

## U.S. DOLLAR FORECAST

# The path of the U.S. dollar: Looking forward by looking back

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## IN BRIEF

The U.S. dollar (USD) exchange rate is a critical variable shaping long-term asset returns. Presently, the currency is overvalued in real terms, which is likely unsustainable in the long run. We expect the dollar to be pushed gradually lower over our Long-Term Capital Market Assumptions forecast period by:

- a large U.S. current account deficit
- narrowing interest rate and real economic growth differentials between the U.S. and its major trading partners, resulting in relative capital flows supportive of non-dollar currencies
- the U.S.'s gradual abandonment of its several-decades old "strong dollar policy"

## INTRODUCTION

One critical variable shaping long-term global financial asset returns is the exchange rate of the U.S. dollar. This is, of course, obvious for U.S. residents investing abroad and for foreign investors in U.S. assets, but beyond the currency-hedging implications, it is also an important driver of U.S. inflation and interest rates and has a powerful impact on global commodity prices.

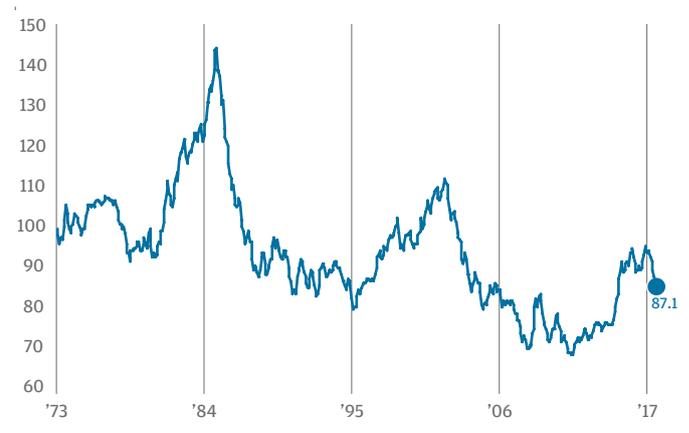
But what fundamentally drives the U.S. dollar? Three broad forces: Classical economic theory highlights the importance of **balance of payment flows** and suggests that, in the long run, purchasing power parity and current account balances should drive the currency. A more monetarist view focuses on **financial flows**: A country that attracts foreign capital through higher interest rates or higher expected returns on investments should, in theory, generally see an appreciation of its currency over time. In addition, bouts of active **policy intervention** to manipulate exchange rates have been overlaid on this markets-based framework by both governments and central banks, either individually or in coordination.

In our Long-Term Capital Market Assumptions, we take a long look forward at how key economic variables and financial markets may evolve over the next 10 to 15 years. When attempting this for the U.S. dollar, we start by looking at how these three broad forces have shaped the path of the dollar in recent decades, then we look at how these forces may evolve in the future and why we believe they justify projecting a generally declining dollar over our forecast period.

Examining 45 years of twists and turns in the dollar allows us to explain chronologically the broad forces that have shaped its path. Looking at the nominal major currency index for the U.S. dollar from January 1973 to September 2017 (**Exhibit 1**), we see how extreme and long-lasting currency regimes can be.<sup>1</sup>

### A visual history of the modern U.S. dollar

**EXHIBIT 1: NOMINAL MAJOR CURRENCY TRADE-WEIGHTED EXCHANGE RATE, U.S. DOLLAR, MONTHLY, INDEXED**



Source: Federal Reserve, FactSet, J.P. Morgan Asset Management; data as of September 30, 2017.

### Trade and the dollar: The aftermath of Bretton Woods

Under the Bretton Woods agreement, signed in 1944, a global monetary management system was installed for the first time in history: Signatory countries pledged to peg their respective currencies to gold, while the U.S. government guaranteed a fixed rate conversion of gold to U.S. dollars—\$35 per ounce—effectively maintaining an exchange rate across the developed world.<sup>2</sup> This was not a pure gold standard, which would have constrained global money supply growth to the very slow growth in the gold stock. Still, the guarantee of convertibility at the heart of the Bretton Woods framework became increasingly untenable in the 1960s, as nominal GDP growth, and consequently the money supply, far outstripped the growth in the global gold stock.

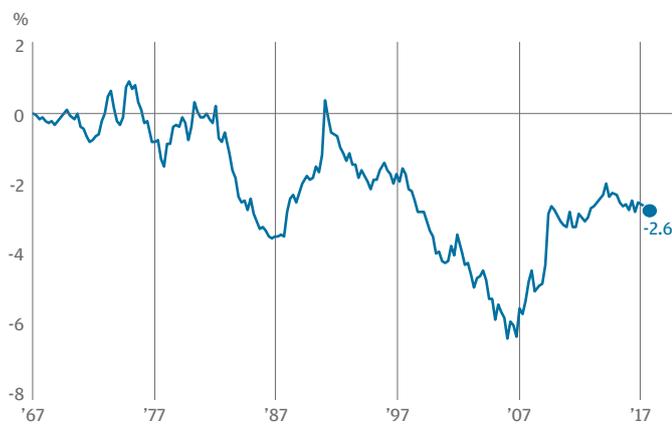
After the U.S. and other countries abandoned direct convertibility in the early 1970s, the U.S. dollar became a floating currency. At first, in the otherwise tumultuous early 1970s, the U.S. dollar exchange rate was relatively stable against major U.S. trading partners. Later in the decade, however, the U.S. dollar began to drift downward. This move largely reflected the traditional and predictable impact of balance of payment flows: In a decade of very high inflation throughout the developed world, U.S. inflation managed to be worse, on net, with the effect of gradually shifting the U.S. from maintaining a current account surplus to a current account deficit (**Exhibit 2**). This current account deficit, in turn, increased the international supply of dollars, putting downward pressure on the exchange rate as dollar supply ballooned.

<sup>1</sup> The Federal Reserve's major currency index is a geometrically weighted average of the U.S. dollar's bilateral exchange rates with seven currencies: the euro (and its predecessors), the Canadian dollar, the Japanese yen, the British pound, the Swiss franc, the Australian dollar and the Swedish krona. The weights are based on exports, imports and third-country trade for each currency region. See "Indexes of the foreign exchange value of the dollar," Federal Reserve Bulletin (Winter 2005), [https://www.federalreserve.gov/pubs/bulletin/2005/winter05\\_index.pdf](https://www.federalreserve.gov/pubs/bulletin/2005/winter05_index.pdf)

<sup>2</sup> Signatory countries included the U.S., Canada, Australia, Japan and Western Europe (Germany, France, the UK, Italy, Spain, the Netherlands, Belgium, Switzerland, Greece, Denmark, Finland and Norway).

## The U.S. maintains a substantial current account deficit

**EXHIBIT 2: U.S. CURRENT ACCOUNT BALANCE AS A % OF NOMINAL GDP, QUARTERLY SAAR**



Source: U.S. Bureau of Economic Analysis, FactSet, J.P. Morgan Asset Management; data as of September 30, 2017.

## Financial flows and the U.S. dollar: The early 1980s

The U.S. recessions of the early 1980s were “stagflationary,” characterized by simultaneously high inflation and high unemployment. To combat the inflation component, which had been unacceptably high for over a decade, the Federal Reserve (Fed) under then-chairman Paul Volcker implemented a very tight monetary policy, boosting nominal U.S. interest rates to extreme highs. In addition, tax cuts and increased defense spending introduced by the Reagan administration early in the decade added to the federal deficit but also helped pull the U.S. out of recession, eventually leading to outsized economic growth.

Extremely high U.S. interest rates attracted global investment into U.S. bonds, while the promise of stronger economic growth fueled international flows into U.S. equities and real estate. The net result was that, although the U.S. still had a significant current account deficit in the early 1980s, the dollar began to appreciate drastically, rising 55% from July 1980 to March 1985.

In retrospect, this appreciation seems wildly overdone. The U.S. was far from the only attractive opportunity for global investors in the 1980s, and because of the lagged effect of the exchange rate on current account economics, the U.S. dollar peaking in 1985 would very likely have led to a much bigger trade deficit in the years that followed, pushing the currency back down. However, investors had become irrationally convinced that the U.S. dollar was a one-way bet, contributing to a speculative spike in the exchange rate.

## Policy intervention and the dollar: The 1985 Plaza Accord

The Reagan administration initially regarded the rising dollar of the early 1980s as a benign reflection of greater confidence in the American economy. This sentiment was reversed, however, after President Ronald Reagan’s re-election in 1984. James Baker, the new Treasury secretary, signaled that the Treasury would need to re-examine its previous policy of non-intervention in exchange rates to address growing U.S. concern about a rising dollar. This re-examination led to the 1985 Plaza Accord, in which, at New York’s Plaza Hotel, the G5 nations (the U.S., Japan, West Germany, France and the UK) agreed to intervene jointly to push the dollar down. While the central banks’ actual currency transactions were relatively modest, the joint nature of their actions sent markets a powerful signal. The dollar had already declined from its peak, reached six months before the accord was signed as the coming policy changes were being signaled. It fell more sharply following the September 22 statement, retreating 39% by April 1988.

Over the years, many economists have doubted the impact of central bank interventions on foreign currencies, particularly if the actions are “sterilized”—that is, if foreign currency transactions are offset domestically to prevent any impact on the domestic money supply. However, the Plaza Accord experience suggests the opposite: When a market is dangerously caught up in rampant speculation and momentum, central bank messages can be very effective, provided they are trying to push the currency in an economically logical direction and the policy’s purpose is clearly signaled to markets.

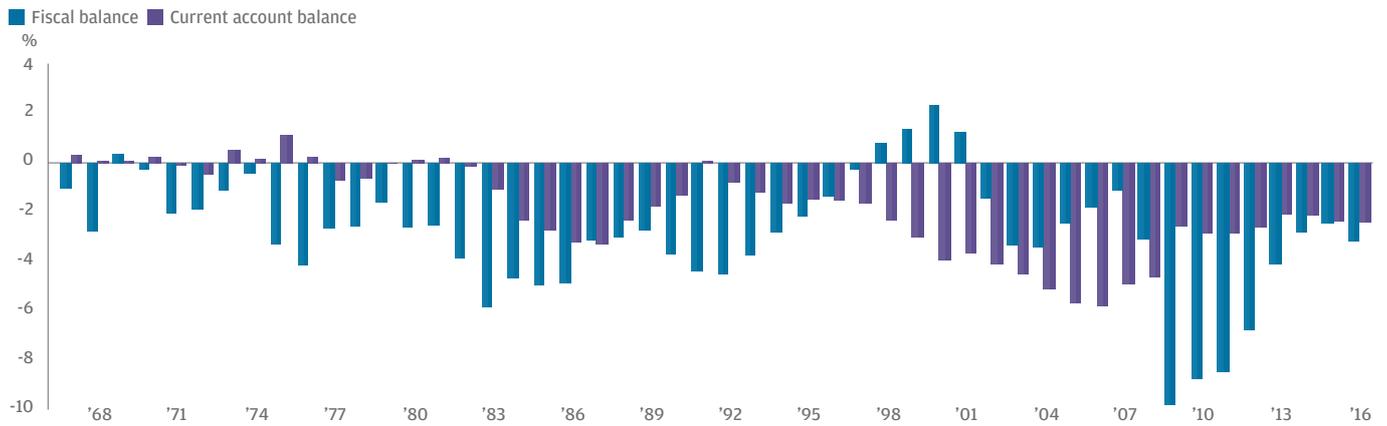
## Financial flows and a “strong dollar policy”: The 1990s U.S. dollar revival

By early 1987, a severely depreciated dollar following the Plaza Accord had not resulted in a contraction of the U.S. current account deficit, nor had Japan or Germany seen their current account surpluses decline. Economists opined that a falling dollar hadn’t fixed the U.S. current account deficit due to a large U.S. budget deficit—America was consuming more than it was producing because the government was spending in excess of its revenues. This was frequently referred to as the “twin deficit” problem (**Exhibit 3**).

With the benefit of hindsight, we can see that critics should perhaps have been a little more patient—exchange rates impact the current account balance with a lag, and the U.S. current account deficit did improve in the late 1980s, even as the fiscal deficit worsened. Nevertheless, fiscal mismanagement has

## The U.S. has faced a “twin deficit” problem

**EXHIBIT 3: U.S. CURRENT ACCOUNT BALANCE AND U.S. FISCAL BALANCE AS A % OF NOMINAL GDP, ANNUAL**



Source: U.S. Bureau of Economic Analysis, Congressional Budget Office, FactSet, J.P. Morgan Asset Management; data as of September 30, 2017.

always been a popular scapegoat, particularly for global finance ministers and financial institutions. Consequently, in February 1987 with the Louvre Accord, six nations (the G5 signatories of the Plaza Accord plus Canada) agreed to a trading range for the U.S. dollar<sup>3</sup> to try to stop its thus-far relentless slide. The accord also prescribed a reduced federal deficit for the U.S. and urged Japan and Germany to take measures to reduce their current account surpluses.

There was little reason to believe that the Louvre Accord would be fruitful; indeed, the agreement did nothing to prevent the dollar from falling a further 12% over the next 14 months. More significantly, the October 1987 stock market crash was widely blamed on distortions caused by the earlier Plaza Accord, casting coordinated central bank intervention in currency markets as a chaotic and negative force. This change of sentiment toward intervention is critical in explaining the dollar's trajectory since the late 1980s: Without a popular desire for intervention, the U.S. would tolerate a highly over-valued currency for long periods over the next 30 years.

From the failure of the Louvre Accord until the mid-1990s, the U.S. dollar remained relatively range-bound, and by 1991 the U.S. had managed to post a small current account surplus for the first time in a decade. This would be short-lived. In the late 1990s, the dollar began to rise more quickly. The economy started to boom as technology investment spending surged and the Clinton administration, determined to avoid being labeled too “liberal” on financial issues and willing to use a rising current account deficit as a safety valve to defuse concerns about an overheating economy, maintained the policy position that “a strong dollar is in the interest of the

United States.”<sup>4</sup> This strong dollar policy, alongside booming economic growth and, eventually, higher U.S. interest rates, combined to push the dollar up 40% between April 1995 and February 2002. This, in turn, contributed to a rising current account deficit, which reached almost 6% of GDP in 2006.

This high dollar, which had clearly broken away from the anchors of economic fundamentals, finally began to retreat in the mid-2000s, but not before dealing a severe blow to the international competitiveness of most of the U.S. manufacturing sector, a problem that still resonates today.

By March 2008, the dollar had fallen back to levels that might, in time, have brought the current account deficit close to equilibrium. However, the unfolding subprime mortgage crisis increased fears in global markets and—somewhat perversely, since the crisis was centered in the U.S.—caused a global flight to safety, boosting demand for U.S. Treasuries and, in turn, for the U.S. dollar. This “fear trade” reversed soon after the stock market troughed in March 2009, but re-emerged in 2011 with the eurozone crisis, again nudging the dollar higher.

The dollar was bid up further in 2014 and 2015, prompted by the perception that the U.S. was once again outpacing its trading partners in growth and by the expectation that the Fed would soon boost interest rates. Finally, in 2016 and up to the present, the importance of expectations was again underlined as a strengthening global economy, and a lack of confidence in Fed resolve, pushed the dollar sideways and then down—even as the Fed began to implement the tightening that it had long threatened. A brief spike in the dollar following the U.S. presidential election, predicated on rhetoric heralding U.S. economic growth, dissolved as the

<sup>3</sup> Jeffrey Frankel, “The Plaza Accord, 30 years later,” NBER Working Paper 21813 (December 2015). <http://www.nber.org/papers/w21813>

<sup>4</sup> David E. Sanger, “Rubin hints at end to long U.S. push of strong dollar,” *New York Times* (February 1997). <http://www.nytimes.com/1997/02/08/business/rubin-hints-at-end-to-long-us-push-of-strong-dollar.html>

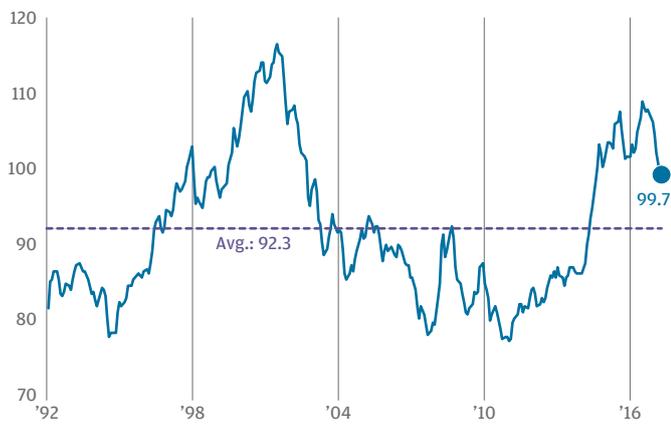
promised policy change failed to materialize and efforts got underway to reduce U.S. trade imbalances, resulting in a 2017 that has thus far brought the dollar closer to fair value.

### The dollar going forward

So where will these forces likely drive the dollar? At present, the dollar is modestly ahead of historical long-term real valuations, and about 10% above our ex ante estimate of fair value (Exhibit 4). It has moved higher as a result of the global economic crisis and tolerant U.S. policy. This overvaluation is likely unsustainable in the long run.

### The U.S. dollar is currently modestly overvalued relative to history

**EXHIBIT 4: REAL MAJOR CURRENCY TRADE-WEIGHTED EXCHANGE RATE, U.S. DOLLAR, MONTHLY, INDEXED**



Source: Federal Reserve, FactSet, J.P. Morgan Asset Management; data as of September 30, 2017.

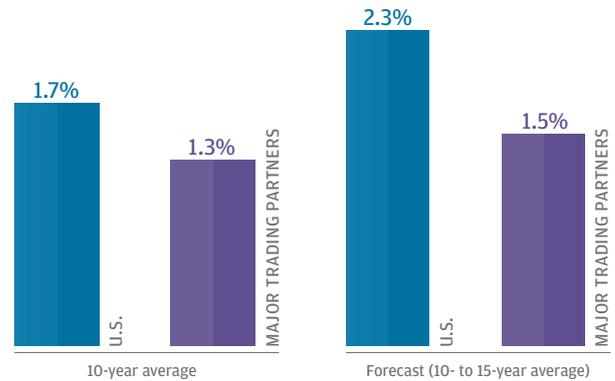
First, **balance of payment flows** should generally push the dollar down. In the second quarter of 2017, the U.S. current account deficit was 2.6% of GDP, or roughly \$500 billion annualized. This is gradually pumping dollars into the world economy and should, by creating an oversupply, push the dollar lower.

Inflation differentials should also reduce the nominal value of the dollar. In our Long-Term Capital Market Assumptions, we assume that U.S. inflation will exceed that of most of its major trading partners<sup>5</sup> by about 0.7% per year (Exhibit 5).

<sup>5</sup> Major trading partners are defined as the countries/regions included in the Federal Reserve's major currency index: Canada, Australia, Switzerland, Sweden, Japan, the UK and the eurozone. Aggregate figures are calculated taking the given metric (i.e., inflation) and weighting it by trade weights as provided by the U.S. Bureau of Industry and Security. Current figures are as of September 2017. This methodology is used throughout this paper whenever "trade-weighted major trading partners" is referenced.

### Future U.S. inflation should exceed that of most major trading partners

**EXHIBIT 5: U.S. HEADLINE CPI Y/Y CHANGE VS. TRADE-WEIGHTED HEADLINE CPI Y/Y CHANGE OF MAJOR TRADING PARTNERS**



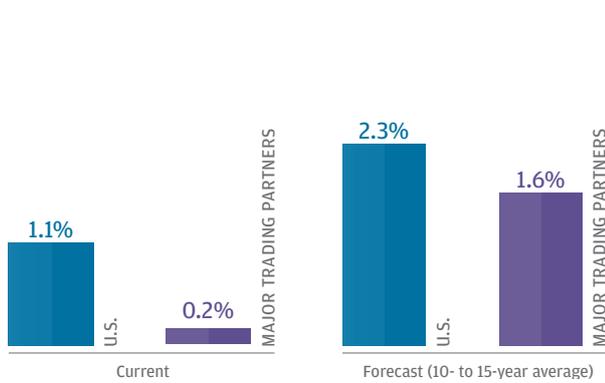
Source: U.S. Bureau of Labor Statistics, Statistics Canada, Melbourne Institute, Swiss Federal Statistical Office, SCB—Statistics Sweden, Japan Ministry of Affairs & Communications, UK Office for National Statistics, Eurostat, FactSet, U.S. Bureau of Industry and Security, J.P. Morgan Investment Bank, J.P. Morgan Asset Management; 10-year average major trading partners data include J.P. Morgan estimates for Canada and Japan September headline inflation; data as of September 30, 2017. Forecasts based on 2018 Long-Term Capital Market Assumptions data.

Second, **financial flows** should also generally push the dollar down. As of September 2017, both long-term and short-term interest rates are higher in the U.S. than in most of its major trading partners. To some extent, this simply reflects that the U.S. is further along in its economic expansion than its trading partners, although we expect U.S. rates will continue to be relatively higher in the decade ahead (Exhibits 6 and 7). That said, we are likely beyond the peak of central bank policy divergence and, as such, short-term yield differentials are likely to narrow, providing less support for the dollar compared with the present. Our forecasts show a modest widening of the gap in nominal long-term bond yields, but because of faster rising U.S. inflation, the gap in real long-term bond yields should narrow, putting further downward pressure on the dollar.

Additionally, the real economic growth differential between the U.S. and its developed market trading partners should narrow over the next 10 to 15 years (Exhibit 8) and, given more compelling relative valuations, we expect international equities to provide generally better returns than U.S. equities over that time horizon. The resulting relative capital flows should provide support for non-dollar currencies. An improvement in European institutional infrastructure in recent years should also have a similar impact on the euro-dollar relative value; in the years ahead, we will likely see at least a partial reversal of the outflows from Europe that occurred during the eurozone crisis (Exhibit 9).

The short-term interest rate gap between the U.S. and its major trading partners should narrow moving forward

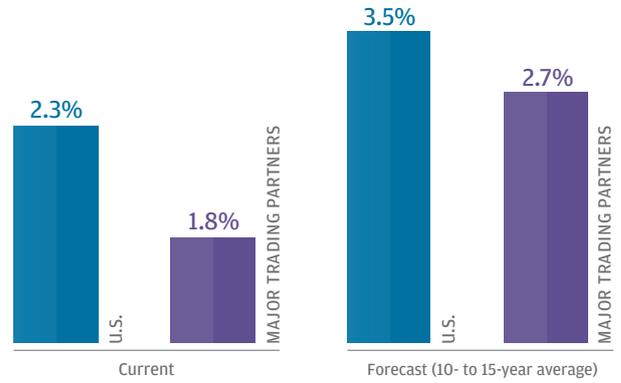
EXHIBIT 6: U.S. 3-MONTH BENCHMARK BILL YIELD VS. U.S. 3-MONTH BENCHMARK BILL YIELD OF MAJOR TRADING PARTNERS



Source: Tullett Prebon, Statistics Canada, Australian Financial Markets Association, Bank of Sweden, ICE Benchmark Administration, FactSet, U.S. Bureau of Industry and Security, J.P. Morgan Asset Management; data as of September 30, 2017. Forecasts based on 2018 Long-Term Capital Market Assumptions data.

The 10-year interest rate gap between the U.S. and its major trading partners should widen modestly

EXHIBIT 7: U.S. 10-YEAR BENCHMARK BOND YIELD VS. 10-YEAR YIELD OF MAJOR TRADING PARTNERS



Source: Tullett Prebon, FactSet, U.S. Bureau of Industry and Security, JPMorgan Chase & Co., J.P. Morgan Asset Management; data as of September 30, 2017. Forecasts based on 2018 Long-Term Capital Market Assumptions data.

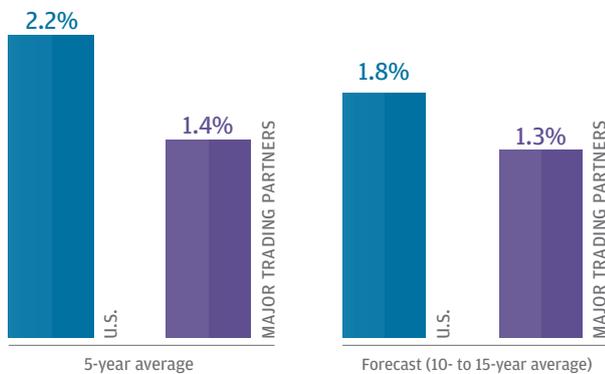
Third, **policy intervention** may push the dollar down in the years ahead. For the last 30 years, under both Republican and Democratic administrations, the U.S. has generally pursued a so-called “strong dollar policy,” despite its negative impact on U.S. manufacturing. However, the presidential election of 2016 may mark a turning point in U.S. trade policy: The Trump administration is more explicitly protectionist than any of its recent predecessors. Moreover, while this protectionism has often been manifested specifically in calls for tariffs or “border adjustments,” a more general stance of encouraging a weaker dollar may yet prove more palatable at home and harder to oppose around the world. While the best example of

such a policy is now more than 30 years old, history suggests that a determined and visible attempt by the U.S. to depreciate an overvalued dollar can work.

From the dollar’s presently overvalued state, it is reasonable to assume that the currency should follow a path laid out by fundamental forces. Together, these forces—including the U.S.’s significant current account imbalance, a convergence in global interest rates and economic growth rates and the gradual abandonment of the U.S.’s strong dollar policy—underlie our assumption of a gradual decline in the U.S. dollar exchange rate over the next 10 to 15 years.

The economic growth gap between the U.S. and its major trading partners should narrow

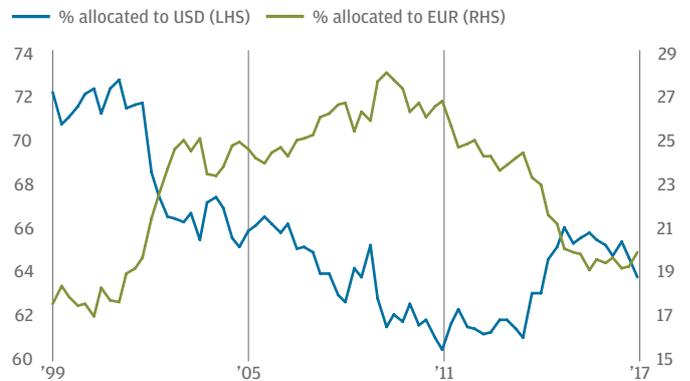
EXHIBIT 8: REAL U.S. GDP GROWTH VS. TRADE-WEIGHTED REAL GDP GROWTH OF MAJOR TRADING PARTNERS, SAAR



Source: U.S. Bureau of Economic Analysis, Statistics Canada, Australian Bureau of Statistics, Swiss State Secretariat for Economic Affairs, SCB—Statistics Sweden, Japanese Cabinet Office, UK Office for National Statistics, Eurostat, FactSet, U.S. Bureau of Industry and Security, J.P. Morgan Asset Management; data as of September 30, 2017. Forecasts based on 2018 Long-Term Capital Market Assumptions data.

The euro has lost status against the dollar as a reserve currency, but this should change

EXHIBIT 9: % OF GLOBAL RESERVES ALLOCATED TO THE EURO AND U.S. DOLLAR



Source: International Monetary Fund, FactSet, J.P. Morgan Asset Management; data as of September 30, 2017.

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