August 2022

QCAM MONTHLY

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QCAM Special

Expanding «FX BIAS»

After a good first year, FX BIAS ran into powerful headwinds in 2022. The Russian attack on the Ukraine was not anticipated by business surveys and the interchange of dovish and hawkish central bank decisions created additional volatility. By now, nearly half of the total drawdown has been recovered. Meanwhile, we have added more business surveys and two additional currencies and flattened the currency weighting to strengthen the performance and stability of FX BIAS.

Review of 2022 year-to-date

On December 10th 2020, we launched QCAM FX BIAS via a UBS certificate. The performance over the first year was promising and validated the value of business surveys in FX trading (see Chart 1 next page)[1]. This year, FX BIAS ran into powerful headwinds, which resulted in a temporary drawdown of 4% in the USD certificate. Two factors caused the unfavorable outcome.

First, business surveys did not anticipate the Russian attack on the Ukraine. The emerging global growth optimism at the start of the year spurred business surveys and FX BIAS went long most basket currencies versus the USD (see Chart 2 next page). At the time of the Russian attack on Ukraine, FX BIAS had a net short USD position of over 80%. Moreover, most business surveys had just been conducted and were not due for several weeks. To limit the downside, the QCAM Risk Committee decided to suspend the positions of EUR, JPY, GBP and SEK until new surveys became available in March. At the beginning of April, the Risk Committee decided to reactivate all positions but reduce the leverage temporarily from 1.5 to 0.3 as the signals from the business surveys adjusted with some lag, while volatility and uncertainty remained high. In the second half of April, FX BIAS had turned net long USD with only the positions in the JPY and the AUD remaining short USD thanks to more resilient business surveys and the Risk Committee decided to increase the leverage again gradually.

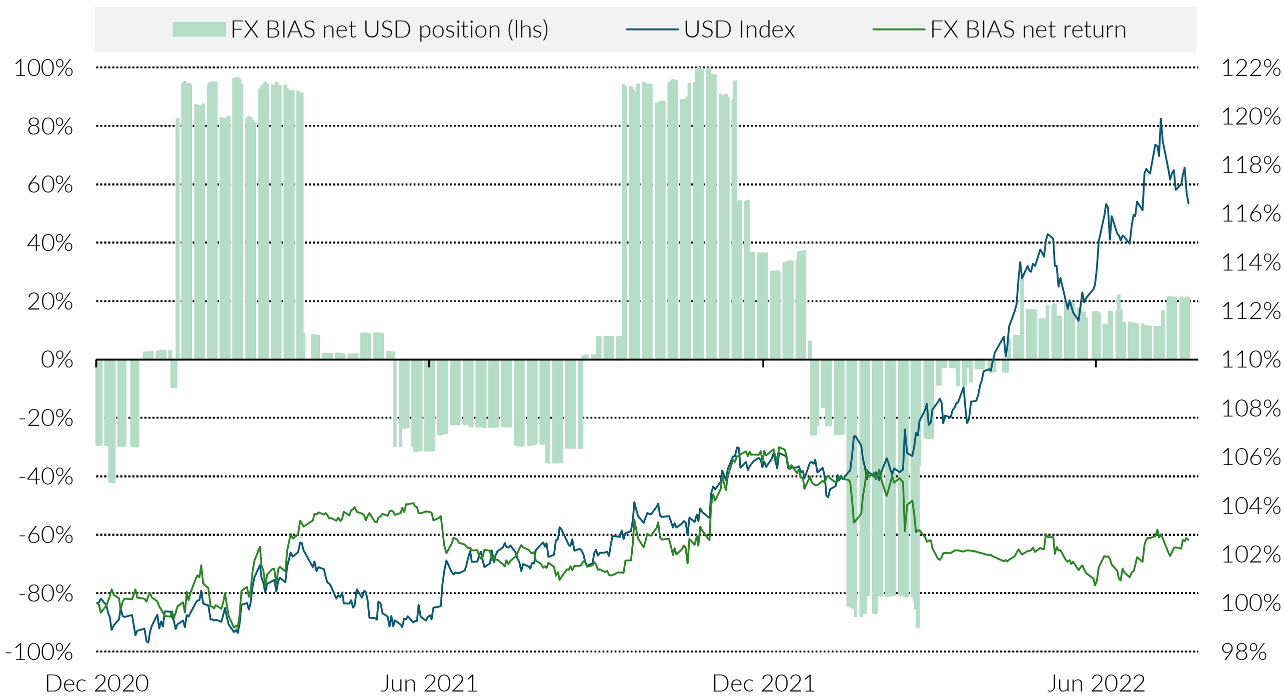
The second negative performance factor was the interchange of both dovish and hawkish central bank decisions. The biggest drag came from the BoJ's refusal to join other central banks in normalizing policy. As the JPY went from 115 at the end of February to 139 recently, this subtracted about 2.5% points from the performance of the FX BIAS certificate. The other disturbance was the belated policy shift by the ECB, which suddenly caused financial markets to expect much faster interest rate increases. Since FX BIAS had turned short EUR in April thanks to weaker business surveys, the rally of the EUR from 1.04 to 1.08 in May temporarily reduced the performance of the FX BIAS certificate by 1.5% points.

The way forward

At the end of July, FX BIAS was modestly long USD with a leverage factor of 1.0 and performance had recovered 1.9% from the earlier lows (see Chart 1 again). So far this year, the most negative performance contribution came from the JPY (-1.7% points) followed by the EUR and the GBP (both -0.4% points). Despite this year's setback, we believe that systematic trading strategies based on business surveys are well suited to produce solid returns at moderate volatility and low correlations with other major asset classes as FX BIAS demonstrated during the first year.

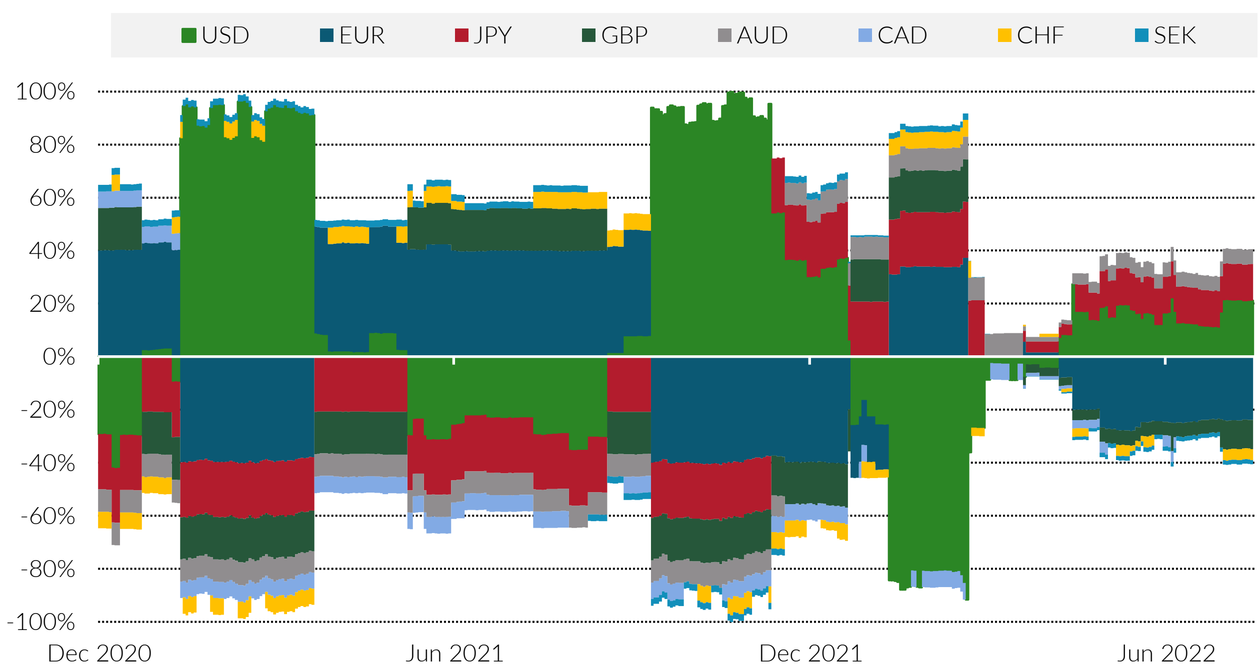
1 See QCAM Special – One year of FX BIAS,; QCAM FX Monthly; December 2021.

Chart 1: QCAM FX BIAS net USD position and return versus USD index since launch



Source: QCAM; The returns refer to the USD based FX BIAS certificate and are net of costs and fees.

Chart 2: QCAM FX BIAS individual currency positions since launch of certificate



Source: QCAM

However, two lessons are clear. First, business surveys are not immune to exogenous shocks and may take some time to adjust. Second, while business surveys capture business cycle dynamics and their impact on exchange rates, other factors such as a diverging monetary policy stance can be temporarily stronger.

There is no simple fix to these challenges. Besides prudent risk management, however, we believe that more diversification across business surveys and currencies and less concentration risk can significantly mitigate downside risks.

More surveys and currencies

Initially, FX BIAS was based on 8 currencies (USD, EUR, JPY, GBP, AUD, CAD, CHF and SEK) with one business survey for each currency. Last year, we already added 6 more surveys. Now we are expanding FX BIAS by two more currencies (NZD and NOK) and 8 more surveys. We differentiate between surveys that focus entirely on domestic business conditions in each currency's economy and complementary surveys that are relevant to the currency but not country specific (see Table next page). For AUD, CAD, NOK and NZD, we have added a specific survey that captures price dynamics in the oil and commodity sector. For AUD and NZD, we have also added a China survey, as both countries depend significantly on China's business cycle. Finally, we have added a Euro-area survey for CHF, NOK and SEK as these currencies have strong links to the EUR. In total, we now have 19 domestic surveys plus 3 complementary surveys. Importantly, all currencies now rest on at least 2 surveys. This means currency positions are no longer binary (100% long or short) but can take positions in-between including neutral.

Flattening the weighting distribution

When we launched FX BIAS we used the BIS FX trading statistics to calculate the currency weights. The rational was that more liquid currencies are more likely to respond to business cycle dynamics and less to idiosyncratic factors. As a result, the EUR got the largest weight with 40%. We were comfortable with this concentration at the time since we had the longest and best life track record with business surveys in EURUSD. With more life experience, currencies and surveys we believe it is time to flatten the weighting distribution. The simplest and cleanest method, in our view, is a 50/50 split between BIS trading weights and equal weights. The last column in the table on the next page shows the new weights. The EUR retains the largest weight, but comes down to just below 25%. JPY and GBP also decline in weight, while all other currencies gain weight.

Better return and risk profile

Chart 3 on the next page shows the back-tested performance of the new expanded FX BIAS versus the old FX BIAS. The performance of the two is fairly similar in 2017 and 2018 and starts to diverge in 2019. Overall, the new FX BIAS outperforms the old by more than 2% points p.a. with more than 1% point less volatility, reaching a Sharpe ratio of almost 2. Notable is the much better performance so far in 2022. The new FX BIAS fell in response to the Russian attack on the Ukraine by 1% point, but stabilized and recovered quickly (without risk management intervention) and is up 2.5% YTD, outperforming the old FX Bias by 4% points. The performance of the JPY position is still negative this year, but this matters less given the lower weight and is fully offset by the positive performances of all other currency positions, especially from some of the smaller once, like the NOK, the NZD and the SEK. We have implemented the new FX BIAS this week and expect to increase the leverage back to 1.5 after a short transition period. Shocks can still create setbacks, but we believe the new FX BIAS is better equipped to handle them and to deliver attractive returns at modest volatility and low correlations with other assets classes over time.

→ Please contact us for further information and the fact sheet

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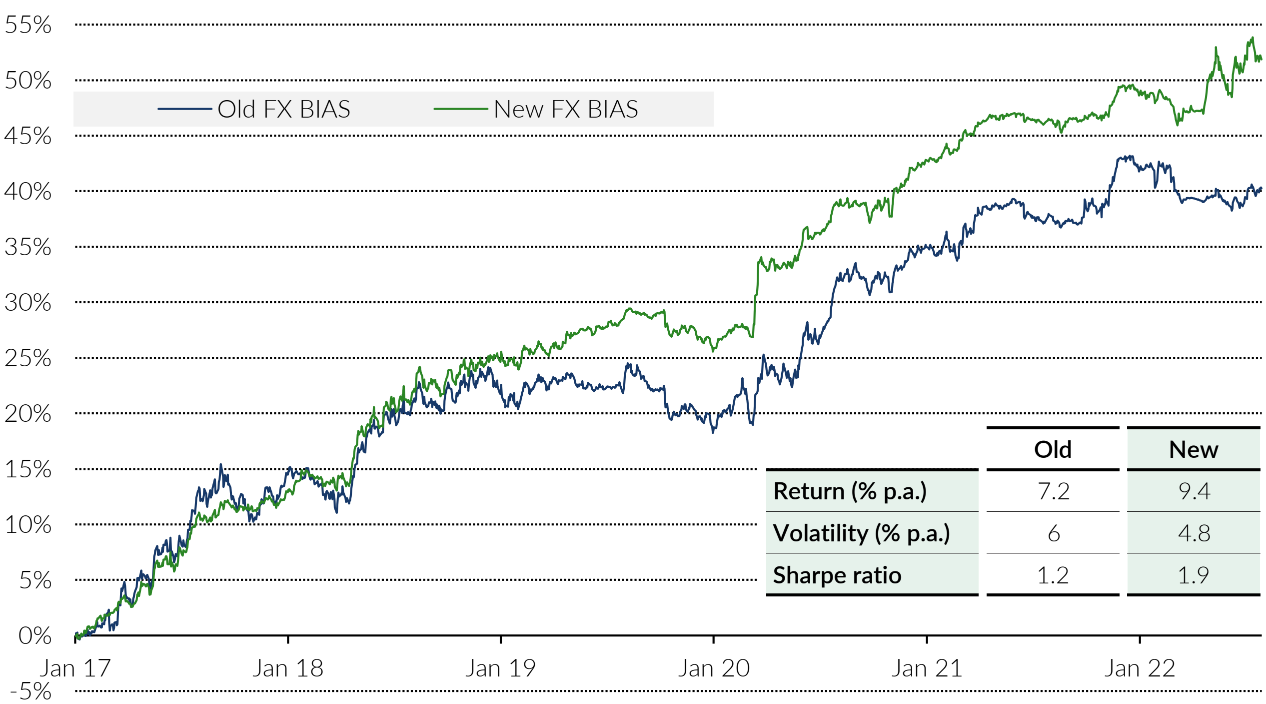
Table: QCAM FX BIAS currencies, surveys and weights

	Domestic surveys	Complementary surveys	Weights based on BIS trading volume	50% weights based on BIS trading volume & 50% equal weighted
USD	3		100.0%	100.0%
EUR	3		38.2%	24.6%
JPY	2		19.9%	15.5&
GBP	2		15.1%	13.1%
AUD	3	China, oil/commodities	8.0%	9.6%
CAD	1	Oil/commodities	6.0%	8.5%
CHF	1	Euro-area	5.9%	8.5%
NZD	2	China, oil/commodities	2.5%	6.8%
SEK	1	Euro-area	2.4%	6.8%
NOK	1	Euro-area, oil/commodities	2.1%	6.6%

Source: QCAM

Chart 3: QCAM FX BIAS gross returns – new versus old



	Old	New
Return (% p.a.)	7.2	9.4
Volatility (% p.a.)	6	4.8
Sharpe ratio	1.2	1.9

Source: QCAM Currency Asset Management - The returns refer to the USD based FX BIAS (1.5 leverage) and do not include costs and fees. The "Old FX BIAS" is the life performance since December 10th, 2020 and the back-tested performance before then.

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QCAM Insight

Who's afraid of recession?

Bernhard Eschweiler, Economic Advisor
QCAM Currency Asset Management AG

The risk of recession in the major economies has increased yet financial markets are not very intimidated, hoping that central banks will prevent the worst. The USD slipped as interest rates and risk aversion declined. In our view, market optimism is premature, especially given the risks in Europe. Moreover, central banks are unlikely to ease soon if inflation stays stubbornly high.

After a strong rally in the first half of July, the USD DXY has been falling over the last three weeks losing more than half of the earlier gain. Even though, the USD DXY is still up 1.8% since the start of July and 11.3% year-to-date. The pattern of strength and weakness was not uniform among major currencies. The biggest contrast was between the JPY and the EUR. The JPY moved from above 139 versus the USD in the middle of July to nearly 130 on August 2nd, while the EUR struggled to stay above parity. Since the start of July, the JPY is now 1.1% stronger, while the EUR is 3.1% weaker. Emerging markets currencies went through a similar pattern of weakness in the first half of July followed by strength over the last three weeks. The TRY remains the chronic underperformer and the RUB's rally has finally stalled.

Expecting but not fearing recession

The pattern of USD strength until the middle of July and subsequent weakness reflects financial markets' assessment of recession risks and the implication for monetary policy. Hard data as well as sentiment indicators point to an economic slowdown in the major advanced economies that is bordering to a recession. In our own view, the probability of recessions in the US and the Euro-area over the next 12 months is approaching 50%. Financial market indicators imply an even higher probability of recession. Ten-year government bond yields in the US and Germany dropped by 75bps and 100bps respectively since the middle of June. In the US, the yield curve between 10-year and 2-year Treasuries has inverted to -30bps, which is viewed by the market as a clear sign of an upcoming recession.

Against that background it is surprising that risky financial assets have performed well in recent weeks. The S&P500 is up 13.3% from the low in the middle of June, the EUROSTOXX600 is up 9.7% from the low in early July and the FTSE100 and the Nikkei225 are up 5.9% and 8.4% respectively from their lows in June. In the bond market, high-yield spreads in the US and Europe have dropped by more than 100bps since early July.

The contrast between rising recession risk and improving risk sentiment reflects primarily the expectation in financial markets that central banks will have to respond swiftly if recession actually occurs. The more dovish view on monetary policy is visible in short-term interest rates forwards (see chart). In the US, the expected level of short-term interest rates 12-months ahead has dropped from a peak of around 4% to just above 3%. In the Euro-area, the decline has been even bigger from 2.4% to 1.2%.

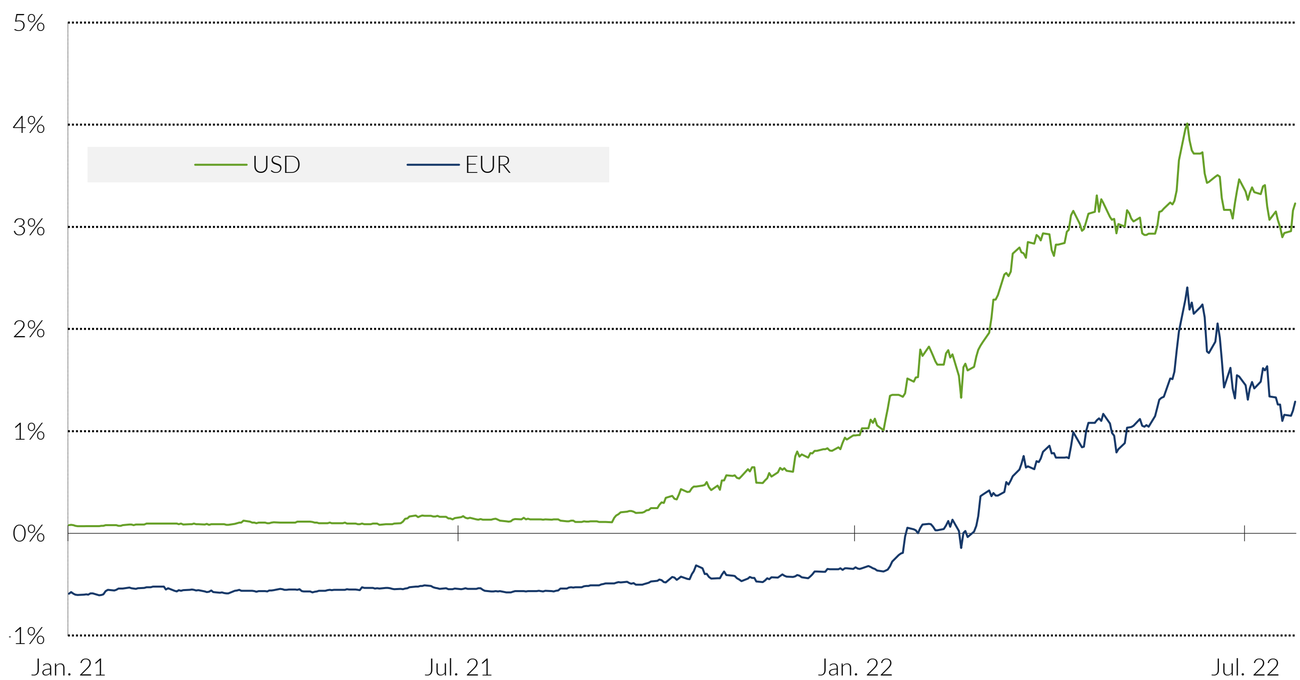
The market's read and response to recession risks has impacted FX through two channels. First, the broad improvement in risk sentiment has hurt the USD as the ultimate safe-haven currency. Second, the downward adjustment in rate hiking expectations has changed interest rate differentials. This has particularly benefitted the JPY, which after months of rising carry losses saw the differential to USD interest rates finally narrowing again. By the same token, the rising spread between USD and EUR interest rates helps explain the EUR's relative underperformance.

Too uncertain to be sure

In our view, the market's optimism is premature. First, the deterioration in economic conditions is very dynamic and could lead to a worse outcome than markets are anticipating. Second, there are large potential event risks. The Euro-area could get hit hard by a supply stop of Russian gas and/or by a debt crisis in Italy. The upcoming US mid-term elections are also good for unpleasant surprises. Finally, Corona is not completely gone and could rear its ugly head again in the fall. Another Corona wave could be especially bad news for China, which is just recovering from its latest lockdown. Third, it is all but certain that central banks will ease quickly when facing recession. Recessions are typically disinflationary but this time it could take longer until inflation comes down. Labor markets are tighter and firms may be reluctant to shed workers. Supply bottlenecks are easing but some shortages may persist, especially if Corona makes another comeback. Geopolitics and unfavorable weather conditions are likely to keep food in short supply for some time. Finally, any oil and/or gas embargo related to the war in the Ukraine is certain to boost energy prices again.

Given the nearly 50/50 chances between recession and no recession and the high level of related risks and uncertainties, we prefer to keep our discretionary Macro positions at neutral across all major currency pairs. In contrast, both our Business Sentiment (FX BIAS) and Technical positions are still moderately long USD.

1-month OIS rates 12-months forward



Source: JPMorgan and QCAM

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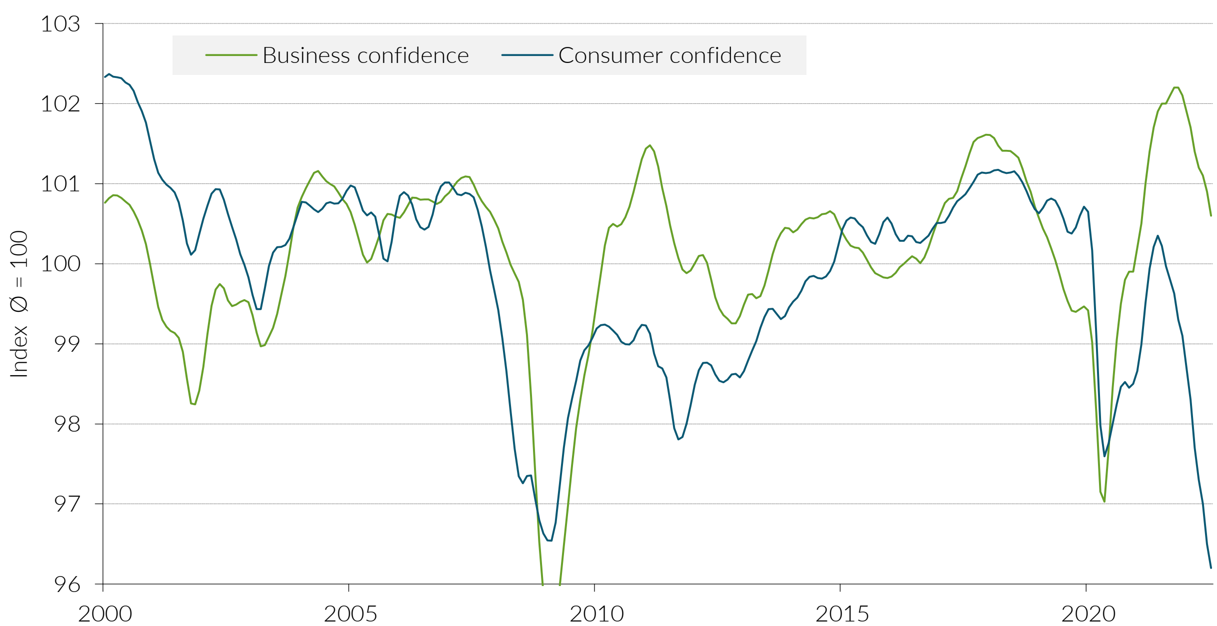
Economy & Interest Rates

Growth forecasts continue to slide lower. Recession is not imminent given the recovery momentum from the Corona pandemic but the probability of a recession over the next year is approaching 50%. Consumers respond more negatively to high inflation and rising interest rates than businesses. An energy crisis is the biggest risk for Europe, while monetary tightening at full employment is the bigger risk for the US. Inflation should peak soon given the slowdown in growth and the recovery from the Corona-related supply and demand distortions, but underlying inflation pressures will force more central bank tightening this year and possibly next year.

	Real GDP growth[1]		Unemployment rate[1]		Inflation rate[1]		Current account[2]		Fiscal balance[2]		Public debt[2]	
	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022
Global	6.1	3.0	n.a.	n.a.	4.7	7.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Developed	5.2	2.5	n.a.	n.a.	3.1	7.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
USA	5.7	2.0	5.4	3.6	4.7	8.0	-3.5	-4.0	-10.2	-4.0	133	128
Canada	4.5	3.5	7.4	6.0	3.4	7.0	0.1	1.5	-4.7	-2.0	112	102
Euro-area	5.3	2.5	7.7	6.6	2.6	8.0	2.4	1.5	-5.5	-4.0	79	79
Sweden	4.8	2.5	8.8	8.0	2.7	6.0	5.5	4.0	-1.0	-1.0	37	35
Switzerland	3.7	2.5	3.0	2.5	0.6	3.0	9.3	6.0	-1.9	-1.0	42	42
UK	7.4	3.0	4.5	4.0	2.6	9.0	-2.6	-5.0	-8.0	-4.5	95	90
Japan	1.7	1.5	2.8	2.5	-0.3	2.0	2.9	1.5	-7.6	-6.0	263	263
Australia	4.7	3.5	5.1	4.0	2.9	6.0	3.5	3.0	-7.7	-4.0	60	60
Emerging	6.8	3.5	n.a.	n.a.	5.9	7.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
China	8.1	3.5	4.1	4.0	0.9	2.5	1.8	2.0	-6.0	-6.0	73	78
India	8.7	7.0	n.a.	n.a.	5.5	7.0	-1.6	-3.0	-10.4	-10.0	87	87
Russia	4.7	-4.5	4.8	5.0	6.7	15.0	6.9	10.0	0.7	-1.0	17	17
Brazil	4.6	1.5	14.2	11.0	8.3	10.0	-1.7	0.0	-4.4	-7.0	93	92

Source: OECD, IMF World Economic Outlook and QCAM estimates [1] In percent annual average [2] In percent of GDP

OECD business and consumer confidence*



Source: OECD and QCAM *The last observations are QCAM estimates based on other surveys

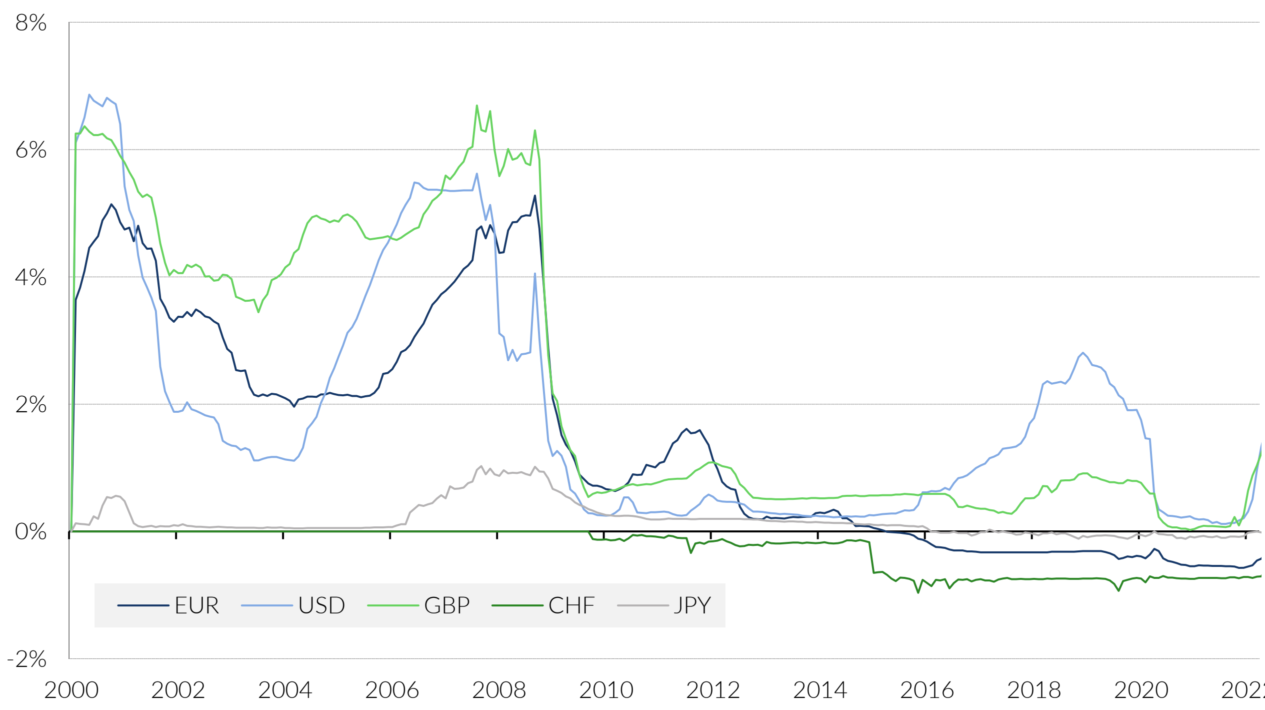
Interest Rates

Interest Rate Level Overview

	Short Term Interest Rate (3month OIS)					Long Term Interest Rate (10year Swap)				
	Current	1M ago	3M ago	12M ago	Ø 3 years	Current	1M ago	3M ago	12M ago	Ø 3 years
USD	2.63%	2.19%	1.18%	0.09%	0.58%	2.82%	2.96%	3.06%	1.21%	1.50%
EUR	-0.10%	-0.59%	-0.59%	-0.58%	-0.56%	1.66%	2.07%	1.76%	-0.10%	0.24%
JPY	-0.02%	-0.04%	-0.03%	-0.04%	-0.05%	0.34%	0.46%	0.42%	0.04%	0.12%
GBP	1.87%	1.56%	1.13%	0.05%	0.39%	2.04%	2.20%	1.93%	0.53%	0.75%
CHF	0.04%	-0.18%	-0.71%	-0.74%	-0.71%	1.20%	1.54%	1.33%	-0.21%	-0.01%
AUD	2.13%	1.65%	0.54%	0.03%	0.32%	3.55%	3.97%	3.66%	1.24%	1.65%
CAD	2.91%	2.26%	1.44%	0.19%	0.72%	3.22%	3.67%	3.42%	1.66%	1.86%
SEK	1.16%	0.79%	0.35%	-0.04%	0.01%	2.22%	2.59%	2.41%	0.53%	0.82%
RUB	7.86%	9.25%	13.50%	6.55%	7.22%	8.11%	8.10%	12.90%	7.08%	8.06%
BRL	13.39%	13.12%	12.77%	5.28%	5.21%	12.80%	12.78%	12.13%	9.40%	9.13%
CNY	1.75%	1.88%	2.06%	2.26%	2.28%	2.55%	2.75%	2.66%	2.67%	2.79%
TRY	20.15%	20.16%	16.70%	19.20%	0.00%	38.04%	38.04%	25.50%	17.61%	17.15%
INR	5.44%	5.25%	4.09%	3.51%	4.13%	6.39%	7.02%	6.98%	5.81%	5.58%

Source: QCAM Currency Asset Management, as of August 3rd, 2022

3-month Libor



Source: QCAM Currency Asset Management, as of end of July 2022

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FX Markets

FX Performance vs. PPP

The USD rallied in early July but lost most gains over the last three weeks. The JPY made up most lost ground, while the EUR struggled to stay above parity. Among EM currencies, the RUB's rally finally stalled, while the TRL continued to underperform. Speculative net long USD positions were range bound. Interest rate differentials are no longer rising and some even narrowed but forward hedging versus the USD remains costly from the perspective of EUR, JPY and CHF. Actual FX volatilities rose, while implied FX volatilities were mixed. Both volatilities are well above their long-term averages. PPP estimates continue to roll selectively against the USD. The JPY regained some ground but is still 44% undervalued versus the USD.

Overview

	Current Exchange Rate	Performance[1]				Purchasing Power Parity[2]		
		YTD	1M	12M	5 years	PPP	Neutral Range	Deviation[3]
EURUSD	1.015	-10.86%	-2.42%	-14.48%	-14.48%	1.29	1.15 - 1.43	-21%
USDJPY	134.130	16.60%	-0.85%	22.99%	21.74%	92.83	82.3 - 103.3	44%
GBPUSD	1.214	-10.28%	0.81%	-12.75%	-7.55%	1.60	1.42 - 1.77	-24%
EURCHF	0.977	-5.83%	-2.34%	-8.92%	-15.14%	1.00	0.94 - 1.05	-2%
USDCHF	0.963	5.63%	0.08%	6.49%	-0.76%	0.80	0.71 - 0.89	20%
GBPCHF	1.169	-5.25%	0.87%	-7.09%	-8.27%	1.17	1.06 - 1.27	0%
CHFJPY	139.319	10.36%	-0.93%	15.47%	22.67%	95.10	84.1 - 106.1	46%
AUDUSD	0.694	-4.64%	2.27%	-6.13%	-12.64%	0.73	0.64 - 0.81	-5%
USDCAD	1.286	1.64%	-0.47%	2.44%	2.30%	1.19	1.11 - 1.28	8%
USDSEK	10.222	13.11%	-1.08%	18.89%	26.13%	8.27	7.32 - 9.22	24%
EURSEK	10.376	0.85%	-3.46%	1.68%	7.87%	8.71	8.18 - 9.25	19%
USDRUB	60.623	-19.25%	8.01%	-16.90%	0.61%	57.98	45.3 - 70.7	5%
USDBRL	5.261	-5.58%	-1.04%	0.55%	68.77%	3.76	3.11 - 4.42	40%
USDCNY	6.761	6.35%	0.82%	4.55%	0.48%	7.68	7.43 - 7.94	-12%
USDTRY	17.968	35.80%	7.21%	113.74%	407.79%	9.96	7.81 - 12.1	80%
USDINR	79.086	6.16%	0.20%	6.53%	24.14%	69.03	64.1 - 73.9	15%

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

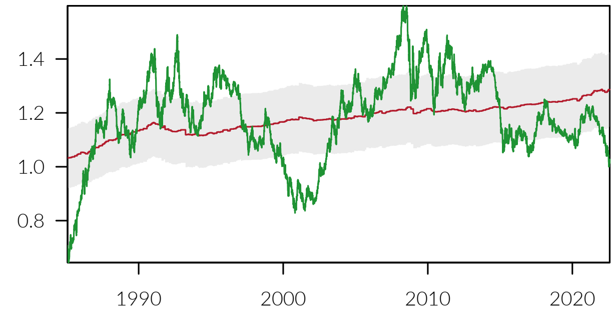
[2] Purchasing power parity (PPP) is estimated based on the relative development of inflation rates in two currency markets; the neutral range is determined by ± 1 standard deviation of the historical variation around the PPP value.

[3] Deviation of the current spot rate from PPP, in percent.

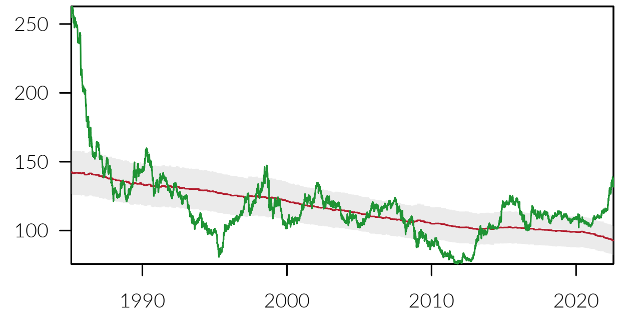
Source: QCAM Currency Asset Management, as of August 3rd, 2022

Purchasing Power Parity

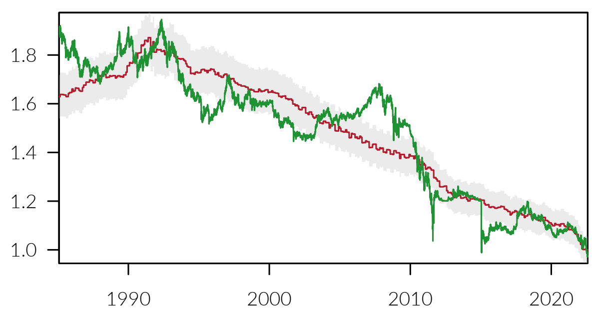
EURUSD



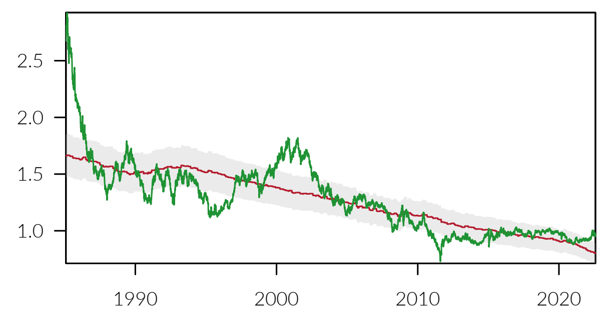
USDJPY



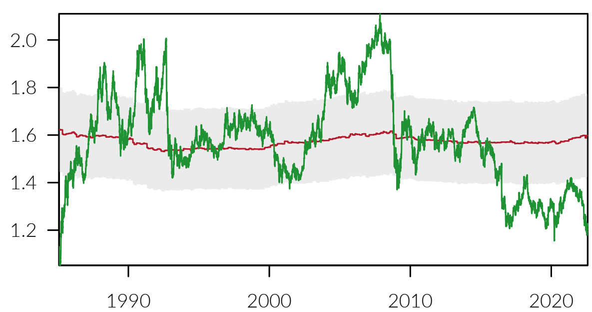
EURCHF



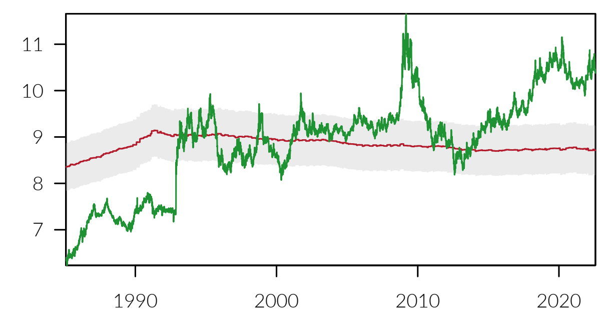
USDCHF



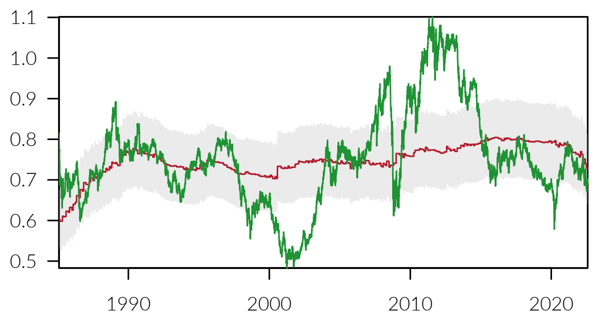
GBPUSD



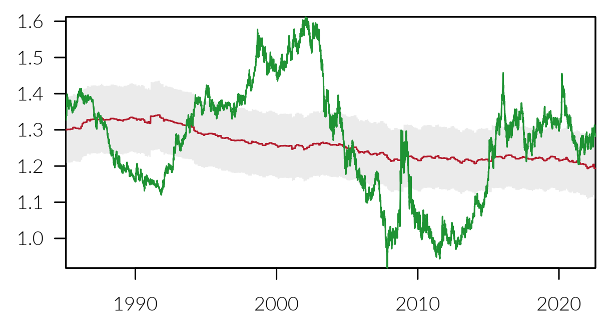
EURSEK



AUDUSD



USDCAD



PPP Spot Neutral Range

Source: QCAM Currency Asset Management, as of August 3rd, 2022.

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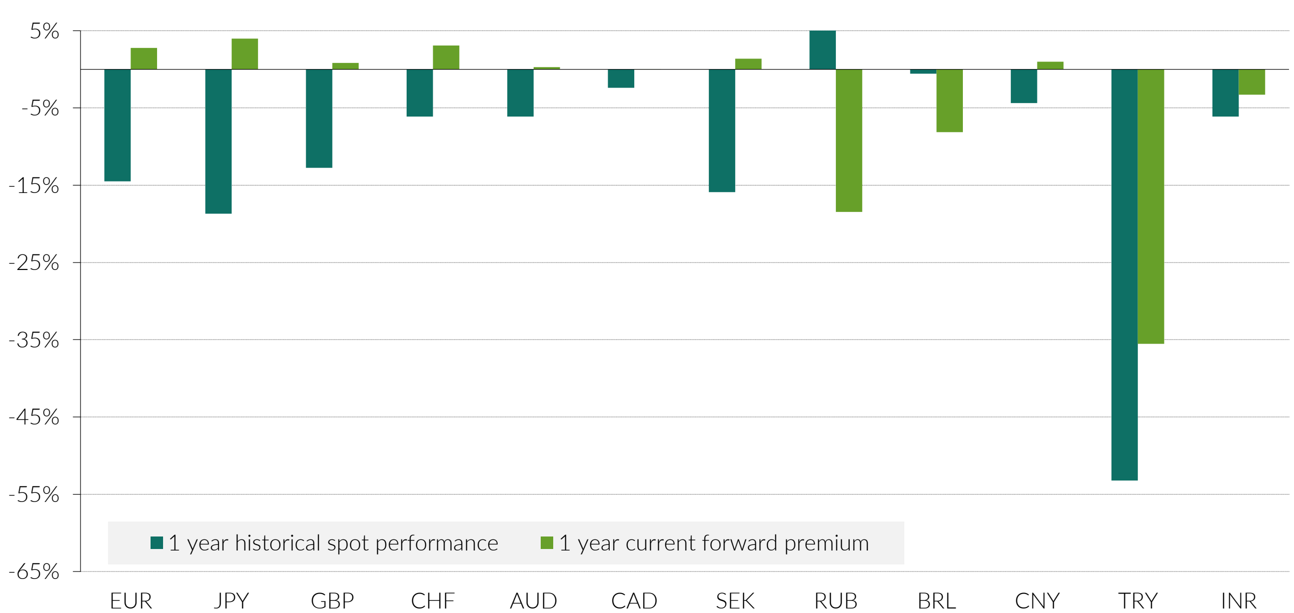
FX Spot vs Forwards

FX Forwards Level and Premium

	Current Exchange Rate	Forward Level			Premium p.a.		
		1M	3M	12M	1M	3M	12M
EURUSD	1.015	1.0172	1.0218	1.0433	2.45%	2.58%	2.73%
USDJPY	134.130	133.8258	133.0804	129.0105	-2.55%	-3.00%	-3.74%
GBPUSD	1.214	1.2151	1.2170	1.2246	0.75%	0.84%	0.83%
EURCHF	0.977	0.9770	0.9766	0.9742	-0.18%	-0.20%	-0.29%
USDCHF	0.963	0.9605	0.9557	0.9338	-2.62%	-2.77%	-2.94%
GBPCHF	1.169	1.1670	1.1630	1.1434	-1.87%	-1.94%	-2.14%
CHFJPY	139.319	139.3269	139.2348	138.1479	0.06%	-0.23%	-0.82%
AUDUSD	0.694	0.6943	0.6949	0.6958	0.61%	0.56%	0.27%
USDCAD	1.286	1.2857	1.2860	1.2854	0.06%	0.13%	-0.02%
USDSEK	10.222	10.2066	10.1812	10.0827	-1.64%	-1.51%	-1.33%
EURSEK	10.376	10.3830	10.4044	10.5199	0.81%	1.06%	1.36%
USDRUB	60.623	62.3290	66.1418	74.3430	30.70%	34.50%	22.32%
USDBRL	5.261	5.3076	5.3894	5.7269	10.02%	9.36%	8.69%
USDCNY	6.761	6.7549	6.7429	6.6936	-0.93%	-1.00%	-0.97%
USDTRY	17.968	18.5476	19.9355	27.8721	35.18%	42.84%	54.36%
USDINR	79.086	79.3515	79.8183	81.7665	3.78%	3.55%	3.33%

Historical Spot Performance and Current Forward Premium vs. the US Dollar



Source: QCAM Currency Asset Management, as of August 3rd, 2022

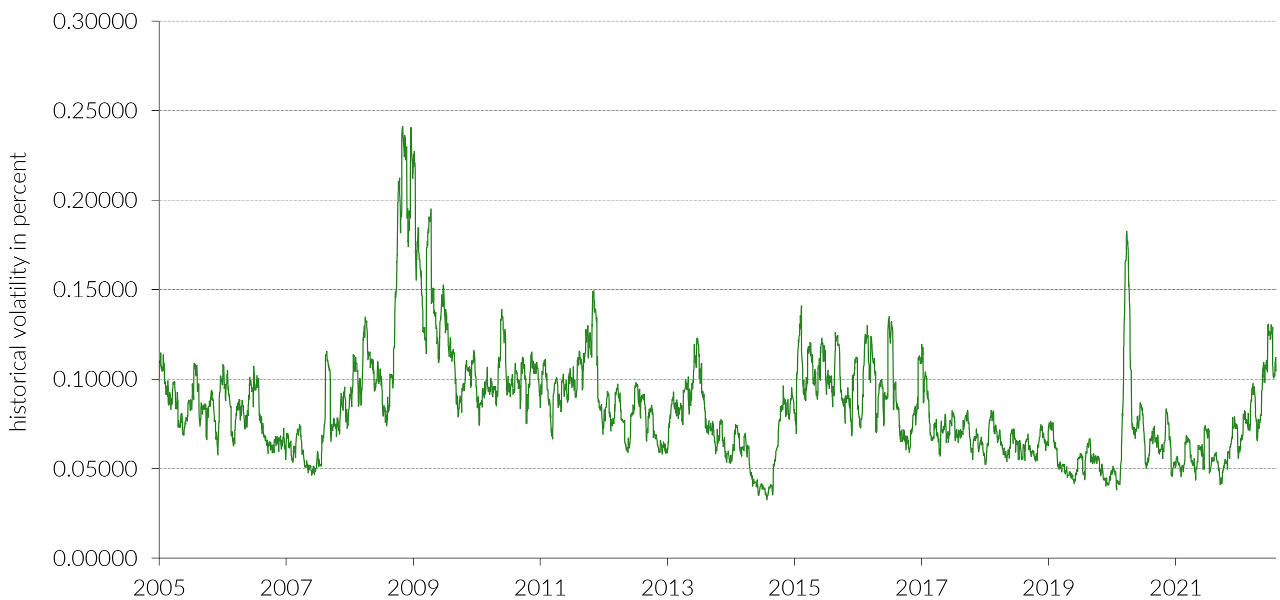
FX Volatility

Historical vs. Implied Volatility

	Current Exchange Rate	Historical Volatility [1]				Implied Volatility [2]			
		Current	1M	12M	Ø 5 years	Current	1M	12M	Ø 5 years
EURUSD	1.015	11.23%	9.87%	6.09%	6.44%	10.55%	9.58%	5.40%	6.66%
USDJPY	134.130	12.47%	11.81%	5.55%	6.61%	11.10%	12.95%	5.68%	7.29%
GBPUSD	1.214	12.49%	11.81%	6.80%	8.22%	10.43%	11.15%	6.68%	8.79%
EURCHF	0.977	8.04%	7.85%	3.12%	4.48%	8.40%	7.85%	3.93%	5.19%
USDCHF	0.963	11.67%	10.96%	6.97%	6.52%	8.98%	9.46%	5.80%	6.62%
GBPCHF	1.169	8.65%	8.80%	5.60%	7.77%	9.35%	10.00%	6.35%	8.26%
CHFJPY	139.319	11.44%	11.89%	6.04%	6.11%	10.60%	12.48%	5.72%	6.78%
AUDUSD	0.694	13.29%	12.83%	8.78%	8.88%	12.15%	13.10%	8.93%	9.14%
USDCAD	1.286	8.22%	7.78%	7.73%	6.64%	7.73%	7.93%	6.93%	6.71%
USDSEK	10.222	13.28%	12.71%	8.91%	8.97%	13.25%	13.43%	7.90%	9.10%
EURSEK	10.376	5.06%	6.99%	4.06%	5.88%	7.40%	7.45%	4.78%	6.15%
USDRUB	60.623	51.95%	44.82%	7.02%	17.39%	53.32%	52.10%	10.48%	16.47%
USDBRL	5.261	17.14%	17.58%	14.94%	14.51%	22.18%	20.70%	17.20%	15.94%
USDCNY	6.761	6.29%	7.18%	4.39%	4.48%	5.88%	5.48%	4.45%	5.21%
USDTRY	17.968	14.46%	14.14%	12.29%	18.47%	31.02%	29.13%	14.59%	19.82%
USDINR	79.086	4.03%	3.70%	4.66%	5.44%	5.68%	5.53%	5.20%	6.26%

[1] Realised 3-month volatility (annualised) [2] Market implied 3-month volatility (annualised)

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: QCAM Currency Asset Management, as of August 3rd, 2022

FX Analytics

QCAM has developed an analytical framework to take scalable exchange rate positions. The QCAM exchange rate strategy for each currency pair has three principal components:

- **Macro**
- **Business Sentiment**
- **Technical**

The positioning signals from each component are aggregated into an overall positioning score for each currency pair. This score is used for the dynamic exposure management.

The Macro component consists typically of economic growth, balance of payments, fiscal and monetary policy and in some cases commodity fundamentals. The positions are either discretionary or model driven.

The Business Sentiment component is a rule-based framework built on business surveys.

The Technical component consists primarily of the technical analysis of daily exchange rates (trend following and mean reversion). We also consider speculative futures positions and the deviation of exchange rates from purchasing power parity.

The summary table below and the following pages show the QCAM strategy framework and the positioning for the major currency pairs actively covered by QCAM. The tables break each of the three strategies into subcomponents with an indication of the current impact. The charts show the respective exchange rate with past QCAM positions and their scale

Current positioning

There have been relatively few position changes. Our discretionary Macro positions remain neutral, given the uncertain macro environment. The balance of the Business Sentiment positions is modestly long USD. The Technical positions are long USD except for the CHF. The overall strategy portfolio remains moderately long USD.

Overview[1]

	Macro	Business Sentiment	Technical	Comment
EURUSD	0	– –	–	All positions remained unchanged with the balance half short EUR.
USDJPY	0/+	– –	+	The Macro interest model went short JPY, while all other positions remained unchanged.
EURCHF	0	– –	–	Macro remained neutral, Business Sentiment went short CHF vs the USD and Technical went neutral in USDCHF. The balance of all positions is neutral CHF with a modest long versus the EUR and a similarly modest short versus the USD.
USDCHF	0	++	0	
GBPUSD	0	– –	–	Positions have not changed and remain half short GBP.
EURSEK	0/0	++	+	The Macro interest rate model moved to neutral and the Technical position shifted to short SEK.
USDCAD	0/+	– –	++	Positions have not changed and are on balance slightly short CAD.

[1] The signs relate to the first currency of the exchange rate pair ; ++ or – – mean 100% long or short; */* means split position.

Source: QCAM Currency Asset Management

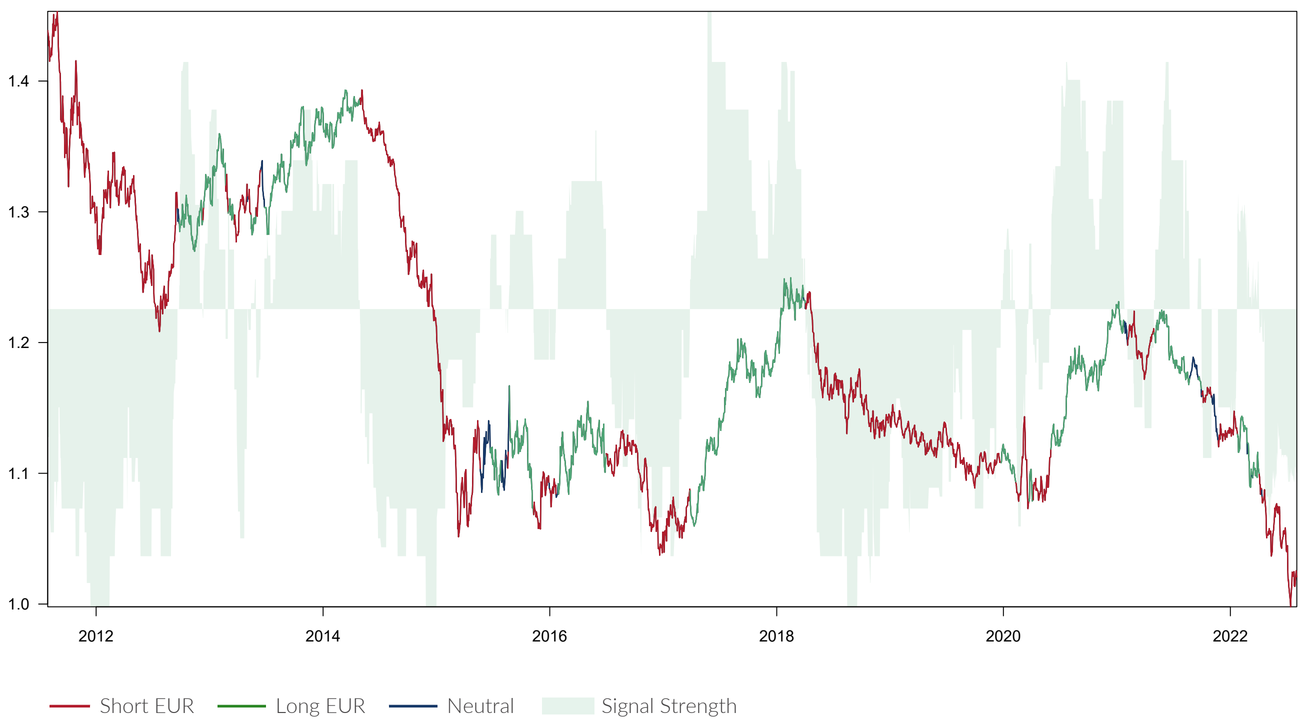
EURUSD

Recession risks and uncertainties related to a stop of Russian gas supplies as well as a debt crisis in Italy dominate EURUSD. On the other hand, the Euro-area economy is holding up well given the circumstances and the ECB is set to tighten policy.

Our positions have not changed (neutral Macro, short EUR in Business Sentiment and half short EUR in Technical). The overall position is half short EUR versus the USD.

	FX Factors	EUR Impact	Comment
Macro	Current Account Balances	0/+	The surge in energy prices has reduced the Euro-area's current account surplus
	Fiscal Balances	0	The US deficit has declined after the surge last year and is approaching a similar level to the Euro-area deficit
	Interest Rate Differentials	–	Retreating expectations of interest rate hikes have widened the differential again to the disadvantage of the EUR
	Oil prices	0	Oil prices are moving in a volatile range with downside bias
Sentiment	Business Sentiment	– –	The momentum in Euro-area surveys has fallen below US surveys
	Risk Sentiment	– –	Uncertainty related to a possible energy crisis in Europe and debt problems in Italy has increased
Technical	Price Action	–	Price technicals remain short EUR
	Spec Positions	0/+	Short EUR positions have increased but not to extreme levels
	PPP Valuation	+	EUR undervaluation is around 21%

EURUSD and QCAM Strategic Positioning



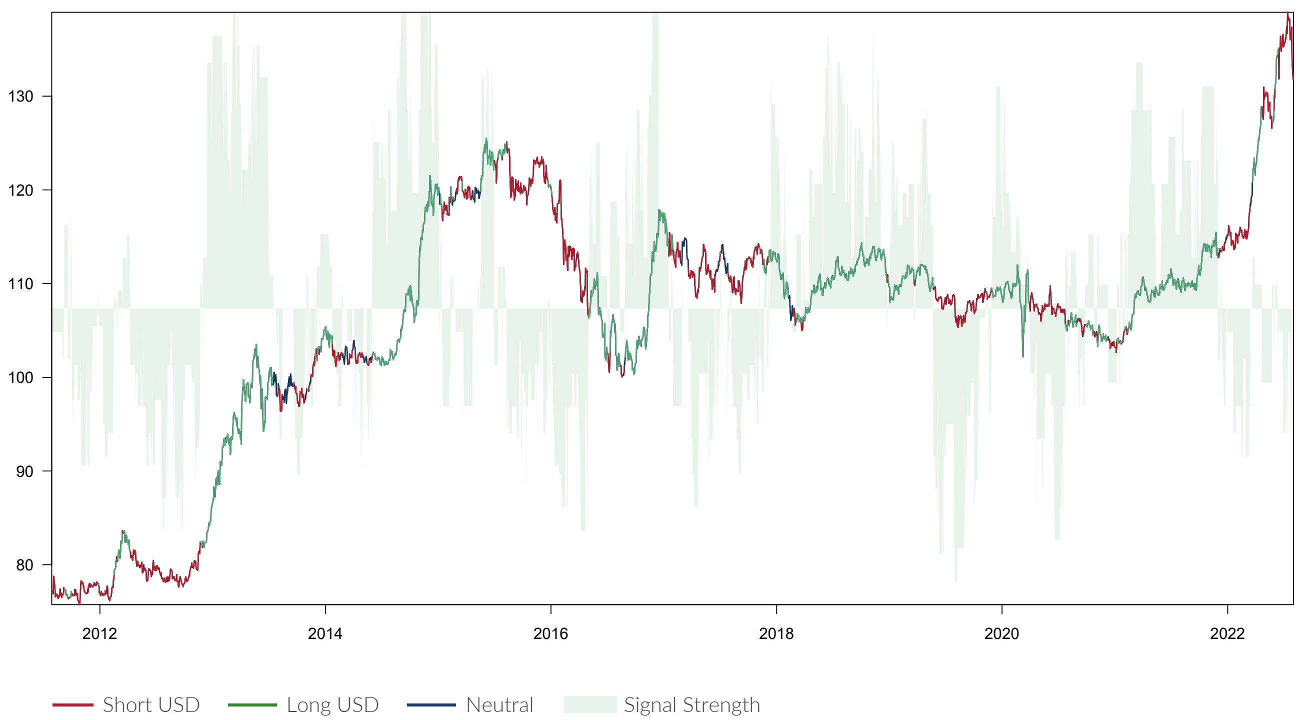
Source: QCAM Currency Asset Management

USDJPY

The economy is holding up better than feared, but the current account cushion is declining and the commitment to the zero interest rate policy remains strong. Our discretionary Macro position remains neutral and the Macro carry model switched to short JPY due to falling equity market volatility. Business Sentiment in Japan held up and maintained the long JPY position, while Technical stayed short JPY. The balance of all strategy positions is slightly long JPY.

	FX Factors	JPY Impact	Comment
Macro	Current Account Balances	0/+	The Japanese surplus has declined most recently on rising energy prices
	FDI Flows	–	Net outflows have increased to the pre-Corona level
	Interest Rate Differentials	–	JPY interest rates remain zero-bound but receding interest rates elsewhere have reduced the appeal of the carry trade
Sentiment	Business Sentiment	++	Momentum of Japanese Business Sentiment versus the US remains positive
	Risk Sentiment	0	Changes in risk sentiment had little impact so far this year
Technical	Price Action	–	Price action remains JPY negative
	Spec Positions	0	Oversold positions have declined
	PPP Valuation	+	The JPY is currently about 44% undervalued

USDJPY and QCAM Strategic Positioning



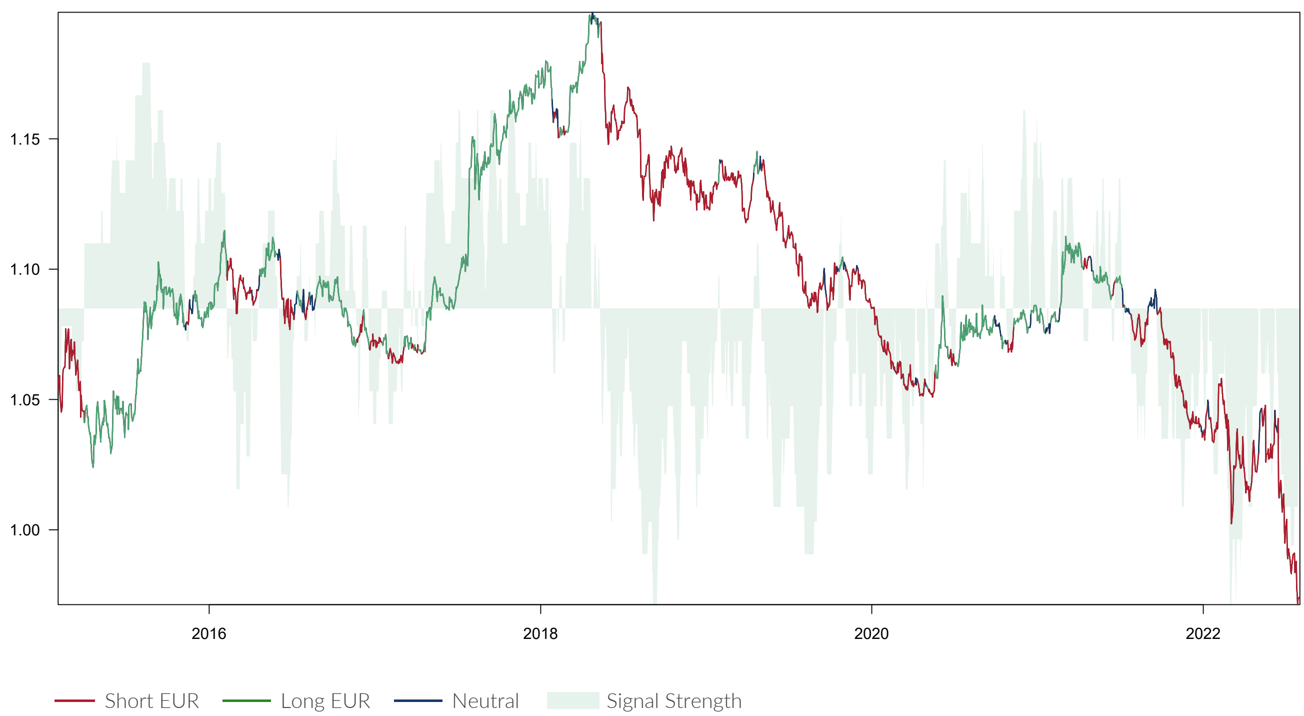
Source: QCAM Currency Asset Management

EURCHF

We maintain the neutral Macro position. The CHF is fundamentally strong and the SNB is turning more hawkish on inflation but we think further upside is limited for now. Business Sentiment and Technical remain both long CHF. Our three strategy positions are on balance half long CHF versus the EUR.

	FX Factors	CHF Impact	Comment
Macro	Current Account Balances	+	Surplus remains steady support for CHF
	Capital Flows (Safe Haven)	0	No significant inflows on Ukraine concerns
	Interest Rate Differentials	+	SNB rate policy likely to stay ahead of ECB
	SNB Policy Intervention	0/+	The SNB has modestly reduced it's foreign currency reserves
Sentiment	Business Sentiment	+	Swiss economy has overtaken the Euro-area in the surveys
	Risk Sentiment	0	Changes in risk sentiment had little impact so far this year
Technical	Price Action	+	Technical stayed long CHF
	Spec Positions	0	Net CHF position close to neutral
	PPP Valuation	0	CHF is around fair-value versus the EUR

EURCHF and QCAM Strategic Positioning



Source: QCAM Currency Asset Management

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USDCHF

Our Macro positions in EURCHF (neutral) and EURUSD (neutral) imply also neutral for USDCHF. USDCHF remains dominated by moves in EURUSD with some possible moderation from EURCHF. Business Sentiment moved to short CHF, while Technical went neutral. The balance of all three strategies is modestly short CHF.

	FX Factors	CHF Impact	Comment
Macro	Current Account Balances	+	Surplus remains steady support for CHF
	Capital Flows (Safe Haven)	0	No significant inflows on Ukraine concerns
	Interest Rate Differentials	–/0	Interest rate differentials are a negative for CHF versus the USD but more likely to narrow than to widen further
	SNB Policy Intervention	0	Tied to EURCHF intervention and interest rate policy
Sentiment	Business Sentiment	–	Swiss surveys have fallen behind US surveys
	Risk Sentiment	0	Changes in risk sentiment had little impact sofar this year
Technical	Price Action	0	Price action turned neutral
	Spec Positions	0	Net CHF position close to neutral
	PPP Valuation	+	CHF is about 20% undervalued versus USD

USDCHF and QCAM Strategic Positioning

Source: QCAM Currency Asset Management

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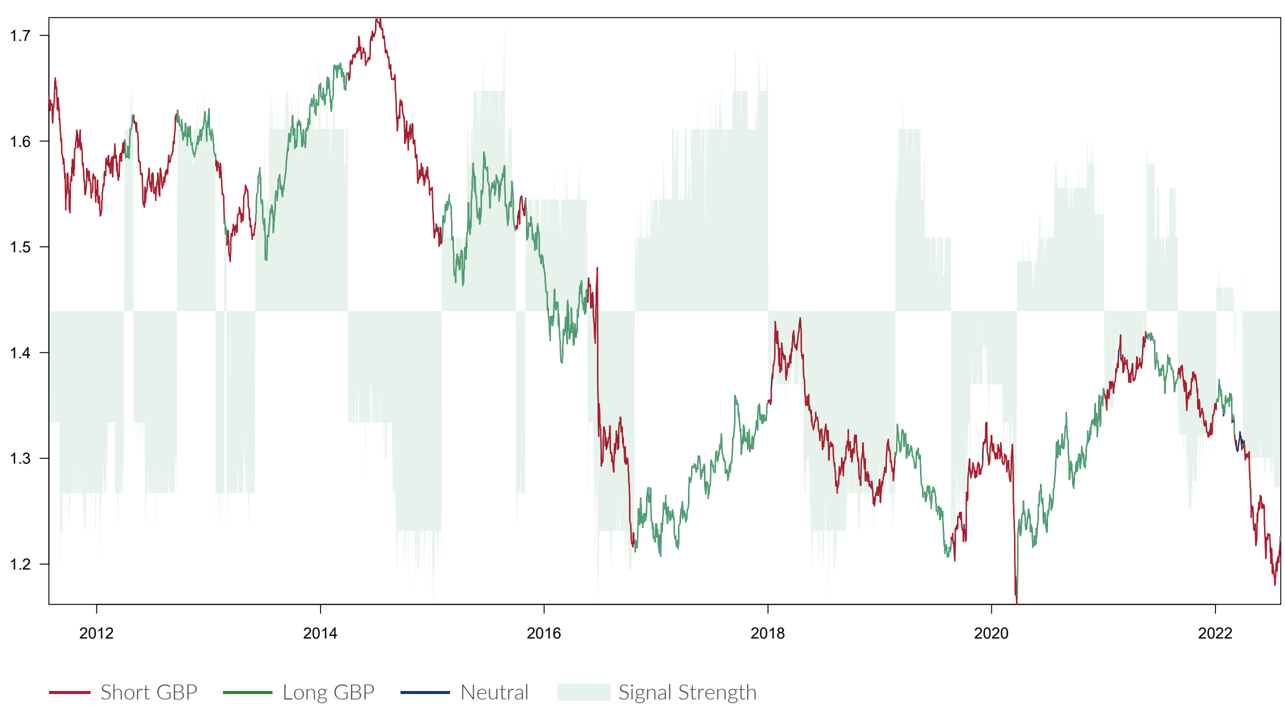
GBPUSD

We are fundamentally bearish on the GBP given the negative Brexit fallout and growing stagflationary pressures. Our strategy positions have not changed (neutral macro and short GBP in Business Sentiment and Technical) and the balance of our strategies is half short GBP.

	FX Factors	GBP Impact	Comment
Macro	Current Account Balances	0	The UK has like the US a twin deficit problem
	Interest Rate Differentials	–	US interest rates have increased above UK interest rates across all maturities
	Oil Price	0	Volatile range with downside bias
Sentiment	Business Sentiment	–	Momentum in UK surveys remains below US surveys
	Risk Sentiment	0/–	Political uncertainty
Technical	Price Action	–	Technicals remain short GBP
	Spec Positions	0	Net short GBP position declined
	PPP Valuation	+/0	The GBP is 24% undervalued

GBPUSD and QCAM Strategic Positioning



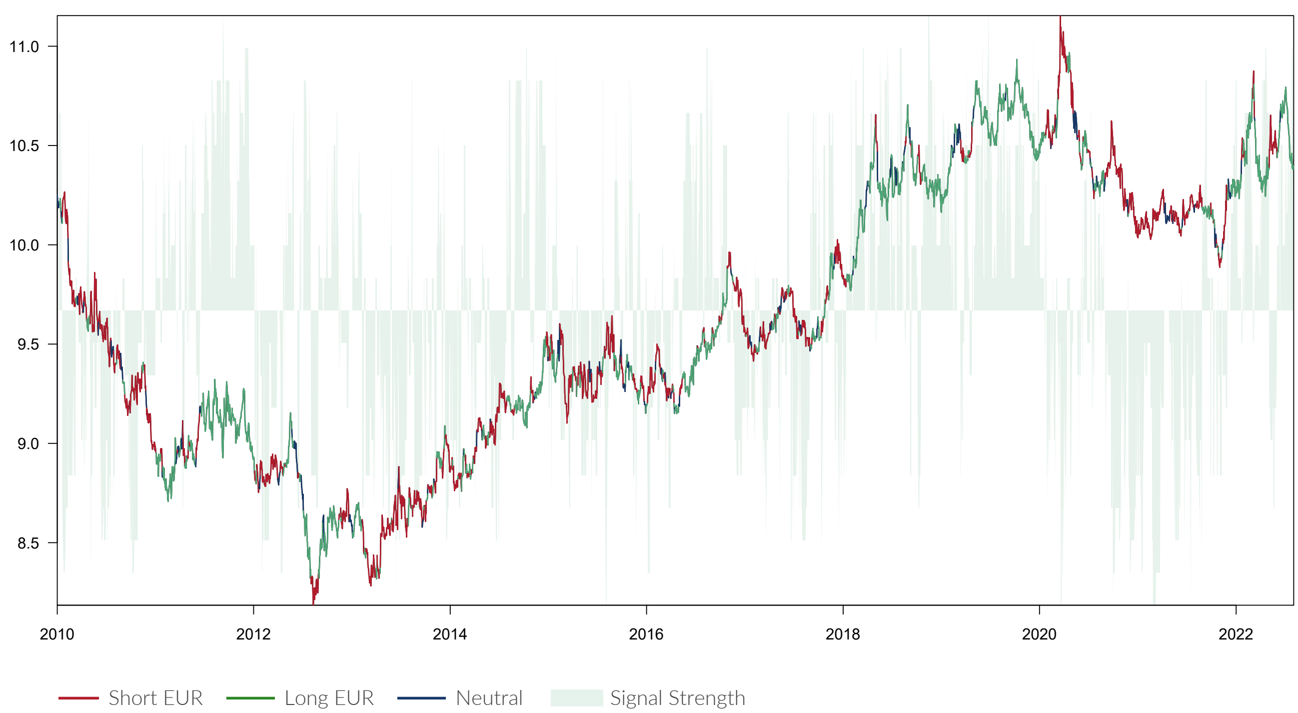
Source: QCAM Currency Asset Management

EURSEK

Sweden's fundamentals remain sound and the SEK is undervalued. We maintain the neutral discretionary Macro position, however, given concerns over negative event risks. The interest rate Macro model shifted to neutral SEK. Business Sentiment stayed short SEK and Technical moved to short SEK. The balance of all strategy positions is half short SEK versus the EUR.

	FX Factors	SEK Impact	Comment
Macro	Current Account Balances	0/+	Sweden's surplus is less likely to suffer terms of trade losses
	Interest Rate Differentials	0	The Macro interest rate model shifted to neutral
Sentiment	Business Sentiment	–	Surveys remained short SEK
	Risk Sentiment	–	Energy supply uncertainty
Technical	Price Action	–	Technicals shifted to short SEK
	PPP Valuation	+	The SEK is roughly 19% undervalued versus the EUR

EURSEK and QCAM Strategic Positioning



Source: QCAM Currency Asset Management

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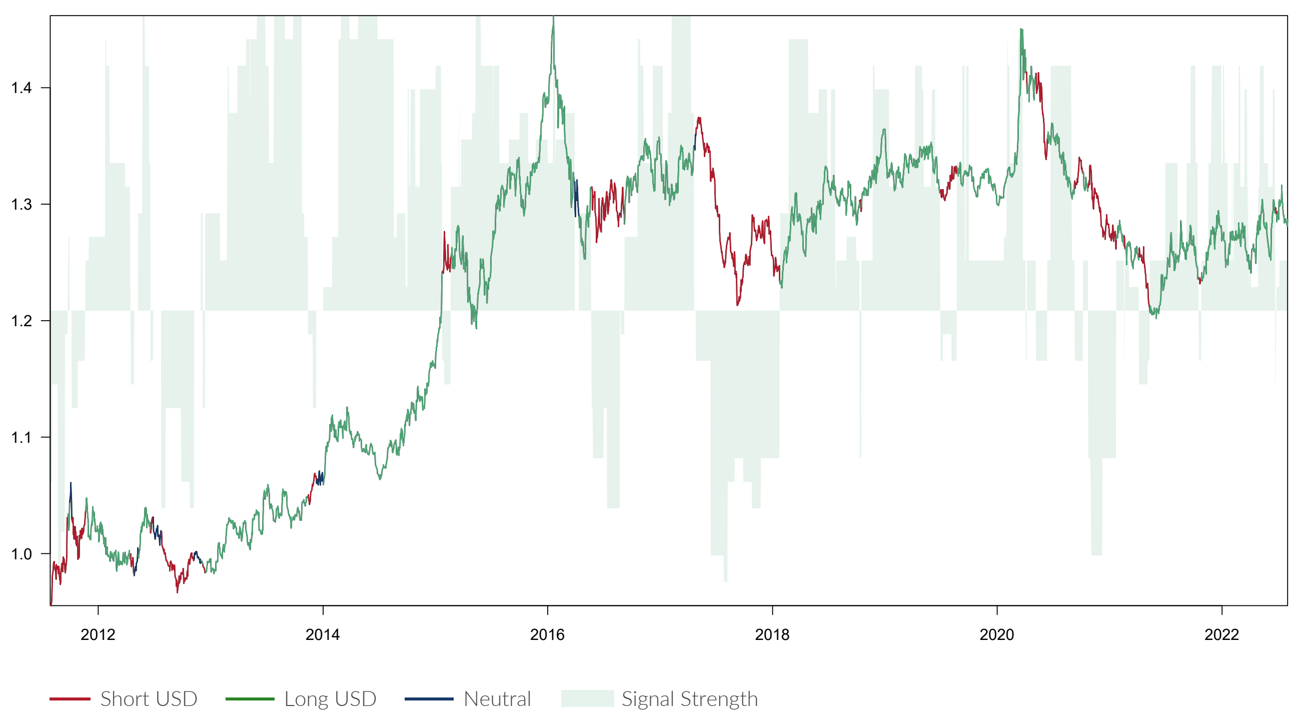
USDCAD

Canada's fundamental position remains solid. The current account moved into surplus on rising oil prices, inflation is a bit lower than in the US and the BoC is moving in line with the Fed. The Macro oil price model has switched to short CAD as forecasts moved below current levels. Business Sentiment stayed long CAD, while Technical remained short CAD. As a result, the overall position is slightly short CAD.

	FX Factors	CAD Impact	Comment
Macro	Current Account Balances	+	Canada's current account moved further into surplus while the US deficit remains wide
	Oil Prices	0/–	Range with a downside bias
	Interest Rate Differentials	0	CAD short-term and long-term rates are moving closely in line with US rates
	USD DXY Trend	0	Negative correlation with USD is small
Sentiment	Business Sentiment	+	Canada has gained momentum versus the US in the surveys
	Risk Sentiment	0	No particular risk drivers at the moment
Technical	Price Action	–	Technicals are short CAD
	Spec Positions	0	Net long CAD positions increased slightly, but not extreme
	PPP Valuation	0	CAD is about 8% undervalued versus the USD

USDCAD and QCAM Strategic Positioning



Source: QCAM Currency Asset Management

QCAM Products and Services

Our edge derives from a focus on professional currency management, the absolute transparency and the careful examination of risk. It is our mission to offer our clients innovative transparent solutions, in a thoughtful and risk-controlled environment, and to surpass investment goals.

Currency Overlay

Risks under control – opportunities in sight: QCAM Currency Overlay offers customised solutions for individual needs and investment goals. Our Passive Overlay focuses on risk management, reduction of transaction costs and the customer specific management of resulting cash flows.
Our Dynamic Overlay aims to generate returns based on QCAM´s proprietary FX Analytics, embedded in a strict risk budgeting framework.

FX Best Execution

With larger foreign currency transactions, even a small difference in pricing leads to a major impact on costs and revenues. While it is unattainable for most players to keep the full overview of the deals available in the market, independence and transparency are essential. We carry out a Transaction Cost Analysis for our clients to evaluate potential cost savings. Also, QCAM assists its clients in the design of an optimal mulitbank-setup and conducts clients FX transactions transparently, independently and in the client's best interests.

Money Market Plus

QCAM's Money Market Plus Strategy «MMP» enhances yield via the use of the FX interbank swap-market. Also, we take advantage from excellent conditions which we receive from our large pool of partner banks and highly rated debtors for money market and currency transactions QCAM's MMP strategy has outperformed its peers for many years on a constant basis.

FX Alpha

Currencies as an attractive portfolio diversification via QCAM FX BIAS. The focus on QCAM's Business Intelligence Alpha Strategy is on business indicators which we have successfully used for many years. The strategy is market-neutral, no specific market environment necessary. Diversification via a pool of eight different currencies and their respective trading signals.

QCAM Profile

About us

QCAM Currency Asset Management AG is an independent financial services provider with a specific focus on currency and liquidity management. QCAM brings together a team of internationally experienced Currency and Asset Management specialists, who are managing assets of institutional clients of approx. USD 5 billion.

Our core competences are Currency Overlay Services, FX Transaction Execution according to „Best Execution" principles, FX Alpha and Liquidity Management.

Long-standing customers of QCAM are pension funds, family offices, investment funds, companies, NGOs and HNWIs.

Headquarters

Zug, Switzerland

Founded

2005

Regulation

FINMA since 2007
SEC since 2014

Independent and Transparent

- Interests directly aligned with those of our clients
- Client focused solutions, tailored to each individuals requirements
- Independent selection of suitable external services providers
- No principal-agent conflicts
- Transparent fee model – no hidden costs
- Transparent reporting

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