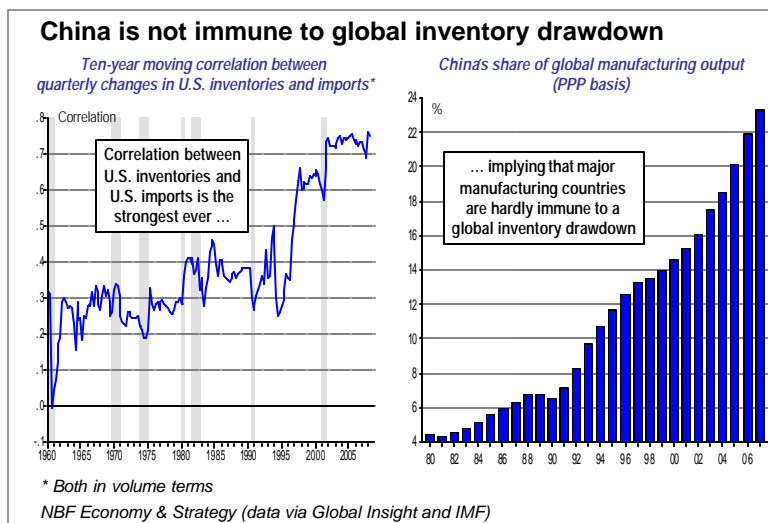


China's economy: Looking under the hood

One of the key assumptions in our summer forecast of a significant correction of commodity prices was that China was quite exposed to a global economic downturn. In our view, a global recession brought about by a credit crisis would hit manufacturing-intensive countries disproportionately hard. We find it interesting that the economics community is still rife with conflicting evidence about how much of China's GDP is pegged to global growth. In our view, a close look at the Chinese industrial structure is the best way to settle the question. This note reports what we find when we look under the hood of the Chinese economy.¹

Inventories: A new world order

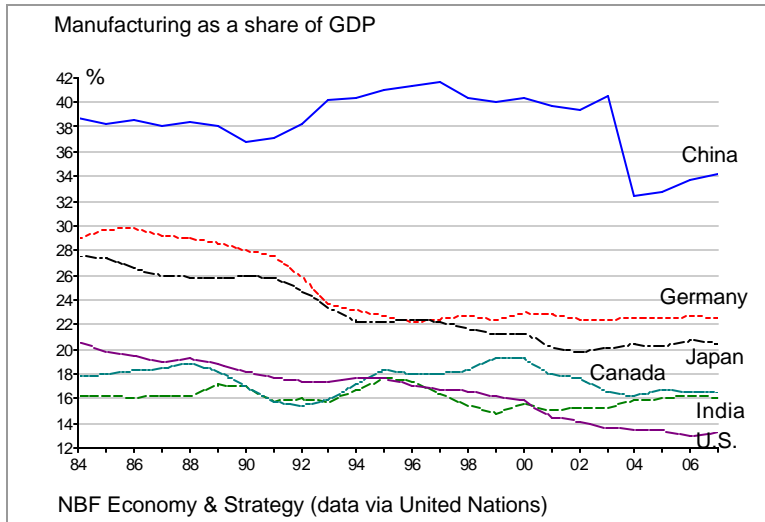
Inventories play an important role in business cycles. Inventory accumulation buoys the economy in an expansion. A drawdown of unwanted inventory often accounts for much of the drop of GDP in a recession. Many economists have noted that inventories now play a smaller role in the business cycles of industrialized countries. While this might apply to most industrialized countries, we doubt that it holds for emerging economies. In our opinion, part of the reason that U.S. final sales (GDP less inventories) are still growing despite a significant reduction in inventory over the past year is the rising share of manufacturing output that has been outsourced to emerging countries since 2001. In other words, the burden of correcting an unwanted accumulation of inventory now falls mostly on imports. We find it interesting that the rolling correlation between change in U.S. volume inventories and change in U.S. volume imports is now the highest on record (chart). This has significant implications for the outlook for global industrial production. With a slowdown now spreading widely through the advanced economies, we think the brunt of the response of production to unwanted inventory accumulation will be borne by manufacturing-heavy countries. China, accounting for about a fifth of global manufacturing output, is unlikely to be immune to the first global inventory drawdown since it joined the World Trade Organization in November 2001.



¹ Our analysis uses data from the U.N. National Accounts database, <http://unstats.un.org/unsd/snaama/Introduction.asp>, and from the 2007 China Statistical Yearbook as published by the National Bureau of Statistics of China.

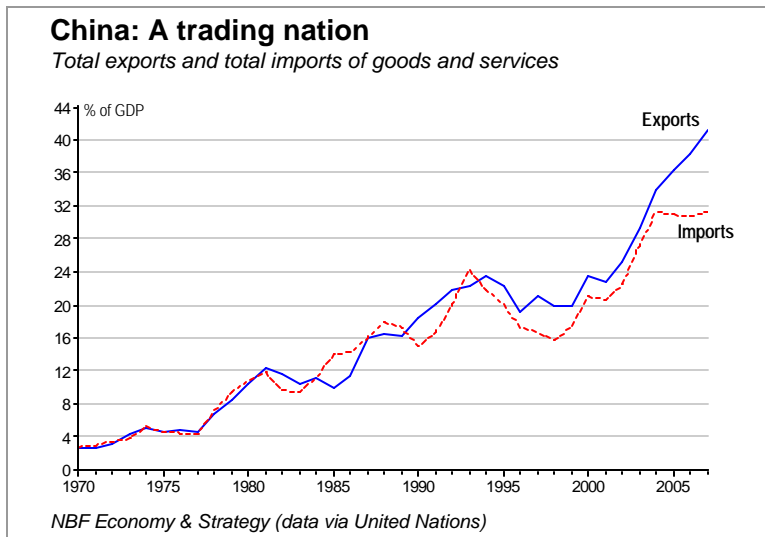
Manufacturing slowdown: How big a deal for China?

A slowdown of China's factory output will loom very large in its overall economy. Manufacturing accounts for a little more than a third of Chinese GDP, a share that has remained fairly constant since the early 1970s. By way of comparison, its share of the GDP of such manufacturing juggernauts as Germany and Japan is only about 20%. For the U.S. the proportion is 13% and for Canada 16%. Even in India, manufacturing is only 16% of GDP (chart).

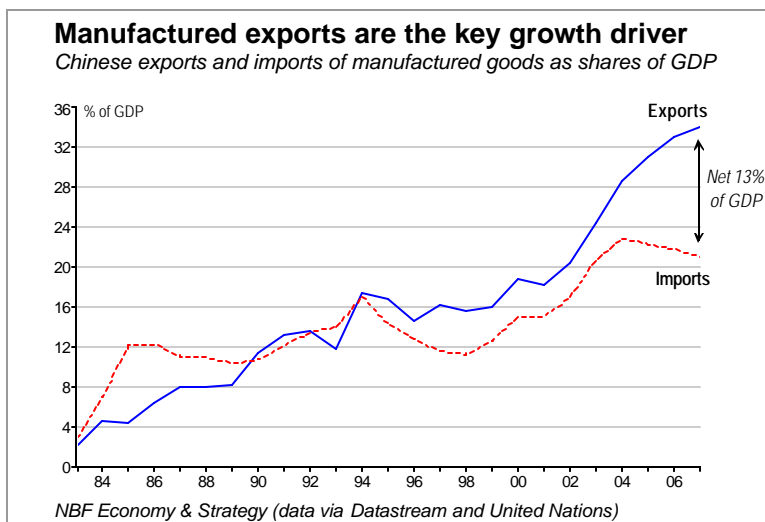


What about exports?

Export-led growth has been Beijing's key policy over the past decade. As of last year, exports were 40% of Chinese GDP, double the share of a decade ago. With imports roughly 32% of GDP, China can certainly be tagged an open economy.



Manufactured goods account for about 85% of total Chinese exports of goods and services. True, they arguably also account for about 65% of its total imports – parts for assembly and re-export. But after netting out those weights, we find that a whopping 13% of Chinese GDP is directly pegged to manufacturing (chart). And since China has been moving up the value-added chain in recent years, a given reduction in volume demand from its export markets will have a greater effect on its economy than before.



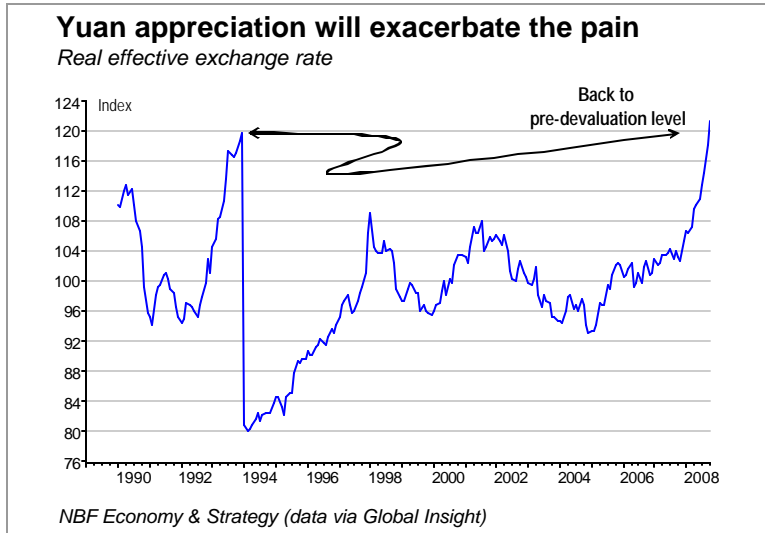
The problem for China right now is that growth is slowing in all of its key export markets. As the table below shows, more than 50% of its total exports over the past year went to the advanced economies. The simultaneous recessions now under way in the U.S., Japan and the euro zone will necessarily act as a major drag on its export production in the coming quarters.

**China's Main trading partners
(Last 12 months)**

	exports	imports
Asia	46.7%	62.9%
Japan	8.1%	13.2%
Hong Kong	13.9%	1.2%
North America	19.3%	8.1%
Europe	20.5%	11.5%
Latin America	4.9%	6.1%
Oceania	1.8%	3.3%

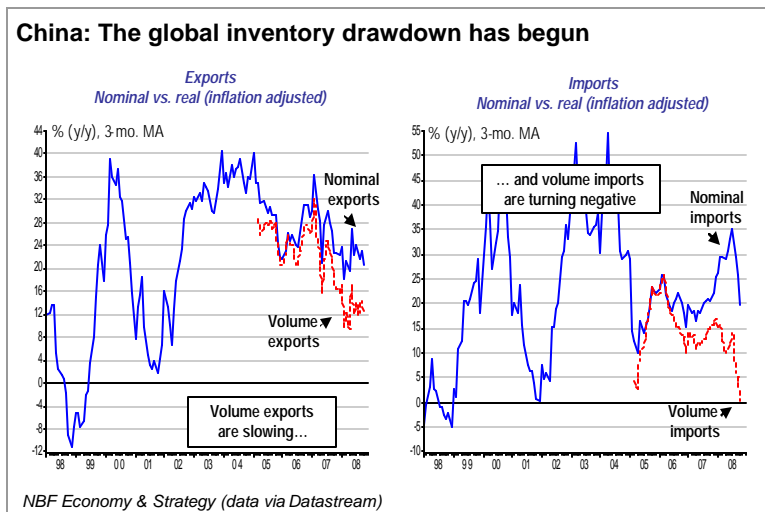
	\$ billion	\$billion
Asia	659.7	727.6
Japan	114.0	152.8
Hong Kong	196.3	13.8
North America	272.8	93.8
European community	290.2	132.6
Latin America	69.4	70.9
Oceania	25.3	38.3
Others	96.4	93.5
Total	1413.8	1156.7

As if this were not bad enough, China's real trade-weighted effective exchange rate has surged 17% since the beginning of the year and is now back to where it was before the 1994 devaluation (chart).



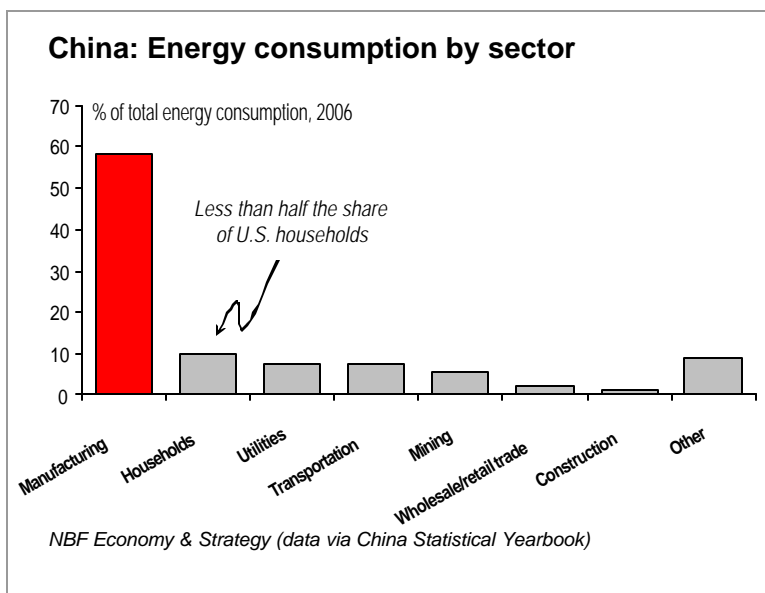
Conclusion

All in all, we estimate that widespread global economic downturn in 2009 will cause significant hardship to Chinese exports. We would not be surprised to see growth in volume exports turn negative in the coming months as a result of inventory drawdown in the industrialized countries. The fact that Chinese volume imports were on the verge of contraction in October suggests that this drawdown is already in full swing. Fortunately, the drag on exports will be partly offset by the massive stimulus package unveiled by Beijing earlier this month, committing new money equivalent to roughly 10% of GDP to infrastructure and tax relief over the next two years. Given the lack of details and uncertainty about speed of implementation, we still think the most likely outcome is a slowing of GDP growth to about 7% in 2009.



Effect on energy consumption

A call on the prospects for Chinese manufacturing is also critical to a call on energy prices. China has become significantly more energy-intensive since joining the WTO in 2001. Its consumption elasticity ratio is now running above one, versus about 0.5 in G-7 economies. For example, manufacturing accounts for about a third of GDP but almost 60% of energy consumption. A slowdown in factory activity will thus entail a bigger slowdown in energy consumption (elasticity greater than one) and a corresponding reduction of pressure on energy prices. Even at current levels, there is still significant downside risk for the price of crude oil.



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