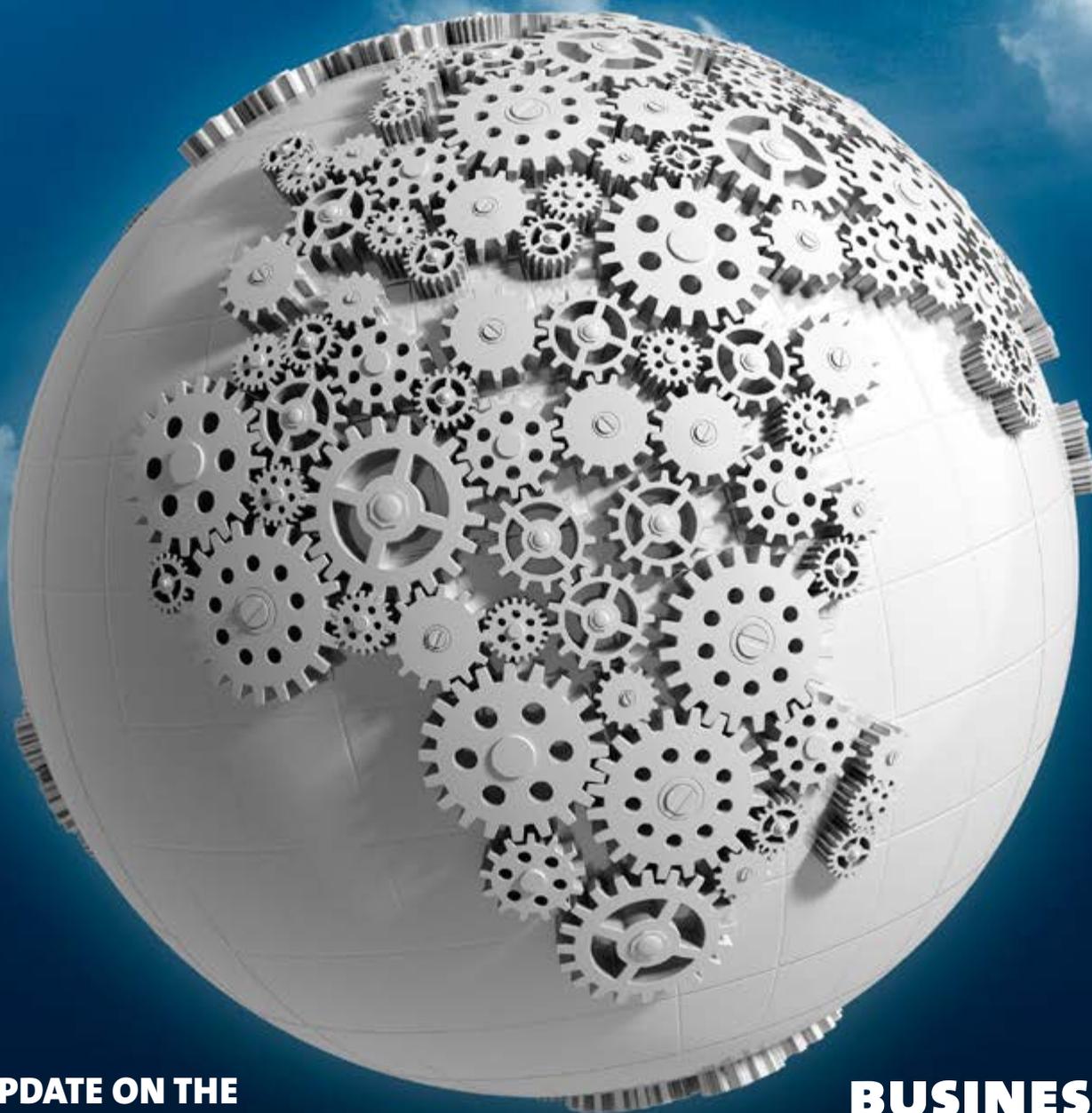


GLOBAL ECONOMY STILL FRAGILE



**UPDATE ON THE
ECONOMIC SITUATION
AND DEVELOPMENT IN
SELECTED SECTORS**

**BUSINESS
INDICATOR
REPORT**

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ABOUT GRUNDFOS INDUSTRY INDICATORS

This quarterly newsletter can give you a general idea of which way the wind is blowing in the machine tools industry. It is a special supplement to our subscribers of [Knowledge Link](#), our website for the machining industry.

Almost all the charts and graphs here are publicly available. They come from the three major machine tool associations – in Germany, Japan and the United States – as well as global surveys from market analysts.

We make the final graphs ourselves, the Grundfos Raw Materials Index and the automotive Monthly Production Output by country and manufacturer. We build the latter up from available automotive production figures. Grundfos Machining Industry segment uses automotive production statistics, because that market is such a big part of the machine tools industry.

Based on that, we try to estimate how the coming one- to three months will look.

Why do we want to share these statistics? Because we have a common interest in seeing how the market is doing. So please: read these statistics and comments as indicators alone

We publish a full version of the Grundfos Industry Indicators quarterly in three languages, as well a monthly version in English only.

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Grundfos analyst: Global economy still fragile



Global expansion slowed in the past month. The U.S. is still a growth driver, but the growth comes at a slower pace. Although positive signals of economic confidence have re-emerged unexpectedly in Europe, the crisis in the Ukraine and decreasing business with Russia prevent production-related investments. This creates an uncertain economic situation worldwide

Frank Baake
Senior Strategy & Intelligence Analyst

1

Economic Expectations for Key Countries and Industry Sectors



The Centre for European Economic Research (ZEW) writes, "The ZEW Indicator of Economic Sentiment for Germany gained 15.1 points in November 2014, now standing at 11.5 points. The index returned to positive territory after the previous month's slip into negative territory.

ZEW's Indicator of Economic Sentiment for the Eurozone increased by 6.9 points in November to a reading of 11.0 points."

The ZEW Indicator of Economic Sentiment for the Eurozone decreased in October as well. The respective indicator has declined by 10.1 points compared to the previous month, reaching 4.1 points."

The ZEW Indicator of Economic Sentiment is ascertained monthly. Up to 350 financial experts take part in the survey. The indicator reflects the difference between the share of analysts that are optimistic and the share of analysts that are pessimistic for the expected economic development in Germany in six months. The survey also asks for the expectations for the Euro-zone, Japan, Great Britain and the U.S.A.

For more information, visit ZEW's website at zew.de.

ZEW Indicator of Economic Sentiment November 2014 (Germany)

**ZEW - Financial Market Survey: Results November 2014**

Economic expectations	improve		no change		get worse		balance	
Eurozone	26.7	(+ 1.8)	57.6	(+ 3.3)	15.7	(- 5.1)	11.0	(+ 6.9)
Germany (ZEW Indicator)	27.2	(+ 3.2)	57.1	(+ 8.7)	15.7	(-11.9)	11.5	(+15.1)
USA	33.1	(- 2.4)	63.6	(+ 6.8)	3.3	(- 4.4)	29.8	(+ 2.0)
Japan	20.7	(+ 3.1)	74.0	(+ 1.1)	5.3	(- 4.2)	15.4	(+ 7.3)
United Kingdom	20.8	(- 3.1)	71.0	(+ 8.3)	8.2	(- 5.2)	12.6	(+ 2.1)
France	16.2	(+ 2.2)	67.1	(+ 3.5)	16.7	(- 5.7)	-0.5	(+ 7.9)
Italy	14.4	(- 1.6)	72.6	(+ 7.5)	13.0	(- 5.9)	1.4	(+ 4.3)

Sectors	improve		no change		get worse		balance	
Banks	11.9	(- 0.1)	47.0	(- 3.8)	41.1	(+ 3.9)	-29.2	(- 4.0)
Insurance companies	10.9	(+ 0.5)	50.5	(+/- 0.0)	38.6	(- 0.5)	-27.7	(+ 1.0)
Automobile	21.6	(+ 9.6)	53.5	(- 0.8)	24.9	(- 8.8)	-3.3	(+18.4)
Chemicals / Pharmaceuticals	32.6	(+ 5.6)	56.0	(- 3.3)	11.4	(- 2.3)	21.2	(+ 7.9)
Steel	18.2	(+ 6.0)	63.0	(+ 1.7)	18.8	(- 7.7)	-0.6	(+13.7)
Electronics	23.8	(+ 9.2)	66.3	(- 0.7)	9.9	(- 8.5)	13.9	(+17.7)
Mechanical engineering	32.1	(+10.9)	51.6	(+ 1.6)	16.3	(-12.5)	15.8	(+23.4)
Retail / Consumer goods	34.2	(+ 4.5)	57.1	(- 0.6)	8.7	(- 3.9)	25.5	(+ 8.4)
Construction	25.5	(+ 0.9)	58.7	(+ 3.5)	15.8	(- 4.4)	9.7	(+ 5.3)
Utilities	6.0	(- 4.5)	63.0	(+ 2.8)	31.0	(+ 1.7)	-25.0	(- 6.2)
Services	27.5	(+ 4.9)	68.1	(+ 1.1)	4.4	(- 6.0)	23.1	(+10.9)
Telecommunications	16.0	(+ 4.3)	76.9	(+ 2.5)	7.1	(- 6.8)	8.9	(+11.1)
Information technology	37.7	(+ 8.0)	57.9	(- 6.4)	4.4	(- 1.6)	33.3	(+ 9.6)

Note: 220 analysts participated in the November-survey which was conducted during the period 11/3-11/17/2014. Analysts were asked about their expectations for the next 6 months. Numbers displayed are percentages (month-over-month percentage point changes in parentheses). Balances refer to the difference between positive and negative assessments.

2 New Passenger Car Registrations in Europe



ACEA
EUROPEAN AUTOMOBILE MANUFACTURERS' ASSOCIATION

The European Automobile Manufacturers Association writes:

“In October, in the EU passenger car registrations increased (+6.5%) from a year earlier to 1,072,837 units sold, marking the fourteenth consecutive month of growth. Substantial growth prevailed in most major markets, Spain (+26.1%), the UK (+14.2%), Italy (+9.2%) and Germany (+3.7%), leading to an upturn (+6.5%) across the region as a whole. Only France recorded a slight decline (-3.8%) over the same month a year ago.

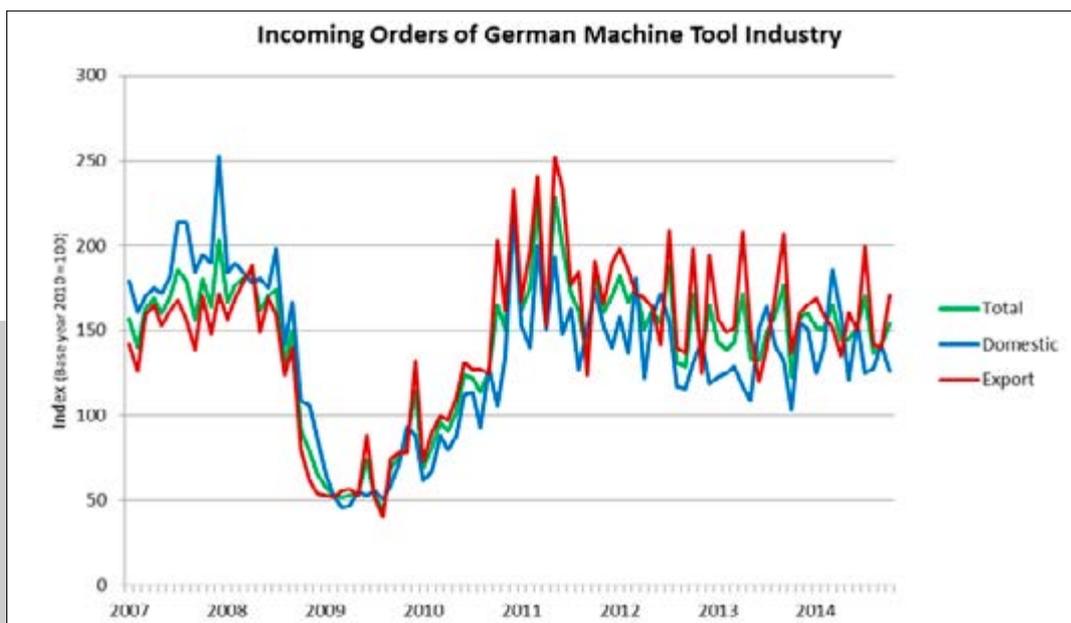


From January to October, new passenger car registrations in the EU totalled 10,645,907 units over the period. The EU market for passenger cars increased (+6.1%) compared to the first ten months of 2013, mainly led by the significant growth recorded in Spain (+18.1%) and in the UK (+9.5%). Likewise

Italian (+4.2%), German (+3%) and French (+1.4%) markets expanded.”

For more information, see ACEA's website at acea.be.

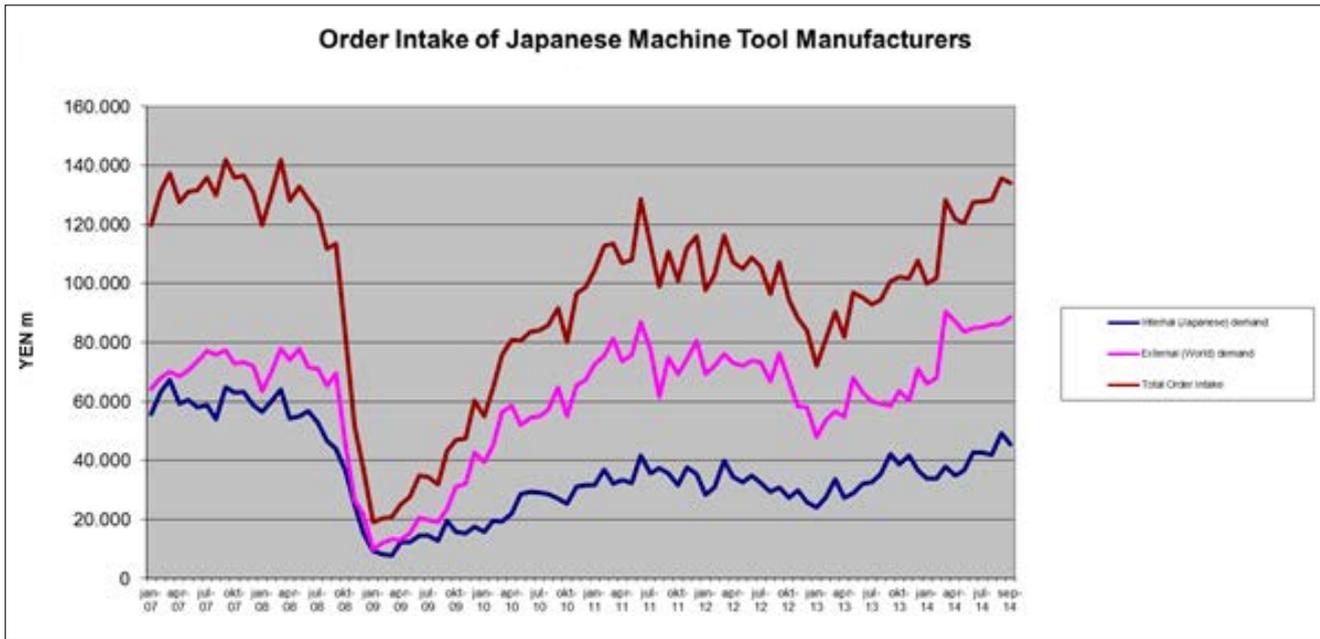
3 Machine Tool Order Intake in Germany



For the German Machine Tool Industry, the order intake in October was +24.6% compared to the same month in 2013. For Jan.-Oct. the order intake was +2.7% versus the same period last year.

For more information, please visit the VDMA's website at vdma.org.

Machine Tool Order Intake in Japan



The order intake for the Japanese Machine Tool Industry in October 2014 was +31.2% compared to October 2013 (-1.1% up from September 2014). In the first 10 months the growth was +35.1%.

For more information, please visit the JMTBA's website at jmtba.or.jp

Machine Tool Order Intake in U.S.A.



“September U.S. manufacturing technology orders totalled \$647.63 million according to AMT – The Association for Manufacturing Technology. This total, as reported by companies participating in the USMTO program, was up 77.3% from August and up 61.4% when compared with the total of \$401.18 million reported for September 2013. With a year-to-date total of \$3,738.72 million, 2014 is up 5.2% compared with 2013.”

ufacturing technology, provides regional and national U.S. consumption data of domestic and imported machine tools and related equipment.

Analysis of manufacturing technology consumption provides a reliable leading economic indicator as manufacturing industries invest in capital metalworking equipment to increase capacity and improve productivity.

The United States Manufacturing Technology Consumption (USMTC) report, jointly compiled by the two trade associations representing the production and distribution of manu-

For more information, visit the website at amtonline.org.

U.S. Manufacturing Technology Orders		USMTO		a statistical program of AMT		September 2014		
	Sep 14 (P)	Previous Month	% Change	Year Ago Month	% Change	YTD 14 (P)	YTD 13 (R)	% Change YTD
National								
Metal Cutting	638.01	354.49	80.0%	393.43	62.2%	3,635.76	3,436.68	5.8%
Metal Forming & Fabricating	9.62	10.70	-10.1%	7.76	24.0%	102.96	117.81	-12.6%
Total	647.63	365.18	77.3%	401.18	61.4%	3,738.72	3,554.50	5.2%

Ifo Business Climate in Germany

Ifo Business Survey November 2014



1) Manufacturing, construction, wholesaling and retailing.

Source: Ifo Business Survey

24/11/2014 © ifo

Ifo Business Climate Germany:

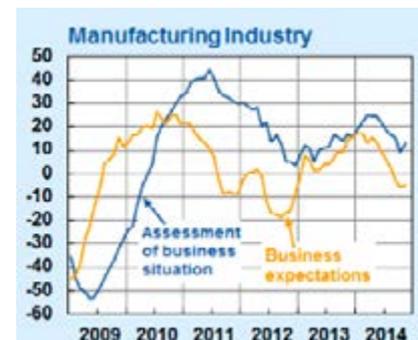
“The Ifo Business Climate Index for industry and trade in Germany rose in November to 104.7 points from 103.2 points in October... Assessments of the current business situation are slightly more favourable than last month. Expectations with regard to the months ahead are also brighter. The downturn in the German economy has ground to a halt for the moment at least.

In manufacturing the business climate indicator rose after six consecutive decreases. Manufacturers are more satisfied with their current business situation. They are also somewhat less pessimistic about their business outlook. Manufacturers continue to expect further stimuli from export business.”

The Ifo Business Climate Index is based on ca. 7,000 monthly survey responses of firms in manufacturing, construction, wholesaling and retailing. The firms are asked to give their assessments of the **current business situation** and their expectations for the next

six months. They can characterise their situation as “good,” “satisfactorily” or “poor” and their business expectations for the next six months as “more favourable,” “unchanged” or “more unfavourable.” The **balance value** of the current business situation is the difference of the percentages of the responses “good” and “poor”; the balance value of the expectations is the difference of the percentages of the responses “more favourable” and “more unfavourable.” The **business climate** is a transformed mean of the balances of the business situation and the expectations. For calculating the **index values**, the transformed balances are all normalised to the average of the year 2000.

The CESifo Group, consisting of the Centre for Economic Studies (CES), the Ifo Institute for Economic Research and the CESifo GmbH (Munich Society for the Promotion of Economic Research) is a research group unique in Europe in the area of economic research. It combines the theoretically oriented

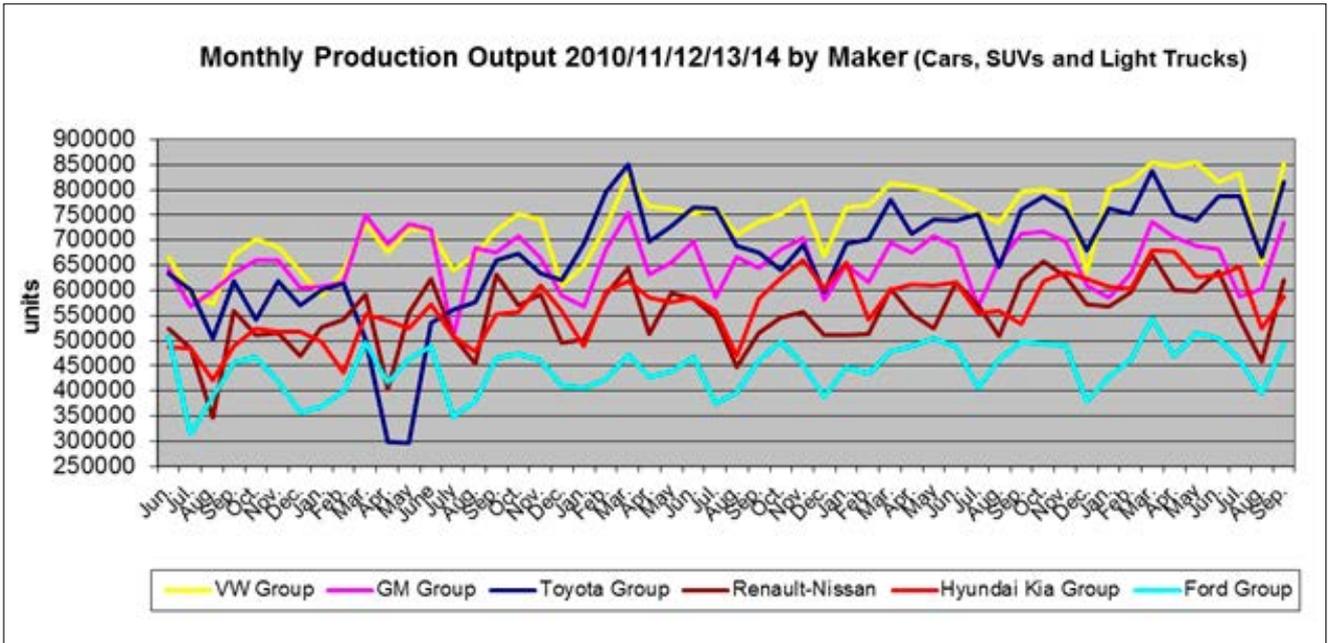


economic research of the university with the empirical work of a leading Economic research institute and places this combination in an international environment.

For more information, visit the website at cesifo-group.de.

7 The Grundfos Global Automotive Indicators

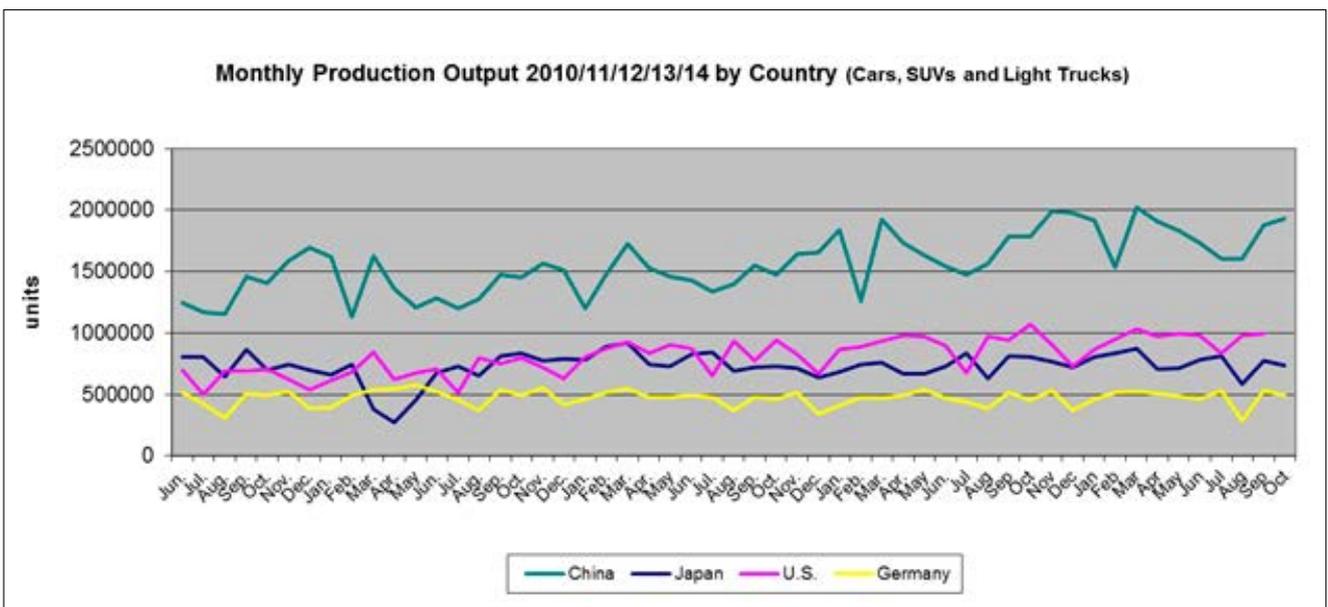
Data source: MarkLines Co. Ltd



The six main manufacturers came strongly out of the summer recess and produced +4.7% (vs. last year) in September, and +4.0% for the period January to September.

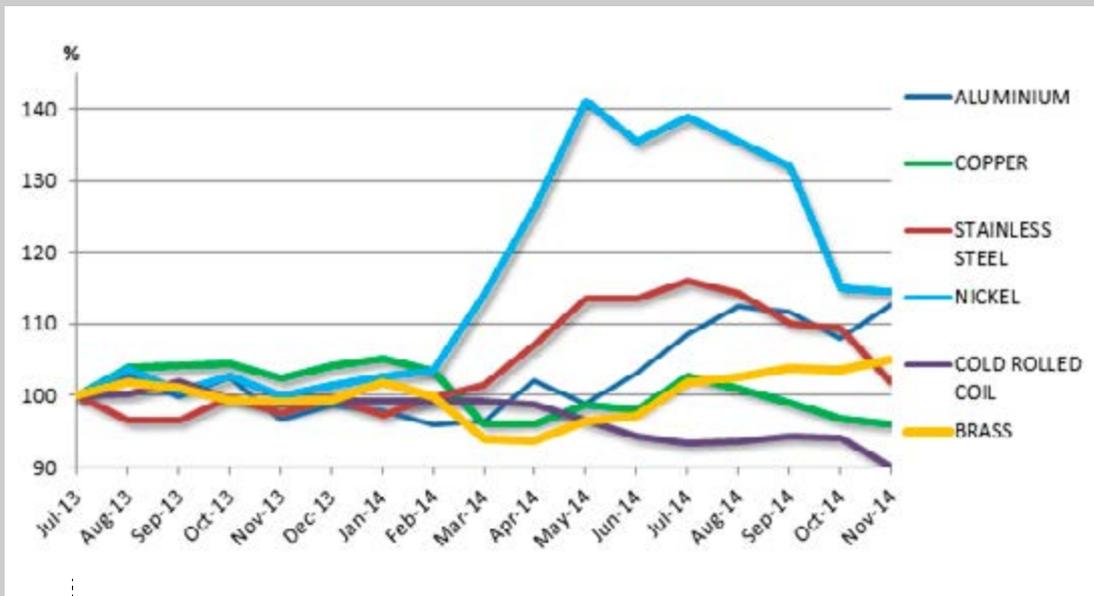
U.S. numbers for October were not available, but production in the 3 other countries was +3.5% compared to October last year.

Data source: MarkLines Co. Ltd



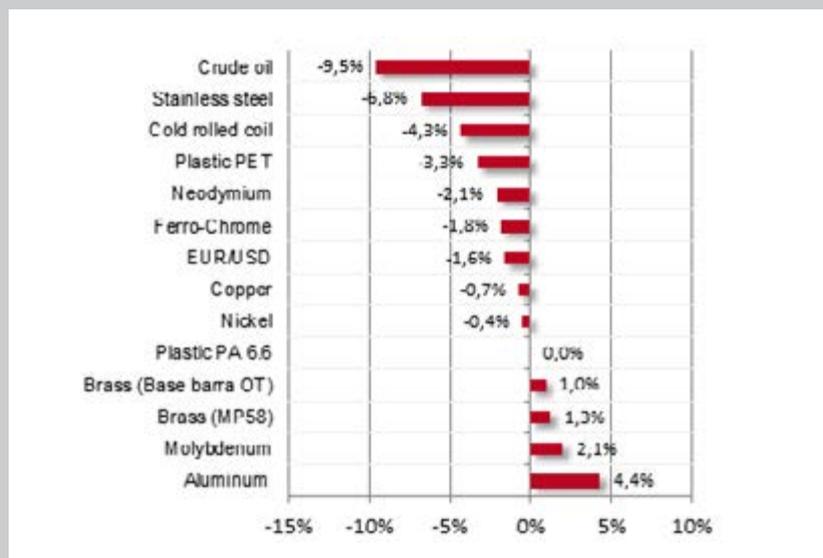
8 The Grundfos Raw Materials Price Index

Raw Materials Update



Source: London Metal Exchange, Steel Business Briefing, CME Group.

July 2013 = 100



Raw materials price index, General status December 2014

Source: London Metal Exchange, Steel Business Briefing, CME Group.

Grundfos Cost Analyst Menno Buikema comments on the price fluctuations of raw materials and their impact on the manufacturing industry. He writes:

- In November, the Brent crude oil prices fell by 9.5% compared to last month – the same decrease as in October. The average price in November was \$78.4 USD per barrel, which is the lowest point since July 2010. This downward trend is expected to continue in December.
- The average stainless steel alloy surcharge dropped by 10.7% in November compared to October. Combined with a decrease of 1.7% of the base price, the total stainless steel price decreased by 6.3% compared to last month. The reason for the decrease of the alloy surcharge can be found in the decrease of the metals that make up stainless steel.
- After the dramatic 23.8% drop in price in October, the price of Molybdenum slowly recovered in November. The average price was 2.1% higher than last month.
- After two months of decline in price, the price of aluminium increased by 4.4% compared to October. This brings the price of aluminium to \$2041 USD – a 22-month high. Reasons for the increase include: rising production costs, improved demand outlook, and a tighter aluminium supply in the future.

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