezuela as well (+31). Overall **metals and minerals** performance is lower than the benchmark, partly based on nickel under-exports (-6). Paper and print is over-exported (+9), but under-exports of wood and wood pulp cause the **wood and paper** sector to under-export overall. Under-exports of fertilizers (-24) and inorganic chemicals (-18) are behind the weaker **chemicals** performance, while under-exporting power-generating machinery (-25) does not prevent overall exports in the **machinery and electrical** equipment sector from being on par with the global benchmark.

Competitiveness in the **aerospace** and **automotives** sectors is around zero, indicating a better-than-par automotive performance and a below-par performance in aerospace. However, between 2000 and 2005, Canadian automotive exports were an area of considerably greater advantage than in 2008. Railway stock and parts and miscellaneous (non-medical/optical) scientific instruments have performed better than expected in the **miscellaneous manufacturing** sector.

2.4 Colombia

Key Over-Exports	Key Under-Exports
<ul style="list-style-type: none"> • Energy • Automotive products • Copper and articles thereof • Paper and print • Dairy, eggs and honey 	<ul style="list-style-type: none"> • Aerospace • Aluminum • Inorganic chemicals (incl. uranium) • Wood and wood pulp • Ores and concentrates

Colombia ranks 18th as a destination among the emerging countries for Canadian merchandise exports.

In the **agri-food** sector in Colombia, we noted that dairy, eggs and honey, an area of global export disadvantage, ranks among our top 10 competitive exports (+20), although sector competitiveness over time is declining. Among **metals and minerals**, copper exports to Colombia display very high competitiveness (+37) compared to our global performance. However, the sector as a whole was in an unusual position of competitive disadvantage, with aluminum (-23) and ores and concentrates (-13) in particular under-exporting. **Energy** was over-exported (+46) and so were **automotive** products (+43). Competitiveness in **chemicals** has been rising over time, but still remained at a disadvantage in 2008; under-exports in this area are partly due to inorganic chemicals (-25). This is offset by the declining competitiveness in **wood and paper**,

underscored by weaker wood and woodpulp exports (-31).

3. Emerging Europe

Eastern Europe and the CIS are here classified together as “emerging Europe”, although the countries in this grouping display marked differences. These differences, combined with their quickly evolving economies, make it difficult to generalize about the countries in this region. The two countries selected for consideration in this region are Russia and Turkey. Emerging Europe is an area of relative under-trading according to the gravity analysis.

Common Themes

- The agri-food sector displays very strong competitiveness in both countries.
- The machinery and electrical equipment sector is performing much better in Russia than globally.
- The relative sector performance in Turkey is very close to Canadian global pattern.

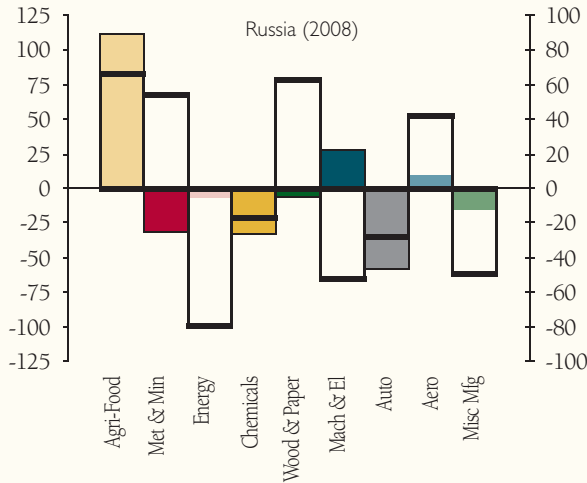
3.1 Russia

Key Over-Exports	Key Under-Exports
<ul style="list-style-type: none"> • Agri-food machinery • Construction, mining, lifting machinery • Ships and boats • Other machinery • Meat, fish, animals and their products 	<ul style="list-style-type: none"> • Paper and print • Inorganic chemicals (incl. uranium) • Aluminum • Ores and concentrates • Vegetables and pulses

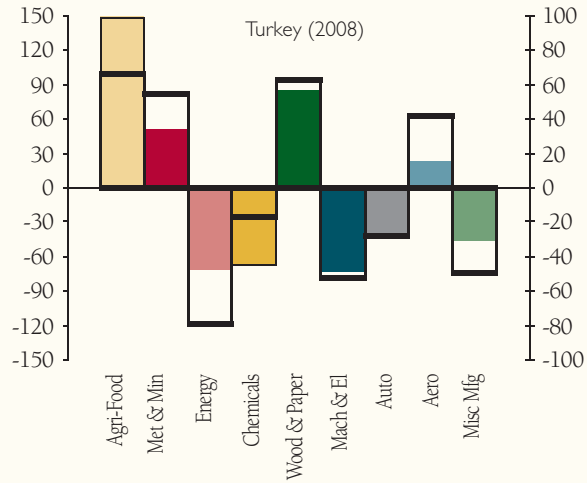
Russia is the fifth-largest destination market for Canadian merchandise among emerging countries. It is a key market for Canadian meat exporters (mainly pork).

In Russia, the over-exports in our **agri-food** sector are driven by massive meat exports (+5), and to a lesser extent by cereals and seeds. Vegetables and pulses were under-exported (-28). The **metals and**

Normalized Revealed Comparative Advantage (NRCA) in Selected Emerging European Countries



Black outlines represent global benchmarks (right axis). Coloured bars are specific to the country (left axis).



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minerals sector is under-exporting to Russia, where none of the traditional commodities of comparative advantage such as nickel (-8), aluminum (-17) or ores and concentrates (-28) are in the top 10. This is probably because of the abundant local supplies of these commodities, yet overall there seems to be an import market in Russia for metals and minerals in which Canada is not a major participant. In the wood and paper sector, we are also at a comparative disadvantage in Russia: although our wood and wood pulp exports are in the top 10, the paper and print category is a significant under-exporter (-36).

In contrast, the performance of the **machinery and electrical** equipment sector yields important insights. This area of traditional disadvantage for Canadian exporters is booming in Russia, due to strong competitiveness in agri-food machinery (+18), construction, mining and lifting machinery (+15), and other machinery (+29). The positive performance of our **miscellaneous manufacturing** sector—especially ships and boats, furniture and bedding and certain scientific instruments – shows that there are further lessons to learn from Canadian performance in the Russian market. This advantage,

however, has been declining since 2002, as it has in the **automotive** sector.

3.2 Turkey

Key Over-Exports	Key Under-Exports
<ul style="list-style-type: none"> Vegetables, pulses and plants Iron and steel and their products Pharmaceutical products Copper and articles thereof 	<ul style="list-style-type: none"> Precious stones and metals Power-generating machinery Aluminum Fertilizers

Turkey ranks eighth among emerging countries as a destination for Canadian merchandise exports. It was the third-largest destination for Canadian iron and steel exports in 2008 after the United States and Mexico.

Turkey is perhaps the most representative country of the overall Canadian pattern of global comparative advantage among the 15 countries considered. Strengths and weaknesses of Canadian

exports in Turkey roughly correspond to global patterns, with small differences. Metals and minerals are performing somewhat worse—precious stones and metals are under-exported at (-35) along with aluminum (-29) although iron and steel and their products, and copper and articles are over-exported—while **agri-food**, dominated by vegetables and pulses (+9), and **energy** are performing somewhat better.

Although pharmaceutical products are over-exported (+16), weakness in fertilizers (-31) and inorganic chemicals (-27) makes **chemicals** an under-exported sector. Power-generating machinery is under-exported (-39), leaving the **machinery and electrical** equipment sector on par with the global benchmark.

4. Africa

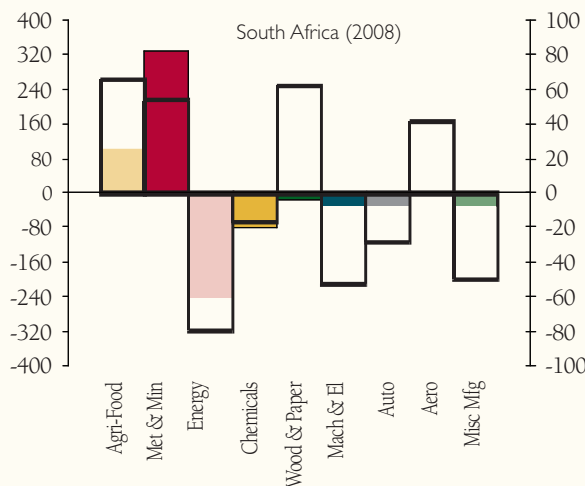
Africa consists predominantly of developing rather than emerging economies. **South Africa** and **Algeria** were selected for this analysis because they represent our largest export markets in Africa. The pattern of competitiveness in these countries not only differs from the rest of Africa, but also from

each other: their economic structures are dissimilar and they are located at opposite corners of the continent. The gravity analysis has shown considerable over-trading with Africa as a whole, in particular with Algeria.

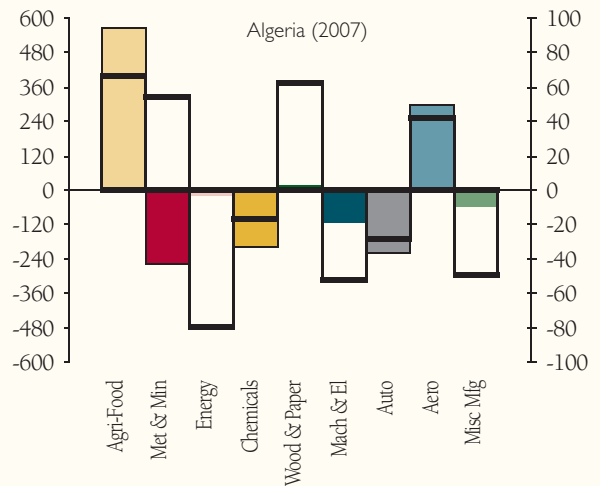
Common Themes

- Canada severely under-exports wood and paper to both countries.
- Exports of chemicals to both countries are close to the global benchmark.
- Miscellaneous manufacturing is less disadvantaged in both countries than globally.
- Machinery and electrical equipment is over-exported as well, particularly to South Africa.
- Other manufacturing sectors perform above the global benchmark: automotive exports do better in South Africa and aerospace exports do better in Algeria.

Normalized Revealed Comparative Advantage (NRCA) in Selected African Countries



Black outlines represent global benchmarks (right axis). Coloured bars are specific to the country (left axis).



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4.1 South Africa

Key Over-Exports	Key Under-Exports
<ul style="list-style-type: none"> Sulfur, salts and minerals Precious stones and metals Construction, mining, lifting machinery ICT scientific instruments 	<ul style="list-style-type: none"> Fertilizers Inorganic chemicals (incl. uranium) Paper and print Ores and concentrates

South Africa is the tenth-largest destination among emerging markets for our merchandise exports, and our largest export market in Africa.

The export advantage in **metals and minerals** is driven by over-exports in sulphur, salts and minerals (+13) and precious stones and metals (+10), in spite of under-exports in ores and concentrates (-23). Very high competitiveness here is, however, a recent development: an impressive increase in 2008 could be partly due to commodity price increases. Although the **agri-food** sector as a whole is below the global benchmark, there may be lessons to learn from the export performance of miscellaneous food (+15). **Wood and paper** may be a sector of unexploited opportunities in South Africa, as indicated by under-exporting in paper and print (-33) and wood and woodpulp (-20), but there may be lessons to learn in the **machinery and electrical equipment** sector (construction, mining and lifting machinery is over-exported at +14 over par), as well as **miscellaneous manufacturing** (ICT scientific instruments are over-exported at +21, miscellaneous non-medical/optical scientific instruments at +6 and both are among the top 10 in NRCA locally). Although fertilizers (-36) and inorganic chemicals (-33) are under-exported, under-trading is not a feature of the **chemicals** sector as whole.

4.2 Algeria

Key Over-Exports	Key Under-Exports
<ul style="list-style-type: none"> Vegetables, pulses and plants ICT electrical and electronic equip. Electric power-generating equip. Construction, mining, lifting machinery 	<ul style="list-style-type: none"> Wood and wood pulp Power-generating machinery Meat, fish, animals and their products Inorganic chemicals (incl. uranium)

Algeria is Canada's leading commercial partner in Africa (and tenth in the world) in terms of merchandise trade, and a key source of imports (primarily crude oil). Algeria ranks twelfth as a destination for Canadian exports among emerging countries, and second in Africa.

In Algeria, the pattern of over-exporting in the **agri-food** sector is driven by large exports of cereals and seeds (+1, first in competitiveness overall) and vegetables and pulses (+7, third overall), although meat, fish, live animals and their products are under-exported (-26). Canada's advantage declined in this sector between 2000 and 2005. The **aerospace** sector is the other area of recent high competitiveness (ranking second overall), although this may only be a temporary spike (a 2007 development). **Metals and minerals** and **wood and paper** products are severely under-exported relative to the global pattern, driven largely by aluminum (-16) and wood and woodpulp (-45). Under-exporting in inorganic chemicals (-18) is behind slightly weaker-than-expected **chemicals** exports.

Some lessons may be learned from the high performers in the **machinery and electrical** equipment sector (3 of which are in the local top 10), particularly in areas where Canadian competitiveness is generally negative: ICT electrical and electronic

equipment (+43), and electric power-generating equipment (+33). Construction, mining and lifting machinery (+10) is also over-exporting and is among top 10 competitive commodities – yet power-generating machinery is underperforming (-36).

5. Middle East

The Middle East offers as many challenges as it does opportunities. Countries in this region differ considerably in their economic structure from the neighbouring regions. There are also internal differences depending on whether an economy is oil-dominated, such as the **United Arab Emirates (UAE)** and **Saudi Arabia**, or not, for example, **Egypt**. These three countries are selected for our analysis.

Common Themes

- The agri-food sector demonstrates good overall performance, with small over-exports to the UAE and small under-exports to Egypt.
- The metals and minerals sector significantly under-exports to the two oil-based economies, but not to Egypt. The Canadian commodities making up this sector are globally competitive but nearly absent from the UAE's and Saudi Arabia's top 10.
- Due to small local import markets for energy, and their composition, Canada's energy exports perform better in this region than the global benchmark, although Canadian export volumes are very small.
- The wood and paper sector under-exports slightly to the oil-based economies.
- Some manufacturing sectors are doing very well. Automotive exports to Saudi Arabia are extremely competitive, and yet these flows are not matched by Canadian export data.²⁹ Aerospace products are over-exported to UAE. Some

miscellaneous manufacturing components perform very well in the UAE and Egypt, leading to over-exports to those destinations.

5.1 United Arab Emirates (UAE)

Key Over-Exports	Key Under-Exports
• Furniture and bedding	• Precious stones and metals
• Other machinery	• Aluminum
• Metallurgy and machine tools	• Inorganic chemicals (incl. uranium)
• ICT scientific instruments	• Meat, fish, animals and their products
• Miscellaneous food	• Power-generating machinery

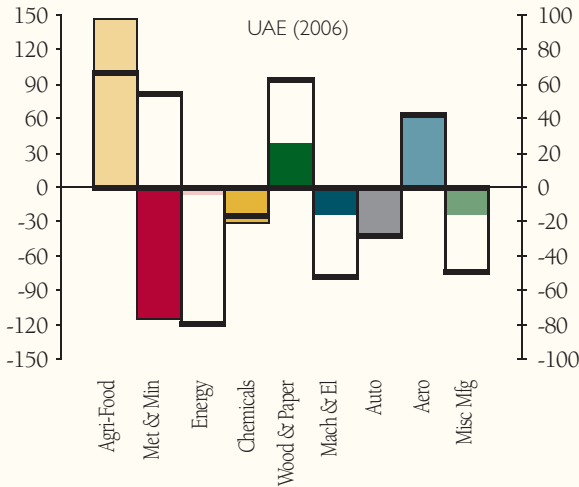
The UAE is the sixth-largest destination for our merchandise exports among the emerging markets.

The highlight of Canadian export performance in the UAE is the **agri-food** sector, over-exporting on the strength of cereals, vegetables and pulses, as well as the less traditional area of miscellaneous food (+16). The **aerospace** sector is also very competitive (second out of 53), on par with our global performance but in contrast to our performance in most emerging markets. Although the **chemicals** sector as a whole is not an area of competitive advantage, pharmaceutical products are in the top 10 in competitiveness, even though inorganic chemicals are under-exporting at (-32). Furniture and bedding (+28) along with ICT scientific instruments (+19) drives Canada's over-exports in **miscellaneous manufacturing**.

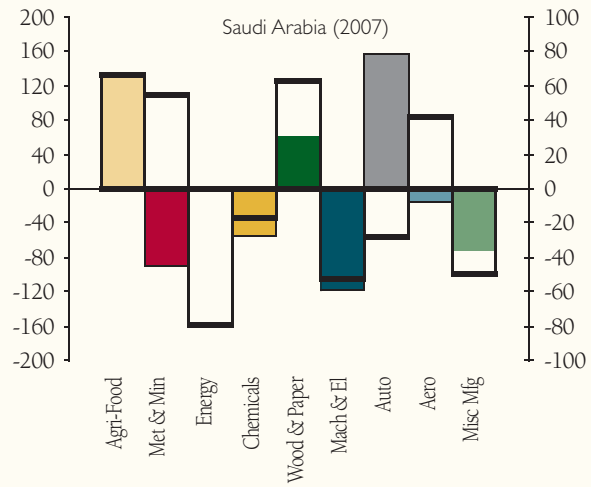
Canadian exports of **machinery and electrical** equipment are performing better in the UAE than globally, although this advantage has declined since 2002. Over-exports include metallurgy and machine tools (+21) and other machinery (+25), while under-exports include power-generating machinery

²⁹ This is likely due to their transshipment through the U.S. and incorrect destination reported in the data.

Normalized Revealed Comparative Advantage (NRCA) in Selected Middle East Countries



Black outlines represent global benchmarks (right axis). Coloured bars are specific to the country (left axis).



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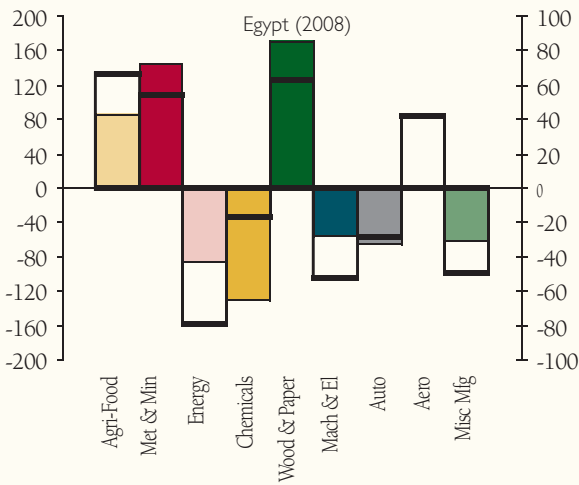
(-26). The **metals and minerals** sector remains a sector of possible opportunity, with considerable under-exports in precious stones and metals (-38) and aluminum (-30).

5.2 Saudi Arabia

Key Over-Exports	Key Under-Exports
<ul style="list-style-type: none"> Automotive products Fruit and vegetable preparations Miscellaneous food Pharmaceutical products 	<ul style="list-style-type: none"> Meat, fish, animal and their products Aerospace Aluminum Power-generating machinery Precious stones and metals

Saudi Arabia is Canada's largest partner in the region in terms of bilateral merchandise trade, and ranks ninth among emerging countries as a destination for Canadian exports.

The striking feature of Canadian export competitiveness in Saudi Arabia is the large advantage in



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the **automotive** sector (ranks 2nd, +49 over par in a 53-commodity list). Moreover, Saudi automotive imports do not seem to be reflected in the Canadian data (export levels as reported by Statistics Canada are considerably lower). This situation is particularly unusual outside the North American continent. The **agri-food** sector shows competitiveness on par with the global benchmark, but surprisingly, it is a very recent development as NRCA in this sector was

negative prior to 2006. Within the sector, fruit and vegetable preparations and miscellaneous food are over-exported (both +16). Under-exporting in the **metals and minerals** sector is driven by aluminum (-29) and precious stones and metals (-23). As in the UAE, pharmaceutical products rank ninth among 53 commodities (+16). Power-generating machinery is the key under-exporter (-32) in the **machinery and electrical** equipment sector.

5.3 Egypt

Key Over-Exports	Key Under-Exports
<ul style="list-style-type: none"> • Iron and steel and their products • Paper and print • Dairy, eggs and honey • Ships and boats 	<ul style="list-style-type: none"> • Precious stones and metals • Meat, fish, animals and their products • Aluminum • Inorganic chemicals (incl. uranium)

Egypt is a key country in the region, linking Africa and the Middle East, and exercising considerable influence in both regions. It ranks 19th among emerging countries as a destination for Canadian merchandise exports.

The broad competitiveness pattern in Egypt is similar to the global picture, except for the under-exporting in the **aerospace** sector (-7). However, the **metals and minerals** sector, while showing positive comparative advantage in 2008, i.e., over-exporting, had been consistently negative over 2000-07. The positive 2008 performance was due to a sharp increase in Egyptian imports of Canadian iron and steel and their products, which ranked first among 53 commodities (+49). This performance was somewhat offset by under-exporting of precious stones and metals (-31) and aluminum (-19).

Our performance in the **agri-food** sector is on par with the global benchmark, although it is interesting that the dairy, eggs and honey commodity group

(an area of disadvantage for Canadian exporters) is among the top 10 in competitiveness (+22). Meat, fish, animals and their products are under-exported (-34). Strong competitiveness in the **wood and paper** sector is driven by paper and newsprint (+9). **Chemicals** are under-exported, partly due to the under-exporting of inorganic chemicals (-17) and fertilizers (-15). The **miscellaneous manufacturing** sector, although barely over-exporting overall, is an area of interest due to the good export performance in ships and boats, as well as miscellaneous (non-medical/optical) scientific instruments.

Conclusions

Increasing globalization and integration of the world economy is the principal force behind the observed economic rise of the emerging world. The increasing exchange of information and ideas, goods and services, and capital and labour produces many challenges—yet it also produces unprecedented wealth for hundreds of millions in these emerging nations. Their road to prosperity will not be easy—there will be crises, like the current one, that will test the resolve of these nations and their governments to stay the course. Strong foundations for stable, long-term growth will have to be developed, the chief challenge being the progress from input-based and export-based models to a sustained technology-based growth, as it is here that the greatest potential for convergence with the developed world's income and productivity lies. Economists predict that as long as the conditions for sustained growth remain in place (integrated global markets, good governance, macroeconomic stability and sufficiently high saving and, most important, investment rates), the emerging world will continue to catch up with the advanced economies in per capita income, with benefits to both sides.

Sustained growth in these markets will increase their importance for Canada. In BRIC countries alone, a gain of just 0.1 percent in Canadian market share in 2038 would mean a \$29 billion gain in

exports. To achieve these gains and more, it is important to establish an early foothold for Canadian goods and services in the emerging world. Canada's geographical position in this regard is not thought to be the most advantageous. Yet in spite of that, a gravity model of Canadian exports produces a surprising result: Canada exports 42 percent more on average to emerging and developing economies than to the developed countries, after adjusting for the main variables that explain trade flows (economic size, distance, price levels, language and trade agreements). Over and above this, some countries and regions show surprisingly high results—merchandise exports to the crucial East Asian market are more than double the expected exports, and nearly 50 percent higher to Africa. On the other hand, Canada under-exports to Eastern Europe, South Asia and Latin America. Among the BRIC countries, Canada over-exports to China but under-exports to the other three, particularly to India.

Applying the concept of comparative advantage creates a framework for the evaluation of Canadian export performance vis-à-vis our global competitiveness in specific sectors. This is of particular interest with regard to emerging markets as sustained growth usually leads to a movement up the value chain, and hence implies ongoing changes in the mix of traded merchandise.

The data show that in the U.S. market our comparative advantage pattern is characterized primarily by advantages in the automotive, wood and paper, and energy sectors. Outside the U.S. market our advantage in the agri-food, metals and minerals and aerospace sectors is significantly stronger, but we are at a disadvantage in the energy and automotive sectors. Our exports of machinery and electrical equipment and miscellaneous manufactured products are revealed to be at a relative disadvantage in both the world and the non-U.S. markets.

However, we find that the majority of the advanced manufacturing sectors are over-exporting to the largest emerging-market destinations relative to our global benchmark. The miscellaneous manufacturing and automotive products sectors do markedly better in these markets, and in most cases the machinery and electrical equipment sector does as well. Aerospace is the only sector that generally under-exports to these destinations, due to our strong performance in advanced economies (Western Europe) and consequently higher global benchmark in this area; among commodities, this is also the case for power-generating machinery. Thus while resource-related sectors (agri-food, wood and paper and metals and minerals) account for most of our exports to emerging markets, Canadian manufacturing exports to these destinations are performing above par. This suggests that the emerging markets will play an important role in the future of the Canadian manufacturing sector.

The analysis also suggests insights and hypotheses of interest at the country level. For example, we learn that our chemicals sector is doing unusually well in China (mainly due to organic chemicals and fertilizers), and that while India seems to prefer to get its metals and minerals elsewhere, Canadian agri-food is extremely competitive there. Going more deeply, an unusually large Canadian disadvantage in machinery and electrical equipment in Malaysia reminds us that Malaysia is a large assembly hub for this equipment, and highlights Canada's limited participation in this trade. A conspicuous weakness of our agri-food exports to Brazil, on the other hand, may imply local self-sufficiency, or perhaps better-placed alternative suppliers such as Argentina. Finally, examining the time patterns of Canadian sectoral competitiveness in China, we can reflect upon our decreasing competitiveness in the aerospace and automotive sectors vis-à-vis our

growing competitiveness in metals and minerals. This adds to the evidence that China is moving up the value chain in this sector, electing to build its own airplanes and automobiles, and procuring Canadian raw materials instead. While some of the proposed interpretations are only hypotheses, they may be validated with a detailed analysis of a specific market. The main value of the comparative advantage framework is that it suggests and guides the analysis of market opportunities on the basis of economic evidence.

Taken farther, the comparative advantage framework could also shed light on the reasons behind the under/over-exporting at the country level identified in the gravity model. Further work in the gravity model framework could also seek to explain why Canada exports more to emerging markets in aggregate than the model developed in this paper predicts. One possible explanation is that Canadian exporters have been forward-looking in recognizing the potential of the emerging markets and taking their expected future growth into account. Another explanation would emphasize the role of the product mix, and point out that emerging markets are voracious consumers of raw materials and resources. As Canada enjoys a comparative advantage in many of those, it is in a good position to supply them.³⁰ A more structured gravity model can help explain the differences in Canadian exports between countries, while detailed country studies using the suggested framework of comparative advantage could determine which of the export sectors are responsible for the overall country result and suggest trade expansion opportunities.

30 This naturally begs the question whether higher trade with emerging markets could be primarily due to high commodity prices, given that the gravity results are reported for 2007. However, sensitivity tests show similar results in other years (2000 to 2006).