DECEMBER 2018

FX MONTHLY

QCAM Insight ++ The macro perspective ++ FX market talk
Economic activity ++ Inflation ++ FX markets ++ Financial markets
Number of the month

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QCAM Currency Asset Management AG
Guthirtstrasse 4
6300 Zug
Switzerland

Wellershoff & Partners Ltd.
Zürichbergstrasse 38
8044 Zürich
Switzerland

Wellershoff & Partners Ltd. is a strategic research partner of QCAM Currency Asset Management AG. This includes the regular exchange on fundamental developments in the global economy and on financial markets as well as their influence on currency markets. What is more, Wellershoff & Partners Ltd. is available to QCAM Currency Asset Management AG for selected events as well as client meetings.

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Contents

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QCAM Insight

2019: harnessing untapped potential

Thomas Suter, CEO
QCAM Currency Asset Management AG

A year ago, most investors were optimistic about 2018. Were they too optimistic?
The financial markets have been through a pretty mixed year. In particular, equities performed below expectations. While America's S&P 500 is virtually unchanged, most of other leading stock market indices suffered substantial losses. There are plenty of reasons for the disappointing performance on the stock markets. Protectionist measures such as the punitive tariffs levied by the Trump administration are mood-killers for market participants. This glum turn is compounded by political problems in Italy and more recently in France, the worsening conflict between Russia and Ukraine, and the geopolitical uncertainty that continues to stem from North Korea. And the still unresolved issue of Brexit hangs like a sword of Damocles over the global economy. Last but not least, a rising interest rate environment and a broad global slowdown in growth have also contributed to the disappointing performance.

Driven by the booming US economy, the global economy was very promising, wasn't it?
Indeed, the American economy has been barrelling along at high speed for quite some time. For 2018, US growth will probably be as high as 3 percent. But it seems to have passed its zenith. For the coming year, lower but still solid US growth rates can be expected. The expiring stimulus of the tax package, rising interest rates and more volatile financial markets are creating significant headwinds. The decline in investment in the third quarter is also worrying. But growth figures are also lower in the Eurozone.

In view of this increasing uncertainty, do you expect a flight into the Swiss franc?
Surprisingly, despite heightened uncertainty on the financial markets, the Swiss franc has recently developed rather weakly and has not yet been pursued by investors seeking a "safe haven". However, it cannot be ruled out that, in view of the crisis of confidence in Europe, the franc could again be subject to a renewed appreciation trend, which, we think, the SNB would probably not merely passively observe.

How can investors defend themselves against these growing uncertainties in the currency markets?
Given the record-high hedging costs – calculated in Swiss francs they are currently even more expensive than before the financial crisis – institutional investors are faced

with a fundamental challenge: Should they continue to hedge their assets against exchange rate fluctuations and if so, how can the high hedging costs be handled?

One solution is a dynamic currency overlay, which, on the one hand, hedges currency risk while seeking an additional return on the underlying currency risk. A bandwidth around the strategic hedge ratio is set and the responsible currency overlay manager applies the active currency strategy within the specified risk framework.

At QCAM, we offer our customers tailor-made solutions for this effective strategy. Following a detailed risk analysis, the implementation is carried out and constantly monitored to ensure compliance with specific risk parameters set by the client. Client reports evaluating the overlay's performance are tailored to the client's express needs.

Are large cash holdings a recommended strategy in this environment?

It is a fact that institutional investors in particular – allegedly lacking alternatives – sometimes have large foreign currency cash holdings languishing in banks at unattractive conditions. This solution may give the investor a sense of security, but the cost of missed opportunities is high, because inflation is eroding the value of that money year after year, especially now, in an era of negative real interest rates.

With QCAM's Optimized Liquidity Management, these return potentials can be systematically exploited without increasing credit risk. In a multibank environment, the strategy is aimed at preserving capital and increasing returns. Portfolio Management strategically capitalizes on inefficiencies in currencies, currency forwards and the money market.

QCAM is domiciled in Zug, the "Crypto Valley" of Switzerland. Your assessment?

A few months ago, I participated in an international expert roundtable on "Currency Trading & Crypto Currencies". My colleagues generally treat cryptocurrencies with respect but also with a healthy dose of scepticism. Personally, I place a big question mark on whether cryptocurrencies can even be described as true currencies. With traditional currencies, we know that a country or an economic bloc, with a gross national product and a web of economic and financial interrelationships, stands behind them. With crypto currencies, the question of their actual value is usually a bit more clouded.

Your goals for 2019?

We plan to further expand our position as currency specialists in asset management. In doing so, we always act in the best interests of our clients and in accordance with our values of independence, transparency and integrity. We see these as our core attributes and we plan to build on them in the future.

As the year comes to an end, on behalf of the entire QCAM team, I want to sincerely thank our clients and business partners for their trust and cooperation, and wish them all a peaceful Christmas and a successful start to the New Year.

The macro perspective

The debate about the neutral interest rate in the US

The US Federal Reserve is discussing the possible end of its rate hike cycle. Some Fed officials think the so-called neutral interest rate will soon be reached. But if growth remains well above potential, additional inflationary pressures could emerge in the medium term that could move the Fed to make further interest rate hikes.

The neutral interest rate is the rate at which monetary policy neither stimulates nor slows economic activity, and inflation is stable. The financial markets are wondering at what level the Fed is currently envisioning this neutral interest rate. Depending on the forecast, the Fed will continue or will soon end the rate hike cycle.

In fact, in his speech in Jackson Hole at the end of August, Fed President Jerome Powell said that it's hard to estimate this value using current data. In the past, it has been shown time and again that current estimates often deviate significantly from subsequent calculations. Nevertheless, a central bank can hardly refrain from making certain assumptions, even if these assumptions are imprecise at best.

Fed officials have recently remarked that key interest rates are not far from their estimated neutral rate. If this is indeed the case, monetary policy would soon stop supporting economic activity and start slowing it instead. In an equilibrium, economic growth should therefore start returning to its potential, especially since the recent fiscal stimulus is coming to an end. Otherwise, according to theory, inflation will rise – and the Federal Reserve will continue to raise interest rates. So much for theory.

US growth potential is actually relatively low

But can we estimate the size of this potential growth? Potential growth, we should first note, refers to the normal utilization of production capacity. Its calculation is based on assumptions about the development of capital and labour as well as productivity, which in turn depends on technological progress.

Potential growth in the US is lower than is generally acknowledged, in our opinion. Our calculations indicate potential US growth at about 2 percent per year. The growth figures for the current year, however, are well above this level. Indeed, for 2018, growth around 3 percent can be expected.

There are several reasons for the low potential growth in the US. First, the savings rate in the US is relatively low. A low savings rate translates into weak investment. Second, the capital stock is high, which implies a big need for write-downs. In combination, it follows that the build-up of additional capital tends to be modest. Investments will more likely be made to replace existing capacity rather than to create new capacity. Third, demographic trends indicate that the labour pool will grow less than in previous decades. The immigration-critical attitude of a large segment of the population is unlikely to embrace immigration as a tool to offset this decline.

Will lower growth be accepted?

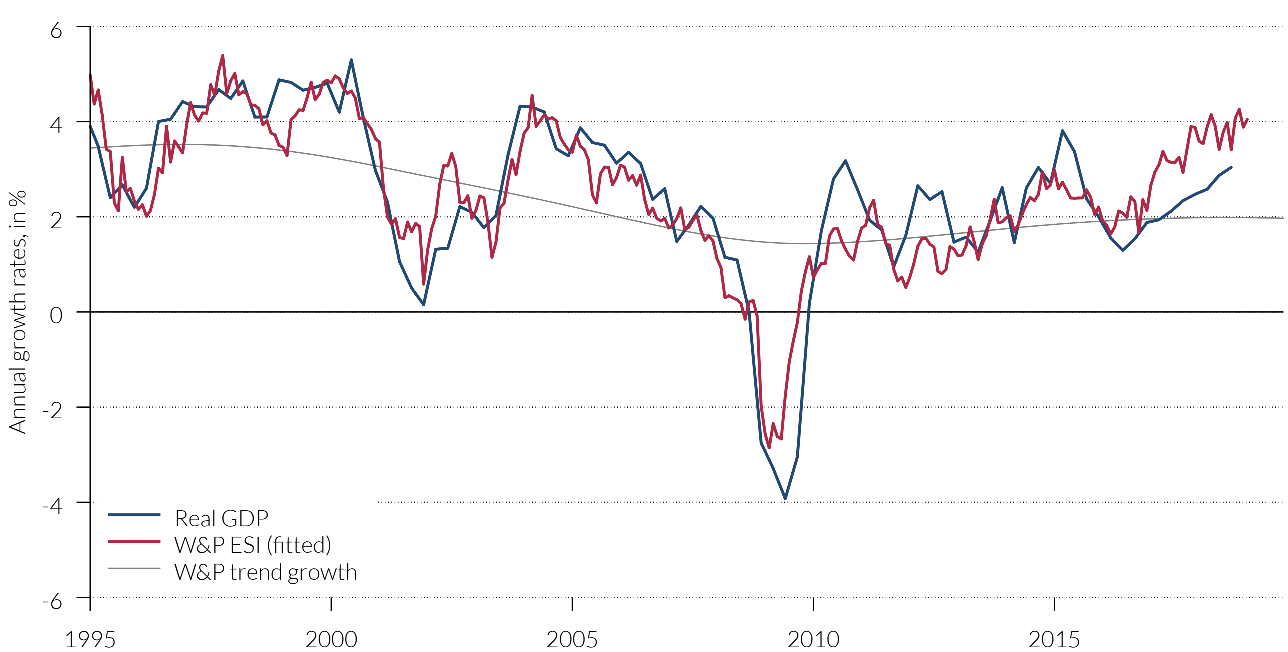
If the neutral interest rate were actually reached, growth would soon fall to roughly 2 percent. At least two factors speak against this, however. First, leading indicators show significantly higher growth rates as both companies and consumers continue to enjoy a buoyant outlook. Second, the question arises as to whether an American government would be satisfied with such comparatively low growth rates. The current administration probably would not. Rather, it seems to be doing everything it can to increase growth.

Inflation risks persist

Ultimately, if the economy continues to grow above its potential for long – either because the neutral interest rate is higher than expected, or perhaps because the positive sentiment of companies and consumers is enough to drive further growth – price pressure may continue to increase. The Federal Reserve will eventually have to respond and Chairman Powell has emphasized that the Fed's decisions will be based on the data.

In the short term, thanks to lower oil prices, overall inflation rates will decline over the next few months. Thus, the pressure for further rate hikes will be modest. However, if inflation increases thereafter, a wait-and-see approach by the Fed runs the risk that it will have to raise interest rates late and it will have to do so quickly.

The US economy keeps booming – for now



Source: Thomson Reuters Datastream, Wellershoff & Partners

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FX market talk

A look ahead for the euro

Over the course of this year, the euro weakened from the strong position it enjoyed early on, slipping to a rather middling level. That said, it looks to be in good fundamental shape. We offer a medium-term outlook for the euro and consider how the single currency may develop longer term.

On January 1, 2019, the euro will be celebrating its twentieth birthday. That's reason enough to take a good look at Europe's common currency. How has the euro developed over these two decades, and what can we expect for it in the future?

When it was introduced, we estimate that the euro's purchasing power parity versus the US dollar was roughly 1.14. Almost twenty years later, our estimate stands at 1.28. From this perspective, the dollar has lost about 12 percent of its value versus the euro over the years. That translates into an annual loss in value of around 0.6 percent. This, of course, reflects the inflation differential between the two currency areas. The Eurozone has done a better job at containing producer price inflation than the US has.

What does the current deviation from purchasing power parity say about future developments? At the end of November, the euro was undervalued by just under 11 percent – not yet outside a normal range of fluctuations. Since purchasing power parity is particularly insightful about strong over- or undervaluations, at the moment it is not enough to form the basis of a forecast of the euro's medium-term outlook. We therefore need to consider the euro's fundamentals and some short-term influences.

A solid base

When considering the fundamentals of a currency, the current account of the respective region forms an important part of the assessment. It is noteworthy that since 2003 the Eurozone has accumulated a surplus of more than USD 2.3 trillion, or about one percent of its average annual GDP. In contrast, the US has accumulated a current account deficit of USD 8.3 trillion over the same period. That's 3.5 percent of average annual US GDP. The deficit brings with it a not insignificant disadvantage for the US. The government must ensure financing of the deficit at all times. Moreover, the dollar is comparatively more exposed to the whims of foreign creditors. Especially in times of crisis, this can quickly lead to problems, as investors typically pay close attention to the current account. Conversely, the eurozone can benefit from its surplus. The common currency area can reasonably expect income from foreign investments. In case of a crisis, the euro is thus fundamentally better positioned than the dollar, in our view.

Politics matter

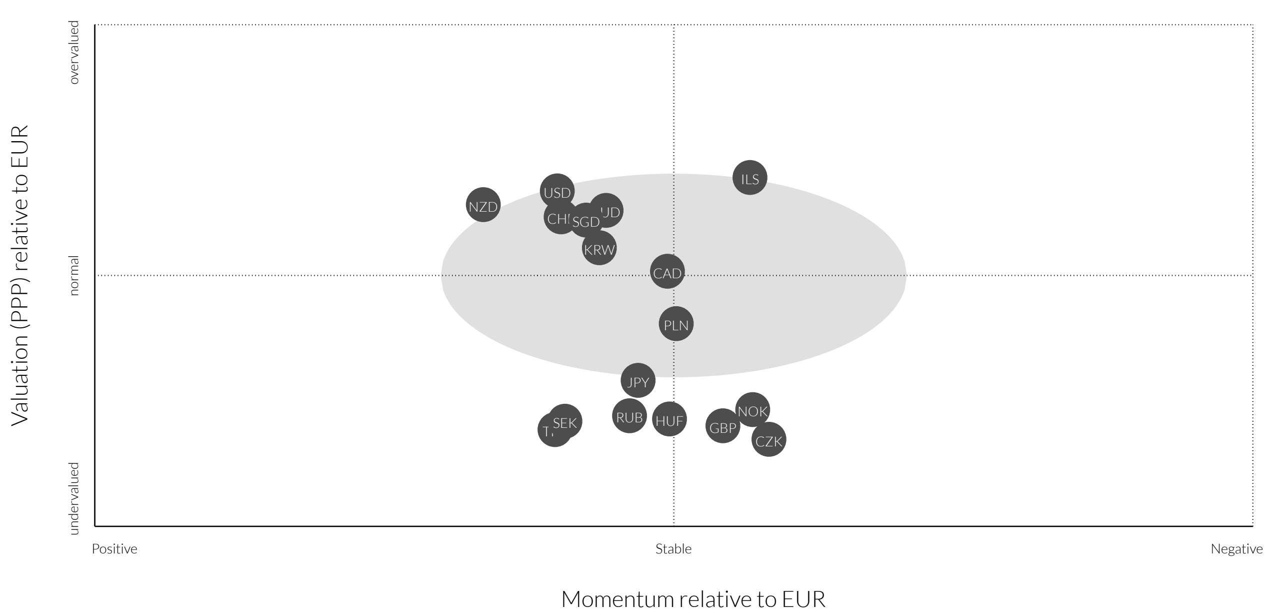
When talking about the long-term outlook for the euro, politics must also be mentioned. Again and again, the future of the euro has been called into question. The debt situation in various member countries and the very high levels of TARGET2 balances are just two of the issues that are often cited.

That the euro is not a perfect currency area, as described in textbooks, was clear even before its inception. But the political will among member states to stick with the euro in its present form seems very strong. Accordingly, it can also be expected that the necessary measures will be taken to ensure the euro's continued existence.

What about the short-term?

In the short term, however, the euro is likely to remain in midfield, despite being in fundamentally good shape. We revert, therefore, to purchasing power parities. The graph shows that the euro was overvalued against most European currencies at the end of November. Compared to the dollar, the renminbi and some other Asian currencies, however, the euro was relatively cheap. The high valuation relative to the other European currencies can be justified, at least in part, by the fundamentally attractive characteristics of the euro. For example, the strong undervaluation against the dollar shows that it is not just the underlying characteristics of a currency that are important in the short term. Thus, political tensions and the reoccurring blot of Euroscepticism should mean that the euro will not appreciate too soon despite the currency's solid basis.

Euro likely to stay in midfield



Source: Thomson Reuters Datastream, Wellershoff & Partners

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Economic activity

The Eurozone economy stuttered in the third quarter. From July through September, growth of 0.2 percent was achieved. This is 0.2 percentage points less than in the previous two quarters. Meanwhile, detailed growth data is now available at a country level. It shows, above all, that Germany's negative growth dragged on the European economy in the third quarter. A new exhaust-gas emissions test led to a production cut in the automotive industry, a sector of critical importance for Germany. Exports were thus unexpectedly low.

In Japan, too, the economic engine has recently sputtered. Quarter-on-quarter growth for the third quarter was negative, at -0.3 percent. In particular, Japan had to deal with several significant natural disasters in the past quarter, which burdened the economy. However, the latest data indicates that the Japanese economy should recover in the final quarter of the year. For example, industrial production rose by a strong 2.6 percent in October. Real exports also registered a pleasing gain of 6.2 percent following a significant decline in the previous month.

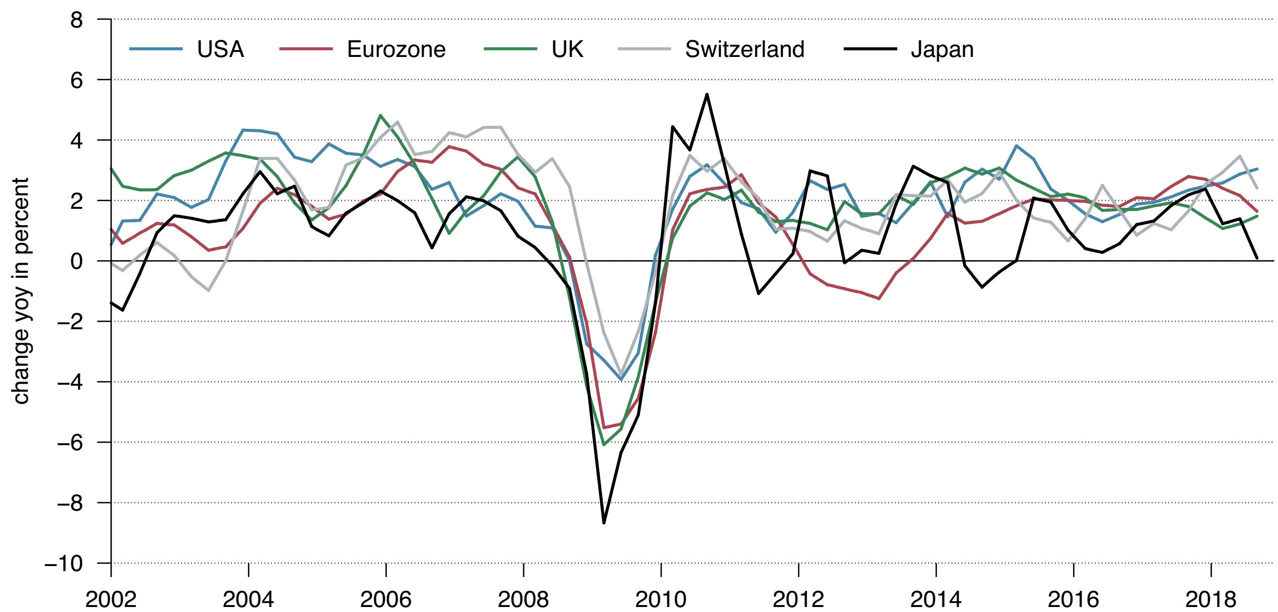
Growth overview

	Trend growth[1]	Real GDP growth[2]				W&P economic sentiment indicators[3]			
		Q4/2017	Q1/2018	Q2/2018	Q3/2018	8/2018	9/2018	10/2018	11/2018
United States	1.7	2.5	2.6	2.9	3.0	4.1	4.3	3.9	4.0
Eurozone	1.0	2.7	2.4	2.2	1.6	3.0	2.9	2.7	2.7
Germany	1.4	2.8	2.0	2.0	1.2	3.5	3.5	3.3	3.4
France	0.7	2.8	2.2	1.6	1.4	2.2	2.0	1.8	1.8
Italy	0.2	1.6	1.4	1.2	0.7	1.5	1.5	1.4	1.2
Spain	1.6	3.1	2.8	2.5	2.5	2.6	2.4	2.7	2.7
United Kingdom	1.8	1.4	1.1	1.2	1.5	2.8	2.6	2.7	2.3
Switzerland	1.5	2.5	2.9	3.5	2.4	2.6	2.6	2.2	2.5
Japan	0.4	2.4	1.2	1.4	0.1	2.6	2.6	2.5	2.5
Canada	1.6	2.9	2.3	1.9	2.1	1.5	1.7	1.8	1.8
Australia	2.4	2.4	3.0	3.1	2.8	3.1	3.0	3.1	3.0
Brazil	1.4	2.2	1.3	0.9	1.3	-0.3	0.2	2.7	–
Russia	0.1	0.9	1.3	1.9	1.5	-1.1	0.0	1.2	2.4
India	7.7	7.0	7.7	8.2	7.1	6.7	6.7	6.8	6.8
China	7.4	6.8	6.8	6.7	6.5	6.7	6.4	6.5	6.5
Advanced economies[4]	1.4	2.5	2.3	2.4	2.2	3.7	3.7	3.5	3.5
Emerging economies[4]	6.0	5.5	5.7	5.6	5.2	4.8	4.7	4.8	5.1
World economy[4]	3.5	4.1	4.0	4.1	3.8	4.3	4.3	4.2	4.4

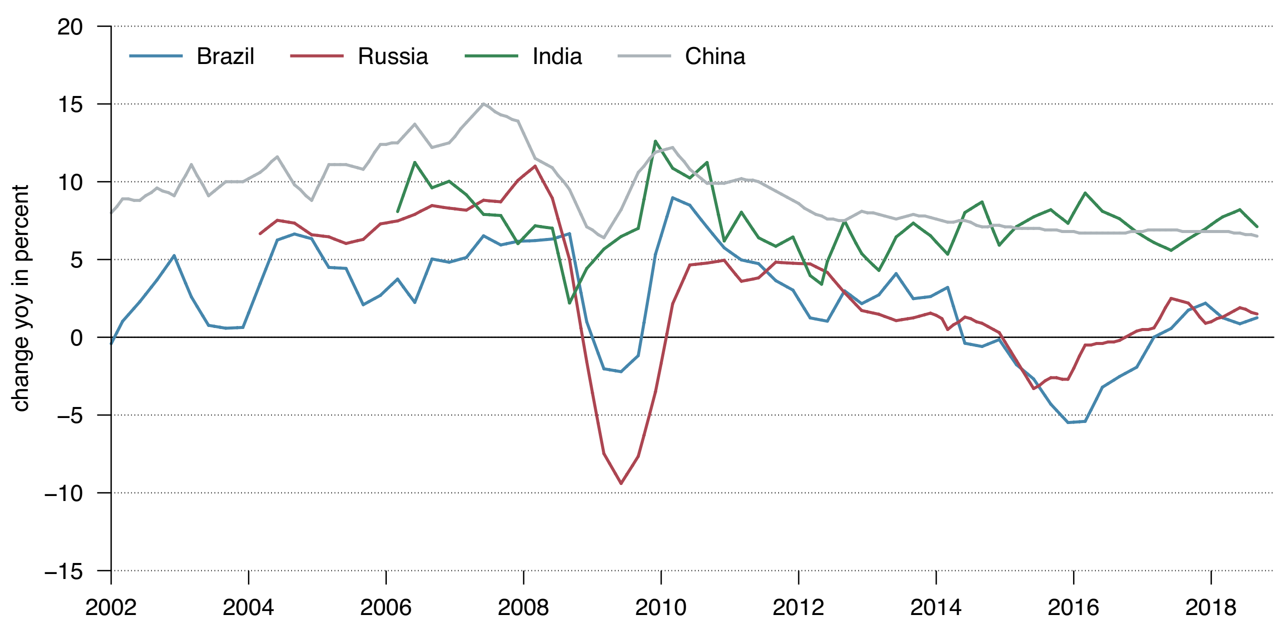
[1] Current year-on-year trend growth rate of real GDP, in percent, according to the proprietary trend growth model of Wellershoff & Partners.
[2] Year-on-year growth rate, in percent.
[3] Wellershoff & Partners economic sentiment indicators are based on consumer and business surveys and have up to 6 months lead on the year-on-year growth rate of real GDP.
[4] Calculations are based on nominal GDP weights derived from purchasing power parity exchange rates.

Source: European Commission, Penn World Table, Thomson Reuters Datastream, Wellershoff & Partners

Economic growth in advanced economies



Economic growth in emerging economies



Source: Thomson Reuters Datastream, Wellershoff & Partners

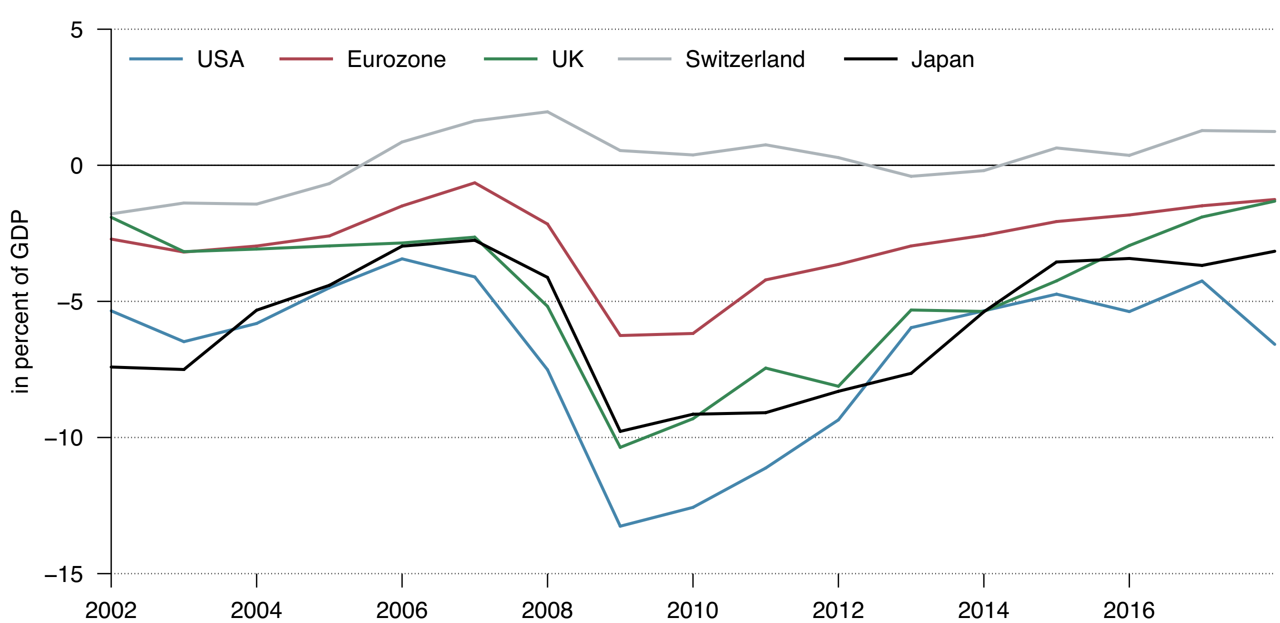
Economic indicators

Overview

	Global GDP share[1]		Current account[2]		Public debt[2]		Budget deficit[2]		Unemployment rate[3]	
	Ø 5 years	Current	Ø 5 years	Current	Ø 5 years	Current	Ø 5 years	Current	Ø 5 years	Current
United States	23.5	24.2	-2.2	-2.4	105.0	106.8	-5.1	-6.6	5.6	3.7
Eurozone	16.3	16.2	3.6	4.0	108.9	107.1	-2.2	-1.3	10.7	8.1
Germany	4.7	4.7	7.9	7.7	78.6	68.1	0.6	1.6	6.4	5.0
France	3.4	3.3	-0.6	-0.4	120.6	125.0	-3.6	-2.7	9.8	8.8
Italy	2.6	2.5	1.9	2.5	155.0	153.3	-2.7	-1.8	11.9	10.3
Spain	1.7	1.7	1.6	1.0	114.3	114.6	-5.2	-2.7	21.9	14.8
United Kingdom	3.6	3.3	-4.8	-3.4	111.2	115.6	-4.0	-1.3	5.4	2.8
Switzerland	0.9	0.8	10.1	11.1	42.7	40.0	0.3	1.2	3.2	2.5
Japan	6.3	6.0	2.5	3.3	218.9	226.4	-4.7	-3.2	3.4	2.4
Canada	2.2	2.0	-3.1	-3.0	88.4	87.3	-0.7	-1.2	6.8	5.6
Australia	1.8	1.7	-3.4	-2.8	36.8	40.5	-2.6	-1.4	5.8	5.0
China	14.2	15.9	1.9	0.7	41.8	50.1	-2.4	-4.1	4.0	–
Brazil	2.7	2.3	-2.5	-1.3	71.5	88.4	-7.1	-8.6	9.3	11.7
India	2.8	3.2	-1.3	-3.0	69.4	69.6	-7.1	-6.6	–	–
Russia	2.2	1.9	2.7	6.2	15.4	15.3	-2.1	1.6	5.4	4.7

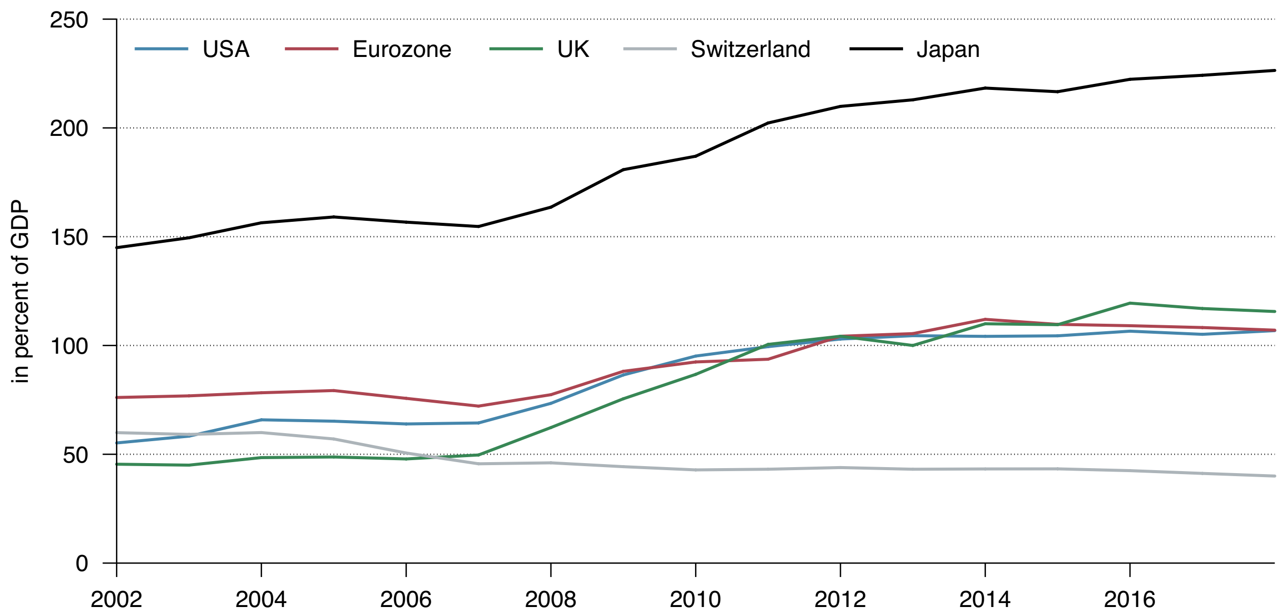
[1] In percent; calculations based on market exchange rates. [2] In percent of nominal GDP. [3] In percent.

Budget deficits in advanced economies

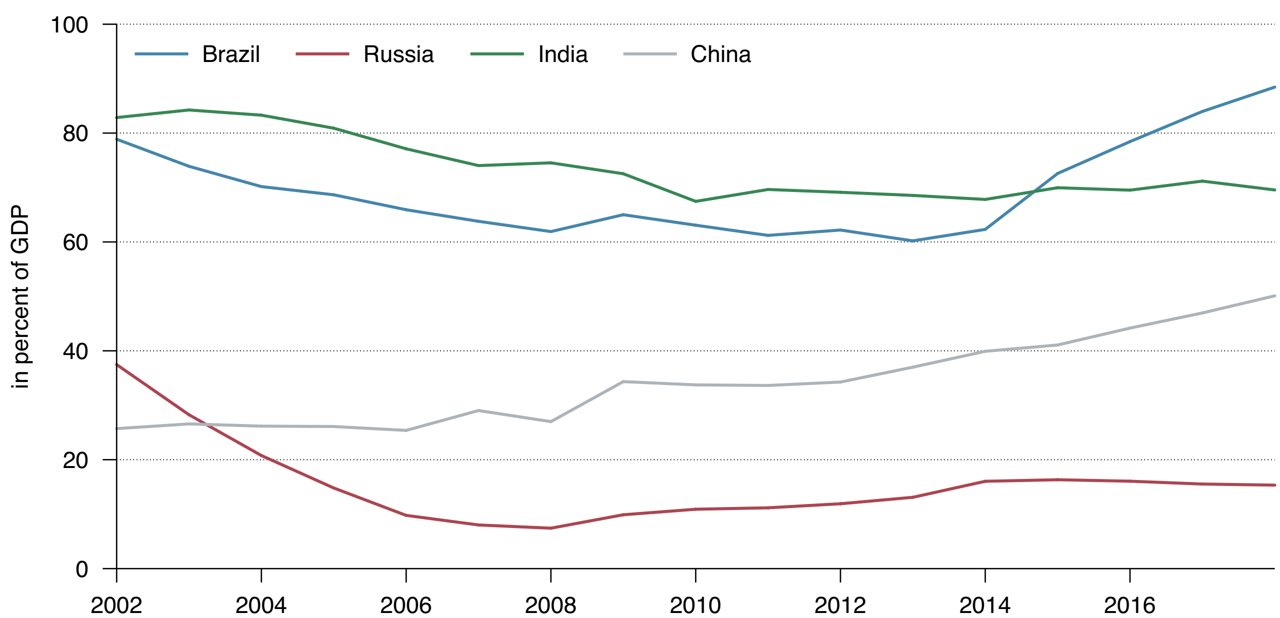


Source: Thomson Reuters Datastream, Wellershoff & Partners

Public debt in advanced economies



Public debt in emerging economies



Source: Thomson Reuters Datastream, Wellershoff & Partners

Inflation

The fading base effects from the price of oil again allowed inflation rates in the advanced economies to decline somewhat. In the US, inflation, in terms of household spending, came in at 2 percent for the second month in a row in October. This gives the US Federal Reserve a bit more leeway on the inflation side. To what extent it might use this lull to justify a future slowdown in monetary policy tightening remains to be seen. At least some market participants believe that the Fed has recently shown a subtle change in pitch. In particular, statements by the new vice chair of the Fed, Richard Clarida, that US interest rates in the meantime were close to the inflation-neutral level caused quite a stir.

Inflation has also lost momentum in the Eurozone. In November, consumer prices increased by 2 percent year-over-year. A good part of European inflation remains attributable to the price of oil. The still weak rate of core inflation, 1 percent in November, is characteristic of this inertia. The European Central Bank has recently signalled that core inflation may indeed move slower than previously anticipated.

Inflation overview

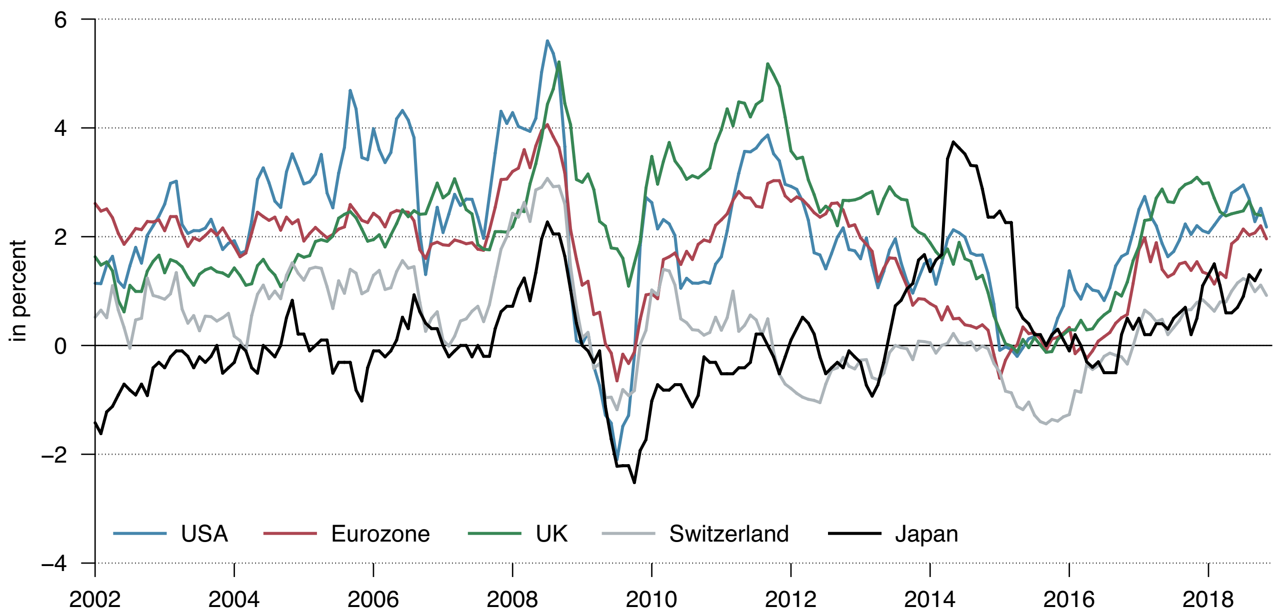
	Ø 10 years[1]	Inflation[2]				Core inflation[3]			
		8/2018	9/2018	10/2018	11/2018	8/2018	9/2018	10/2018	11/2018
United States	1.5	2.7	2.3	2.5	2.2	2.2	2.2	2.1	2.2
Eurozone	1.2	2.0	2.1	2.2	2.0	0.9	0.9	1.1	1.0
Germany	1.2	2.0	2.3	2.5	2.3	1.5	1.6	1.8	1.5
France	1.0	2.3	2.2	2.2	1.9	–	–	–	–
Italy	1.2	1.6	1.4	1.6	1.7	0.8	0.7	0.7	0.9
Spain	1.1	2.2	2.3	2.3	1.7	0.8	0.8	1.0	–
United Kingdom	2.3	2.7	2.4	2.4	–	2.1	1.9	1.9	–
Switzerland	-0.1	1.2	1.0	1.1	0.9	0.5	0.4	0.4	0.2
Japan	0.3	1.3	1.2	1.4	–	0.4	0.3	0.4	–
Canada	1.6	2.8	2.2	2.4	–	1.7	1.5	1.6	–
Australia	2.2	2.0	1.9	–	–	1.4	1.2	–	–
Brazil	6.0	4.2	4.5	4.6	4.1	3.6	3.8	3.6	3.2
Russia	7.7	3.1	3.4	3.5	3.8	2.6	2.8	3.1	3.4
India	7.3	3.7	3.7	3.4	2.3	–	–	–	–
China	2.2	2.3	2.5	2.5	1.5	2.0	1.7	1.8	1.8
Advanced economies[4]	1.3	2.3	2.1	2.2	2.0	1.5	1.5	1.5	1.5
Emerging economies[4]	4.4	2.9	3.0	3.0	2.5	2.2	2.0	2.1	2.1
World economy[4]	2.7	2.6	2.6	2.6	2.3	1.6	1.5	1.6	1.6

[1] Average annual consumer price inflation, in percent.
[2] Year-on-year change of the consumer price index (CPI), in percent.
[3] Core inflation is a measure of inflation that excludes certain items that can experience volatile price movements, such as energy and certain food items; year-on-year change of the core consumer price index, in percent.
[4] Calculations are based on nominal GDP weights derived from purchasing power parity exchange rates.

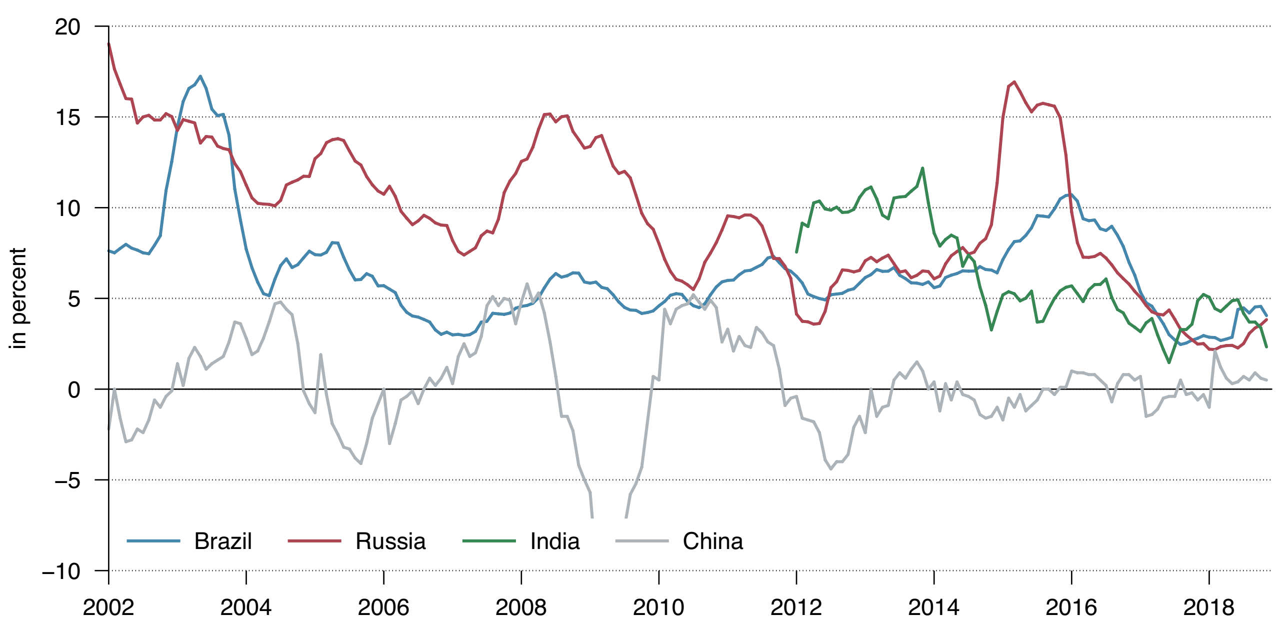
Source: Thomson Reuters Datastream, Wellershoff & Partners

Currency Asset Management

Consumer price inflation in advanced economies



Consumer price inflation in emerging economies



Source: Thomson Reuters Datastream, Wellershoff & Partners

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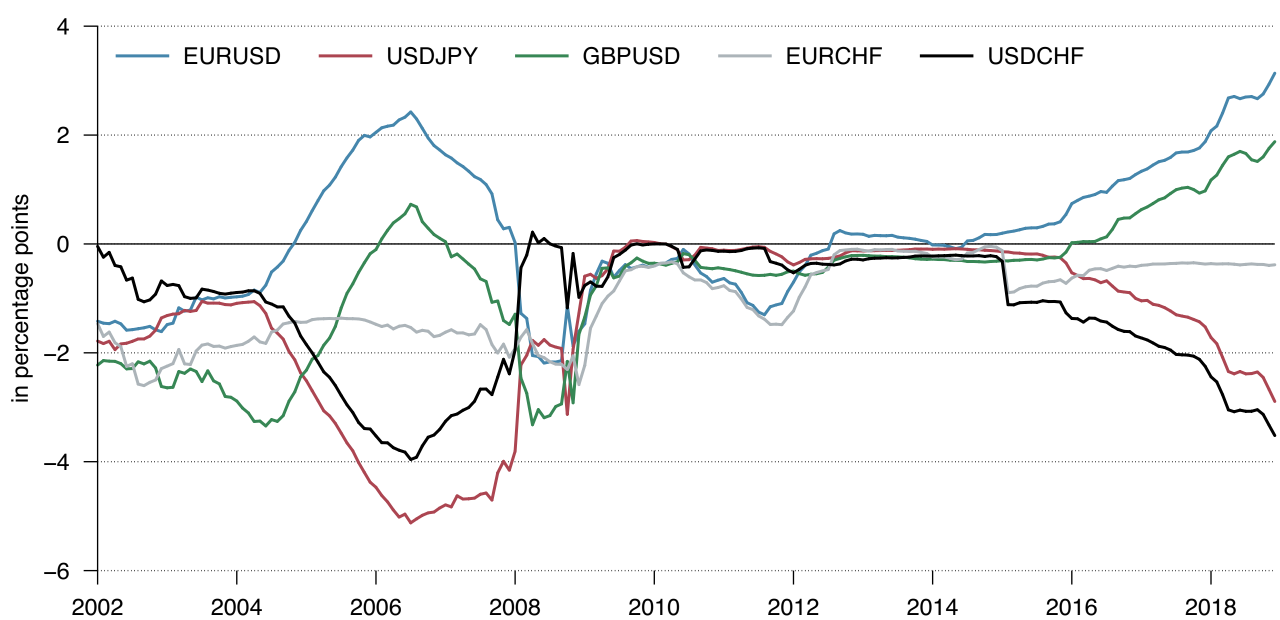
Interest rates

Interest rate differentials overview

	Current exchange rate	Interest rate differentials 3 months[1]				Interest rate differentials 12 months[1]			
		Current	1 year ago	Ø 5 years	Ø 10 years	Current	1 year ago	Ø 5 years	Ø 10 years
EURUSD	1.137	3.13	1.98	1.11	0.37	3.25	2.30	1.41	0.55
USDJPY	113.2	-2.89	-1.61	-0.92	-0.54	-2.98	-1.93	-1.25	-0.82
GBPUSD	1.266	1.88	1.07	0.41	0.00	1.94	1.27	0.52	0.04
EURCHF	1.128	-0.39	-0.36	-0.42	-0.53	-0.37	-0.26	-0.42	-0.62
USDCHF	0.992	-3.52	-2.34	-1.53	-0.90	-3.62	-2.57	-1.82	-1.18
GBPCHF	1.256	-1.64	-1.27	-1.12	-0.90	-1.67	-1.30	-1.30	-1.14
CHFJPY	114.1	0.63	0.73	0.61	0.35	0.63	0.63	0.58	0.35
AUDUSD	0.723	1.28	0.09	-0.90	-2.07	1.60	0.48	-0.39	-1.51
USDCAD	1.333	-0.51	-0.14	0.27	0.45	-0.54	-0.18	0.02	0.22
USDSEK	9.090	-3.08	-2.14	-1.18	-0.09	-2.98	-2.27	-1.37	-0.29
USDRUB	66.3	4.25	5.61	8.89	7.89	4.96	5.06	8.34	7.80
USDBRL	3.844	4.88	6.45	11.86	10.32	4.19	4.71	9.53	9.35
USDCNY	6.889	0.37	3.22	3.00	3.06	0.43	2.63	2.64	2.67
USDTRY	5.335	21.79	12.83	11.77	9.95	21.46	12.91	11.72	10.05
USDINR	71.96	7.47	7.47	8.45	7.82	3.95	4.44	6.17	5.93

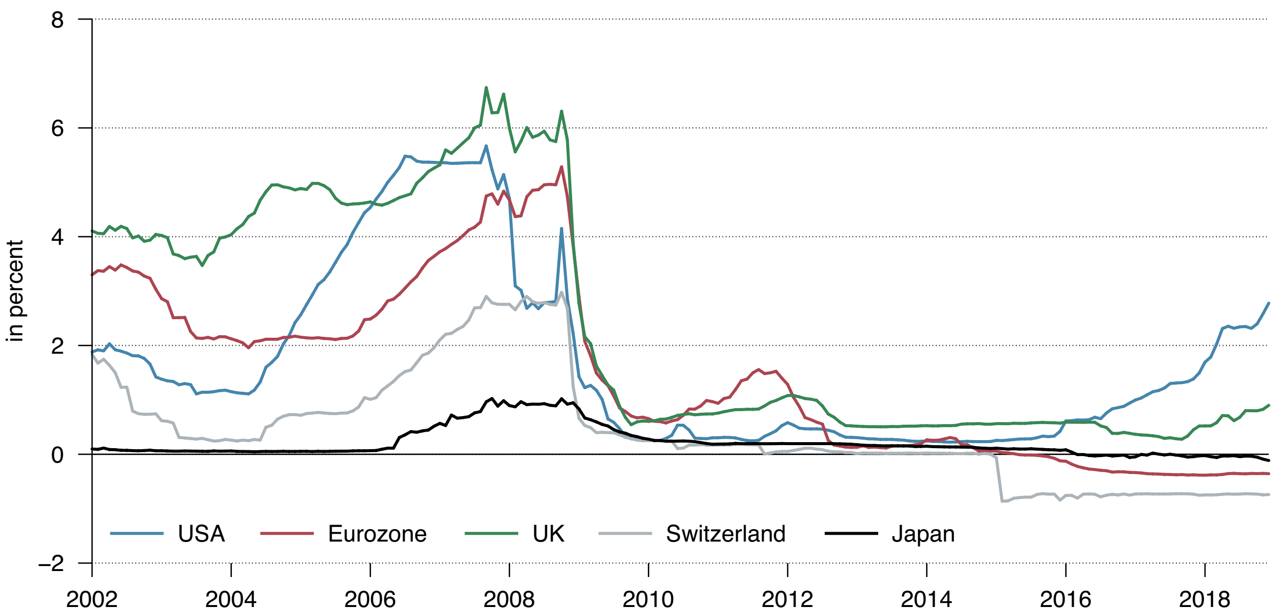
[1] The gap in interest rates between the second currency and the first one, in percentage points; e.g. US dollar minus euro for EURUSD.

Interest rate differentials

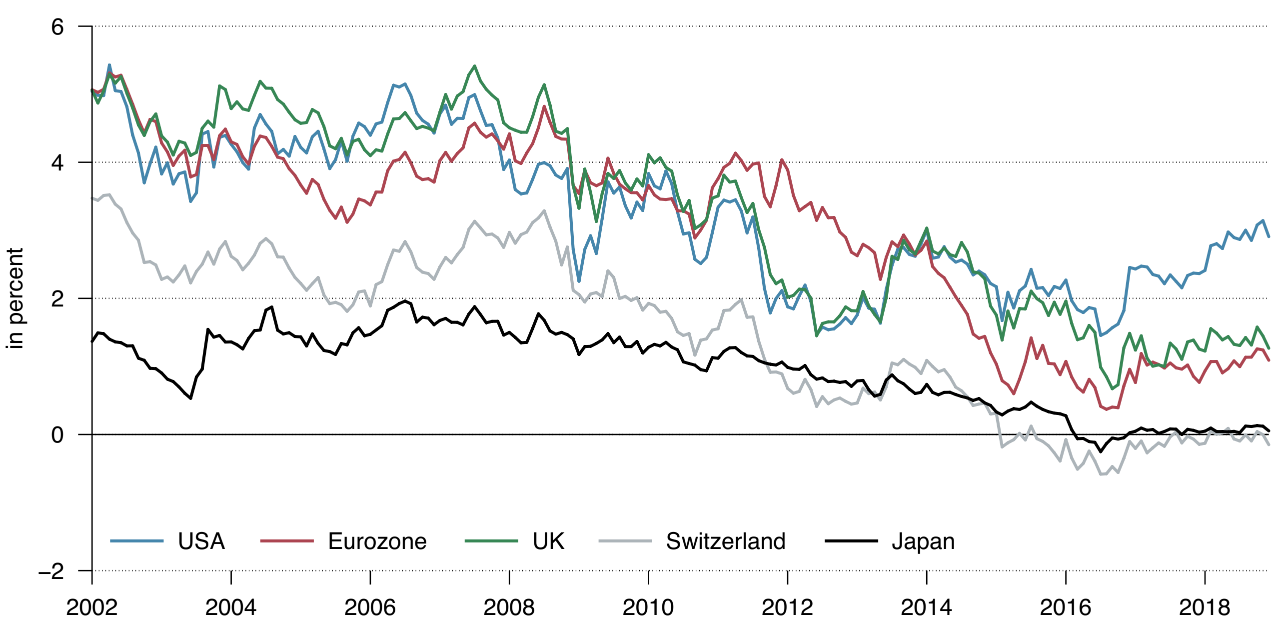


Source: Thomson Reuters Datastream, Wellershoff & Partners

3-month Libor



10-year government bond yields



Source: Thomson Reuters Datastream, Wellershoff & Partners

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FX markets

Despite weaker equity markets, volatility in major currency exchange rates remained low last month. The Swiss franc was relatively strong. It was able to record a solid increase of 3.5 percent versus the Norwegian krone, which suffered from last month's falling oil price. The frank gained around 1.2 percent against the euro. Nevertheless, the franc saw an increase of 0.4 percent against the US dollar.

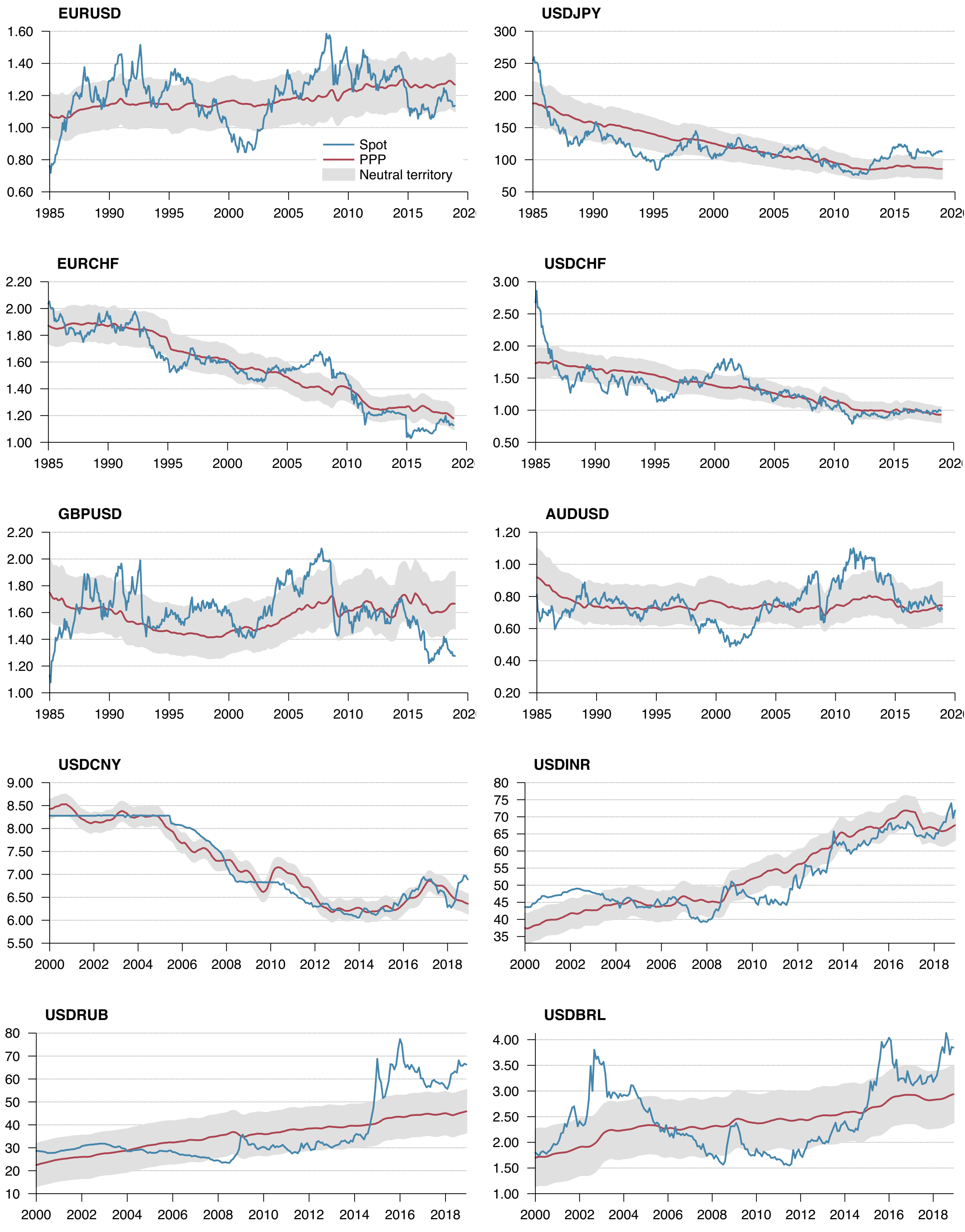
In the emerging markets there have been signs most recently of a recovery in some individual currencies. The Brazilian real, for example, is on the upswing. With populist Jair Bolsonaro elected to the presidency, confidence in the country's financial markets and its companies seems to have revived, at least temporarily. And the woeful Argentinian peso also managed to strengthen in November. However, the economic outlook for this heavily indebted country remains grim. Accordingly, the Argentine currency will probably experience protracted weakness ahead. The Turkish lira lost value again in November and it continues to remain volatile. Since the beginning of the year, the lira has lost about 40 percent of its value against the US dollar.

FX overview

	Current exchange rate	Performance[1]				Purchasing Power Parity[2]		
		YTD	3 months	1 year	5 years	PPP	Neutral territory	Deviation[3]
EURUSD	1.137	-5.3	-2.6	-3.1	-17.4	1.27	1.1 - 1.43	-10.4
USDJPY	113.2	0.5	1.2	-0.4	9.9	85.8	70.7 - 100.8	32.0
GBPUSD	1.266	-6.4	-3.3	-5.0	-22.5	1.67	1.48 - 1.9	-24.0
EURCHF	1.128	-3.6	-0.2	-3.1	-7.8	1.18	1.1 - 1.26	-4.3
USDCHF	0.992	1.8	2.5	-0.1	11.5	0.93	0.81 - 1.05	6.7
GBPCHF	1.256	-4.7	-0.9	-5.0	-13.5	1.55	1.33 - 1.76	-18.9
CHFJPY	114.1	-1.3	-1.3	-0.4	-1.5	92.3	78 - 106.6	23.7
AUDUSD	0.723	-7.6	0.6	-4.3	-19.1	0.74	0.64 - 0.89	-2.9
USDCAD	1.333	6.4	2.5	3.5	25.3	1.19	1.09 - 1.29	11.9
USDSEK	9.090	11.0	1.4	7.6	37.9	7.46	6.45 - 8.48	21.8
USDRUB	66.3	15.2	-3.2	12.0	102.4	45.9	36.6 - 55.2	44.5
USDBRL	3.844	15.9	-7.9	15.5	63.7	2.94	2.39 - 3.49	30.8
USDCNY	6.889	5.8	0.6	4.0	13.5	6.36	6.15 - 6.57	8.3
USDTRY	5.335	40.7	-13.7	38.6	161.0	3.97	3.61 - 4.33	34.3
USDINR	71.96	12.7	-0.3	11.7	16.6	67.5	63.3 - 71.8	6.5

[1] Performance over the respective period of time, in percent.
[2] Purchasing power parity (PPP) is estimated based on the relative development of inflation rates in two currency markets; the neutral territory is determined by +/- 1 standard deviation of the historical variation around the PPP value.
[3] Deviation of the current spot rate from PPP, in percent.

Source: Thomson Reuters Datastream, Wellershoff & Partners



Source: Thomson Reuters Datastream, Wellershoff & Partners

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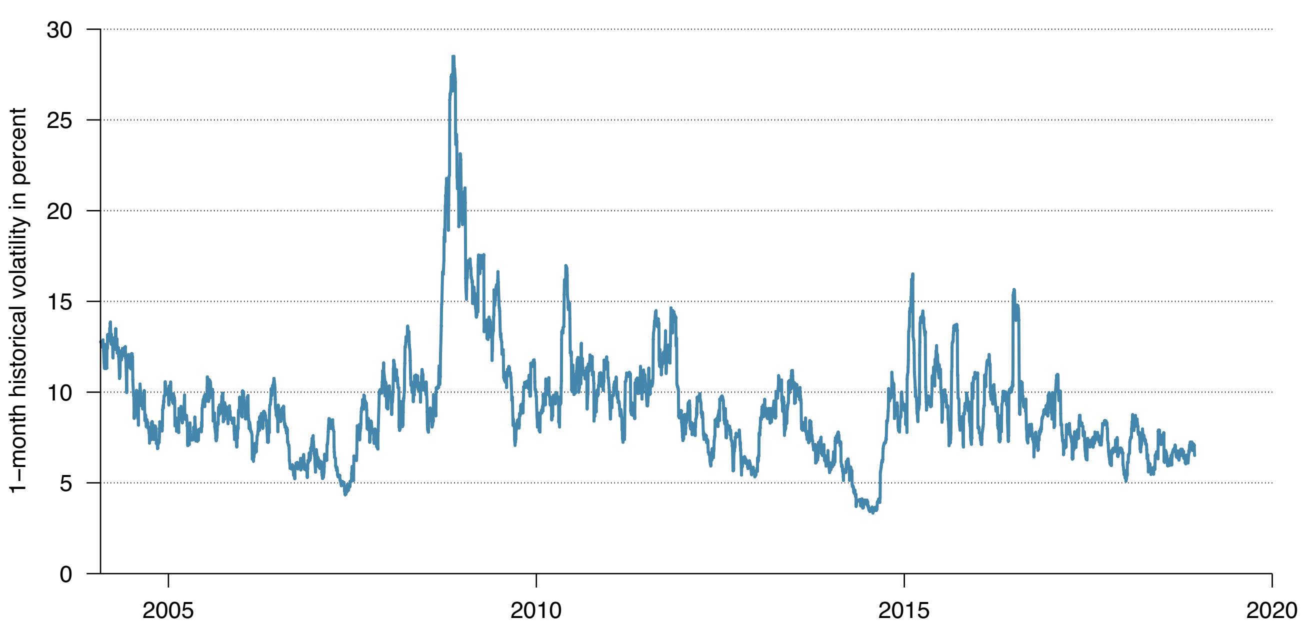
FX volatility

FX volatility overview

	Current exchange rate	Volatility 3 months[1]				Volatility 12 months[1]			
		Historical	Implied	Ø 5 years[2]	Ø 10 years[2]	Historical	Implied	Ø 5 years[2]	Ø 10 years[2]
EURUSD	1.137	6.9	7.1	8.4	10.1	7.1	7.5	8.6	10.6
USDJPY	113.2	5.6	6.7	9.2	10.4	6.5	7.8	9.6	11.1
GBPUSD	1.266	8.9	13.3	8.7	9.7	8.1	11.8	9.1	10.3
EURCHF	1.128	5.1	5.6	5.9	6.4	5.3	6.3	6.5	7.0
USDCHF	0.992	6.0	6.6	8.5	10.0	6.5	7.3	9.0	10.5
GBPCHF	1.256	8.1	12.0	8.9	9.9	7.4	11.1	9.3	10.4
CHFJPY	114.1	6.3	6.8	9.1	11.2	6.6	7.6	9.8	11.9
AUDUSD	0.723	8.6	9.0	9.8	11.7	8.4	9.6	10.4	12.4
USDCAD	1.333	6.6	6.8	7.9	9.3	7.2	7.4	8.2	9.8
USDSEK	9.090	9.0	9.0	9.7	12.1	9.3	9.6	10.1	12.4
USDRUB	66.3	10.9	13.4	16.9	14.7	12.9	14.1	17.1	15.7
USDBRL	3.844	17.7	14.8	15.6	15.3	14.9	14.8	15.9	15.9
USDCNY	6.889	3.5	6.1	4.2	3.3	4.3	6.3	5.0	4.6
USDTRY	5.335	23.6	20.3	14.0	13.3	27.4	21.2	15.0	14.5
USDINR	71.96	8.2	8.0	7.0	9.0	6.0	8.3	8.2	10.1

[1] Annualized volatility, in percent. [2] Average of implied volatility.

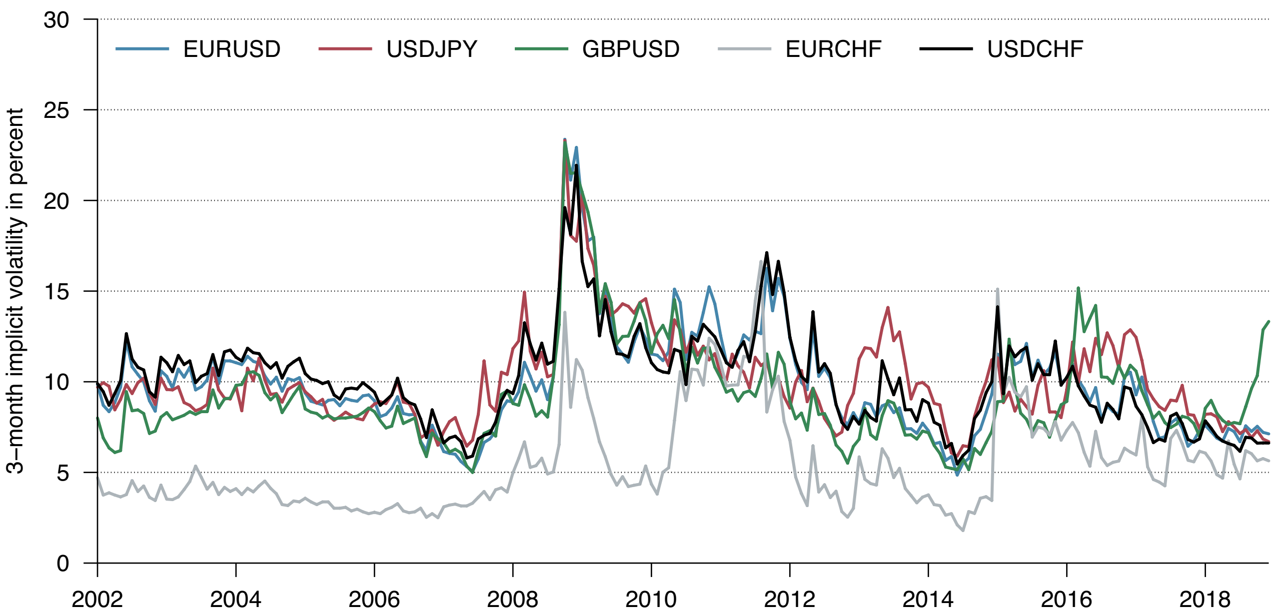
QCAM volatility indicator[3]



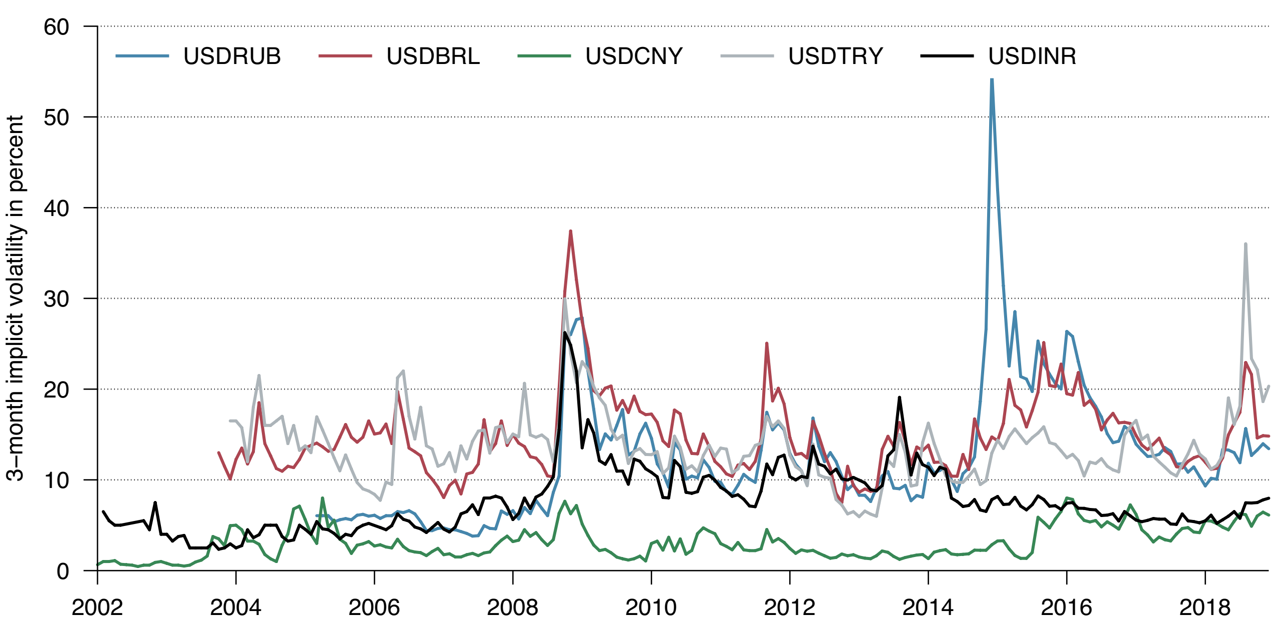
[3] The QCAM volatility indicator measures general volatility in global FX markets; the indicator is based on historical volatility of the main exchange rates, which are weighted by trading volume.

Source: Thomson Reuters Datastream, QCAM Currency Asset Management, Wellershoff & Partners

Implicit volatility



Implicit volatility



Source: Thomson Reuters Datastream, Wellershoff & Partners

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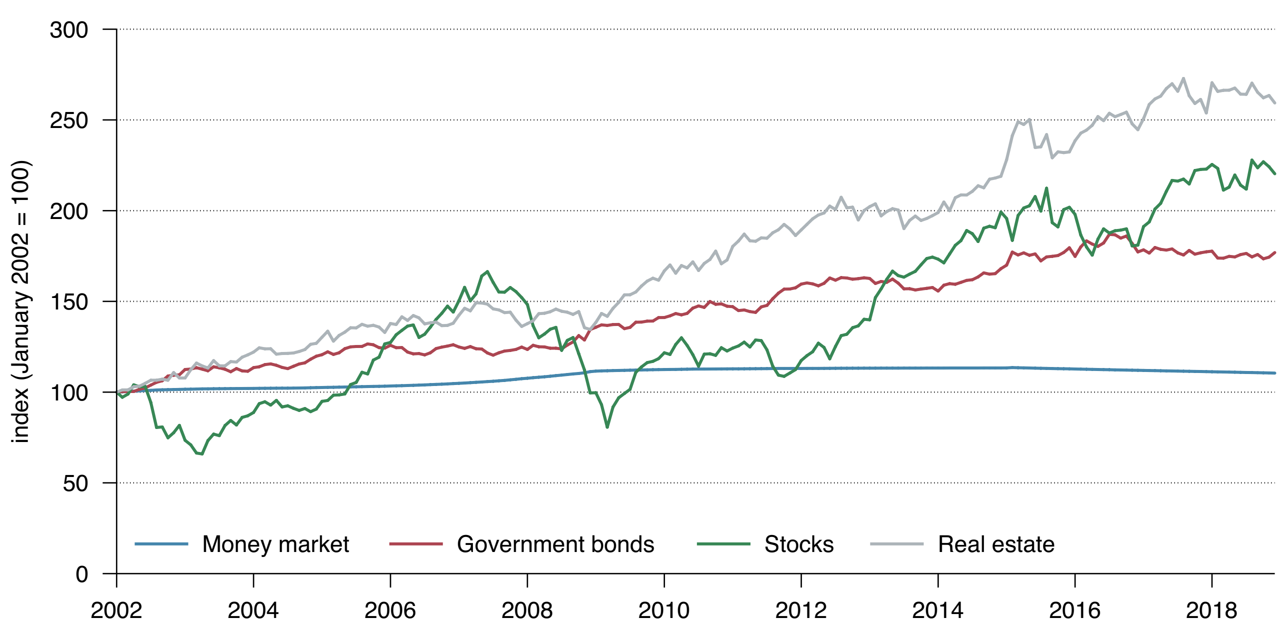
Financial markets

Performance overview

	Performance in either local curreny or USD[1]				Performance in CHF[1]			
	YTD	3 months	1 year	5 years	YTD	3 months	1 year	5 years
Swiss money market	-0.7	-0.2	-0.7	-2.5	-0.7	-0.2	-0.7	-2.5
Swiss government bonds	-0.4	1.4	-0.7	12.8	-0.4	1.4	-0.7	12.8
Swiss corporate bonds	-0.6	0.2	-0.8	10.2	-0.6	0.2	-0.8	10.2
Swiss equities (SMI)	-2.3	-1.0	-2.1	33.2	-2.3	-1.0	-2.1	33.2
European equities (Stoxx600)	-7.0	-6.7	-7.5	33.3	-10.4	-6.9	-10.5	22.9
UK equities (Ftse100)	-6.8	-4.8	-4.4	29.5	-11.2	-5.6	-9.1	12.2
Japanese equities (Topix)	-9.8	-5.3	-9.6	43.8	-8.6	-4.1	-9.2	45.9
US equities (S&P 500)	1.0	-8.3	1.5	65.5	-0.8	-10.5	1.5	48.6
Emerging markets equities	-13.3	-3.5	-9.5	13.2	-14.9	-5.9	-9.5	1.6
Global equities (MSCI World)	-3.8	-8.2	-2.8	40.9	-5.5	-10.4	-2.8	26.5
Swiss real estate	-4.1	-1.9	1.4	32.3	-4.1	-1.9	1.4	32.3
Global real estate	0.0	-1.5	1.1	39.1	-1.8	-4.0	1.1	24.9
Commodities	-6.8	-0.6	-1.5	-34.8	-8.4	-3.1	-1.4	-41.5
Brent oil	-8.1	-21.7	-4.3	-43.5	-9.7	-23.7	-4.3	-49.2
Gold	-4.4	3.6	0.7	0.8	-6.1	1.1	0.7	-9.5

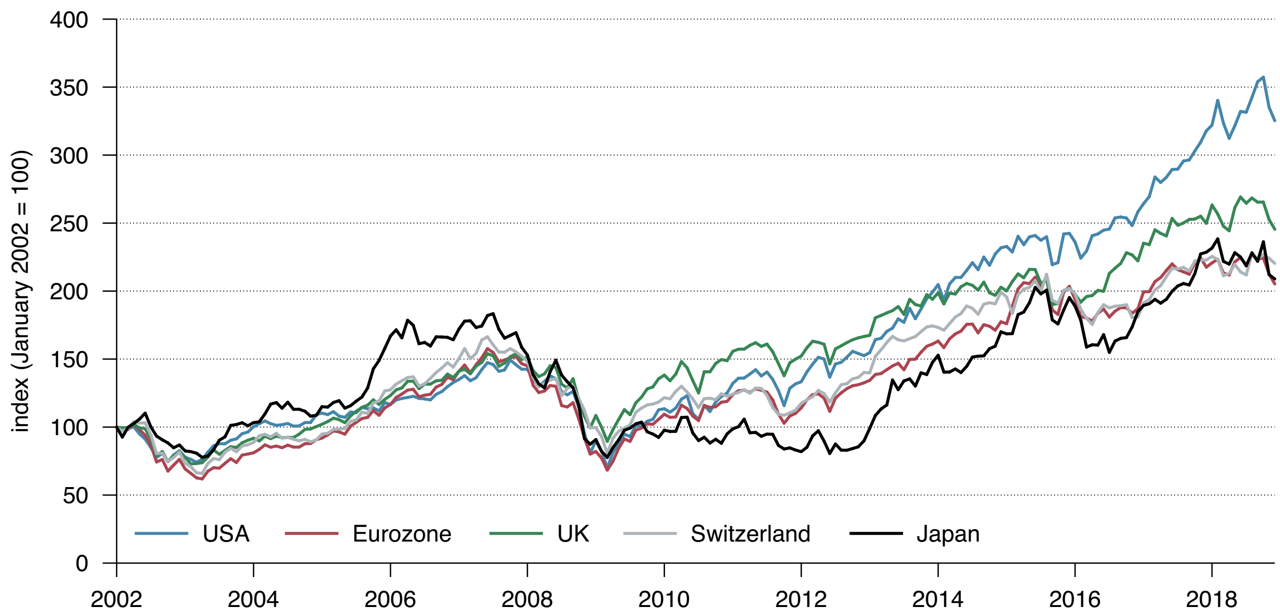
[1] Performance over the respective period of time, in percent.

Performance of selected Swiss asset classes

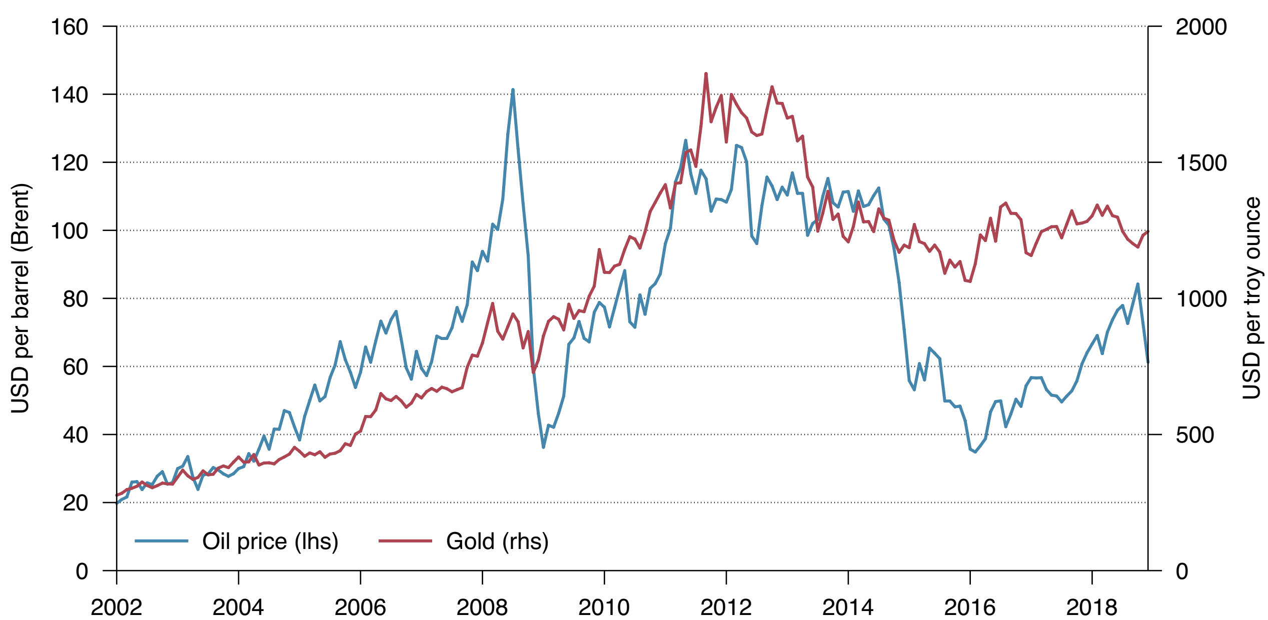


Source: Thomson Reuters Datastream, Wellershoff & Partners

Performance of selected equity markets (in local currency)



Performance of selected commodity prices



Source: Thomson Reuters Datastream, Wellershoff & Partners

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Number of the month

90 days

The US said it would wait 90 days before it raises tariffs on 200 billion dollars worth of Chinese goods to 25 percent. China meanwhile agreed to buy a "significant amount" of US agricultural, energy and industrial goods. The two countries are planning to hold further talks to resolve the problems of intellectual property theft and forced technology transfers. However, it is highly unlikely that China will make significant compromises here.