
China's push for the top of the value chain

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Summary

The impact of slowing economic growth in the U.S. and Europe on China is a vivid illustration of how much China's integration into the world economy has advanced. That integration has been driven thus far by China's comparative advantage in labour intensive goods and its conversion into the "world's factory floor". But the nature of the competitive challenge is changing and will change much more as the Chinese economy moves up the value chain. The Chinese government is actively encouraging the move into higher value added segments and has set an ambitious target for R&D investment. China has emerged as a major player in the world economy - but is only beginning to emerge as a competitor in more advanced sectors. The implications of this second round of "emergence" will be as least as profound as the first, as developed economies see their relative advantage in many higher value industries or industry segments diminish. This is a driver behind the Government of Canada's policies to spur innovation in Canada and enhance our competitiveness in the global knowledge economy.

The policy push up the value chain

China's government has announced (both in its current five-year plan and subsequently) policies to move China up the value chain and increase value added. China became the world's second-largest R&D investor in 2006 according to OECD estimates, and has set for itself the ambitious goal of raising the share of GDP devoted to R&D to 2.0% in 2010. This is slightly above Canada's current share, and a particularly large increase given China's GDP growth. Investment in education continues to expand: in 2006 China was estimated to have slightly more engineers than the U.S. and around 9 times more than Canada (albeit not yet with comparable skill levels¹), and to be graduating new specialists at a much faster rate. The OECD estimates that China raised its share of patents from nearly zero in 1995 to 0.8% in 2005.

China's ambition is perhaps best exemplified by its efforts to squeeze labour-intensive sectors in certain areas (or have them move to more rural areas) to free up labour for higher-value activities. In 2007 China reduced the amount of VAT rebate that textile exporters receive to shift production to higher-value manufacturing.² This policy stands in stark contrast to the policies of many developed countries that go to great lengths to protect lower value added industries through subsidies and tariffs, preventing labour from shifting into higher value added sectors.

¹ McKinsey Global Institute estimates that just over one in ten would be employable by a multinational enterprise.

² Backtracking on this policy has occurred since first introduced as production declined at a faster than anticipated rate due to higher labour and raw materials costs.

Indicators of the move up the value chain

There are a number of indicators that China's economy is increasingly becoming competitive in the higher value niches that are dominated by OECD countries like Canada. Chinese businesses are developing their own brands and using sectoral knowledge gained from selling into global value chains led by other companies. This is the case for the aerospace sector (see below) where Chinese companies that were once parts suppliers are now leading in the development of new aircraft. Chinese companies are growing dramatically in size and are better able to compete internationally: China is now in sixth place on the 2008 Global Fortune 500 list with 29 companies, up from only 3 in the 1990s.

The composition of China's exports is changing, as is shown in the Annex. In 2000, seven of China's top 10 exports were toys, textiles or related products. In 2008 year to date there are no textiles, furniture, or toy products in the top ten, which is now dominated by electronics and machinery categories, and whose total share of exports has risen dramatically. While it is hard to gauge how much value added for these products is done in China, it is worth noting that the share of exports from non-foreign owned firms is increasing (although over half of exports are still from foreign invested firms).

China's wages have also responded, due in part to tightening labour markets but also higher productivity growth. Annual real wage growth averaged 11.2% between 1998 and 2006, and year to date growth over 2007 is 18.3% (unadjusted) led by the financial (+29.6%), wholesale and retail trade (+22%), science and technical (+21%), and mining (+20.6%) sectors.

Implications for Canada

In their five-year plan, the Chinese government identified several key sectors for development, some of which could impact Canada's exports, including civilian aircraft, automobile parts, and biotechnologies. In March of 2008 China launched its first solo civilian aircraft project in recent history - the ARJ21 regional jet. Initially to be sold domestically, the long-term goal is to become a world class aircraft manufacturer, which could create new competition for Canada's Bombardier. China's growth in the automobile sector is already beginning to make an impact on world markets, with parts exports rising to US\$12.2 billion in 2007. By 2006, China was the fifth largest source of automotive imports into the United States, growing by over 500% since 2000 - compared with 20% for the current leader, Canada. Canadian led global value chains that use Chinese manufacturers to supply intermediate stage products will also be affected by the rising costs of production in China, raising their own costs and pushing them to look to places like Vietnam as destinations to offshore more labour intensive production.

Conclusion

With access to a lower-cost labour force, a massive R&D base, high-skill graduates, and aggressive government policies, China's move up the value chain may have more profound implications for developed countries than China's dominance of low-tech, labour-intensive exports. This challenge gives impulse to our efforts to make Canada the destination of choice for high-value activities.

Annex

China's Top Exports - 2000 China's Top Exports – 2008 YTD

Rank	Product	Share
1	AUTOMATIC DATA PROCESS MACHINES; MAGN READER ETC	4.4%
2	PARTS ETC FOR TYPEWRITERS & OTHER OFFICE MACHINES	2.3%
3	TOYS; SCALE MODELS ETC; PUZZLES; PARTS ETC	2.0%
4	WOMEN'S OR GIRLS' SUITS, ENSEMB ETC, NOT KNIT ETC	1.8%
5	SWEATERS, PULLOVERS, VESTS ETC, KNIT OR CROCHETED	1.8%
6	FOOTWEAR, OUTER SOLE RUB, PLAST OR LEA & UPPER LEA	1.7%
7	MEN'S OR BOYS' SUITS, ENSEMBLES ETC, NOT KNIT	1.7%
8	TRAVEL GOODS, HANDBAGS, WALLETS, JEWELRY CASES ETC	1.5%
9	ELEC TRANS, STATIC CONV & INDUCT, ADP PWR SUPP, PT	1.5%
10	FOOTWEAR, OUTER SOLE & RUBBER OR PLASTIC	1.4%
50	PARTS & ACCESS FOR MOTOR VEHICLES	0.45%

Rank	Product	Share
1	AUTOMATIC DATA PROCESS MACHINES; MAGN READER ETC	7.1%
2	ELECTRIC APPARATUS FOR LINE TELEPHONY ETC, PARTS	6.1%
3	TV REVCRS, INCL VIDEO MONITORS & PROJECTORS	2.6%
4	PARTS ETC FOR TYPEWRITERS & OTHER OFFICE MACHINES	2.4%
5	LIQUID CRYSTAL DEVICES NESOI; LASERS; OPT APPL; PT	1.8%
6	ELECTRONIC INTEGRATED CIRCUITS & MICROASSEMBLY	1.8%
7	PRINT MACH INE INCL INK-JET	1.4%
8	SEMICONDUCTOR DEVICES; LIGHT EMIT DIODES ETC	1.2%
9	VESSELS FOR THE TRANSPORT OF OF PERSONS OR GOODS	1.2%
10	ELEC TRANS, STATIC CONV & INDUCT, ADP PWR SUPP, PT	1.2
11	PARTS & ACCESS FOR MOTOR VEHICLES	1.1%

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