

Economics & Country Risk

IHS Markit Purchasing Managers' Index

A sectoral perspective

New Year's Briefing | 25 January 2017 | Frankfurt

Chris Williamson, Chief Business Economist +44 20 7260 2329, chris.williamson@ihsmarkit.com "Best single measure of global economic activity in real time"

Bank of England rating of the global PMI

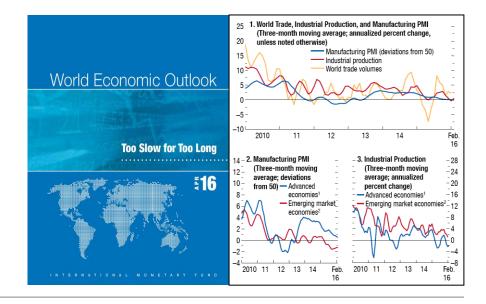
"the most closely monitored business surveys in the world"

European Central Bank paper 2015

"The Euro area composite PMI, which is the most reliable early indicator of growth"

JPMorgan research note, January 2017





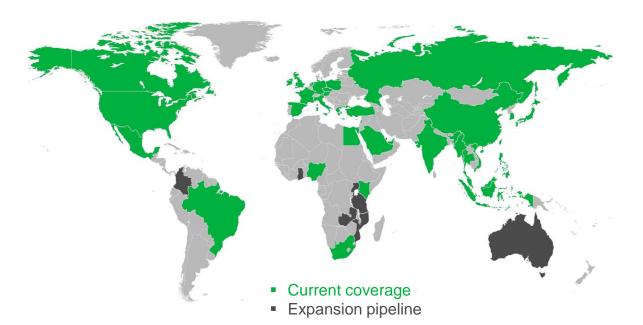
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PMI coverage

38+ Countries

24,000+ Companies 83% Global GDP















The need for better economic data

Official data weaknesses:

- Poor coverage of the whole economy
- Often infrequent with delay in publication
- Revision prone
- Volatile

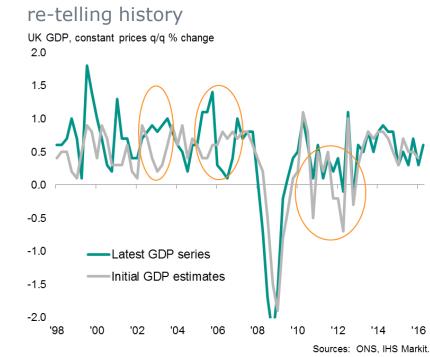
Lead to:

- Policy errors
- Investment allocation errors
- Business decision errors

PMI objective:

 To provide the earliest, most accurate and most comprehensive comparable suite of economic indicators

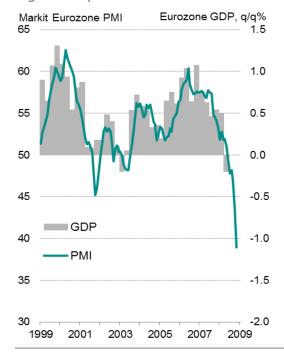
Revisions to official data:



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Timeliness 21 Nov 2008

Flash Eurozone PMI for November signals unprecedented downturn



13 Feb 2009

First estimate of eurozone GDP for O4 2008 becomes available





Nowcasting: Trust the Purchasing Managers' Index or Wait for the Flash GDP Estimate?

Gabe J. de Bondt, European Central Bank, Germany

Timely and accurate signals about the current state of the economy are essential for analysts. In this context survey indicators are closely monitored as they can provide up-to-date and often unique monthly signals of current economic developments. This paper focuses on the nowcasting performance of the Purchasing Managers' Index (PMI) survey for the euro area, because the PMI has the advantage compared to other survey indicators of a theoretical nochange threshold of 50 and they are the most closely monitored business surveys in the world. For euro area evidence on the usefulness of the PMI see Lombardi and Maier (2011) and Vermeulen (2011a and b) and for outside the euro area see, among others, Harris (1991), Koenig (2002), Peláez (2003), Rossiter (2010) and Lahiri and Monokroussos (2011). Notwithstanding the focus on the PMI, surveys released by the European Commission (EC) are of course also potentially useful for nowcasting euro area real GDP, but their interpretation is less straightforward than that of the PMI and they are typically designed to match year-on-year growth rates. Studies on the usefulness of EC surveys are for instance Gelper and Croux (2010), who analyse the economic sentiment index and Raffinot (2007) who prefers, among a wide set of survey indicators, industrial production trend observed in recent months together with the general economic situation over the last twelve months for the construction of a monthly tracer of euro area real GDP. Besides the focus on the PMI, this study defines nowcasting in a narrow way as predicting current quarter-onquarter growth in real GDP. Banbura et al. (2010) provide a more general nowcasting process for euro area real GDP

The main contribution of this paper is that it compares the accuracy of PMI-based nowcast of current quarter-on-quarter euro area real GDP growth

"PMI-based GDP nowcasts turn out to be more in line with the latest official GDP estimates than the first official or flash GDP estimate.

"Regarding timeliness, two months of the current quarter appears to be generally sufficient, which is 2½ months before the flash GDP estimate."

Index coverage

Respondents are asked to compare volumes (or prices) in the current month with one month previously, with the exception of Future Expectations.

Manufacturing	Services	Whole Economy		
Output	Business activity	Output		
New orders	New business	New orders		
Backlogs of work	Outstanding business	Backlogs of work		
Employment	Employment	Employment		
Input prices	Input costs	Overall input prices		
Output prices	Prices charged	Purchase prices		
Quantity of purchases	Future expectations*	Wage costs		
Suppliers' delivery times		Output prices		
Stocks of purchases		Quantity of purchases		
Stocks of finished goods		Suppliers' delivery times		
New export orders		Stocks of purchases		
Future expectations*		New export orders		
		Future expectations*		

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Panel structure

US Manufacturing PMI

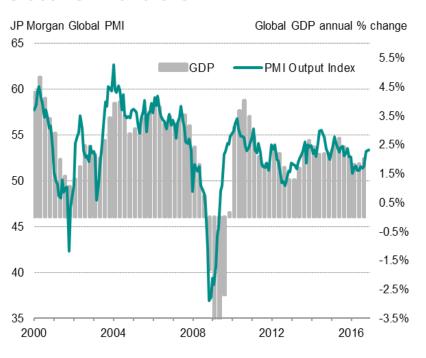
3			Small	Medium	Large
Sector	NAICS	Total	0/99	100/499	500+
Food, Beverages & Tobacco Products	311-312	12%	2%	5%	5%
Textiles, Clothing & Leather Products	313-316	2%	0%	1%	0%
Electrical & Electronic Products	334-335	18%	3%	6%	10%
Chemicals, Rubber & Plastics Products	325-326	17%	4%	7%	6%
Transport Manufacturing	336	7%	1%	1%	6%
Wood & Paper Products	321-323	6%	2%	3%	1%
Metals & Metal Products	331-332	10%	4%	4%	2%
Machinery	333	8%	2%	3%	3%
Other Manufacturing	324,327,337,339 Sources: US Departi	19% ment of Commerc	5% e, Bureau of Eco	7% nomic Analysis, US (7% Census Bureau
Total 7 IHS Markit			23%	37%	40%

Global Sector PMI coverage

Consumer Goods Automobiles & Auto Parts Beverages & Food Food Beverages Household & Personal Use Products Consumer Services Media Tourism & Recreation Financials Banks Insurance Other Financials Real Estate Healthcare Healthcare Healthcare Services Pharmaceuticals & Biotechnology Industrials Industrial Goods Machinery & Equipment Construction Materials Industrial Services General Industrials Transportation	Groups	Sectors	Sub-sectors
Consumer Goods Automobiles & Auto Parts Beverages & Food Food Beverages Household & Personal Use Products Consumer Services Media Tourism & Recreation Financials Banks Insurance Other Financials Real Estate Healthcare Healthcare Pharmaceuticals & Biotechnology Industrials Industrial Goods Industrial Services Industrial Services General Industrials Transportation	Basic Materials	Chemicals	
Consumer Goods Automobiles & Auto Parts Beverages & Food Beverages Household & Personal Use Products Consumer Services Media Tourism & Recreation Financials Banks Insurance Other Financials Real Estate Healthcare Healthcare Services Pharmaceuticals & Biotechnology Industrials Industrial Goods Industrial Services Industrial Services Financial & Commercial & Professiona General Industrials Transportation		Resources	Forestry & Paper Products
Beverages & Food Food Beverages Household & Personal Use Products Consumer Services Media Tourism & Recreation Financials Banks Insurance Other Financials Real Estate Healthcare Healthcare Services Pharmaceuticals & Biotechnology Industrials Industrial Goods Machinery & Equipment Construction Materials Industrial Services Commercial & Professions General Industrials Transportation			Metals & Mining
Household & Personal Use Products Consumer Services Media Tourism & Recreation Financials Banks Insurance Other Financials Real Estate Healthcare Healthcare Pharmaceuticals & Biotechnology Industrials Industrial Goods Industrials Industrial Services Construction Materials Industrials Industrial Services General Industrials Transportation	Consumer Goods	Automobiles & Auto Parts	
Consumer Services Media Tourism & Recreation Financials Banks Insurance Other Financials Real Estate Healthcare Healthcare Pharmaceuticals & Biotechnology Industrials Industrial Goods Industrial Services Financial & Commercial & Professiona General Industrials Transportation		Beverages & Food	Food
Consumer Services Media Tourism & Recreation Financials Banks Insurance Other Financials Real Estate Healthcare Healthcare Services Pharmaceuticals & Biotechnology Industrials Industrial Goods Machinery & Equipment Construction Materials Industrial Services General Industrials Transportation			Beverages
Tourism & Recreation Financials Banks Insurance Other Financials Real Estate Healthcare Healthcare Services Pharmaceuticals & Biotechnology Industrials Industrial Goods Machinery & Equipment Construction Materials Industrial Services General Industrials Transportation		Household & Personal Use Products	
Financials Banks Insurance Other Financials Real Estate Healthcare Healthcare Services Pharmaceuticals & Biotechnology Industrials Industrial Goods Industrial Services Financials Industrial Services General Industrials Transportation	Consumer Services	Media	
Insurance Other Financials Real Estate Healthcare Healthcare Services Pharmaceuticals & Biotechnology Industrials Industrial Goods Machinery & Equipment Construction Materials Industrial Services Commercial & Professions General Industrials Transportation		Tourism & Recreation	
Other Financials Real Estate Healthcare Healthcare Services Pharmaceuticals & Biotechnology Industrials Industrial Goods Machinery & Equipment Construction Materials Industrial Services Commercial & Professions General Industrials Transportation	Financials	Banks	
Real Estate Healthcare Healthcare Services Pharmaceuticals & Biotechnology Industrials Industrial Goods Industrial Services Industrial Services Transportation Real Estate Healthcare Healthcare Services Machinery & Equipment Construction Materials Commercial & Professions General Industrials		Insurance	
Healthcare Healthcare Services Pharmaceuticals & Biotechnology Industrials Industrial Goods Industrial Services Industrial Services General Industrials Transportation		Other Financials	
Pharmaceuticals & Biotechnology Industrials Industrial Goods Construction Materials Industrial Services Commercial & Professions General Industrials Transportation		Real Estate	
Industrials Industrial Goods Construction Materials Industrial Services Commercial & Professiona General Industrials Transportation	Healthcare	Healthcare Services	
Construction Materials Industrial Services Commercial & Professiona General Industrials Transportation		Pharmaceuticals & Biotechnology	
Industrial Services Commercial & Professiona General Industrials Transportation	Industrials	Industrial Goods	Machinery & Equipment
General Industrials Transportation			Construction Materials
Transportation		Industrial Services	Commercial & Professional Services
·			General Industrials
Technology Technology Equipment		Transportation	
	Technology	Technology Equipment	
Software & Services		Software & Services	
Telecommunication Services	Telecommunication Services		

Global PMI at 13-month high

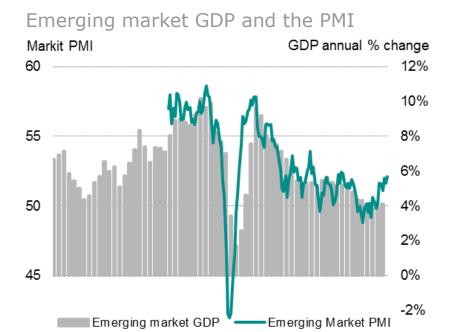
Global GDP and the PMI



Developed & emerging market output

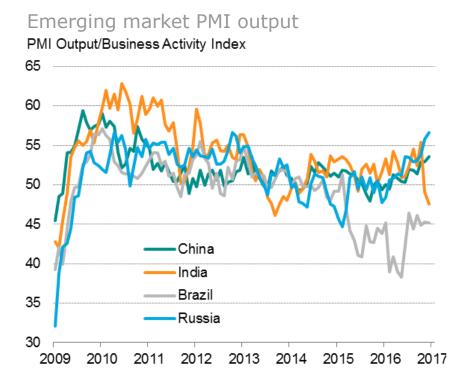


Emerging markets



-4%

'16



40

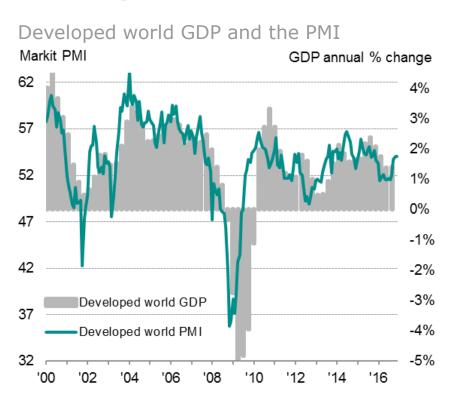
China PMI points to best quarter for nearly six years



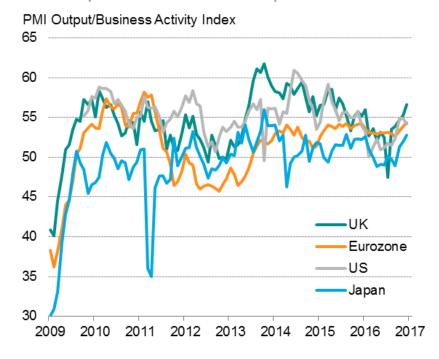
China employment



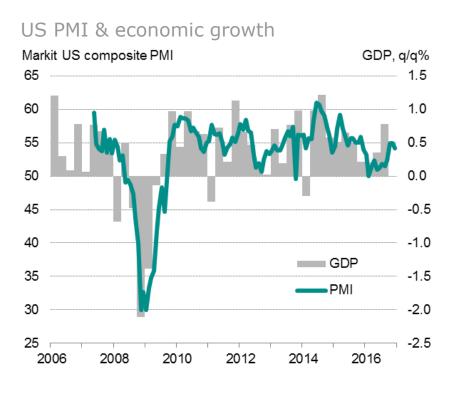
Developed world



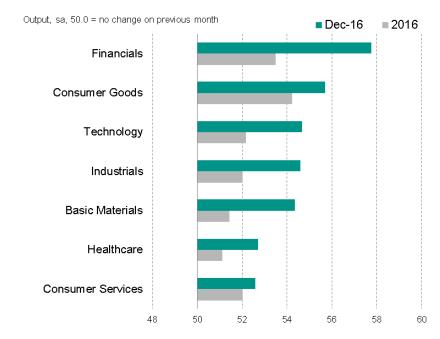
Developed market PMI output



US survey strength adds to scope for further rate hikes



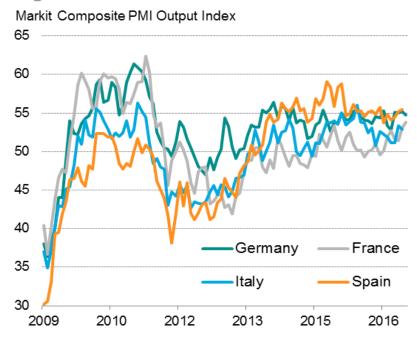
US output by sector



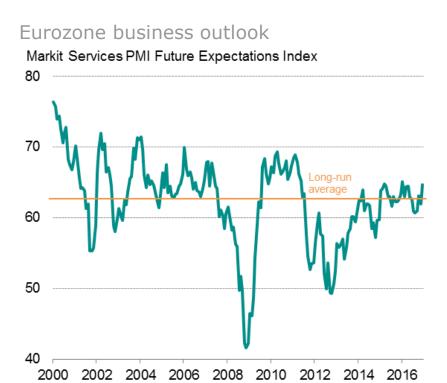
Eurozone grows at fastest rate since 2011



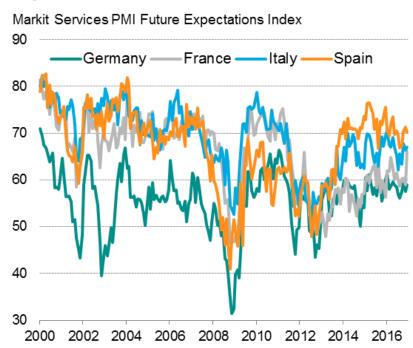
Big-four euro nations



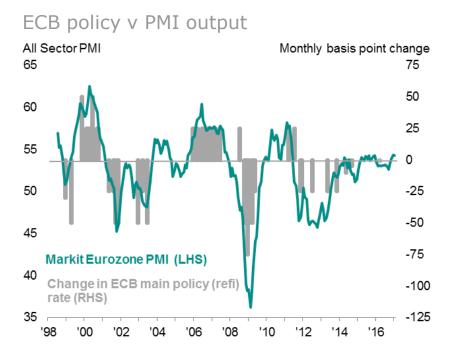
Eurozone business outlook



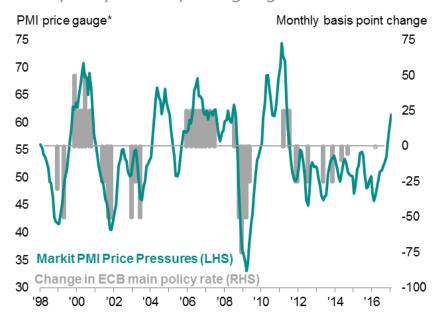
Big-four euro nations



ECB policy



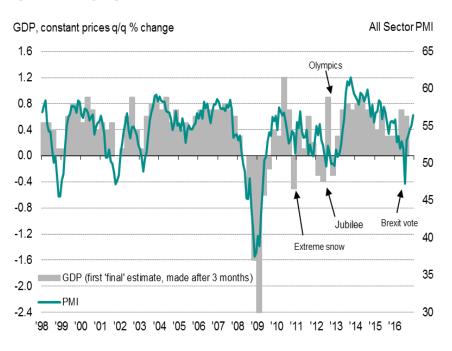
ECB policy v PMI price gauge



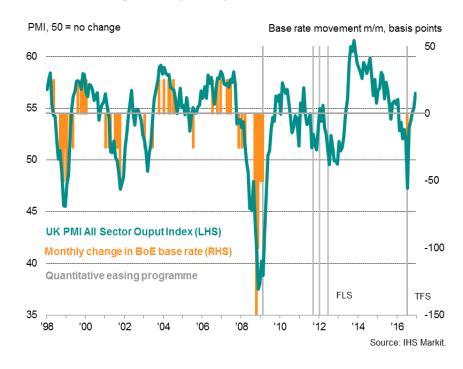
^{*} Derived from input cost and supplier delivery times indices.

United Kingdom ends 2016 on 11/2 year high

UK PMI & GDP



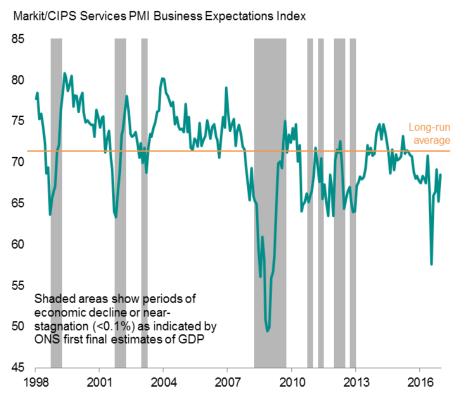
Bank of England policy



Sources: IHS Markit, ONS.

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United Kingdom business outlook



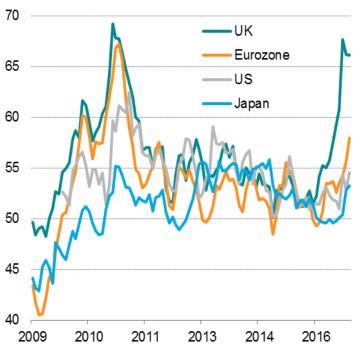
UK service sector worries*



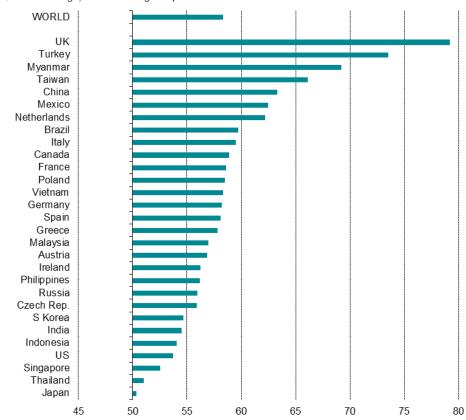
* Derived from reasons cited for pessimism about business activity in the year ahead from monthly PMI surveys in Q4 2016.

Global input prices

Composite PMI Input Costs Index

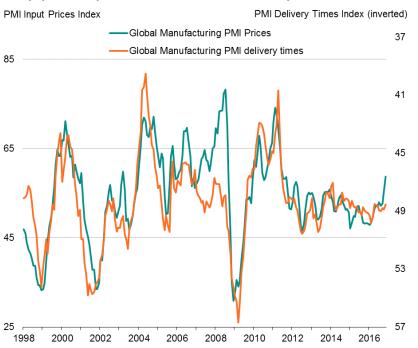


Manufacturing PMI Input Prices Index, Q4 2016 average, 50 = no change on prior month

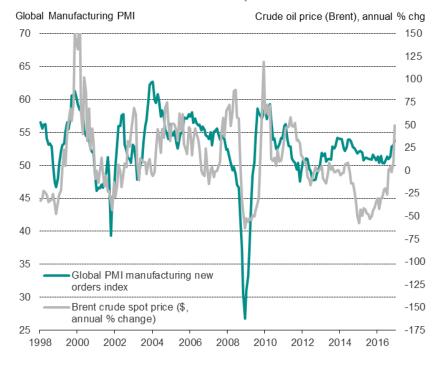


Global prices and supply chains

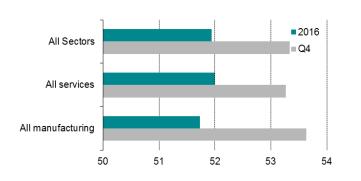
Supplier performance and prices

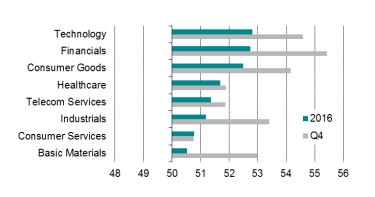


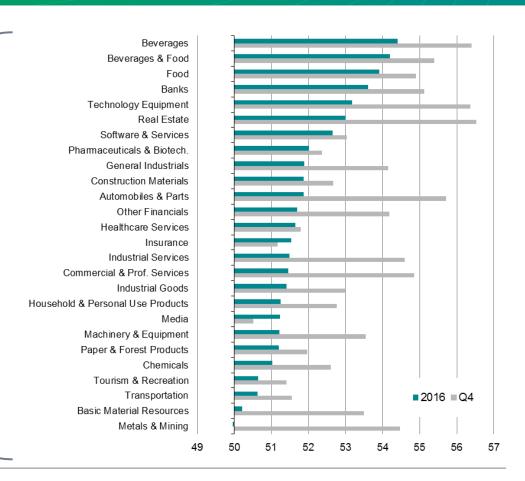
Global orders and oil price



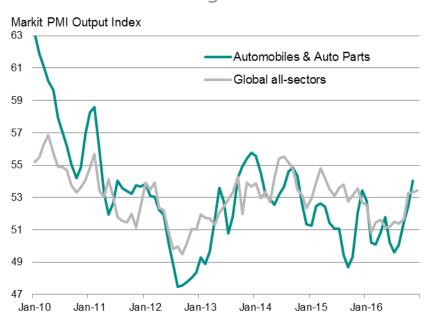
Global PMI output



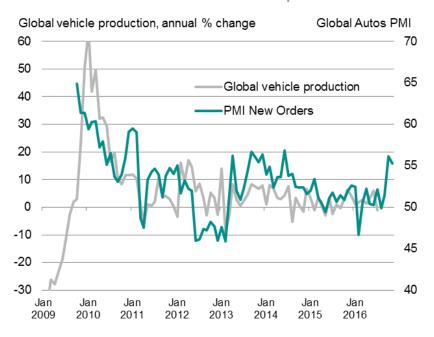




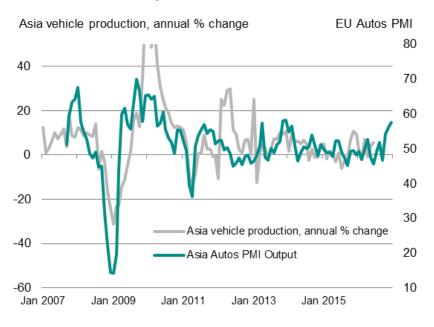
Auto sector PMI v global PMI



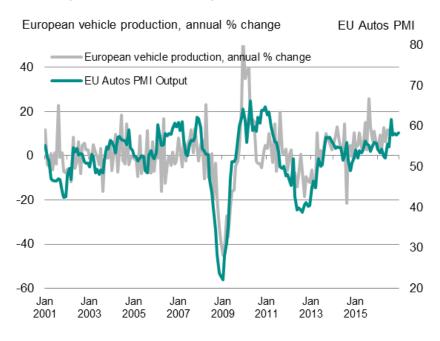
Auto sector PMI v actual production

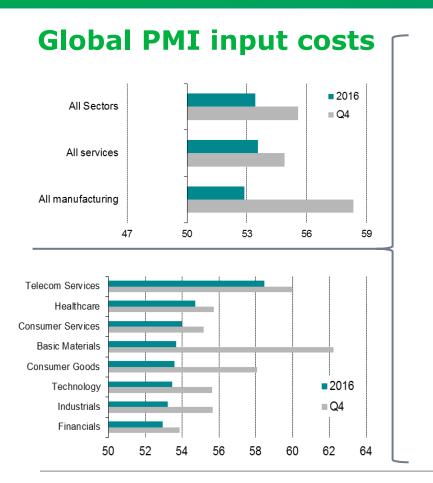


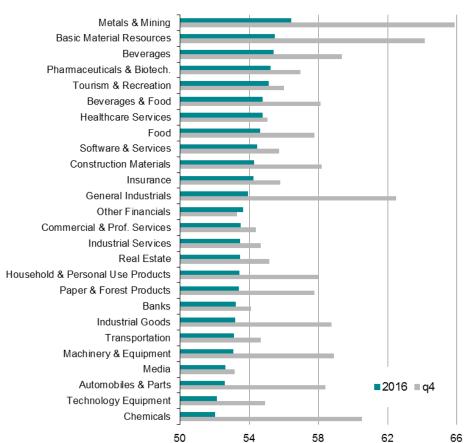
Asian vehicle production



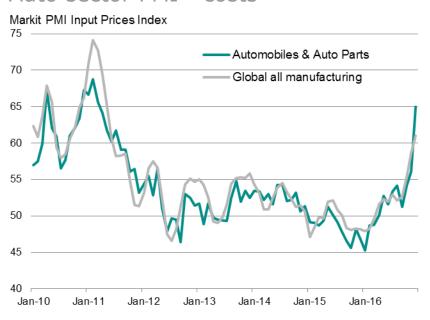
European vehicle production



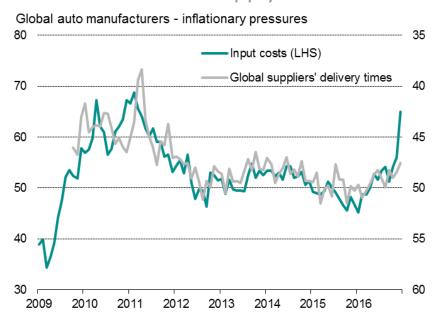




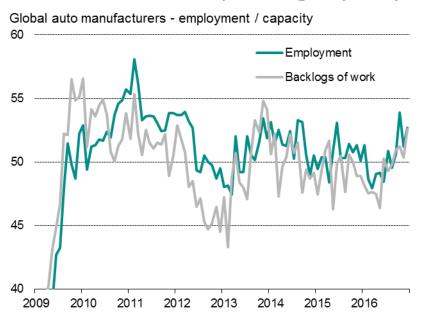
Auto sector PMI - costs



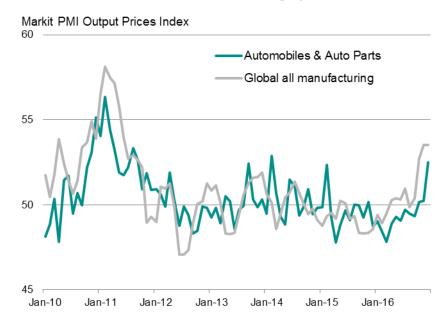
Auto sector PMI – supply chains



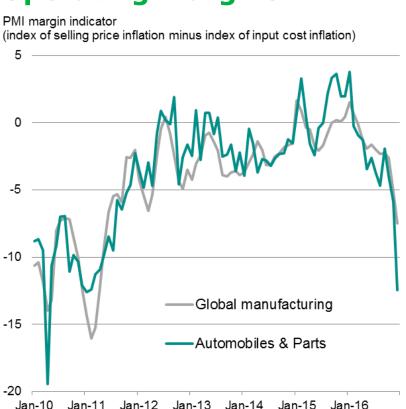
Auto sector PMI – operating capacity

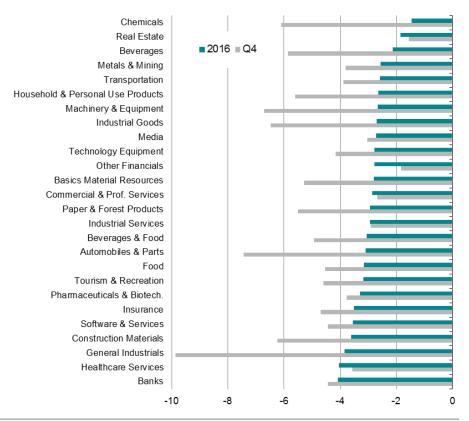


Auto sector PMI – selling prices

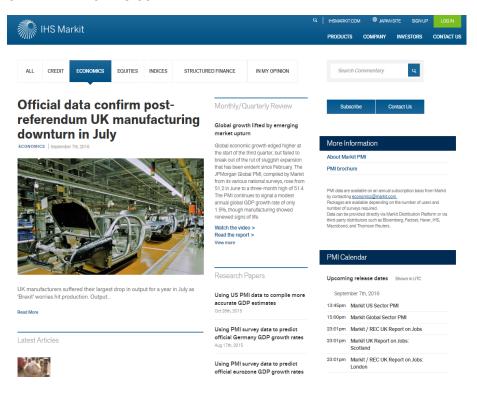


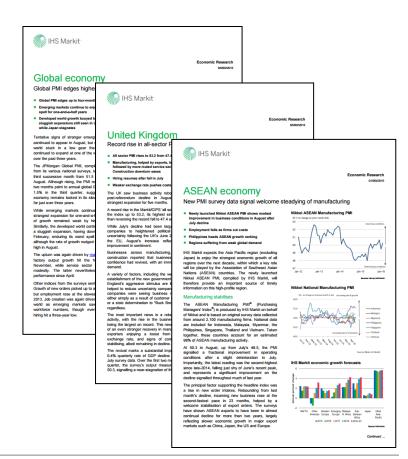
Operating margins





For updates read our <u>commentary</u> or access data on www.markit.com





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