

MERK® | RESEARCH

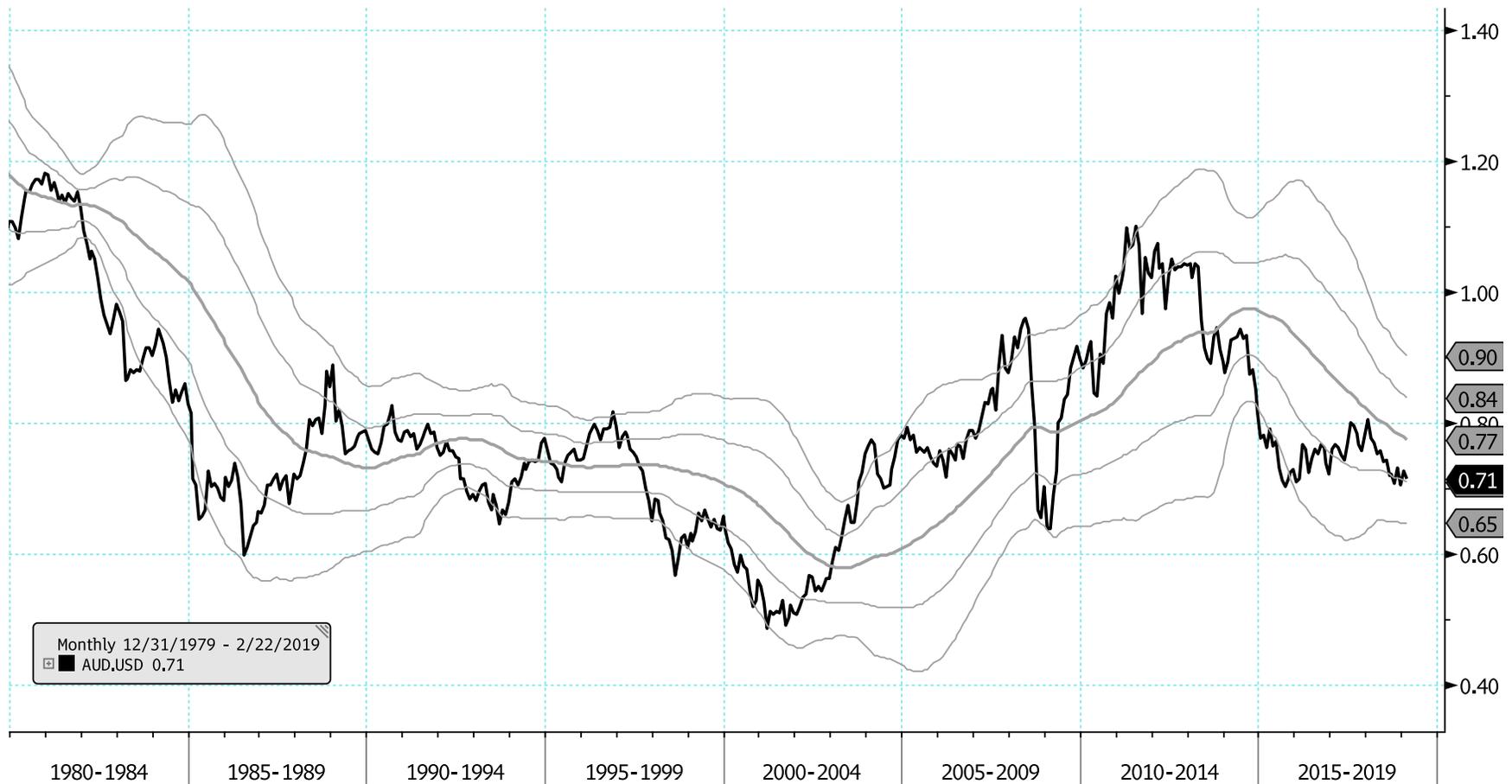
Currency Chart Book (G10)

February 2019

Nick Reece, CFA
Senior Financial Analyst, Merk Investments LLC

Long Term Price Chart

Exchange Rate with 5-year Moving Average +/- 1 and 2 Standard Deviation Bands

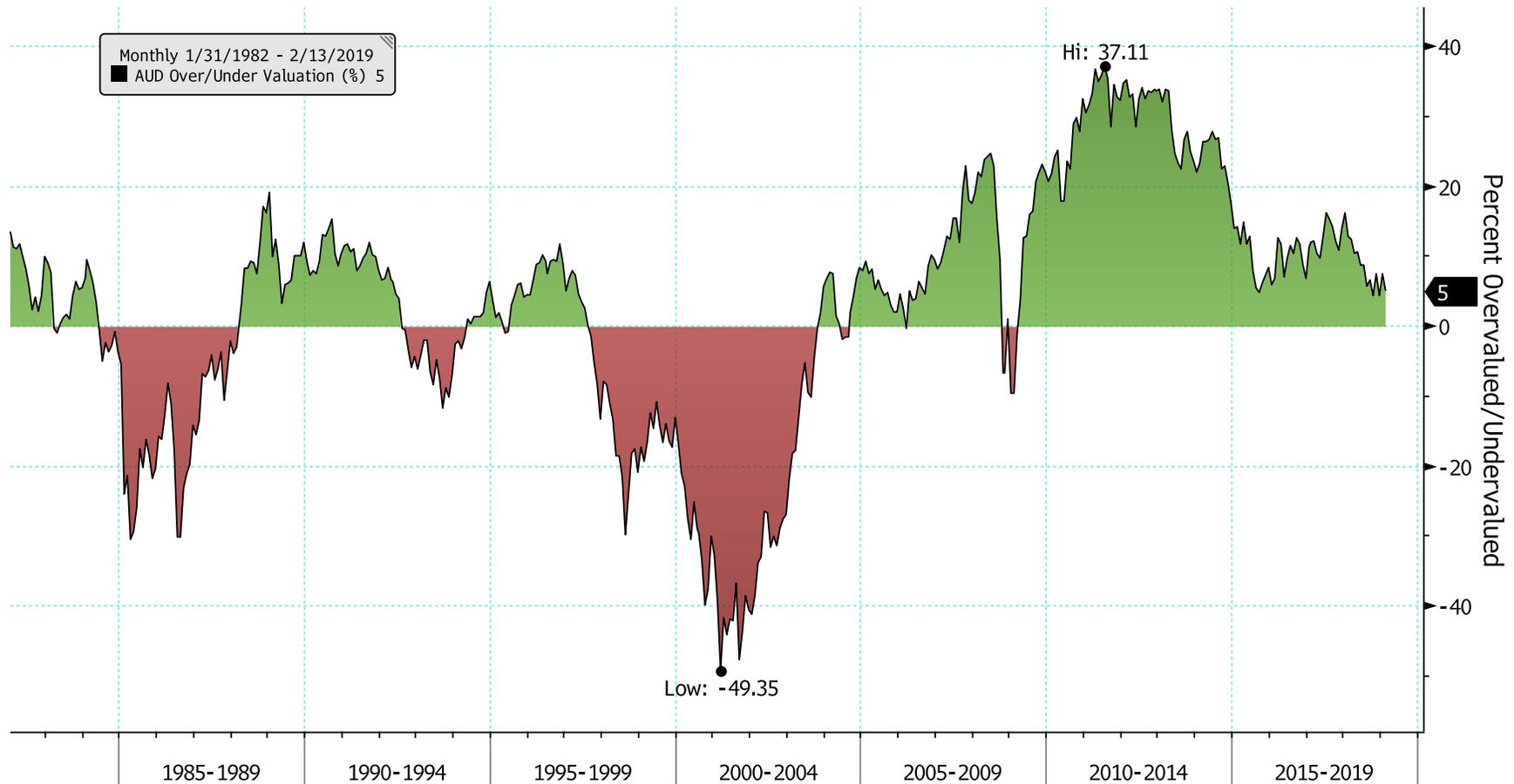


Source: Bloomberg, © Merk Investments LLC

Analysis: AUD.USD has been in a multi-year downtrend. Framework: A widely observed feature of currency markets is that many exchange rates trend on a multi-year basis. The segmentation of currency market participants, with some responding quickly to changing fundamentals and others responding more slowly, may be one reason why trends emerge and sustain momentum. In my view FX markets tend to be mean-reverting in the short term (days to weeks), trending in the medium term (months to years), and mean-reverting in the long term (decades).

Purchasing Power Parity Valuation

Relative Purchasing Power Parity (PPP) based on Consumer Price Indexes

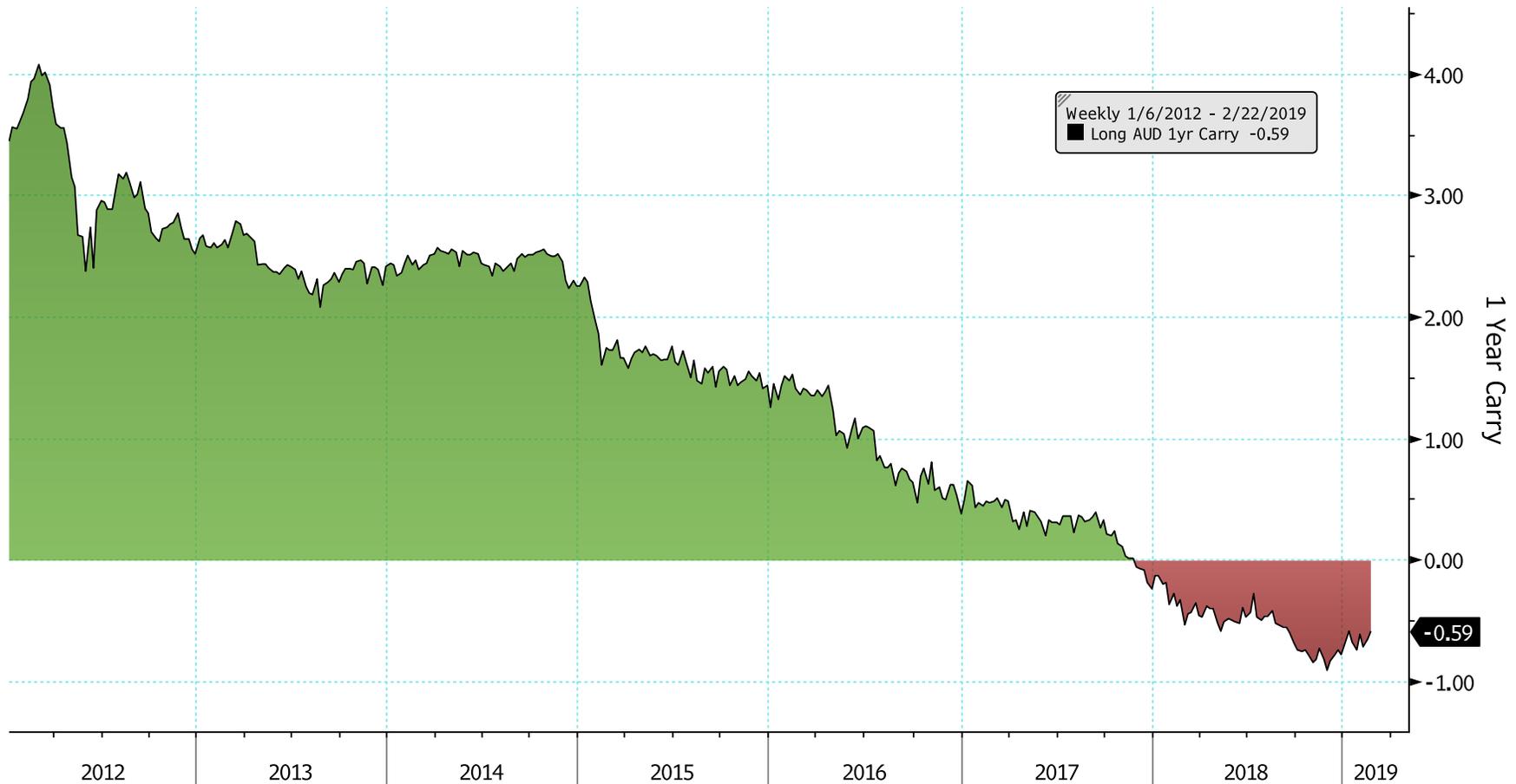


Source: Bloomberg, © Merk Investments LLC

Analysis: The Australian dollar is currently only modestly overvalued based on relative PPP. Framework: Nominal exchange rates tend to gravitate toward their long-run purchasing power parity (PPP) equilibrium values. The foundation for PPP is the so-called "law of one price," which suggests that identical goods should trade at the same price across countries when valued in terms of a common currency. Relative PPP extends the law of one price to a broad range of goods and services and takes into account trade impediments.

Carry

The 1-year Carry based on the 1-year Forward Rate vs the Spot Rate

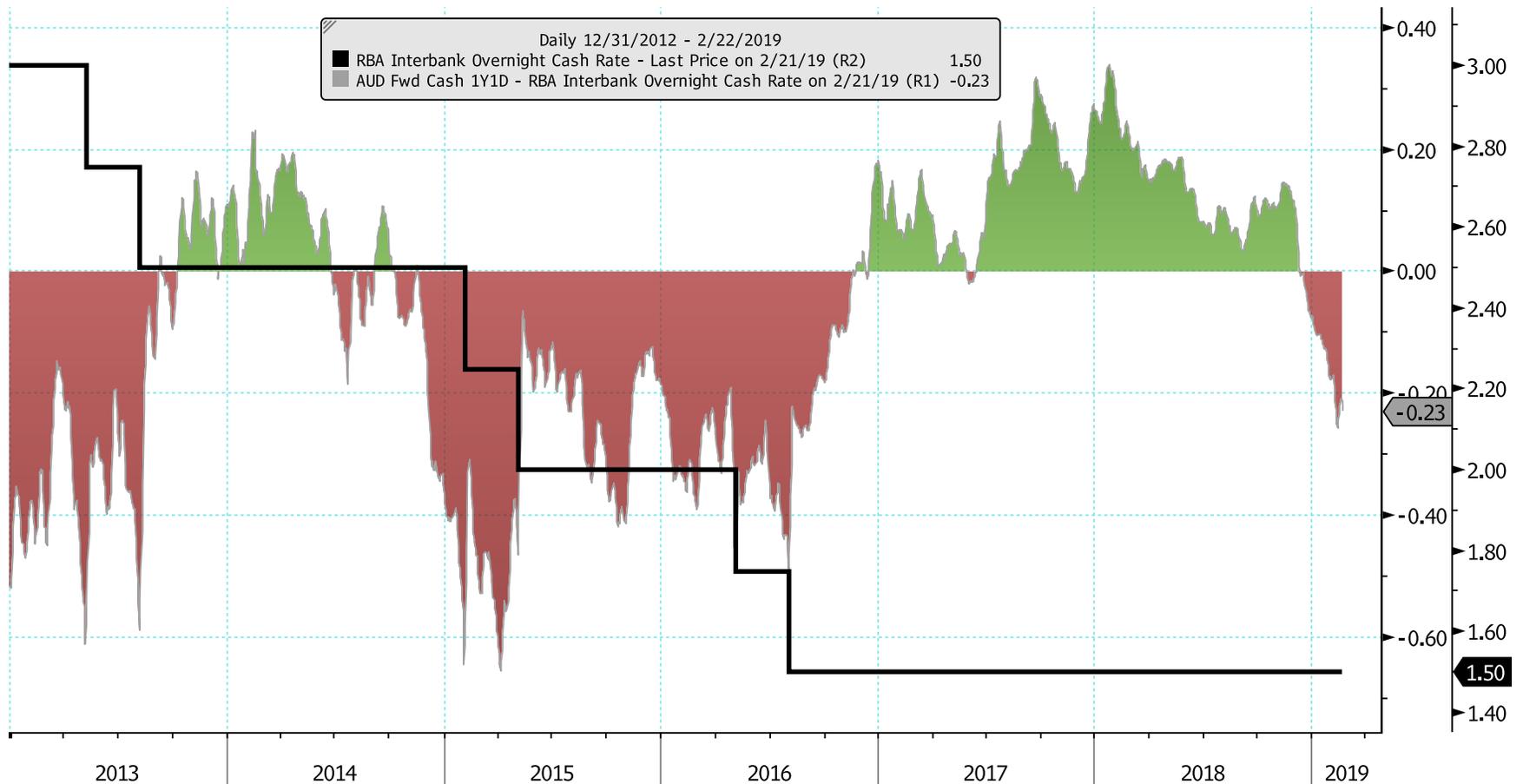


Source: Bloomberg, © Merk Investments LLC

Analysis: The Australian dollar is currently negative carry vs the US dollar, about 0.60% per year. The above represents the percentage return in dollar terms based on buying a 12 month forward contract in foreign currency and holding it until expiry, assuming that the spot rate remains unchanged over the period. Framework: Carry is determined by interest rate differentials and the no-arbitrage forward price. One of the most widely known strategies in currency markets is the carry trade, i.e., selling low interest rate currencies ("funding currencies") and buying high interest rate currencies.

What's Priced In

Market-based measure of the expected basis point change in the central bank benchmark rate over the coming one year period



Source: Bloomberg, © Merk Investments LLC

Analysis: The market is suggesting that the next move from the Reserve Bank of Australia (RBA) will likely be a rate cut, the market is pricing in roughly a 90% chance of one rate cut in the coming twelve months. Framework: Central banks play a key role in currency markets as their monetary policy directly affects interest rates and interest rate differentials. This chart provides a picture of market based expectations regarding central bank rate hikes or rate cuts, and allows market participants to compare their own views to what's priced in.

Long Term Interest Rate Differential

The 10-year Yield Differential (grey) vs. the Exchange Rate (black)



Source: Bloomberg, © Merk Investments LLC

Analysis: The 10yr interest rate differential is at multi-decade lows. Framework: In addition to the carry trade dynamics of interest rate differentials, global capital tends to flow into higher yielding countries, where economic growth and investment returns tend to be more attractive- one can often observe a strong relationship between interest rate differentials and the exchange rate.

Terms of Trade Differential

The Terms of Trade Differential (grey) vs. the Exchange Rate (black)

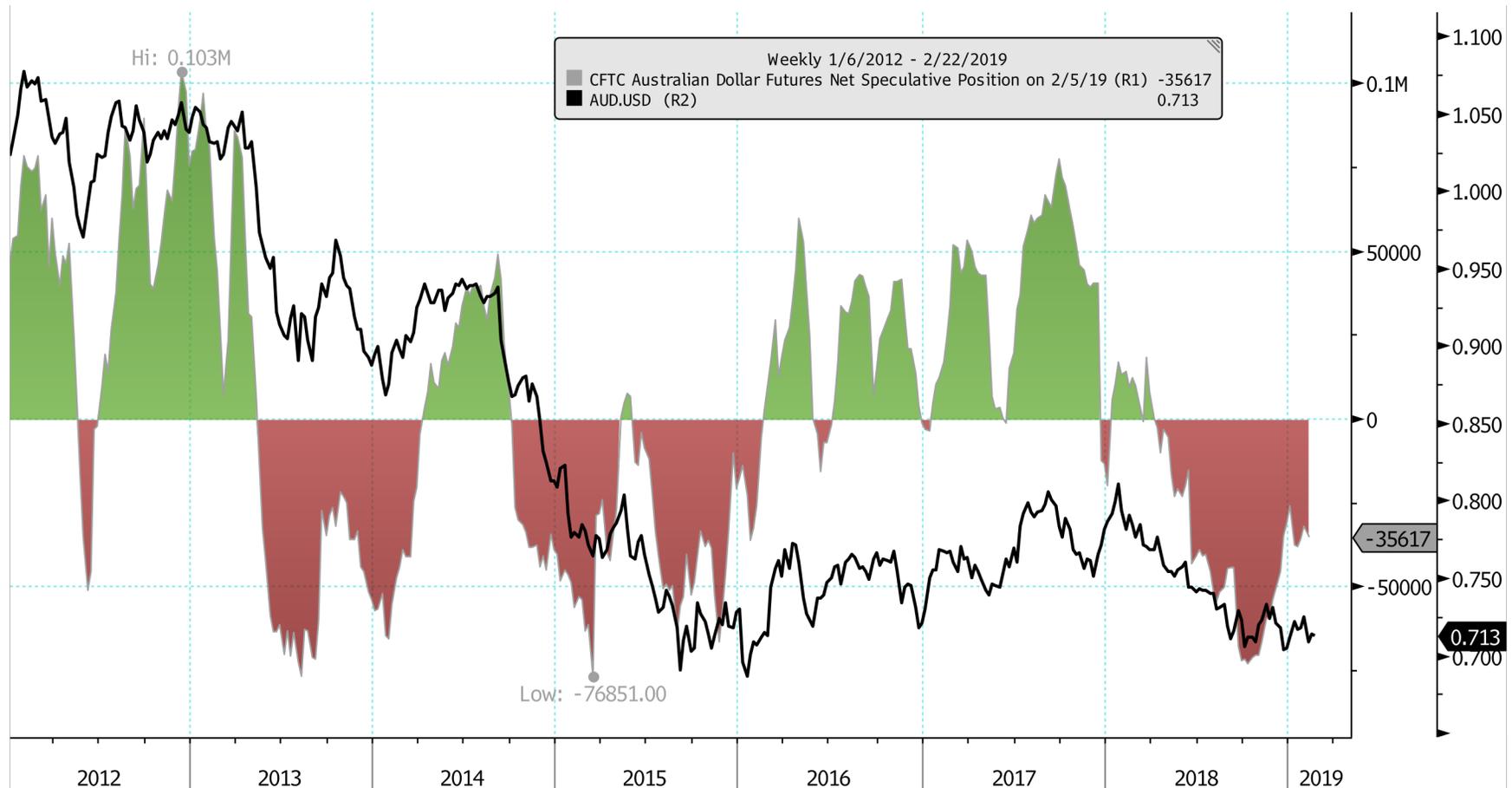


Source: Bloomberg, © Merk Investments LLC

Analysis: The relative terms of trade remain near multi-year highs for Australia vs the US. Framework: The terms of trade are defined as the ratio of the price of a country's exports to the price of its imports, represented as an index. The terms of trade capture the relative cost of imports in terms of exports. Looking at the terms of trade tends to be more relevant for large commodity exporting countries, such as Australia, New Zealand, Canada, and Norway.

CFTC Speculative Positioning

The Net Position (number of futures contracts) of Non-Commercial Market Participants

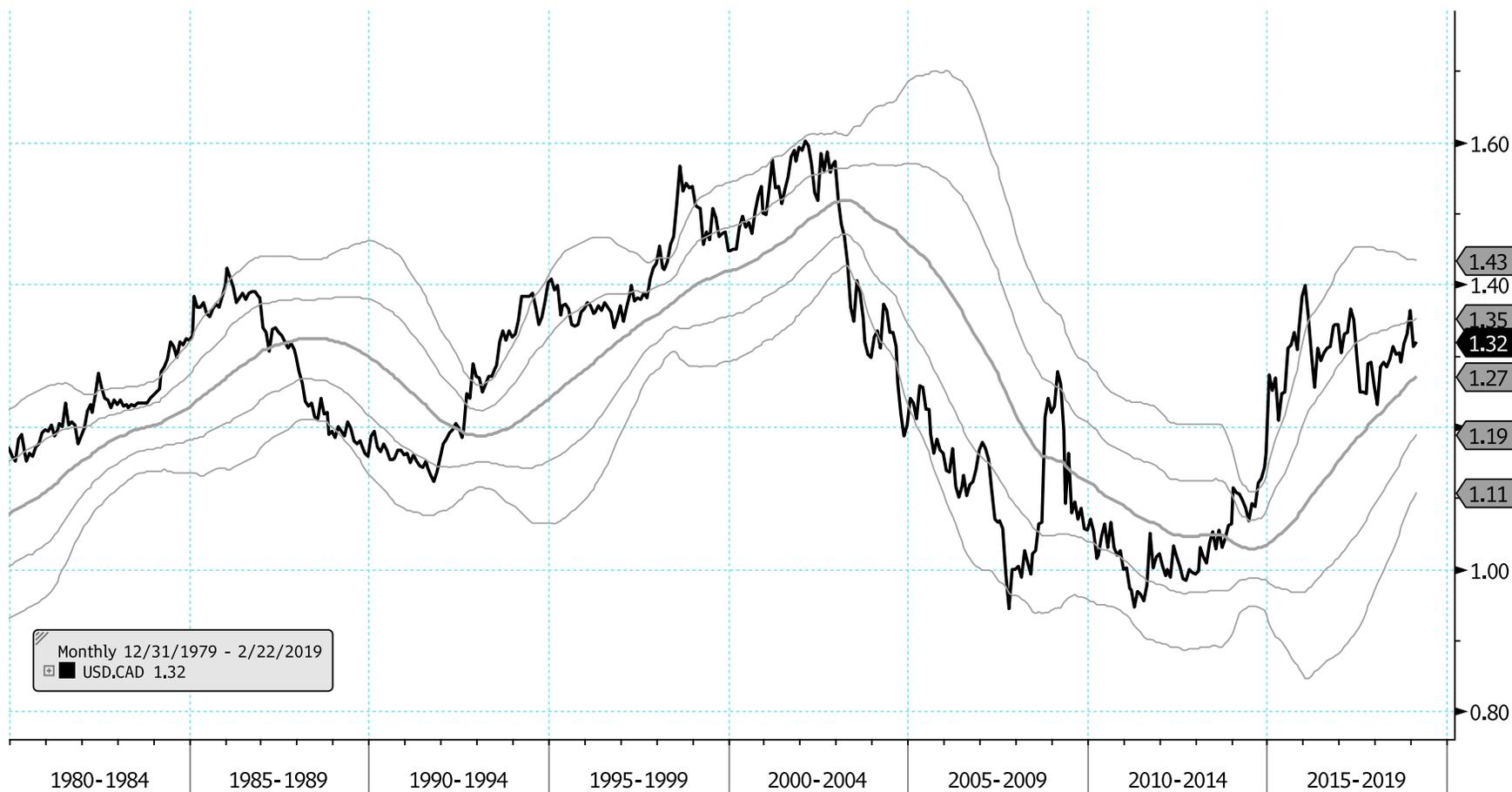


Source: Bloomberg, © Merk Investments LLC

Analysis: Speculators are currently net short Australian dollars based on the most recent CFTC Commitment of Traders report. Framework: In my view this chart should be looked at from a contrarian perspective: speculators in futures markets tend to use leverage and stop-loss orders and their positions may imply impending order flow in the opposite direction. Positioning data tends to be most relevant when it is at multi-year highs or lows.

Long Term Price Chart

Exchange Rate with 5-year Moving Average +/- 1 and 2 Standard Deviation Bands

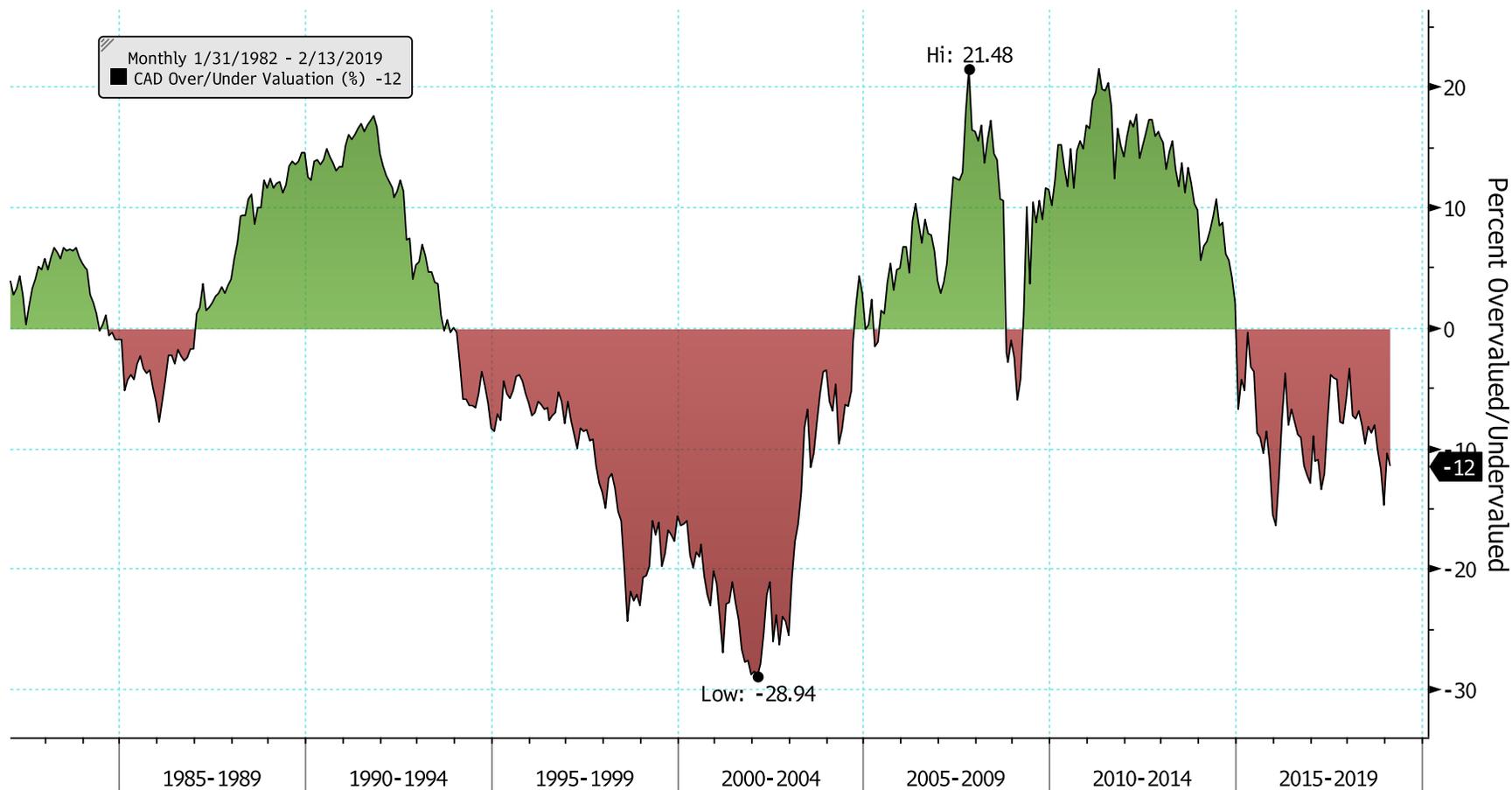


Source: Bloomberg, © Merk Investments LLC

Analysis: USD.CAD has been in a multi-year uptrend. Framework: A widely observed feature of currency markets is that many exchange rates trend on a multi-year basis. The segmentation of currency market participants, with some responding quickly to changing fundamentals and others responding more slowly, may be one reason why trends emerge and sustain momentum. In my view FX markets tend to be mean-reverting in the short term (days to weeks), trending in the medium term (months to years), and mean-reverting in the long term (decades).

Purchasing Power Parity Valuation

Relative Purchasing Power Parity (PPP) based on Consumer Price Indexes

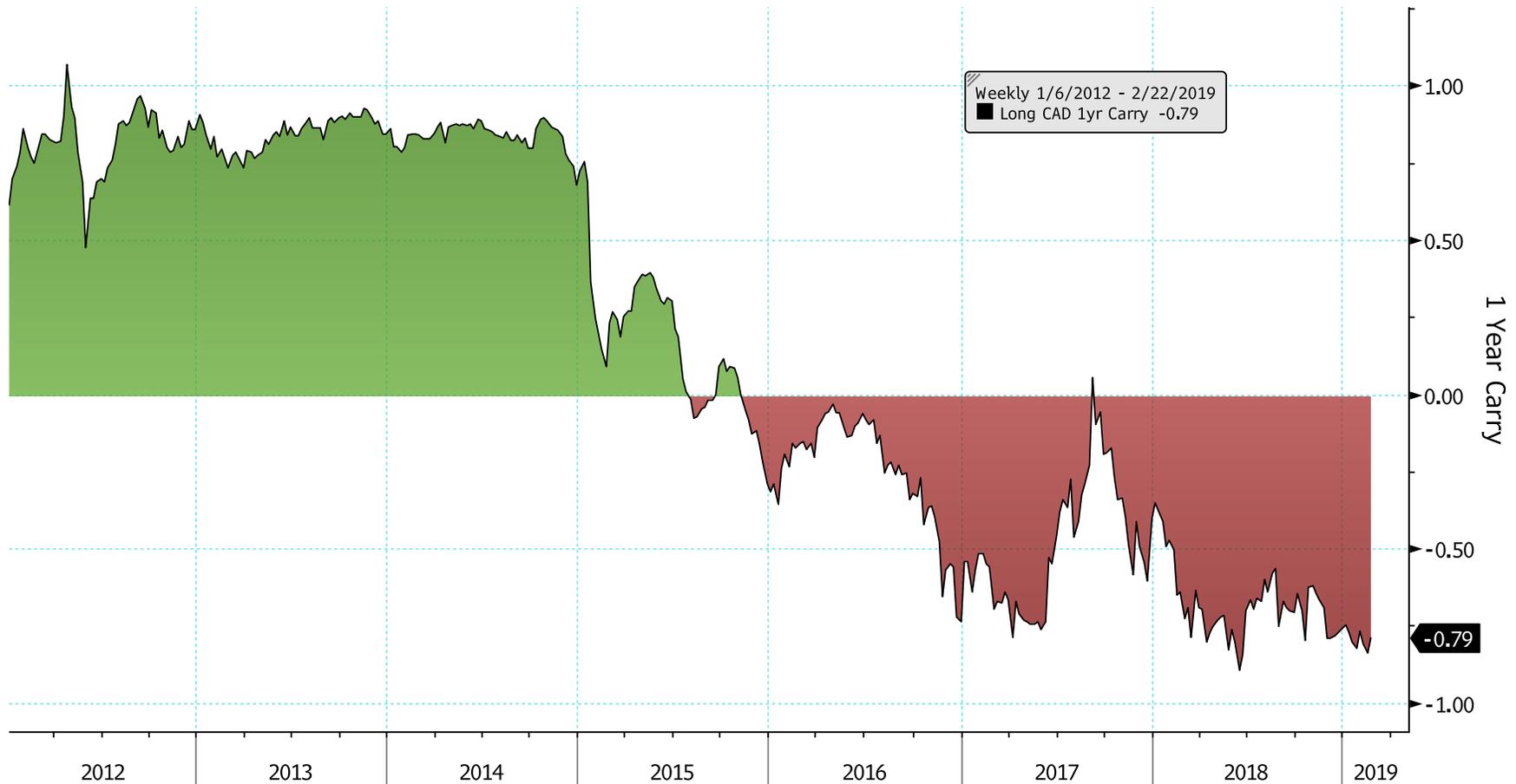


Source: Bloomberg, © Merk Investments LLC

Analysis: The Canadian dollar is currently modestly undervalued based on relative PPP. Framework: Nominal exchange rates tend to gravitate toward their long-run purchasing power parity (PPP) equilibrium values. The foundation for PPP is the so-called "law of one price," which suggests that identical goods should trade at the same price across countries when valued in terms of a common currency. Relative PPP extends the law of one price to a broad range of goods and services and takes into account trade impediments.

Carry

The 1-year Carry based on the 1-year Forward Rate vs the Spot Rate

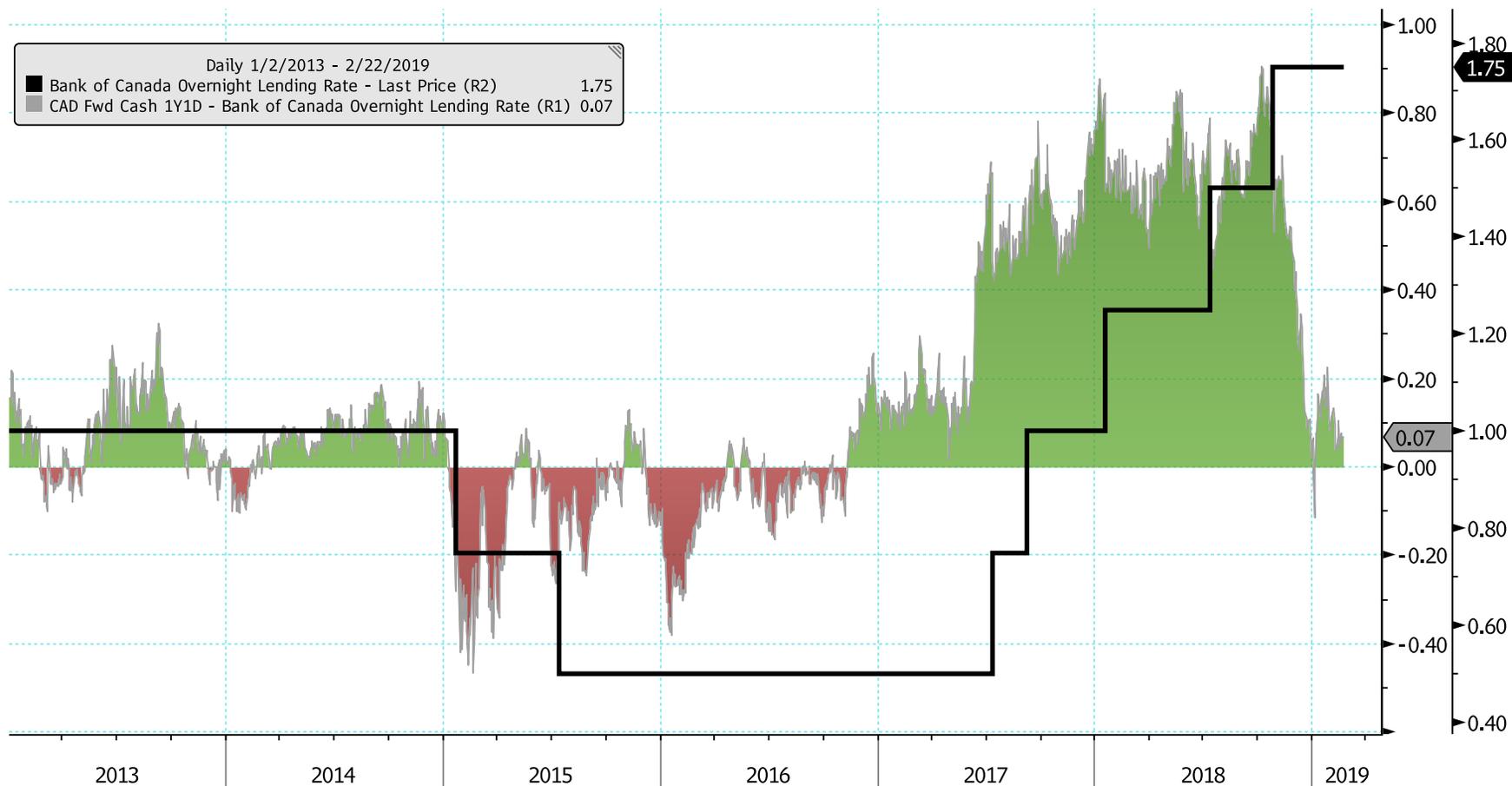


Source: Bloomberg, © Merk Investments LLC

Analysis: The Canadian dollar is currently negative carry vs the US dollar, about 0.80% per year. The above represents the percentage return in dollar terms based on buying a 12 month forward contract in foreign currency and holding it until expiry, assuming that the spot rate remains unchanged over the period. Framework: Carry is determined by interest rate differentials and the no-arbitrage forward price. One of the most widely known strategies in currency markets is the carry trade, i.e., selling low interest rate currencies ("funding currencies") and buying high interest rate currencies.

What's Priced In

Market-based measure of the expected basis point change in the central bank benchmark rate over the coming one year period



Source: Bloomberg, © Merk Investments LLC

Analysis: The market is suggesting that the next move from the Bank of Canada (BoC) will likely be a rate hike, although the market is suggesting a relatively low probability for a hike within the next 12 months. Framework: Central banks play a key role in currency markets as their monetary policy directly affects interest rates and interest rate differentials. This chart provides a picture of market based expectations regarding central bank rate hikes or rate cuts, and allows market participants to compare their own views to what's priced in.

Long Term Interest Rate Differential

The 10-year Yield Differential (grey) vs. the Exchange Rate (black)



Source: Bloomberg, © Merk Investments LLC

Analysis: The 10yr interest rate differential is near the high end of the range. Framework: In addition to the carry trade dynamics of interest rate differentials, global capital tends to flow into higher yielding countries, where economic growth and investment returns tend to be more attractive- one can often observe a strong relationship between interest rate differentials and the exchange rate.

Terms of Trade Differential

The Terms of Trade Differential (grey) vs. the Exchange Rate (black)



Source: Bloomberg, © Merk Investments LLC

Analysis: The relative terms of trade appear to be slightly above the multi-year average for the US vs Canada. Framework: The terms of trade are defined as the ratio of the price of a country's exports to the price of its imports, represented as an index. The terms of trade capture the relative cost of imports in terms of exports. Looking at the terms of trade tends to be more relevant for large commodity exporting countries, such as Australia, New Zealand, Canada, and Norway.

CFTC Speculative Positioning

The Net Position (number of futures contracts) of Non-Commercial Market Participants

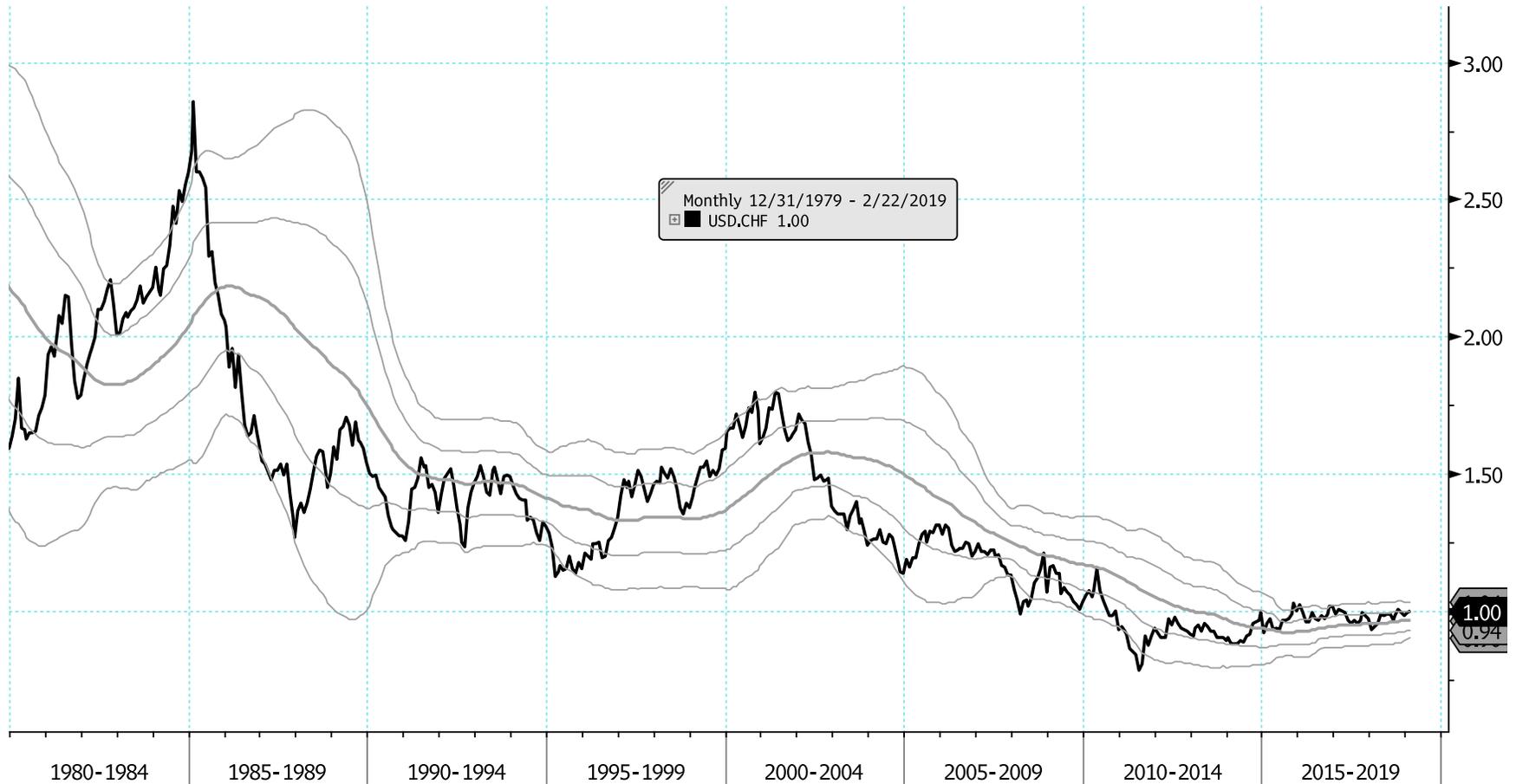


Source: Bloomberg, © Merk Investments LLC

Analysis: Speculators are currently net short Canadian dollars based on the most recent CFTC Commitment of Traders report. Framework: In my view this chart should be looked at from a contrarian perspective: speculators in futures markets tend to use leverage and stop-loss orders and their positions may imply impending order flow in the opposite direction. Positioning data tends to be most relevant when it is at multi-year highs or lows.

Long Term Price Chart

Exchange Rate with 5-year Moving Average +/- 1 and 2 Standard Deviation Bands

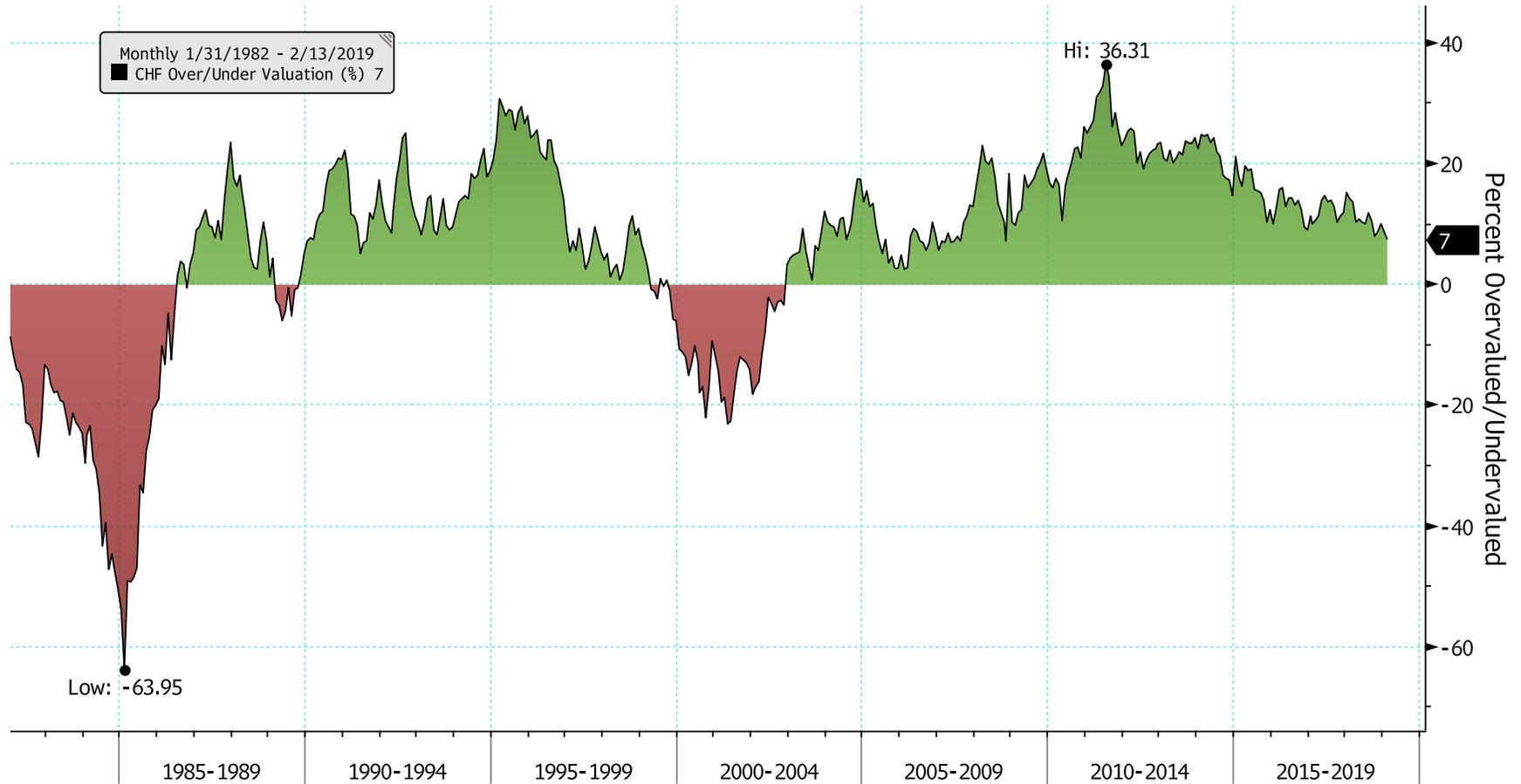


Source: Bloomberg, © Merk Investments LLC

Analysis: USD.CHF has been trending sideways for the past few years. Framework: A widely observed feature of currency markets is that many exchange rates trend on a multi-year basis. The segmentation of currency market participants, with some responding quickly to changing fundamentals and others responding more slowly, may be one reason why trends emerge and sustain momentum. In my view FX markets tend to be mean-reverting in the short term (days to weeks), trending in the medium term (months to years), and mean-reverting in the long term (decades).

Purchasing Power Parity Valuation

Relative Purchasing Power Parity (PPP) based on Consumer Price Indexes



Source: Bloomberg, © Merk Investments LLC

Analysis: The Swiss franc is currently modestly overvalued based on relative PPP. Framework: Nominal exchange rates tend to gravitate toward their long-run purchasing power parity (PPP) equilibrium values. The foundation for PPP is the so-called "law of one price," which suggests that identical goods should trade at the same price across countries when valued in terms of a common currency. Relative PPP extends the law of one price to a broad range of goods and services and takes into account trade impediments.

Carry

The 1-year Carry based on the 1-year Forward Rate vs the Spot Rate

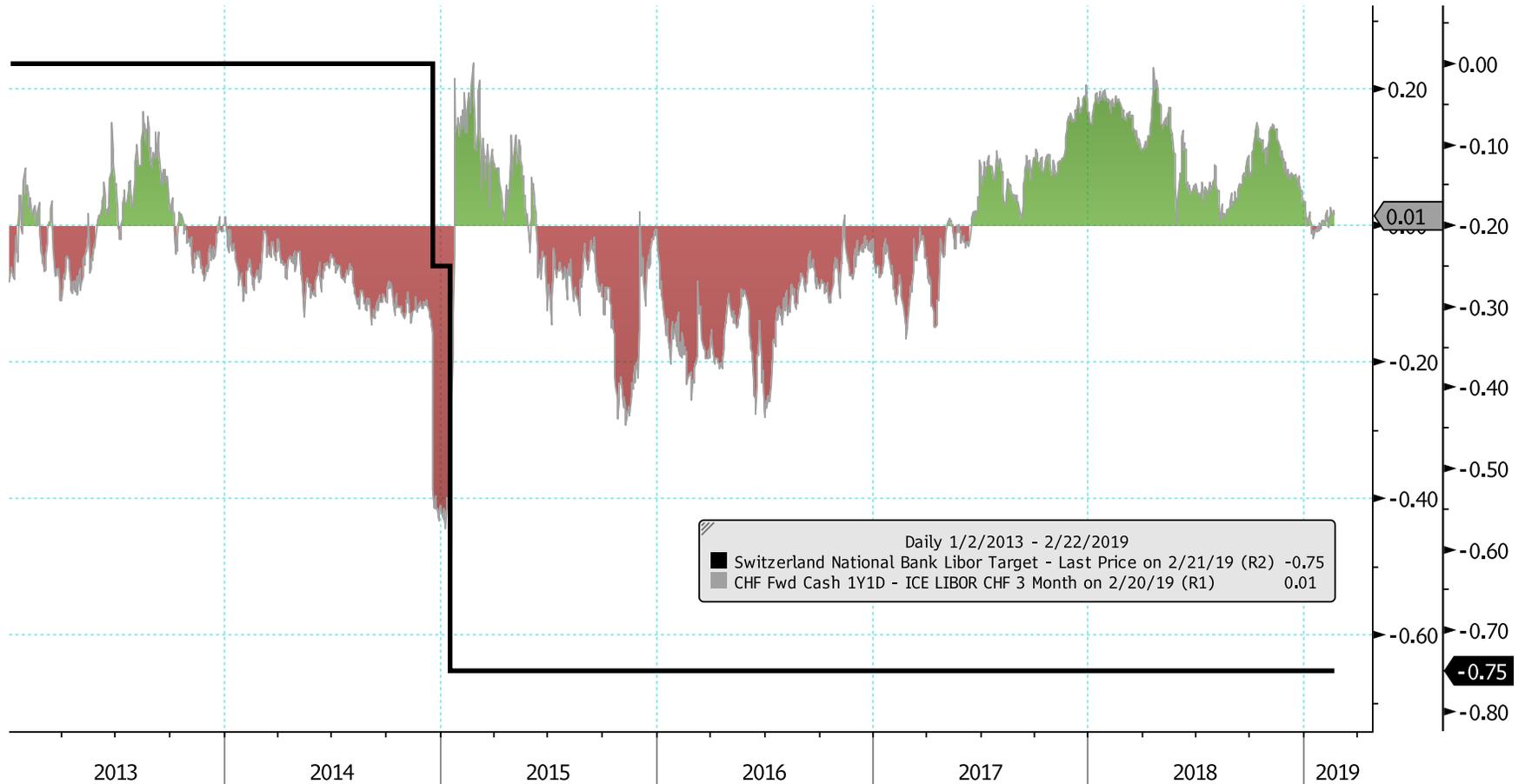


Source: Bloomberg, © Merk Investments LLC

Analysis: The Swiss franc is currently negative carry vs the US dollar, about 3.6% per year. The above represents the percentage return in dollar terms based on buying a 12 month forward contract in foreign currency and holding it until expiry, assuming that the spot rate remains unchanged over the period. Framework: Carry is determined by interest rate differentials and the no-arbitrage forward price. One of the most widely known strategies in currency markets is the carry trade, i.e., selling low interest rate currencies ("funding currencies") and buying high interest rate currencies.

What's Priced In

Market-based measure of the expected basis point change in the central bank benchmark rate over the coming one year period



Source: Bloomberg, © Merk Investments LLC

Analysis: The market is suggesting there will be no change in rates from the Swiss National Bank (SNB) over the next 12 months. Framework: Central banks play a key role in currency markets as their monetary policy directly affects interest rates and interest rate differentials. This chart provides a picture of market based expectations regarding central bank rate hikes or rate cuts, and allows market participants to compare their own views to what's priced in.

Long Term Interest Rate Differential

The 10-year Yield Differential (grey) vs. the Exchange Rate (black)

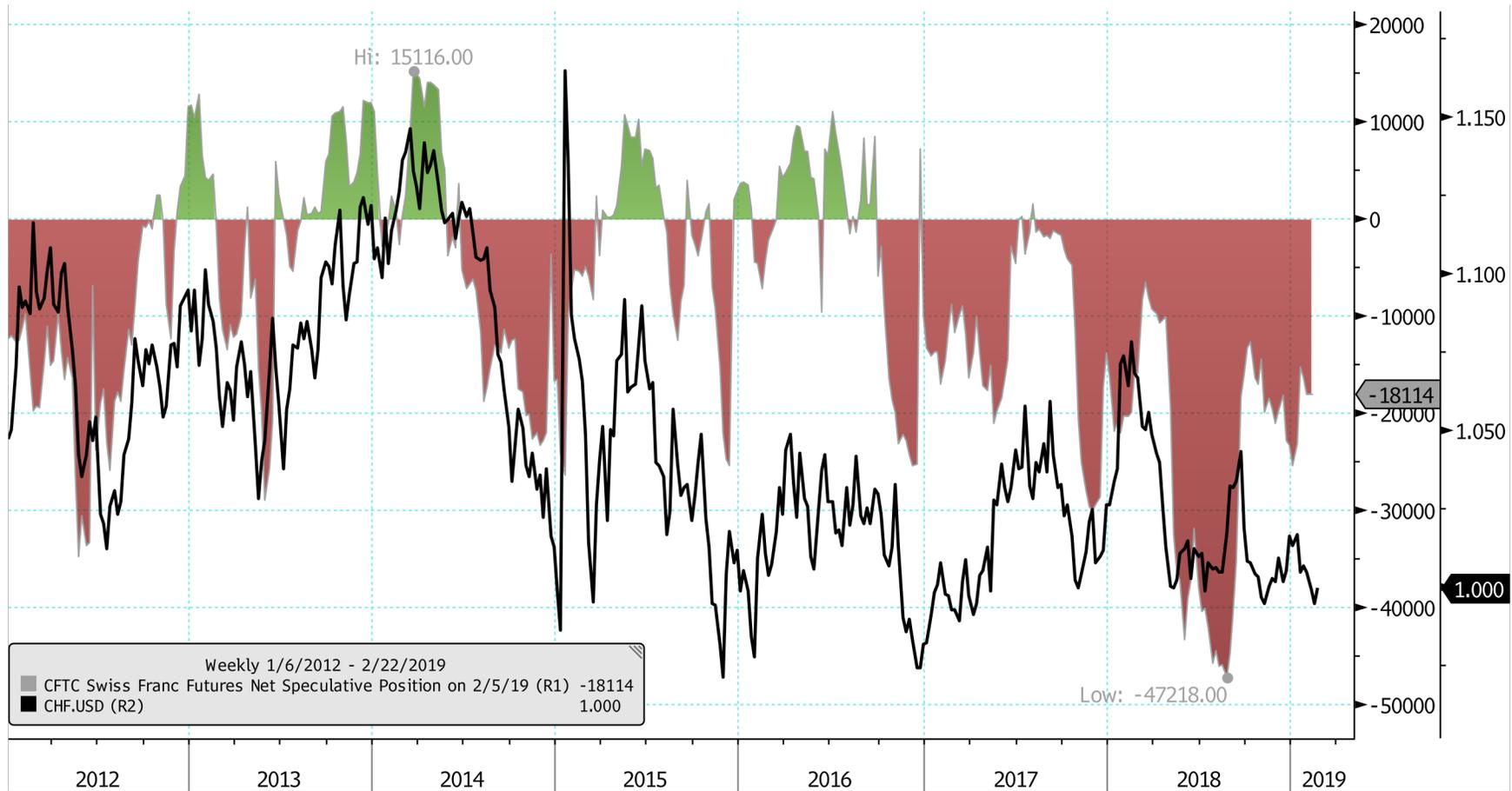


Source: Bloomberg, © Merk Investments LLC

Analysis: The 10yr interest rate differential is near multi-year highs. Framework: In addition to the carry trade dynamics of interest rate differentials, global capital tends to flow into higher yielding countries, where economic growth and investment returns tend to be more attractive- one can often observe a strong relationship between interest rate differentials and the exchange rate.

CFTC Speculative Positioning

The Net Position (number of futures contracts) of Non-Commercial Market Participants

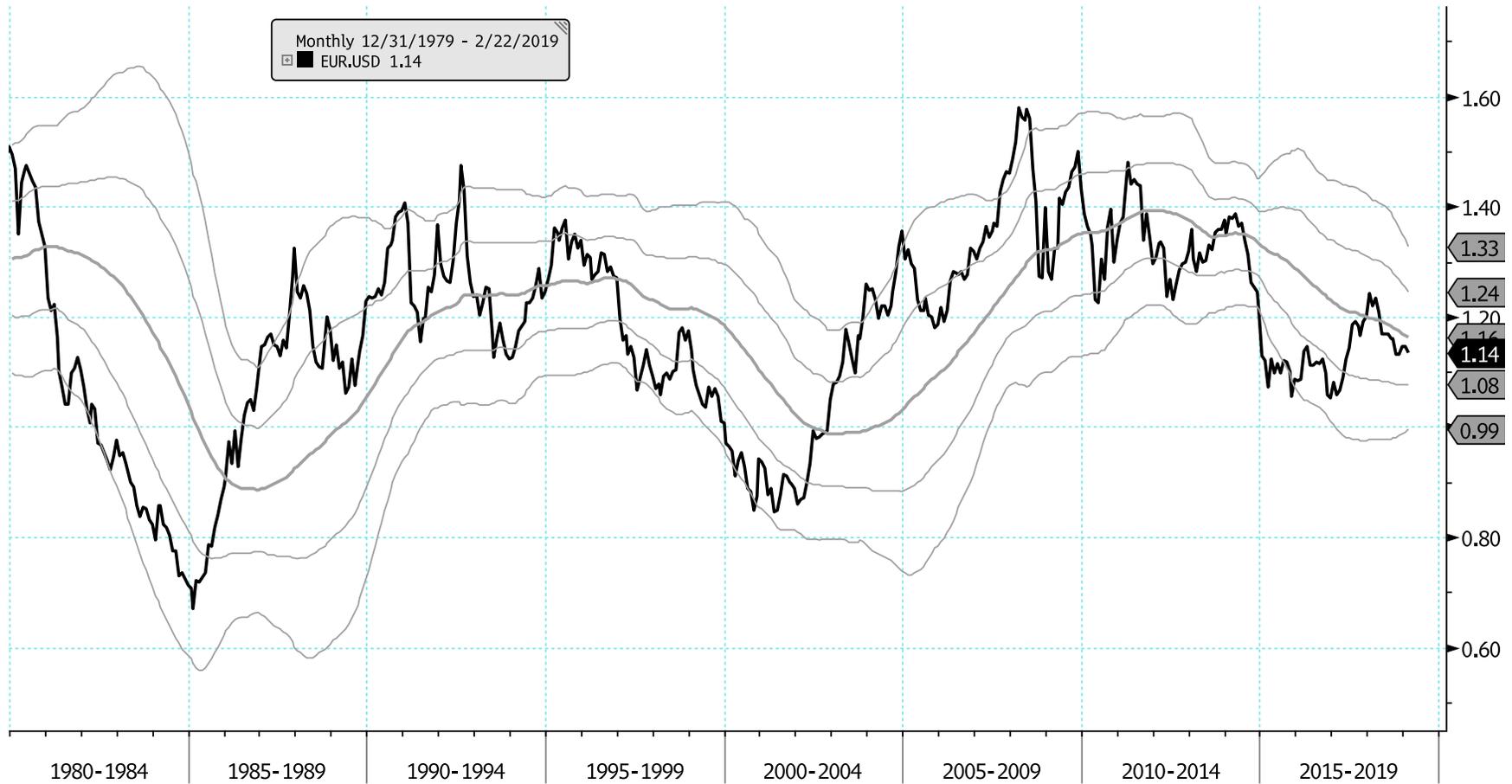


Source: Bloomberg, © Merk Investments LLC

Analysis: Speculators are currently net short Swiss francs based on the most recent CFTC Commitment of Traders report. Framework: In my view this chart should be looked at from a contrarian perspective: speculators in futures markets tend to use leverage and stop-loss orders and their positions may imply impending order flow in the opposite direction. Positioning data tends to be most relevant when it is at multi-year highs or lows.

Long Term Price Chart

Exchange Rate with 5-year Moving Average +/- 1 and 2 Standard Deviation Bands

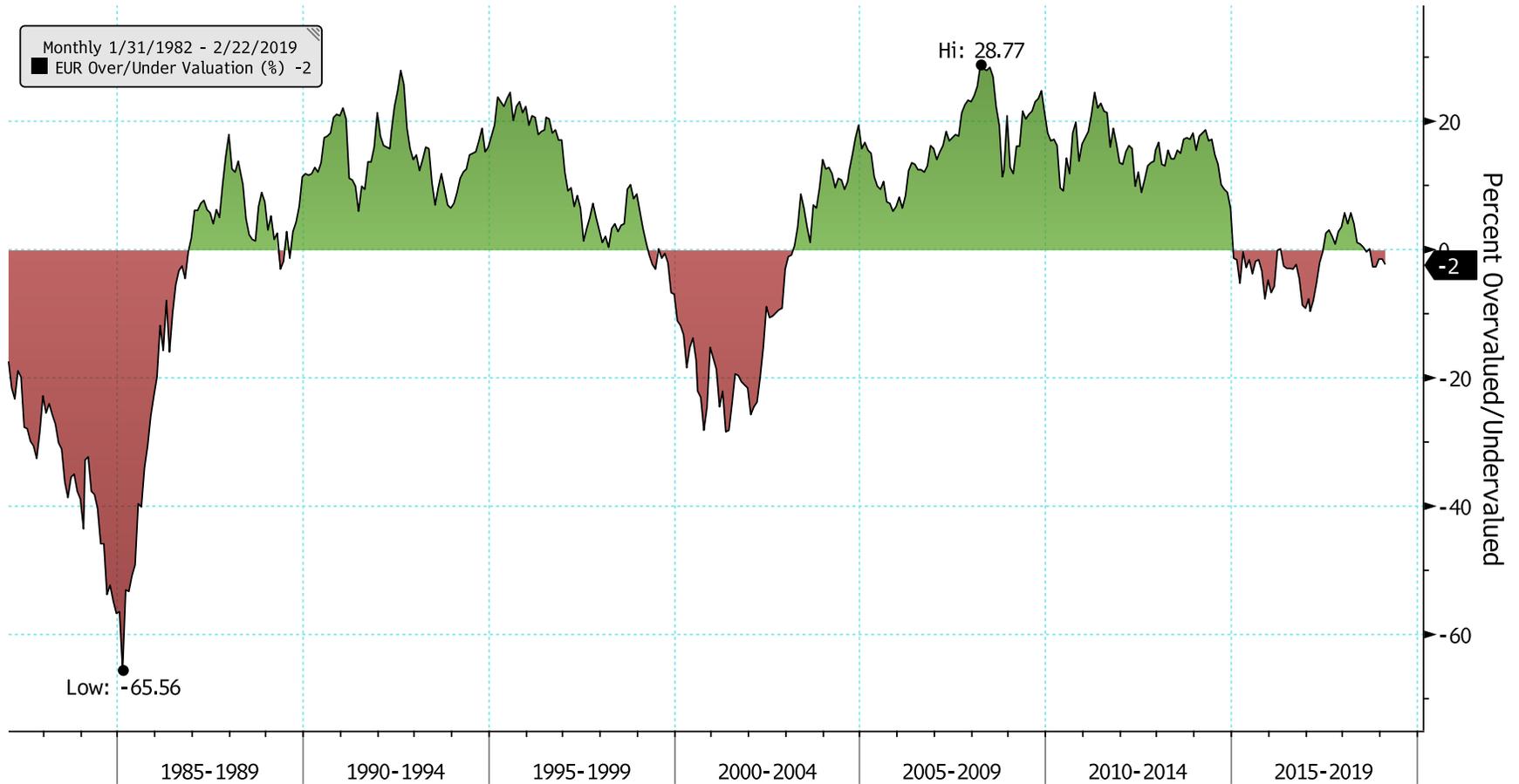


Source: Bloomberg, © Merk Investments LLC

Analysis: EUR.USD has been in a multi-year downtrend. Framework: A widely observed feature of currency markets is that many exchange rates trend on a multi-year basis. The segmentation of currency market participants, with some responding quickly to changing fundamentals and others responding more slowly, may be one reason why trends emerge and sustain momentum. In my view FX markets tend to be mean-reverting in the short term (days to weeks), trending in the medium term (months to years), and mean-reverting in the long term (decades).

Purchasing Power Parity Valuation

Relative Purchasing Power Parity (PPP) based on Consumer Price Indexes

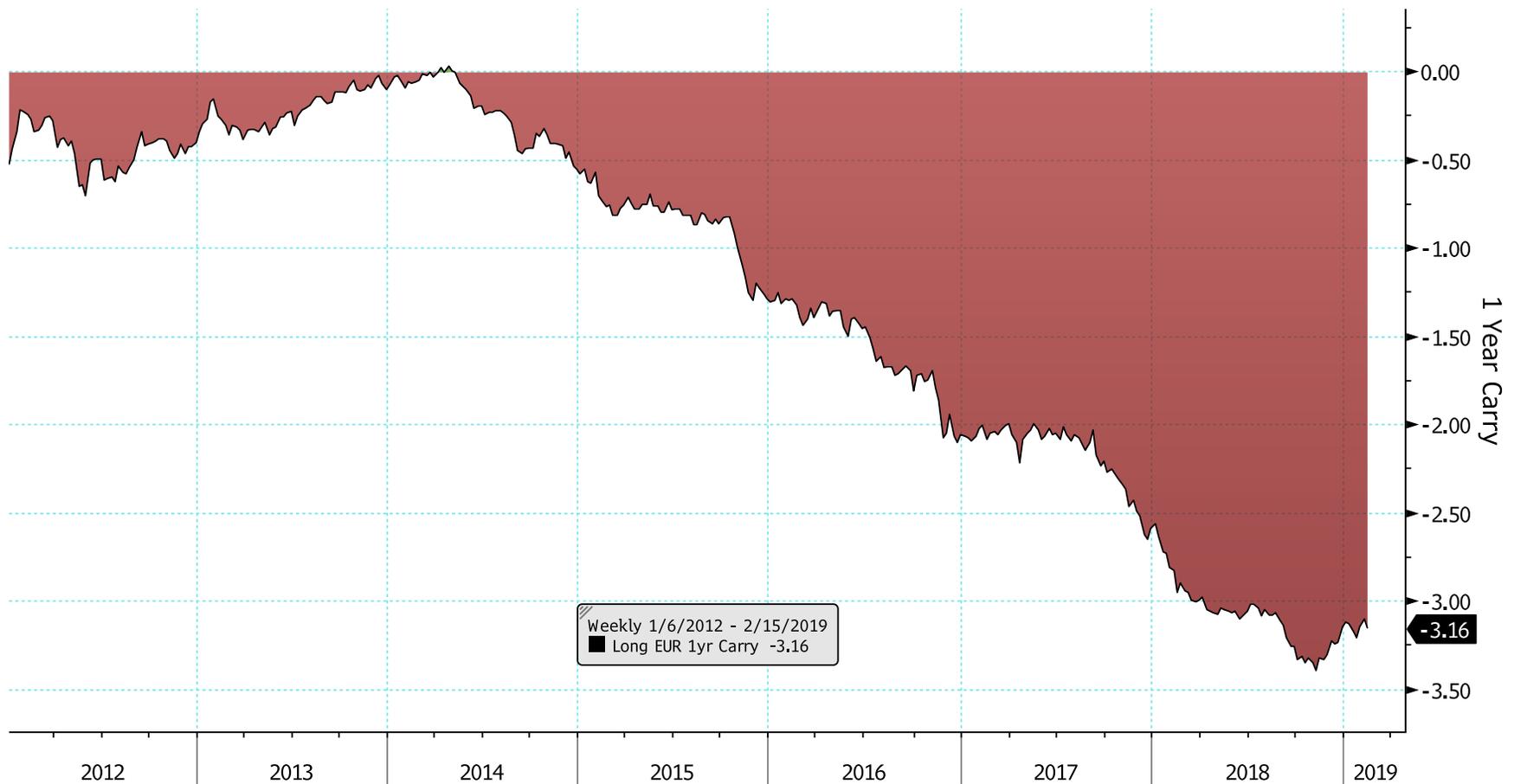


Source: Bloomberg, © Merk Investments LLC

Analysis: The Euro is currently fairly valued based on relative PPP. Framework: Nominal exchange rates tend to gravitate toward their long-run purchasing power parity (PPP) equilibrium values. The foundation for PPP is the so-called "law of one price," which suggests that identical goods should trade at the same price across countries when valued in terms of a common currency. Relative PPP extends the law of one price to a broad range of goods and services and takes into account trade impediments.

Carry

The 1-year Carry based on the 1-year Forward Rate vs the Spot Rate

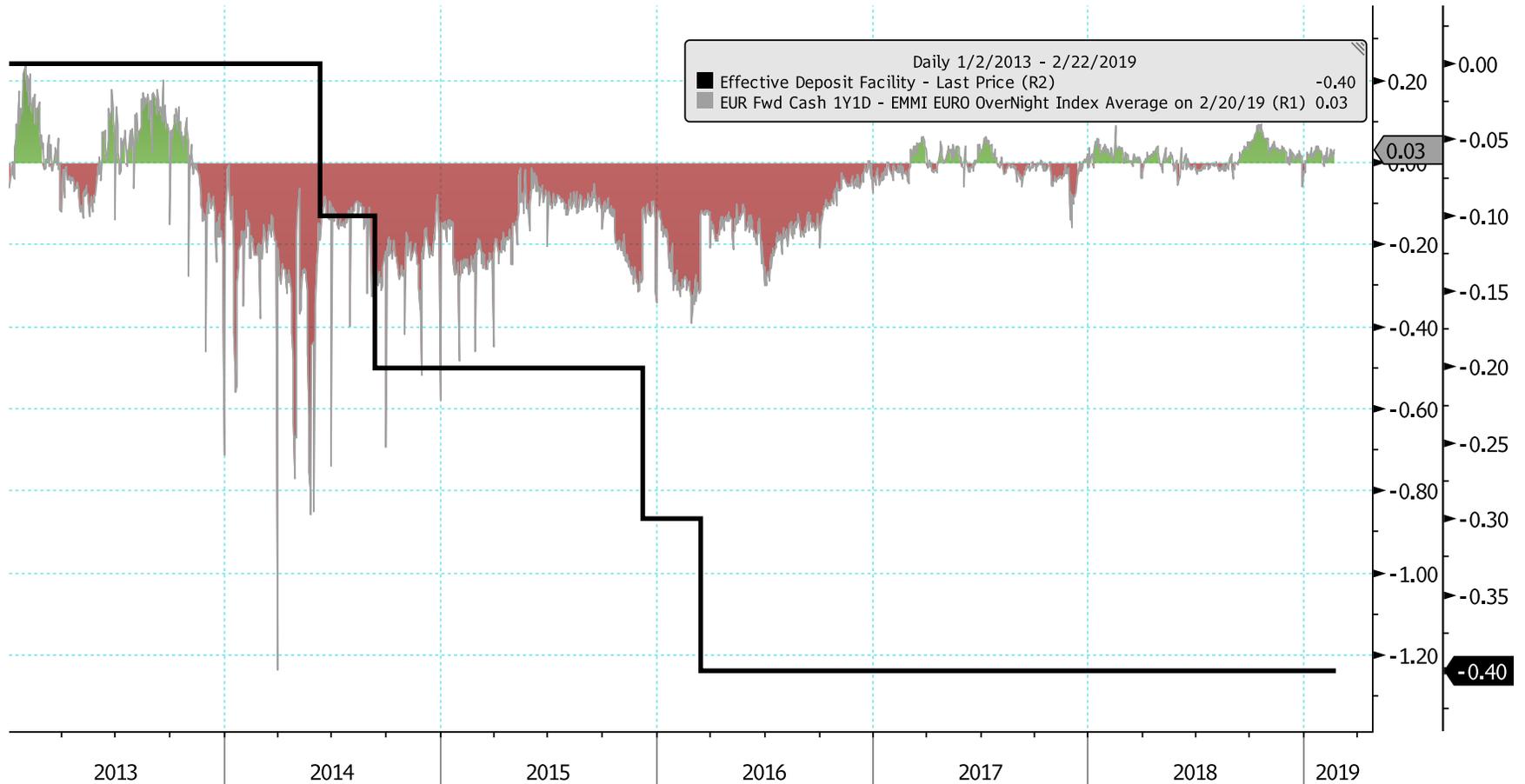


Source: Bloomberg, © Merk Investments LLC

Analysis: The Euro is currently negative carry vs the US dollar, about 3.2% per year. The above represents the percentage return in dollar terms based on buying a 12 month forward contract in foreign currency and holding it until expiry, assuming that the spot rate remains unchanged over the period. Framework: Carry is determined by interest rate differentials and the no-arbitrage forward price. One of the most widely known strategies in currency markets is the carry trade, i.e., selling low interest rate currencies ("funding currencies") and buying high interest rate currencies.

What's Priced In

Market-based measure of the expected basis point change in the central bank benchmark rate over the coming one year period



Source: Bloomberg, © Merk Investments LLC

Analysis: The market is suggesting there will be no change in rates from the European Central Bank (ECB) over the next 12 months. Framework: Central banks play a key role in currency markets as their monetary policy directly affects interest rates and interest rate differentials. This chart provides a picture of market based expectations regarding central bank rate hikes or rate cuts, and allows market participants to compare their own views to what's priced in.

Long Term Interest Rate Differential

The 10-year Yield Differential (grey) vs. the Exchange Rate (black)

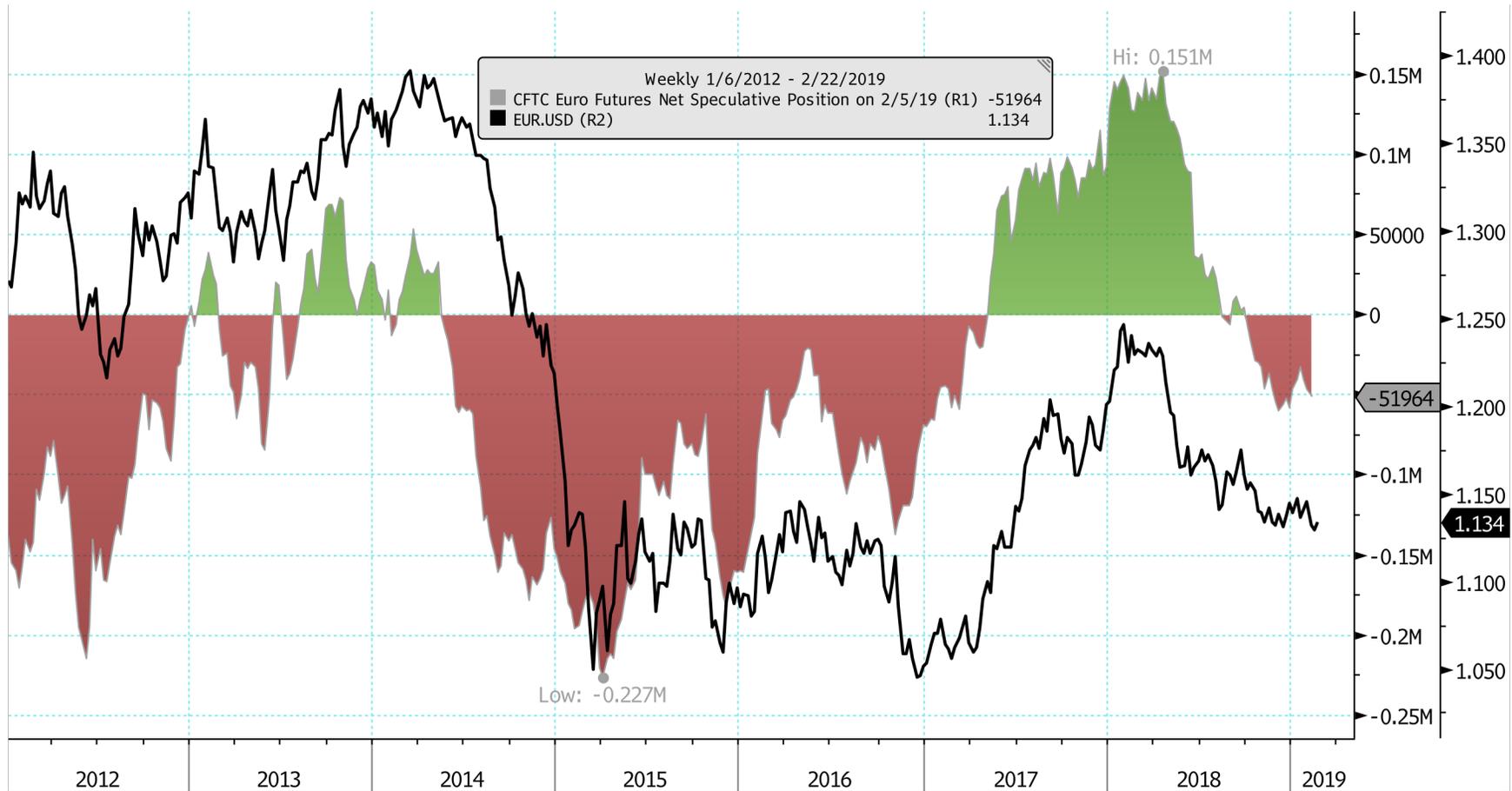


Source: Bloomberg, © Merk Investments LLC

Analysis: The 10yr interest rate differential is near multi-year lows. Framework: In addition to the carry trade dynamics of interest rate differentials, global capital tends to flow into higher yielding countries, where economic growth and investment returns tend to be more attractive- one can often observe a strong relationship between interest rate differentials and the exchange rate.

CFTC Speculative Positioning

The Net Position (number of futures contracts) of Non-Commercial Market Participants

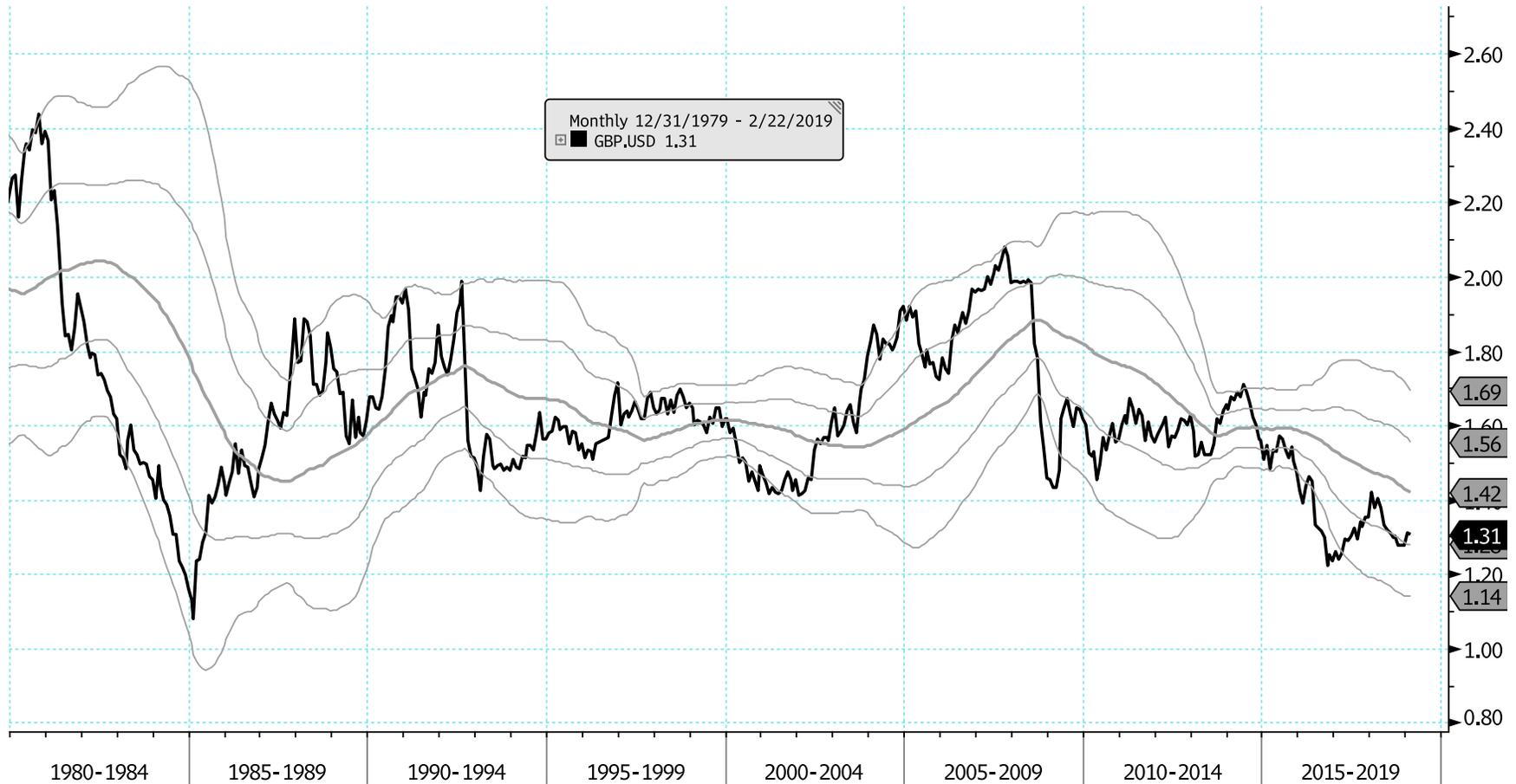


Source: Bloomberg, © Merk Investments LLC

Analysis: Speculators are currently net short Euros based on the most recent CFTC Commitment of Traders report. Framework: In my view this chart should be looked at from a contrarian perspective: speculators in futures markets tend to use leverage and stop-loss orders and their positions may imply impending order flow in the opposite direction. Positioning data tends to be most relevant when it is at multi-year highs or lows.

Long Term Price Chart

Exchange Rate with 5-year Moving Average +/- 1 and 2 Standard Deviation Bands

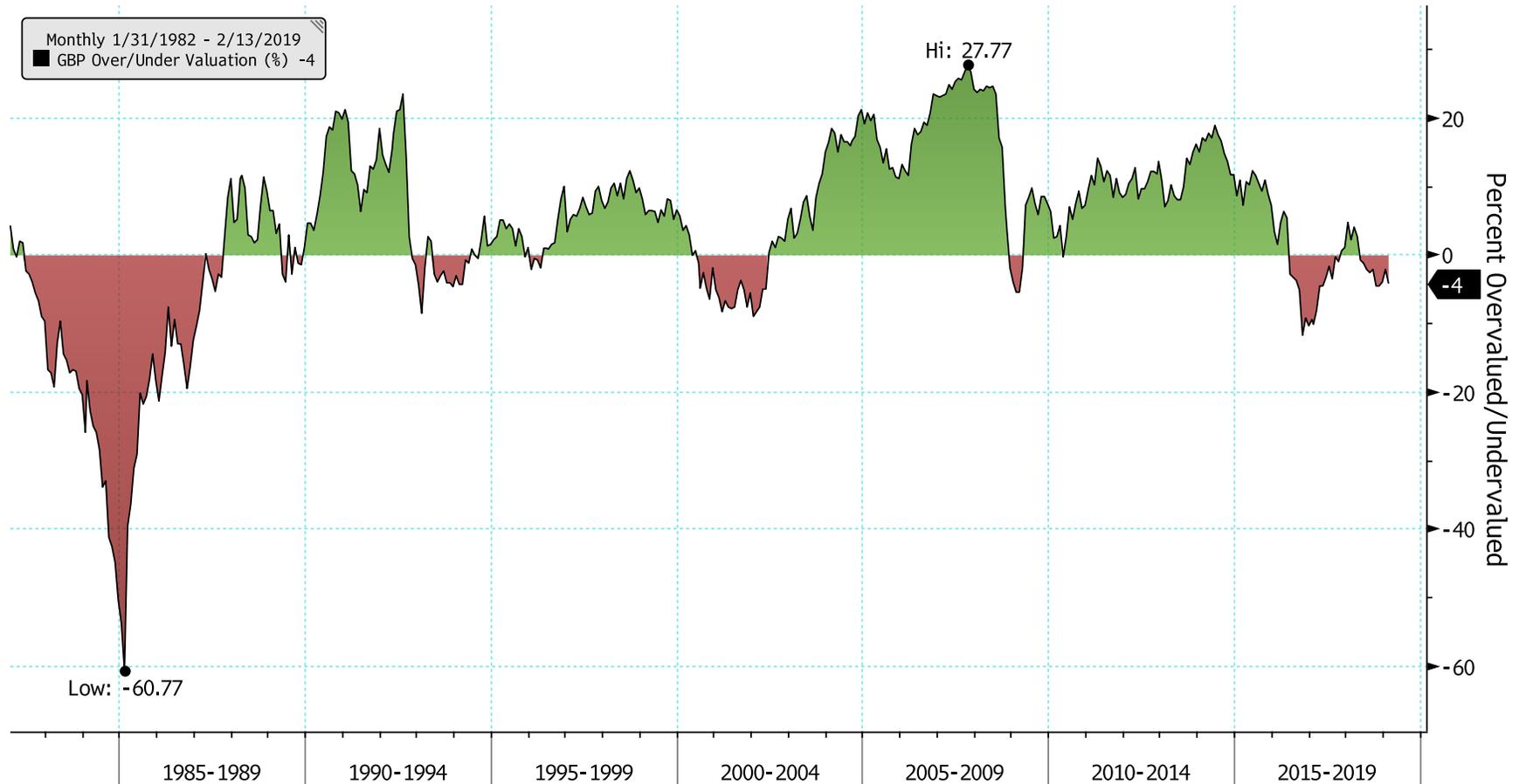


Source: Bloomberg, © Merk Investments LLC

Analysis: GBP.USD has been in a multi-year downtrend. Framework: A widely observed feature of currency markets is that many exchange rates trend on a multi-year basis. The segmentation of currency market participants, with some responding quickly to changing fundamentals and others responding more slowly, may be one reason why trends emerge and sustain momentum. In my view FX markets tend to be mean-reverting in the short term (days to weeks), trending in the medium term (months to years), and mean-reverting in the long term (decades).

Purchasing Power Parity Valuation

Relative Purchasing Power Parity (PPP) based on Consumer Price Indexes

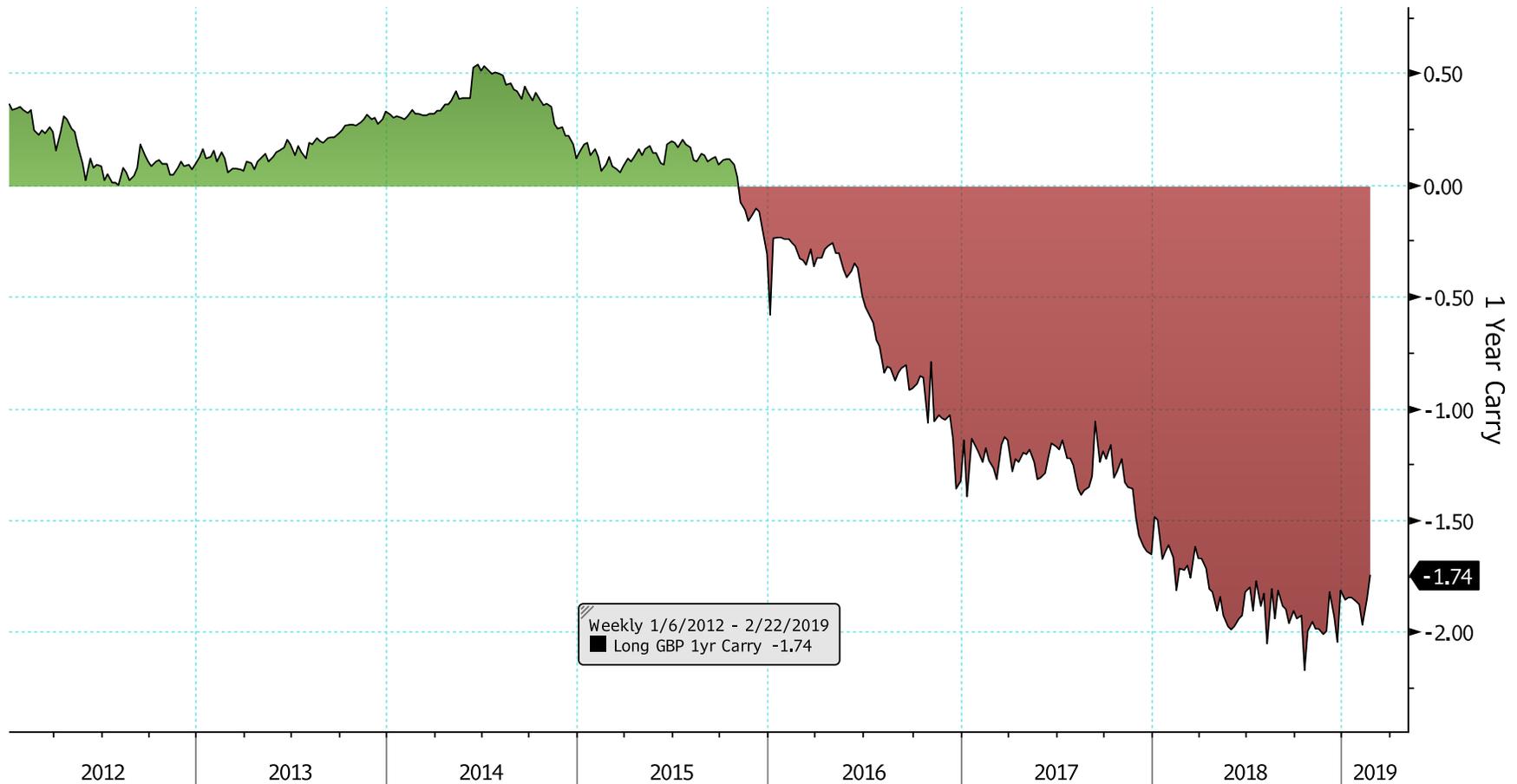


Source: Bloomberg, © Merk Investments LLC

Analysis: The British pound is currently just below fair value based on relative PPP. Framework: Nominal exchange rates tend to gravitate toward their long-run purchasing power parity (PPP) equilibrium values. The foundation for PPP is the so-called "law of one price," which suggests that identical goods should trade at the same price across countries when valued in terms of a common currency. Relative PPP extends the law of one price to a broad range of goods and services and takes into account trade impediments.

Carry

The 1-year Carry based on the 1-year Forward Rate vs the Spot Rate

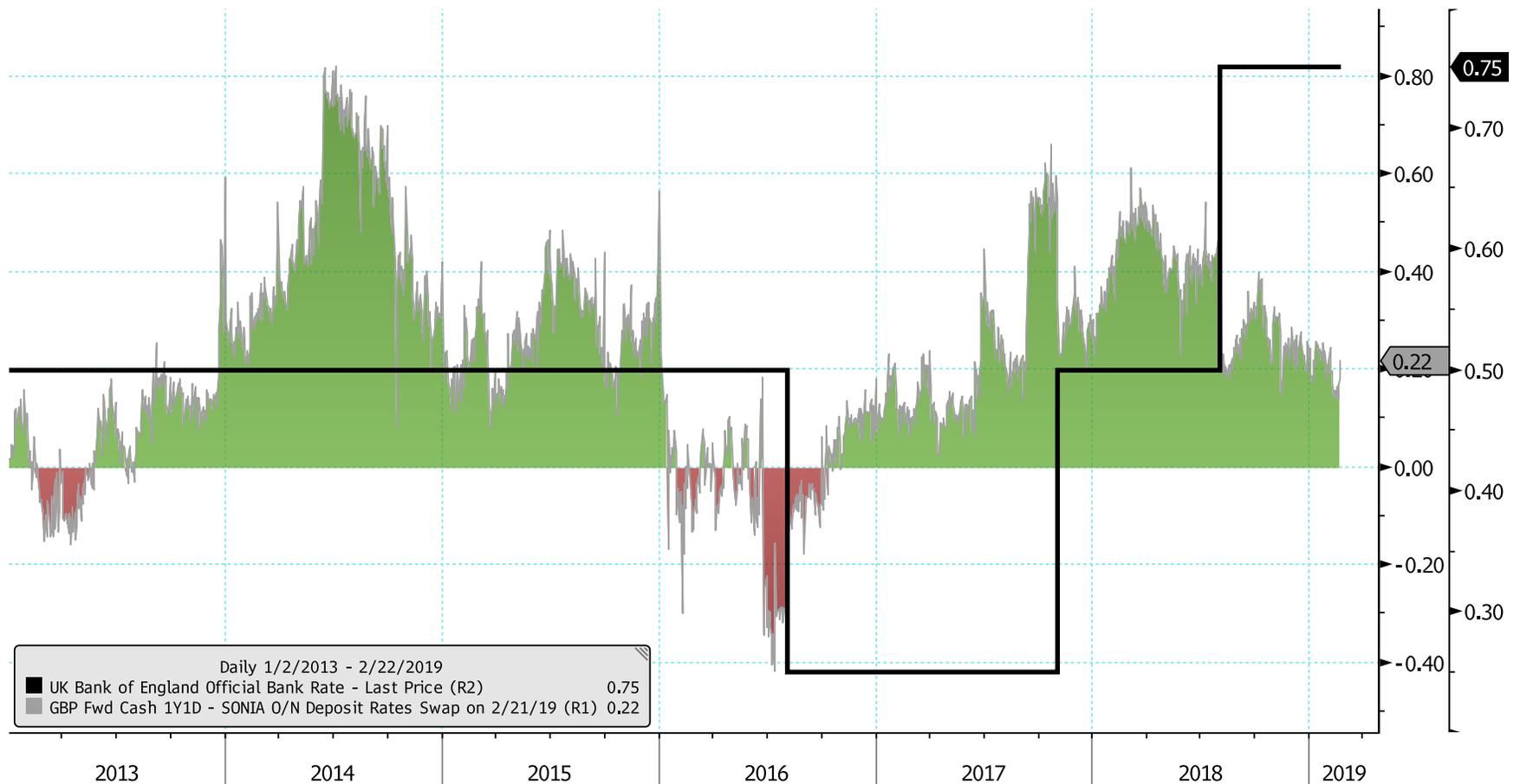


Source: Bloomberg, © Merk Investments LLC

Analysis: The British pound is currently negative carry vs the US dollar, about 1.7% per year. The above represents the percentage return in dollar terms based on buying a 12 month forward contract in foreign currency and holding it until expiry, assuming that the spot rate remains unchanged over the period. Framework: Carry is determined by interest rate differentials and the no-arbitrage forward price. One of the most widely known strategies in currency markets is the carry trade, i.e., selling low interest rate currencies (“funding currencies”) and buying high interest rate currencies.

What's Priced In

Market-based measure of the expected basis point change in the central bank benchmark rate over the coming one year period



Source: Bloomberg, © Merk Investments LLC

Analysis: The market is suggesting that the next move from the Bank of England (BoE) will likely be a rate hike, with roughly a 90% chance of one rate hike within the next 12 months. Framework: Central banks play a key role in currency markets as their monetary policy directly affects interest rates and interest rate differentials. This chart provides a picture of market based expectations regarding central bank rate hikes or rate cuts, and allows market participants to compare their own views to what's priced in.

Long Term Interest Rate Differential

The 10-year Yield Differential (grey) vs. the Exchange Rate (black)

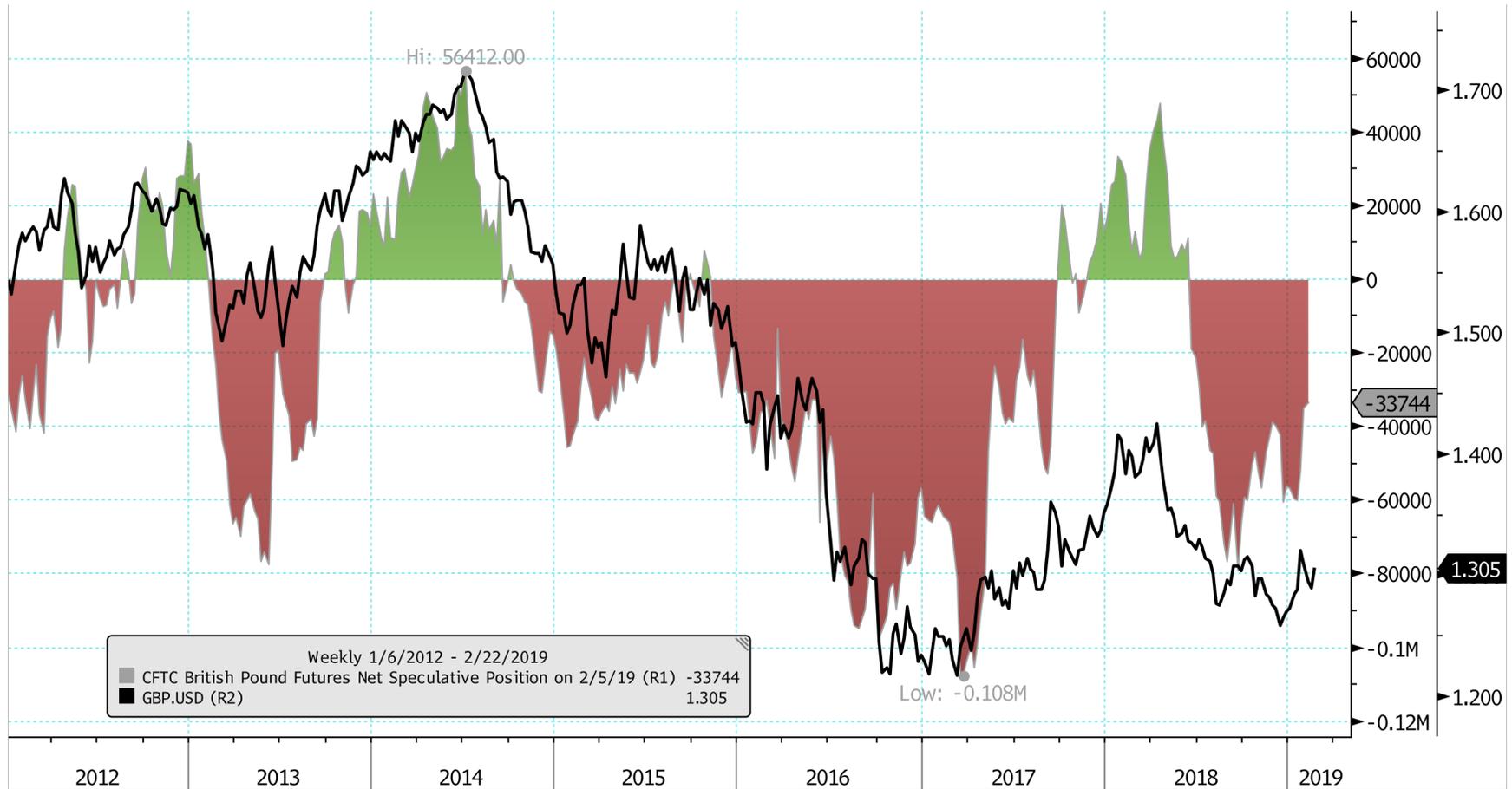


Source: Bloomberg, © Merk Investments LLC

Analysis: The 10yr interest rate differential is near multi-year lows. Framework: In addition to the carry trade dynamics of interest rate differentials, global capital tends to flow into higher yielding countries, where economic growth and investment returns tend to be more attractive- one can often observe a strong relationship between interest rate differentials and the exchange rate.

CFTC Speculative Positioning

The Net Position (number of futures contracts) of Non-Commercial Market Participants



Source: Bloomberg, © Merk Investments LLC

Analysis: Speculators are currently net short Australian dollars based on the most recent CFTC Commitment of Traders report. Framework: In my view this chart should be looked at from a contrarian perspective: speculators in futures markets tend to use leverage and stop-loss orders and their positions may imply impending order flow in the opposite direction. Positioning data tends to be most relevant when it is at multi-year highs or lows.

Long Term Price Chart

Exchange Rate with 5-year Moving Average +/- 1 and 2 Standard Deviation Bands

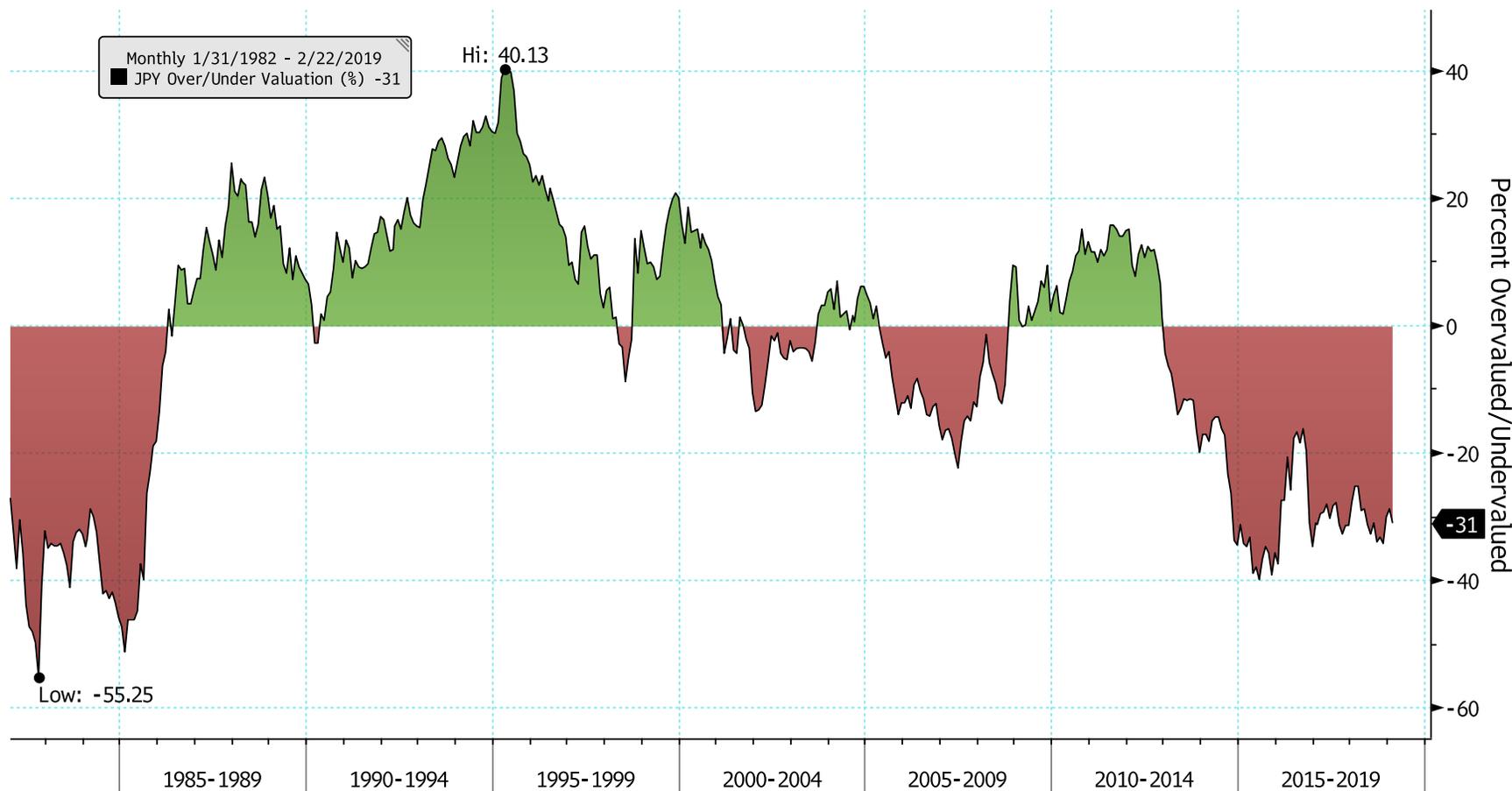


Source: Bloomberg, © Merk Investments LLC

Analysis: USD.JPY has been in a multi-year uptrend. Framework: A widely observed feature of currency markets is that many exchange rates trend on a multi-year basis. The segmentation of currency market participants, with some responding quickly to changing fundamentals and others responding more slowly, may be one reason why trends emerge and sustain momentum. In my view FX markets tend to be mean-reverting in the short term (days to weeks), trending in the medium term (months to years), and mean-reverting in the long term (decades).

Purchasing Power Parity Valuation

Relative Purchasing Power Parity (PPP) based on Consumer Price Indexes

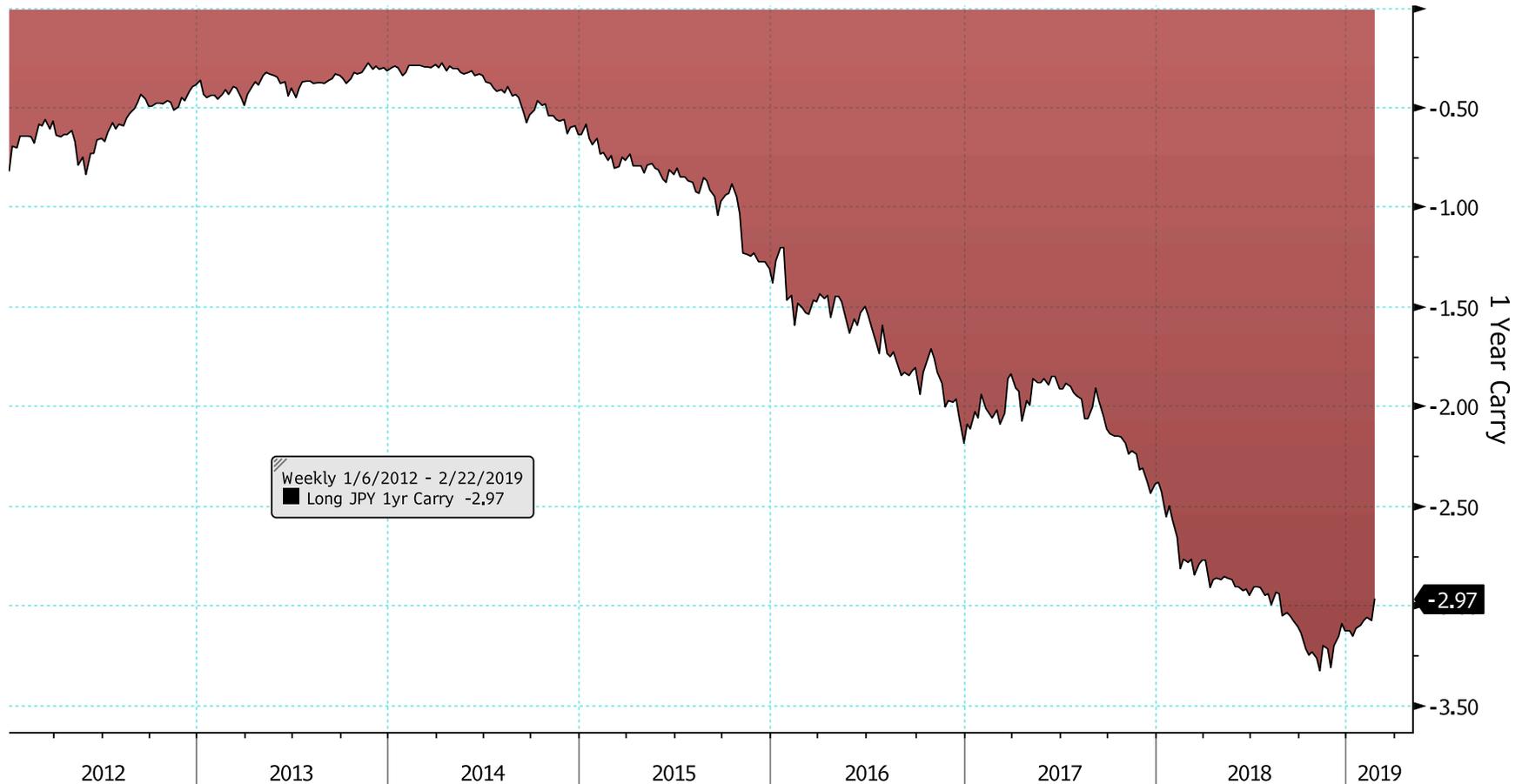


Source: Bloomberg, © Merk Investments LLC

Analysis: The Japanese yen is currently substantially undervalued based on relative PPP. Framework: Nominal exchange rates tend to gravitate toward their long-run purchasing power parity (PPP) equilibrium values. The foundation for PPP is the so-called "law of one price," which suggests that identical goods should trade at the same price across countries when valued in terms of a common currency. Relative PPP extends the law of one price to a broad range of goods and services and takes into account trade impediments.

Carry

The 1-year Carry based on the 1-year Forward Rate vs the Spot Rate

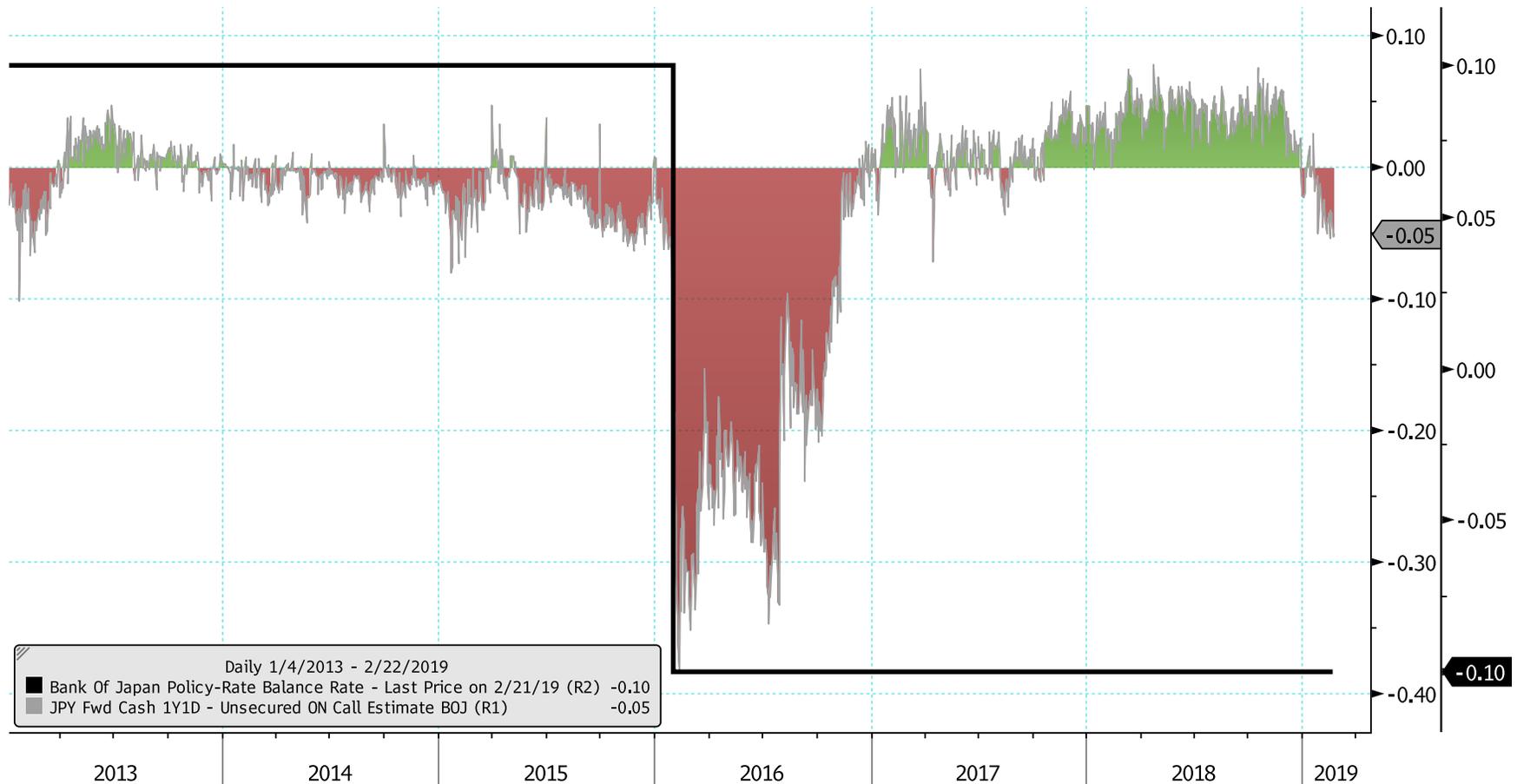


Source: Bloomberg, © Merk Investments LLC

Analysis: The Japanese yen is currently negative carry vs the US dollar, about 3.0% per year. The above represents the percentage return in dollar terms based on buying a 12 month forward contract in foreign currency and holding it until expiry, assuming that the spot rate remains unchanged over the period. Framework: Carry is determined by interest rate differentials and the no-arbitrage forward price. One of the most widely known strategies in currency markets is the carry trade, i.e., selling low interest rate currencies ("funding currencies") and buying high interest rate currencies.

What's Priced In

Market-based measure of the expected basis point change in the central bank benchmark rate over the coming one year period



Source: Bloomberg, © Merk Investments LLC

Analysis: The market is suggesting a very low chance of any change in rates from the Bank of Japan (BoJ) over the next 12 months, although right now are slightly favoring a greater chance of a rate cut than a rate hike. Framework: Central banks play a key role in currency markets as their monetary policy directly affects interest rates and interest rate differentials. This chart provides a picture of market based expectations regarding central bank rate hikes or rate cuts, and allows market participants to compare their own views to what's priced in.

Long Term Interest Rate Differential

The 10-year Yield Differential (grey) vs. the Exchange Rate (black)



Source: Bloomberg, © Merk Investments LLC

Analysis: The 10yr interest rate differential appears to be slightly above the multi-year average. Framework: In addition to the carry trade dynamics of interest rate differentials, global capital tends to flow into higher yielding countries, where economic growth and investment returns tend to be more attractive- one can often observe a strong relationship between interest rate differentials and the exchange rate.

CFTC Speculative Positioning

The Net Position (number of futures contracts) of Non-Commercial Market Participants

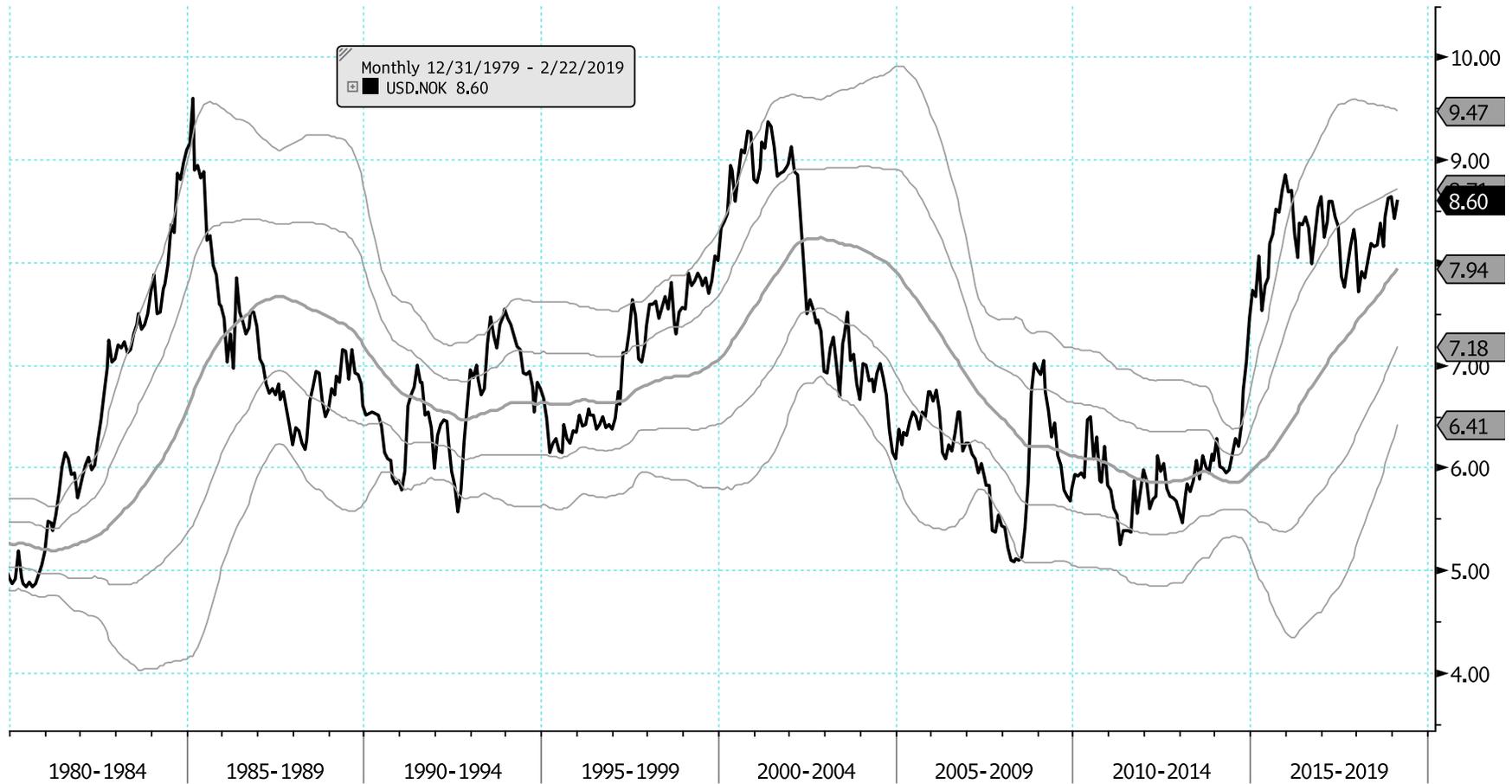


Source: Bloomberg, © Merk Investments LLC

Analysis: Speculators are currently net short Japanese yen based on the most recent CFTC Commitment of Traders report. Framework: In my view this chart should be looked at from a contrarian perspective: speculators in futures markets tend to use leverage and stop-loss orders and their positions may imply impending order flow in the opposite direction. Positioning data tends to be most relevant when it is at multi-year highs or lows.

Long Term Price Chart

Exchange Rate with 5-year Moving Average +/- 1 and 2 Standard Deviation Bands

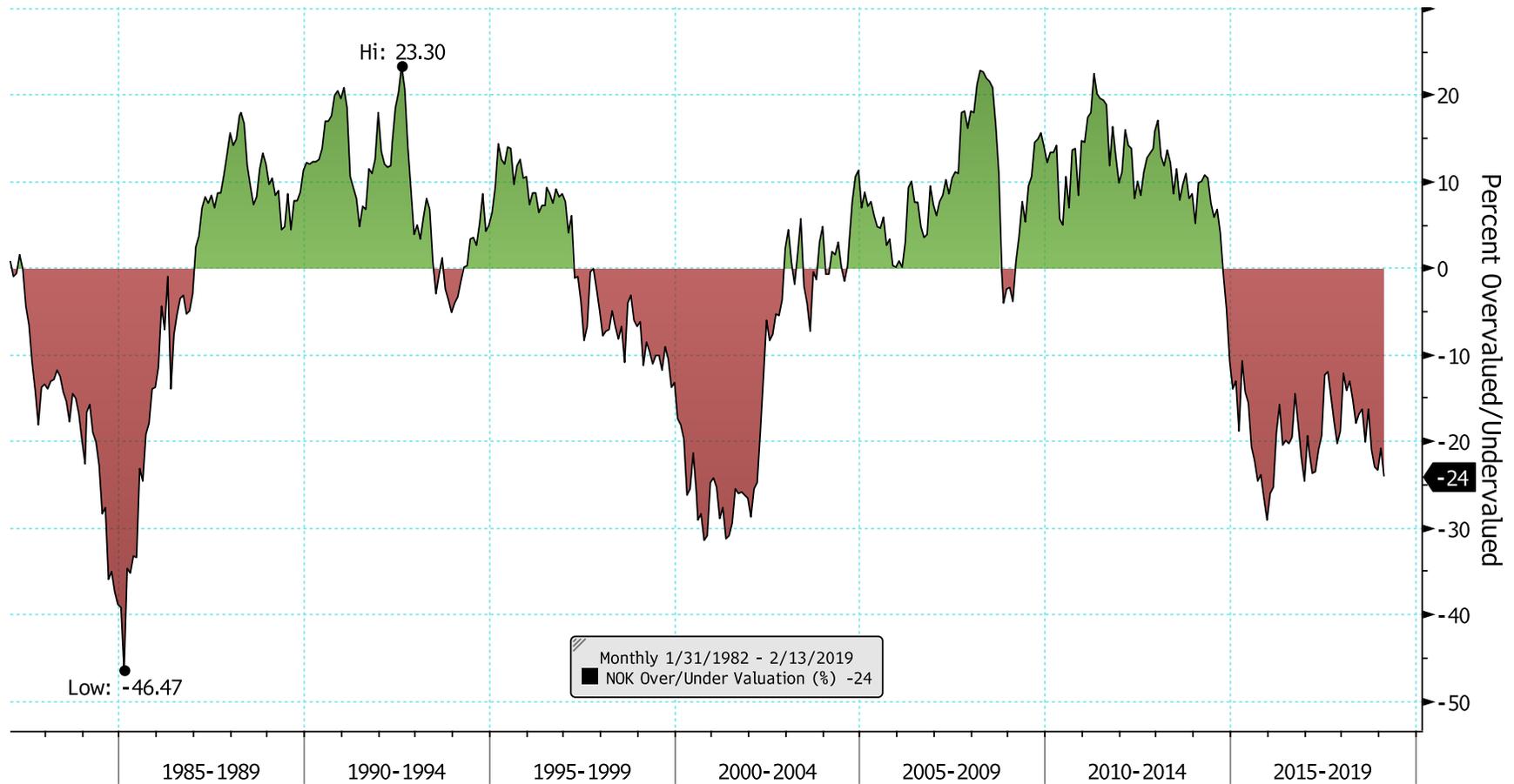


Source: Bloomberg, © Merk Investments LLC

Analysis: USD.NOK has been in a multi-year uptrend. Framework: A widely observed feature of currency markets is that many exchange rates trend on a multi-year basis. The segmentation of currency market participants, with some responding quickly to changing fundamentals and others responding more slowly, may be one reason why trends emerge and sustain momentum. In my view FX markets tend to be mean-reverting in the short term (days to weeks), trending in the medium term (months to years), and mean-reverting in the long term (decades).

Purchasing Power Parity Valuation

Relative Purchasing Power Parity (PPP) based on Consumer Price Indexes

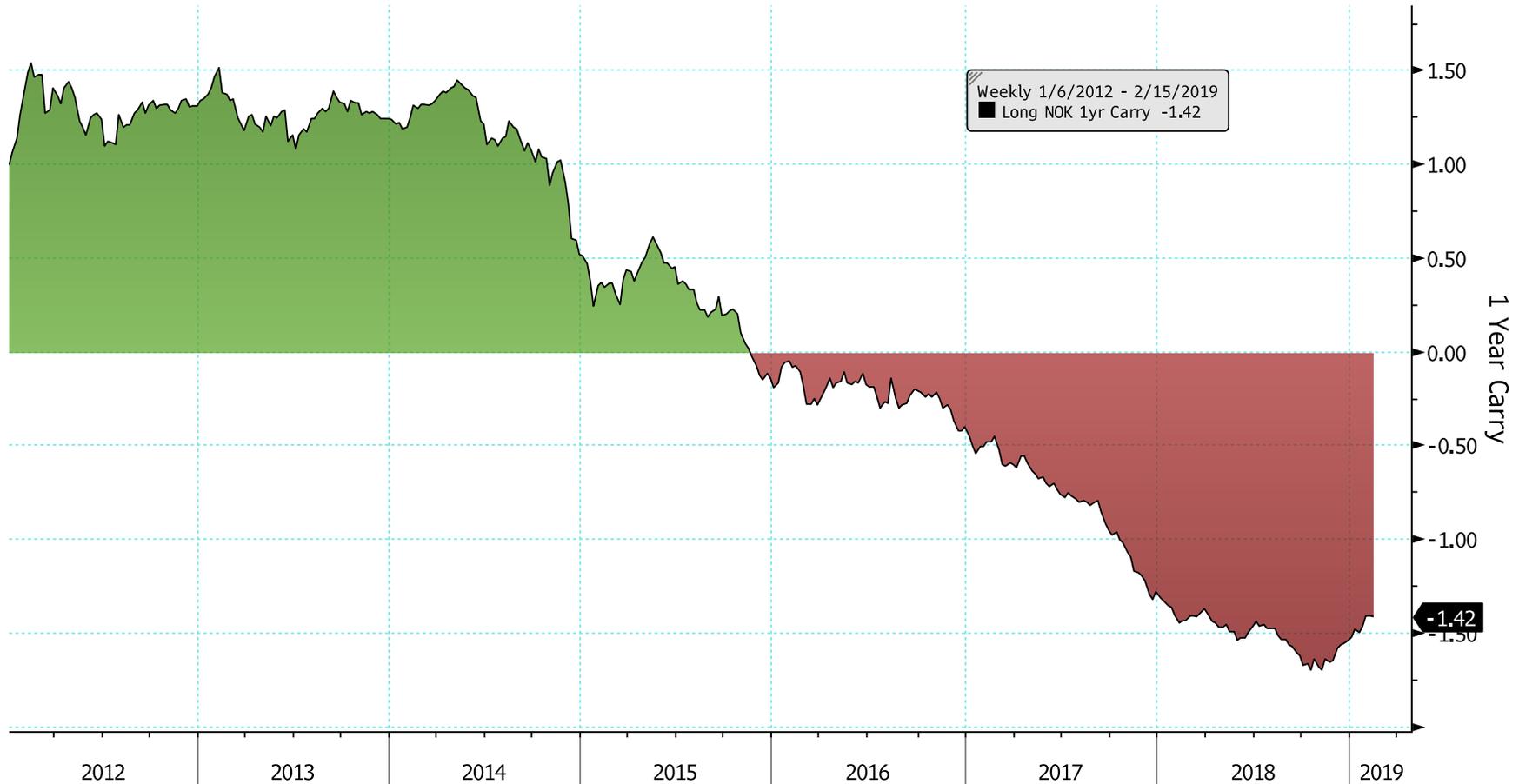


Source: Bloomberg, © Merk Investments LLC

Analysis: The Norwegian krone is currently substantially undervalued based on relative PPP. Framework: Nominal exchange rates tend to gravitate toward their long-run purchasing power parity (PPP) equilibrium values. The foundation for PPP is the so-called “law of one price,” which suggests that identical goods should trade at the same price across countries when valued in terms of a common currency. Relative PPP extends the law of one price to a broad range of goods and services and takes into account trade impediments.

Carry

The 1-year Carry based on the 1-year Forward Rate vs the Spot Rate

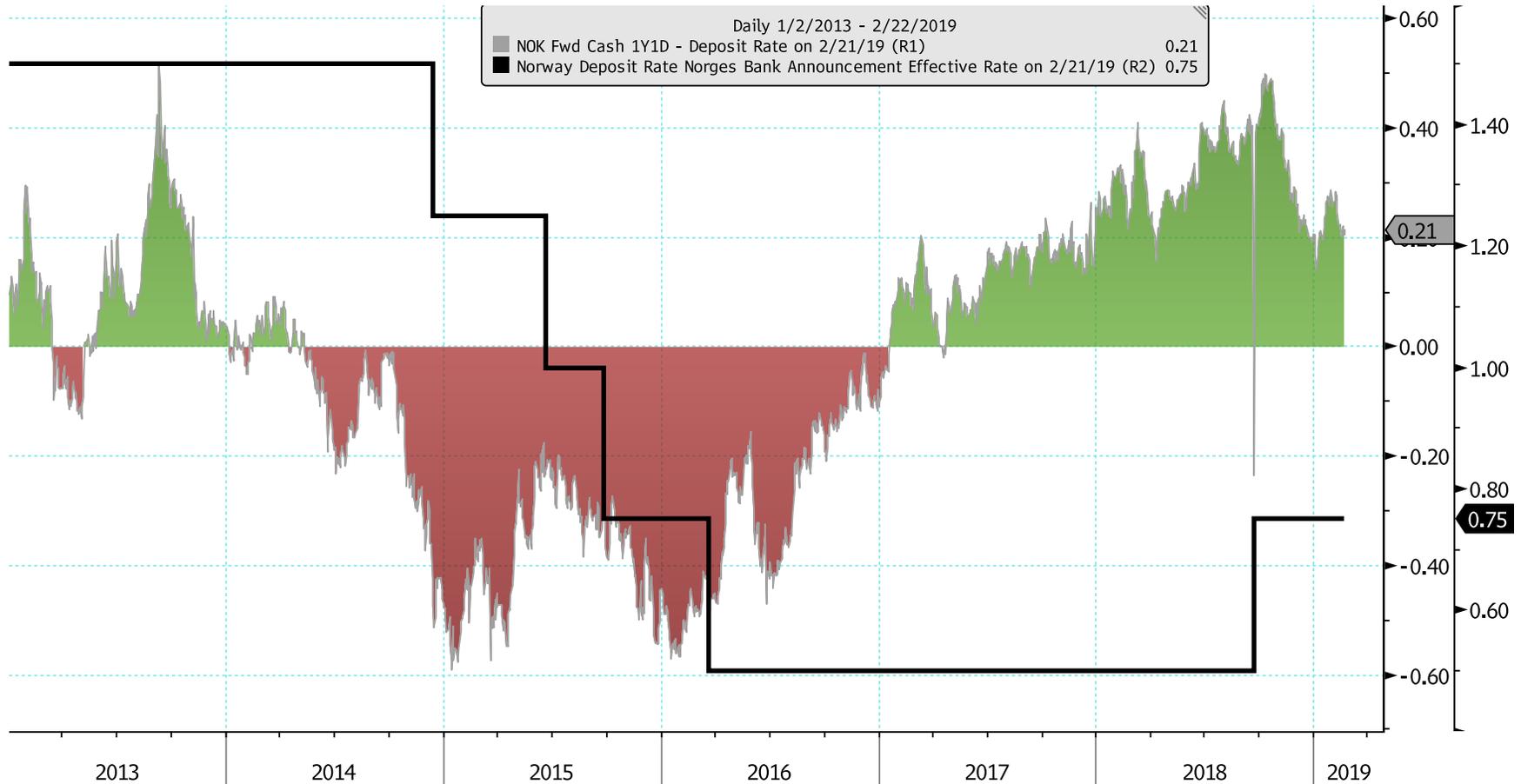


Source: Bloomberg, © Merk Investments LLC

Analysis: The Norwegian krone is currently negative carry vs the US dollar, about 1.4% per year. The above represents the percentage return in dollar terms based on buying a 12 month forward contract in foreign currency and holding it until expiry, assuming that the spot rate remains unchanged over the period. Framework: Carry is determined by interest rate differentials and the no-arbitrage forward price. One of the most widely known strategies in currency markets is the carry trade, i.e., selling low interest rate currencies ("funding currencies") and buying high interest rate currencies.

What's Priced In

Market-based measure of the expected basis point change in the central bank benchmark rate over the coming one year period

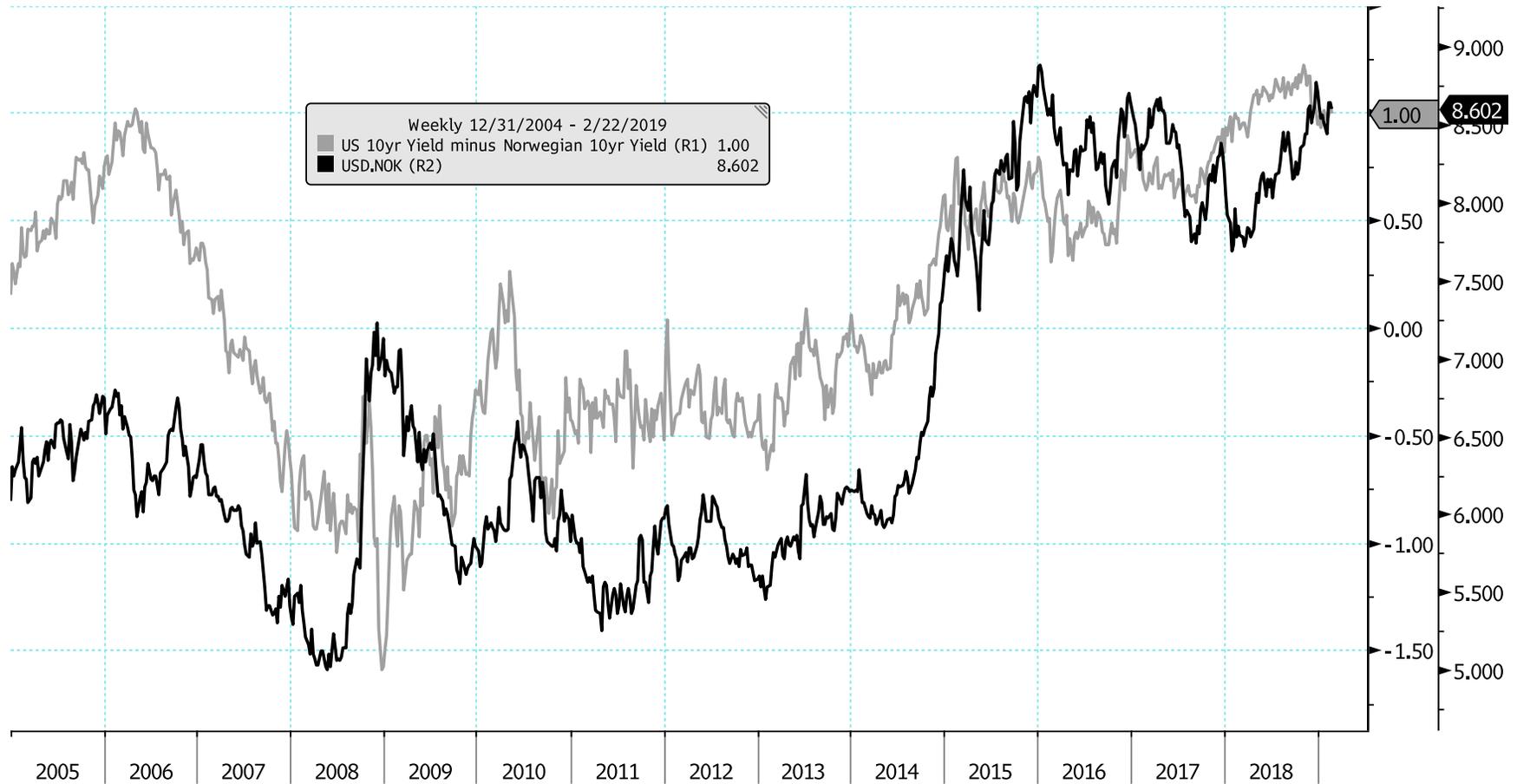


Source: Bloomberg, © Merk Investments LLC

Analysis: The market is suggesting that the next move from the Norgesbank will likely be a rate hike, with roughly an 80% chance of one rate hike within the next year. Framework: Central banks play a key role in currency markets as their monetary policy directly affects interest rates and interest rate differentials. This chart provides a picture of market based expectations regarding central bank rate hikes or rate cuts, and allows market participants to compare their own views to what's priced in.

Long Term Interest Rate Differential

The 10-year Yield Differential (grey) vs. the Exchange Rate (black)

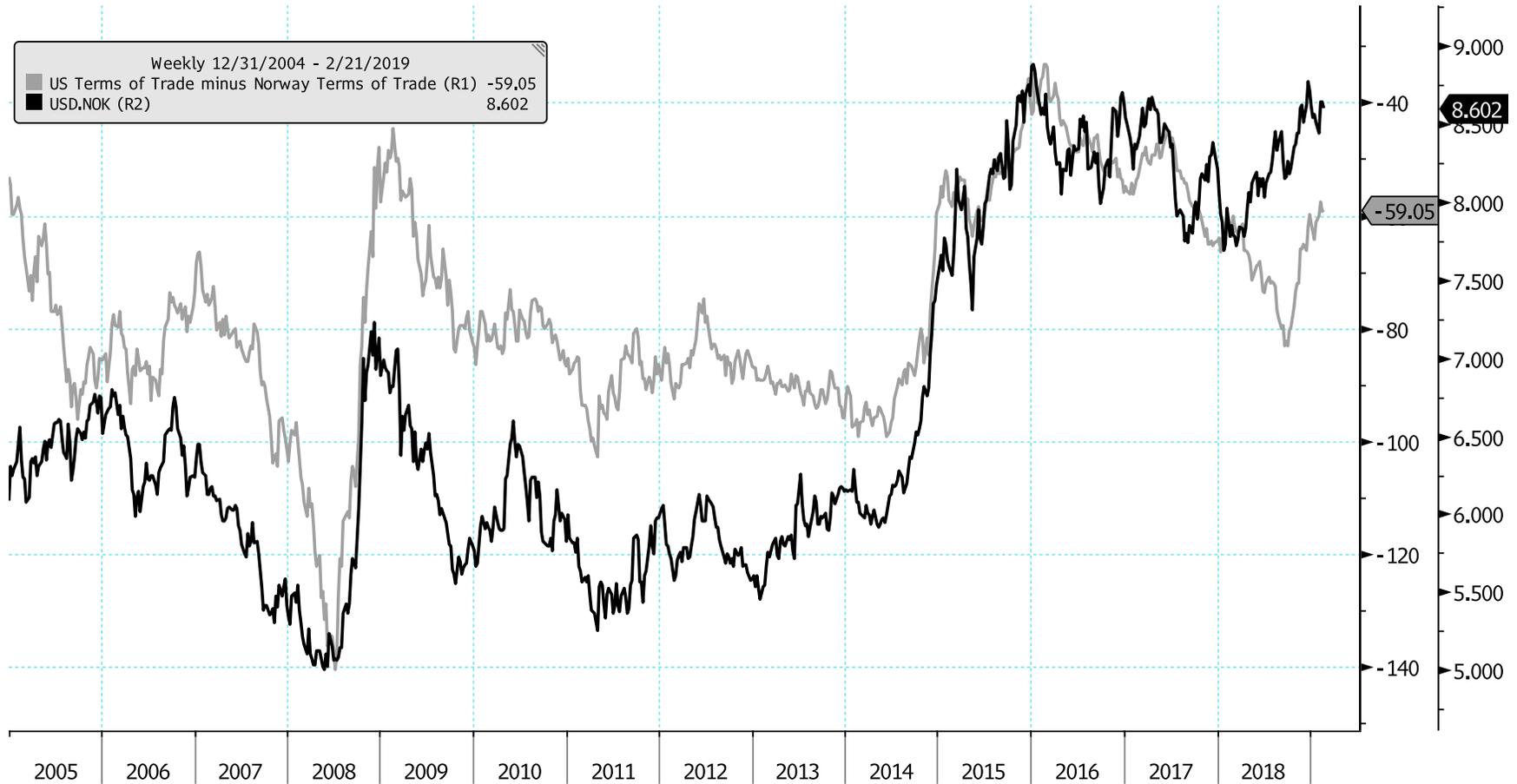


Source: Bloomberg, © Merk Investments LLC

Analysis: The 10yr interest rate differential is near multi-year highs. Framework: In addition to the carry trade dynamics of interest rate differentials, global capital tends to flow into higher yielding countries, where economic growth and investment returns tend to be more attractive- one can often observe a strong relationship between interest rate differentials and the exchange rate.

Terms of Trade Differential

The Terms of Trade Differential (grey) vs. the Exchange Rate (black)

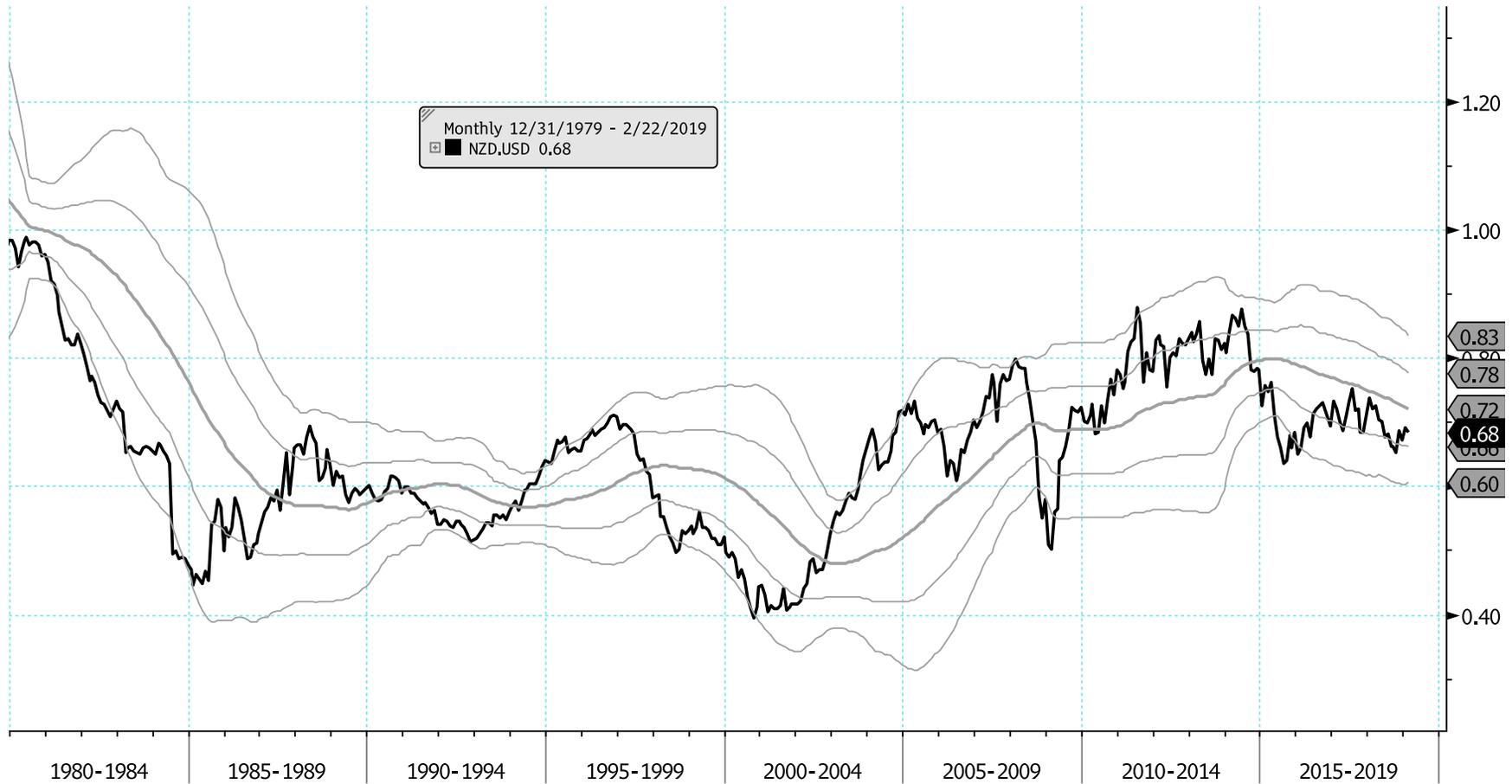


Source: Bloomberg, © Merk Investments LLC

Analysis: The relative terms of trade appear to be slightly above the multi-year average for the US vs Norway. Framework: The terms of trade are defined as the ratio of the price of a country's exports to the price of its imports, represented as an index. The terms of trade capture the relative cost of imports in terms of exports. Looking at the terms of trade tends to be more relevant for large commodity exporting countries, such as Australia, New Zealand, Canada, and Norway.

Long Term Price Chart

Exchange Rate with 5-year Moving Average +/- 1 and 2 Standard Deviation Bands

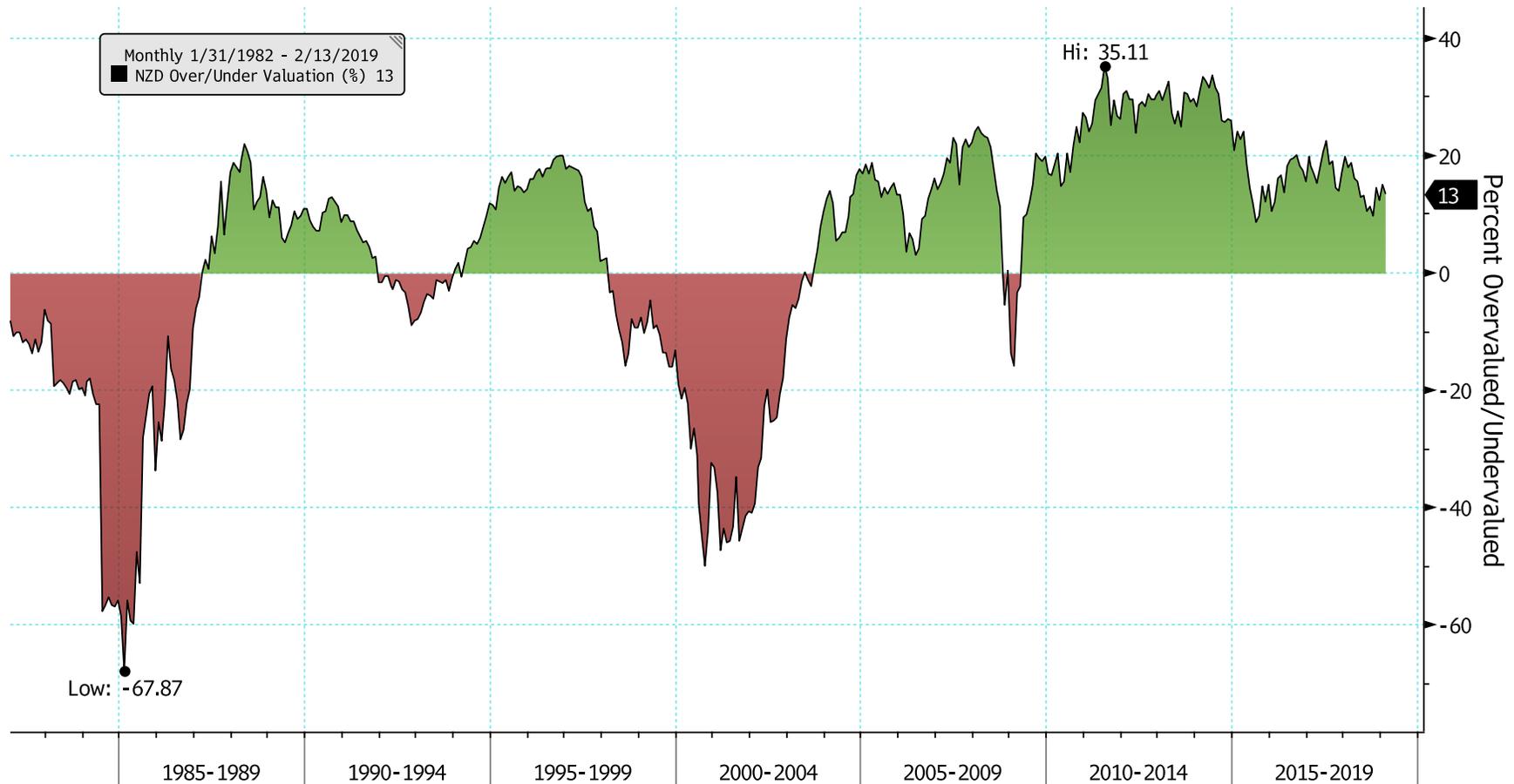


Source: Bloomberg, © Merk Investments LLC

Analysis: NZD.USD has been in a multi-year downtrend. Framework: A widely observed feature of currency markets is that many exchange rates trend on a multi-year basis. The segmentation of currency market participants, with some responding quickly to changing fundamentals and others responding more slowly, may be one reason why trends emerge and sustain momentum. In my view FX markets tend to be mean-reverting in the short term (days to weeks), trending in the medium term (months to years), and mean-reverting in the long term (decades).

Purchasing Power Parity Valuation

Relative Purchasing Power Parity (PPP) based on Consumer Price Indexes

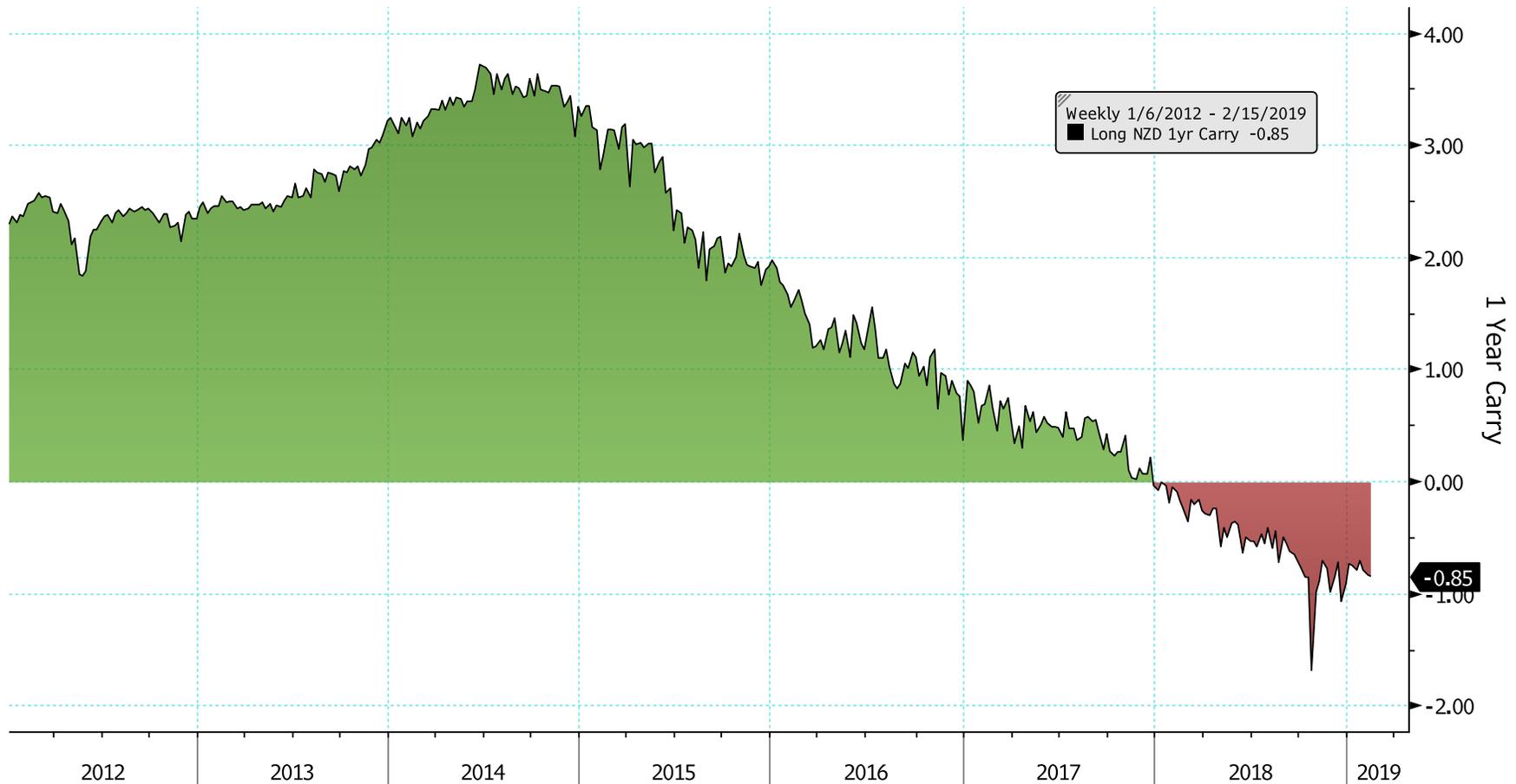


Source: Bloomberg, © Merk Investments LLC

Analysis: The New Zealand dollar is currently modestly overvalued based on relative PPP. Framework: Nominal exchange rates tend to gravitate toward their long-run purchasing power parity (PPP) equilibrium values. The foundation for PPP is the so-called "law of one price," which suggests that identical goods should trade at the same price across countries when valued in terms of a common currency. Relative PPP extends the law of one price to a broad range of goods and services and takes into account trade impediments.

Carry

The 1-year Carry based on the 1-year Forward Rate vs the Spot Rate

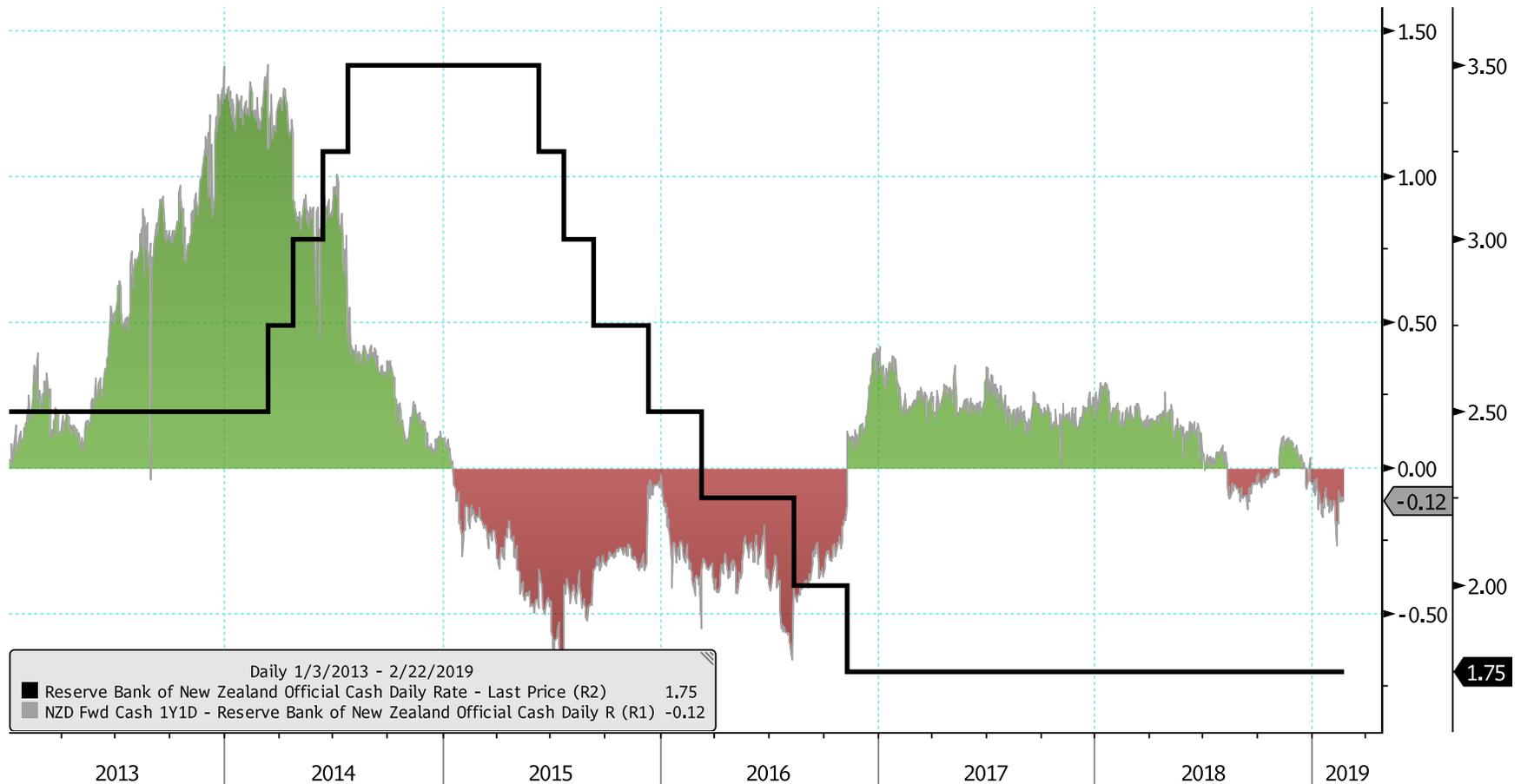


Source: Bloomberg, © Merk Investments LLC

Analysis: The New Zealand dollar is currently negative carry vs the US dollar, about 0.9% per year. The above represents the percentage return in dollar terms based on buying a 12 month forward contract in foreign currency and holding it until expiry, assuming that the spot rate remains unchanged over the period. Framework: Carry is determined by interest rate differentials and the no-arbitrage forward price. One of the most widely known strategies in currency markets is the carry trade, i.e., selling low interest rate currencies (“funding currencies”) and buying high interest rate currencies.

What's Priced In

Market-based measure of the expected basis point change in the central bank benchmark rate over the coming one year period

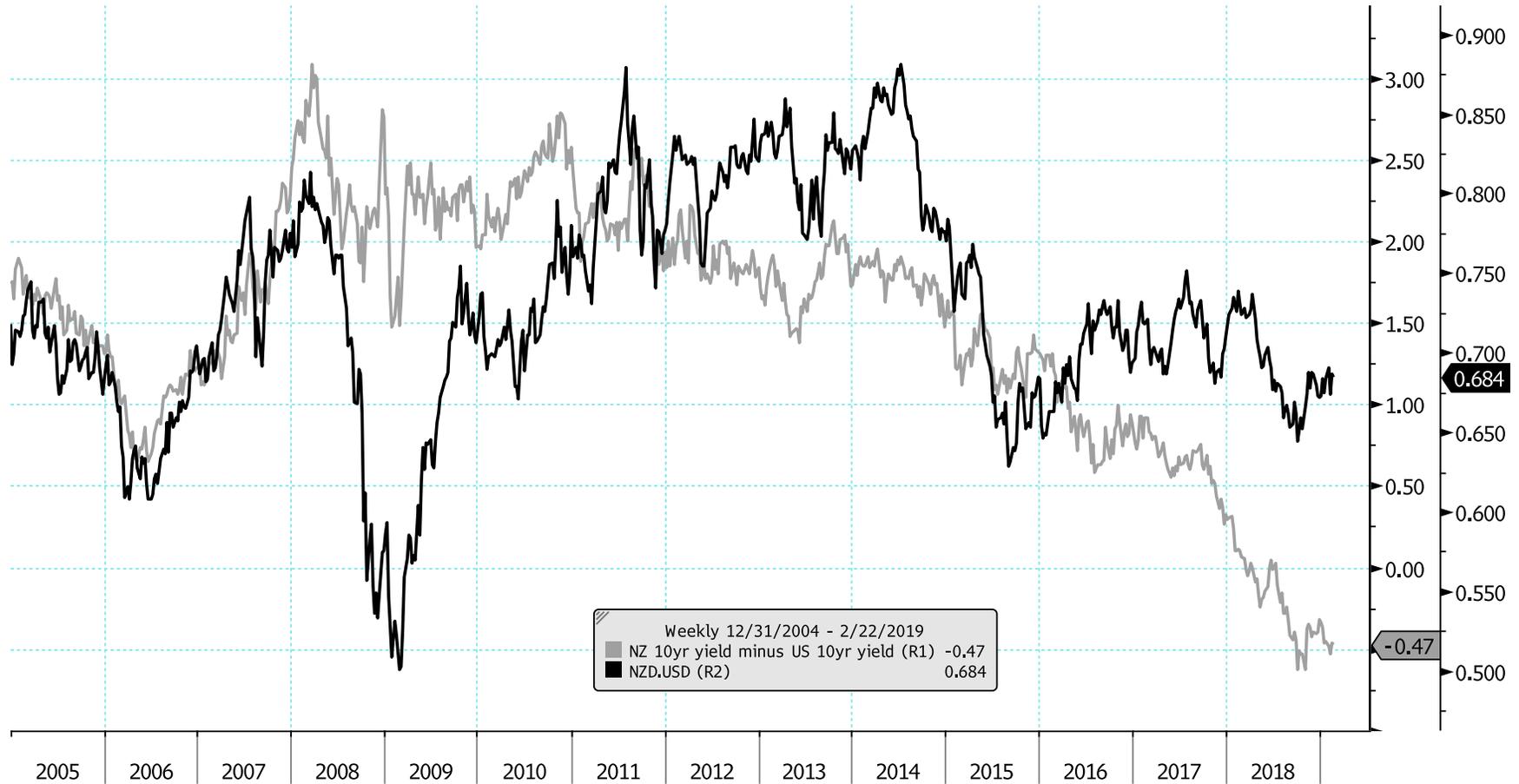


Source: Bloomberg, © Merk Investments LLC

Analysis: The market is suggesting that the next move from the Reserve Bank of New Zealand (RBNZ) is more likely to be a rate cut than a rate hike, with about a 50% chance of occurring within the next 12 months. Framework: Central banks play a key role in currency markets as their monetary policy directly affects interest rates and interest rate differentials. This chart provides a picture of market based expectations regarding central bank rate hikes or rate cuts, and allows market participants to compare their own views to what's priced in.

Long Term Interest Rate Differential

The 10-year Yield Differential (grey) vs. the Exchange Rate (black)

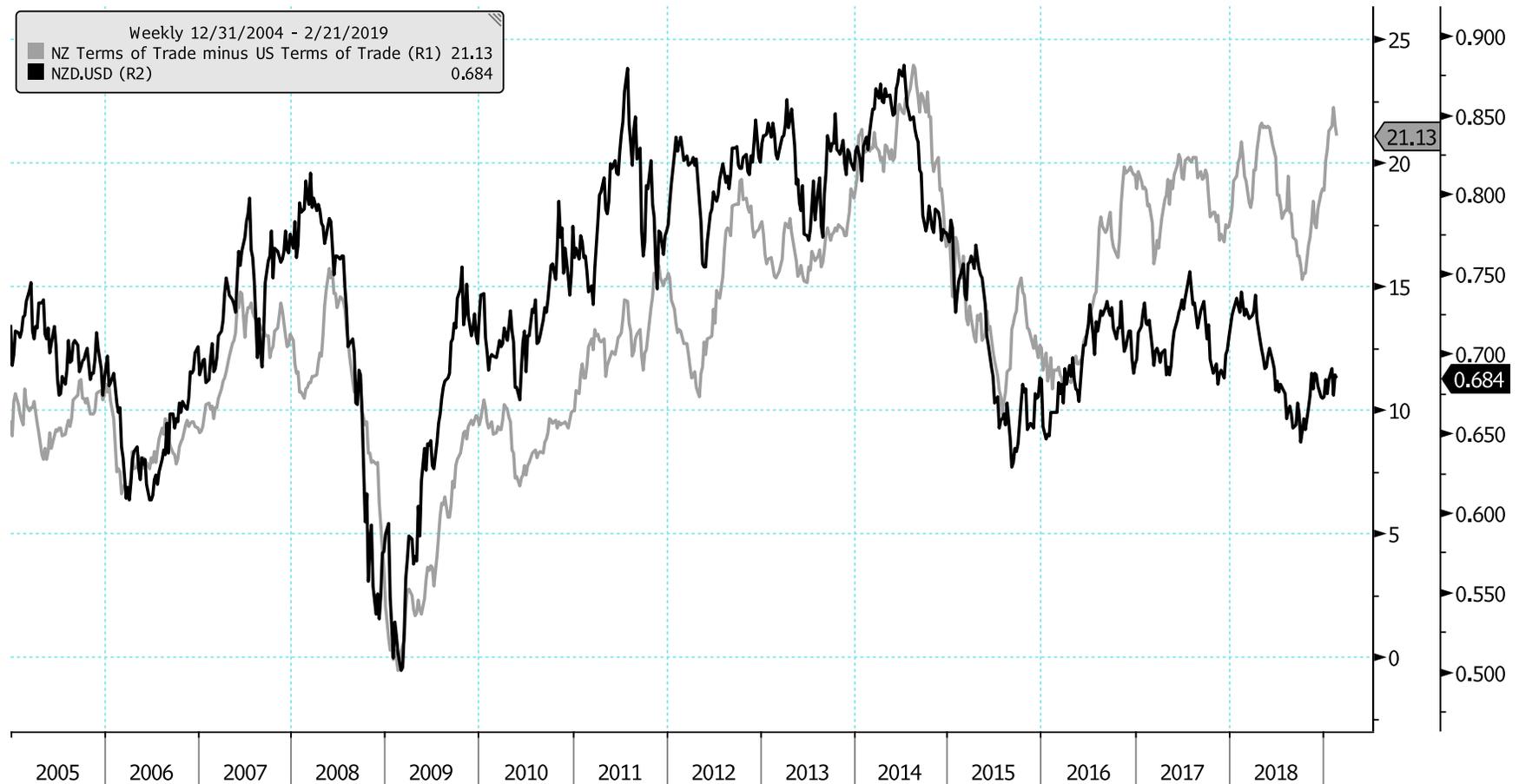


Source: Bloomberg, © Merk Investments LLC

Analysis: The 10yr interest rate differential is near multi-year lows. Framework: In addition to the carry trade dynamics of interest rate differentials, global capital tends to flow into higher yielding countries, where economic growth and investment returns tend to be more attractive- one can often observe a strong relationship between interest rate differentials and the exchange rate.

Terms of Trade Differential

The Terms of Trade Differential (grey) vs. the Exchange Rate (black)

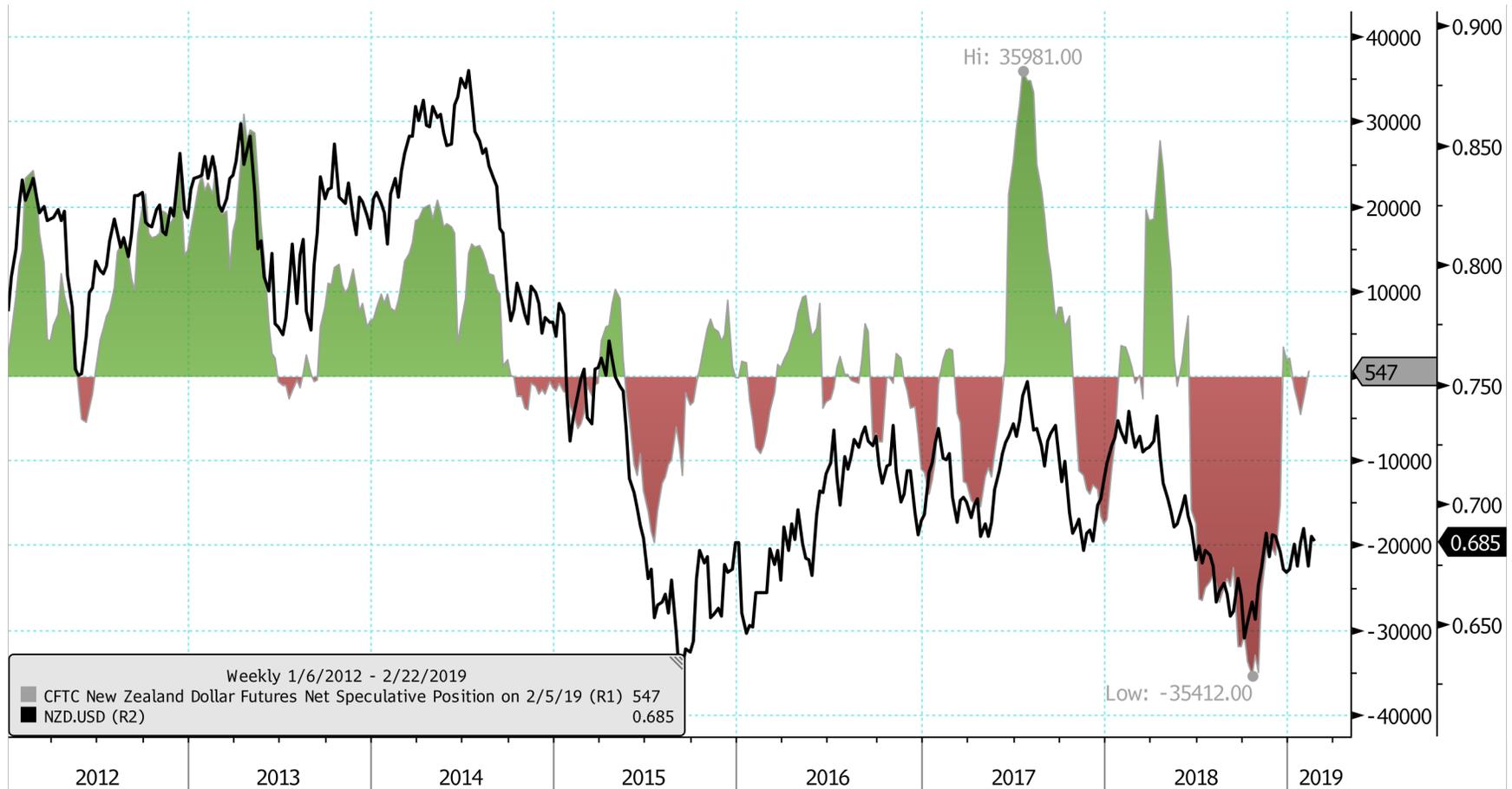


Source: Bloomberg, © Merk Investments LLC

Analysis: The relative terms of trade remain near multi-year highs for New Zealand vs the US. Framework: The terms of trade are defined as the ratio of the price of a country's exports to the price of its imports, represented as an index. The terms of trade capture the relative cost of imports in terms of exports. Looking at the terms of trade tends to be more relevant for large commodity exporting countries, such as Australia, New Zealand, Canada, and Norway.

CFTC Speculative Positioning

The Net Position (number of futures contracts) of Non-Commercial Market Participants



Source: Bloomberg, © Merk Investments LLC

Analysis: Speculators are currently neutrally positioned on New Zealand dollars based on the most recent CFTC Commitment of Traders report. Framework: In my view this chart should be looked at from a contrarian perspective: speculators in futures markets tend to use leverage and stop-loss orders and their positions may imply impending order flow in the opposite direction. Positioning data tends to be most relevant when it is at multi-year highs or lows.

Long Term Price Chart

Exchange Rate with 5-year Moving Average +/- 1 and 2 Standard Deviation Bands

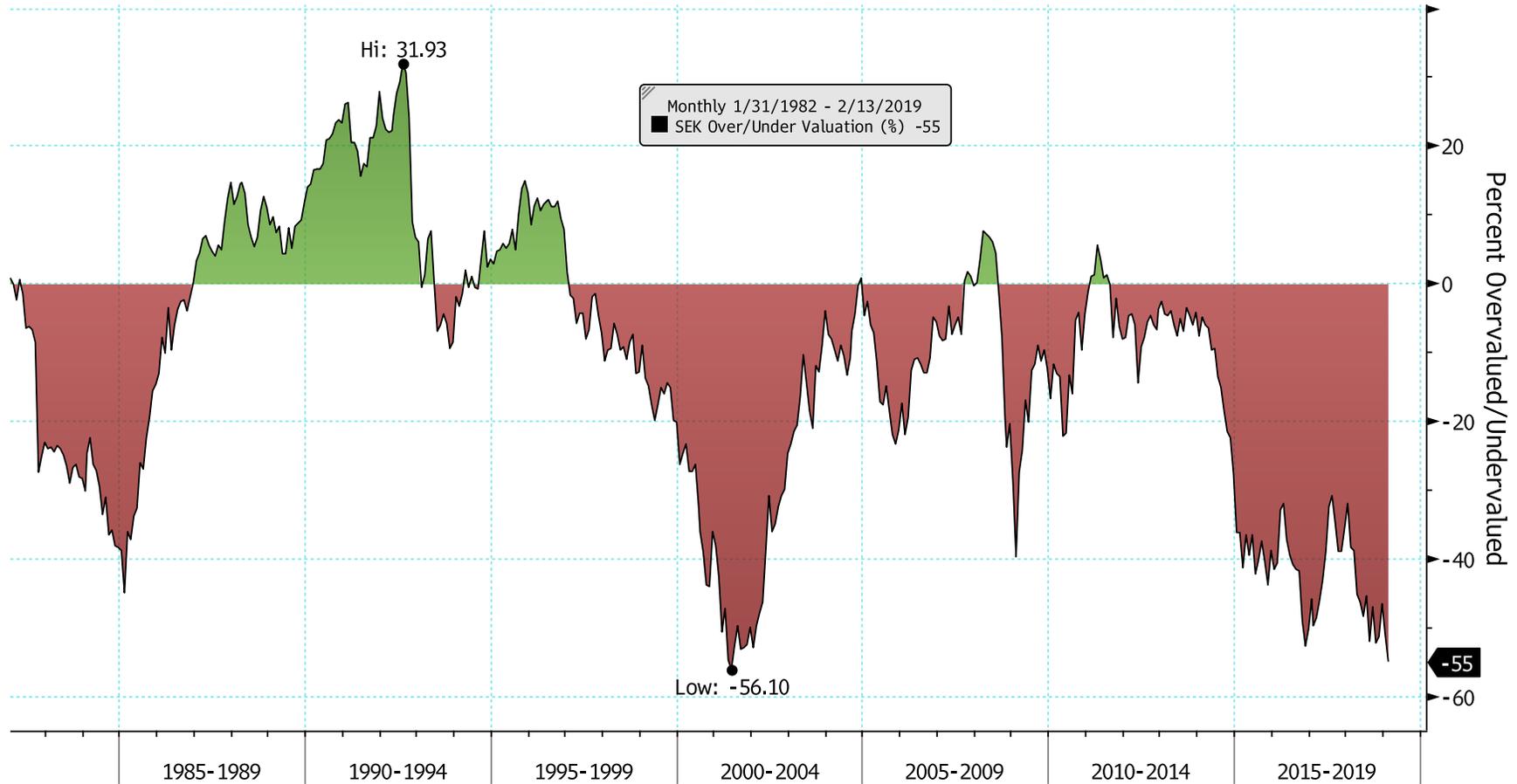


Source: Bloomberg, © Merk Investments LLC

Analysis: USD,SEK has been trending higher for the past few years. Framework: A widely observed feature of currency markets is that many exchange rates trend on a multi-year basis. The segmentation of currency market participants, with some responding quickly to changing fundamentals and others responding more slowly, may be one reason why trends emerge and sustain momentum. In my view FX markets tend to be mean-reverting in the short term (days to weeks), trending in the medium term (months to years), and mean-reverting in the long term (decades).

Purchasing Power Parity Valuation

Relative Purchasing Power Parity (PPP) based on Consumer Price Indexes

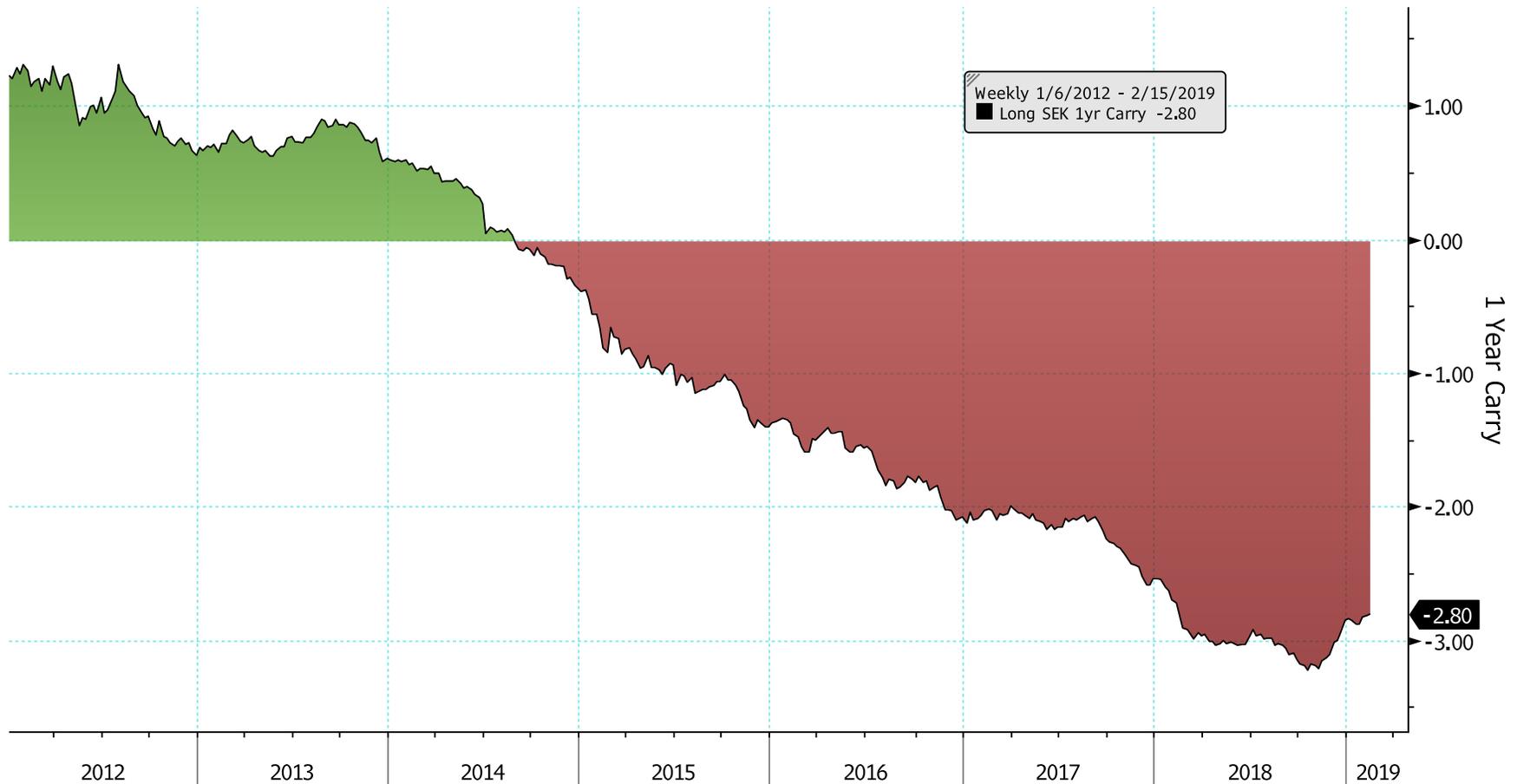


Source: Bloomberg, © Merk Investments LLC

Analysis: The Swedish krona is currently substantially undervalued based on relative PPP. Framework: Nominal exchange rates tend to gravitate toward their long-run purchasing power parity (PPP) equilibrium values. The foundation for PPP is the so-called "law of one price," which suggests that identical goods should trade at the same price across countries when valued in terms of a common currency. Relative PPP extends the law of one price to a broad range of goods and services and takes into account trade impediments.

Carry

The 1-year Carry based on the 1-year Forward Rate vs the Spot Rate



Source: Bloomberg, © Merk Investments LLC

Analysis: The Swedish krona is currently negative carry vs the US dollar, about 2.8% per year. The above represents the percentage return in dollar terms based on buying a 12 month forward contract in foreign currency and holding it until expiry, assuming that the spot rate remains unchanged over the period. Framework: Carry is determined by interest rate differentials and the no-arbitrage forward price. One of the most widely known strategies in currency markets is the carry trade, i.e., selling low interest rate currencies (“funding currencies”) and buying high interest rate currencies.

What's Priced In

Market-based measure of the expected basis point change in the central bank benchmark rate over the coming one year period



Source: Bloomberg, © Merk Investments LLC

Analysis: The market is suggesting that the next move from the Riksbank will be a rate hike, with roughly a 60% chance of one rate hike within the next 12 months. Framework: Central banks play a key role in currency markets as their monetary policy directly affects interest rates and interest rate differentials. This chart provides a picture of market based expectations regarding central bank rate hikes or rate cuts, and allows market participants to compare their own views to what's priced in.

Long Term Interest Rate Differential

The 10-year Yield Differential (grey) vs. the Exchange Rate (black)

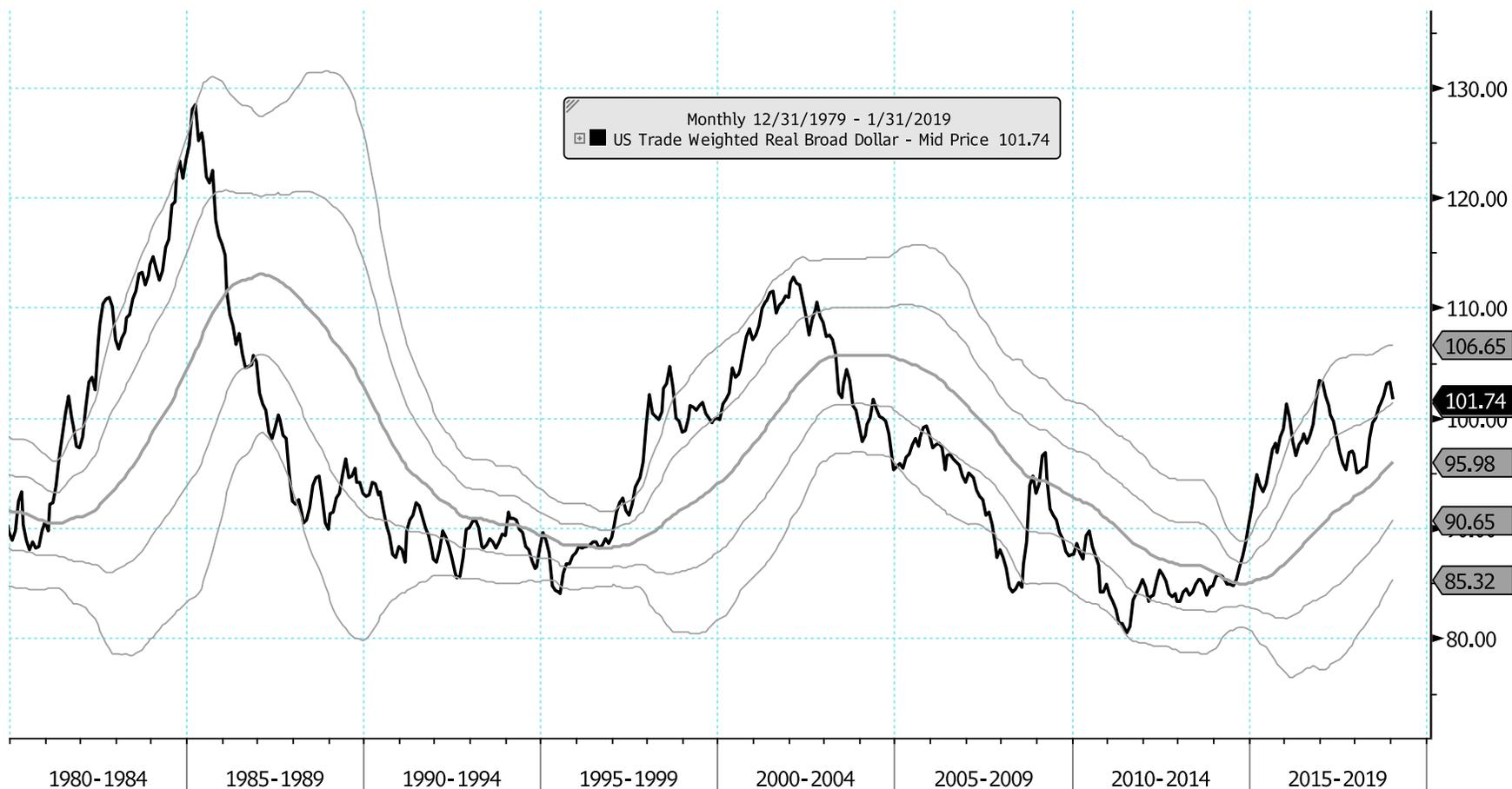


Source: Bloomberg, © Merk Investments LLC

Analysis: The 10yr interest rate differential is near multi-year highs. Framework: In addition to the carry trade dynamics of interest rate differentials, global capital tends to flow into higher yielding countries, where economic growth and investment returns tend to be more attractive- one can often observe a strong relationship between interest rate differentials and the exchange rate.

Long Term Price Chart

Exchange Rate with 5-year Moving Average +/- 1 and 2 Standard Deviation Bands

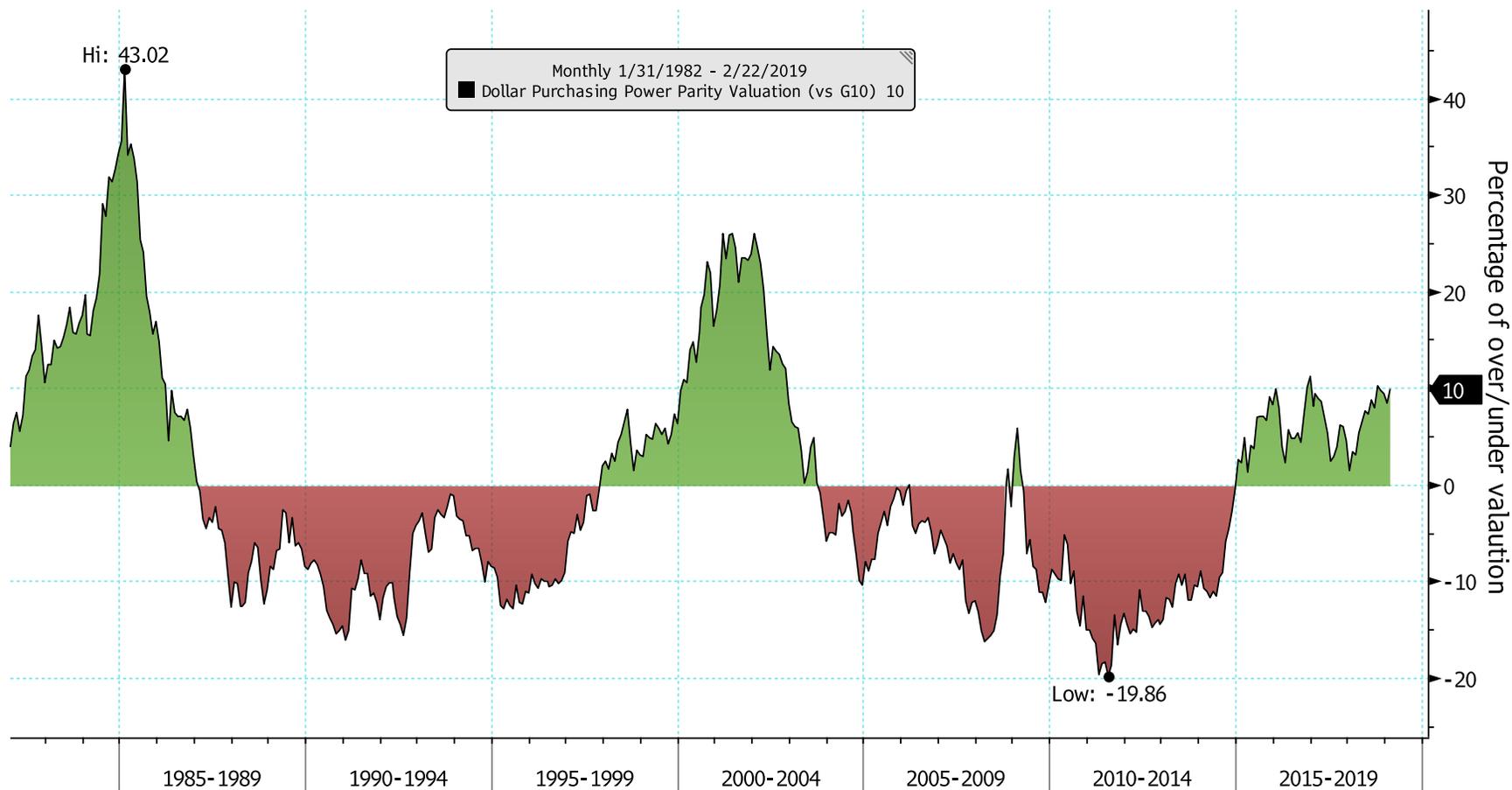


Source: Bloomberg, © Merk Investments LLC

Analysis: The broad dollar index has been in a multi-year uptrend. Framework: A widely observed feature of currency markets is that many exchange rates trend on a multi-year basis. The segmentation of currency market participants, with some responding quickly to changing fundamentals and others responding more slowly, may be one reason why trends emerge and sustain momentum. In my view FX markets tend to be mean-reverting in the short term (days to weeks), trending in the medium term (months to years), and mean-reverting in the long term (decades).

Purchasing Power Parity Valuation

Relative Purchasing Power Parity (PPP) based on Consumer Price Indexes

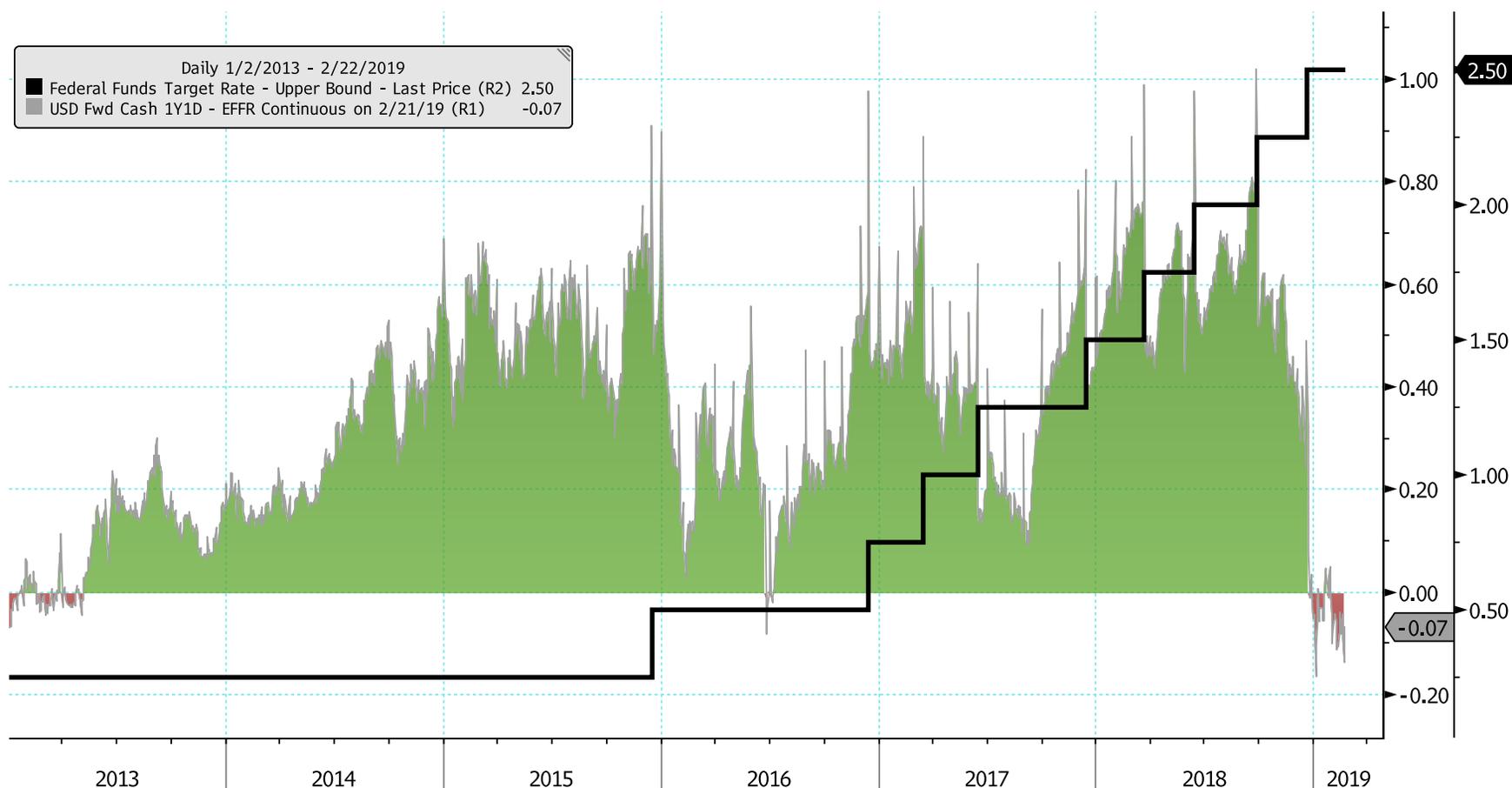


Source: Bloomberg, © Merk Investments LLC

Analysis: The U.S. dollar is currently modestly overvalued based on relative PPP. Framework: Nominal exchange rates tend to gravitate toward their long-run purchasing power parity (PPP) equilibrium values. The foundation for PPP is the so-called “law of one price,” which suggests that identical goods should trade at the same price across countries when valued in terms of a common currency. Relative PPP extends the law of one price to a broad range of goods and services and takes into account trade impediments.

What's Priced In

Market-based measure of the expected basis point change in the central bank benchmark rate over the coming one year period

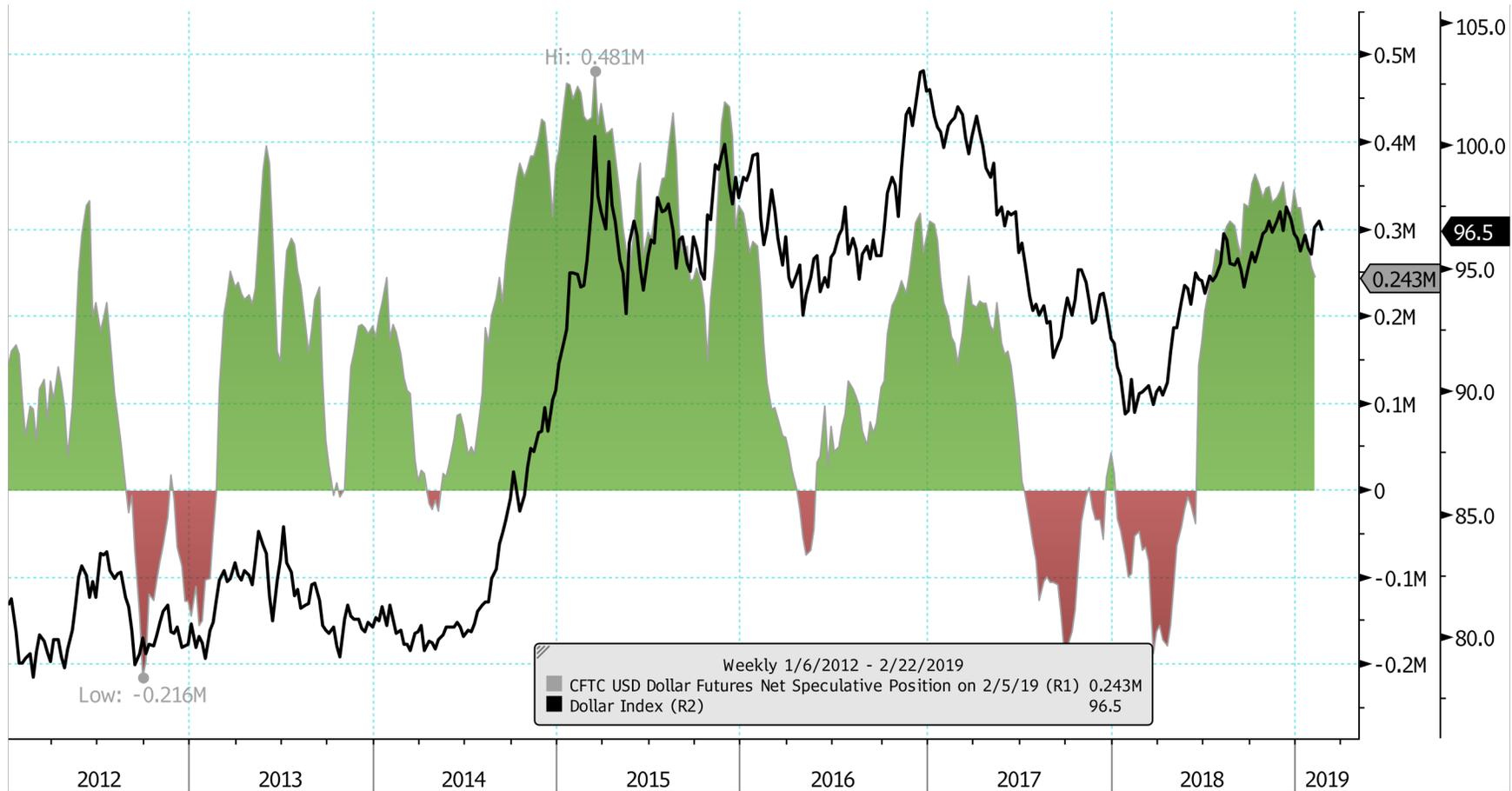


Source: Bloomberg, © Merk Investments LLC

Analysis: The market is suggesting that the next move from the Federal Reserve is more likely to be a rate cut than a rate hike, but with a low probability of occurring within the next 12 months. Framework: Central banks play a key role in currency markets as their monetary policy directly affects interest rates and interest rate differentials. This chart provides a picture of market based expectations regarding central bank rate hikes or rate cuts, and allows market participants to compare their own views to what's priced in.

CFTC Speculative Positioning

The Net Position (number of futures contracts) of Non-Commercial Market Participants



Source: Bloomberg, © Merk Investments LLC

Analysis: Speculators are currently net long U.S. dollar futures, based on the most recent CFTC Commitment of Traders report. Framework: In my view this chart should be looked at from a contrarian perspective: speculators in futures markets tend to use leverage and stop-loss orders and their positions may imply impending order flow in the opposite direction. Positioning data tends to be most relevant when it is at multi-year highs or lows.

Disclosure

This report was prepared by Merk Investments LLC, and reflects the current opinion of the authors. It is based upon sources and data believed to be accurate and reliable. Merk Investments LLC makes no representation regarding the advisability of investing in the products herein. Opinions and forward-looking statements expressed are subject to change without notice. This information does not constitute investment advice and is not intended as an endorsement of any specific investment. The information contained herein is general in nature and is provided solely for educational and informational purposes. The information provided does not constitute legal, financial or tax advice. You should obtain advice specific to your circumstances from your own legal, financial and tax advisors. Past performance is no guarantee of future results.

* * *

Explicit permission must be obtained from Merk Investments LLC in order to replicate, copy, distribute or quote from this document or any portion thereof.

Published by Merk Investments LLC

© 2019 Merk Investments LLC