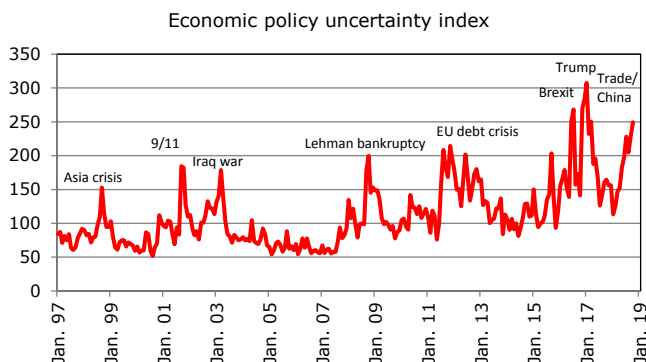




ECONOMIC SITUATION AND STRATEGY November 23, 2018

Outlook for 2019 (I): Trade dispute, other political imponderables are negative factors

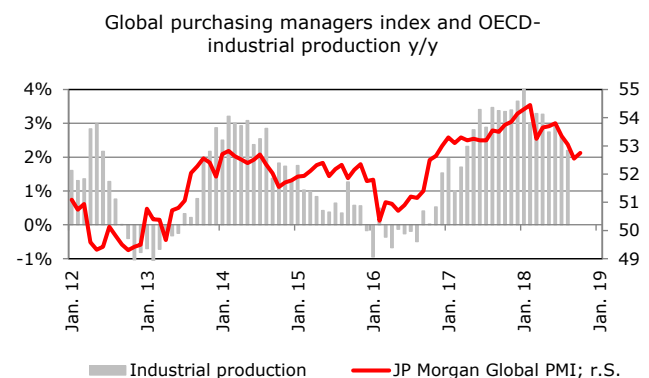
We begin to present our economic and capital market outlook for 2019 today and will continue in the weeks ahead. Our first topic is the economic outlook for the world and particularly for emerging markets and the United States. We expect global growth to slow from 3.7% to 3.4% mainly due to significantly cooling economic activity in industrialized countries. The Brexit and Trump decisions will take their eventual toll.



After a promising start, economic momentum has gradually ebbed in 2018. In particular, political issues, such as the trade dispute between the United States and China, the Brexit negotiations, and the budget dispute between the new Italian government and the EU, have substantially burdened business and household sentiment and led to a slowing of capital investment growth, exports, and private consumption. This has affected most industrialized and emerging markets by now. Only the United States has managed to avoid it. The slowing may still be interpreted as cyclical normalization, but if the dispute between the United States and China esca-

lates, there may be a greater economic setback in 2019. Because of their export dependence, euro zone member states are especially vulnerable.

Global leading indicators weakening...



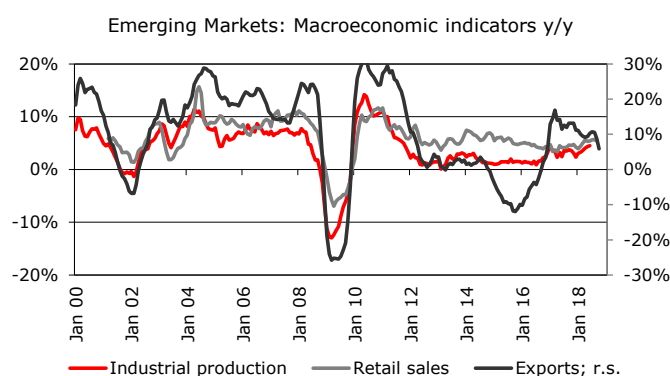
After surprisingly strong world economic growth in 2017, we expected that this positive trend to continue in 2018, at least at the same pace. But we were far off. Having run smoothly until then, the economic engine began to sputter already at the beginning of the year. It first appeared that special factors were responsible for the weaker economic growth. But eventually it became clear that this was more than a temporary phenomenon, and a noticeable recovery did not ensue. Instead, tough talk from the White House on trade has made for increasing uncertainty among globally operating businesses. Consequently, important leading indicators, such as that of the OECD and global purchasing manager indexes from the manufacturing and services sectors, have been weakening since the beginning of the year.

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...but little chance of recession if political risks do not gain the upper hand

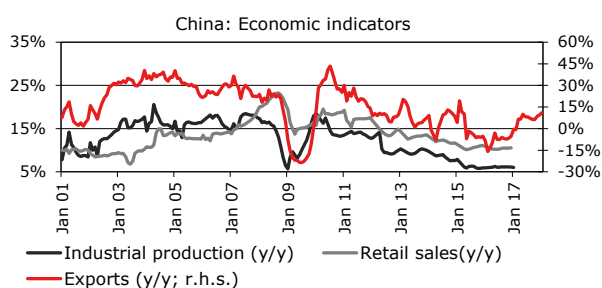
The greatest risk for the world economy next year, with unforeseeable consequences, would be an expansion of the trade dispute into a trade war. The result might be a significantly stronger downswing or even a new global recession. However, that need not happen if political leaders allow reason to prevail. More than ever, political developments are thus the key factor influencing the world economic trend. This means greater forecasting uncertainty than usual regarding next year.

Emerging markets: Heterogeneous economic development continues



There have been many crises in various emerging markets in 2018. Negative headlines have come mainly from Argentina and Turkey, but also from South Africa, Venezuela, Brazil, and Iran. The International Monetary Fund (IMF) expects stable growth of 4.7% in the emerging markets next year. That is because it assumes somewhat higher growth rates in 2019 for India, Brazil, Russia, and Mexico, the largest emerging markets after China. Whether that is realistic will also crucially depend on how the trade conflict develops. We expect that also to burden the exports of other emerging markets as long as there is no agreement between the United States and China. Even though the data from most national economies, apart from the above-mentioned crisis countries, have been comparatively robust so far, growth of exports has slowed almost everywhere.

China: No deal will mean a significant slowdown

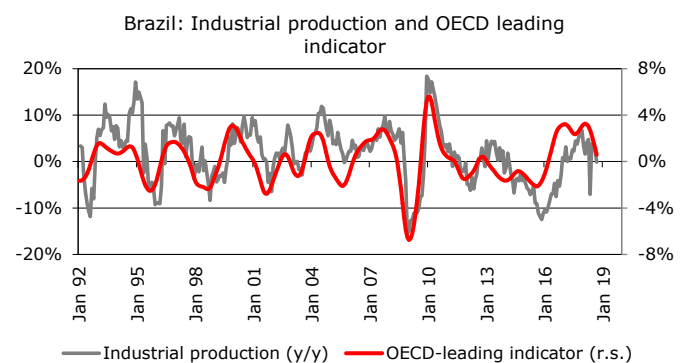


Chinese economic growth has slowed somewhat this year. Real GDP is forecast to increase by 6.6% year-on-year (2017: 6.9%). However, there have been mounting signs recently that the country might face a more severe economic slowdown. Above all, the impending trade war with the United States might cause growth to dip more sharply than expected next year. Declining foreign orders, as reflected in the Chinese purchasing manager index, already previews what could happen to the country's exports next year: stagnation or even contraction. Although the Chinese government would counter such a development with more expansionary fiscal policy and the central bank would loosen monetary policy, we expect that growth of the Chinese economy will slow to somewhat less than 6% in 2019.

Good outlook in India

Among the large emerging countries, India has the best growth prospects for the coming year. That is because the country has implemented important economic reforms in recent years that have improved its economic stability. Moreover, with its young and growing population of 1.3 billion, India is less dependent on foreign trade than on domestic demand. Since per capita income has already risen in the past years and still has huge catch-up potential, consumption is likely to remain the most important engine of growth in the foreseeable future. In addition, the inflation rate will decline in the coming year if the oil price stays at roughly the current level, as we expect. The associated improvement of purchasing power suggests that the Indian economy will grow by 7.5% next year and hence even somewhat more strongly than the 7.3% forecast for 2018.

Brazil and Russia suffering from lower commodity prices and homemade problems



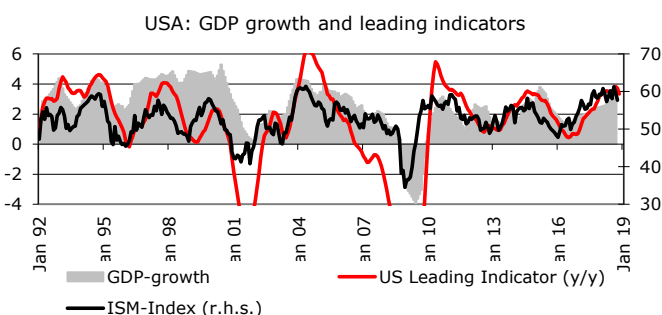
On the other hand, we see a more difficult environment for Brazil and Russia, two countries that depend heavily on commodity price development. Both the sharp oil price decline and slowing economic growth in China are

burdens in that respect. The two countries have delayed implementing necessary economic reforms in the past, so no growth impetus may be expected from that angle. Even though business and consumer sentiment has improved since his victory, newly elected Brazilian President Jair Bolsonaro did not campaign on an express desire to distinguish himself as a great reformer.

However, it remains to be seen whether this improvement will last. After all, there is hardly room for more expansionary fiscal policy in view of the increased national debt. But support may come from the Brazilian central bank, which could still lower its key interest rate somewhat if the Brazilian currency continues to recover. In contrast to the IMF, which expects Brazilian growth to accelerate from 1.4% to 2.4%, our estimate of real GDP growth remains more cautious at 1.8%. Unlike the IMF, we expect a slight decline in economic momentum for Russia in the coming year. The Russian economy will show 1.7% growth in 2018, and we expect that to slow to 1.5% for 2019 (IMF: 1.8%). That is mainly due to the oil price decline and continuing economic sanctions.

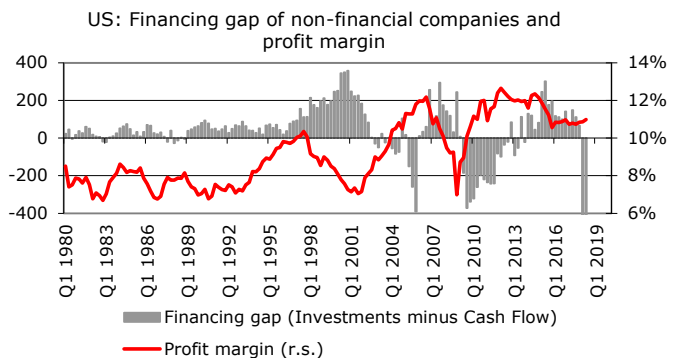
United States: Length of upswing will set new record in 2019...

The US economy will show about 3% growth for 2018, which is somewhat stronger than what we forecast last year. US President Trump thus appears to have kept his promise to lift the economy to a "sustainable" higher growth level with the help of tax cuts and deregulation. The strong growth impetus is coming from consumer spending, which is benefiting from the good labor market situation. The official unemployment rate is lower than at any time in the last 50 years, while wages are rising somewhat more strongly than in the past. Consequently, the national wage and salary total, which is the key figure for consumption, has increased by almost 5% this year. Since no trend reversal on the labor market is in sight, the upswing should continue next year. It will set a new record of more than 120 months if it lasts until June 2019.



...but economic momentum will weaken

However, we expect that US economic growth will slow next year to 2.3%. The positive effects of the tax cut are fading, and increased US interest rates are dampening growth. In addition, potential growth, which means growth expected on normal utilization of production capacities, may be estimated at only about 2%. Sustained growth of 3% is not in sight, at least not now. That could change if US companies increase their capital spending and hence productivity. But there has been little sign of that so far. Businesses have expanded their capital investments significantly since 2017, but there is still no evidence that the tax cuts at the beginning of 2018 have resulted in additional positive impetus. On the contrary, capital spending hardly increased at all in the third quarter. That may be a temporary effect, as capital expenditures tend to fluctuate greatly from quarter to quarter. Moreover, the tax reform has left so much money in the hands of companies that they certainly have the means for additional capital investment. But it remains to be seen whether they will use them. As long as demands for higher US tariffs are on the table, the associated economic uncertainties are likely to cause businesses to refrain from new capital spending.

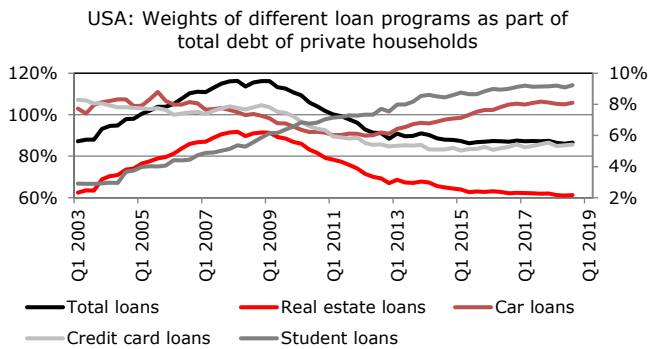


Household debt not excessively high

The real estate market currently poses the biggest problem for the US economy. Prices have risen significantly faster than disposable incomes in recent years because the supply of homes and apartments is too low or unsuitable. Moreover, the Fed's tighter monetary policy has caused mortgage interest rates to rise sharply. Because of these two factors, properties have become increasingly unaffordable, and the real estate market has cooled. This trend will continue in 2019. However, we do not expect a real estate market crash with similarly devastating effects on the overall economy as occurred during the financial crisis of 2007-2008. That is because the total of currently outstanding mortgage loans is, at

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about USD 10.2 trillion, somewhat lower than it was ten years ago, and the ratio of debt to disposable income is significantly lower than it was then. In our opinion, US households do not have a general debt problem, even though automobile and student loans have risen to a record level. Their total is not comparable to that of real estate loans, so the risk they pose to the US economy should be manageable. The risk of recession in 2019 therefore remains low.



Next week, we will consider the economic outlook for the euro zone and Germany. If the trade dispute between the United States and China escalates, there may be a greater economic setback in 2019. Because of their export dependence, euro zone countries are especially vulnerable.

Weekly outlook for November 26-30, 2018

	July	Aug.	Sept.	Oct.	Nov.	Dec.	Release
DE: Ifo business climate index	101.8	103.9	103.7	102.8	102.7		November 26
DE: Ifo business expectations	98.2	101.1	100.9	99.8	100.1		November 26
DE: Ifo current conditions	105.6	106.7	106.6	105.9	105.5		November 26
DE: GfK consumer climate	10.7	10.6	10.5	10.6	10.6	10.5	November 28
DE: Inflation rate, m/m – flash	0.3%	0.1%	0.4%	0.2%	0.2%		November 29
DE: Inflation rate, y/y – flash	2.0%	2.0%	2.3%	2.5%	2.4%		November 29
DE: Unemployed, change in 000s	-7	-10	-23	-11	-14		November 29
DE: Unemployment rate	5.2%	5.2%	5.1%	5.1%	5.1%		November 29
DE: Retail sales, m/m	-1.0%	-0.3%	0.1%	0.4%			November 30
DE: Import prices, m/m	-0.1%	0.0%	0.4%	0.2%			November 30
EUR19: M3 money supply, y/y	4.0%	3.5%	3.5%	3.6%			November 28
EUR19: Business climate	1.30	1.21	1.21	1.01	1.09		November 29
EUR19: Economic confidence	112.1	111.6	110.9	109.8	109.2		November 29
EUR19: Consumer confidence, final	-0.5	-1.9	-2.9	-2.7	-3.0		November 29
EUR19: Industrial confidence	5.8	5.6	4.7	3.0	2.7		November 29
EUR19: Inflation rate, y/y – flash	2.1%	2.0%	2.1%	2.2%	2.3%		November 30
EUR19: Core inflation rate, y/y – flash	1.1%	0.9%	0.9%	1.1%	1.3%		November 30
EUR19: Unemployment rate, s.a.	8.1%	8.1%	8.1%	8.0%			November 30

MMWB estimates in red

Chart of the Week: Hidden potential on labor market



The unemployment rate in Germany has been declining for years. It was still near 10% before the "Agenda 2010" social reform package, but has fallen almost continuously in the subsequent years. In contrast to other developed countries, unemployment in Germany only increased slightly during the 2008-2009 economic crisis. At a current rate of 5.1%, the country has attained nearly full employment. That raises the question where it will obtain labor for future economic growth. Many now complain of an insufficient supply of skilled workers in Germany. The German Economic Institute (IDW) estimates this insufficiency in

the industrial sector at about 220,000 persons. However, the real problem is not the lack, but rather the waste of these valuable resources. A significant share of the labor performed by skilled workers goes into activities that do not contribute to value creation. Their share is especially high in large enterprises due to organizational inefficiencies. It has been shown that reducing such activities by 10% can more than offset the insufficiency of skilled labor (Weber et al.). Implementing more efficient organizational models is thus a promising way of countering insufficiency of skilled labor and thus creating room for more growth.

Market data overview

	As of 23.11.2018 14:48	16.11.2018 -1 week	22.10.2018 -1 month	Change versus 22.08.2018 -3 months	22.11.2017 -1 year	29.12.2017 YTD
Stock marketes						
Dow Jones	24465	-3,7%	-3,4%	-4,9%	4,0%	-1,0%
S&P 500	2650	-3,2%	-3,8%	-7,4%	2,0%	-0,9%
Nasdaq	6972	-3,8%	-6,6%	-11,6%	1,5%	1,0%
DAX	11104	-2,1%	-3,6%	-10,3%	-14,7%	-14,0%
MDAX	23008	-2,9%	-4,3%	-13,8%	-13,6%	-12,2%
TecDAX	2506	-2,5%	-5,1%	-14,7%	-2,3%	-0,9%
EuroStoxx 50	3127	-1,7%	-2,0%	-8,6%	-12,2%	-10,8%
Stoxx 50	2882	-1,1%	-1,6%	-6,3%	-9,1%	-9,3%
SMI (Swiss Market Index)	8772	-1,5%	-1,1%	-3,1%	-5,6%	-6,5%
Nikkei 225	21647	-0,2%	-4,3%	-3,2%	-3,9%	-4,9%
Brasilien BOVESPA	86539	-2,2%	1,1%	12,5%	16,1%	13,3%
Russland RTS	1116	-1,7%	-0,1%	4,7%	-3,8%	-3,4%
Indien BSE 30	34981	-1,3%	2,5%	-8,6%	4,2%	2,7%
China Shanghai Composite	2579	-3,7%	-2,8%	-5,0%	-24,8%	-22,0%
MSCI Welt (in €)	1984	-2,4%	-2,2%	-5,8%	0,2%	-0,4%
MSCI Emerging Markets (in €)	976	-1,1%	0,5%	-5,0%	-12,7%	-11,0%
Bond markets						
Bund-Future	160,63	-2	129	-237	-235	-105
Bobl-Future	131,78	8	71	-43	13	17
Schatz-Future	111,98	-1	7	-1	-22	1
3 Monats Euribor	-0,32	0	0	0	1	1
3M Euribor Future, Dec 2017	-0,31	0	-1	-2	-4	0
3 Monats \$ Libor	2,69	4	20	38	123	99
Fed Funds Future, Dec 2017	2,28	0	0	7	53	0
10 year US Treasuries	3,04	-4	-16	21	72	63
10 year Bunds	0,34	-3	-11	-1	-1	-8
10 year JGB	0,10	-1	-6	0	7	5
10 year Swiss Government	-0,07	-4	-10	5	7	6
US Treas 10Y Performance	558,18	0,2%	1,1%	-1,6%	-4,5%	-4,0%
Bund 10Y Performance	619,61	0,0%	0,8%	-0,1%	1,4%	2,0%
REX Performance Index	485,47	0,0%	0,5%	-0,1%	0,4%	1,0%
US mortgage rate	0,00	0	0	0	0	0
IBOXX AA, €	0,92	5	10	22	24	25
IBOXX BBB, €	2,02	8	24	42	85	78
ML US High Yield	7,33	5	54	83	118	118
JPM EMBI+, Index	775	-0,7%	-0,7%	-1,4%	-6,7%	-7,3%
Convertible Bonds, Exane 25	7010	0,0%	-2,6%	-5,1%	-4,9%	-5,2%
Commodities						
CRB Spot Index	416,45	-0,1%	-0,1%	0,7%	-3,5%	-3,7%
MG Base Metal Index	306,37	0,6%	-2,4%	-0,8%	-11,0%	-14,6%
Crude oil Brent	59,67	-11,2%	-25,3%	-19,7%	-5,4%	-10,4%
Gold	1221,25	0,0%	0,0%	2,2%	-5,3%	-6,3%
Silver	14,52	1,1%	-0,4%	-1,6%	-15,3%	-14,6%
Aluminium	1936,75	0,8%	-2,9%	-5,1%	-7,3%	-14,2%
Copper	6286,25	1,0%	0,7%	5,1%	-9,2%	-12,8%
Iron ore	74,86	-0,3%	4,4%	10,6%	18,8%	5,0%
Freight rates Baltic Dry Index	1018	-1,3%	-35,5%	-41,3%	-28,0%	-25,5%
Currencies						
EUR/ USD	1,1353	0,1%	-1,2%	-2,3%	-3,4%	-5,3%
EUR/ GBP	0,8850	-0,3%	0,1%	-1,5%	-0,3%	-0,3%
EUR/ JPY	127,99	-0,3%	-1,3%	-0,1%	-2,8%	-5,2%
EUR/ CHF	1,1308	-1,1%	-1,3%	-0,8%	-2,6%	-3,4%
USD/ CNY	6,9474	0,2%	0,0%	1,5%	5,1%	6,8%
USD/ JPY	112,95	0,1%	0,1%	2,2%	1,6%	0,2%
USD/ GBP	0,78	0,1%	1,1%	0,6%	3,6%	5,5%

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