

CURRENCY VIEWS AND VALUATIONS

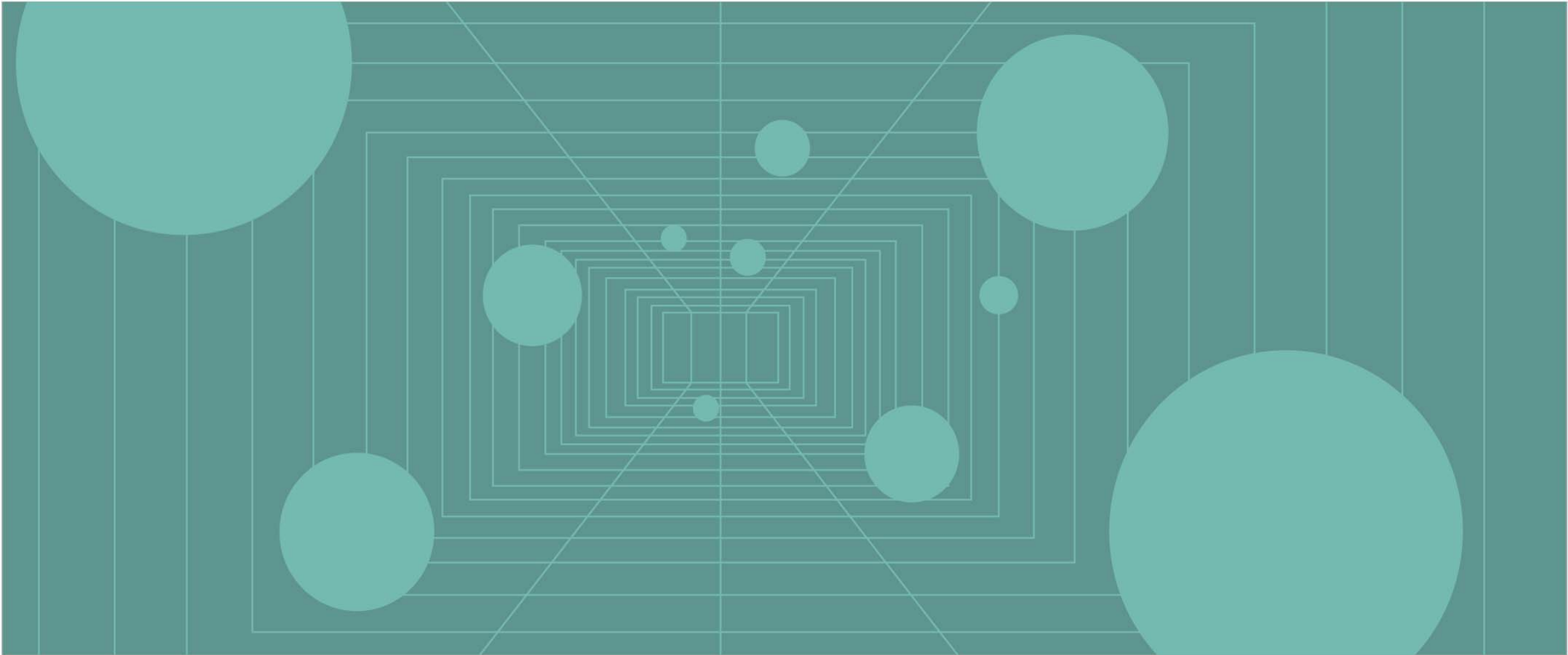


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Summary of Currency Views

This chart book examines historical currency momentum, valuation, and fundamentals in nine key currencies—US dollar (USD), British pound (GBP), euro (EUR), Swiss franc (CHF), Japanese yen (JPY), Australian dollar (AUD), New Zealand dollar (NZD), Canadian dollar (CAD), and Singapore dollar (SGD)—to help investors understand how these currencies behave against other major currencies.

This latest iteration of the chart book is based on data through June 30, 2020. While the US dollar has weakened materially in the intervening weeks, the overarching view of continued USD weakness is unchanged. The EUR has been the major beneficiary of this USD weakness, while also benefitting from optimism around deepening fiscal ties in the region.

USD
Valuation and Deficits
Twin deficits, an elevated valuation, and narrower rate differentials are headwinds for the dollar, but an extended recession could see some support re-emerge.

GBP
Deadline Approaches
Valuations, momentum, and positioning are all positives for the GBP, especially if a post-Brexit deal can be reached. Ultimately, the medium term direction of the currency is dependent on the negotiations.

EUR
Deepening Fiscal Ties?
The Euro got a leg up through an effective response to the pandemic. To sustainably appreciate, policies that indicate a commitment to fostering growth, such as deepening fiscal ties, will be needed.

CHF
Surplus Baggage
The CHF remains expensive to its peers versus history. However, with other currencies joining the zero rates club, the large CA surplus is big support.

Summary of Currency Views (continued)

JPY

Still a Safe Haven

A negative correlation with equities, and a substantial CA surplus makes the JPY the ultimate safe haven outside of the USD. It is generally cheap on a valuation basis, but positioning is now slightly long.

AUD

The Ro-Ro Trade

While the AUD was crushed during the teeth of the crisis, it has retraced most of those losses since risk-off became risk-on. Positioning remains short, and momentum neutral, so may have more room to run.

NZD

Targeted Weakness

The NZD will always trade with a beta to commodities and its trans-Tasman peer; however, the Reserve Bank of New Zealand's (RBNZ) more direct targeting of currency weakness as a form of easing could see it weaken amongst its peers.

CAD

More Room to Run

The CAD is very cheap against the dollar, and with momentum oversold and positioning still short, the rebound could have more room to run.

SGD

The Growth Barometer

The SGD is a pro-cyclical currency by design. Thus, further weakness in the global and Singapore economy would likely see the SGD weaken.

USD: Valuation and Deficits

- The USD has occupied a position of strength in recent years due to a central bank that was raising rates while its peers were largely on hold. This divergence was underpinned by a strong domestic economy.
- As the cyclical rally in the USD was beginning to lose steam, two bouts of risk aversion arose to support the greenback once more. The first was the US-China trade war, which was followed by the COVID-19 pandemic.
- With the acute phase of this crisis seemingly past, the dollar has started to weaken again. With the US Federal Reserve having cut rates to zero, much of the support from the rates differential has now disappeared.
- The dollar remains expensive versus its peers on a valuation basis. Additionally, the persistent twin deficits* being run by the US usually presage currency weakness, leaving the dollar looking vulnerable.
- While the USD seems positioned for a breakdown in the recent upward trend, a deterioration in the post-COVID economy, or an escalation in geopolitical tensions could see it firm once more. Short positioning also increases the odds of a short-run bounce.
- US-based investors still earn positive carry from hedging back foreign currency exposure into USD, albeit now much reduced in comparison to recent years.

USD NOMINAL EXCHANGE RATES

June 30, 1971 – June 30, 2020 • June 30, 1971 = 100



Sources: Bank for International Settlements and Thomson Reuters Datastream.

USD CONSENSUS FORECASTS

As of July 6, 2020

	USD/EUR	USD/GBP	USD/JPY	USD/CHF
Current	0.89	0.80	108	0.95
Year-End 2020 Median Forecast	0.88	0.80	107	0.96
Percent Change	-1.1%	0.0%	-0.9%	1.1%

Source: Bloomberg L.P.

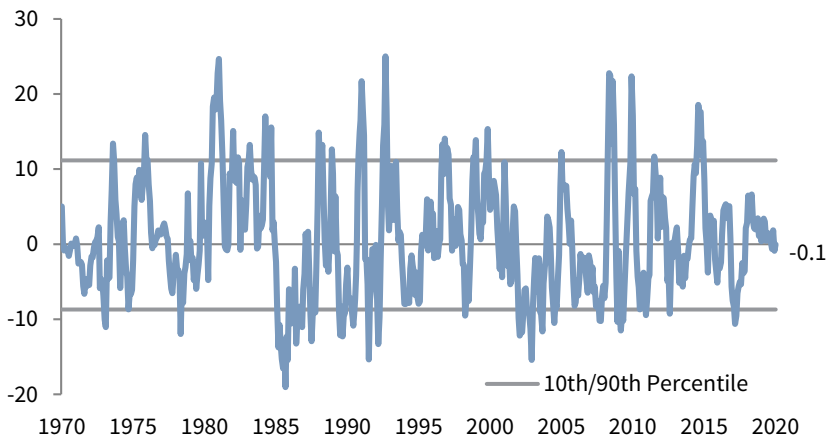
* The twin deficits referred to in the United States denote the fiscal and current account deficits.

USD momentum is neutral on a six-month view after bouts of rapid appreciation and depreciation

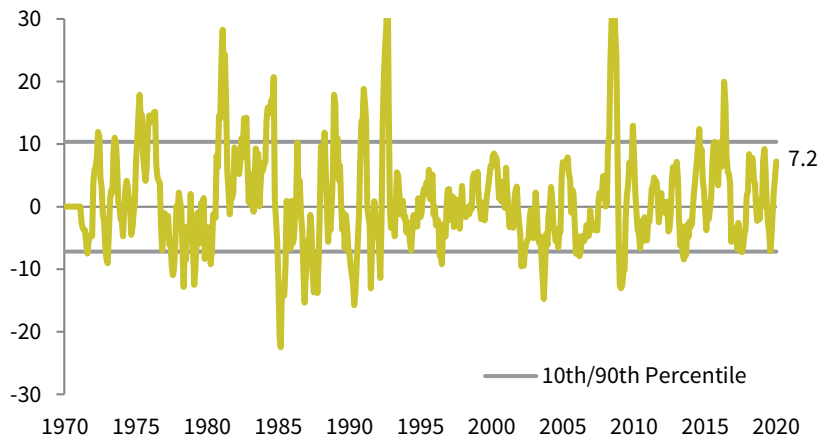
USD ROLLING 6-MONTH PERCENT CHANGE

June 30, 1970 – June 30, 2020 • Percent (%)

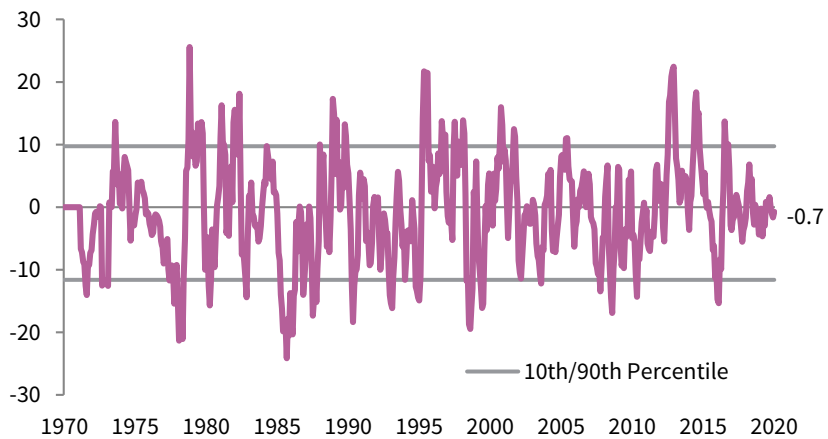
USD/EUR



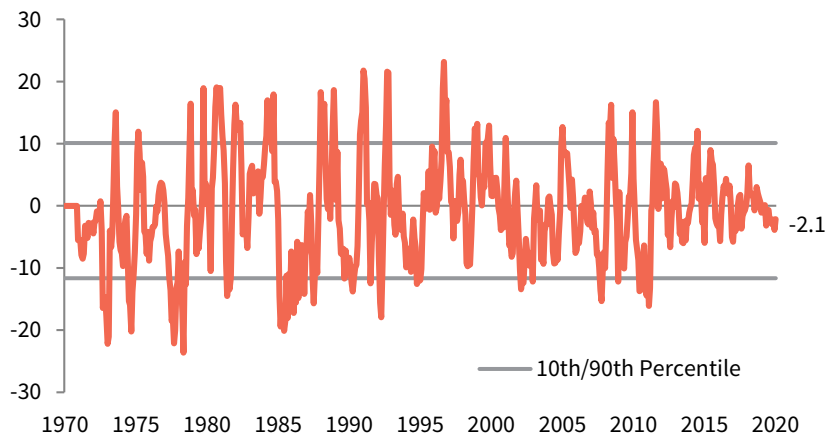
USD/GBP



USD/JPY



USD/CHF

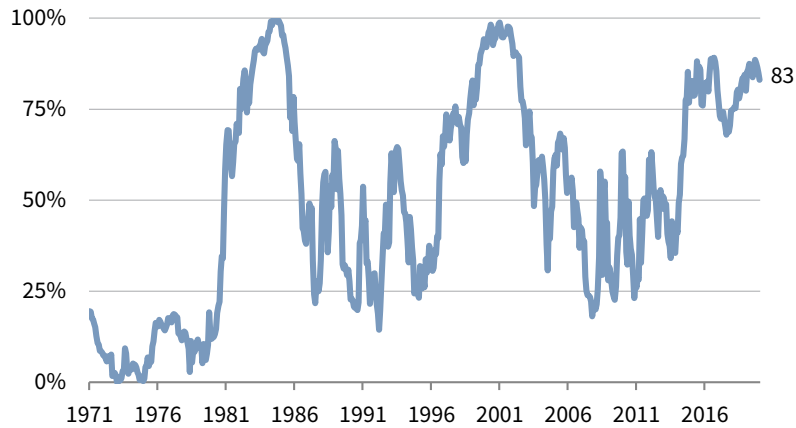


USD valuations are elevated vs the EUR, JPY, and GBP, but below median vs the CHF

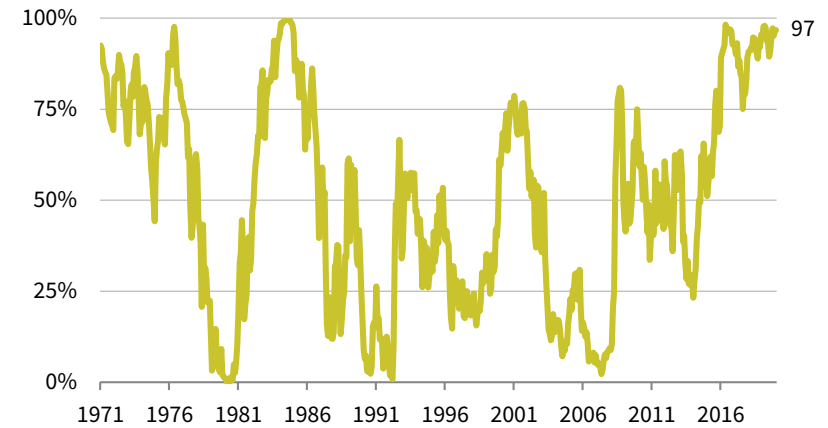
USD VALUATION: REAL EXCHANGE RATE PERCENTILE

June 30, 1971 – June 30, 2020 • Percentile (%)

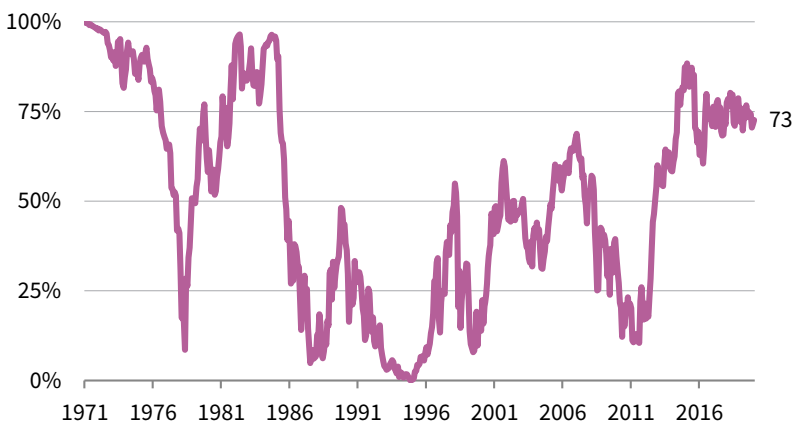
USD/EUR



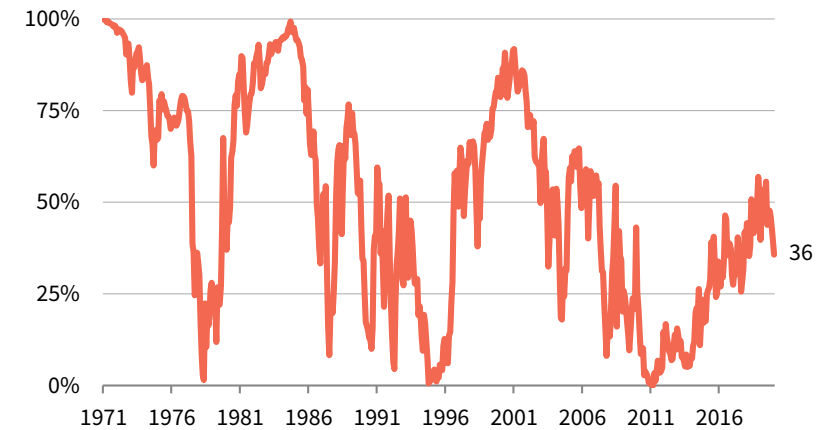
USD/GBP



USD/JPY



USD/CHF



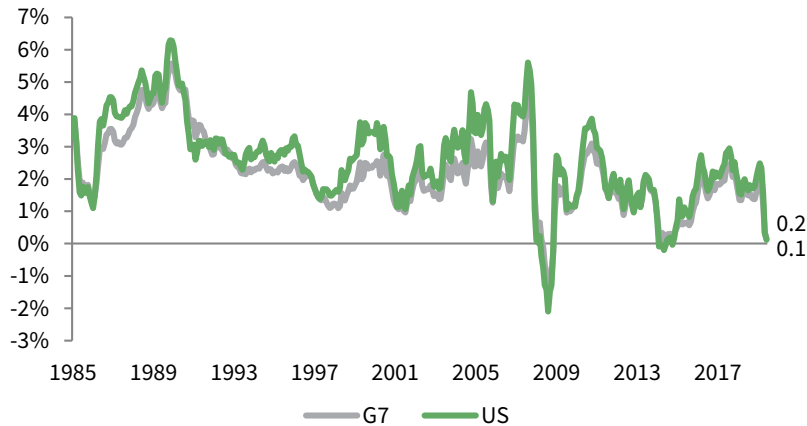
Fed rate cuts have reduced the USD's positive carry

Negative correlation to equity markets implies volatility benefit in hedging most DM currencies, save the JPY

USD FUNDAMENTALS

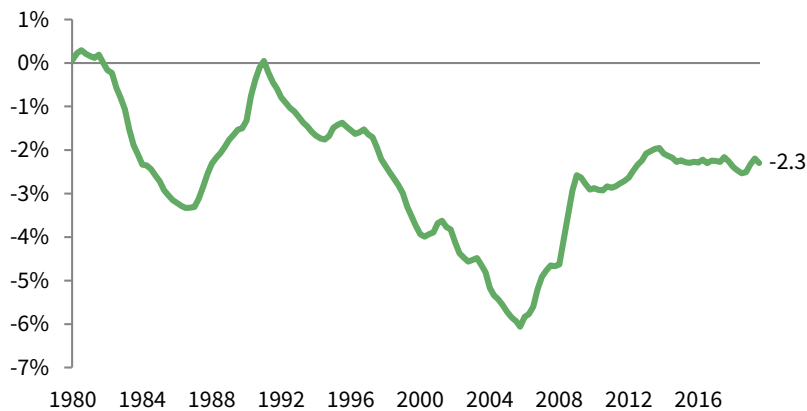
Inflation (Year-Over-Year %)

December 31, 1985 – May 31, 2020



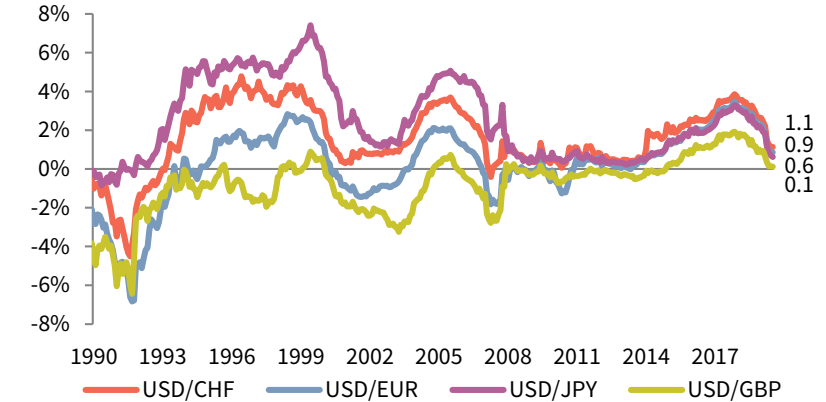
Current Account % GDP

Fourth Quarter 1980 – Second Quarter 2020



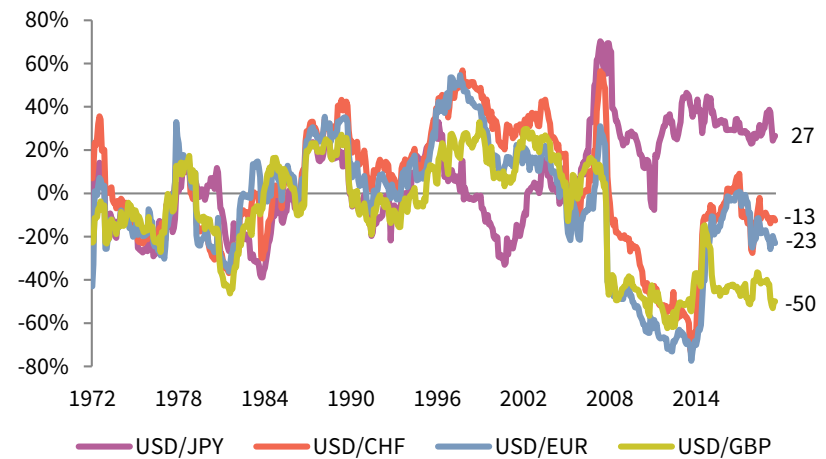
Implied Carry

December 31, 1990 – June 30, 2020



Rolling 36-Month Correlation With MSCI World

December 31, 1972 – June 30, 2020

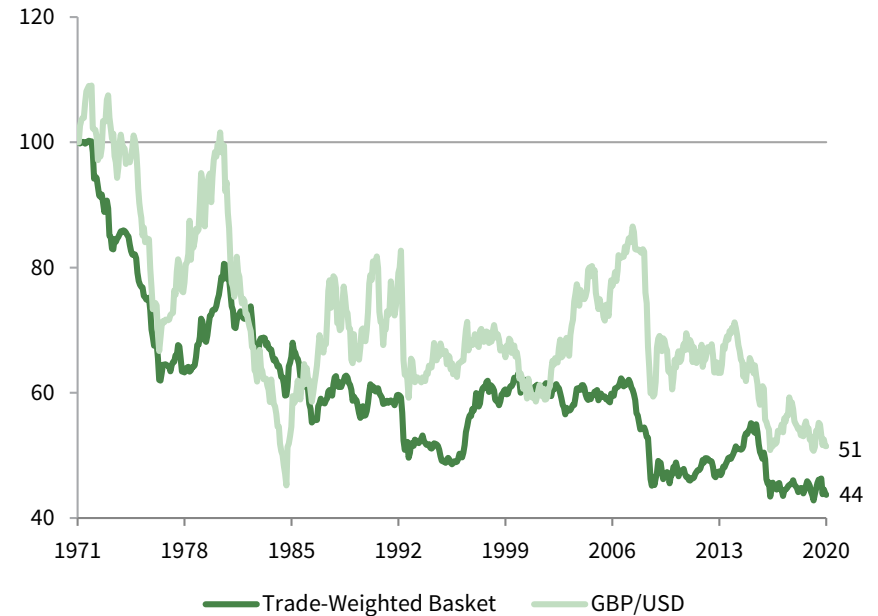


GBP: Deadline Approaches

- After the step change lower in GBP's valuation post-Brexit vote, the pound has traded in quite a well-defined range in the subsequent years.
- A recent change in government, and a resultant expectation that the chances of no deal being agreed to before the end of the transition period have increased, have seen the GBP recently trade back toward the bottom end of that range.
- Recent weakness has seen the currency approach oversold status on a six-month horizon. Valuations show the GBP as back to historically cheap versus the USD and the CHF, and well below median versus the EUR and the JPY.
- Market positioning is currently net short the GBP, increasing the odds of a rebound should an agreement be reached with the EU before the end of the year.
- The pro-cyclicality of the currency points to volatility dampening benefits for GBP-based investors by leaving some overseas exposure partially unhedged. However, the depressed valuation and generally positive carry of the currency may limit the value of this strategy.
- Hedging back FX exposure to GBP generates positive carry versus the EUR, CHF, and JPY, but slightly negative carry versus the USD.

GBP NOMINAL EXCHANGE RATES

June 30, 1971 – June 30, 2020 • June 30, 1971 = 100



Sources: Bank for International Settlements, MSCI Inc., and Thomson Reuters Datastream. MSCI data provided "as is" without any express or implied warranties.

GBP CONSENSUS FORECASTS

As of July 6, 2020

	GBP/USD	GBP/EUR	GBP/JPY	GBP/CHF
Current	1.25	1.11	134.1	1.18
Year-End 2020 Median Forecast	1.26	1.11	134.3	1.20
Percent Change	0.8%	0.0%	0.1%	1.7%

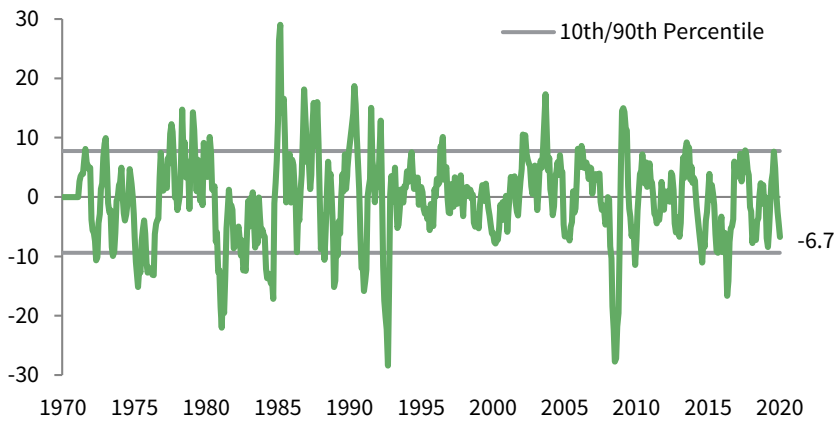
Source: Bloomberg L.P.

The GBP is approaching oversold levels, but near-term performance hinges on the EU negotiation

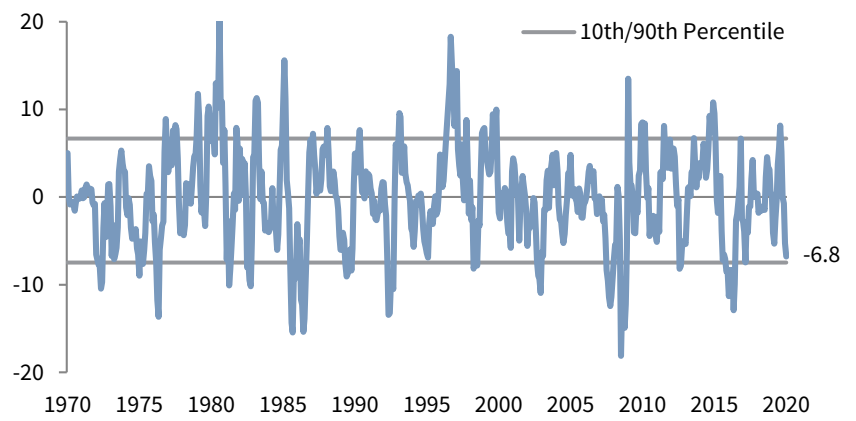
GBP ROLLING 6-MONTH PERCENT CHANGE

June 30, 1970 – June 30, 2020 • Percent (%)

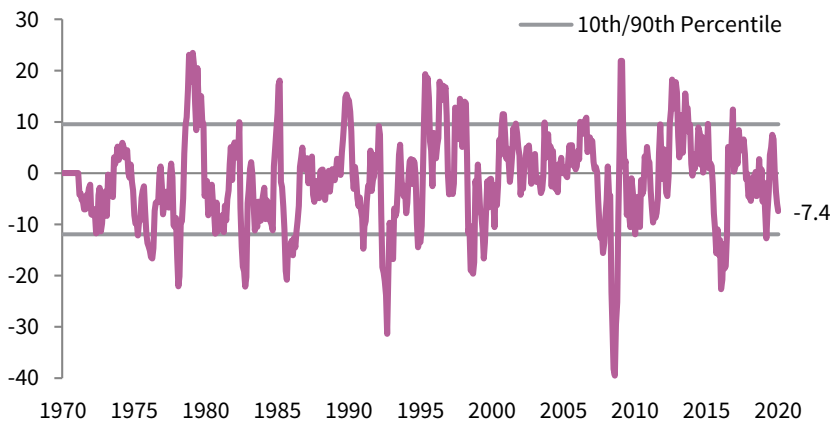
GBP/USD



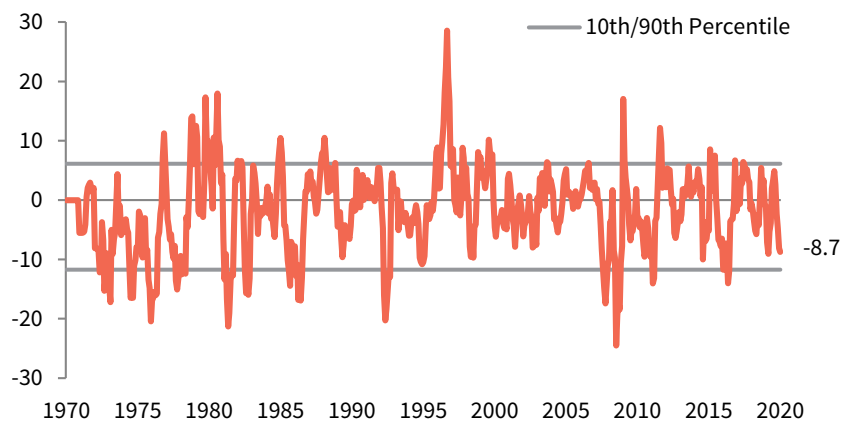
GBP/EUR



GBP/JPY



GBP/CHF

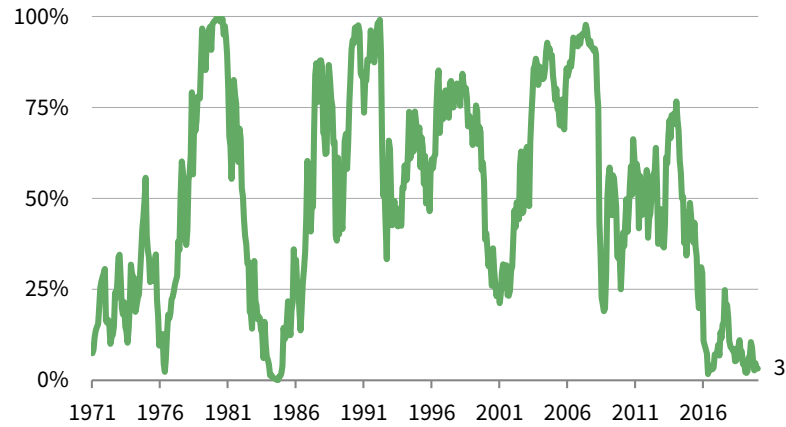


GBP valuations are historically low vs the USD and CHF, slightly less so vs the EUR and JPY

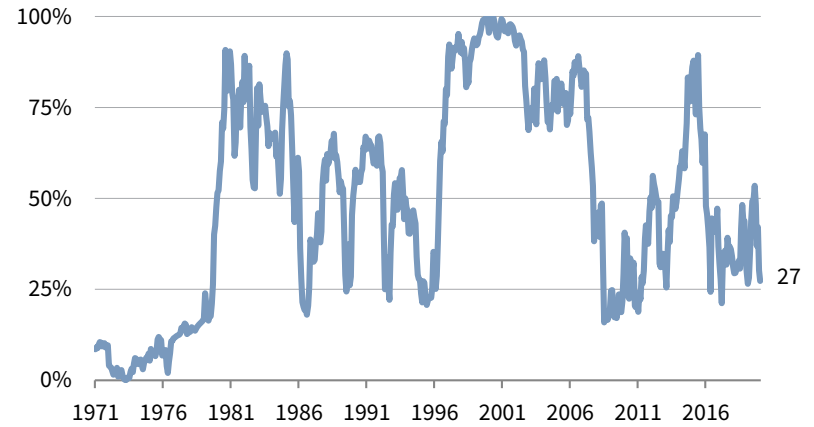
GBP VALUATION: REAL EXCHANGE RATE PERCENTILE

June 30, 1971 – June 30, 2020 • Percentile (%)

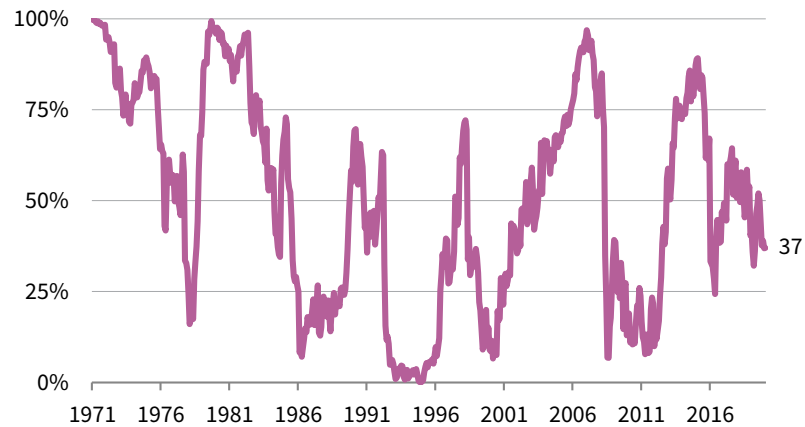
GBP/USD



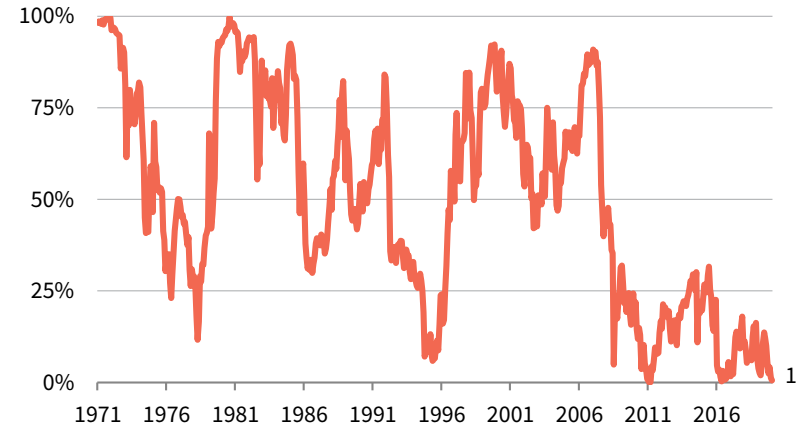
GBP/EUR



GBP/JPY



GBP/CHF



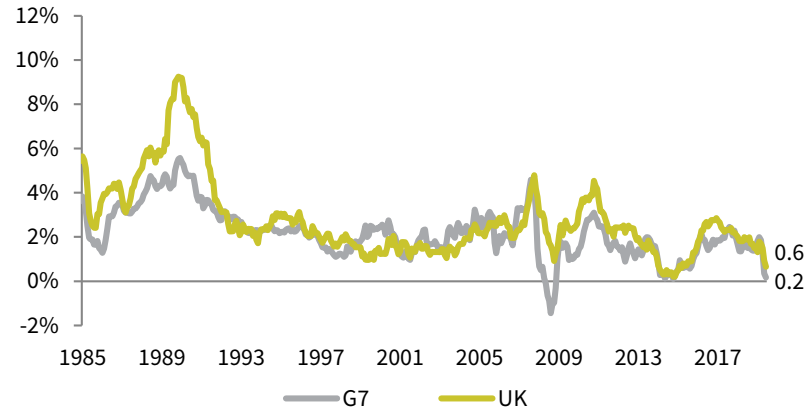
GBP is vulnerable given a large current account deficit

For GBP investors, a high positive correlation to global equities implies unhedged or partially hedged exposures lower portfolio volatility. However, a historically weak valuation, and generally positive carry, argue for hedging.

GBP FUNDAMENTALS

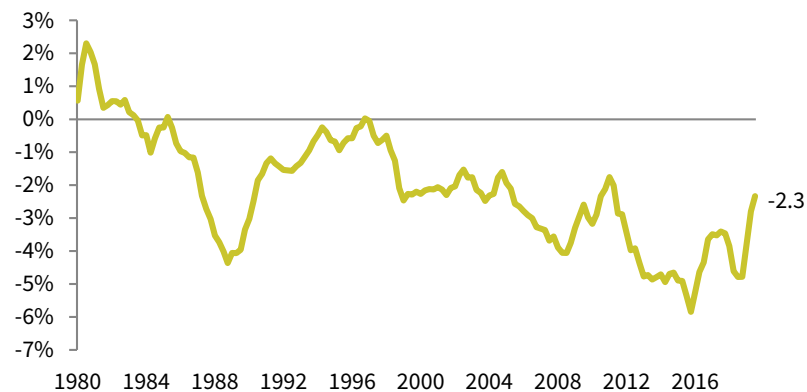
Inflation (Year-Over-Year %)

December 31, 1985 – May 31, 2020



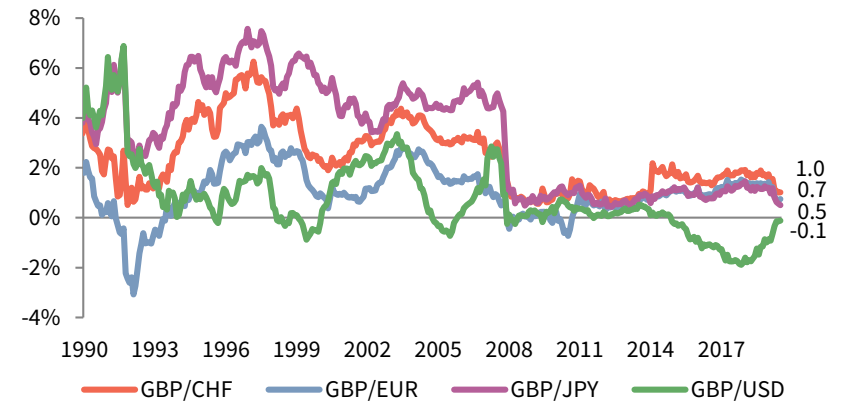
Current Account % GDP

Fourth Quarter 1980 – Second Quarter 2020



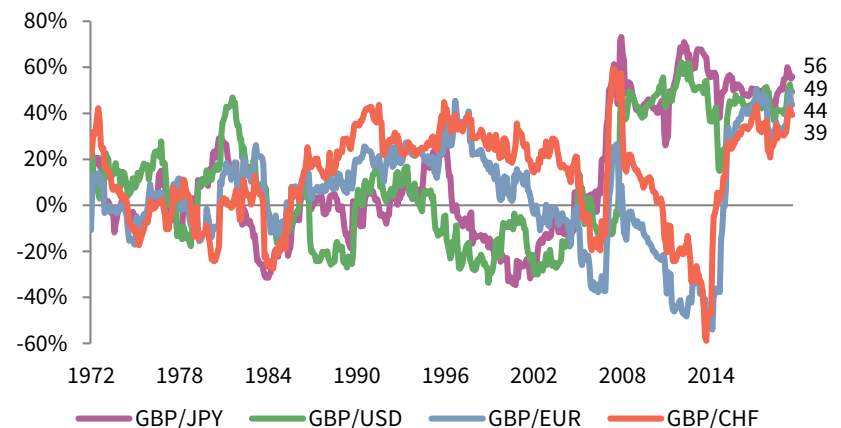
Implied Carry

December 31, 1990 – June 30, 2020



Rolling 36-Month Correlation With MSCI World

December 31, 1972 – June 30, 2020

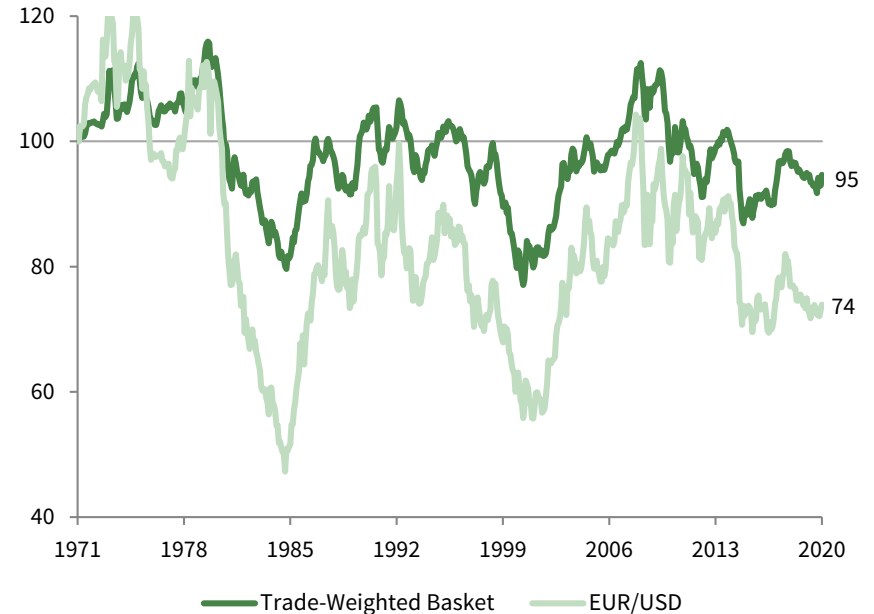


EUR: Deepening Fiscal Ties?

- The EUR has stemmed its steady decline this year due to a more effective handling of the coronavirus outbreak than many of its peers.
- This may remain a tailwind in the short term, as would signs that there is to be a meaningful increase in fiscal integration and risk-sharing within the bloc.
- A sustained rally in the currency would require an improvement in the long-term growth outlook for the region. Progress in that direction would improve the equity market outlook and herald capital inflows.
- On a momentum basis, the EUR looks broadly neutral currently, with the exception of versus GBP, where it's approaching overbought. Positioning is now relatively long, which may act as a short-term headwind.
- EUR valuations are very depressed versus the USD and CHF, but relatively elevated versus GBP. The valuation versus the JPY is close to the median.
- EUR-based investors may want to consider leaving JPY exposure unhedged because of high positive correlation to global equities.

EUR NOMINAL EXCHANGE RATES

June 30, 1971 – June 30, 2020 • June 30, 1971 = 100



Sources: Bank for International Settlements, MSCI Inc., and Thomson Reuters Datastream. MSCI data provided "as is" without any express or implied warranties.

EUR CONSENSUS FORECASTS

As of July 6, 2020

	EUR/USD	EUR/GBP	EUR/JPY	EUR/CHF
Current	1.12	0.90	121.0	1.06
Year-End 2020 Median Forecast	1.14	0.9	121.0	1.08
Percent Change	1.8%	0.0%	0.0%	1.9%

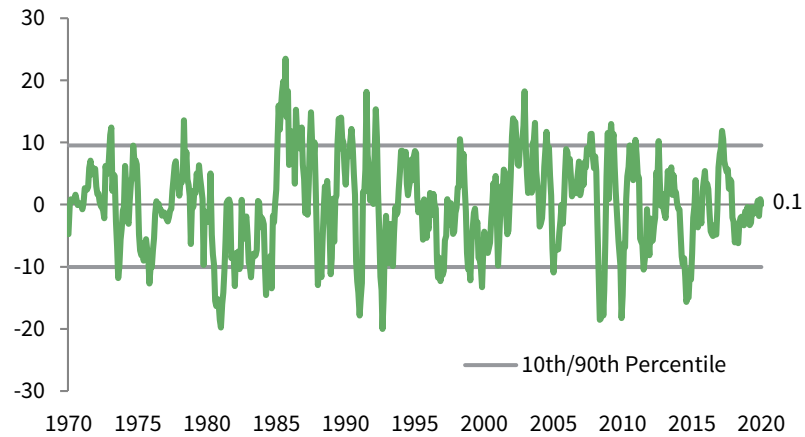
Source: Bloomberg L.P.

Momentum is broadly neutral for the EU, with the exception of versus GBP

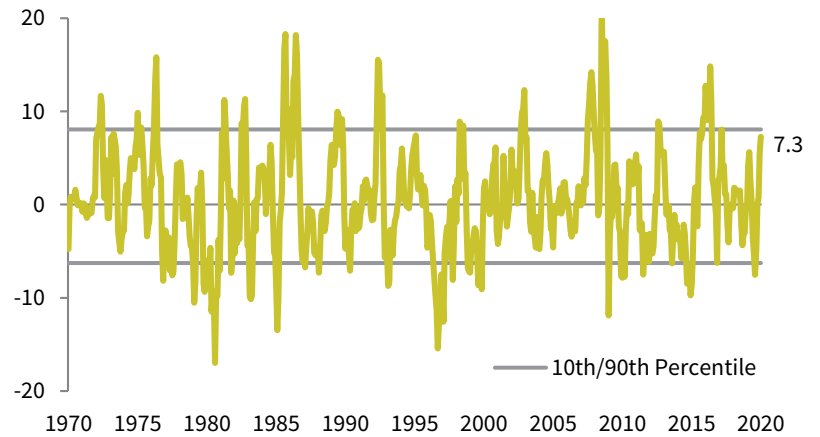
EUR ROLLING 6-MONTH PERCENT CHANGE

June 30, 1970 – June 30, 2020 • Percent (%)

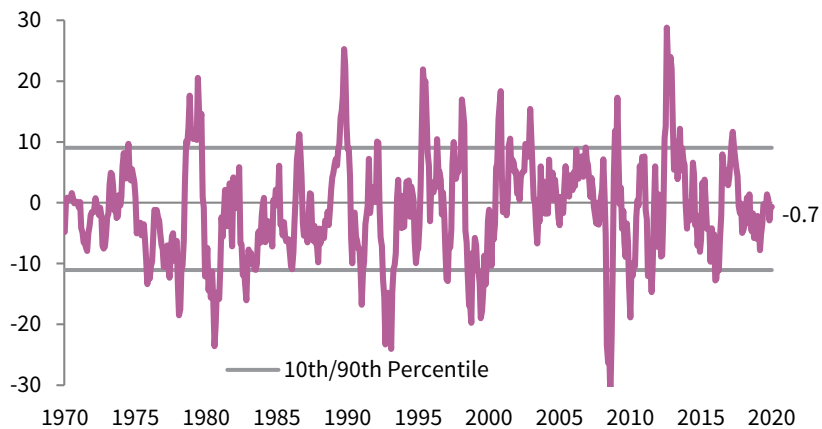
EUR/USD



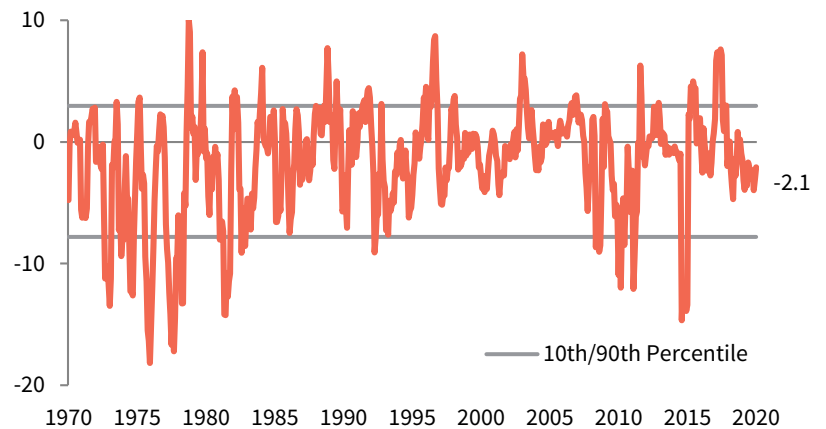
EUR/GBP



EUR/JPY



EUR/CHF

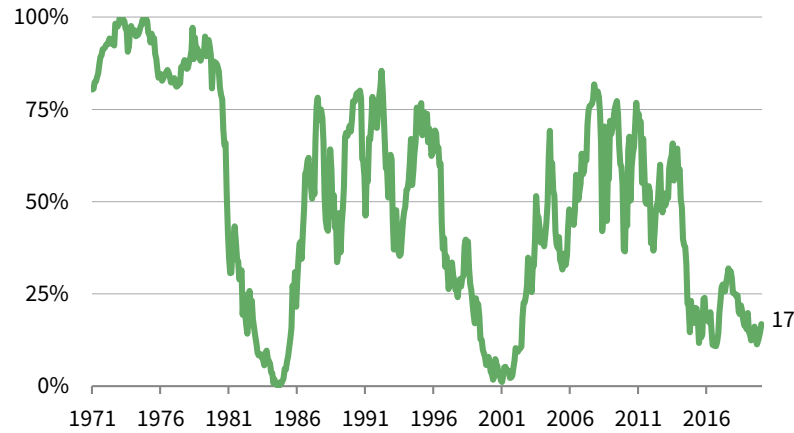


EUR valuations are low vs the CHF and USD, but becoming elevated versus GBP

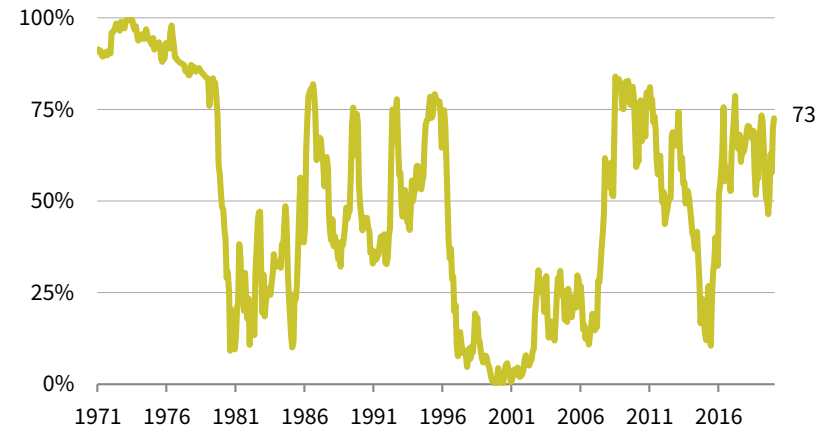
EUR VALUATION: REAL EXCHANGE RATE PERCENTILE

June 30, 1971 – June 30, 2020 • Percentile (%)

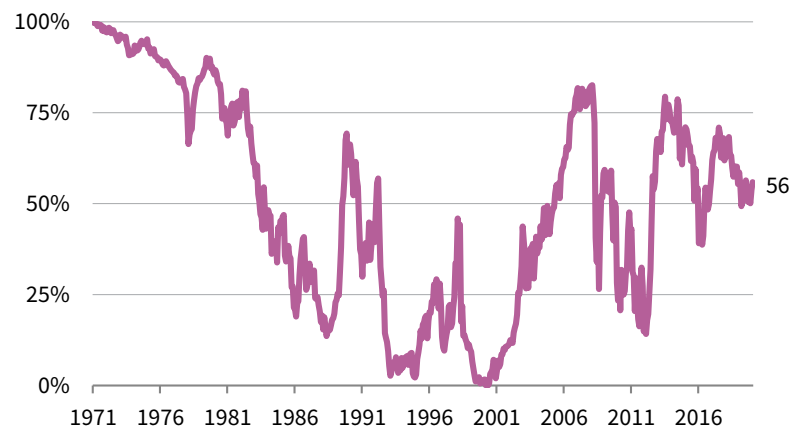
EUR/USD



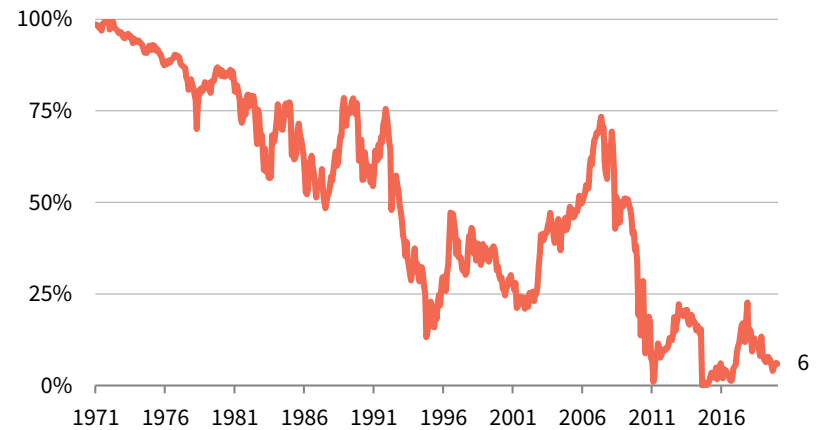
EUR/GBP



EUR/JPY



EUR/CHF



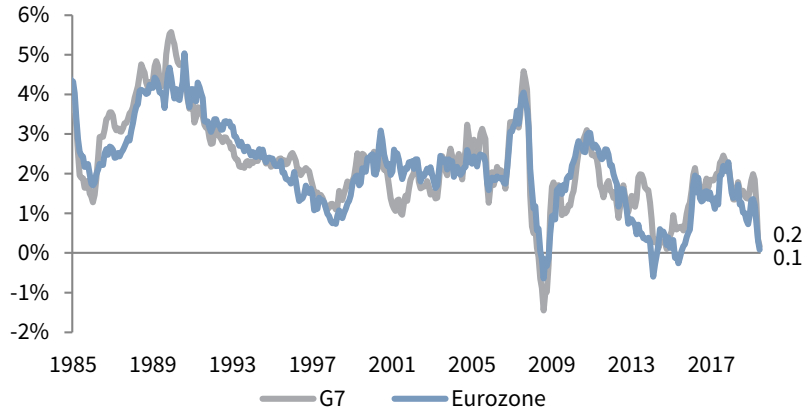
Negative carry and positive correlations to equities suggest being partially unhedged

A large current account surplus would be a tailwind for the currency if the growth outlook were to improve

EUR FUNDAMENTALS

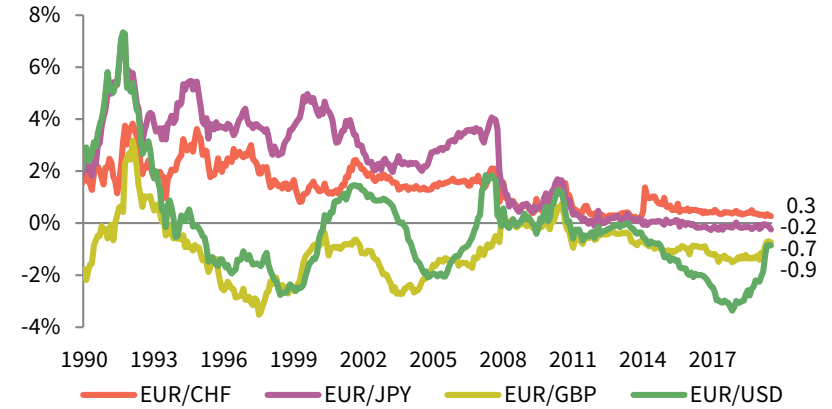
Inflation (Year-Over-Year %)

December 31, 1985 – May 31, 2020



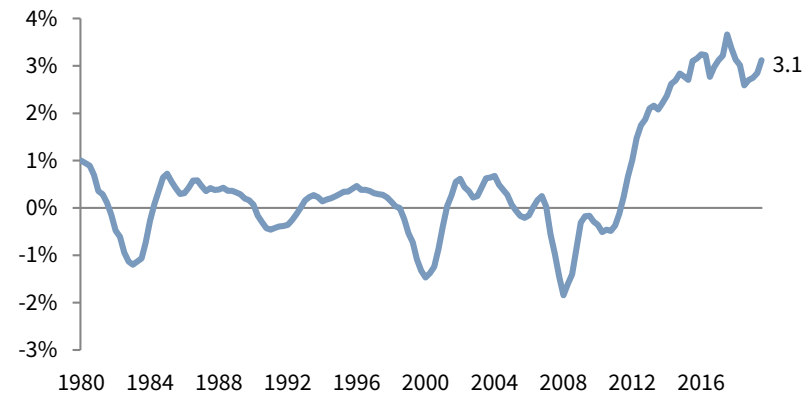
Implied Carry

December 31, 1990 – June 30, 2020



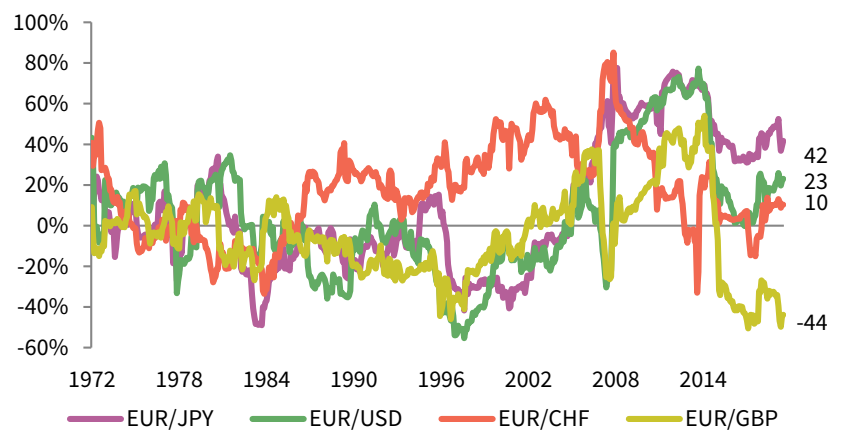
Current Account % GDP

Fourth Quarter 1980 – Second Quarter 2020



Rolling 36-Month Correlation With MSCI World

December 31, 1972 – June 30, 2020

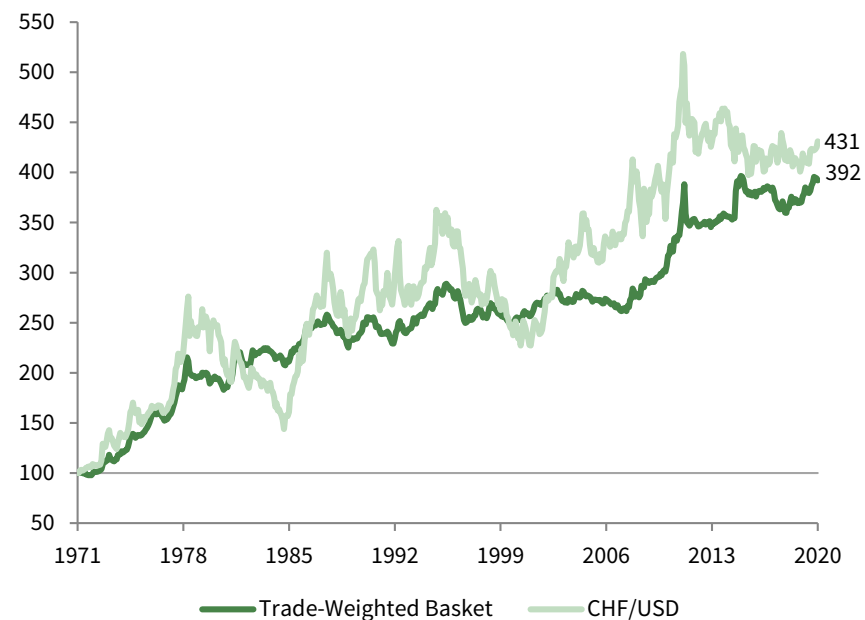


CHF: Surplus Baggage

- The CHF has trended higher for the past two years, as various global shocks have helped at least partially restore its role as a safe-haven store of value.
- With base rates not going anywhere in developed markets for several years, the negative rate in Switzerland has become less of a headwind than at anytime this cycle. Fundamentals, such as a large current account surplus, become more important in these environments.
- From a valuation perspective, the CHF is very elevated versus the EUR, GBP, and JPY, and somewhat above median versus the USD.
- This overvaluation, and negative core inflation, should see the Swiss National Bank continue to intervene, resisting any undue appreciation of the CHF, especially versus the EUR. However, the 2015 episode shows that is not a fait accompli, and the US Treasury's attempt to identify potential FX manipulation possibly caps their firepower.
- Consensus forecasts see the CHF weakening over the course of the year, especially against GBP and the JPY.
- Hedging FX exposure back to CHF is currently negative carry, albeit less so than recent years.

CHF NOMINAL EXCHANGE RATES

June 30, 1971 – June 30, 2020 • June 30, 1971 = 100



Sources: Bank for International Settlements, MSCI Inc., and Thomson Reuters Datastream. MSCI data provided "as is" without any express or implied warranties.

CHF CONSENSUS FORECASTS

As of July 6, 2020

	CHF/USD	CHF/EUR	CHF/JPY	CHF/GBP
Current	1.06	0.94	113.8	0.85
Year-End 2020 Median Forecast	1.05	0.93	112.0	0.83
Percent Change	-0.9%	-1.1%	-1.6%	-2.4%

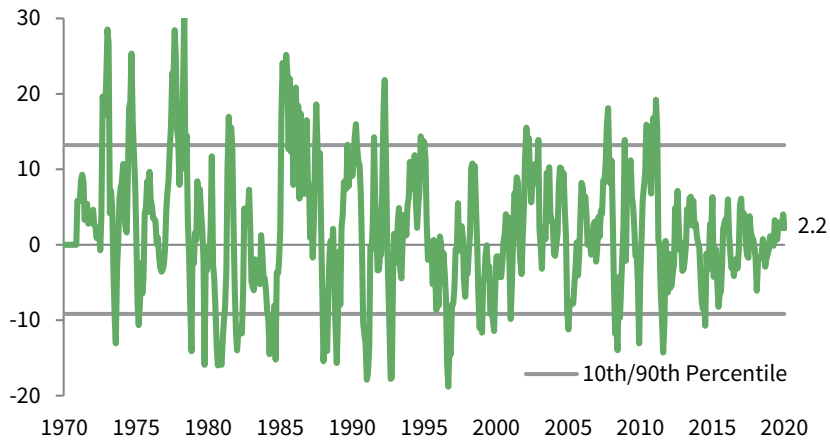
Source: Bloomberg L.P.

CHF momentum is slightly positive, though far from overbought

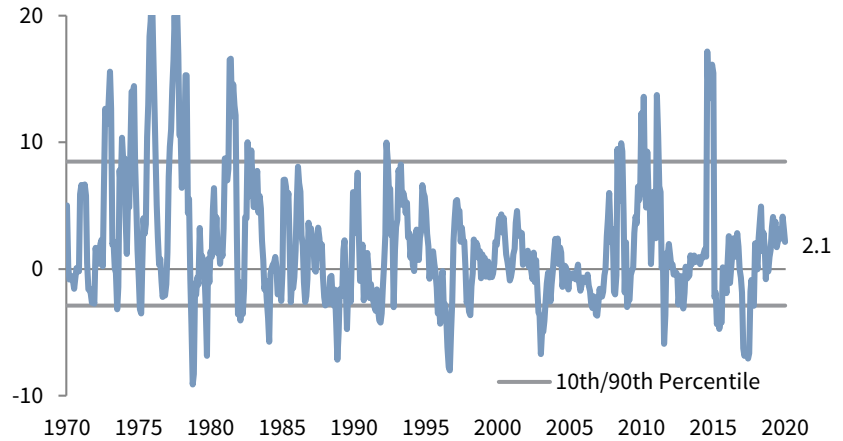
CHF ROLLING 6-MONTH PERCENT CHANGE

June 30, 1970 – June 30, 2020 • Percent (%)

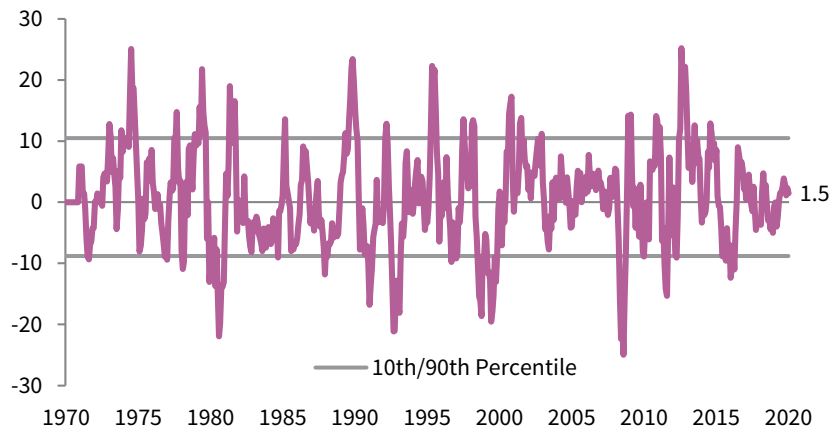
CHF/USD



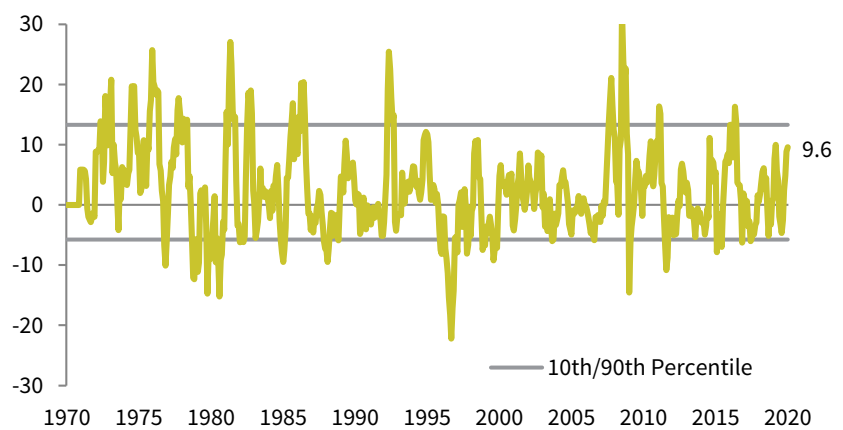
CHF/EUR



CHF/JPY



CHF/GBP

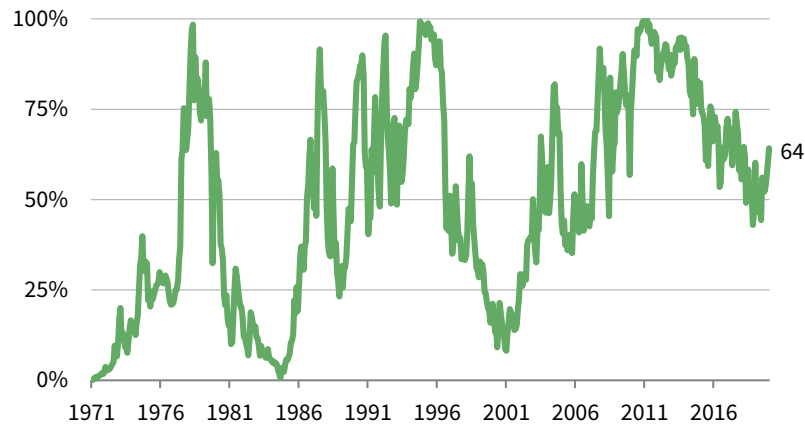


CHF valuations are quite elevated vs the EUR, JPY, and GBP, and above median vs the USD

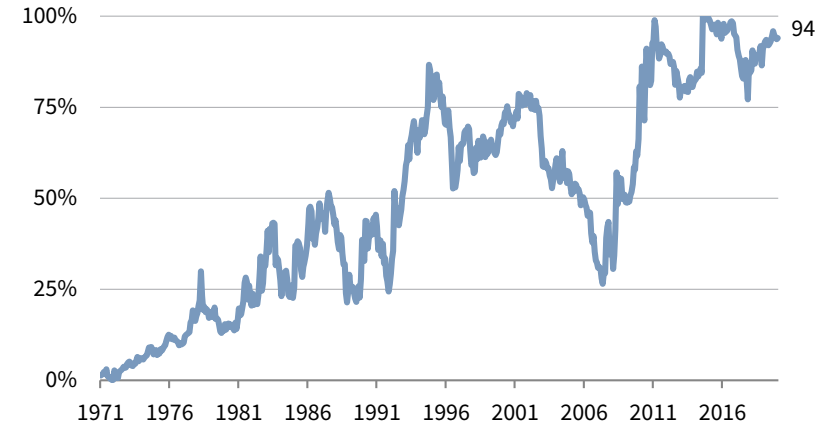
CHF VALUATION: REAL EXCHANGE RATE PERCENTILE

June 30, 1971 – June 30, 2020 • Percentile (%)

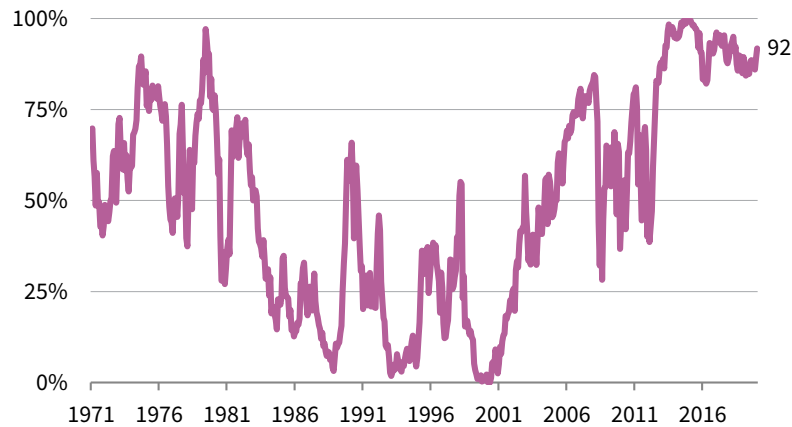
CHF/USD



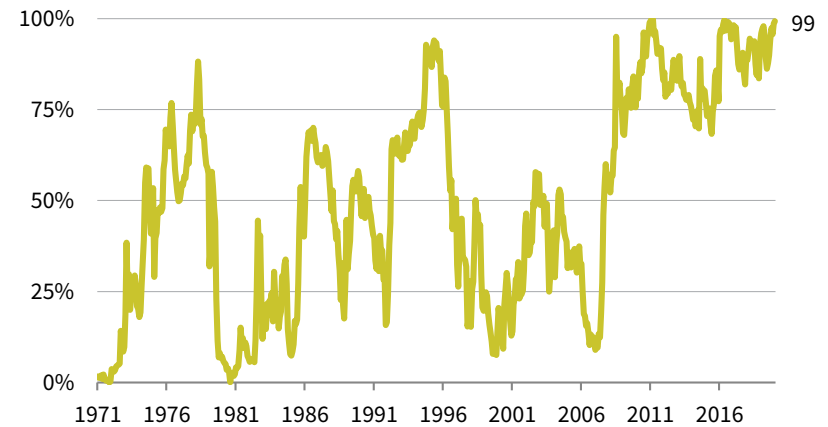
CHF/EUR



CHF/JPY



CHF/GBP



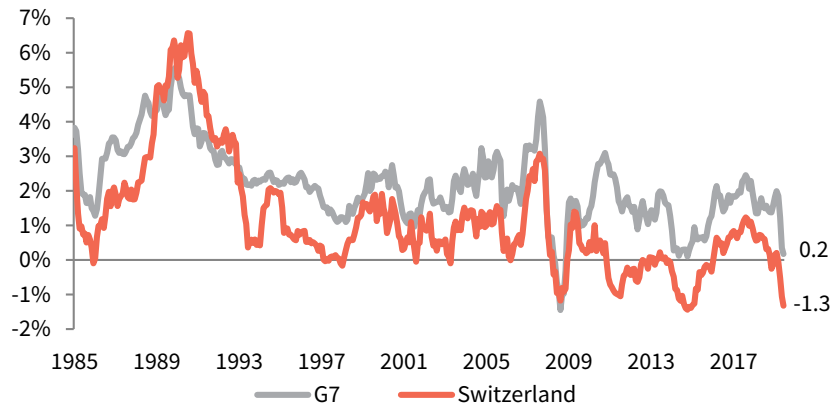
A very substantial, if reduced, CA surplus is a tailwind for the CHF in a low rate world

A positive correlation to equities means there is some benefit to leaving US equity exposure partially unhedged; however, the cost of hedging US assets has fallen significantly in carry terms

CHF FUNDAMENTALS

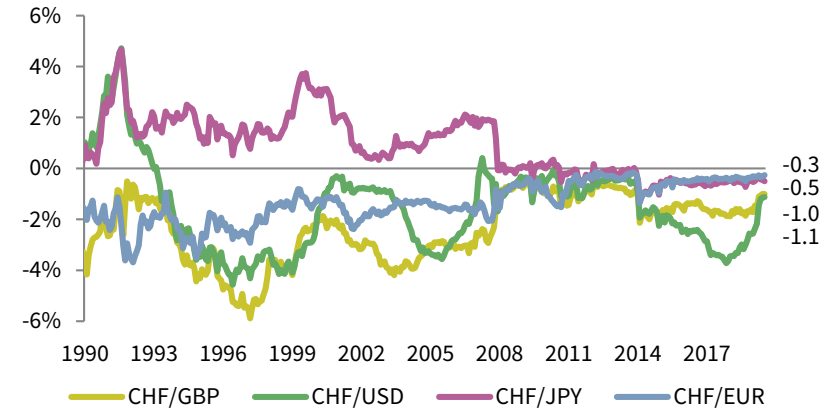
Inflation (Year-Over-Year %)

December 31, 1985 – May 31, 2020



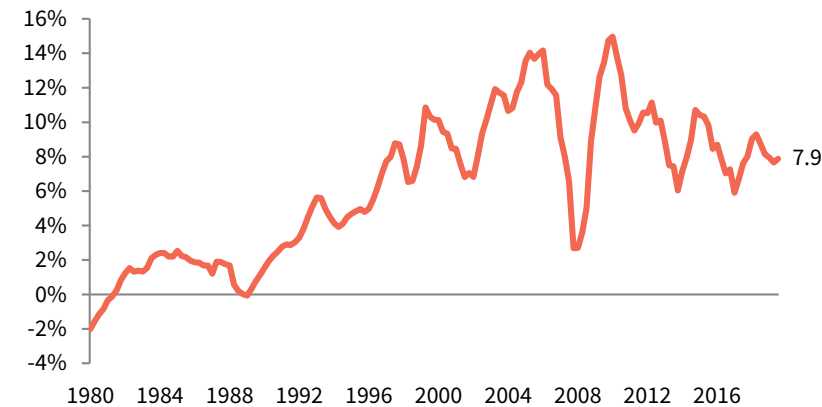
Implied Carry

December 31, 1990 – June 30, 2020



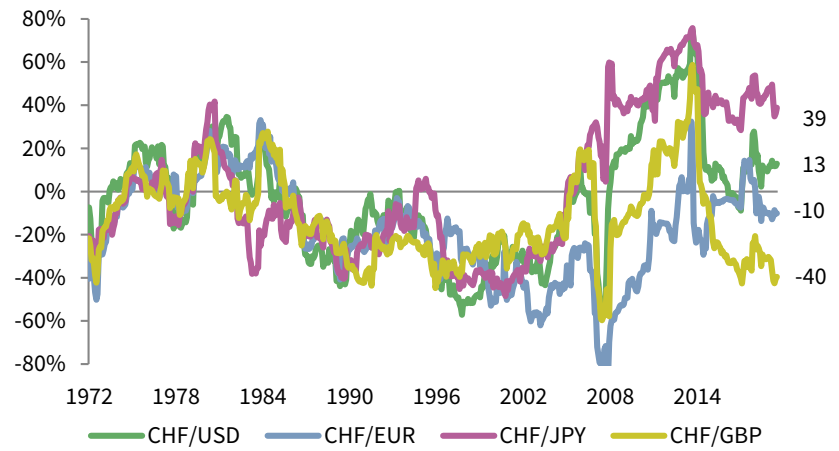
Current Account % GDP

Fourth Quarter 1980 – Second Quarter 2020



Rolling 36-Month Correlation With MSCI World

December 31, 1972 – June 30, 2020



JPY: Still a Safe Haven

- The JPY has gradually gained against the USD and the trade-weighted basket over the last two years, as the currency has benefited from safe-haven flows amid bouts of market volatility.
- The compression of core DM rates has also favored JPY, which is supported by a solid current account surplus.
- Consensus forecasts expect the JPY to strengthen versus the USD and CHF, and to be broadly unchanged versus the EUR and GBP.
- Market positioning is now net long; however, from a momentum perspective, the currency does not look overbought.
- The JPY is quite undervalued versus the USD and especially the CHF, but more neutrally valued versus the EUR and GBP.
- The persistent negative correlation between JPY and global equities suggests that those foreign investors seeking to reduce the volatility of their portfolio should consider leaving Japanese assets partially unhedged. This is especially true for USD- and CHF-based investors, given the valuation. There is now less positive carry available for a US investor in hedging JPY exposure.

JPY NOMINAL EXCHANGE RATES

June 30, 1971 – June 30, 2020 • June 30, 1971 = 100



Sources: Bank for International Settlements, MSCI Inc., and Thomson Reuters Datastream. MSCI data provided "as is" without any express or implied warranties.

JPY CONSENSUS FORECASTS

As of July 6, 2020

	USD/JPY	EUR/JPY	GBP/JPY	CHF/JPY
Current	108	121	134.1	113.8
Year-End 2020 Median Forecast	107	121	134.3	112.0
Percent Change	-0.9%	0.0%	0.1%	-1.6%

Source: Bloomberg L.P.

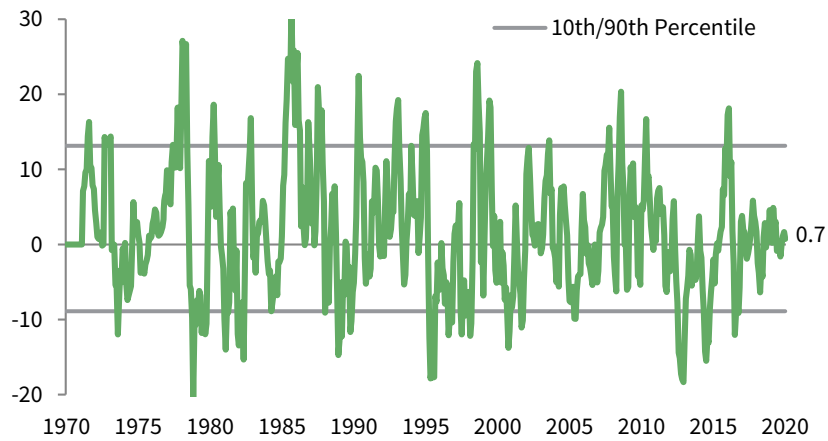
Note: JPY exchanges rates are shown from the foreign currency perspective, and the percent change reflects the appreciation of the foreign currency.

JPY momentum is broadly neutral

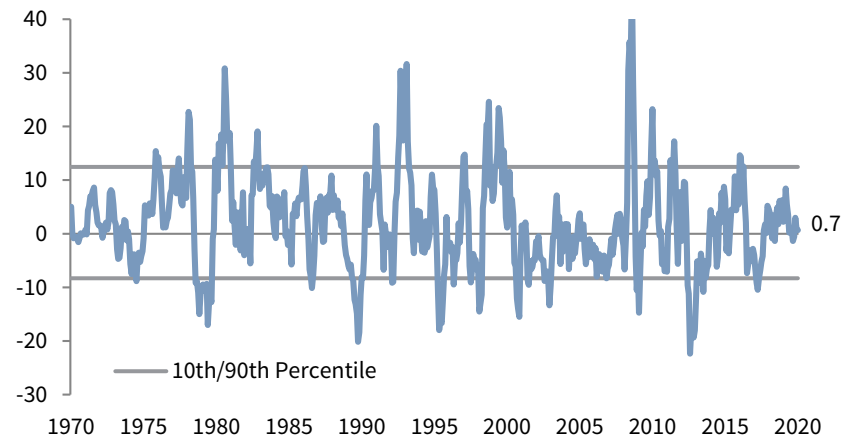
JPY ROLLING 6-MONTH PERCENT CHANGE

June 30, 1970 – June 30, 2020 • Percent (%)

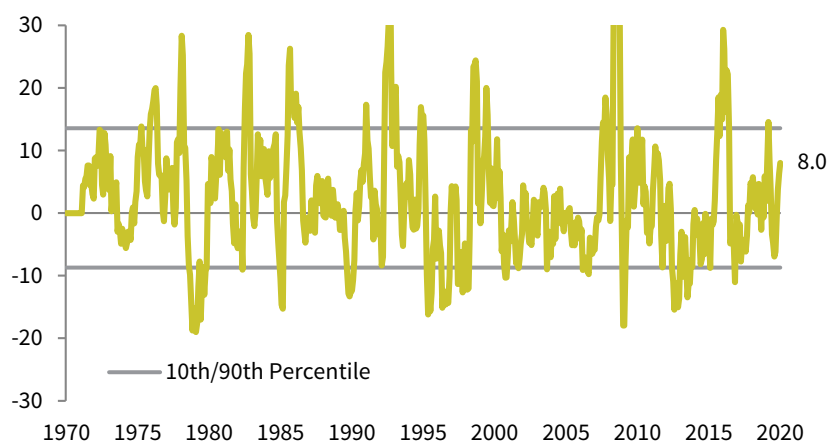
JPY/USD



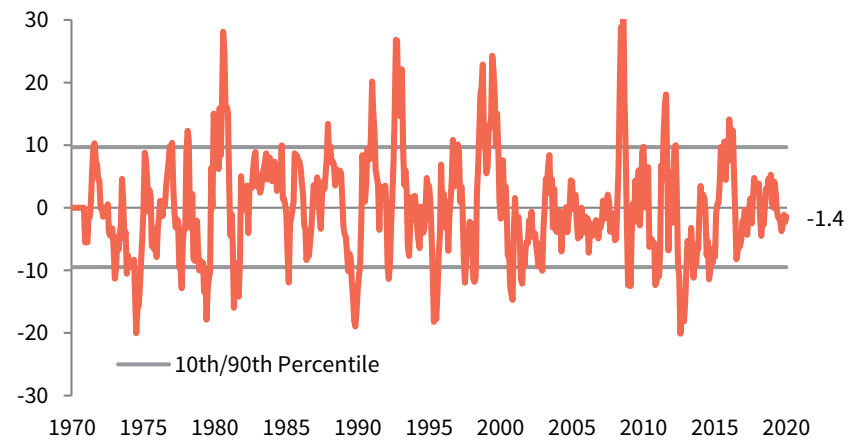
JPY/EUR



JPY/GBP



JPY/CHF

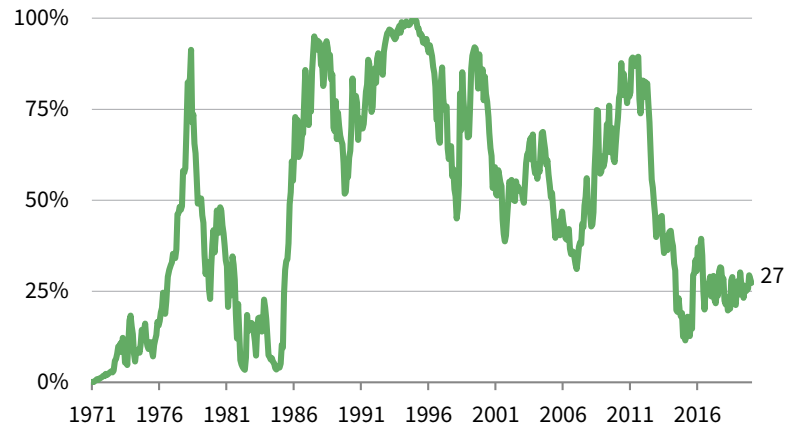


JPY valuations are generally low, although closer to historical median vs the GBP and EUR

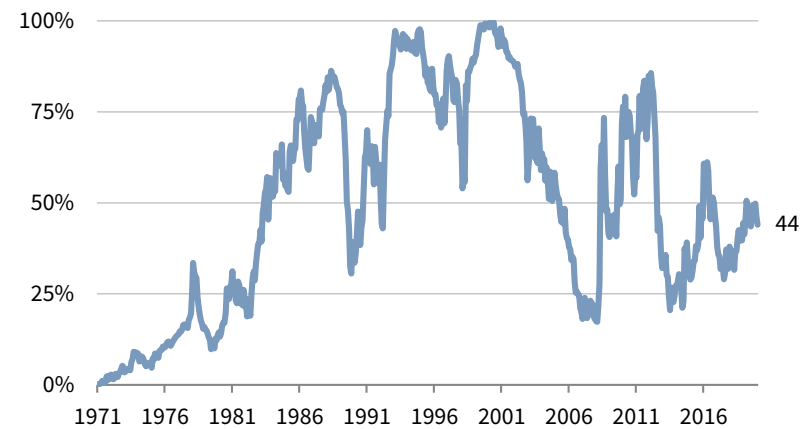
JPY VALUATION: REAL EXCHANGE RATE PERCENTILE

June 30, 1971 – June 30, 2020 • Percentile (%)

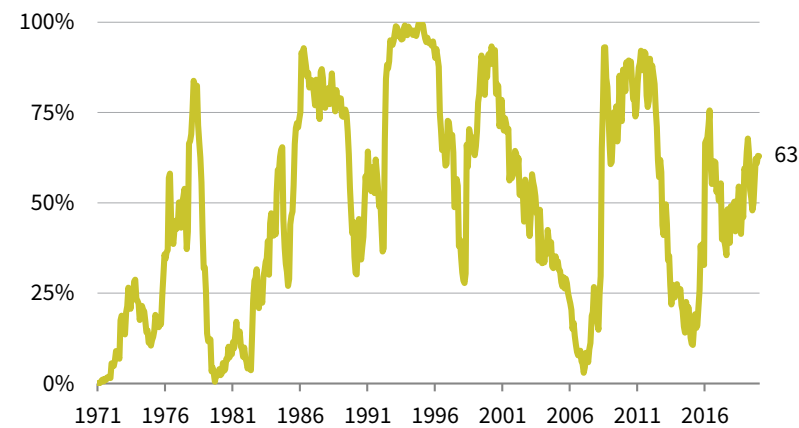
JPY/USD



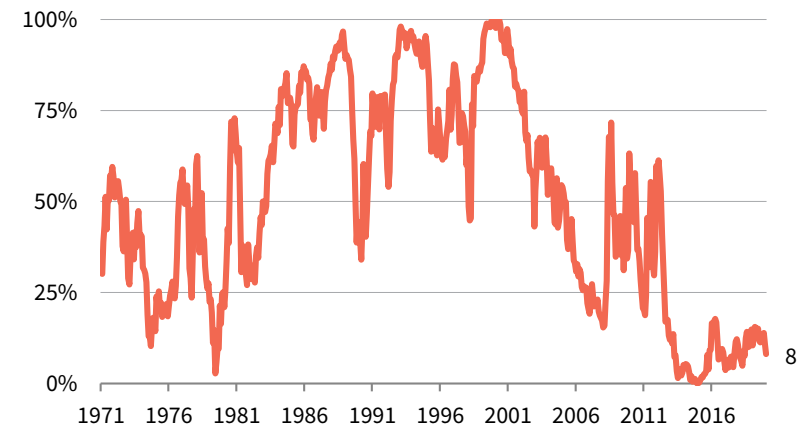
JPY/EUR



JPY/GBP



JPY/CHF



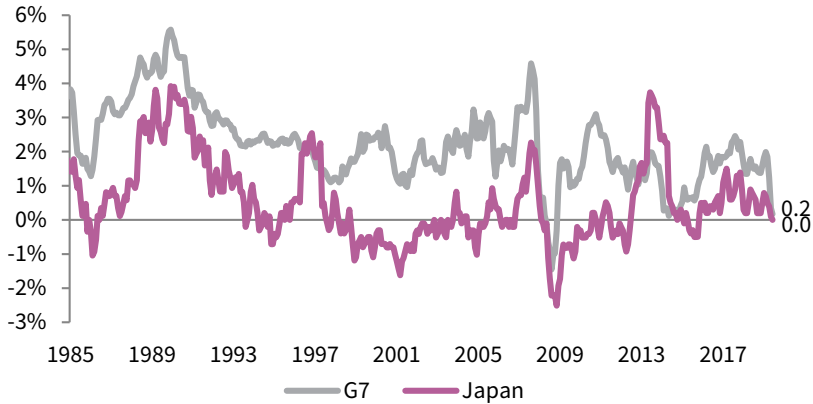
Negative correlations with equities imply volatility dampening from leaving JPY exposure unhedged for non JPY-based investors

Hedging the JPY generates positive albeit reduced, carry for USD and GBP investors, while the carry drag for EUR and CHF investors is modest

JPY FUNDAMENTALS

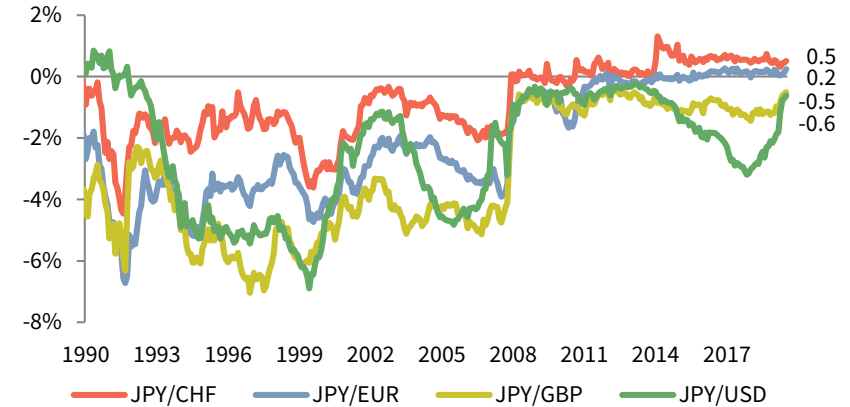
Inflation (Year-Over-Year %)

December 31, 1985 – May 31, 2020



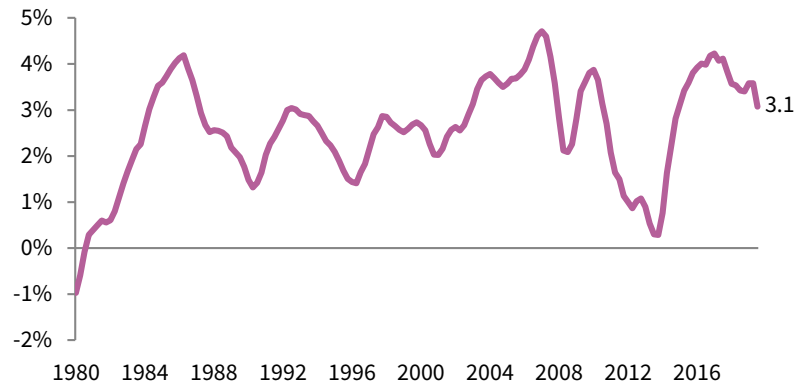
Implied Carry

December 31, 1990 – June 30, 2020



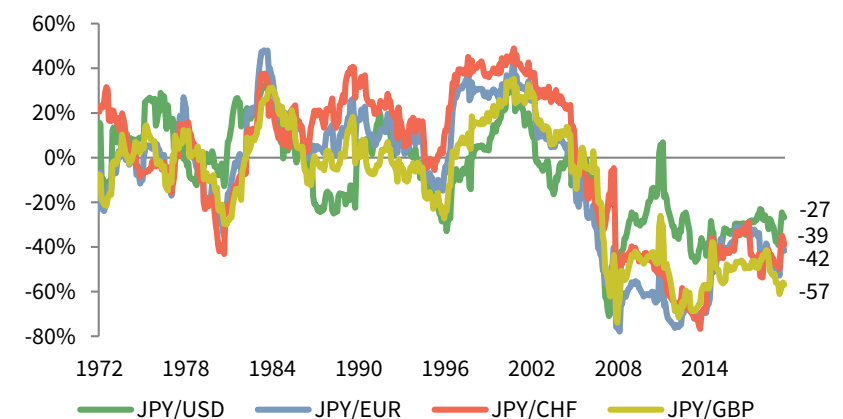
Current Account % GDP

Fourth Quarter 1980 – Second Quarter 2020



Rolling 36-Month Correlation With MSCI World

December 31, 1972 – June 30, 2020

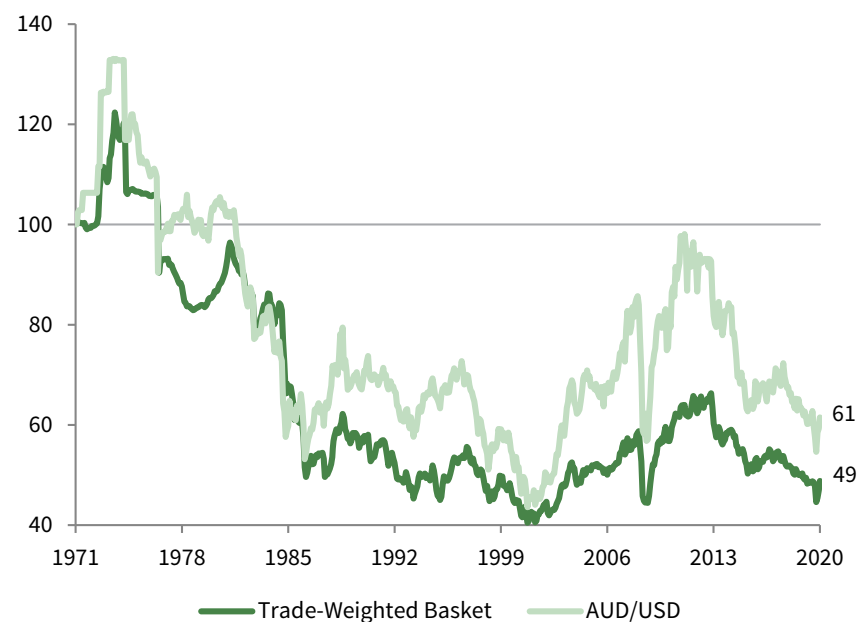


AUD: The Ro-Ro Trade

- The AUD has declined in recent years against a backdrop of a weakening trend in inflation, fears over the domestic housing market, and unease about potentially moderating demand from China.
- The Reserve Bank of Australia has cut rates to 0.25% and has joined the ranks of those central banks conducting quantitative easing (QE). While unlikely to use negative rates, they have taken the step of targeting a yield level for the three-year government bond.
- Despite the rapid appreciation of the currency in second quarter, the equally rapid depreciation seen in first quarter means that on a six-month view the momentum of the AUD is quite neutral.
- The persistent decline in the AUD since 2013 has seen it move away from vastly overvalued levels, with a below-median valuation against the USD currently. However, the AUD still remains reasonably elevated versus the EUR and GBP.
- Consensus forecasts expect the AUD to weaken across the board, most notably against the EUR, but also against GBP, JPY, and USD.
- The positive correlation of the AUD with risk assets means an AUD-based investor reduces volatility by holding their foreign equities partially unhedged.

AUD NOMINAL EXCHANGE RATES

June 30, 1971 – June 30, 2020 • June 30, 1971 = 100



Sources: Bank for International Settlements, MSCI Inc., and Thomson Reuters Datastream. MSCI data provided "as is" without any express or implied warranties.

AUD CONSENSUS FORECASTS

As of July 6, 2020

	AUD/USD	AUD/EUR	AUD/JPY	AUD/GBP
Current	0.69	0.62	74.6	0.56
Year-End 2020 Median Forecast	0.68	0.60	72.8	0.54
Percent Change	-1.4%	-3.2%	-2.4%	-2.7%

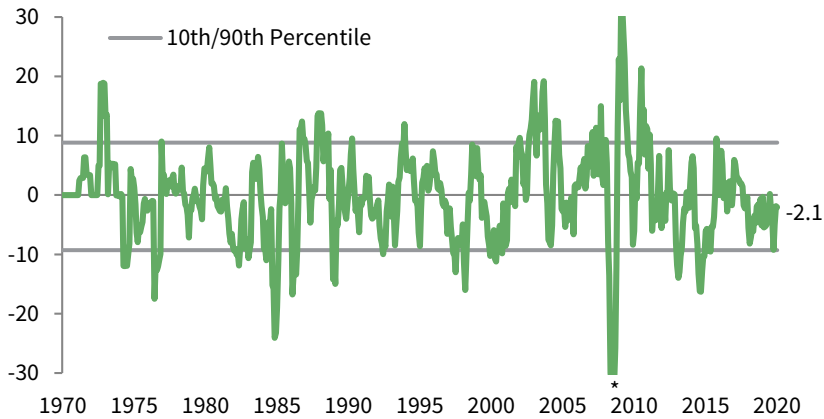
Source: Bloomberg L.P.

The momentum of the AUD has bounced off oversold levels with the recent rally

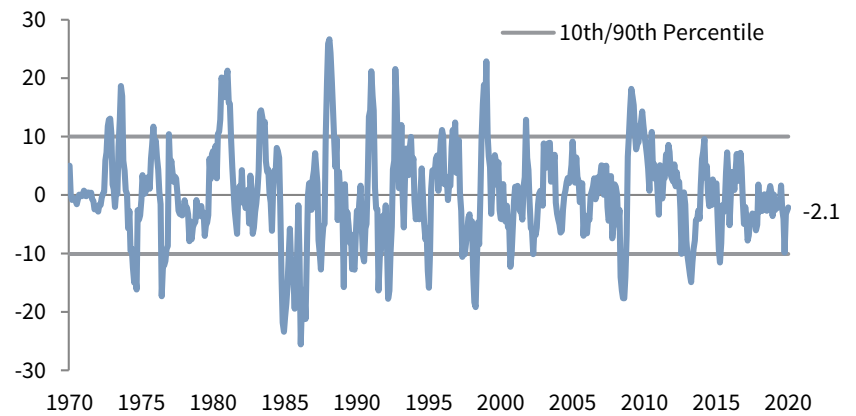
AUD ROLLING 6-MONTH PERCENT CHANGE

June 30, 1970 – June 30, 2020 • Percent (%)

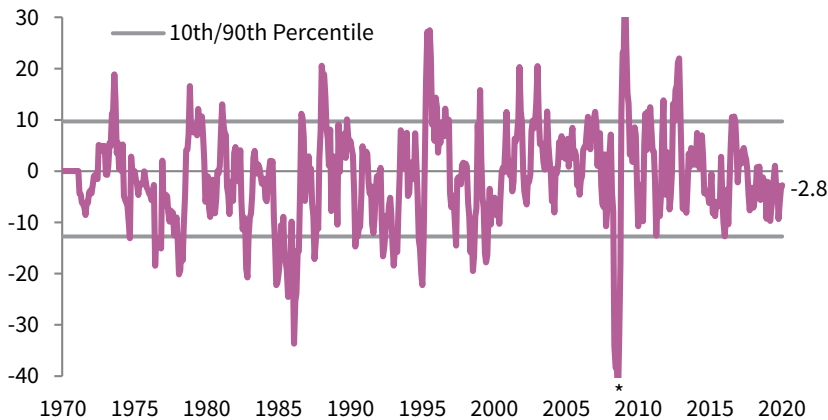
AUD/USD



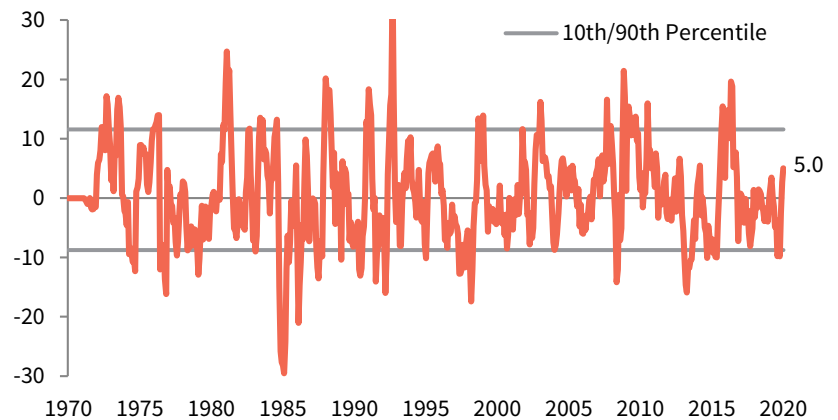
AUD/EUR



AUD/JPY



AUD/GBP

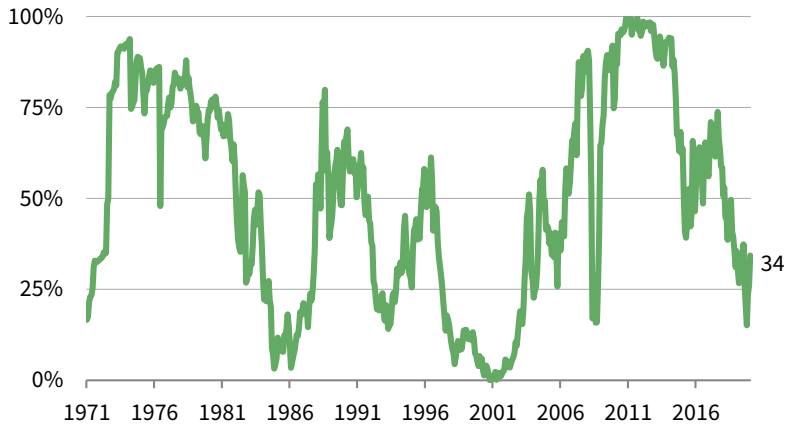


AUD valuations are now below median vs the USD, but still elevated vs the EUR and GBP

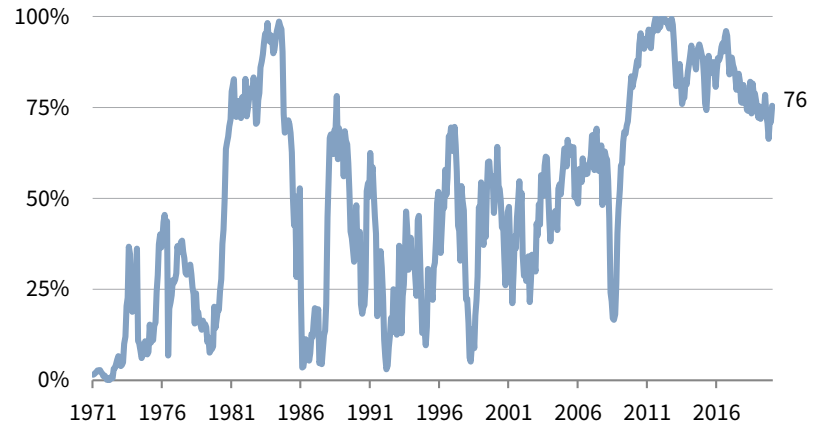
AUD VALUATION: REAL EXCHANGE RATE PERCENTILE

June 30, 1971 – June 30, 2020 • Percent (%)

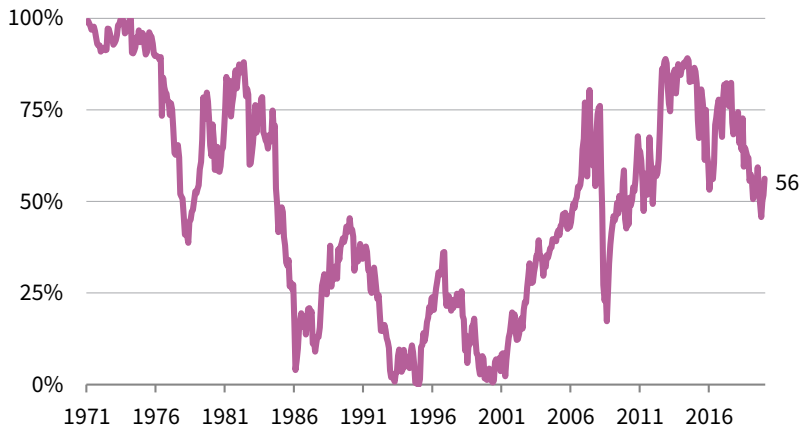
AUD/USD



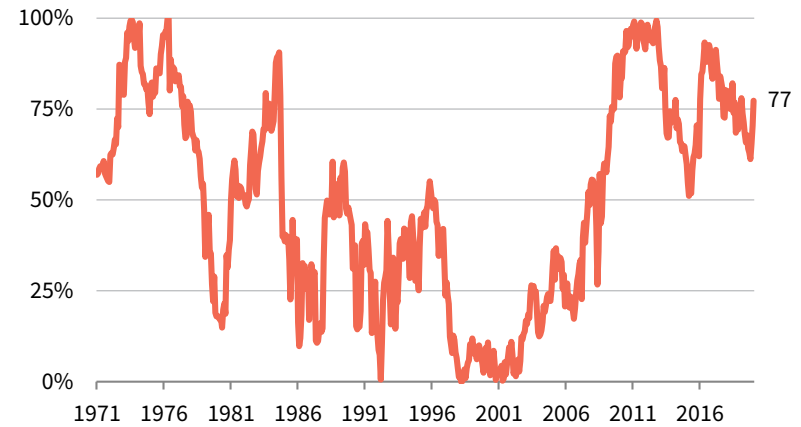
AUD/EUR



AUD/JPY



AUD/GBP



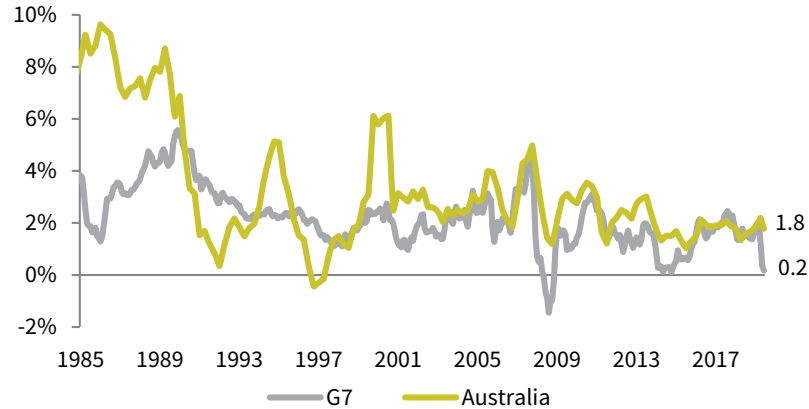
The current account balance has shifted into surplus, which may help support the AUD in a zero-rate world

A high correlation with global equities means AUD-based investors with unhedged exposure could benefit from lower equity volatility, and forego less carry in doing so

AUD FUNDAMENTALS

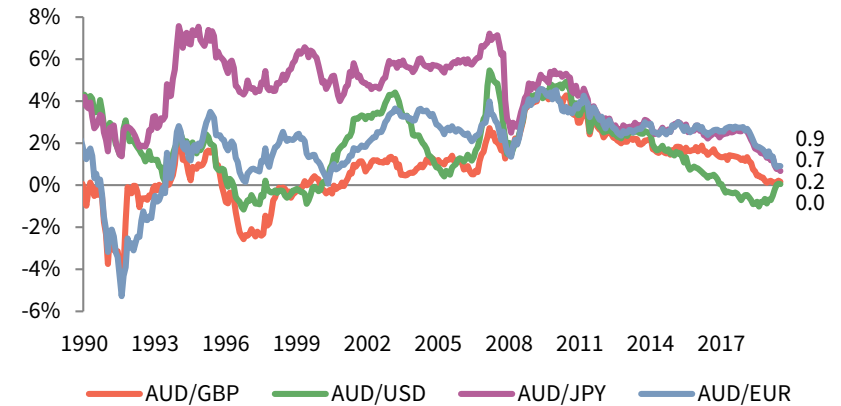
Inflation (Year-Over-Year %)

December 31, 1985 – May 31, 2020



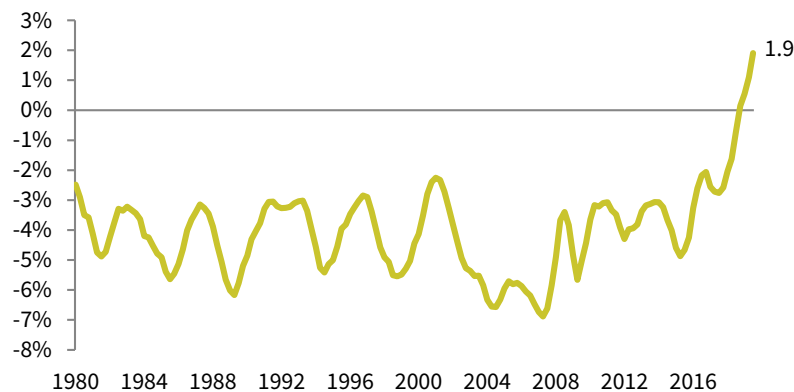
Implied Carry

December 31, 1990 – June 30, 2020



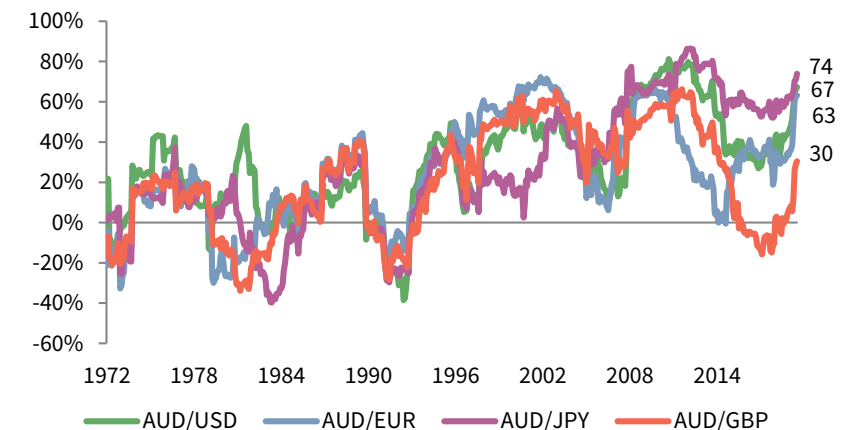
Current Account % GDP

Fourth Quarter 1980 – Second Quarter 2020



Rolling 36-Month Correlation With MSCI World

December 31, 1972 – June 30, 2020

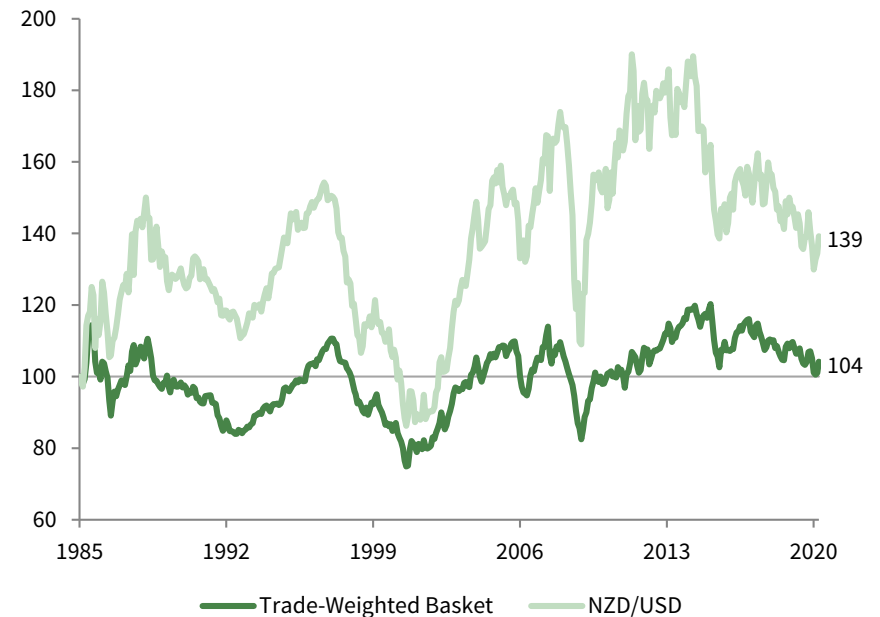


NZD: Targeted Weakness

- The NZD has been depreciating since mid-2014, when the RBNZ realized it had over-tightened rates, and shifted to an easing bias. Rates have since been cut in stages, with the pandemic taking them to 0.25%.
- Despite this sustained fall, the NZD remains in the upper quartile of valuations against the EUR and JPY. It remains slightly expensive versus the AUD, but is now below median versus the USD.
- The RBNZ have started a QE program, and look likely to increase easing measures, including by potentially purchasing foreign assets to weaken the NZD.
- Consensus forecasts see broad-based declines in the NZD, most notably against the EUR, but also against the JPY and USD, while unchanged versus the AUD.
- In terms of momentum, the NZD is not at extreme levels, though it is moderately negative.
- The NZD's overvaluation versus certain currencies implies that NZD investors could still benefit from being partially unhedged, especially in light of its positive correlation to equities.
- RBNZ rate cuts have greatly reduced the positive carry offered by the NZD, meaning that hedging out FX risk for NZD-based investors is less lucrative.

NZD NOMINAL EXCHANGE RATES

March 31, 1985 – June 30, 2020 • March 31, 1985 = 100



Sources: Bank for International Settlements, MSCI Inc., and Thomson Reuters Datastream. MSCI data provided "as is" without any express or implied warranties.

Note: Data for NZD starts from March 31, 1985, when the currency was allowed to float against all currencies.

NZD CONSENSUS FORECASTS

As of July 6, 2020

	NZD/USD	NZD/EUR	NZD/JPY	NZD/AUD
Current	0.65	0.58	70.2	0.94
Year-End 2020 Median Forecast	0.64	0.56	68.5	0.94
Percent Change	-1.5%	-3.4%	-2.4%	0.0%

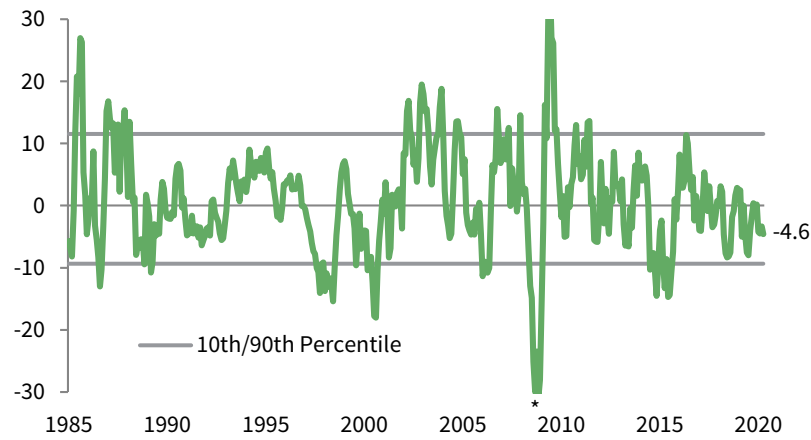
Source: Bloomberg L.P.

NZD momentum is slightly negative, though not oversold

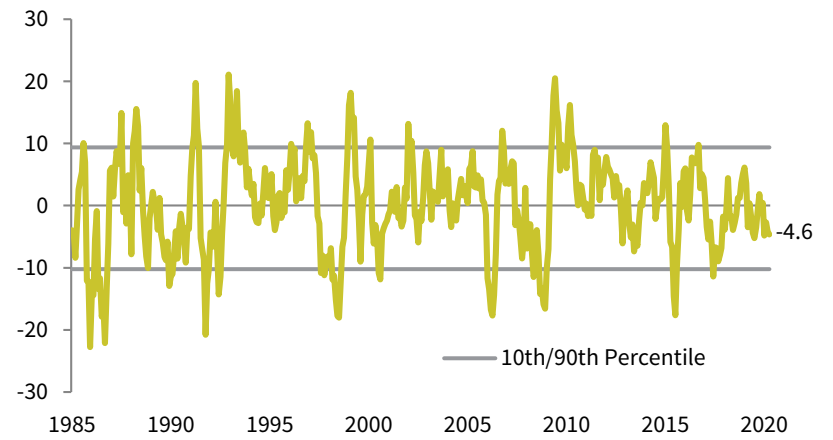
NZD ROLLING 6-MONTH PERCENT CHANGE

March 31, 1985 – June 30, 2020 • Percent (%)

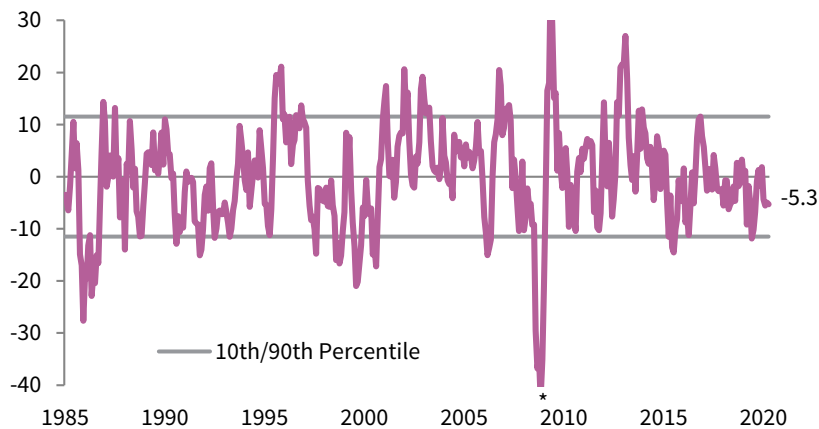
NZD/USD



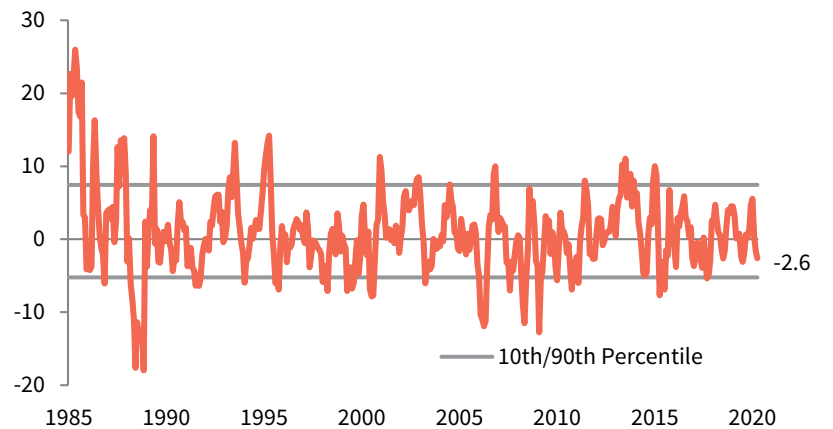
NZD/EUR



NZD/JPY



NZD/AUD

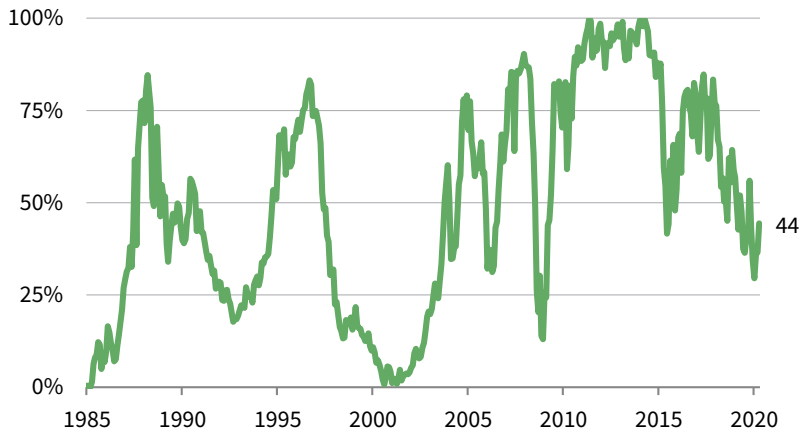


NZD valuations remain elevated vs most currencies, but in line with historical median vs the USD

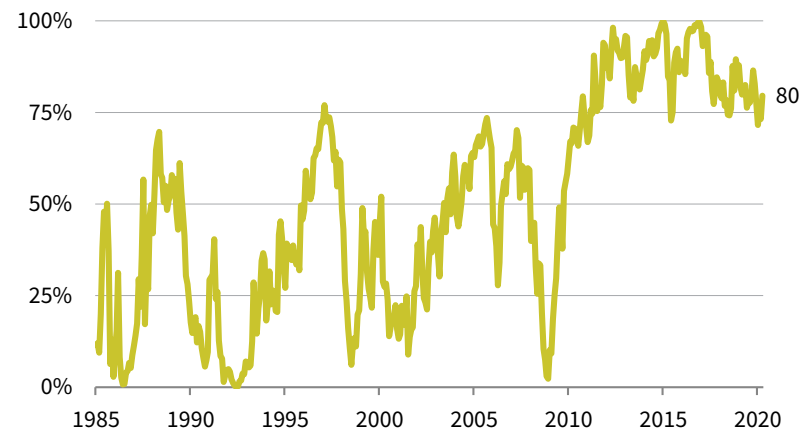
NZD VALUATION: REAL EXCHANGE RATE PERCENTILE

March 31, 1985 – June 30, 2020 • Percent (%)

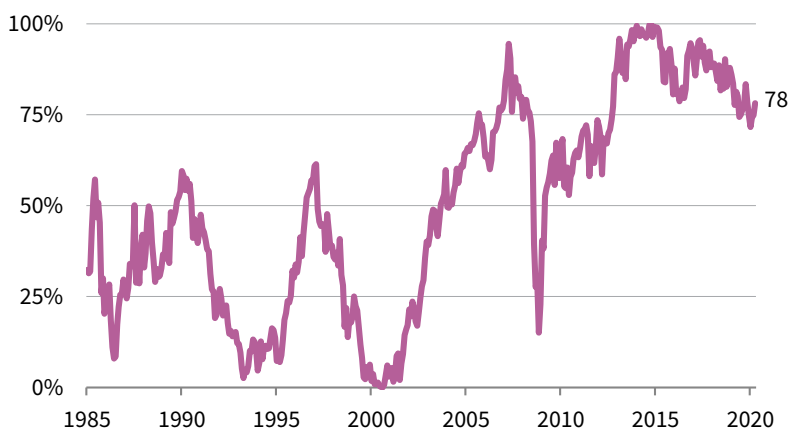
NZD/USD



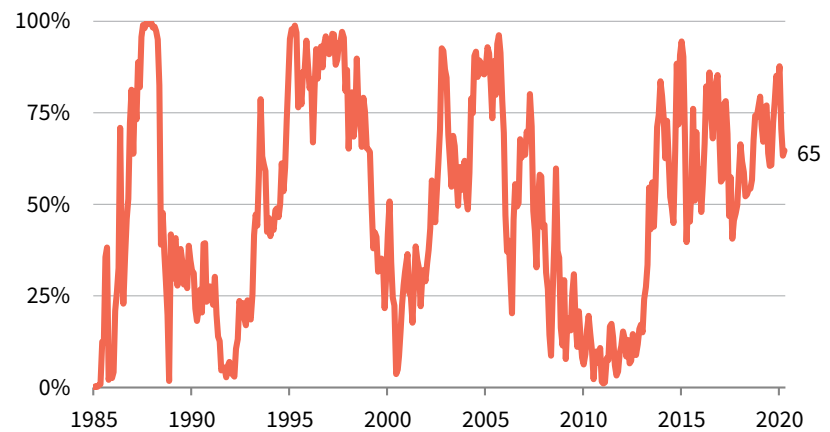
NZD/EUR



NZD/JPY



NZD/AUD



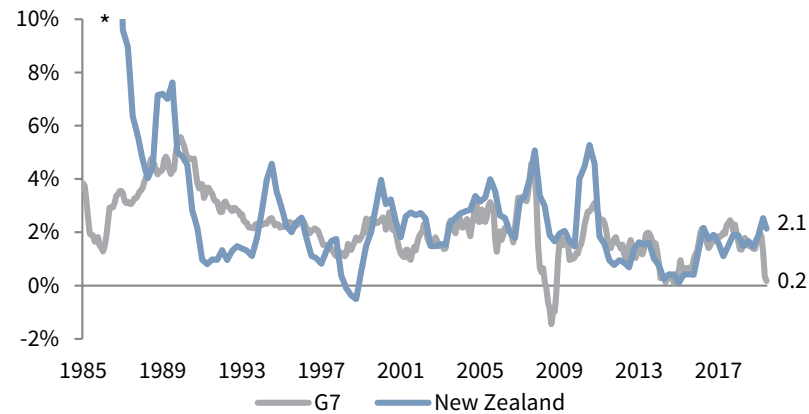
Declining carry may continue to weigh on the NZD, given the current account deficit

Positive correlations with global equities imply that unhedged exposure for NZD investors lowers volatility, save for AUD equities.

NZD FUNDAMENTALS

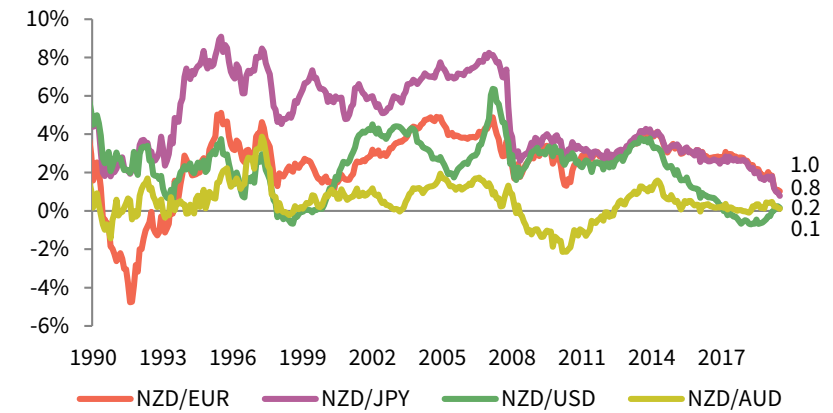
Inflation (Year-Over-Year %)

December 31, 1985 – May 31, 2020



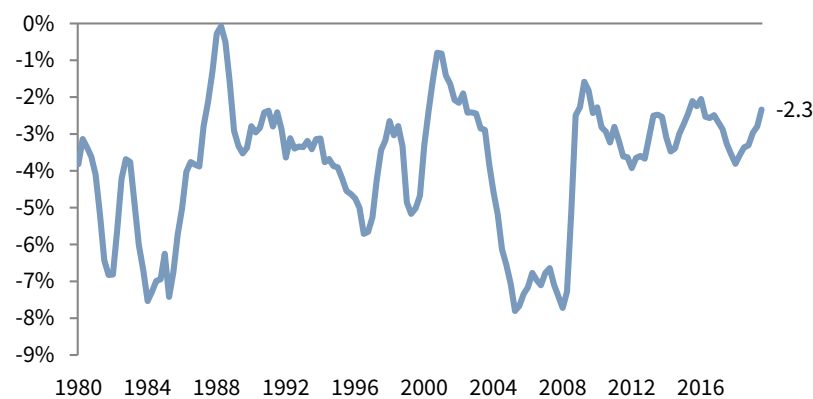
Implied Carry

December 31, 1990 – June 30, 2020



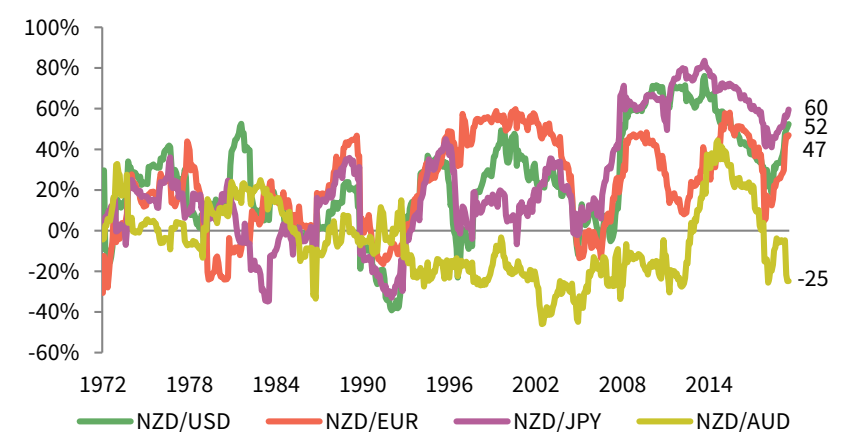
Current Account % GDP

Fourth Quarter 1980 – Second Quarter 2020



Rolling 36-Month Correlation With MSCI World

December 31, 1972 – June 30, 2020

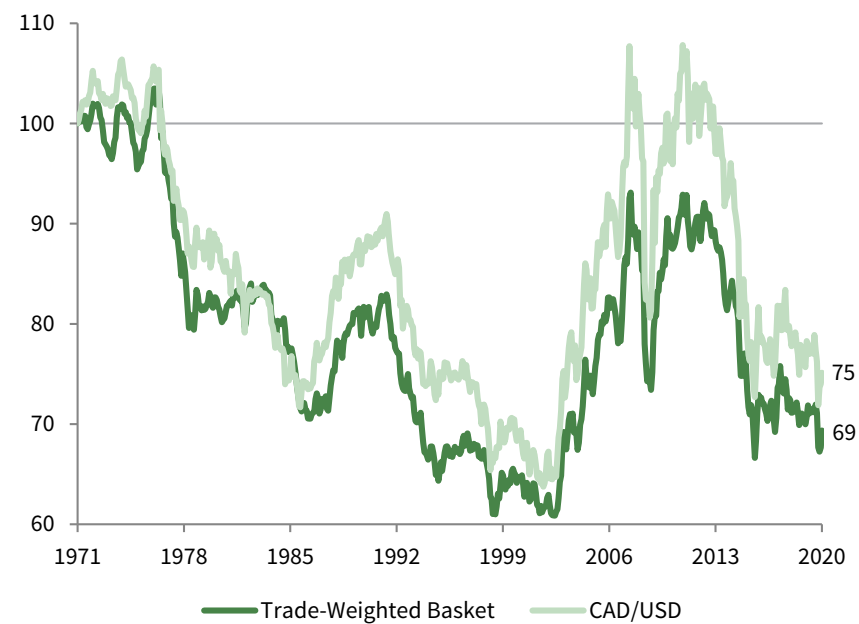


CAD: More Room to Run

- Like all commodity currencies, the CAD has been trending downwards in recent years, and was hit hard during the early stages of the pandemic. It has underperformed AUD and NZD in the subsequent recovery in risk assets, however.
- Despite the recent rally, the CAD still looks somewhat oversold versus the USD and EUR, but less stretched versus other currencies. However, market positioning is still net short the CAD, suggesting potential for some more upside.
- Consensus forecasts expect the CAD to weaken against the EUR over the course of 2020, but to be broadly stable against the USD, JPY, and GBP.
- CAD valuations are very low versus the USD, close to historical median versus the EUR and JPY, and a little elevated versus GBP.
- Correlations with global equities are largely positive, and recently increasing, implying unhedged exposure could lower equity volatility for CAD-based investors.
- The CAD now enjoys positive or flat carry versus the major currencies.

CAD NOMINAL EXCHANGE RATES

June 30, 1971 – June 30, 2020 • June 30, 1971 = 100



Sources: Bank for International Settlements, MSCI Inc., and Thomson Reuters Datastream. MSCI data provided "as is" without any express or implied warranties.

CAD CONSENSUS FORECASTS

As of July 6, 2020

	CAD/USD	CAD/EUR	CAD/JPY	CAD/GBP
Current	0.74	0.66	79.2	0.59
Year-End 2020 Median Forecast	0.74	0.65	79.3	0.59
Percent Change	0.0%	-1.5%	0.1%	0.0%

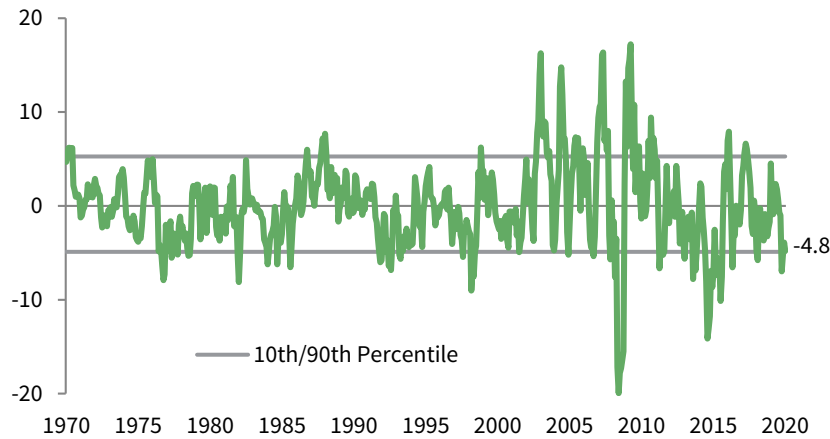
Source: Bloomberg L.P.

CAD momentum is negative, though has bounced off oversold levels vs the USD and EUR

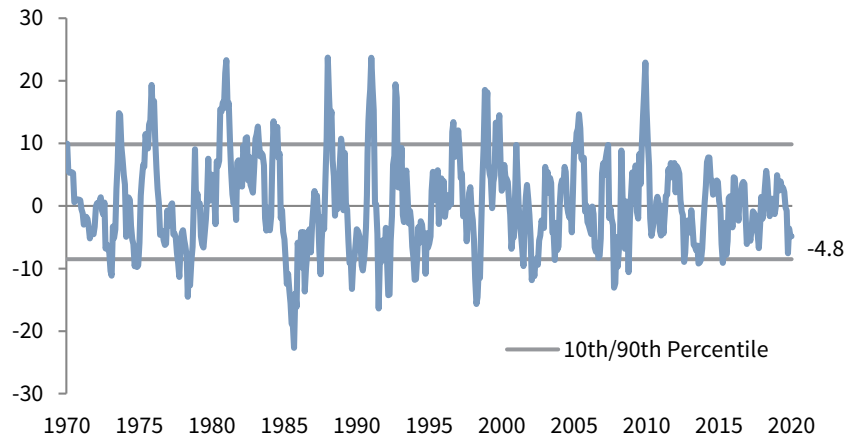
CAD ROLLING 6-MONTH PERCENT CHANGE

June 30, 1970 – June 30, 2020 • Percent (%)

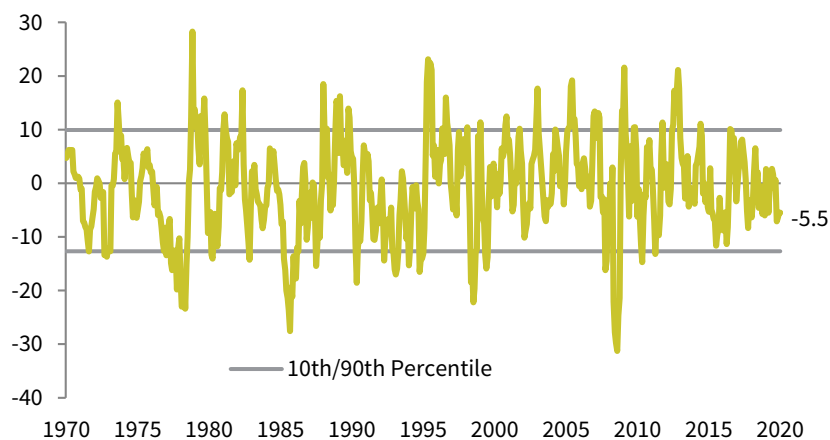
CAD/USD



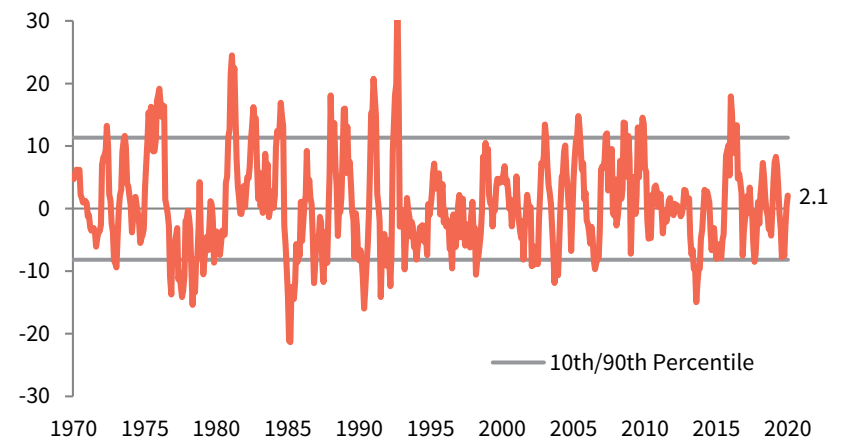
CAD/EUR



CAD/JPY



CAD/GBP

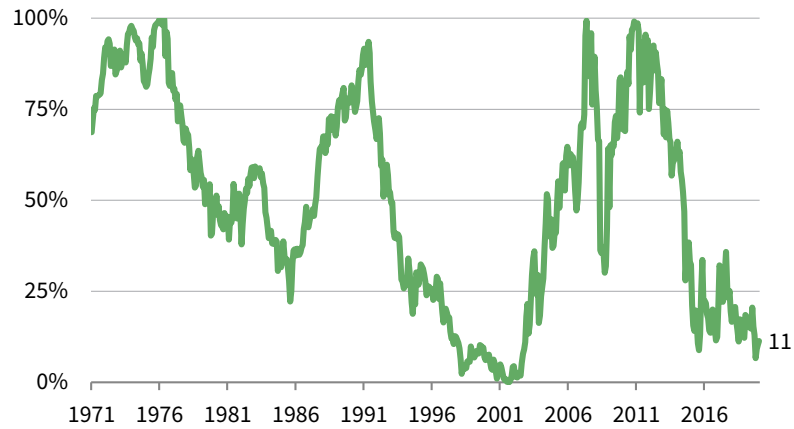


CAD valuations are low vs the USD, but in line with historical median vs EUR and JPY

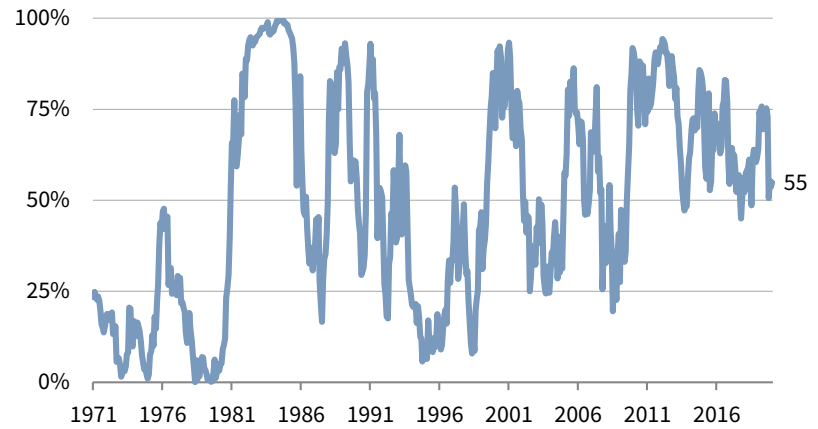
CAD VALUATION: REAL EXCHANGE RATE PERCENTILE

June 30, 1971 – June 30, 2020 • Percent (%)

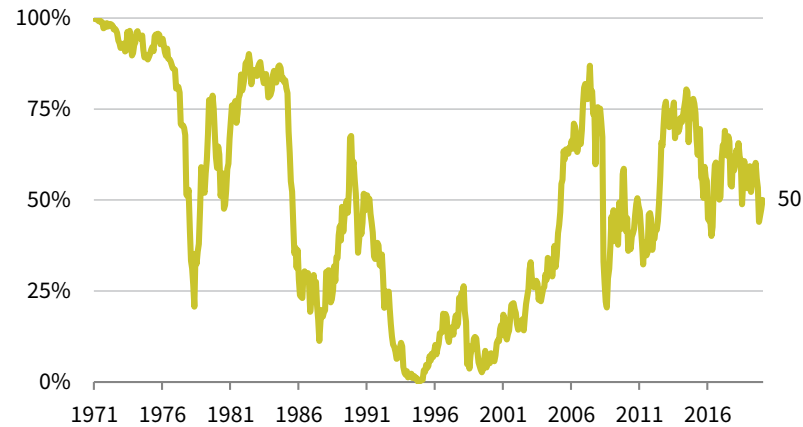
CAD/USD



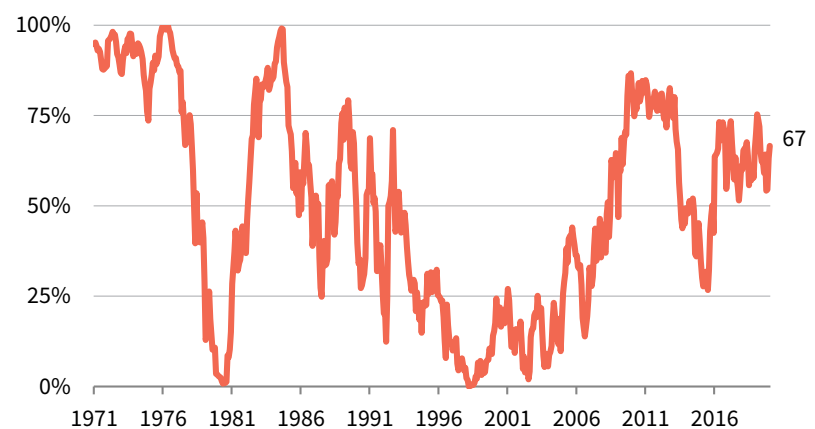
CAD/EUR



CAD/JPY



CAD/GBP



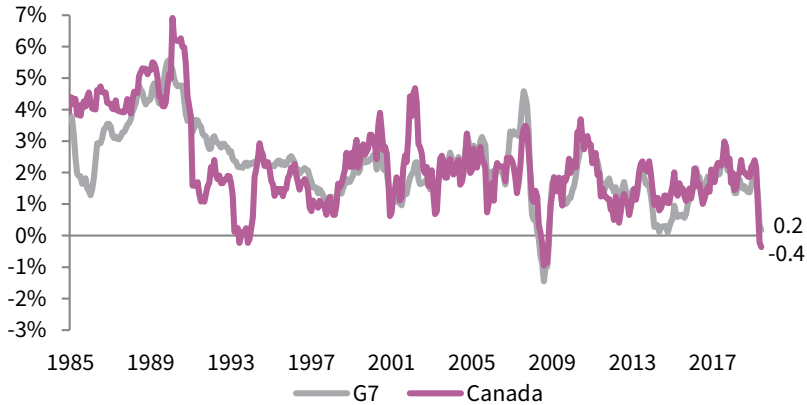
CAD still enjoys positive carry vs most currencies

Correlations with global equities are largely positive, implying unhedged exposure could lower equity volatility for CAD investors

CAD FUNDAMENTALS

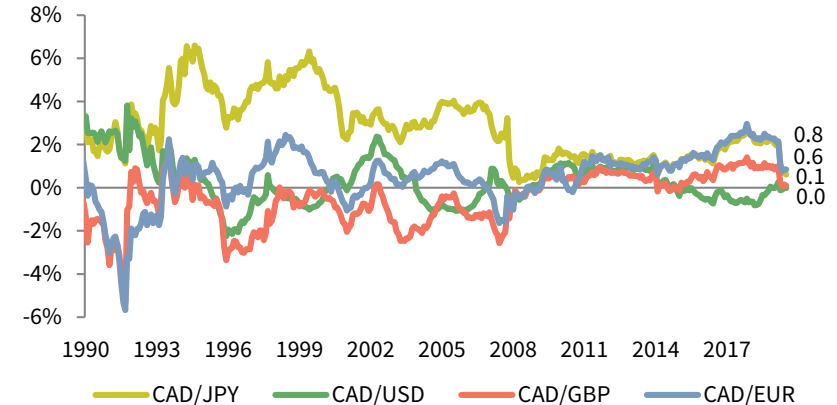
Inflation (Year-Over-Year %)

December 31, 1985 – May 31, 2020



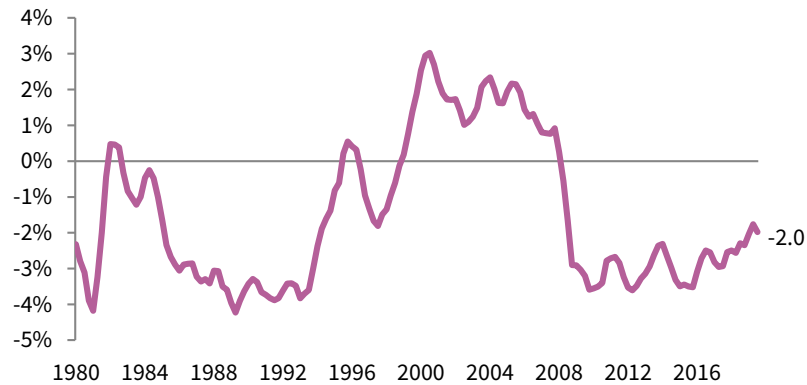
Implied Carry

December 31, 1990 – June 30, 2020



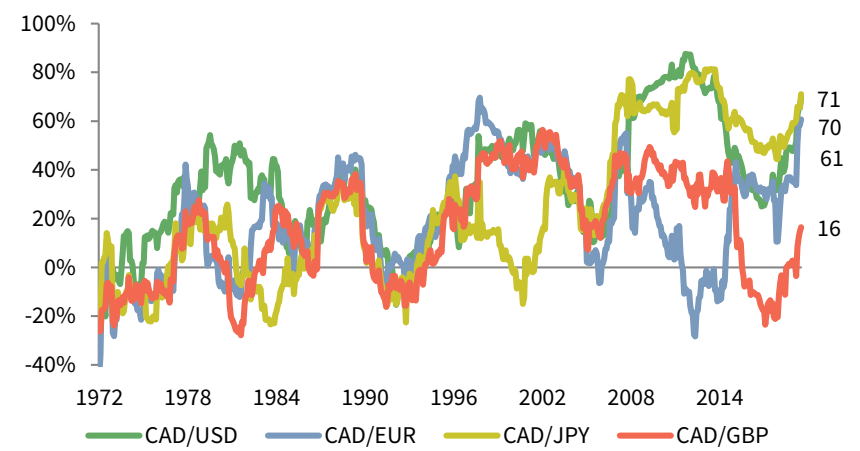
Current Account % GDP

Fourth Quarter 1980 – Second Quarter 2020



Rolling 36-Month Correlation With MSCI World

December 31, 1972 – June 30, 2020



SGD: The Growth Barometer

- The Monetary Authority of Singapore (MAS) executes its monetary policy by targeting the level of the exchange rate, rather than interest rates, usually targeting a slight nominal appreciation within a band.
- While the SGD had been weakening as the crisis took hold, in March, the MAS lowered the midpoint of the band for the first time since 2009, re-centering the band and reducing its slope to zero. However, the SGD is a pro-cyclical currency by design, and the rally in risk assets has seen the SGD appreciate a little since.
- SGD valuations remain elevated versus GBP, EUR, and JPY to a lesser extent. This implies some scope for further SGD weakness; however, the USD valuation is more neutral.
- Forecasts point to an expectation that the SGD will depreciate against the USD, EUR, GBP, and JPY, by the end of the year. Oversold momentum, especially versus the dollar, may be an impediment to further weakness in the short run.
- Modest overvaluation of the SGD and generally positive correlations between the SGD and equities suggest that SGD-based investors should remain unhedged, which should help reduce the volatility of global equity allocations.

SGD NOMINAL EXCHANGE RATES

June 30, 1971 – June 30, 2020 • June 30, 1971 = 100



Sources: Bank for International Settlements, MSCI Inc., and Thomson Reuters Datastream. MSCI data provided "as is" without any express or implied warranties.

SGD CONSENSUS FORECASTS

As of July 6, 2020

	SGD/USD	SGD/EUR	SGD/JPY	SGD/GBP
Current	0.72	0.64	77.1	0.58
Year-End 2020 Median Forecast	0.71	0.63	76.4	0.57
Percent Change	-1.4%	-1.6%	-0.9%	-1.7%

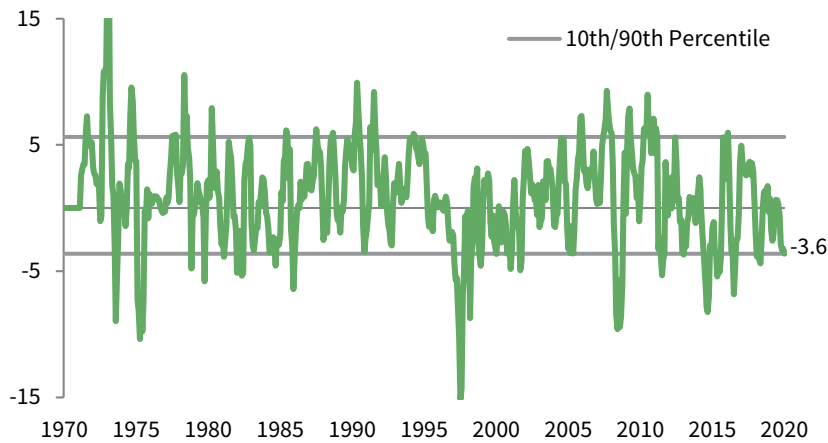
Source: Bloomberg L.P.

SGD momentum is negative, and is oversold against the USD

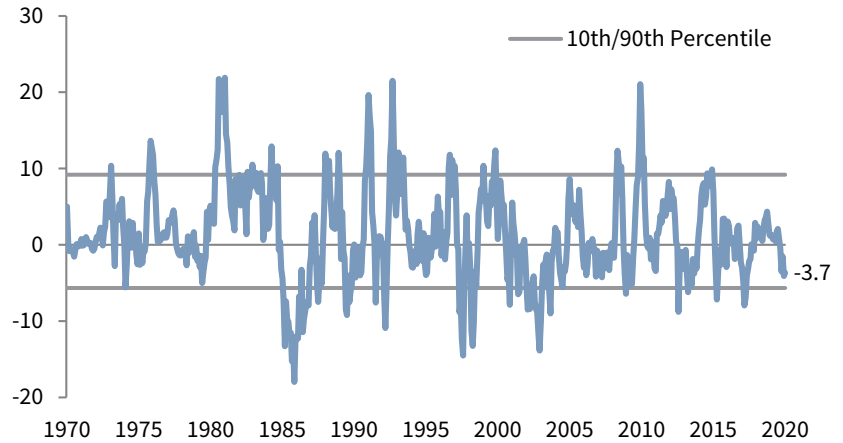
SGD ROLLING 6-MONTH PERCENT CHANGE

June 30, 1970 – June 30, 2020 • Percent (%)

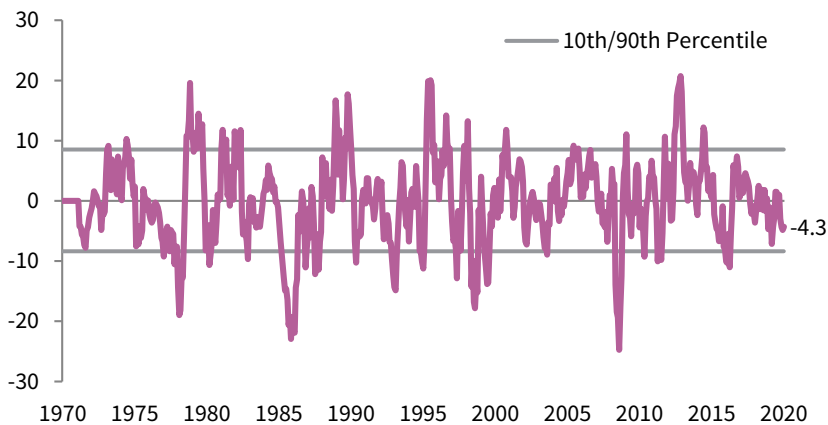
SGD/USD



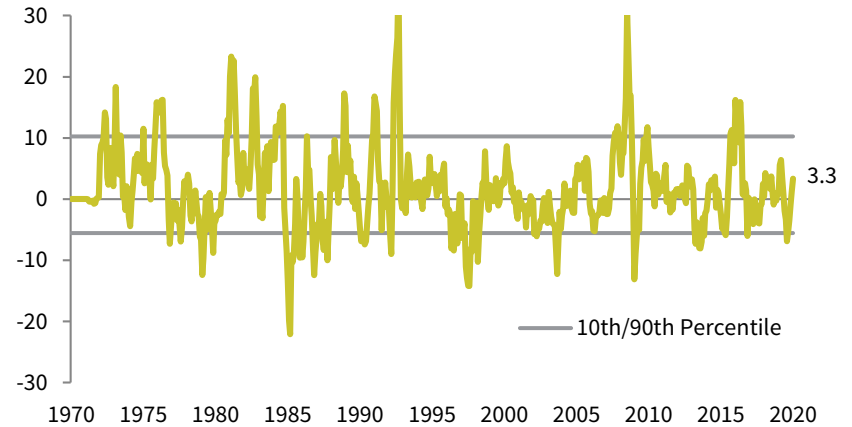
SGD/EUR



SGD/JPY



SGD/GBP

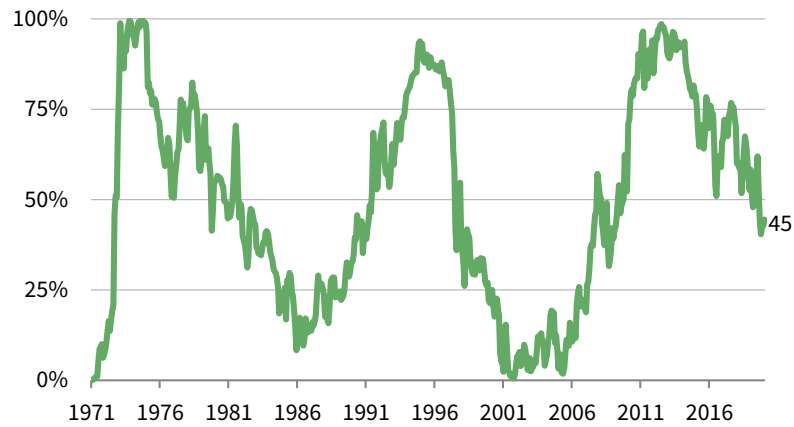


SGD valuations are still somewhat elevated relative to history, except for vs the USD

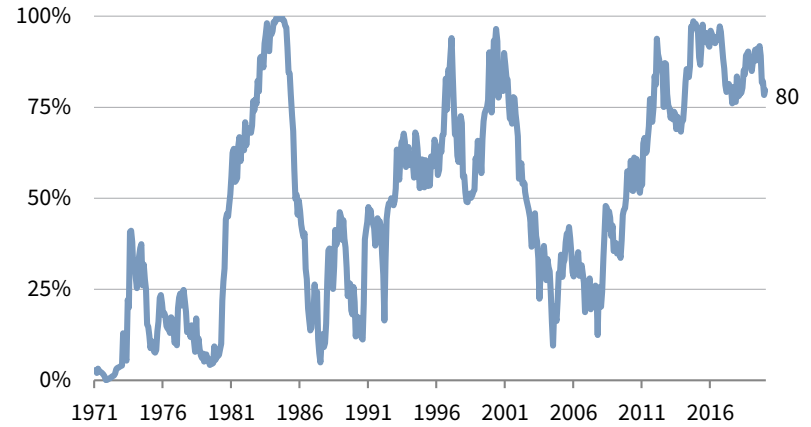
SGD VALUATION: REAL EXCHANGE RATE PERCENTILE

June 30, 1971 – June 30, 2020 • Percent (%)

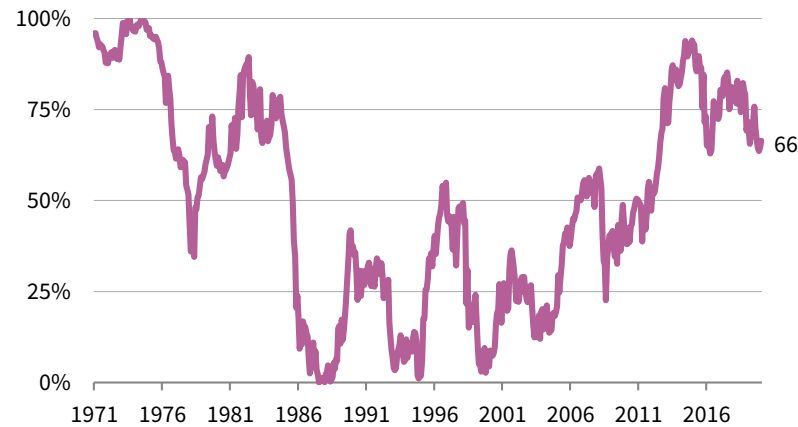
SGD/USD



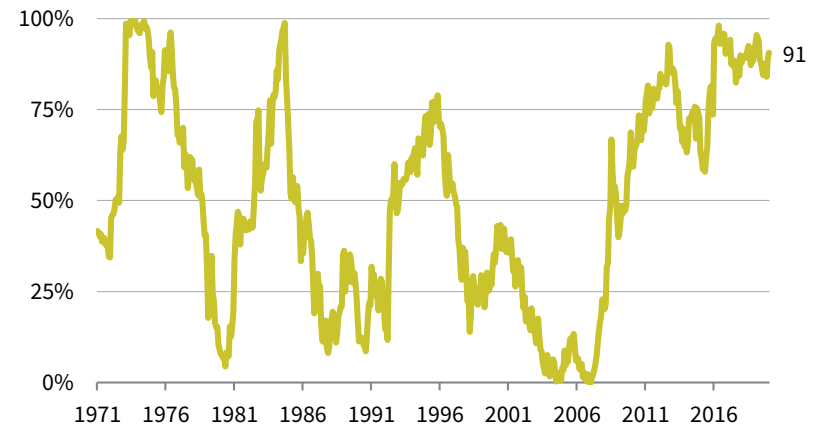
SGD/EUR



SGD/JPY



SGD/GBP



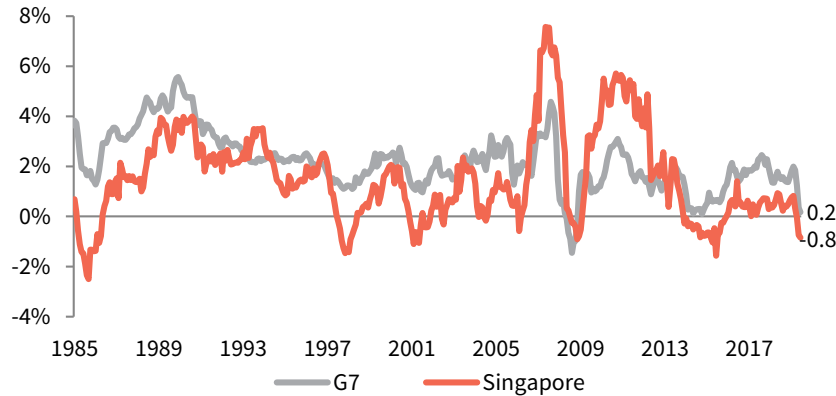
The SGD offers positive or neutral carry vs most currencies, unlike in the past

Correlations with equities are generally positive, although the negative correlation of the SGD/GBP implies that SGD-based investors should be hedged versus GBP for volatility reduction

SGD FUNDAMENTALS

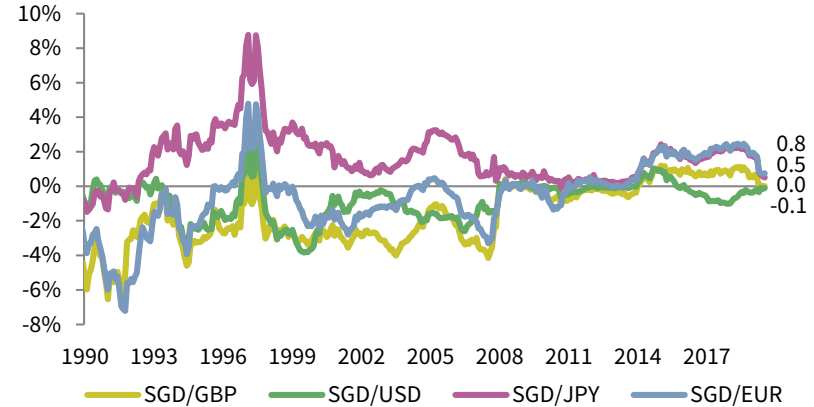
Inflation (Year-Over-Year %)

December 31, 1985 – May 31, 2020



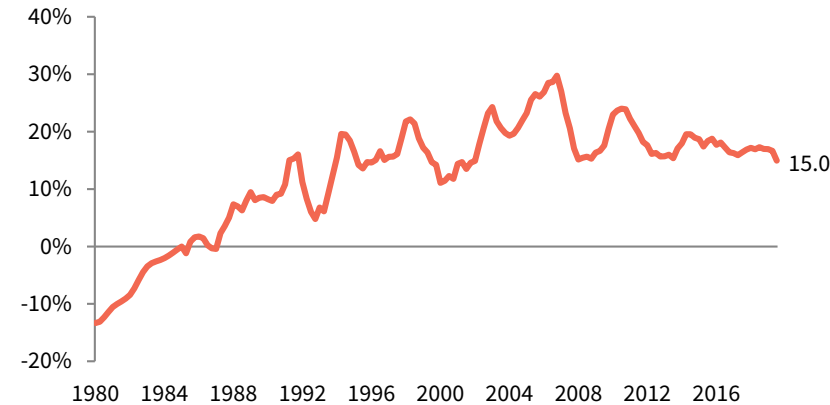
Implied Carry

December 31, 1990 – June 30, 2020



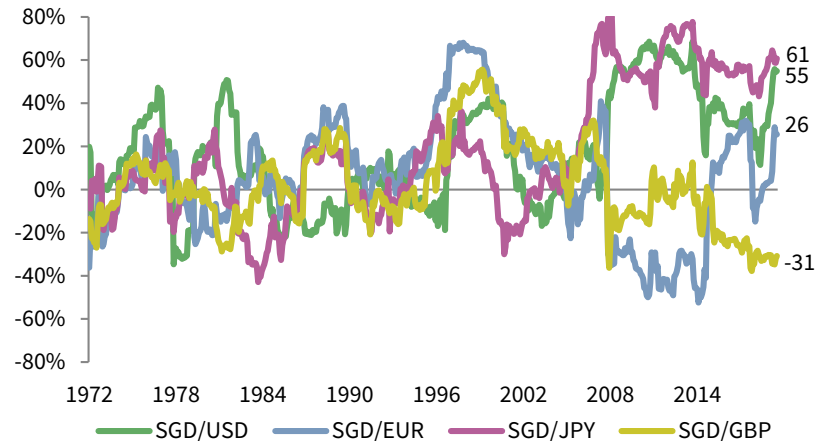
Current Account % GDP

Fourth Quarter 1980 – Second Quarter 2020



Rolling 36-Month Correlation With MSCI World

December 31, 1972 – June 30, 2020



APPENDIX

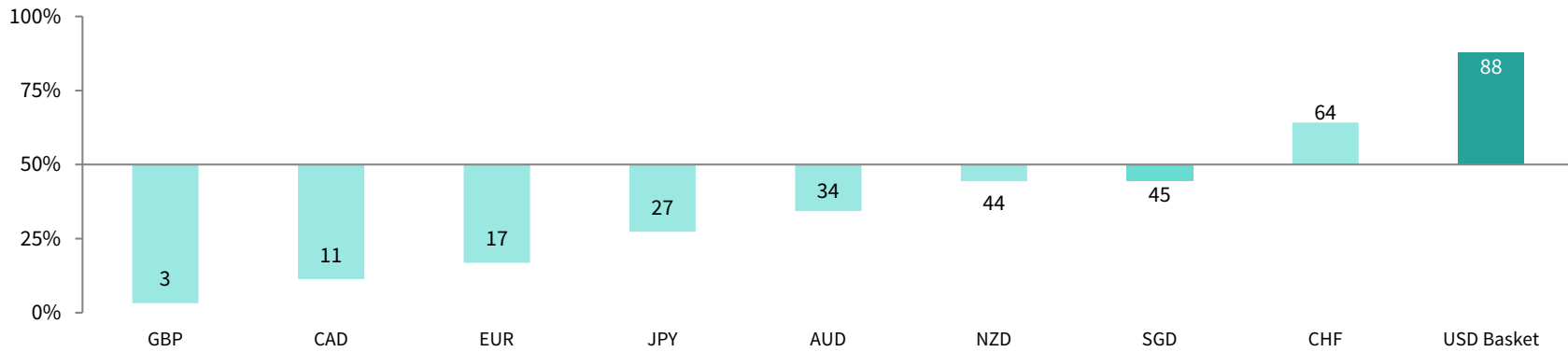


Currency Valuation Summary

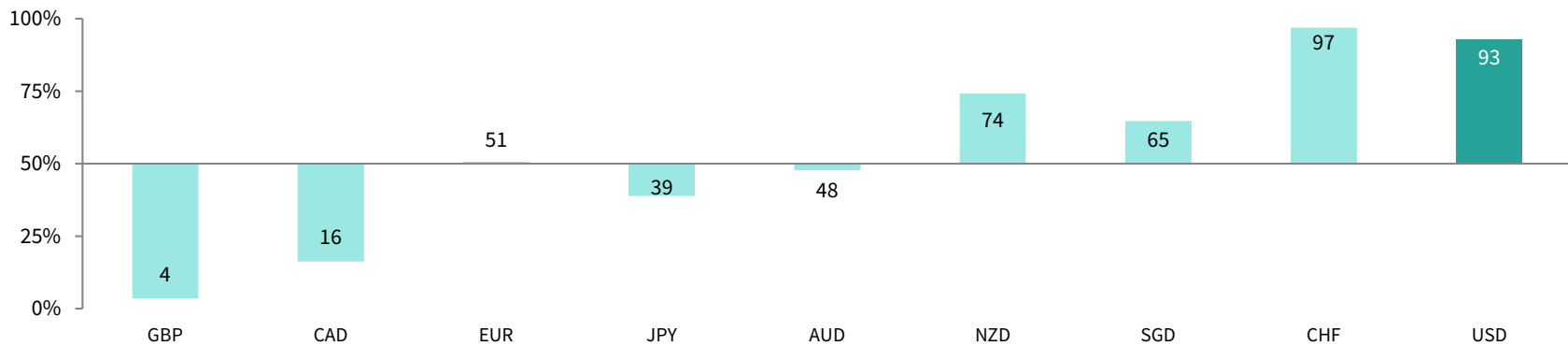
REAL EXCHANGE RATE VALUATION

As of June 30, 2020 • Percent (%)

Real Exchange Rate vs USD – Percentile



Trade-Weighted Real Exchange Rate – Percentile



Sources: Bank for International Settlements, MSCI Inc., and Thomson Reuters Datastream. MSCI data provided "as is" without any express or implied warranties.

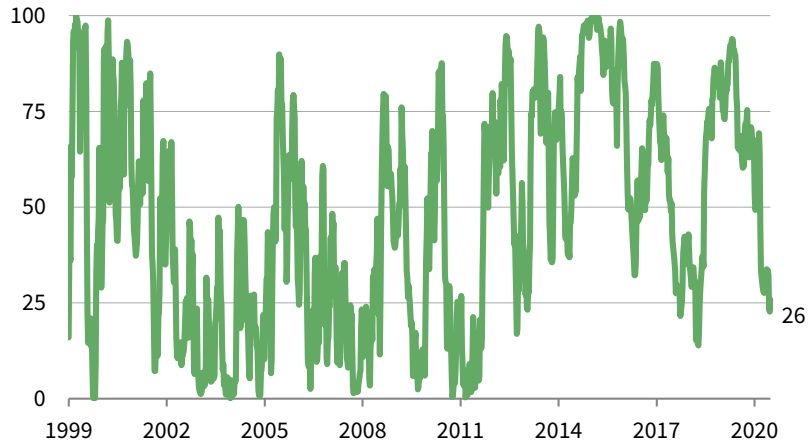
Notes: Real exchange rates are based on relative consumer prices. Historical median is calculated from June 1971 onwards, except for the New Zealand dollar, which starts from March 1985. Trade-Weighted Real Exchange Rates refer to BIS REER Narrow Indexes. The USD Basket represents USD valuation versus a weighted average of six currencies: euro (30%), British pound (20%), Japanese yen (20%), the Australian dollar (10%), Canadian dollar (10%), and Swiss franc (10%). Inflation data are as of May 31, 2020, except for Australia and New Zealand, which are as of March 31, 2020.

Investor Positioning in the Futures Market

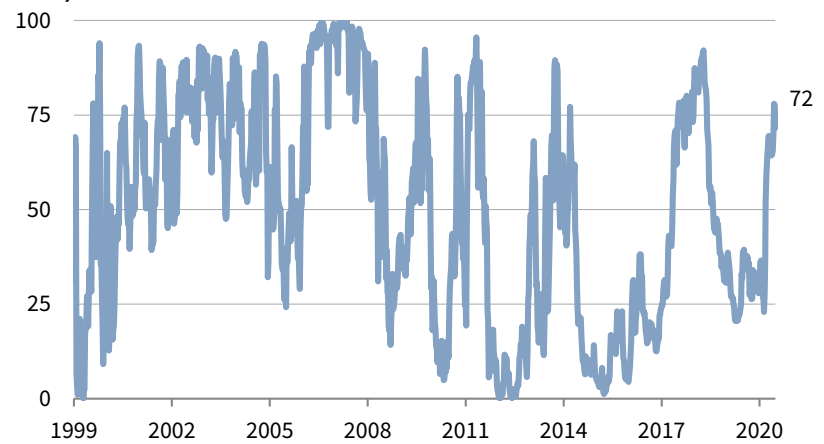
NET SPECULATIVE POSITIONS AS % OF OPEN INTEREST – PERCENTILE

January 5, 1999 – June 30, 2020 • Percentile (%)

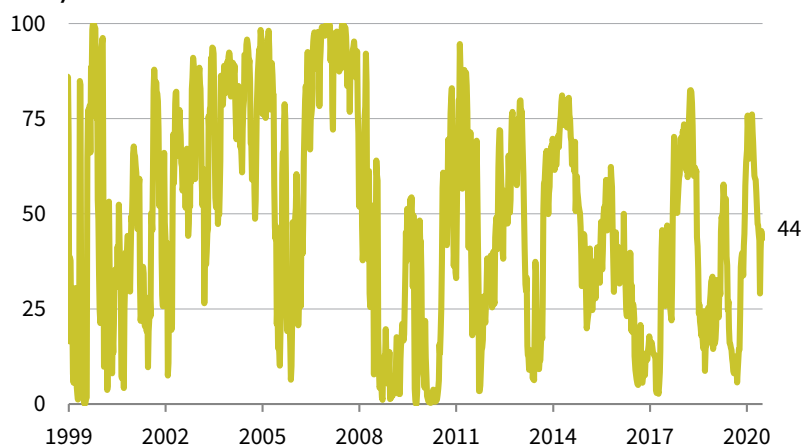
USD



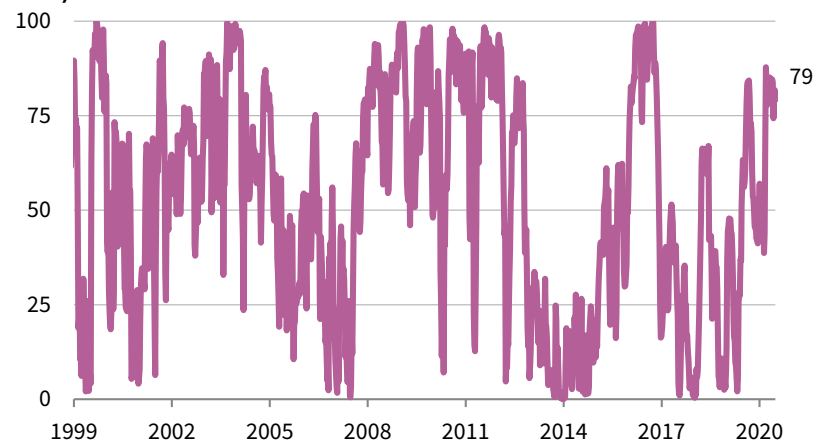
EUR/USD



GBP/USD



JPY/USD



Sources: Thomson Reuters Datastream and US Commodity Futures Trading Commission.

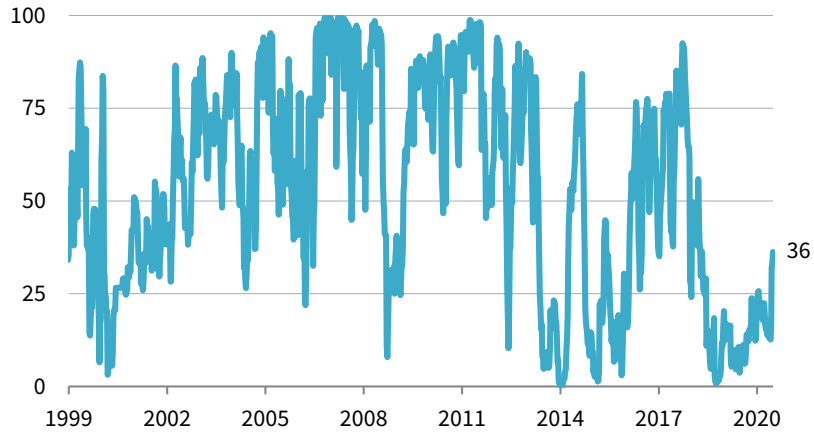
Notes: Data are updated weekly. USD positioning tracks the net aggregate futures positions of non-commercial speculators against the Australian dollar, Canadian dollar, euro, Japanese yen, New Zealand dollar, Swiss franc, and UK pound, traded on the Chicago Mercantile Exchange as a percent of the total open interest.

Investor Positioning in the Futures Market

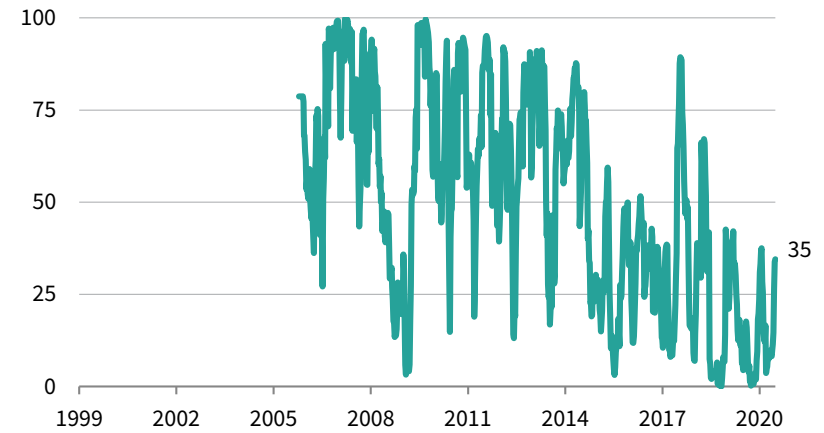
NET SPECULATIVE POSITIONS AS % OF OPEN INTEREST – PERCENTILE

January 5, 1999 – June 30, 2020 • Percentile (%)

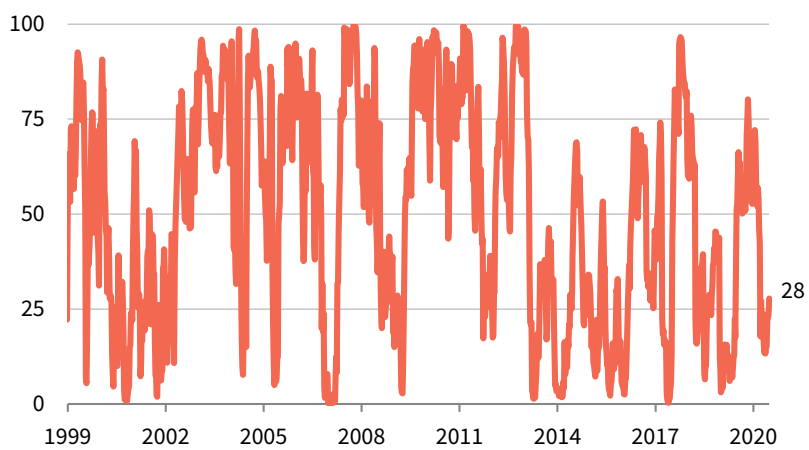
AUD/USD



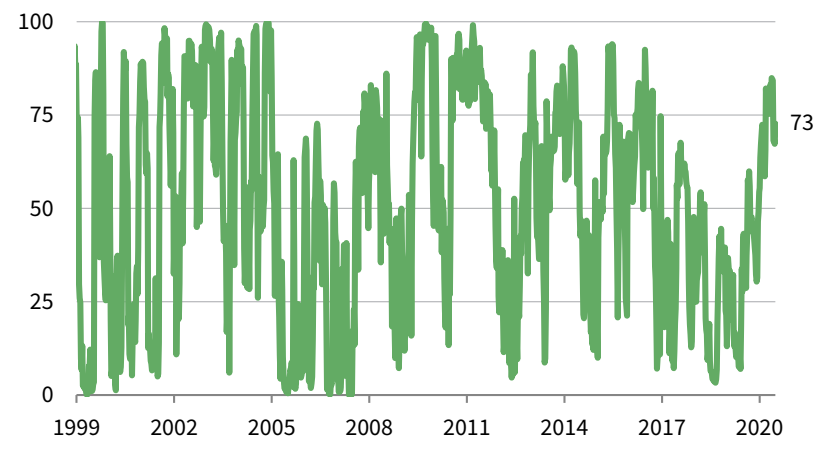
NZD/USD



CAD/USD



CHF/USD



Sources: Thomson Reuters Datastream and US Commodity Futures Trading Commission.
Notes: Data are updated weekly. NZD/USD net positions start from October 18, 2005.

Top 3 Constituents of the BIS Trade-Weighted Basket

BIS EFFECTIVE EXCHANGE RATE (NARROW NOMINAL INDEXES) – TRADE WEIGHTS

As of 2019 • Percent (%)

USD		GBP		EUR		CHF	
	Weight (%)		Weight (%)		Weight (%)		Weight (%)
Eurozone	34.0	Eurozone	63.5	US	30.0	Eurozone	62.3
Canada	23.3	US	16.6	UK	21.5	US	15.6
Japan	14.1	Japan	4.0	Switzerland	11.4	UK	6.8
Others	28.6	Others	15.9	Others	37.1	Others	15.3

JPY		NZD		AUD		CAD	
	Weight (%)		Weight (%)		Weight (%)		Weight (%)
US	33.2	Australia	23.6	Eurozone	27.6	US	75.5
Eurozone	25.5	Eurozone	22.1	US	24.6	Eurozone	11.3
Korea	12.0	US	18.7	Japan	13.9	Japan	4.1
Others	29.3	Others	35.6	Others	33.9	Others	9.1

SGD	
	Weight (%)
Eurozone	21.6
US	21.4
Japan	15.0
Others	42.0

Source: Bank for International Settlements.

Notes: Trade weights for 2019 are based on trade data from 2014 to 2016. The BIS narrow nominal indexes are based on a basket of 26 developed economies with data dating back to 1964. Mexico is excluded by BIS from the narrow nominal indexes due to periods of extremely high inflation, and the trade weights are recalculated with Mexico excluded.

Notes on the Data

Exchange Rates

- Historical exchange rates are provided by Thomson Reuters Datastream, based on Thomson Reuters closing spot rates. Data for the EUR before 1998 are based on a weighted basket of EMU legacy currencies calculated by Thomson Reuters.
- Trade-weighted exchange rates are based on the Bank of International Settlements Nominal Narrow Effective Exchange Rate indexes. The BIS narrow nominal indexes are based on a basket of 26 developed economies with data dating back to 1964.

Consensus Forecasts

- FX forecasts are provided by Bloomberg and based on the median forecast as of July 6, 2020.

Momentum: Six-Month Rate of Change

- The six-month rate of change is a simple momentum measure that provides context on whether recent moves in a currency pair are extreme relative to history. Implicit in this analysis is that short-term movements are mean-reverting, and therefore extreme moves are prone to reversals.

Valuation: Real Exchange Rate Percentile

- Our primary valuation metric for currencies is real exchange rates. For each currency pair, we create a real exchange rate history based on nominal exchange rates divided by relative CPI inflation. This is analogous to the purchasing price parity (PPP) approach, which assumes relative inflation is the driver of currencies over the long run. However, our approach avoids reliance on a particular base year for the relative inflation calculation (which can have a meaningful impact on implied PPP) by comparing the real exchange rate to its own history.

Notes on the Data (continued)

Fundamentals

- **Inflation.** Over the long run, currencies with lower inflation should appreciate, per PPP theory. Rising relative inflation often signals a currency is becoming overvalued, unless offset by nominal FX depreciation.
- **Implied carry.** The implied interest rate differential priced into one-year FX forwards. Negative carry implies a drag from hedging the currency pair back to the base currency. Economic theory states currencies with high interest rate differentials should depreciate over the long run; this is often not the case in the short run.
- **Current account.** Countries with current account surpluses are less reliant on foreign inflows and are typically net creditors. Historically, currencies with persistent current account surpluses have appreciated over time.
- **Correlation to MSCI World.** The rolling 36-month correlation of the percent change in the currency pair and the MSCI World Index of developed markets equities in local currency terms. A negative correlation implies a “counter-cyclical” currency pair that moves inversely to equity markets, thereby increasing the volatility of unhedged exposure (equities down, base currency up/foreign currency down, unhedged return lower). A positive correlation implies a “pro-cyclical” currency pair that moves in line with equities, thereby reducing the volatility of unhedged exposure (equities down, base currency down/foreign currency up, unhedged return higher). In theory, investors should consider hedging countercyclical currency pairs to reduce volatility. However, currency correlations are unstable, and hedging decisions should be made in conjunction with views on carry, desired overall foreign currency exposure, and underlying asset class exposure.

Appendix

- **Net Speculative Positions as a % of Open Interest.** Based on CFTC weekly position data expressed as a percentile to allow comparison across currencies. This indicates how non-commercial investors (HFs and other investors) are positioned. Extreme positioning indicates potential for market reversal.



CAMBRIDGE
ASSOCIATES

Thomas O'Mahony, Investment Director
Vivian Gan, Investment Associate

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