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MARCH 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 Insight

What a difference the VIX makes

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The euro was 2017's surprise winner, gaining 13.9 percent versus the US dollar while the Japanese yen rose just 3.6 percent and the Swiss franc 6.9 percent. But so far this year, the tables have turned. The euro has risen another 2.4 percent against the dollar, with more volatility, but the yen has surged 5.5 percent and the franc has managed to keep up. What's different this year?

The usual suspects, economic performance and monetary policy, are not the smoking guns in this story. Leading economic indicators softened at the start of the year in all three non-US currency areas, while US leading indicators actually improved. Hardest hit was Switzerland, where the KOF's barometer for economic sentiment dropped sharply in January and only slightly recovered in February. Monetary policy positions have also remained unchanged for all three currencies. The ECB, BoJ and SNB all maintained negative deposit rates and all were reluctant to signal any policy change for this year. The Fed has also stayed put so far this year, but the market has raised the extent of expected rate hikes. Thus, short-term interest rate spreads to the dollar have widened for all three currencies by about the same margin since the start of the year.

The performance of leading indicators and interest rate spreads should actually have favored the dollar this year. However, the dollar's handicap is its rising "twin" deficits and foreign investors' growing reluctance to buy Treasuries. But even the external side does not explain the diverging performance between the euro, the yen and the franc. All three economies enjoy large current account surpluses.

Enter the VIX

What explains the improved performance of the yen and the Franc versus the euro is the return of market uncertainty in early February, best seen in the sharp rise of the VIX, an index that measures implied US equity market volatility. The rise in uncertainty is a global phenomenon and affects all markets, but in different ways. In FX, the impact of uncertainty depends on the main character of each currency.

- The yen, for example, is a classic carry currency, meaning investors fund in yen to invest in riskier, higher-yielding currencies and asset classes. The yen carry trade depends on investors' risk perception. Given

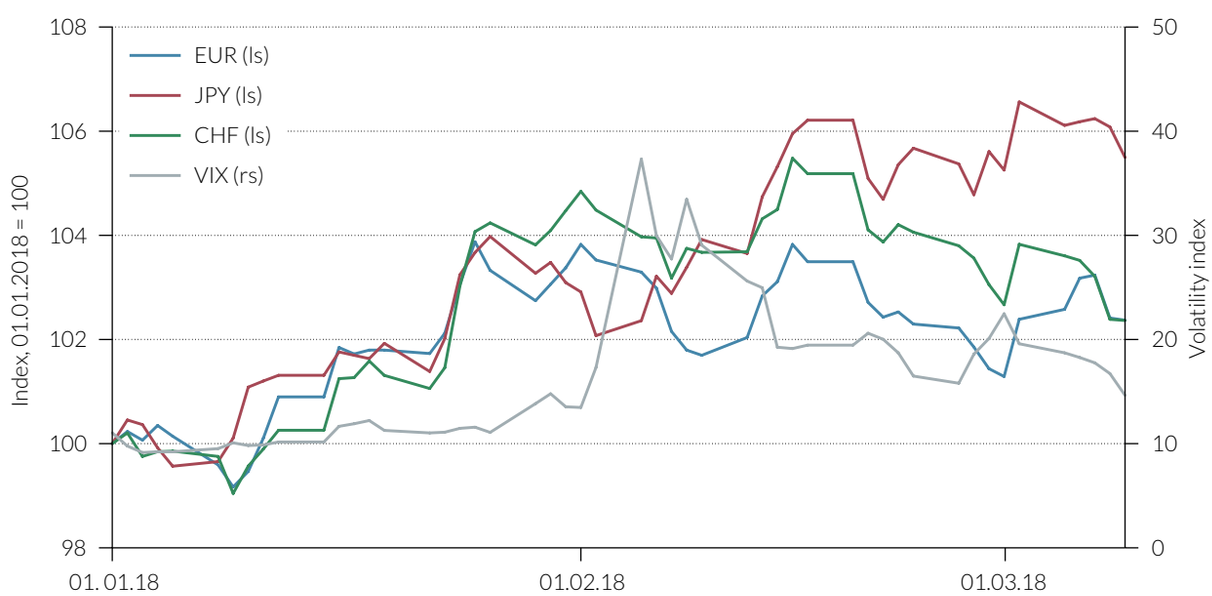
the long period of stable low volatility, substantial short yen carry trades have been built up until early this year. The sudden surge of market uncertainty caused many investors to unwind these positions.

- The Swiss franc is also used as funding currency, but its safe haven status is more important, attracting foreign capital in times of increased uncertainty. The Franc's safe haven status was particularly strong during the euro crisis, but also matters in times of increased global uncertainty, as is currently the case.
- In contrast, the euro has lost its safe haven status thanks to its own crisis. To be sure, uncertainty surrounding the euro has declined substantially, but that has not yet made it "safe" again, and as a carry currency it was never as popular as the yen.

Uncertainty likely to persist

A recession or a financial crisis are not the most likely outcomes this year, but market perceptions of inflation and interest rate risk will probably rise against the backdrop of an aging business cycle. Additional uncertainty comes from politics and policy-making, most notably US fiscal and trade policy. Thus, the era of persistently low volatility is probably over. Instead of hugging a level of 10, the VIX will probably move to between 15 and 20, with occasional spikes above 30. This would be particularly good news for the yen. Not all carry positions have been unwound yet and new positions are unlikely to be added. Higher uncertainty should also continue to benefit the Swiss franc, but this also depends on the euro and the Swiss National Bank. The recovery of the euro and the rise of EURCHF from around 1.07 to 1.17 last year were welcome news for the SNB. A reversal back towards parity would probably meet SNB resistance.

The Euro, Yen and Swiss Franc versus the Dollar and the VIX



Source: CBoE, QCAM Currency Asset Management

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The macro perspective

Jerome Powell and a case for higher interest rates

The market volatility that began about a month ago was initially attributed to concerns about higher US inflation. Adding to the turbulence is the argument that, even if higher US inflation does not materialise soon, a stronger economy will in any case require higher real interest rates. As we transition to a period of higher rates, the Fed is not being helped by unorthodox White House policies on fiscal deficits and trade.

The argument that, because they are susceptible to various leads and lags, markets are not always efficient was reinforced when new Fed Chairman Jerome Powell delivered his first report to Congress on February 27. Despite markets having had ample time to assess the incoming data since December, they only moved after Powell confirmed their expectations: a large tax cut will boost the economy over the next year or two, even though the US economy is already growing above potential.

An economy that expands above trend is likely to require higher interest rates at some point. Thus, it should come as no surprise that rates in the US are rising. Market participants need not wait until a central banker tells them what they can see for themselves. After all, they have access to the same or very similar data that the central banks look at.

On turbulence and volatility

We think the increased volatility and turbulence in the equity and bond markets in recent weeks are probably evidence that we are transitioning from one kind of equilibrium to another. We seem to be moving from a phase where rates were held artificially low to one where the GDP data strongly suggests that central banks should be tightening. It has long been recognised that the time will eventually come for "quantitative tightening". But to expect that central banks can guarantee that this process will be smooth and gradual is to assume too much, in our view (see February's FX Monthly, "What, no Greenspan-Put?"). We reiterate that investors should prepare for more market turbulence and volatility ahead, not less.

No help from the White House on fiscal policy…

In 1982, when US fiscal policy was expansionary and monetary policy was very tight, Alan Blinder, a Princeton economist, wrote a seminal paper arguing that coordination of monetary and fiscal policy could achieve better outcomes when the Fed and the Treasury were pulling in the same direction. Today, however, we appear to be heading into a suboptimal phase for US monetary and fiscal policy.

The Trump administration's USD 1.5 trillion cut in corporate taxes, announced in December, will help to keep the federal deficit inflated for years. Our estimates show that the US federal budget deficit could deteriorate to 6% of GDP by 2027. According to the textbooks, such a large fiscal deficit over such a long period of time would push up US interest rates and at the same time weaken the US dollar.

… or on inflation

A weaker dollar is what the White House appears to want, at least for the steel and aluminium industries. On March 2, the President Trump tweeted his view that "trade wars are good," and "easy to win." These remarks referred to

the White House announcement it would impose a 25 percent tariff on imported steel and a 10 percent tariff on imported aluminium. As we go to press, these tariffs have not yet been signed into law and frantic lobbying efforts were underway by various factions concerned about their effects. But their intent is clear: the White House does not appear to believe that some key sectors of the US economy are competitive at the current exchange rate.

The tariff announcement came out of the same White House policy shop that pulled the US out of the 12-nation Trans-Pacific Partnership and which wants the US to renegotiate the North American Free Trade Agreement, or simply to withdraw from it. If two dots make a trend, here we have at least three on US trade policy—tariffs, TPP and NAFTA. They point to an administration that evidently believes in the utility of "import substitution." This approach, as history instructs, renders an economy less competitive because producers and consumers are forced to switch to the more expensive local products.

For a variety of reasons, the adoption of a policy of import substitution tends to be associated with weaker currencies. One reason is that the more expensive, protected local products can only be sold abroad at a steeper discount. Another is that, by definition, a policy of import substitution rejects the conventional economic wisdom that nations benefit from free trade. We worry that a US administration that abandons free trade in favour of case-by-case transactional "deals" will be unable to erect a coherent economic policy framework.

The Fed, which has been taking a tactical, data-dependent approach to policy, now faces a highly unorthodox, unpredictable White House just as the central bank has essentially reached its employment and inflation targets. The potential disharmony between US fiscal and monetary policies now also reinforces the case for higher interest rates.

Forward-looking GDP indicators for the US show above-trend growth

Source: Thomson Reuters Datastream, Wellershoff & Partners

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FX market talk

The yen's gator jaw is closing

Regular FX Monthly readers know that we often point to the Japanese yen as one of the most undervalued currencies against the majors. But for several months now USDJPY has been edging back in the direction of its purchasing power parity value. The yen still has a long way to go, of course, but the point about freely traded currencies is that they cannot ignore the fundamentals forever. Someday, the gator's jaw must close.

The metaphor of alligator jaws originated in the technical analysis of trends in emerging markets FX. Given the large inflation differentials common in emerging versus developed economies, it is not unusual to see large purchasing power parity (PPP) gaps open up quickly for currencies such as the Brazilian real, South African rand, Turkish lira and Russian rouble against the US dollar or the euro. Typically, such a gap tends to widen like an alligator's jaw as the higher money market interest rates in the local currency entice more investors to exchange some of their low-yielding dollars for more exotic money markets.

The resulting inflow of money into the emerging market, and the subsequent overvaluation of the currency in question, tends to exacerbate trade and current account imbalances for the emerging market. At some point, we begin to see first evidence of a potential reversal – the emergence of a so-called alligator tooth, which points in the direction of the PPP rate. The alligator's gaping jaw might first narrow or grow a little wider, but in emerging FX the more likely outcome is that it suddenly snaps shut, abruptly returning to its PPP level, and even overshooting as leveraged trades unwind.

The yen is different

The yen, of course, is no emerging market currency. Japan's economy enjoys a current account surplus and its money market interest rates are around 200bps lower than those for US money markets. Based solely on interest rate differentials – where US rates offer better relative returns than do Japanese rates, even ten years out – money should be flowing from the yen into the USD. And that is exactly what had been happening for a while. The potential for the Federal Reserve to raise rates at a faster pace than the Bank of Japan, should, according to the textbooks, further reinforce the dollar against the yen. But, the opposite has been happening lately. At the end of 2017, USDJPY was at 112.7, strengthening to 109.2 at the end of January 2018, then to 106.7 at the end of February. In the opening days of March, the yen strengthened further, to below 106.

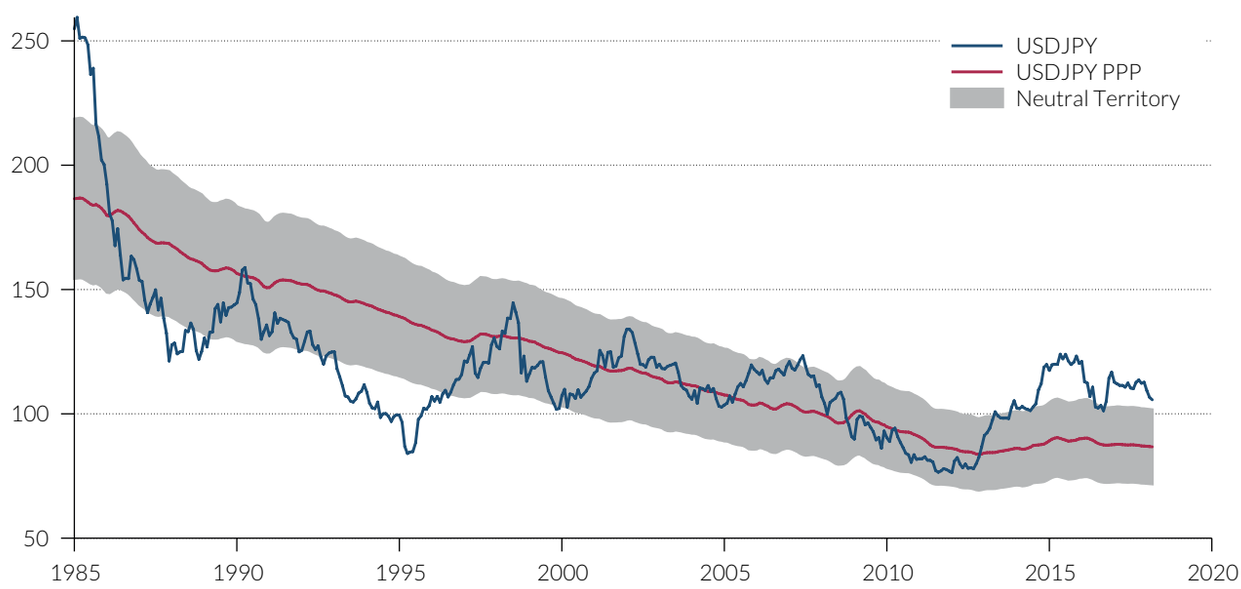
Clearly, there is more to USDJPY than just interest rate differentials. One important factor, in our view, is that the yen had simply become too cheap. Our own PPP estimate for USDJPY is 87 – which is a differential of more than 20 percent. That's not a gap that will stay open indefinitely in a currency pair of two advanced economies. Japan is growing economically, too. It recently managed to achieve its eighth consecutive quarter of growth, the longest period of consecutive quarterly growth since 1989. Given our calculation of Japan's trend growth rate – that is, its potential growth rate over the medium term – of just 0.8 percent, it is impressive that the Japanese economy achieved twice that growth rate in 2017 and looks on track to beat trend again this year. All of this is

reason enough to bring home some of the money held abroad – which is what an appreciating yen suggests has been happening.

The other side of the trade

That the yen should be strengthening while US rates are higher, and markets expect them to increase at a faster pace than Japanese rates, is also an indication that all is not well with the US dollar. In our Macro perspective, on page 3, we highlight that the White House is pursuing some unorthodox economic policies. At the very least, we publicly heard – at the World Economic Forum in Davos this past January – Trump and his Treasury Secretary, Steven Mnuchin, contradict each other on where the White House stands on the issue of a strong dollar. The markets appear to have drawn their own inferences. Over the past year, the US dollar has fallen by around 10 percent, on a trade-weighted basis. The recent strength of the yen against the dollar, therefore, probably also partially reflects investors' uncertainty about what exactly those people in Washington are up to. The White House has become a place where policies are announced by tweet in the morning, contradicted by tweet in the afternoon, with the names of the staffers for and against the policy leaked to the media throughout the day. Under these circumstances, diversifying away from the US dollar – even into lower-yielding currencies – would seem to be a prudent course of action, in our view, to avoid getting caught in the gator's jaw snapping shut.

USDJPY points towards PPP again



Source: Thomson Reuters Datastream, Wellershoff & Partners

Economic activity

The incoming economic data continue to shine. The global economy expanded again in February, while US GDP growth was robust in the fourth quarter of 2017, although, at 0.6 percent quarter-on-quarter, it was slightly lower than a year ago. Currently, we see no signs of a slowdown in growth momentum in the US, and sentiment among businesses and consumers also remains decidedly upbeat. Companies are looking forward to full order books due to a surge in incoming orders in recent months, and consumers are extremely optimistic about the current economic situation, especially due to the strong US labour market and recent robust wage growth.

In contrast to the US, sentiment in the Eurozone seems to have cooled somewhat. In the beginning of the year, the business climate indicator for the Eurozone posted a slight decline. Nonetheless, the index remains at a very high historical level. Accordingly, the Eurozone looks set to continue to grow robustly in the coming months.

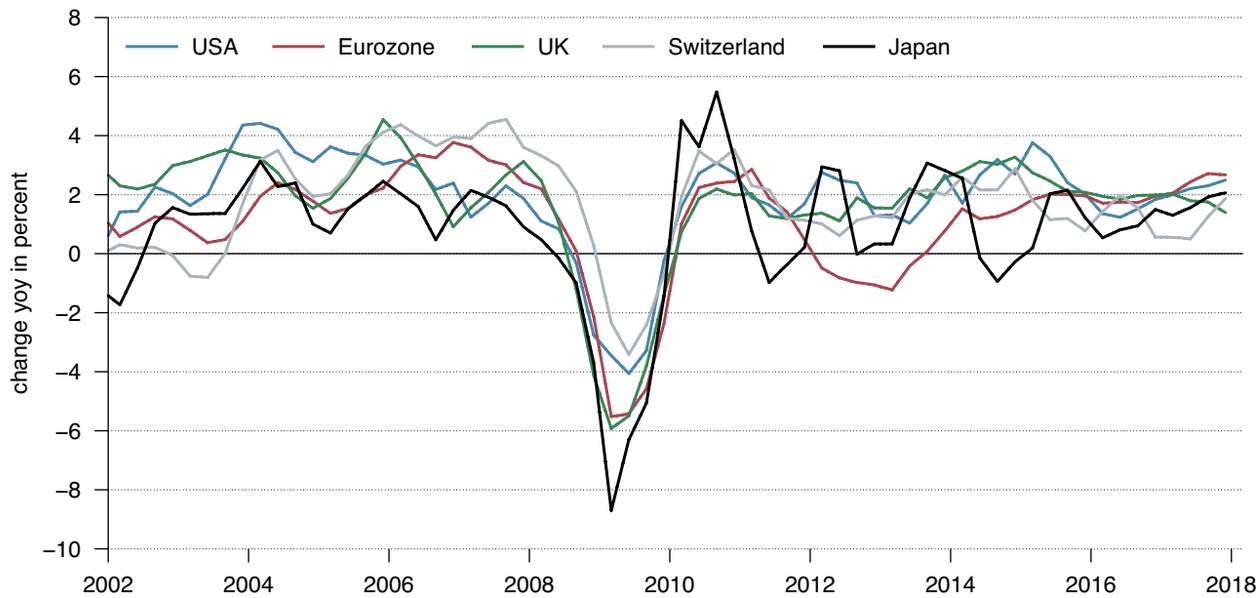
Growth overview

	Trend growth[1]	Real GDP growth[2]				W&P economic sentiment indicators[3]			
		Q2/2017	Q3/2017	Q4/2017	Q1/2018	11/2017	12/2017	1/2018	2/2018
United States	1.7	2.0	2.2	2.3	2.5	3.7	3.6	4.0	4.3
Eurozone	1.0	2.1	2.4	2.7	2.7	3.4	3.6	3.6	3.4
Germany	1.4	2.1	2.3	2.7	2.9	3.8	4.1	4.2	3.9
France	0.7	1.2	1.9	2.3	2.5	2.5	2.7	2.6	2.3
Italy	0.2	1.3	1.6	1.7	1.6	2.0	2.0	1.8	2.0
Spain	1.6	3.0	3.1	3.1	3.1	3.1	3.0	3.1	3.0
United Kingdom	1.8	2.0	1.8	1.8	1.4	2.6	3.1	3.0	2.8
Switzerland	1.5	0.6	0.5	1.3	1.9	2.4	2.4	2.4	2.6
Japan	0.4	1.3	1.6	1.9	2.1	2.9	2.9	2.9	2.9
Canada	1.6	2.3	3.7	3.0	2.9	1.3	1.6	2.0	1.9
Australia	2.4	1.9	2.0	2.9	2.4	2.9	3.0	3.2	3.1
Brazil	1.4	-0.5	0.8	1.5	2.2	2.2	1.6	0.9	2.0
Russia	0.1	0.5	2.5	1.8	–	1.3	1.8	1.9	0.1
India	7.7	6.1	5.7	6.5	7.2	6.5	6.8	6.4	6.4
China	7.4	6.9	6.9	6.8	6.8	7.1	7.4	7.4	7.4
Advanced economies[4]	1.4	2.2	2.1	2.3	2.4	3.6	3.7	3.9	4.0
Emerging economies[4]	6.0	5.1	5.3	5.6	5.8	5.4	5.8	5.6	5.5
World economy[4]	3.5	3.7	3.7	4.0	4.1	4.7	4.9	4.9	4.9

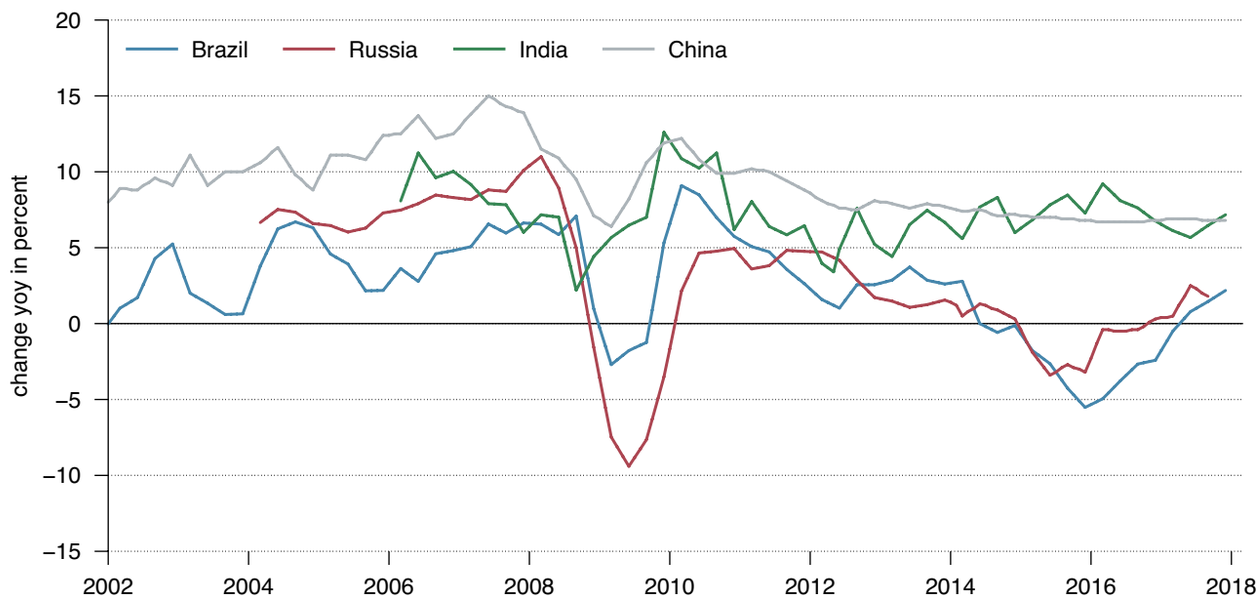
[1] Current year-on-year trend growth rate of real GDP, in percent, according to the proprietary trend growth model of Wellershoff & Partners.
[2] Year-on-year growth rate, in percent.
[3] Wellershoff & Partners economic sentiment indicators are based on consumer and business surveys and have up to 6 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

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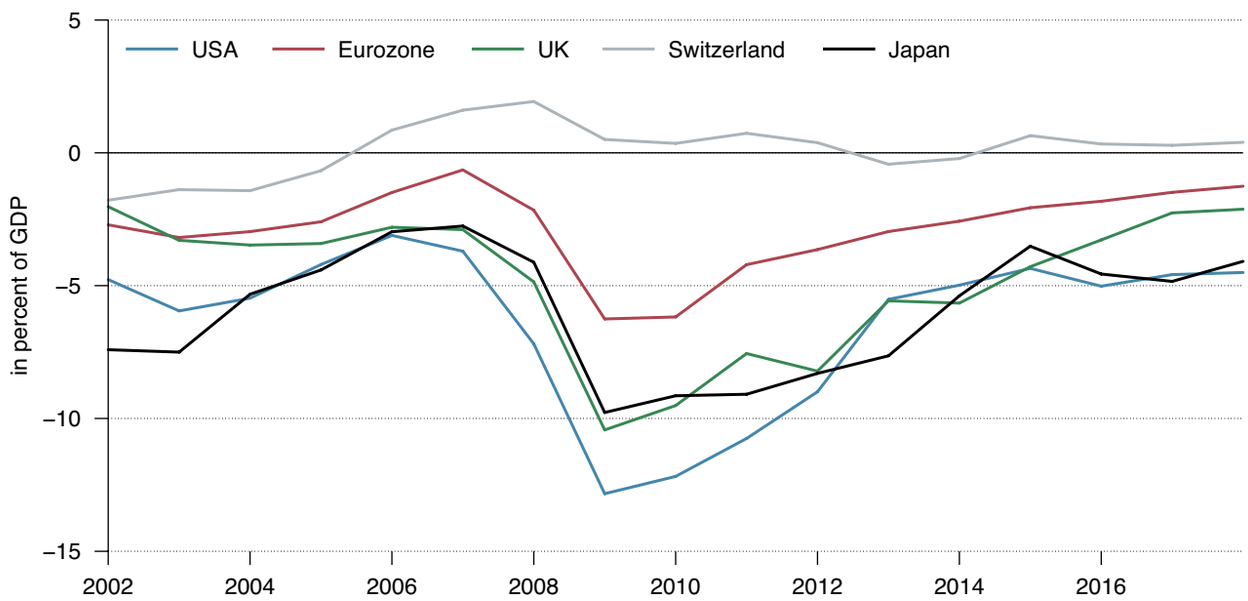
Economic indicators

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	23.9	-2.3	-2.6	105.4	106.1	-4.9	-4.5	5.6	4.1
Eurozone	16.3	16.0	3.6	4.0	108.9	107.1	-2.2	-1.3	10.7	8.6
Germany	4.7	4.7	7.8	8.0	78.8	69.1	0.5	1.5	6.4	5.4
France	3.4	3.3	-1.0	-1.7	119.7	124.6	-3.6	-2.8	9.8	8.6
Italy	2.6	2.4	2.0	2.9	155.4	155.2	-2.6	-1.6	11.9	11.0
Spain	1.7	1.7	1.4	1.6	114.8	116.0	-5.2	-2.4	21.9	16.3
United Kingdom	3.6	3.2	-5.3	-4.4	113.8	120.3	-4.2	-2.1	5.7	2.3
Switzerland	0.9	0.8	10.2	10.7	44.8	43.6	0.1	0.4	3.2	3.2
Japan	6.3	6.0	2.5	3.9	215.6	223.3	-5.2	-4.1	3.4	2.4
Canada	2.2	2.1	-3.1	-2.9	88.9	87.7	-1.3	-1.8	6.8	5.9
Australia	1.8	1.8	-3.0	-2.4	37.1	42.3	-2.6	-1.8	5.8	5.5
China	14.2	15.5	1.9	1.2	42.0	50.8	-2.4	-3.7	4.0	–
Brazil	2.8	2.6	-2.7	-1.8	71.3	87.7	-7.4	-9.3	9.3	12.2
India	2.8	3.1	-1.2	-1.5	69.0	67.1	-6.8	-6.2	–	–
Russia	2.2	1.8	2.8	3.2	15.5	17.7	-2.3	-1.5	5.4	5.2

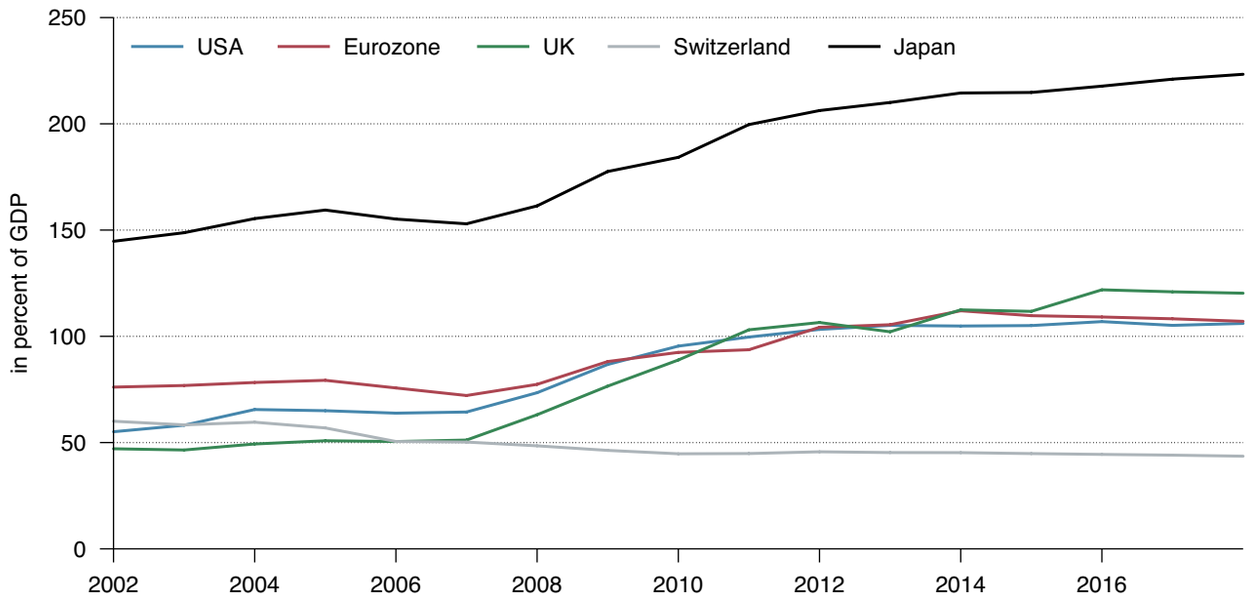
[1] In percent; calculations based on market exchange rates. [2] In percent of nominal GDP. [3] In percent.

Budget deficits in advanced economies

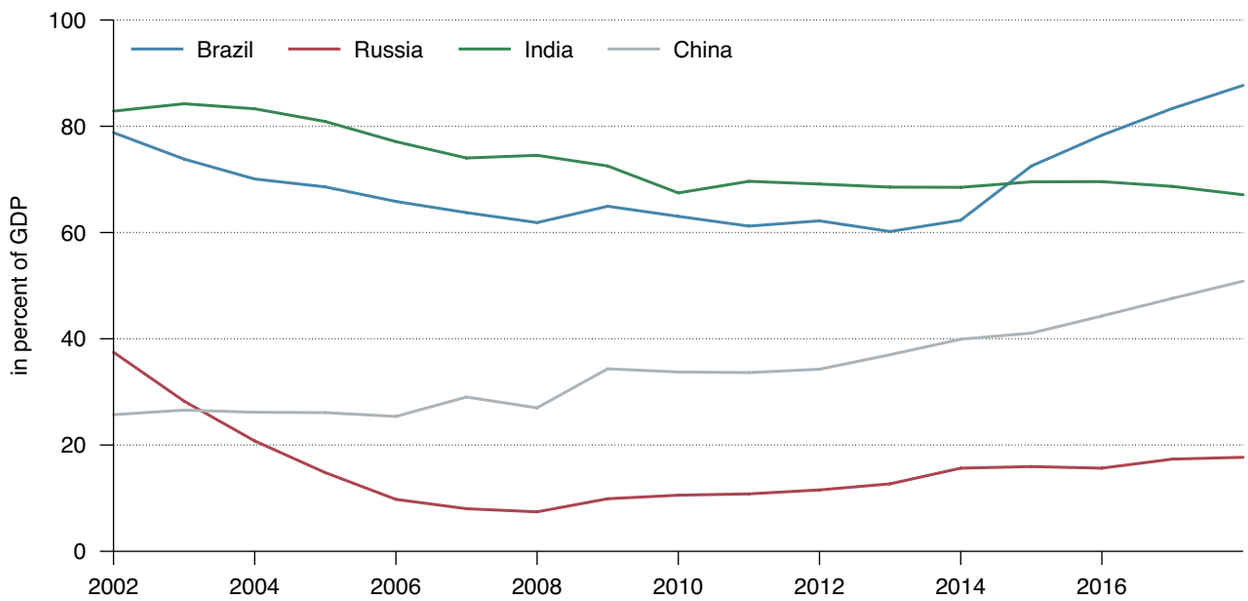


Source: Thomson Reuters Datastream, Wellershoff & Partners

Public debt in advanced economies



Public debt in emerging economies



Source: Thomson Reuters Datastream, Wellershoff & Partners

Inflation

Regardless of the extremely buoyant economy and the ECB's still very expansionary monetary policy, inflation in the Eurozone fell again in February, to 1.2 percent, down from 1.3 percent in January. As a result, the inflation rate has moved farther from the European Central Bank's target and is now at its lowest level since the end of 2016. However, the decline in February's inflation rate is largely attributable to a base effect of the oil price, which is expected to fade over the next few months. In Switzerland, too, according to the latest data from January, price growth declined by 0.1 percent compared to December. This dip in inflation growth is due, in particular, to the lower prices for outpatient medical services in hospitals. However, the currently buoyant economy in Switzerland might be reflected in a gradual acceleration in inflation over the coming months.

In contrast, a rise in consumer prices was recorded in Japan. With January's year-over-year price growth of 1.3 percent, the world's third-largest economy now seems to have finally overcome its deflationary problems. The inflation target of 2 percent declared by the Bank of Japan now appears to be within reach.

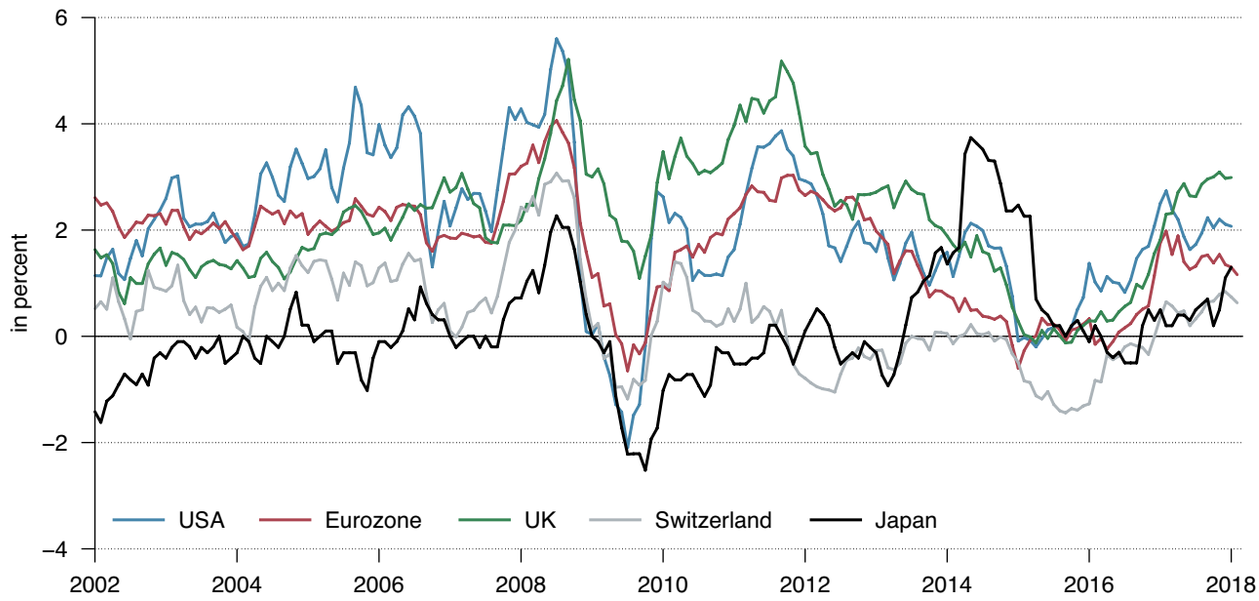
Inflation overview

	Ø 10 years[1]	Inflation[2]				Core inflation[3]			
		11/2017	12/2017	1/2018	2/2018	11/2017	12/2017	1/2018	2/2018
United States	1.7	2.2	2.1	2.1	–	1.7	1.8	1.8	–
Eurozone	1.4	1.5	1.4	1.3	1.2	0.9	0.9	1.0	1.0
Germany	1.3	1.8	1.6	1.6	1.4	1.7	1.6	1.6	1.5
France	1.1	1.2	1.2	1.3	1.2	–	–	–	–
Italy	1.4	0.9	0.9	0.9	0.6	0.4	0.4	0.6	0.7
Spain	1.3	1.7	1.1	0.6	1.1	0.8	0.8	0.8	–
United Kingdom	2.4	3.1	3.0	3.0	–	2.7	2.5	2.7	–
Switzerland	0.1	0.8	0.8	0.7	0.6	0.6	0.7	0.5	0.5
Japan	0.3	0.5	1.1	1.3	–	0.3	0.4	0.4	–
Canada	1.6	2.1	1.9	1.7	–	1.3	1.2	1.2	–
Australia	2.4	1.9	1.9	–	–	1.9	1.9	–	–
Brazil	6.1	2.8	3.0	2.9	2.8	3.9	3.8	3.4	–
Russia	8.5	2.5	2.5	2.2	2.2	2.3	2.1	1.9	1.9
India	7.7	4.9	5.2	5.1	–	–	–	–	–
China	-0.3	-0.6	-0.3	-1.0	1.5	2.3	2.2	1.9	2.5
Advanced economies[4]	1.5	1.8	1.8	1.8	1.7	1.4	1.4	1.4	1.4
Emerging economies[4]	3.3	1.3	1.6	1.1	2.9	2.5	2.4	2.1	2.5
World economy[4]	2.3	1.6	1.7	1.5	2.3	1.6	1.6	1.5	1.7

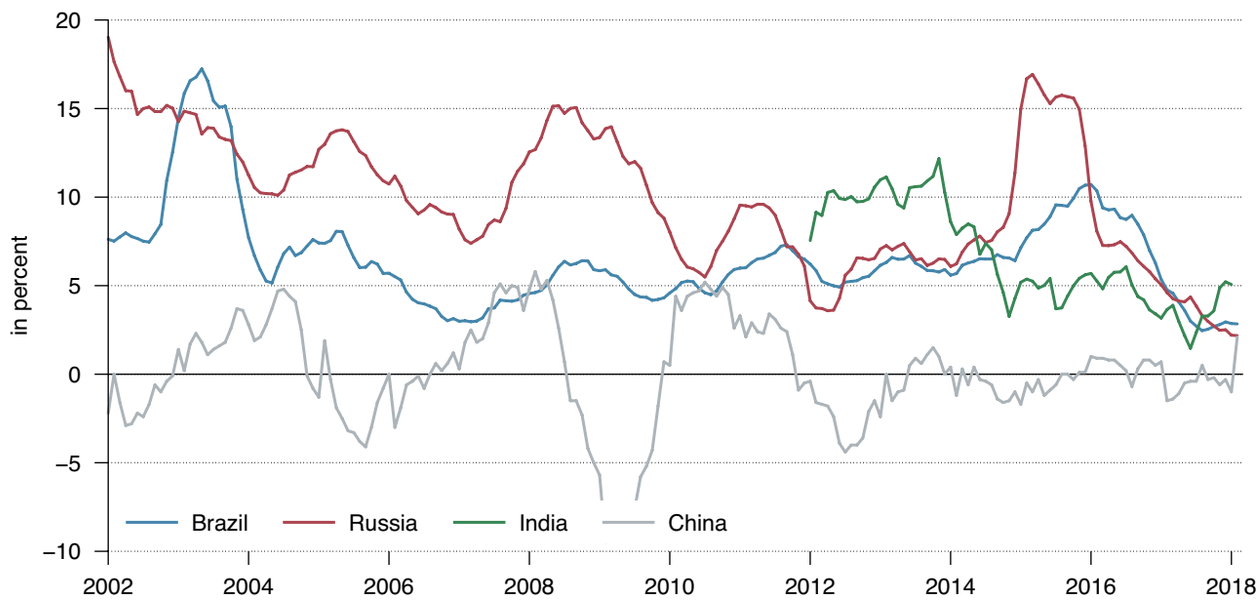
[1] Average annual consumer price inflation, in percent.
[2] Year-on-year change of the consumer price index (CPI), in percent.
[3] Core inflation is a measure of inflation that excludes certain items that can experience volatile price movements, such as energy and certain food items; year-on-year change 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

Consumer price inflation in advanced economies



Consumer price inflation in emerging economies



Source: Thomson Reuters Datastream, Wellershoff & Partners

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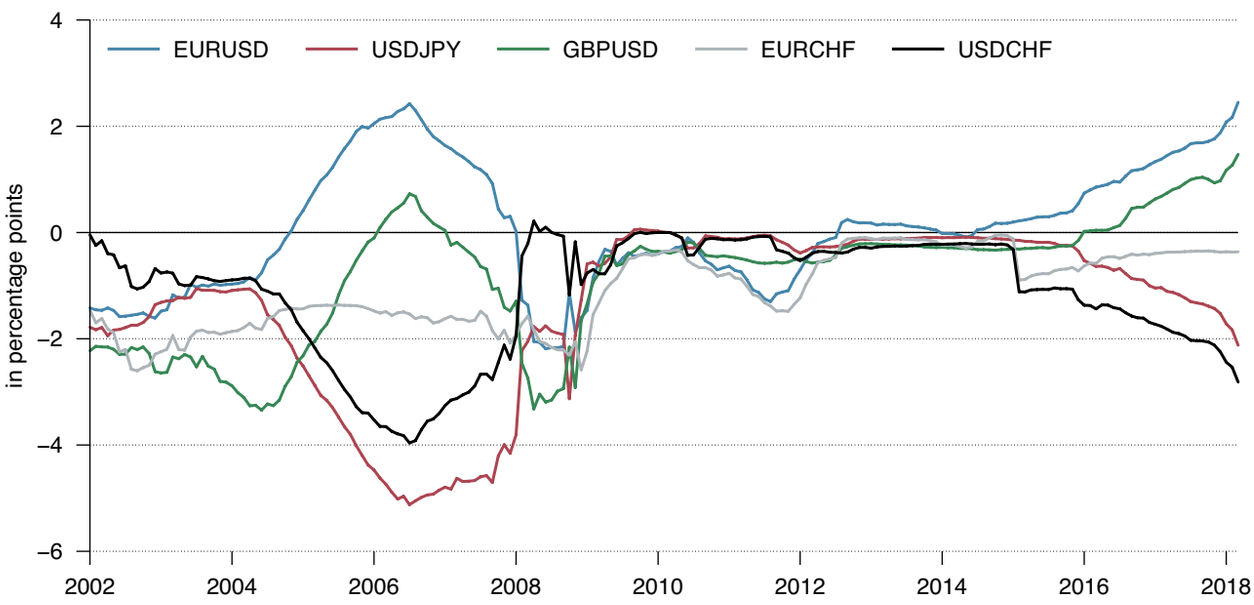
Interest rates

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	1.233	2.43	1.43	0.71	0.02	2.77	1.91	0.97	0.18
USDJPY	106.1	-2.11	-1.13	-0.56	-0.51	-2.41	-1.69	-0.86	-0.77
GBPUSD	1.383	1.46	0.77	0.12	-0.34	1.60	1.10	0.20	-0.31
EURCHF	1.170	-0.37	-0.41	-0.38	-0.66	-0.28	-0.40	-0.40	-0.75
USDCHF	0.949	-2.80	-1.84	-1.09	-0.68	-3.05	-2.32	-1.37	-0.93
GBPCHF	1.312	-1.34	-1.07	-0.97	-1.02	-1.45	-1.22	-1.16	-1.24
CHFJPY	111.8	0.69	0.71	0.53	0.17	0.64	0.63	0.50	0.16
AUDUSD	0.778	0.56	-0.37	-1.39	-2.42	0.95	0.26	-0.87	-1.85
USDCAD	1.294	-0.37	-0.18	0.49	0.51	-0.49	-0.60	0.24	0.28
USDSEK	8.269	-2.51	-1.67	-0.62	0.26	-2.77	-2.01	-0.79	0.09
USDRUB	57.1	4.19	9.03	9.30	8.28	3.73	7.74	8.71	8.26
USDBRL	3.265	4.88	10.40	11.25	10.31	3.91	8.38	10.19	9.85
USDCNY	6.332	2.68	3.17	3.48	3.08	2.22	2.24	3.05	2.70
USDTRY	3.824	11.89	10.80	9.99	9.72	12.45	10.59	9.83	9.86
USDINR	65.09	7.47	7.47	8.67	7.78	4.47	4.48	6.49	5.91

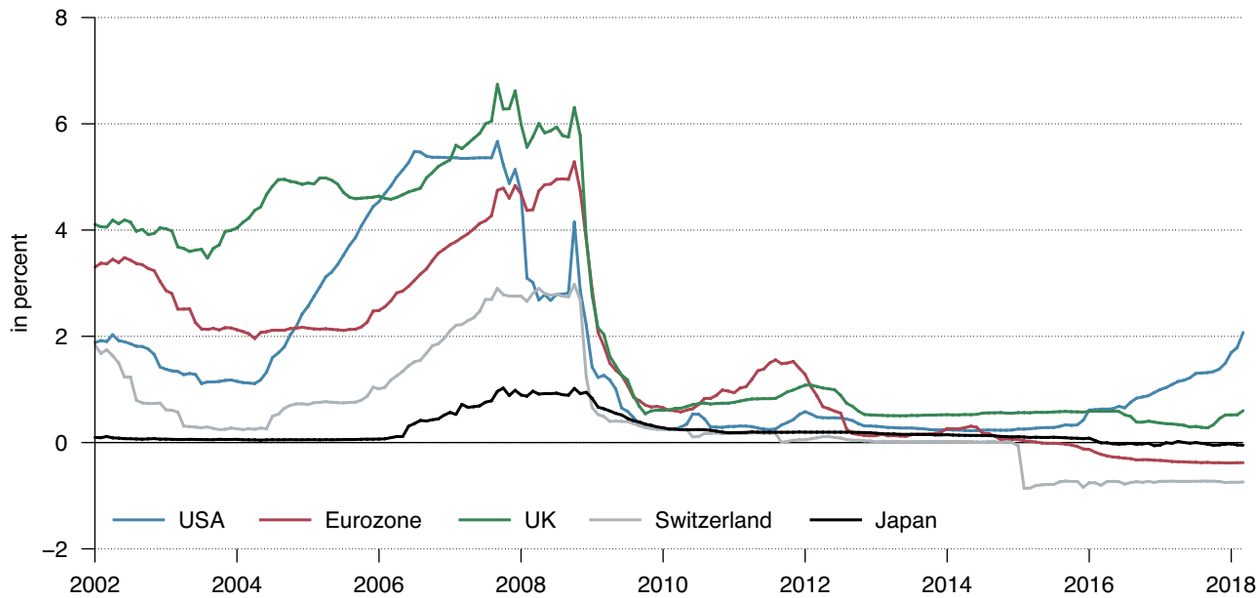
[1] The gap in interest rates between the second currency and the first one, in percentage points; e.g. US dollar minus euro for EURUSD.

Interest rate differentials

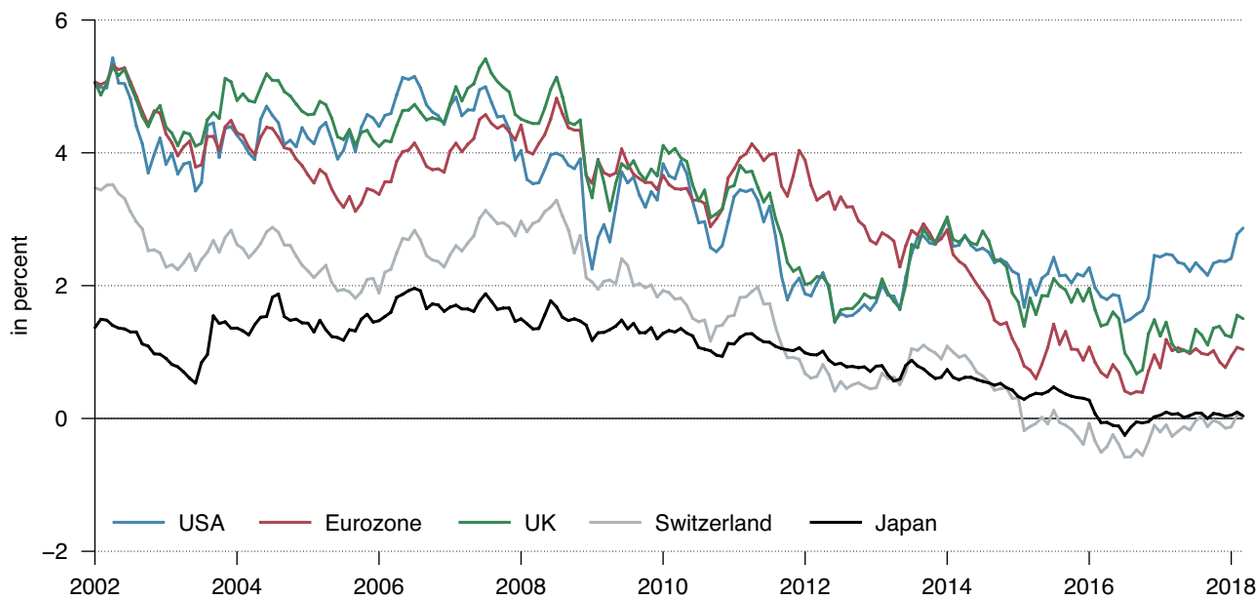


Source: Bloomberg, Thomson Reuters Datastream, Wellershoff & Partners

3-month Libor



10-year government bond yields



Source: Bloomberg, Thomson Reuters Datastream, Wellershoff & Partners

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FX markets

At the end of 2017, the Japanese yen stood at 112.7 against the US dollar. At the beginning of March, it had strengthened to below 106. As can be seen from the table below, our PPP estimate for USDJPY is around 87 – a gap of more than 20 percent from spot. Our neutral range, which represents one standard deviation of the historical variation around PPP, is in the region of 72 to 102.

The Swiss franc appears fairly valued relative to the US dollar at present, as our PPP estimate for USDCHF is around 0.96. But the franc is currently around 6 percent too expensive relative to the euro, given our PPP estimate for EURCHF is 1.22. Given the current strong tailwind of growth in the Eurozone, we see a likelihood for the euro to overshoot against both the USD and CHF.

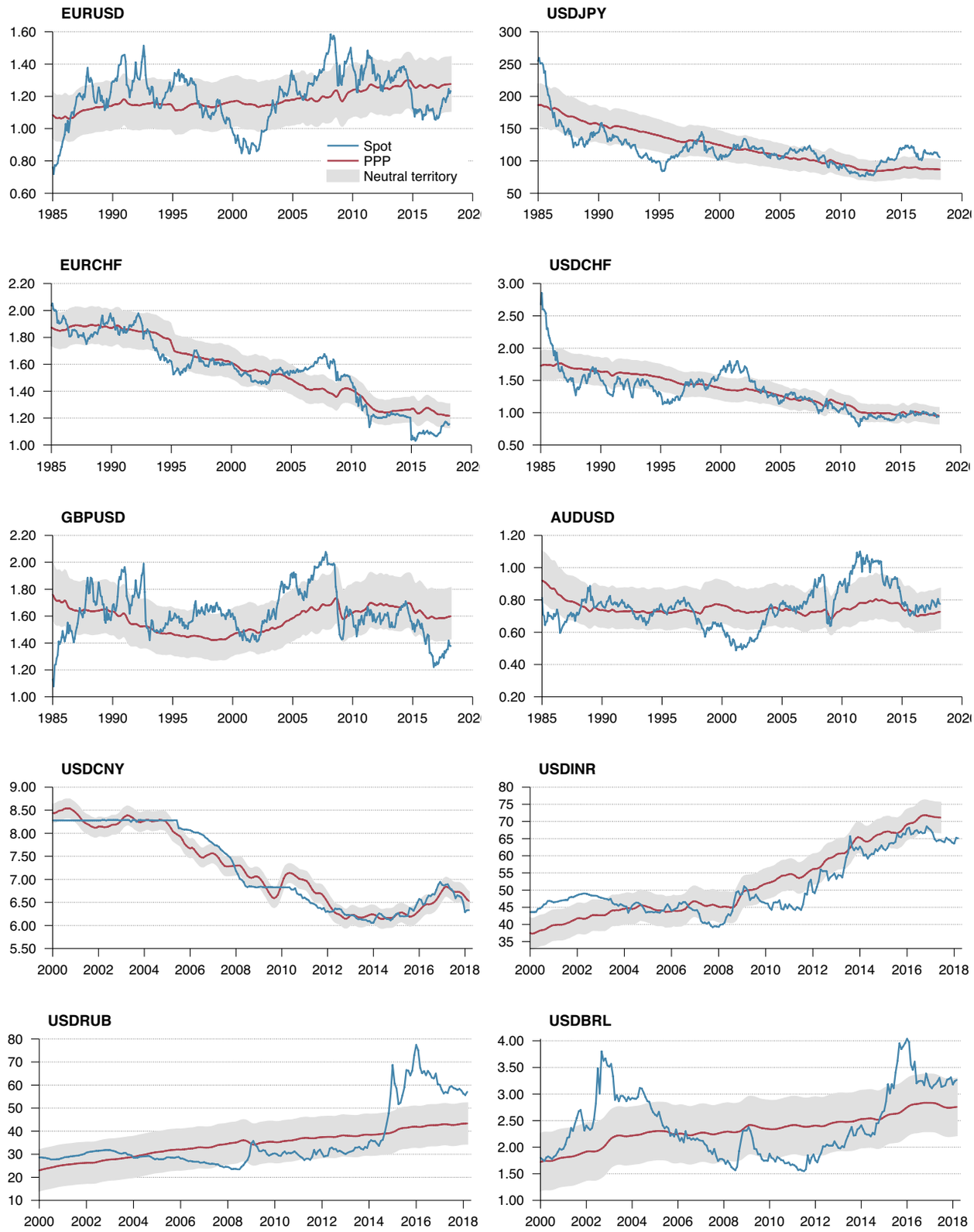
Inexpensive European currencies relative to the Swiss franc include the NOK, the SEK and GBP. Our PPP estimate for GBPCHF is 1.54, implying that Sterling is currently undervalued by about 14 percent against the Swiss franc. The heightened volatility likely to accompany the UK's ongoing divorce negotiations with the EU, and the potentially dramatic effects of Brexit on exchange rates, make PPP a less useful guide to GBPCHF at this point.

FX overview

	Current exchange rate	Performance[1]				Purchasing Power Parity[2]		
		YTD	3 months	1 year	5 years	PPP	Neutral territory	Deviation[3]
EURUSD	1.233	2.7	4.9	16.8	-5.0	1.28	1.11 - 1.44	-3.4
USDJPY	106.1	-5.8	-6.6	-7.5	10.3	86.8	71.9 - 101.7	22.2
GBPUSD	1.383	2.2	3.4	13.6	-7.4	1.60	1.43 - 1.81	-13.5
EURCHF	1.170	0.0	0.1	9.2	-5.4	1.22	1.13 - 1.3	-3.9
USDCHF	0.949	-2.6	-4.6	-6.5	-0.4	0.95	0.83 - 1.07	-0.5
GBPCHF	1.312	-0.5	-1.3	6.3	-7.7	1.52	1.32 - 1.73	-13.9
CHFJPY	111.8	-3.3	-2.1	-1.1	10.7	91.0	77 - 105	22.8
AUDUSD	0.778	-0.5	3.6	3.1	-23.9	0.73	0.62 - 0.87	7.0
USDCAD	1.294	3.3	0.6	-3.9	26.0	1.20	1.1 - 1.3	7.9
USDSEK	8.269	1.0	-2.5	-8.4	29.1	7.28	6.31 - 8.26	13.5
USDRUB	57.1	-0.9	-3.7	-2.3	85.2	43.3	34.5 - 52.1	31.7
USDBRL	3.265	-1.6	-1.3	3.8	67.5	2.76	2.22 - 3.29	18.4
USDCNY	6.332	-2.8	-4.3	-8.3	1.9	6.53	6.34 - 6.73	-3.1
USDTRY	3.824	0.9	-0.3	2.6	112.0	3.03	2.74 - 3.31	26.4
USDINR	65.09	2.0	1.0	-2.4	19.8	–	–	–

[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: Bloomberg, Thomson Reuters Datastream, Wellershoff & Partners



Source: Thomson Reuters Datastream, Wellershoff & Partners

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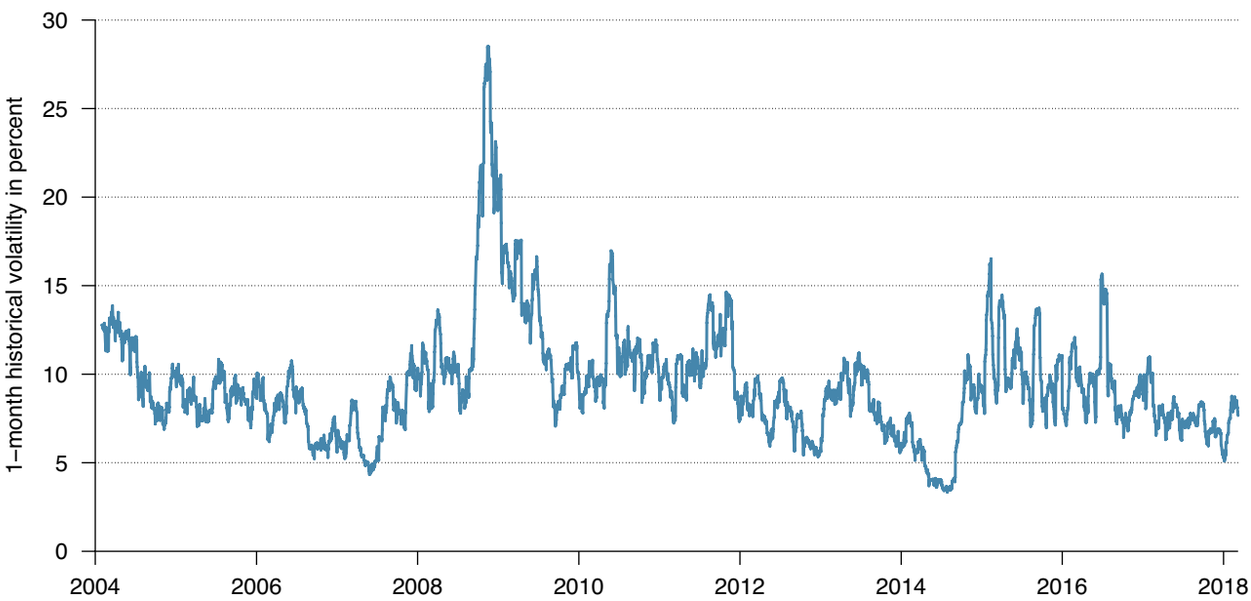
FX volatility

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	1.233	7.4	7.1	8.5	10.6	7.1	7.4	8.8	10.9
USDJPY	106.1	7.8	8.2	9.8	10.9	7.9	8.8	10.2	11.4
GBPUSD	1.383	8.4	8.5	8.5	9.9	8.1	9.0	8.9	10.5
EURCHF	1.170	5.7	5.3	5.8	6.5	5.5	5.8	6.4	7.0
USDCHF	0.949	7.7	7.4	8.8	10.6	7.3	8.1	9.3	10.9
GBPCHF	1.312	7.7	7.7	8.8	10.2	8.3	8.3	9.2	10.7
CHFJPY	111.8	7.3	7.2	9.7	11.6	7.4	7.8	10.4	12.2
AUDUSD	0.778	8.6	8.2	10.0	12.3	8.1	8.9	10.5	12.8
USDCAD	1.294	7.6	7.5	7.9	9.7	7.5	7.7	8.2	10.1
USDSEK	8.269	9.2	8.4	9.9	12.5	8.8	8.9	10.3	12.8
USDRUB	57.1	9.5	10.2	16.2	14.6	10.1	11.1	16.5	15.6
USDBRL	3.265	10.5	11.4	15.0	15.5	13.2	13.6	15.5	16.1
USDCNY	6.332	4.3	5.0	3.6	3.3	3.4	5.6	4.5	4.8
USDTRY	3.824	9.7	10.4	12.3	13.2	10.5	13.0	13.5	14.4
USDINR	65.09	4.5	5.6	7.8	9.5	4.1	6.6	9.0	10.5

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

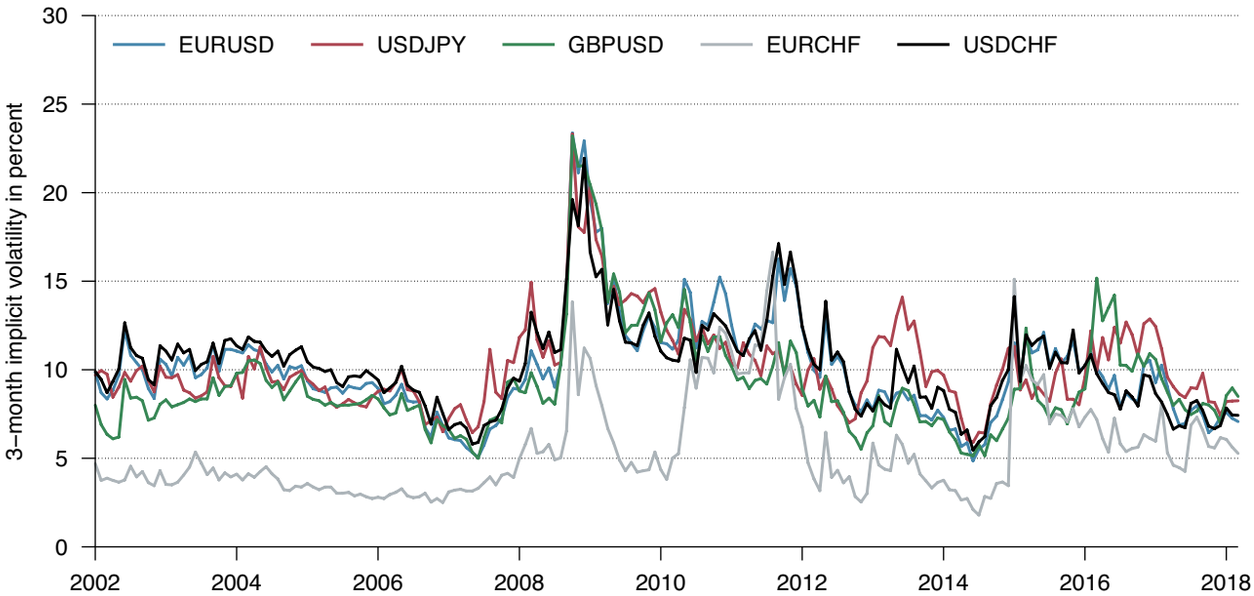
QCAM volatility indicator[3]



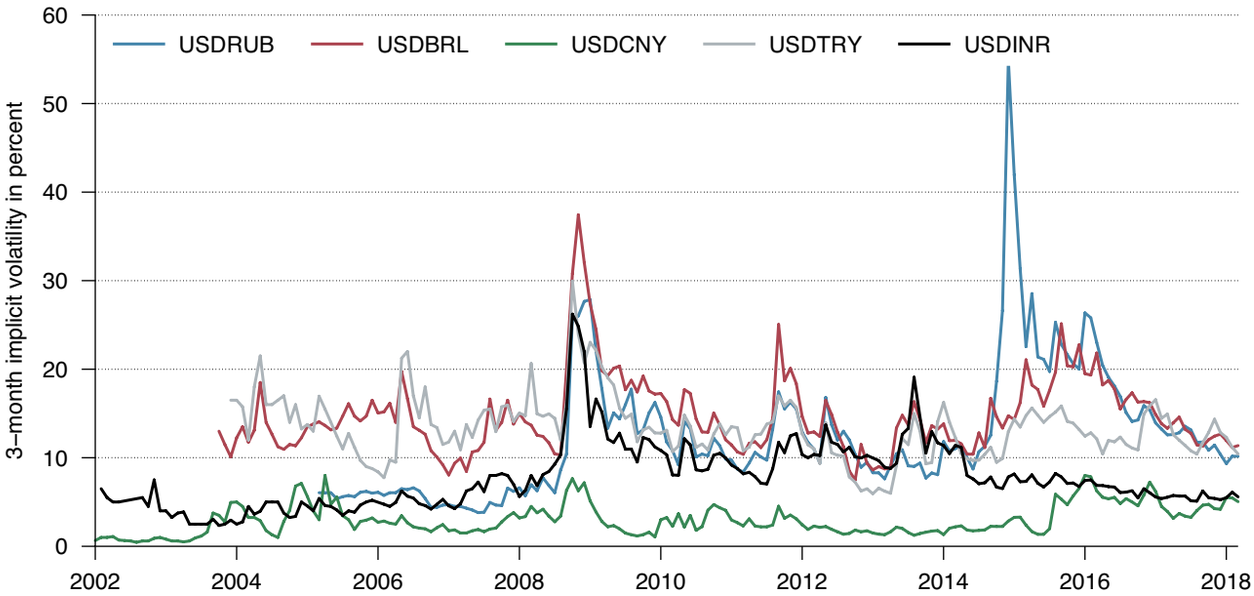
[3] The QCAM volatility indicator measures general volatility in global FX markets; the indicator is based on historical volatility of the main exchange rates, which are weighted by trading volume.

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

Implicit volatility



Implicit volatility



Source: Bloomberg, Thomson Reuters Datastream, Wellershoff & Partners

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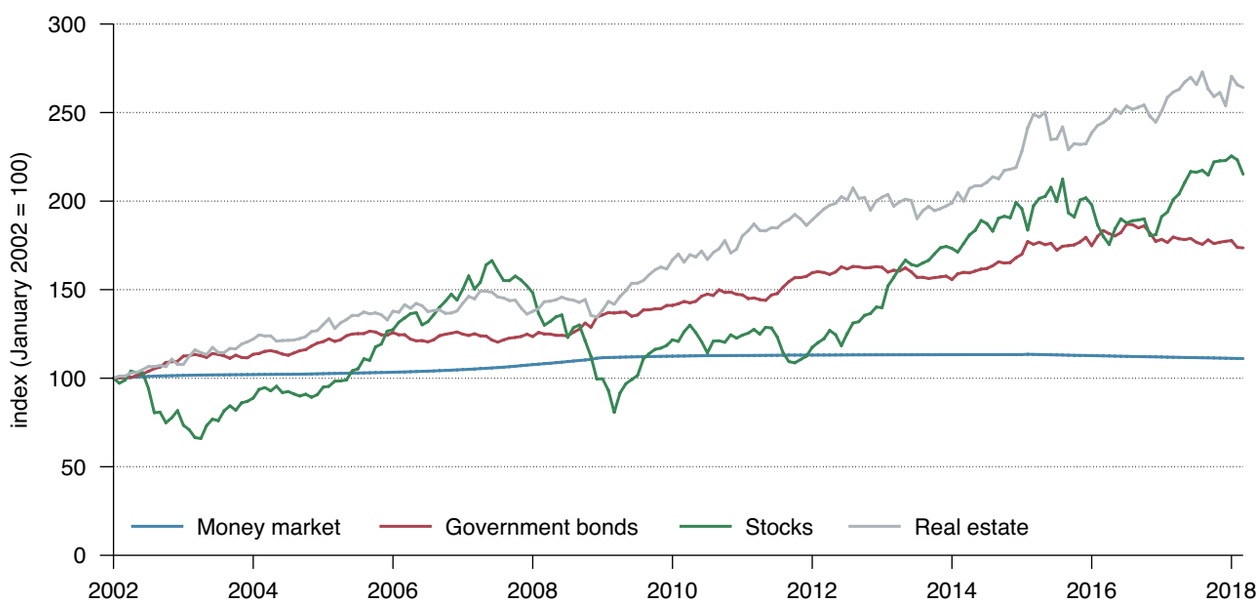
Financial markets

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	-0.1	-0.2	-0.7	-1.9	-0.1	-0.2	-0.7	-1.9
Swiss government bonds	-2.3	-2.6	-2.3	8.3	-2.3	-2.6	-2.3	8.3
Swiss corporate bonds	-1.1	-1.3	-1.0	9.0	-1.1	-1.3	-1.0	9.0
Swiss equities (SMI)	-4.6	-3.9	6.5	33.9	-4.6	-3.9	6.5	33.9
European equities (Stoxx600)	-2.8	-2.8	4.4	50.3	-2.7	-2.8	14.2	42.3
UK equities (Ftse100)	-5.4	-1.6	2.2	34.4	-5.9	-3.9	8.8	24.2
Japanese equities (Topix)	-5.9	-5.0	12.6	85.4	-3.2	-3.6	13.0	67.3
US equities (S&P 500)	2.8	3.8	18.2	96.0	-0.4	-1.6	10.2	96.2
Emerging markets equities	3.4	8.1	31.2	28.7	0.2	2.5	22.4	28.8
Global equities (MSCI World)	1.4	3.0	18.7	68.7	-1.7	-2.4	10.7	68.9
Swiss real estate	-2.4	2.7	1.0	34.6	-2.4	2.7	1.0	34.6
Global real estate	-5.5	-4.0	3.7	25.8	-8.4	-9.0	-3.3	25.9
Commodities	-0.7	4.3	2.7	-36.2	-3.7	-1.2	-4.2	-36.1
Brent oil	-3.8	1.2	16.3	-41.7	-6.8	-4.1	8.5	-41.7
Gold	1.4	5.9	9.4	-16.1	-1.8	0.4	2.0	-16.0

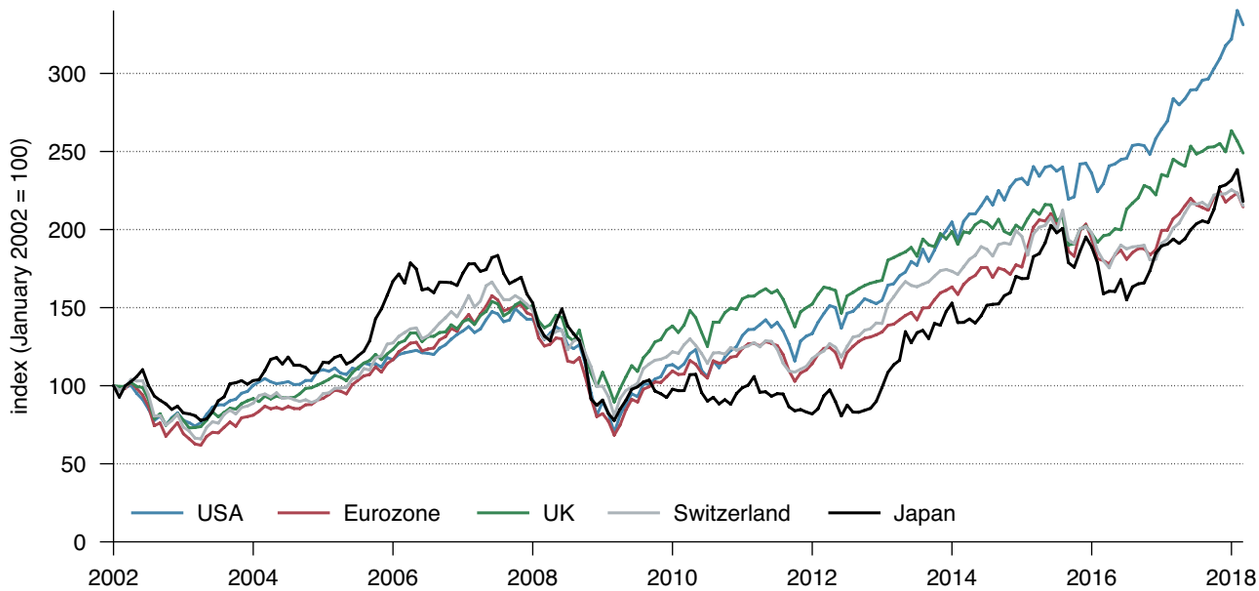
[1] Performance over the respective period of time, in percent.

Performance of selected Swiss asset classes

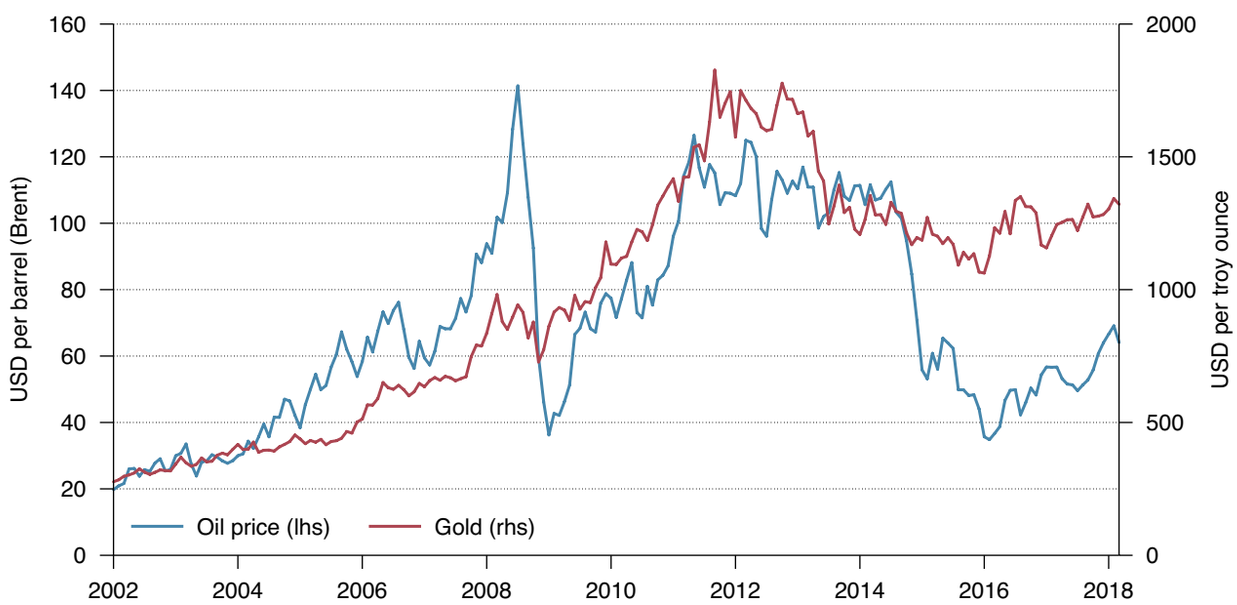


Source: Bloomberg, Thomson Reuters Datastream, Wellershoff & Partners

Performance of selected equity markets (in local currency)



Performance of selected commodity prices



Source: Bloomberg, Thomson Reuters Datastream, Wellershoff & Partners

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Number of the month

33.4

At 33.4 for the S&P 500 at the beginning of February, the cyclically adjusted P/E was only higher at the peak of the dot-com bubble in the late 1990s. If we compare the Shiller P/Es of different recessions with the subsequent price collapses, we must conclude that current valuations could well lead to a stock market slump of 50 percent. Add to this the low interest rates and the advanced age of this cycle and we wonder if this is the time to invest more in stocks?