#### November 2015

# EX Monthly

Quaesta Capital Inside ++ The macro perspective ++ FX market talk ++ Economic activity ++ Inflation ++ FX markets ++ Financial markets ++ Number of the month









Quaesta Capital AG Huobstrasse 9 8808 Pfäffikon SZ Switzerland Wellershoff & Partners Ltd. Zürichbergstrasse 38 8044 Zürich Switzerland

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### **FX Monthly**

November 2015

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#### **Quaesta Capital Inside**

# «Currencies are a topic that affects everyone.»

Most investors are greatly concerned about currency-related portfolio effects. In most cases this is not for return reasons, but rather because they wish to adequately manage the currency risk that international investments are exposed to.

Many investors pursue an active hedging strategy (dynamic overlay) geared towards realising additional returns, either on their own or with the help of a specialised overlay manager. These are predominantly institutional clients whose corporate structures make it difficult to invest in separate investment products. The client works out an agreement with the overlay manager defining minimum and maximum hedge ratios and other parameters and specifies a risk budget. This is done with the aim of generating extra return on foreign currency holdings above the benchmark hedge ratio.

#### **Currency overlay**

The overlay manager is generally hired to focus on currencies already in the client's investment portfolio. The manager is accordingly limited in the execution of the FX trading strategy. Yet granting the FX manager maximum leeway increases his or her chances of generating the projected return, as the manager can then implement the trading strategy without being limited to specific currencies or instruments. This is best approached by separating FX hedging activity (passive overlay) from return-generating activity (FX alpha) so that the two activities are carried out completely independently, ideally by different providers in the case of external management.

#### Liquidity

What general reasons are there for investing in currencies? What strategies are best suited to which investors, and what factors should be considered? The FX market is the most liquid financial market in the world. Even in the midst of the 2008/2009 financial crisis, currency managers never had a problem settling investor closeout transactions. This laudable circumstance starkly contrasts with certain other investments and vehicles, which in some cases were having big problems guaranteeing much-needed liquidity, even though this was something that had, of course, been promised.

#### **Transparency**

Calls for greater transparency became louder as the financial crisis worsened, not least because doubts arose as to whether fund managers had actually been investing in accordance with the agreed strategy. Investing in currencies has long been a transparent



affair, and for many years institutional investors have made use of managed accounts for their currency assets. These give investors real-time portfolio access and control at all times over the FX manager's actual positioning, allowing them to remain the owner of the specific accounts.

Diversification

Currency investments are generally considered excellent for investment portfolio diversification. However, depending on the underlying investment strategy, an FX strategy may perform with a positive, negative or neutral correlation to conventional portfolio securities, i.e. similarly, oppositely, or without evident connection. The three indices shown below show different focus areas (growth/return, momentum/insurance, market neutral/diversification). It is thus very important for investors to be clear on what they wish to achieve by holding currencies. Credible due

diligence is also essential before decisions are taken on an investment strategy – without it, unpleasant surprises may be in store if the currency strategy proves ineffective or only partially effective at delivering the expected diversification benefits should markets turn rough.

#### Conclusion

Currencies can enhance portfolio diversification, although due diligence is of the utmost importance in selecting an investment strategy.

#### Different FX trading strategies with different correlations

Global Growth Performance	Momentum Insurance	Market-Neutral Diversification	
0.40	-0.20	0.02	MSCI World Stocks Index
0.46	-0.28	0.09	Rogers International Commodities Index
0.43	-0.31	-0.04	HFRX Global Hedge Fund Index
-0.20	0.26	0.00	Bloomberg Bond Index

Source: Quaesta Capital, Bloomberg

#### The macro perspective

# «The Fed finds itself in the same dilemma as back in its September meeting.»

A series of positive economic data releases have swept away worries over the state of the US economy. The next thing to keep an eye on over the next several months, however, will be rising US inflation data. This could bring an abrupt end to the relatively relaxed current mood on the capital markets.

We have several eventful weeks behind us, with US economic data in part disappointing, although more recent data have reassured market observers. The labour market report for October substantially exceeded market expectations, with the actual figure of 271 000 new jobs coming in well above the forecasted 185 000 and representing the year's strongest job growth. Unemployment has thus fallen to 5.0 percent, the lowest recorded rate since April 2008.

#### Output gap closing

The initial gross domestic product growth estimate released for the third quarter has underpinned views that the US economy is remaining on track for robust growth. If we factor out the unusually large decline in inventories, we see that growth for the quarter was strong, at an annualised 3.0 percent. Private consumption is again proving to be a reliable pillar of the

economy, contributing 2.2 percentage points to growth. Another positive factor is that exports and imports have been in balance despite the continuing strength of the dollar; thus foreign trade has not had the slowing effect that had been feared. The level of our economic climate indicator recovered somewhat in October after the significant revival in business activity in the service sector, signalling further abovetrend growth for the US economy in the fourth quarter. This would then close the output gap for the US economy.

#### Core inflation rising

Increasing production capacity utilisation generally means rising inflationary pressure, as has been observed over the course of this year. The core inflation rate, which excludes volatile prices such as energy prices, has now risen to 1.9 percent. If the economy continues expanding, this rate should trend higher over the next several months. Such a view is supported in particular by the fact that the average hourly wage was up 2.5 percent year-on-year in October, representing the largest such increase in over six years.

#### **Energy price effect subsiding**

Falling energy prices have, as we know, recently caused the inflation rate for the aggregate basket of goods applied to calculate the consumer price index to fall to 0 percent. This will be changing soon, how-



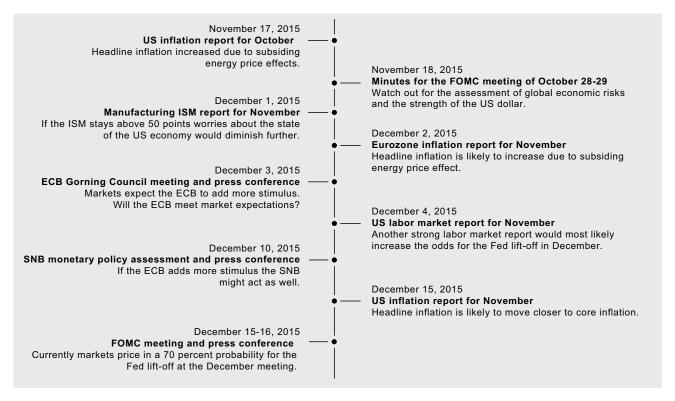
ever: our calculations indicate that the energy price drag on inflation will already be fading in the upcoming inflation data report, and will have evaporated nearly entirely by January. There will thus be a rapid convergence of headline and core inflation, and the financial markets are likely to be affected by inflation increasing from 0 to almost 2 percent within a just few months. The casual attitude displayed by both the Fed and the financial markets regarding inflation is thus surprising.

now finds itself in the same dilemma as back in its September meeting, when the strength in the dollar prompted the Open Market Committee to adopt a more cautious attitude. But in contrast to September, the inflation outlook is now likely to cause market interest rates to rise even if the Fed does not raise key rates. The close of the year could thus prove not to be quite so merry.

#### Focus on interest rates and the dollar

Futures markets have reacted to recent economic data by confirming expectations of an initial Fed rate hike at the December meeting. This reaffirmation of the divergent monetary policy narrative has strengthened the US dollar once again. Ironically, the Fed

#### **Economic calendar**



Source: Bloomberg, Wellershoff & Partners



#### **FX** market talk

# **«SNB still muscles in on currency markets.»**

The SNB remains active in the currency market even after elimination of the minimum exchange rate. There are a number of indicators revealing the extent of SNB currency market intervention. Against a backdrop of potential expansion of the ECB's asset purchase programme, these indicators might become the subject of increasing public attention again.

It was around a year ago that the SNB had to stage serious currency interventions to maintain the minimum exchange rate. It would have been great to have had some sort of gauge to measure the pressure the SNB was under at that time. Perhaps unconventional indicators could have done the job – for example, if somebody had regularly sat out on the Bürkliplatz in Zurich, where the SNB's Department is domiciled which is in charge of currency intervention, to see how late the lights stayed on in the offices.

#### Focus on intervention level

At that time, the lights were probably burning pretty late at the SNB offices, as just a few weeks later the bank decided to abandon the exchange rate floor. Today, SNB currency intervention activity could soon be the subject of increasing scrutiny again given that many financial market participants expect the ECB

to expand its asset purchasing programme. Although SNB representatives only confirm intervention in exceptional cases, various statistics indicate whether and to what extent the SNB is intervening in the currency market. The indicators outlined below are the most frequently employed.

#### **Detailed quarterly report**

The SNB balance sheet provides detailed information on currency reserves, which is by far the largest balance sheet item. Currency and asset allocation are reported in addition to the amount of foreign currency holdings. Applying a few assumptions, one can thus adjust for market price changes. In the third quarter, the value of foreign currency holdings increased from CHF 530 to CHF 566 billion. Of this amount, approximately CHF 14 billion represented valuation gains, attributable among other things to the franc's depreciation against the euro, which is the largest currency investment comprising a share of 42 percent. The effect of intervention in the third quarter can therefore be estimated at roughly 20 billion. Availability is one shortcoming of this indicator, as the balance sheet total is only published quarterly and with a one-month time lag.

#### Monthly IMF data

The SNB publishes data at shorter intervals for monthly reporting to the International Monetary Fund (IMF). Because asset price changes are only adjusted quar-



terly, filtering out monthly currency changes is all that is required to measure the scope of intervention. In October, foreign currency reserves under IMF standards increased by CHF 548 to CHF 557 billion, due partly to a stronger US dollar. Therefore, the SNB's actual currency purchasing amounted to approximately CHF 6 billion.

#### Indicative sight deposits

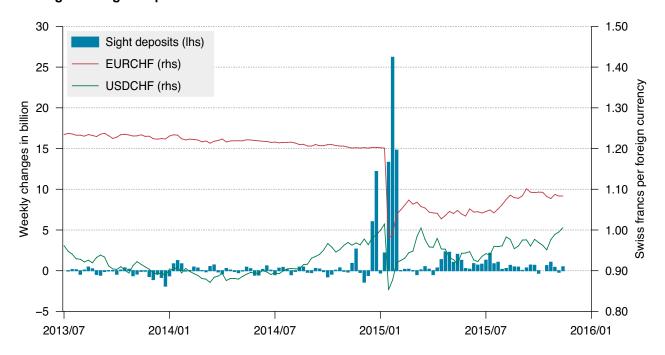
When the SNB intervenes in currency markets, it finances such activity by increasing sight deposits. Sight deposits represent a debt owed by the National Bank to commercial banks as well as the federal government. Sight deposit volume data is published weekly, and is thus considered the best available short-term indicator of the extent of SNB intervention. At times, one-off effects distort the statistics, such as increased cash withdrawals in the run-up to Christmas. In the first two weeks of November, sight de-

posits were almost unchanged at approximately CHF 467 billion, which indicates that the SNB has not conducted any major interventions in this most recent period.

#### Summary

The Swiss franc remains significantly overvalued against the euro on the basis of the estimated purchasing power parity. Yet it could be pushed upwards again, probably precipitating SNB action, if the ECB does decide to extend its asset purchase programme in December. The three indicators discussed would then suggest the extent to which the SNB would be forced to intervene in the currency market – so nobody has to spend a long, cold evening out on Zurich's Bürkliplatz.

#### Changes of sight deposits at SNB





#### **Economic activity**

The first GDP figures for the third quarter were published in October. Spain has demonstrated particularly noteworthy growth of 3.4 percent, representing another considerable year-on-year gain. Our consumer climate indicator is now showing further growth potential for both Spain and Italy, this leading indicator now being significantly higher than actual GDP growth figures.

We see signs of stabilisation for Russia, but the situation in Brazil remains precarious.

The US economy grew another 2 percent year-on-year in the third quarter, rising above the trend. Additionally, 271 000 new jobs were created in October, much higher than the expected figure of 185 000. Wages also increased faster than at any time since July 2009, up 2.5 percent on the previous year. These key labour market data indicate that the US economy remains solid. The probability of the US Federal Reserve raising interest rates in December has thus increased.

#### **Growth overview**

	Trend Real GDP growth					W&P economic sentiment indicators <sup>3</sup>				
	growth <sup>1</sup>	Q4/2014	Q1/2015	Q2/2015	Q3/2015	7/2015	8/2015	9/2015	10/2015	
United States	1.7	2.5	2.9	2.7	2.0	3.5	3.2	2.7	3.0	
Eurozone	1.0	0.9	1.2	1.5	1.6	2.0	2.0	2.3	2.4	
Germany	1.4	1.5	1.1	1.6	1.7	2.5	2.4	2.8	2.7	
France	0.7	0.1	0.9	1.1	1.2	1.3	1.4	1.5	1.8	
Italy	0.2	-0.4	0.1	0.6	0.9	1.6	1.4	2.2	2.4	
Spain	1.6	2.1	2.7	3.1	_	3.9	4.3	4.1	3.9	
United Kingdom	1.8	3.0	2.7	2.4	2.3	3.7	3.8	3.4	3.1	
Switzerland	1.5	2.1	1.2	1.2	_	0.7	0.7	0.8	0.6	
Japan	0.4	-0.8	-0.8	1.0	1.1	2.1	2.2	2.1	2.1	
Canada	1.6	2.5	2.0	1.0	_	1.2	1.2	1.3	1.3	
Australia	2.4	2.5	2.5	2.0	_	3.2	3.4	3.5	3.5	
Brazil	1.4	-0.3	-1.7	-2.4	_	1.0	0.3	0.9	-0.7	
Russia	0.1	0.4	-2.2	-4.6	-4.1	-0.2	-0.7	0.8	2.0	
India	7.7	6.6	7.5	7.0	_	6.6	6.4	5.8	5.6	
China	7.4	7.2	7.0	7.0	6.9	7.3	7.0	6.9	7.6	
Advanced economies <sup>4</sup>	1.4	1.6	2.0	2.1	1.8	3.0	2.9	2.7	2.8	
Emerging economies <sup>4</sup>	6.0	5.2	4.9	4.6	4.7	4.3	3.9	3.8	4.2	
World economy <sup>4</sup>	3.5	3.4	3.4	3.4	3.3	3.3	3.2	3.0	3.2	

<sup>&</sup>lt;sup>1</sup> Current year-on-year trend growth rate of real GDP, in percent, according to the proprietary trend growth model of Wellershoff & Partners.

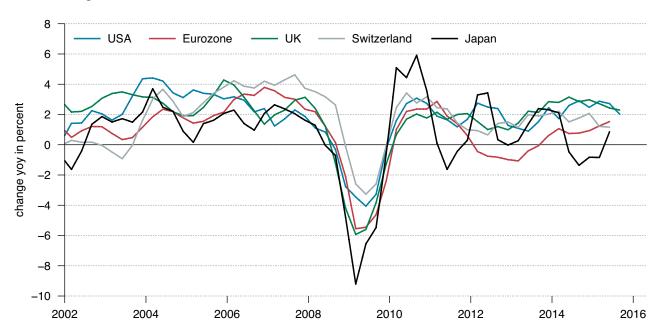
Source: European Commission, Penn World Table, Thomson Reuters Datastream, Wellershoff & Partners

<sup>&</sup>lt;sup>2</sup> Year-on-year growth rate, in percent..

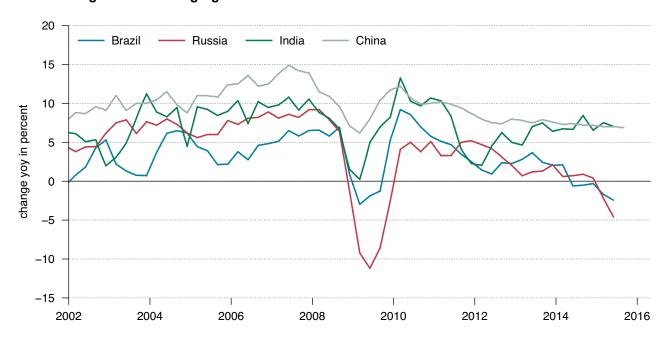
Wellershoff & Partners economic sentiment indicators are based on consumer and business surveys and have up to 6 months lead on the year-on-year growth rate of real GDP.

<sup>&</sup>lt;sup>4</sup> Calculations are based on nominal GDP weights derived from purchasing power parity exchange rates.

#### Economic growth in advanced economies



#### Economic growth in emerging economies



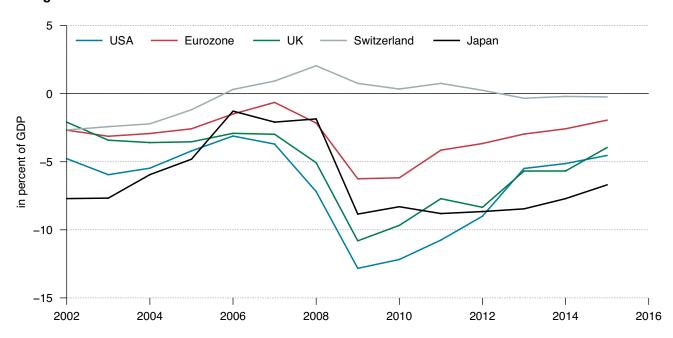
#### **Economic indicators**

#### Overview

	Global G	DP share <sup>1</sup>	Current	account <sup>2</sup>	Pu	ıblic debt <sup>2</sup>	Budg	et deficit <sup>2</sup>	Unemploy	ment rate <sup>3</sup>
	Ø 5 years	Current	Ø 5 years	Current	Ø 5 years	Current	Ø 5 years	Current	Ø 5 years	Current
United States	22.2	24.4	-2.6	-2.5	109.1	110.6	-8.5	-4.5	8.0	5.0
Eurozone	18.1	15.7	1.9	3.8	101.3	111.2	-3.9	-1.9	11.1	10.8
Germany	5.0	4.6	6.5	8.3	83.5	78.5	-1.0	0.9	7.0	6.4
France	3.8	3.3	-1.0	0.2	107.5	120.1	-4.9	-3.8	9.4	10.0
Italy	3.0	2.5	-0.8	1.5	137.4	160.7	-3.3	-2.6	10.5	11.9
Spain	2.0	1.7	-1.0	1.5	91.6	118.9	-8.4	-4.2	23.3	21.6
United Kingdom	3.6	3.9	-3.5	-4.0	106.9	116.4	-7.4	-3.9	4.2	2.3
Switzerland	0.9	0.9	10.3	9.8	45.6	46.4	0.2	-0.2	3.1	3.3
Japan	7.4	5.6	1.7	3.3	212.9	229.2	-8.4	-6.7	4.3	3.4
Canada	2.4	2.1	-2.9	-2.9	86.7	90.4	-3.2	-1.7	7.4	7.0
Australia	2.0	1.7	-3.5	-4.0	27.5	36.0	-3.7	-2.4	5.4	5.9
China	11.4	15.5	2.4	3.1	37.8	43.2	-0.6	-1.9	4.1	-
Brazil	3.3	2.4	-3.6	-4.0	63.0	69.9	-3.4	-7.7	5.7	7.6
India	2.6	3.0	-3.0	-1.4	67.0	65.3	-7.7	-7.2	_	_
Russia	2.6	1.7	3.6	5.0	13.5	20.4	-0.8	-5.7	6.0	5.2

<sup>&</sup>lt;sup>1</sup> In percent; calculations based on market exchange rates.

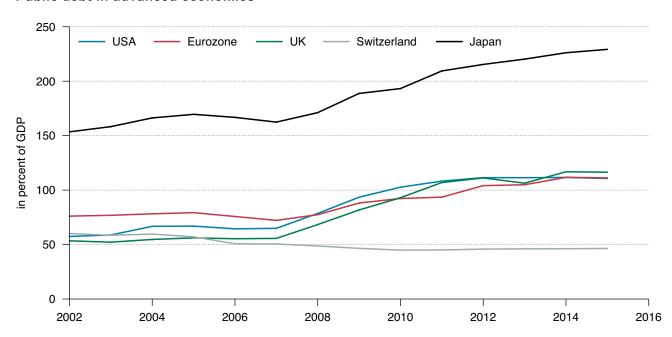
#### Budget deficits in advanced economies



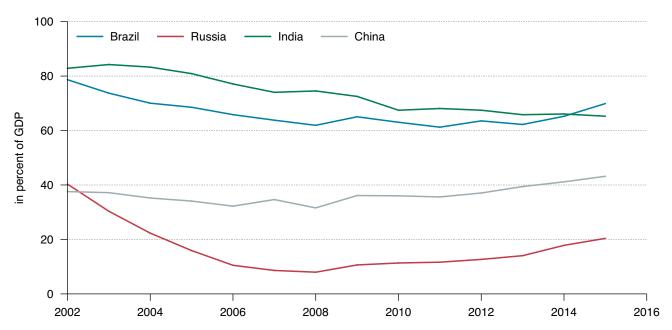
<sup>&</sup>lt;sup>2</sup> In percent of nominal GDP.

<sup>&</sup>lt;sup>3</sup> In percent.

#### Public debt in advanced economies



#### Public debt in emerging economies





#### Inflation

The eurozone saw a slight increase in both headline and core inflation in October. However, headline inflation remains at a very low level. Nevertheless, our analysis of the baseline effect of energy prices indicates that the counter-inflationary effects of very low oil prices will subside as soon as December, which should lead to a convergence of headline and core inflation.

Core inflation in Switzerland has declined by 0.1 to -0.8 percent, while headline inflation is still at -1.4 percent. Elimination of the euro exchange rate cap

caused a sharp appreciation in the Swiss franc. A stronger currency makes imports cheaper, producing an inflation-lowering effect. Since the middle of the year, however, the Swiss franc has declined, which will mute this effect going forwards. The chief factors in favour of headline inflation returning to positive territory in Switzerland are the baseline effect of oil prices and the depreciating franc.

#### Inflation overview

	Ø 10 years <sup>1</sup>				Inflation <sup>2</sup>			Core	inflation <sup>3</sup>
		7/2015	8/2015	9/2015	10/2015	7/2015	8/2015	9/2015	10/2015
United States	2.0	0.2	0.2	0.0	- 1	1.8	1.8	1.9	_
Eurozone	1.7	0.2	0.1	-0.1	0.0	0.9	0.9	0.9	1.0
Germany	1.5	0.3	0.1	0.0	0.2	1.1	1.2	1.2	1.3
France	1.3	0.2	0.0	0.0	_	0.7	0.6	0.6	_
Italy	1.7	0.2	0.2	0.2	0.3	0.8	0.8	0.9	0.9
Spain	1.9	0.1	-0.4	-0.9	-0.7	0.8	0.7	0.8	_
United Kingdom	2.6	0.1	0.0	-0.1	_	1.2	1.0	1.0	_
Switzerland	0.3	-1.3	-1.4	-1.4	-1.4	-0.6	-0.7	-0.7	-0.8
Japan	0.3	0.3	0.2	0.0	_	0.6	0.8	0.9	_
Canada	1.7	1.3	1.3	1.0	_	2.4	2.1	2.1	_
Australia	2.7	1.5	1.5	1.5	_	2.0	2.0	2.1	_
Brazil	5.6	9.6	9.5	9.5	9.9	9.2	9.1	9.1	_
Russia	9.5	15.6	15.8	15.7	15.5	16.5	16.6	16.6	16.4
India	8.2	3.7	3.7	4.4	_	_	_	_	_
China	2.9	1.6	2.0	1.6	1.3	1.7	1.7	1.6	1.5
Advanced economies <sup>4</sup>	1.7	0.3	0.2	0.0	0.1	1.4	1.4	1.4	1.4
Emerging economies <sup>4</sup>	5.2	4.2	4.4	4.3	4.3	4.5	4.5	4.4	4.4
World economy <sup>4</sup>	3.2	2.1	2.2	2.0	2.1	2.3	2.3	2.3	2.3

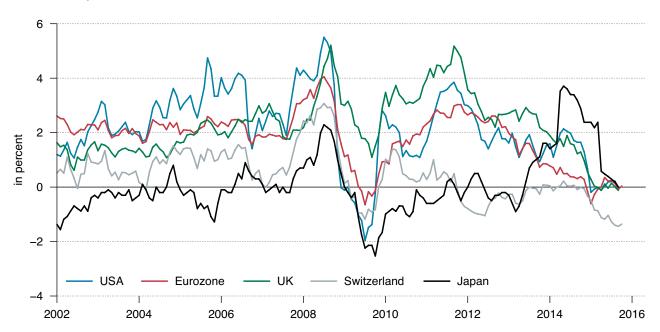
<sup>&</sup>lt;sup>1</sup> Average annual consumer price inflation, in percent.

<sup>&</sup>lt;sup>2</sup> Year-on-year change of the consumer price index (CPI), in percent.

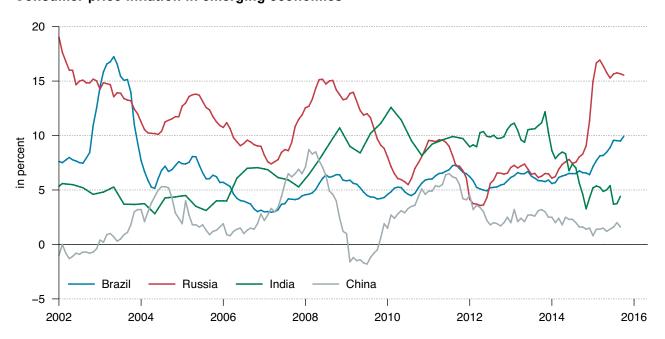
<sup>&</sup>lt;sup>3</sup> Core inflation is a measure of inflation that excludes certain items that can experience volatile price movements, such as energy and certain food items; year-on-year change of the core consumer price index, in percent.

<sup>&</sup>lt;sup>4</sup> Calculations are based on nominal GDP weights derived from purchasing power parity exchange rates.

#### Consumer price inflation in advanced economies



#### Consumer price inflation in emerging economies



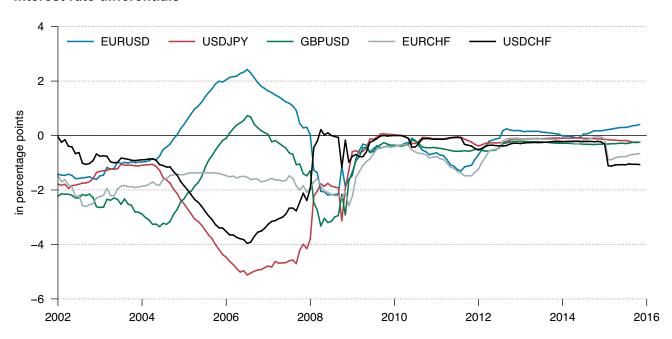
#### **Interest rates**

#### Interest rate differentials overview

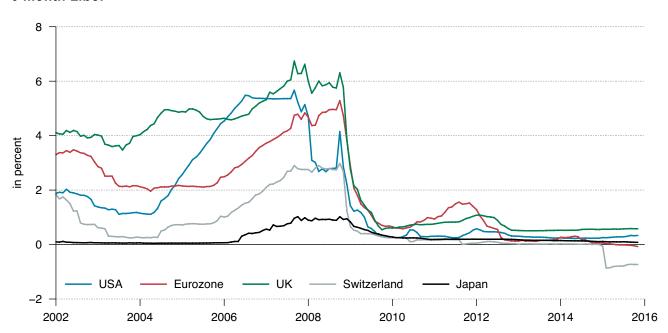
	Current		Interest rate	differential	s 3 months <sup>1</sup>		Interest rate	differentials	12 months <sup>1</sup>
	exchange rate	Current	1 year ago	Ø 5 years	Ø 10 years	Current	1 year ago	Ø 5 years	Ø 10 years
EURUSD	1.072	0.44	0.15	-0.13	0.03	0.85	0.28	-0.08	0.04
USDJPY	123.1	-0.29	-0.13	-0.16	-1.30	-0.71	-0.28	-0.34	-1.41
GBPUSD	1.520	-0.21	-0.32	-0.36	-0.56	-0.10	-0.42	-0.46	-0.61
EURCHF	1.079	-0.71	-0.08	-0.52	-0.93	-0.77	-0.13	-0.69	-1.01
USDCHF	1.007	-1.15	-0.23	-0.40	-0.96	-1.61	-0.41	-0.61	-1.05
GBPCHF	1.531	-1.36	-0.55	-0.75	-1.52	-1.72	-0.83	-1.07	-1.66
CHFJPY	122.2	0.86	0.10	0.24	-0.34	0.90	0.13	0.27	-0.37
AUDUSD	0.708	-1.62	-2.26	-2.80	-2.56	-0.97	-1.94	-2.20	-2.20
USDCAD	1.337	0.46	1.05	0.91	0.34	0.02	0.90	0.72	0.19
USDSEK	8.692	-0.66	-0.04	0.87	0.20	-0.98	-0.06	0.74	0.17
USDRUB	66.59	11.13	11.67	7.87	6.43	10.30	11.59	7.67	6.99
USDBRL	3.832	13.98	11.36	10.16	9.56	14.63	11.91	10.03	9.48
USDCNY	6.372	2.67	3.98	4.22	2.44	2.41	4.31	3.82	2.22
USDTRY	2.880	10.66	9.81	8.55	9.82	10.18	9.48	8.47	10.14
USDINR	66.00	7.47	8.41	8.84	6.68	6.16	7.39	6.22	4.18

<sup>&</sup>lt;sup>1</sup> The gap in interest rates between the second currency and the first one, in percentage points; e.g. US dollar minus euro for EURUSD.

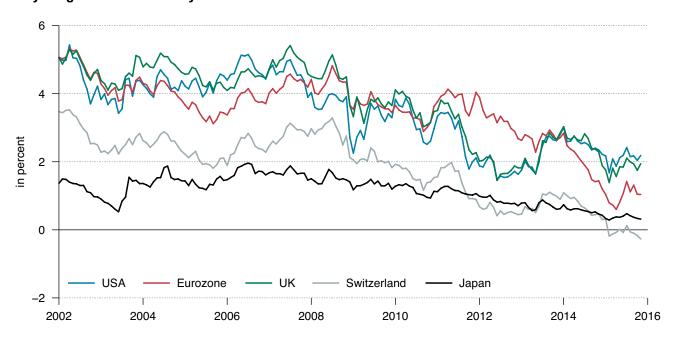
#### Interest rate differentials



#### 3-month Libor



#### 10-year government bond yields





#### **FX** markets

The US dollar has again risen substantially in recent weeks, making it overvalued from the perspective of purchasing power parity in nine of the twelve cases considered in the table below.

By the end of October, the EURUSD exchange rate had fallen below the 1.10 threshold last touched in early August. Although a long-term link between currency movements and interest rate differentials cannot be empirically established, in the short run currency movements can indeed be influenced by market expectations regarding interest rate moves.

This explains why the better-than-expected October US labour market data boosted the dollar.

In recent weeks the dollar has been generally influenced by speculation over a rate change by the US Federal Reserve, the Fed funds futures pricing in a nearly 70-percent probability of a rate hike in December as compared to a previous 30 percent. The USDCHF exchange rate shows the franc down approximately 6 percent, rising above parity for the first time since March 2015. The franc has gained against the euro recently, moving further away from PPP.

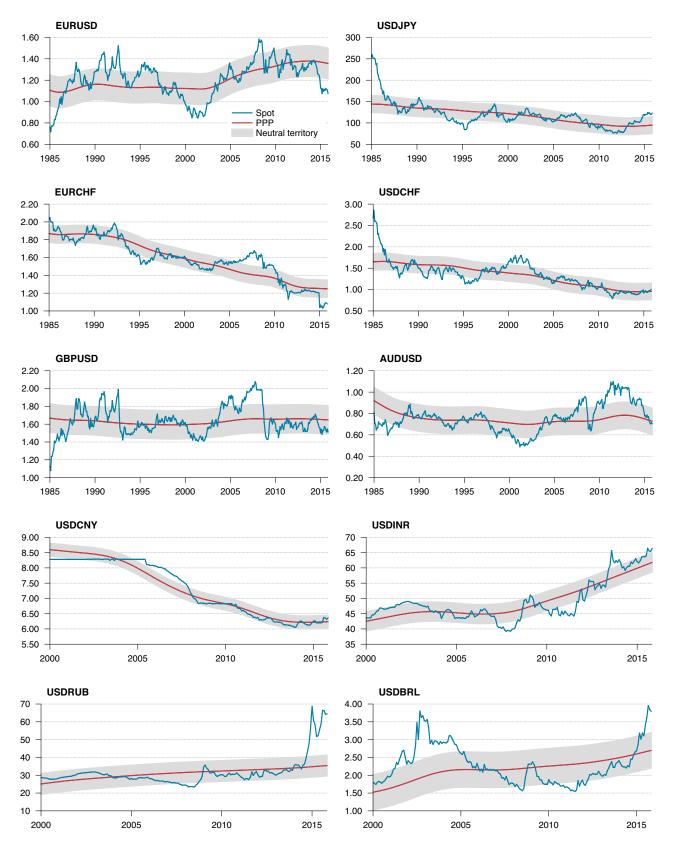
#### **FX** overview

Current			Per	formance <sup>1</sup>		Purchasing	Power Parity <sup>2</sup>
exchange rate	YTD	3 months	1 year	5 years	PPP	Neutral territory	Deviation <sup>3</sup>
1.072	-11.4	-2.9	-14.1	-20.9	1.36	1.21 - 1.5	-21.03
123.1	2.7	-1.1	5.7	47.7	94.7	74.9 - 114.6	29.93
1.520	-2.5	-2.9	-2.9	-4.5	1.65	1.49 - 1.81	-7.75
1.079	-10.2	0.1	-10.2	-19.4	1.25	1.15 - 1.35	-13.56
1.007	1.4	3.0	4.6	1.9	0.96	0.76 - 1.15	5.29
1.531	-1.2	0.0	1.6	-2.7	1.62	1.35 - 1.9	-5.72
122.2	1.3	-4.0	1.0	45.0	90.8	78.5 - 103.2	34.52
0.708	-13.4	-3.4	-18.9	-27.5	0.73	0.6 - 0.85	-2.59
1.337	15.4	2.2	18.1	30.7	1.12	1.04 - 1.19	19.60
8.692	11.0	1.7	17.3	25.1	6.71	5.82 - 7.6	29.58
66.59	11.0	1.2	41.2	113.6	35.4	29.6 - 41.3	87.84
3.832	44.2	10.5	46.9	121.6	2.70	2.2 - 3.2	41.97
6.372	2.7	-0.3	3.9	-4.0	6.24	6.03 - 6.45	2.17
2.880	23.2	-0.7	28.7	96.8	2.14	1.89 - 2.38	34.66
66.00	4.6	1.1	6.9	45.7	61.8	58.6 - 65	6.79
	exchange rate  1.072 123.1 1.520 1.079 1.007 1.531 122.2 0.708 1.337 8.692 66.59 3.832 6.372 2.880	exchange rate         YTD           1.072         -11.4           123.1         2.7           1.520         -2.5           1.079         -10.2           1.007         1.4           1.531         -1.2           122.2         1.3           0.708         -13.4           1.337         15.4           8.692         11.0           66.59         11.0           3.832         44.2           6.372         2.7           2.880         23.2	exchange rate         YTD         3 months           1.072         -11.4         -2.9           123.1         2.7         -1.1           1.520         -2.5         -2.9           1.079         -10.2         0.1           1.007         1.4         3.0           1.531         -1.2         0.0           122.2         1.3         -4.0           0.708         -13.4         -3.4           1.337         15.4         2.2           8.692         11.0         1.7           66.59         11.0         1.2           3.832         44.2         10.5           6.372         2.7         -0.3           2.880         23.2         -0.7	exchange rate         YTD         3 months         1 year           1.072         -11.4         -2.9         -14.1           123.1         2.7         -1.1         5.7           1.520         -2.5         -2.9         -2.9           1.079         -10.2         0.1         -10.2           1.007         1.4         3.0         4.6           1.531         -1.2         0.0         1.6           122.2         1.3         -4.0         1.0           0.708         -13.4         -3.4         -18.9           1.337         15.4         2.2         18.1           8.692         11.0         1.7         17.3           66.59         11.0         1.2         41.2           3.832         44.2         10.5         46.9           6.372         2.7         -0.3         3.9           2.880         23.2         -0.7         28.7	exchange rate         YTD         3 months         1 year         5 years           1.072         -11.4         -2.9         -14.1         -20.9           123.1         2.7         -1.1         5.7         47.7           1.520         -2.5         -2.9         -2.9         -4.5           1.079         -10.2         0.1         -10.2         -19.4           1.007         1.4         3.0         4.6         1.9           1.531         -1.2         0.0         1.6         -2.7           122.2         1.3         -4.0         1.0         45.0           0.708         -13.4         -3.4         -18.9         -27.5           1.337         15.4         2.2         18.1         30.7           8.692         11.0         1.7         17.3         25.1           66.59         11.0         1.2         41.2         113.6           3.832         44.2         10.5         46.9         121.6           6.372         2.7         -0.3         3.9         -4.0           2.880         23.2         -0.7         28.7         96.8	exchange rate         YTD         3 months         1 year         5 years         PPP           1.072         -11.4         -2.9         -14.1         -20.9         1.36           123.1         2.7         -1.1         5.7         47.7         94.7           1.520         -2.5         -2.9         -2.9         -4.5         1.65           1.079         -10.2         0.1         -10.2         -19.4         1.25           1.007         1.4         3.0         4.6         1.9         0.96           1.531         -1.2         0.0         1.6         -2.7         1.62           122.2         1.3         -4.0         1.0         45.0         90.8           0.708         -13.4         -3.4         -18.9         -27.5         0.73           1.337         15.4         2.2         18.1         30.7         1.12           8.692         11.0         1.7         17.3         25.1         6.71           66.59         11.0         1.2         41.2         113.6         35.4           3.832         44.2         10.5         46.9         121.6         2.70           6.372         2.7	exchange rate         YTD         3 months         1 year         5 years         PPP         Neutral territory           1.072         -11.4         -2.9         -14.1         -20.9         1.36         1.21 - 1.5           123.1         2.7         -1.1         5.7         47.7         94.7         74.9 - 114.6           1.520         -2.5         -2.9         -2.9         -4.5         1.65         1.49 - 1.81           1.079         -10.2         0.1         -10.2         -19.4         1.25         1.15 - 1.35           1.007         1.4         3.0         4.6         1.9         0.96         0.76 - 1.15           1.531         -1.2         0.0         1.6         -2.7         1.62         1.35 - 1.9           122.2         1.3         -4.0         1.0         45.0         90.8         78.5 - 103.2           0.708         -13.4         -3.4         -18.9         -27.5         0.73         0.6 - 0.85           1.337         15.4         2.2         18.1         30.7         1.12         1.04 - 1.19           8.692         11.0         1.7         17.3         25.1         6.71         5.82 - 7.6           66.59

<sup>&</sup>lt;sup>1</sup> Performance over the respective period of time, in percent.

<sup>&</sup>lt;sup>2</sup> 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.

<sup>&</sup>lt;sup>3</sup> Deviation of the current spot rate from PPP, in percent.



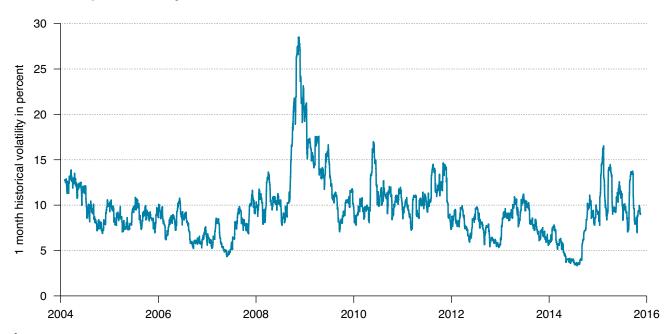
### **FX** volatility

#### FX volatility overview

	Current			Volatili	ty 3 months <sup>1</sup>			Volatilit	y 12 months <sup>1</sup>
	exchange rate	Historical	Implied	Ø 5 years <sup>2</sup>	Ø 10 years <sup>2</sup>	Historical	Implied	Ø 5 years <sup>2</sup>	Ø 10 years <sup>2</sup>
EURUSD	1.072	11.0	11.6	9.8	10.3	11.7	10.9	10.4	10.6
USDJPY	123.1	10.2	8.7	9.7	10.6	9.2	9.4	10.8	10.9
GBPUSD	1.520	7.1	7.7	8.1	9.4	8.2	9.2	9.0	9.9
EURCHF	1.079	7.3	7.5	6.5	5.9	19.0	8.1	7.4	6.2
USDCHF	1.007	10.6	11.3	10.3	10.5	20.4	11.2	10.8	10.7
GBPCHF	1.531	10.4	9.9	9.0	9.6	20.0	10.7	9.7	10.0
CHFJPY	122.2	10.3	9.8	11.0	11.2	19.9	10.7	11.9	11.6
AUDUSD	0.708	12.9	11.4	11.0	12.2	13.0	11.9	11.9	12.5
USDCAD	1.337	9.2	8.7	8.1	9.6	9.6	8.8	8.8	10.0
USDSEK	8.692	11.9	12.2	11.7	12.5	13.3	11.9	12.2	12.7
USDRUB	66.59	30.8	21.7	14.4	12.3	43.2	22.0	14.9	13.4
USDBRL	3.832	23.6	20.1	13.8	14.9	19.4	19.9	14.7	15.5
USDCNY	6.372	2.0	4.7	2.3	2.6	3.0	5.7	3.2	4.2
USDTRY	2.880	15.8	13.0	11.7	13.3	14.1	14.1	13.1	14.7
USDINR	66.00	5.4	7.2	9.7	9.5	5.0	8.7	10.7	10.2

<sup>&</sup>lt;sup>1</sup> Annualized volatility, in percent.

#### Quaesta Capital volatility indicator<sup>3</sup>

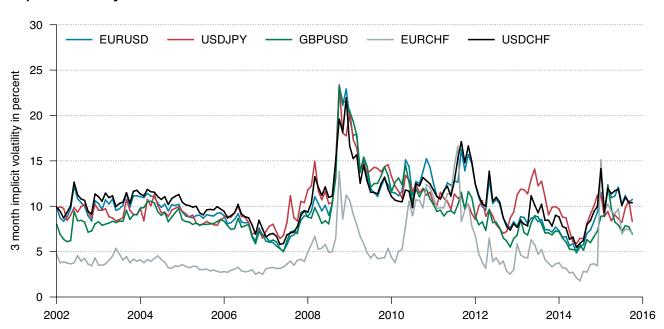


<sup>&</sup>lt;sup>3</sup> Quaesta Capital's volatility indicator measures general volatility in global FX markets; the indicator is based on historical volatility of the main exchange rates, which are weighted by trading volume.

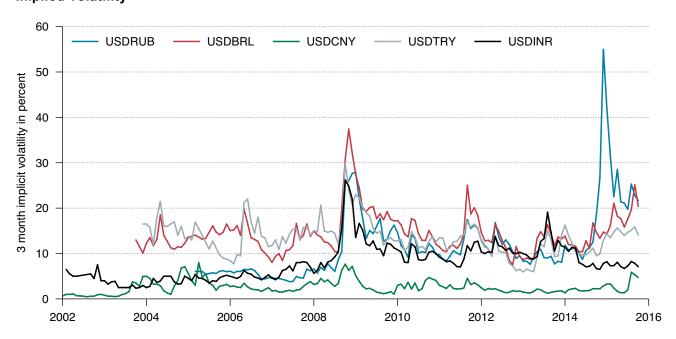
Source: Bloomberg, Quaesta Capital, Thomson Reuters Datastream, Wellershoff & Partners

<sup>&</sup>lt;sup>2</sup> Average of implied volatility.

#### Implied volatility



#### Implied volatility



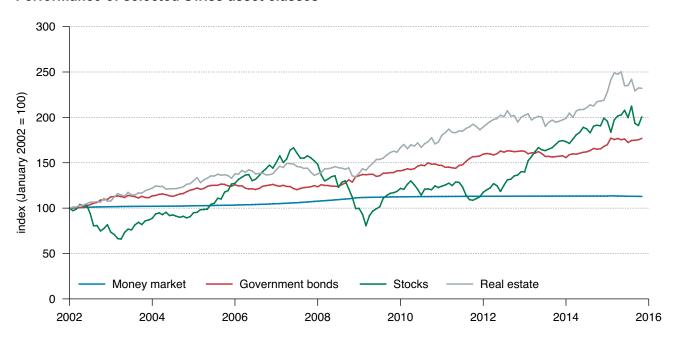
#### **Financial markets**

#### Performance overview

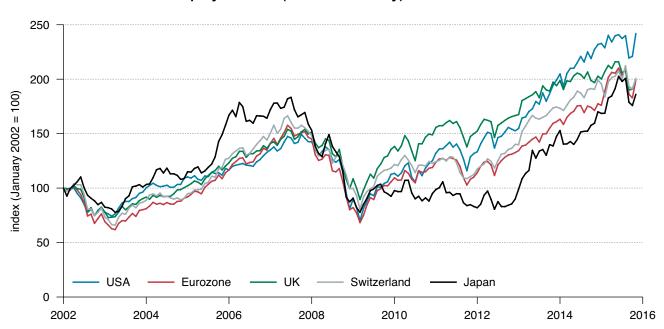
_	Performance in either local curreny or USD <sup>1</sup>						Performan	ice in CHF <sup>1</sup>
_	YTD	3 months	1 year	5 years	YTD	3 months	1 year	5 years
Swiss money market	-0.4	-0.1	-0.4	0.1	-0.4	-0.1	-0.4	0.1
Swiss government bonds	4.6	0.8	6.7	19.8	4.6	0.8	6.7	19.8
Swiss corporate bonds	3.4	1.0	4.9	18.3	3.4	1.0	4.9	18.3
Swiss equities (SMI)	0.1	-6.9	0.9	57.6	0.1	-6.9	0.9	57.6
Eurozone equities (Stoxx600)	11.4	-4.2	13.9	64.9	0.0	-4.2	2.3	32.4
UK equities (Ftse100)	-3.1	-5.1	-4.2	29.3	-3.9	-5.1	-3.1	24.8
Japanese equities (Topix)	13.6	-5.3	14.4	105.4	12.5	-1.2	13.1	41.0
US equities (S&P 500)	1.6	-1.6	2.8	93.6	3.3	1.5	7.2	95.8
Emerging markets equities	-12.8	-3.6	-15.6	-14.4	-11.3	-0.6	-12.0	-13.5
Global equities (MSCI World)	-0.3	-3.9	-0.5	56.6	1.4	-0.8	3.8	58.3
Swiss real estate	3.9	-0.3	9.6	37.7	3.9	-0.3	9.6	37.7
Global real estate	-2.5	-4.4	-1.2	53.3	-0.8	-1.3	3.0	55.0
Commodities	-21.0	-7.7	-29.4	-42.4	-19.6	-4.7	-26.4	-41.8
Brent oil	-24.6	-12.2	-45.7	-50.0	-23.3	-9.4	-43.3	-49.4
Gold	-8.5	-2.8	-7.5	-19.0	-7.0	0.3	-3.5	-18.1

<sup>&</sup>lt;sup>1</sup> Performance over the respective period of time, in percent.

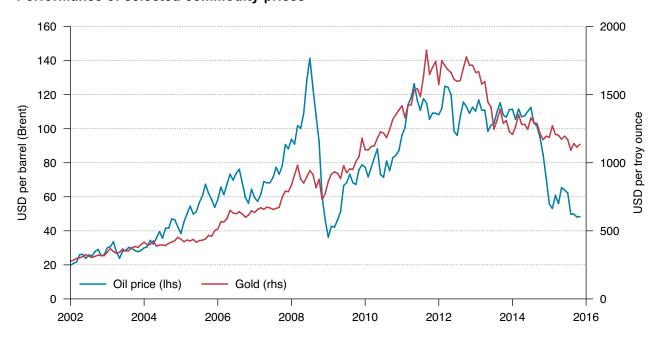
#### Performance of selected Swiss asset classes



#### Performance of selected equity markets (in local currency)



#### Performance of selected commodity prices



#### Number of the month

## **CHFCNY 6.3413**

When closing prices were published at the end of the day on 9 November 2015, one Swiss franc cost exactly 6.3413 Chinese yuans. This was the first day that direct trading between the renminbi and the franc had ever been possible, signalling further efforts by the country's central bank, the People's Bank of China (PBC), to advance the international use of its currency. It is now no longer necessary to bring in a third currency (e.g. the US dollar) to determine the exchange rate, which should reduce transaction costs for market participants. This will allow trade between Switzerland and the world's largest trading nation — which has been supported by a bilateral free trade agreement since July 2014 — to continue to prosper.

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