

CAMRI Global Perspectives

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How Important Is Manufacturing?

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Manufacturing is sputtering everywhere

In the past few months the high frequency data describing the manufacturing activity in all the major economies of the world has sputtered. It is ironic that the global slump in industrial output came simultaneously with the passage of the Transpacific Partnership (TPP). This historic US led trade agreement among 12 Pacific Rim nations, which includes Singapore, Malaysia, Brunei, and Japan, took more than five years to negotiate. The agreement must still be signed and ratified by the 12 respective countries. Hopefully it will be ratified in all 12 countries before another five years passes.

TPP is the world’s largest free-trade area spanning 40% of the global economy. It reduces or eliminates thousands of tariffs presently enforced and sets up standards for manufacturing processes and procedures for settling trade disagreements. Free trade is universally hailed as a win-win for all nations involved although present estimates of the net economic benefits from this agreement,

if ratified, are relatively small. China did not agree to negotiate or to be part of this partnership, instead offered its own trade agreement. The irony amidst this rage in trade is that manufacturing makes up approximately 20% of total global output.

The first sign of slump was the precipitous drop in commodity prices

Commodity price falling below their level in 2009 Recession



The sustained decrease in commodity prices was an early signal that the growth in global production was decelerating. The main factor behind changes in commodity prices is global industrial production. As demand

from China began to decrease, commodity prices started to fall.

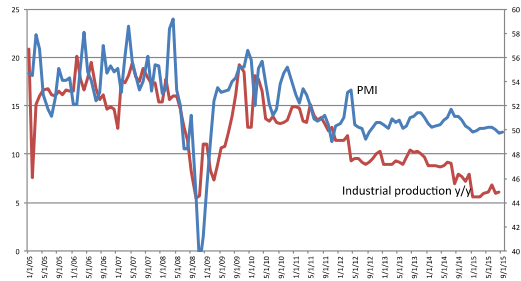
Commodity prices in the post recession era peaked in April 2011; they have been falling ever since. The recent decline of 51% in price has brought their level well below the levels that commodity prices fell to during the ‘great recession’.

Another factor behind the fall in commodity prices has been the massive drop in oil prices. In contrast to other commodity prices, the 55% tumble in crude oil prices was largely due to an increase in the supply of crude oil caused in part by new supplies from oil sands and fracking, and an expansion in supply from OPEC members.

The slump began in China

The global wide slump in industrial activity probably began in China when year-over-year growth in industrial production wore down from nearly 20% several years ago to just 6% last month. Globalization and the integration of global supply chains have meant that the economic restructuring and political reform ongoing in China has caused Chinese growth to slow significantly and this has spread throughout the world

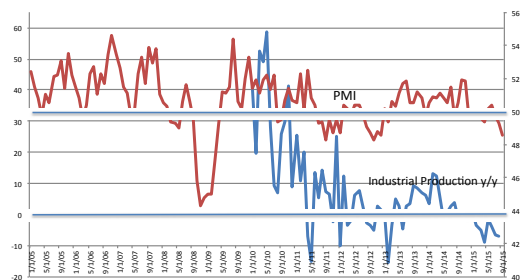
China: Manufacturing Is Close to Recession



It spread to nearly all of the Asian region’s economies

China’s economic growth deceleration has large ripple effects throughout the Asian region. Large spillover affects from China’s slowdown has risen with the uncertainty over the exact extent of the slowdown in the Chinese economy. This uncertainty has increased as the authenticity of the official Chinese data has been widely questioned.

Singapore Manufacturing turned Negative



Nearly all of the Asian region economies are highly integrated into the Chinese supply chain. The IMF has recently estimated that a one-percentage point reduction in China’s economic growth will decrease economic growth in the other Asian economies by

0.3%. Australia, Indonesia, and Malaysia for example, have been supplying raw materials to China; Thailand, Taiwan, and Singapore have been involved in the supply chain by manufacturing much of the technical pieces that are incorporated into China’s final export products. Other economies in the region are similarly involved in the production of less technical inputs in China’s ultimate export trade. Since labor costs in China have been rising, Chinese and international manufacturers have been increasing the role of South East Asian economies in the global supply chain. However, as demand in China for these inputs has diminished, the industrial output in all of these Asian economies has declined.

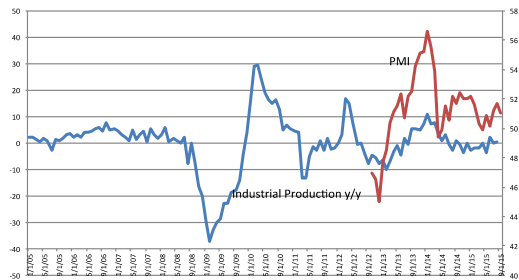
Singapore is a good example of an Asian regional supplier of products to China. Its manufacturing sector has slipped into recession. Year over year growth in industrial production turned negative starting at the beginning of 2015. More recently the PMI index has sunk below 50 indicating that the weakness in industrial output is beginning to spread into other areas of the Singapore economy.

Output in Japan stopped growing too

The slowdown in demand from China has overwhelmed Abeconomics. The highly touted stimulative macroeconomic policies of Prime Minister Abe have been ambushed by the reduction in demand from China. Industrial production stopped growing approximately one year ago, albeit, the

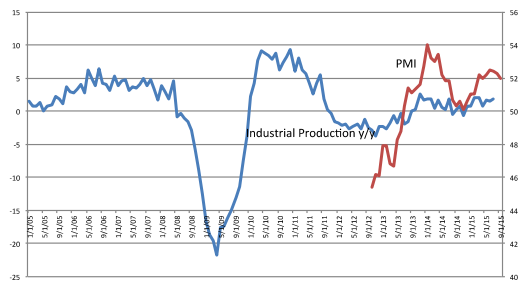
Japanese PMI continues to hover above 50 indicating that the economy is still growing.

Japan Manufacturing Activity Stopped Growing



Manufacturing in the Euro zone is beginning to sputter

Euro Zone Starting to Sputter



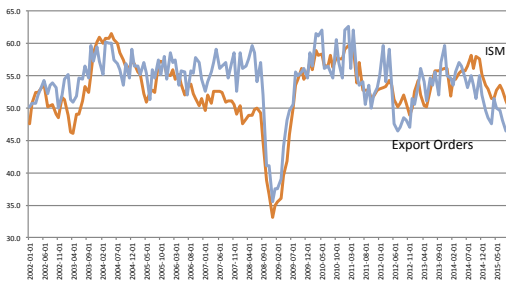
After years of negative industrial output the Euro economic zone finally began to grow in 2014. Its incipient growth has been stunted by the dwindling demand for exports to China. At present IP is growing about 2% year over year. In the past few months the Euro PMI has begun to turn down although it presently remains above 50.

The industrial sector in the US is weakening too

The US economy has stood out among the developed country economies since the great recession, and is leading the developed world’s global growth. Nevertheless, the average growth in the US economy since the ‘great recession’ has been significantly weaker than in previous economic recoveries. Currently, there are signals from the goods sector of the US economy that indicate there is a serious slowdown brewing in this activity.

There are several reasons behind this decay: the severe drop in global oil prices demolished investment in the oil and gas industry, and the deceleration in Chinese economic growth shrunk total exports.

Export Orders Dragging NAPM Down



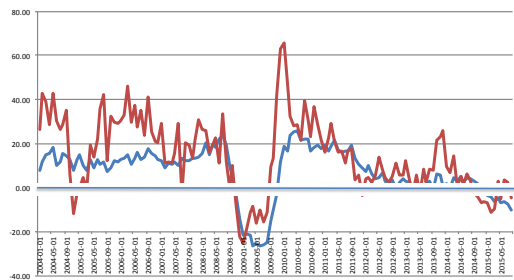
Recently the goods sector (manufacturing and mining) in the US has slumped. All of the regional Federal Reserve Bank activity indexes have swooned, as has the manufacturing purchasing managers index. The NAPM index slipped to 50.2 in September indicating that the

manufacturing sector is just about breathing. Once the index falls below 50 it reveals that the manufacturing sector has started to contract, and if it plunges to 43 it is a sign that the entire economy is in recession. One year ago the ISM index stood at a robust 58.

China’s long reach

Industrial production (IP) in the US is limping along in large part because of plunging demand from China. IP in the US is growing at just 0.9% on a year over year basis compared with 4% one year ago. A large part of the recent reduction in the growth of IP has been the dive in US exports. Exports of goods turned negative in November of 2014 and goods exports have continued to plunge ever since. Exports of goods to China fell into decline on a year over year basis slightly earlier in September 2014 and they have dropped 4.7% in the past twelve months.

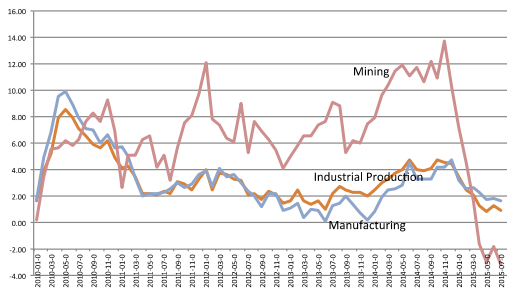
US Exports and Exports to China Declining



Another factor behind the deceleration in IP in the US has been the crash in oil prices and the reduction in mining output that this has caused. As shown in the following chart

Mining output nosedived. It represents 15.5% of total industrial output.

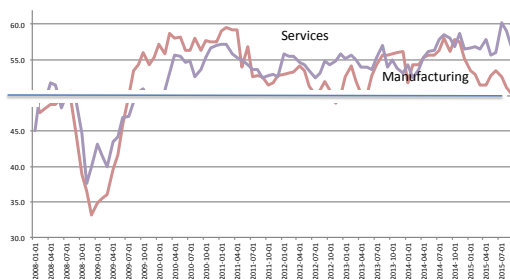
US Industrial Production Is Falling (%y/y)



How vital is this?

Yes, manufacturing throughout the world is plunging and in most places it is in recession. Does this mean that the world’s economy is on the precipice of recession? Probably not, recession is unlikely in economies where monetary policy is highly stimulative such as in Japan and the Euro area, and in economies in which the services sector is robust such as the US.

NAPM Non Manufacturing Remains Strong



The NAPM non-manufacturing sector in the US continues to reveal healthy growth. Since

services comprise 62% of GDP they swamp the effects of the more cyclically volatile goods sector. The service sector also constitutes 70% of employment in the US. In contrast, manufacturing and mining jobs in the US account for only 9% of those presently employed. (Government, construction and farm workers make up for the balance of employees.) A healthy services sector creates more jobs and income than the goods sector and this promotes more spending, which should keep the overall economy expanding.

Moreover, there is some statistical evidence from the past few decades of economic data that the more stable service sector leads activity in the manufacturing and mining sector contrary to popular notion. In addition, employment and industrial production are two of four components of the *coincident index* of economic activity.

Conclusion

Because the data defining the manufacturing and mining sectors of most economies are most prolific and widely reported, it tends to be over emphasized in analyzing the strength of the overall economy. Certainly as the charts and text above describe, the manufacturing sector is stumbling and quite possibly diving into recession. However, as long as the much bigger and more stable services sector continues to expand throughout the world, recession can be avoided for now. Perhaps by the time the TPP agreement is ratified by

the twelve negotiating countries, the manufacturing and mining sectors of the world's economy will be expanding again and the increased free foreign trade will bring healthy economic benefits to the TPP participants. .

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KEY INDICATORS TABLE (AS OF 14 OCTOBER 2015)								
INDEX	LEVEL (LC)	%1MO (LC)	%1MO (USD)	%1YR (LC)	%1YR (USD)	INDEX	LEVEL	%1YR
S&P500	1994.24	2.27%	2.27%	8.43%	8.43%	3MO LIBOR	0.32	39.90
FTSE	6269.61	3.12%	3.31%	2.02%	-0.98%	10YR UST	1.98	-9.70
NIKKEI	17891.00	0.12%	0.81%	21.70%	9.32%	10YR BUND	0.59	-35.43
HANG SENG	22439.91	4.40%	4.40%	0.75%	0.83%	10YR SPG	1.80	-12.35
STI	2983.92	3.98%	5.72%	-3.45%	-10.99%	10YR SGS	2.49	8.92
EUR	1.15	1.39%		-9.35%		US ISM	50.20	-10.50
YEN	118.83	-1.16%		11.00%		EU PMI	52.00	3.40
CMCI	1041.29	3.06%		-21.59%		JP TANKAN	8.00	100.00
Oil	46.64	6.00%		-43.01%		CHINA IP	6.10	-23.80

Source: Bloomberg

APPENDIX

GLOSSARY OF KEY TERMS (Source: Bloomberg, with tickers in parenthesis. In US\$ where applicable)

S&P500: capitalization-weighted index of the prices of 500 US large-cap stocks (SPX)

FTSE: capitalization-weighted index of the prices of the 100 largest LSE-listed stocks (UKX)

NIKKEI: capitalization-weighted index of the largest 225 stocks of the Tokyo Stock Exchange (NKY)

HANG SENG: capitalization-weighted index of companies from the Hong Kong Stock Exchange (HSI)

STI: cap-weighted index of the top 30 companies listed on the Singapore Exchange (FSSTI)

EUR: USD/EUR exchange rate: 1 EUR = xx USD (EUR)

YEN: YEN/USD exchange rate: 1 USD = xx YEN (JPY)

CMCI: Constant Maturity Commodity Index (CMCIPI)

Oil: West Texas Intermediate prices, \$ per barrel (CLK1)

3MO LIBOR: interbank lending rate for 3-month US dollar loans (US0003M)

10YR UST: 10-year US Treasury yield (IYC8 – Sovereigns)

10YR BUND: 10-year German government bond yield (IYC8 – Sovereigns)

10YR SPG: 10-year Spanish government bond yield, proxy for EU funding problems (IYC8 – Sovereigns)

10YR SGS: 10-year Singapore government bond yield (IYC8 – Sovereigns)

US ISM: US business survey of more than 300 manufacturing firms by the Institute of Supply Management that monitors employment, production inventories, new orders, etc. (NAPMPMI)

EU PMI: Purchasing Managers' index for the 17 country EU region (PMITMEZ)

JP TANKAN: Bank of Japan business survey on the outlook of Japanese capital expenditures, employment and the overall economy, quarterly index (JNTGALLI)

CHINA IP: China's Industrial Production index, with 1-month lag (CHVAIOY)

LC: Local Currency

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