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U.S. MARKET COMMENTARY

U.S. Dollar: The Cyclical Versus the Secular

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Cyclical factors appear to be dollar supportive against other major developed markets currencies, while secular fundamentals argue for continued U.S. dollar weakness against emerging markets currencies.

The change in sentiment has been palpable. The steady slide in the U.S. dollar over 2009 saw the financial press full of stories proclaiming the demise of the greenback and the growing threat that the dollar's decline would soon turn into a rout. Chinese university students perhaps best captured the zeitgeist when they snickered as U.S. Treasury Secretary Timothy Geithner in June 2009 tried to reassure his audience that China's holdings of U.S. assets were "safe." Yet, despite the angst (or perhaps because of it), 2010 has begun with the U.S. dollar ascendant and the euro and the U.K. pound in full retreat, both falling roughly 10% against the dollar since late November 2009.

What should investors make of this apparent reversal? In assessing the current environment, we continue to view the U.S. dollar through the lens of cyclical movements amid secular decline, as the U.S. dollar transitions from *the* global reserve currency to *a* reserve currency among others.[1] Going forward, cyclical factors appear to be dollar supportive against other G10 (developed markets) currencies, while secular fundamentals argue for continued US$ weakness against emerging markets currencies.

Although we are constructive on the U.S. dollar in 2010 versus developed markets currencies, it is hard to see a renewed multiyear rally in the U.S. dollar without a serious commitment to monetary and fiscal tightening. Finally, while we do not see a "dollar crisis" unfolding in the near term, there is a higher probability of such a crisis unfolding in the coming decades as the fiscal position of the U.S. government continues to deteriorate. However, the United States is not alone in facing such risks among the developed economies.

[1] Please see our October 2007 Market Commentary *Does the "Buck" Stop Here?*

Recent Moves in Context

Given the sharp shifts in dollar sentiment and direction over the past few years, the recent moves in the greenback need to be put into context. Specifically, we view the 2009 decline in the U.S. dollar as largely a natural unwinding of the panic-driven, "flight-to-safety" run-up in the U.S. dollar over late 2008/early 2009. As such, US$ weakness last year mirrored the decline in investor risk aversion, rather than reflecting inflation or "currency debasement" worries, as was often bandied about in the press.

Exhibit 1 plots the course of the nominal trade-weighted value of the U.S. dollar versus the major developed currencies since 1973, as well as a series of momentum measures.[2] As can be seen,

[2] The U.S. Federal Reserve (Fed) calculates nominal and real (inflation-adjusted) trade-weighted indices of the U.S. dollar to measure overall movements in the currency. The Broad Index consists of the currencies of the 26 largest U.S. trading partners. The "Major" and the Other Important Trading Partners (OITP) indices are subsets of the Broad Index. The Major Index includes seven of the most traded international currencies including the euro and the currencies of Australia, Canada, Japan, Sweden, Switzerland, and the United Kingdom. The OITP Index consists of 19 currencies of mostly emerging markets economies, including those of Argentina, Brazil, Chile, China, Colombia, Hong Kong, India, Indonesia, Israel, Korea, Malaysia, Mexico, the Philippines, Russia,

the rally in the U.S. dollar amid the financial crisis of 2008 was extreme, if not unprecedented.

This powerful rally had its genesis in the summer of 2008, when it became apparent that slowing growth outside the United States would see global central banks join the Fed in aggressively cutting policy rates. The freezing of credit markets in the wake of Lehman Brothers' collapse triggered a mad dash for the liquidity of the U.S. Treasury market, prompting a dramatic rise in the U.S. dollar as non-dollar assets were dumped to meet margin calls and/or payments on US$-denominated debt. The irony is that despite the global credit crisis originating in dubious U.S. credit instruments, the U.S. dollar clearly retained its safe haven status among investors.

This safe haven buying of the U.S. dollar remained in place until early March 2009, when financial markets began stabilizing as policymakers made it clear that they were willing to do everything in their power (and then some!) to backstop the global financial system. Indeed, it is no coincidence that the initial weakness in the U.S. dollar coincided with the start of "quantitative easing" by the Fed.

The rapid expansion of the Fed's balance sheet to make direct purchases of toxic credit securities and U.S. Treasury bonds certainly triggered howls of protest and growing angst about future inflation; historically, the monetizing of government debt has been the road to perdition for a currency. However, by providing massive liquidity injections to unfreeze the credit markets, the Fed helped alleviate the global "dollar squeeze" and thus the liquidity-driven buying of the U.S. dollar.

This shift from risk aversion to risk taking can be seen in the record negative correlation that has developed between the U.S. dollar and risk assets. In other words, for much of the past year or so, the U.S. dollar has functioned as a risk barometer, rising whenever financial markets stumble and falling amid market rebounds. Indeed, since late 2008, the U.S. dollar has exhibited a stronger negative correlation to U.S. equities and commodities than to the price of gold, which historically has been the asset with the strongest inverse relationship to the U.S. dollar. This alone highlights how the fall in the U.S. dollar and rise in the price of gold was less symptomatic of inflation concerns than some commentators suggest (Exhibit 2).

The Fed's attempt to keep short-term interest rates anchored near zero also augmented the negative relationship between market risk and the U.S. dollar. This policy effectively made the U.S. dollar the most cost-effective currency to short (i.e., had the lowest borrowing cost), thereby incentivizing currency speculators to trade the falling dollar theme. Thus, the U.S. dollar replaced the Japanese yen as the preferred funding currency for "carry trades."

However, by early November 2009, being short the U.S. dollar has become a crowded trade, while the 15% trade-weighted decline in the greenback since March 2009 had reversed much of the U.S. dollar's previous run-up, leaving it very oversold on a technical basis and primed for a rally.

From this vantage point, the market scare in late November over debt defaults in Dubai provided the perfect catalyst for a year-end US$ rally. Indeed, the U.S. dollar remained strong in December despite fading concerns over Dubai and a resumed rally in global equities—a rare break from the year-long negative correlation. December's bounce, therefore, partly reflected short covering as speculative positions were reined in after a profitable year, with futures

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Saudi Arabia, Singapore, Taiwan, Thailand, and Venezuela (Exhibit 8).

positions shifting from net-short to net-long over the month (Exhibit 3).

While the December rally may have been technical in nature, the U.S. dollar's strength in early 2010 is more clearly driven by renewed risk aversion. Attempts by China to rein in its credit boom, as well as soft economic data emanating from the major developed economies, shook investor confidence in the global recovery and produced a sell-off in global equities. Meanwhile, the U.S. dollar has benefited from a sharp reversal in the euro as renewed focused on the sovereign credit risks of smaller Eurozone members (especially Greece) weighed on the U.S. dollar's chief rival.[3]

The Cyclical: From Economic Convergence to Divergence

While any near-term forecasts of currency movements are little better than guessing, we generally see the market environment as US$ supportive, albeit with some caveats.

First, from a technical standpoint, the U.S. dollar does not seem vulnerable to a sharp reversal. Mean reversion has yet to run its full course, with the U.S. dollar neither overbought nor speculators excessively net long, arguing that continued US$ strength is possible. Furthermore, the fact that the trade-weighted U.S. dollar did not break to new lows in 2009, remaining 9% above its 2008 trough, is a sign of market support.

Turning to fundamentals, we view the key driver of foreign exchange markets in 2010 as the degree to which economic growth, and thereby interest rates, begins to diverge across markets. One of the remarkable aspects of the credit crisis is how rapidly it brought the world economy to a halt. This synchronized global downturn resulted in perhaps the first truly synchronized global monetary easing. Exhibit 4 highlights the convergence in short-term interest rates. Currently, there is little differentiation between the major currencies in terms of yield, with U.S. rates having even fallen below those available in Japan.

This has left the U.S. dollar trapped in a sort of financial limbo. Currently, the foreign exchange forward market is pricing the U.S. dollar to remain flat against the euro, pound, and yen over the next 12 months, as interest rate futures continue to price in extremely narrow rate differentials. However, any asynchronous recovery among the major economies should result in divergent monetary policies. Thus, one's near-term view on the dollar is dependent on how the economic recovery progresses.

For instance, there seems to be a growing consensus that the U.S. economy will continue to strengthen over 2010 and that the Fed will begin raising policy rates in the second half of the year. Should this occur while growth in Europe and Japan remains weak (as implied by current GDP forecasts), the U.S. dollar should strengthen as markets begin to price in higher relative interest rates.

Furthermore, the Fed has stated its intention to begin draining excess liquidity from the financial system at the end of March as it winds down its quantitative easing program and considers implementing a series of unconventional policy tools to normalize monetary conditions, in addition to potentially raising policy rates.[4] At the same time, it is unclear whether other central banks will be able to follow suit. Indeed, the Bank of Japan has announced plans to increase its

[3] Please see our February 2010 Market Commentary *A Note on the Greek Drama.*

[4] For instance, the Fed hiked the discount rate in early March 2010 and discussed paying interest on bank reserves and engaging in reverse repurchase agreements as ways to drain excess liquidity from the banking system.

quantitative easing program, while the Bank of England has released dovish statements acknowledging its right to extend quantitative easing should financial conditions warrant. The European Central Bank (ECB), meanwhile, has also announced plans to begin a gradual reduction in its emergency lending facilities in April, although it has stressed this does not signal an imminent rise in policy rates.

In this light, the recent weakness in the euro in response to the situation in Greece had less to do with fears of a breakup of the Eurozone and more with a repricing of the growth/monetary policy outlook given that increasing stress in peripheral Europe makes it less likely that the ECB will be able to quickly withdraw liquidity or hike interest rates.

While the March monetary policy statement from the Fed reiterated its intention to keep policy rates low "for an extended period," should the Fed follow through on its intention to withdraw liquidity via other channels, this should prove US$ supportive even absent a traditional interest rate hike. At a minimum, it implies there are fewer dollars being created. In addition, such measures should help widen the differential between U.S. and Japanese interest rates, thereby helping to remove the dubious distinction of the U.S. dollar being the lowest-yielding currency.

It is also worth noting the cyclical improvement in the U.S. current account deficit—a development overlooked for most of 2009. The deficit has effectively halved, falling from over 6% of GDP in 2006 to 2.9% in fourth quarter 2009—its lowest level since 1998—driven primarily by slowing imports relative to exports. A shrinking current account deficit reduces pressure on the U.S. dollar to attract additional capital flows. While dollar bears argue that any pickup in the U.S. economy will see imports rise and the current account deficit widen, it is hard to see the deficit ballooning back to the levels witnessed over the housing boom, given the still-hamstrung state of the U.S. consumer (Exhibit 5).

There is, of course, a counterargument. A continuation of US$ weakness would be expected if the Fed is forced to keep interest rates "lower for longer" than the markets currently expect, particularly if growth surprises to the upside elsewhere.

Goldman Sachs retains a negative outlook for the U.S. dollar based on its forecasts of a U.S. slowdown in the second half of 2010 as the boost from stimulus measures fades. The weak growth picture will effectively keep the Fed on hold until the end of 2011. At the same time, Goldman Sachs expects the ECB to begin hiking policy rates by the end of 2010 in response to a stronger-than-expected economic rebound in the Eurozone, while Japanese growth is buoyed by the recovery in Asia.

In other words, if the global recovery picks up speed, but the United States lags behind or the Fed simply chooses to remain "behind the curve," the U.S. dollar should resume its downward slide. This could be the case should the U.S. economy turn up, while unemployment remains stubbornly high.

However, we are not dogmatic on the U.S. growth outlook. There are clear economic risks to both the downside and upside for the U.S. economy, and we find it hard to argue that prospects are better for the Eurozone, Japan, and the United Kingdom. We are constructive on the U.S. dollar partly because we expect increased macroeconomic uncertainty as policymakers around the world are forced to strike a delicate balance between growth and inflation risks. Such uncertainty should keep market volatility elevated, and therefore be supportive of the U.S. dollar.

As a result, we expect the U.S. dollar to rally amid any "growth scare" that takes place in 2010, either due to global economic growth disappointing expectations or fears that strong growth will result in too rapid a withdrawal of stimulus and monetary tightening, stunting the global recovery. Any signs of China wobbling would be negative for emerging markets/commodity-linked currencies, and risk assets in general, and therefore positive for the U.S. dollar.

A Question of Valuation

Another fundamental support for the U.S. dollar is valuation. Exhibit 6 shows various estimates of valuation for six developed markets currencies against the U.S. dollar, based on both purchasing power parity (PPP)[5] and the more sophisticated econometric fair value models employed by major investment banks.[6] Even after the recent US$ rally, every developed currency—save the pound—appears overvalued against the U.S. dollar.

This is in contrast to February 2009, when developed currencies were much more in line, if not cheap, versus the U.S. dollar on a PPP basis, while every developed currency—save the yen—appeared undervalued against the U.S. dollar based on econometric fair value.

Although valuation arguably has little impact on near-term movements, it does signal the vulnerability of a currency to unexpected shifts in fundamentals or sentiment. The euro provides an instructive illustration. By November 2009, the euro had become increasingly overvalued relative to the U.S. dollar on our metrics (at 23% on an average PPP basis and 14% on an average fair value model basis). Thus, the recent sharp sell-off in the euro needs to be seen in this context; the euro would have arguably fallen much less had the currency been undervalued when the Greek crisis struck, given the relatively small sums involved (i.e., €300 billion, or only 4% of total Eurozone public debt). With the euro still a bit pricey relative to the U.S. dollar, continued euro weakness should not be ruled out as the currency faces a valuation headwind.

While the U.S. dollar appears "cheap" against the major currencies, the same cannot be said relative to emerging markets currencies.[7] As can be seen in Exhibit 7, emerging markets currencies appear *very* undervalued on a PPP basis, often in excess of 50%. Yet, PPP may overstate the valuation case for emerging markets currencies given the vast discrepancies in per capita income and consumption baskets. For example, do U.S. households in San Francisco really consume the same goods as a family in Jakarta, Indonesia? In other words, PPP convergence is more likely a long-term secular trend for emerging markets driven by economic development, not intermediate-term market forces.

[5] We use PPP-implied exchange rates calculated by the International Monetary Fund (IMF), OECD, and *The Economist* "Big Mac" Index. PPP-implied exchange rates are based on relative price levels between countries, with the assumption that a basket of identical goods should cost the same across countries. The purest example of this is the Big Mac Index, which derives the implied exchange rate based on the price of a McDonald's Big Mac sandwich in two markets.

[6] We use fair value estimates provided by Goldman Sachs, J.P. Morgan, Merrill Lynch, and Morgan Stanley. These estimates are derived from econometric models that take into account several variables, such as PPP, interest rates, and fund flows, to produce an equilibrium exchange rate. Note that these fair value estimates differ from currency forecasts, as it is not always assumed that currencies revert to fair value over the forecast horizon.

[7] We show the same valuation metrics for eight emerging markets currencies: the Brazilian *real*, the Chinese *yuan*, the Indian *rupee*, the Indonesian *rupiah*, the Korean *won*, the Malaysian *ringgit*, the Russian *ruble*, and the Thai *baht*. Due to data availability, for PPP we use data from the IMF and *The Economist*, while for econometric fair value we use estimates from Goldman Sachs, Merrill Lynch, and Morgan Stanley.

The econometric fair value estimates show a more muted and mixed level of relative valuation. For instance, the Russian *ruble* appears 51% undervalued on an average PPP basis, but fairly valued on average by the investment banks' estimates, while the contentious Chinese *renminbi* is 89% undervalued on an average PPP basis, but only 5.1% undervalued based on the average of the fair value models.

Still, the general message is that emerging markets currencies in aggregate do not seem as fundamentally stretched versus the U.S. dollar as their developed counterparts. Emerging markets currencies arguably remain structurally undervalued against the U.S. dollar given the reluctance of emerging markets policymakers to allow their currencies to rise, forcing the major developed currencies to bear the brunt of the U.S. dollar's downward adjustment.

This difference can clearly be seen in Exhibits 8 and 9. From the beginning of 2002 through March 2008, the U.S. dollar fell 36% against the major currencies on a nominal trade-weighted basis, compared to only 9.5% against emerging markets currencies. Looked at another way, even after the US$ rally of 2008 and early 2010, the seven major developed currencies, on average, remain roughly 50% higher today against the U.S. dollar than in 2001. Meanwhile, the *strongest* performing emerging markets currencies have barely risen 30%, while emerging markets currencies, on average, have risen only 17% against the U.S. dollar since 2001.[8]

Nominal exchange rates, however, only capture half the story. Inflation-adjusted or real effective exchanges rates are arguably more helpful in assessing long-term trends in currencies, especially when rates of inflation differ substantially between economies, as is the case between developed markets and emerging markets. Exhibit 10 shows that by March 2008, the 33% real decline in the U.S. dollar against the major currencies since 2001 had effectively reversed the entire tech boom–fueled run-up, leaving the U.S. dollar at its lowest real level since 1995, and before that 1978. Meanwhile, the real OITP index declined only 19%, leaving the U.S. dollar still higher in real terms versus emerging markets currencies than during the late 1990s, let alone the levels reached in the early 1980s.

In other words, the U.S. dollar has become very competitive versus the major developed currencies, to the point from which the U.S. dollar has begun to stabilize in the past. However, the U.S. dollar still remains uncompetitively high versus emerging markets currencies, signaling a fundamental misalignment. As we argued in our October 2007 commentary, we expect a choppy bottoming period for the U.S. dollar similar to the 1985–95 cycle, when after falling sharply over 1985–88, the U.S. dollar spent the next seven years churning in a trading range before eventually bottoming in mid-1995. With the U.S. dollar some 7% above its post-1973 lows in real terms versus major currencies, we would not be surprised by a similar outcome. As such, we expect the next leg of US$ weakness to be borne by emerging markets currencies based on our view that the U.S. dollar has made its secular adjustment versus the European/developed markets currencies.

As a crude estimate, the U.S. dollar needs to depreciate 19% in real trade-weighted terms against emerging markets currencies to see the OITP Index reach levels comparable to that of the developed markets currencies. For investors, however, nominal exchange rates are what impact returns. A 30% US$ decline in nominal trade-weighted terms would see emerging markets

[8] This average excludes those emerging markets currencies formally pegged to the U.S. dollar (the Hong Kong dollar and the Saudi *riyal*) and those currencies that have depreciated over the period (the Argentine *peso*, the Mexican *peso*, and the Venezuelan *bolivar*).

currencies return to their 1994 levels from which many currencies subsequently were aggressively devalued.

The bottom line is that the U.S. dollar no longer suffers from the headwind of structural over-valuation versus the developed currencies, implying cyclical factors should increasingly drive movements among the major pairs. Meanwhile, there remains scope for structural US$ weakness against most emerging markets currencies. However, for this to occur, emerging markets policymakers must allow their currencies to rise.

The Secular: The End of Bretton Woods II

The recent crisis has served to highlight the need for the end of the so-called Bretton Woods II framework, whereby certain emerging markets and Asian economies have maintained artificially low currencies versus the U.S. dollar to help boost exports. In order to maintain pseudo, if not de facto fixed exchange rates, emerging markets economies have had to recycle their foreign currency reserves into US$ assets and effectively adopt the same monetary policy as the Fed. When economic cycles are synchronized (i.e., 2001 to 2006), different economies can share similar monetary polices; however, when cycles diverge, economic distortions arise.

Currently, the growth dynamic in most emerging markets argues for tighter monetary polices and higher interest rates, and thus stronger currencies. Failure to do this risks ratcheting up inflationary pressures and fueling asset bubbles. While emerging markets currencies have strengthened over the past year, going forward, China remains the key. If China does not allow the *renminbi* to rise, then other Asian countries will continue to hold their currencies down to prevent a loss of competitiveness with China (Exhibit 11).

While the *renminbi* has appreciated 21% against the U.S. dollar since 2005, China has held its currency steady against the U.S. dollar since late 2008 to aid its economic recovery. This has become a political flashpoint, with Chinese authorities vociferously asserting China will not yield to foreign demands for currency appreciation. However, the stakes are rising, with the U.S. Treasury feeling political heat to label China a currency manipulator in its upcoming semi-annual report to Congress.[9]

Political bravado aside, given the risks of economic overheating, the Chinese authorities will have to let the *renminbi* appreciate at some point to serve as a blow-off valve for the economy, or risk a sharper slowdown engineered by more heavy-handed measures. The currency forward markets are pricing in a modest 2% to 3% rise in *renminbi* over the next 12 months, while some observers expect China may allow a more aggressive one-off upward revaluation and then a gradual appreciation. Yet, the Chinese authorities will likely not move until they see concrete signs of economic recovery in the United States and Europe or that protectionist measures are on the verge of being implemented. Regardless of timing, it seems an appreciation of the *renminbi* going forward is unavoidable and necessary for any form of "global rebalancing" to take place.

While emerging markets policymakers are rightly worried that allowing a too-rapid appreciation in their currencies could derail economic recovery,

[9] While such measures reek of protectionism and political opportunism, by reestablishing a US$ peg, China is in fact manipulating its currency. However, China was not praised for holding the *renminbi* firm while other emerging markets currencies plummeted in 2008–09. China had the chance to devalue the *renminbi* but chose not to. As a result, the *renminbi* has appreciated more strongly in trade-weighted terms (Exhibit 11).

the recent crisis has certainly reawakened a need to become less reliant on the developed world for growth, and especially the U.S. dollar. Such a change in mentality has secular implications. If emerging markets growth begins to shift from export- to consumption-driven, emerging markets trade surpluses with the developed world should moderate, especially as emerging markets currencies rise. With fewer reserves piling up to be recycled, there will be less "official" demand for US$ assets. At the same time, other developed currencies may face decreased upward pressure as emerging markets central banks have fewer reserves to diversify away from the U.S. dollar.

Indeed, central bank reserve diversification is more advanced than many realize. Exhibit 12 shows how the composition of global reserves has shifted steadily away from the U.S. dollar since 1999. Among reporting emerging markets central banks, the US$ share of reserves has declined to under 60% in third quarter 2009, down from roughly 75% in 2001, with the euro and the pound the major beneficiaries. Based on estimates from BCA Research, China (which does not report its holdings to the IMF) has been even more aggressive in diversifying its reserves, with US$ assets falling from 84% in 2003 to 54% at the end of 2009.

Still, even at 60% of global reserves, the U.S. dollar continues to play an outsized role given that the U.S. economy only accounts for 25% of the global economy and trade. However, with the euro and pound share of global reserves roughly in line with their share of the global economy, it is not certain that developed currencies will continue to gain at the U.S. dollar's expense. Meanwhile, with emerging markets economies accounting for 30% of nominal global growth, but only 3% of global reserves, it is clear where the adjustment needs to occur. However, until emerging markets currencies are accepted instead of the U.S. dollar for trade settlement and financial transactions, a process still in its infancy, the U.S. dollar will remain the dominant reserve currency for the foreseeable future (Exhibit 13).

The Risk of a Dollar Crisis

Given the massive monetary easing and issuance of U.S. government debt, there remains serious concern that if a shift from a US$-centric global monetary regime occurs abruptly instead of gradually, it could send shockwaves across financial markets and punish holders of US$-denominated assets.

Our view remains that such a disorderly move away from the U.S. dollar will not occur in the near term, although such a market revolt may occur over the coming decades if actions are not undertaken to address the deteriorating fiscal outlook for the United States.

Indeed, with the U.S. dollar down over 30% since 2001 on a trade-weighted basis, one could argue that we have already undergone a US$ crisis. Instead, we judge that a currency crisis is defined not by the magnitude of the decline, but by the motivation for the decline and its impact on the broader economy and financial markets. In this sense, the United States faced a crisis in 1978, as the market lost confidence that the Fed was willing to fight stubbornly high inflation. The ensuing rapid 15% decline in the trade-weighted U.S. dollar forced U.S. officials into panic mode. As described by Morgan Stanley economist Richard Berner:

> On November 1, 1978, the Fed and Treasury were forced to launch an emergency rescue package, including a 100 [basis point] hike in the Federal funds rate, a $30 billion package of [foreign exchange] swap lines, sales of [special drawing rights], tapping the US reserve position at the IMF, and issuance of so-called Carter Bonds.

Indeed, the infamous "Carter bonds" of 1978 were U.S. Treasuries denominated in Deutsche marks and Swiss francs to drum up foreign reserves, showing just how low confidence in the U.S. dollar had sunk. So while the U.S. dollar fell by a similar magnitude between March 2009 and November 2009 as it did in 1978, at no point was there a similar sense of desperation.

For a full-fledged US$ dollar crisis to occur there needs to be grave concern over inflation and the future ability of the U.S. government to service its debt. Therefore, the key variable to watch in this regard is not the price of gold, but rather long-term interest rates. Despite massive issuance, the fact that long-term Treasury yields only rose 150 basis points over 2009 as the U.S. dollar declined highlights that investors have so far kept the faith.[10]

The key players in determining whether there will be a US$ crisis are China and other large holders/purchasers of U.S. debt and other assets. Yet despite increasing rhetoric, foreigners have not substantially decreased their purchases of US$ assets (Exhibit 14). Indeed, the recent headlines suggesting China is dumping U.S. Treasuries are a red herring; China has been selling Treasury *bills* to purchase Treasury *bonds*, effectively extending the duration of its US$ assets. If anything, this signals China is not overly concerned with U.S. debt and inflation risks (Exhibit 14).[11]

To be clear, China has a vested interest in an orderly decline in the U.S. dollar, if not a stable U.S. dollar. For instance, assuming that China holds 70% of its overseas assets in U.S. dollars, a 1% decline in the U.S. dollar would result in a loss of wealth equivalent to 0.5% of Chinese GDP.[12] As David Roche of research firm Independent Strategy states, "If China stopped buying U.S. assets, the dollar would, of course, fall precipitously. But the first victim would be China."

Simply put, for the U.S. dollar to fall sharply, other currencies must rise just as sharply. Yet, it is unclear if any developed currency can bear another massive upward currency adjustment without serious economic consequences.[13] While China and the rest of Asia are better able to handle a rise in their currencies, an abrupt adjustment requires also accepting large losses on their US$ holdings. Better to move away slowly, letting debt mature and earning a small return to help offset gradual depreciation.

In the final analysis, we have chosen to take a pragmatic view of a potential US$ crisis in the near term, as quite simply there is no other currency or credible alternative available at this time to assume the U.S. dollar's role in global trade and finance. In the event that private investors lose confidence in US$-denominated assets, we still expect pragmatic global policy

[10] Based on Barclays Capital Long-Term Treasury Bond Index. Of course, one could argue that absent Fed purchases of Treasury bonds, yields would have risen more sharply. However, the majority of Fed purchases occurred at the short end of the yield curve. See our November 2009 Market Commentaries *What Happens When the Fed Becomes Sated?* and *Amid Surging Supply of U.S. Treasuries, Can Demand Hold Up?*

[11] Furthermore, there is growing evidence of increased "secret" Chinese buying of US$ assets and Treasuries through third parties in London. While China's reported purchases have fallen, purchases from the United Kingdom have surged.

[12] Based on 2008 figures of China's international investment position of $2.92 trillion (which includes both foreign exchange reserves and other private assets) compared to nominal GDP of 4.3 trillion.

[13] This is especially the case for the euro, which has reached near post-1964 highs on a real effective exchange rate basis, making the euro very uncompetitive against its trade partners. The euro will either have to undergo a sharp nominal fall or suffer a painful real depreciation via low inflation and falling labor costs. This is similar to the adjustment Japan has gone through over the past decade, as the currency has appreciated in nominal terms, but become more competitive in real terms.

coordination to help stem a disorderly decline in the U.S. dollar, similar to the 1985 Plaza Accord.

However, U.S. government spending and debt issuance, if not constrained, may eventually trigger a bond market revolt. Yet we judge the probability of a crippling fiscal crisis erupting in the United States as more likely further down the road than next year. Indeed, fiscal worries might strike elsewhere first (the United Kingdom, Japan, or parts of Europe). For instance, net interest payments on U.S. government debt remain a very manageable 1.9% of GDP, compared to 2.5% for the fiscally prudent Germany, and far from the 4.9% spent by Italy. This reflects the negligible level of interest rates on short-term debt (which composes the majority of U.S. government borrowing). While rising interest rates will certainly increase the burden of U.S. government debt, the current fiscal situation seems tenable (Exhibit 15).

At some point the fiscal situation will not be tenable, as the depressing arithmetic of compounding debt has the potential to send servicing costs out of control. Certainly investors, both foreign and domestic, will inflict market discipline before this occurs. The question is, when and how bad will the adjustment be? Until there is clarity on these fiscal issues, or bond yields and real interest rates rise enough to overcompensate investors, we cannot see a secular rise in the U.S. dollar taking place.

Conclusion

In summary:

- We view the U.S. dollar's decline last year as a cyclical unwinding of the panic driven run-up over late 2008/early 2009.
- The key driver of foreign exchange markets in 2010 will be the degree to which economic growth and monetary tightening diverge across economies. In this light, cyclical factors should become more favorable for the U.S. dollar relative to other major developed currencies. We also expect the U.S. dollar to retain its safe haven status and rally amid any potential global growth scare that takes place. A period of increased uncertainty over the global economic outlook should generally be dollar supportive.
- We view the secular valuation adjustment of the U.S. dollar against the major developed currencies as largely complete. As a result, we expect cyclical factors to increasingly drive movements between the U.S. dollar and the major developed currencies, with the U.S. dollar stuck in a choppy trading range similar to that seen over 1988–95. A multiyear broad-based rise in the U.S. dollar is unlikely absent credible steps to restrain fiscal spending and normalize monetary policy.
- Both cyclical and secular factors argue for continued emerging markets currency strength against the U.S. dollar and other developed currencies. However, the key issue in resolving the U.S. dollar's structural overvaluation against emerging markets currencies remains foreign central banks/governments allowing their currencies to rise against the U.S. dollar.
- Finally, we do not see a US$ crisis occurring in the near term. However, such a crisis could unfold over the coming decades if steps are not taken to halt the deteriorating fiscal position of the U.S. government. As of yet, there is no clear alternative to the U.S. dollar as a global reserve currency. Should private investors lose confidence in US$ assets, we still expect pragmatic global policy

coordination to help stem a disorderly decline in the U.S. dollar.

As a result, we draw the following implications for investors:

- Expect continued currency volatility. With currency markets becoming increasingly rudderless and driven by political and policy developments, currency volatility should remain elevated. For investors with substantial unhedged foreign currency exposure imbedded in their portfolios, volatile currency markets may translate into increased portfolio volatility.

- Consider increased exposure to emerging markets currencies. Assets denominated in undervalued emerging markets currencies should enjoy secular tailwinds relative to developed markets currencies.

- US$-based investors should not expect to receive the same boost to returns on non-US$ assets provided by the U.S. dollar's steady decline over the past decade.

- Non-US$-based investors need to reassess the degree to which their base currency may be expected to appreciate or depreciate against the U.S. dollar, and adjust hedge ratios accordingly.[14]

There are, of course, risks to our view.

From a cyclical standpoint, it is difficult to take high-conviction views on the near-term economic outlook. A U.S. slowdown would certainly see the Fed halt any attempts at policy normalization, arguing for continued US$ weakness. However, it is unclear how other central banks, let alone markets in general, would react to such an occurrence if it threatened the global economic recovery. Still, even in a scenario of weak U.S. growth relative to other economies, we would expect US$ weakness to be of a lower magnitude than 2009's slide, given that the U.S. dollar is not currently stretched from either a technical or valuation standpoint.

Policy errors are perhaps the biggest concern. The growing U.S. political/protectionist rhetorical surrounding the *renminbi* is especially worrying. Any political consensus that higher inflation and a weaker currency are "good" for America increases the risk of a gentle US$ decline turning into a rout.

While we still think (for now) that cooler heads will prevail, those who take little comfort from our analysis should contemplate ways to better position their portfolios.[15] The simplest way is to hold gold. In the event that a currency crisis does ensue as policymakers abandon pragmatism in favor of unilateral action, the price of gold is sure to rise, making the holding of gold one way to help protect the portfolio against, or at least profit from, such an outcome. ■

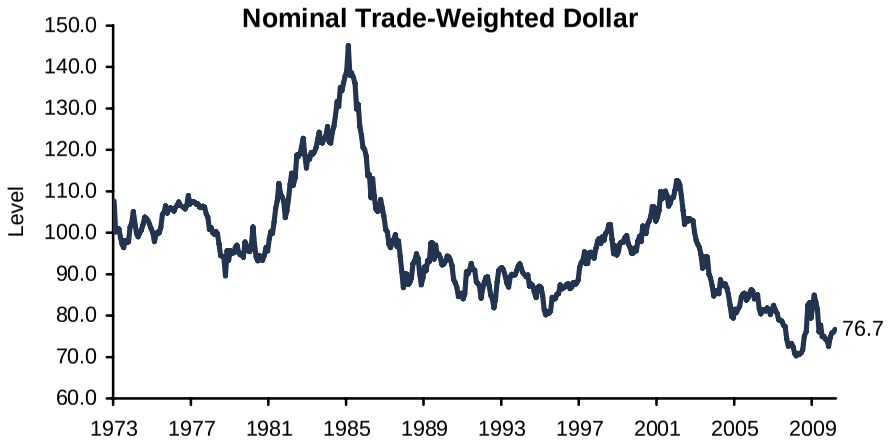
[14] Please see our 2009 report for global investors *Currency Hedging*.

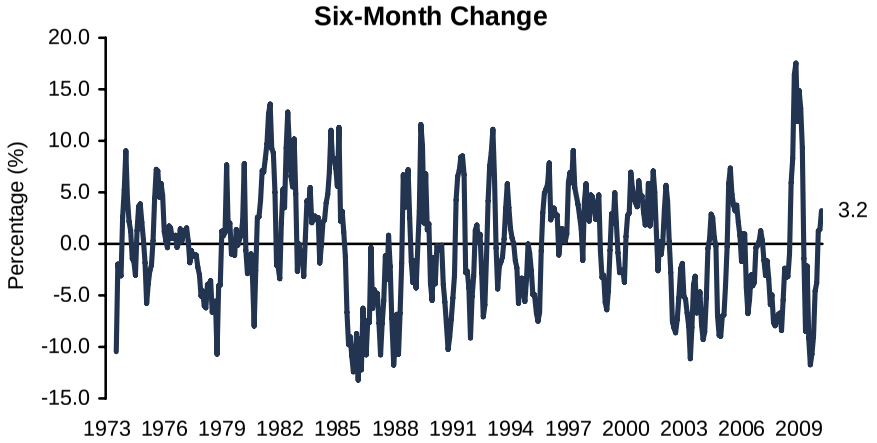
[15] We will discuss additional ways to protect portfolios from a US$ crisis in a forthcoming paper.

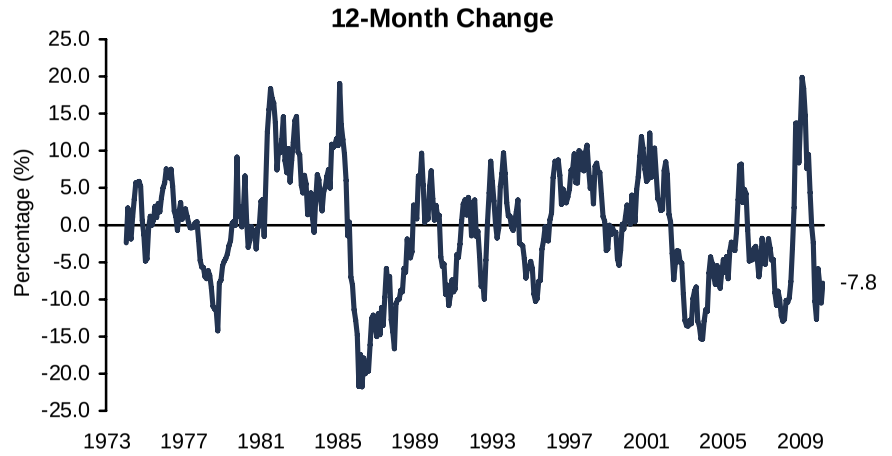
Exhibit 1

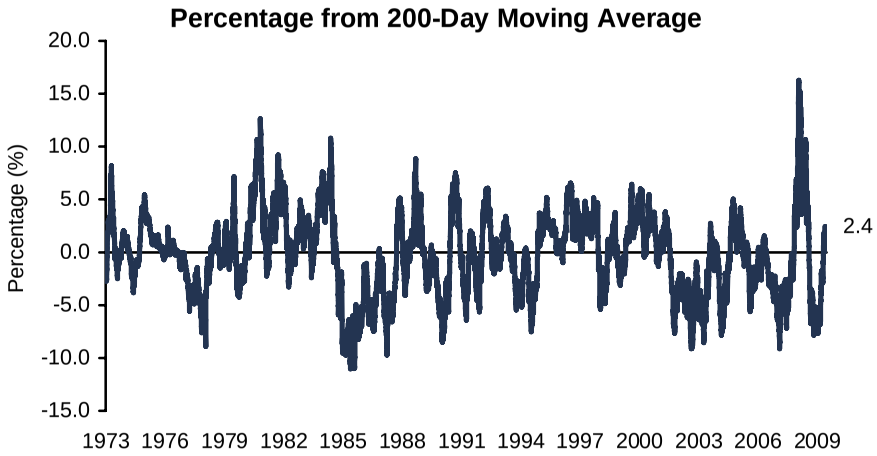
U.S. Dollar Momentum

January 31, 1973 – March 26, 2010







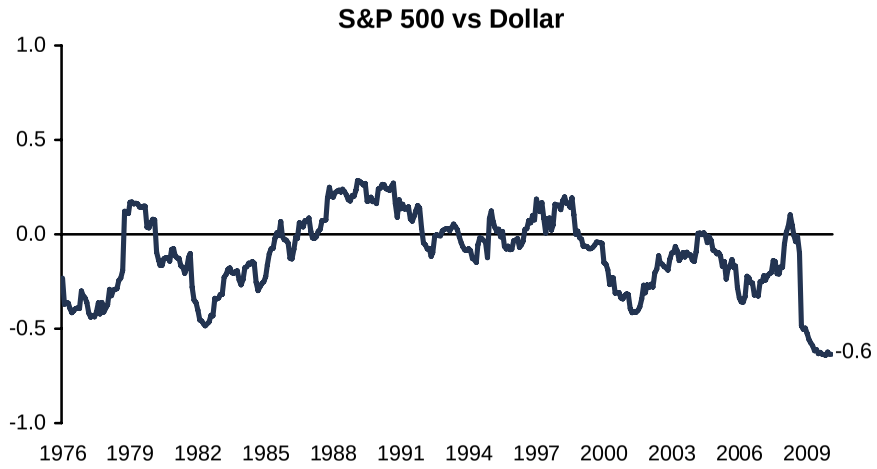


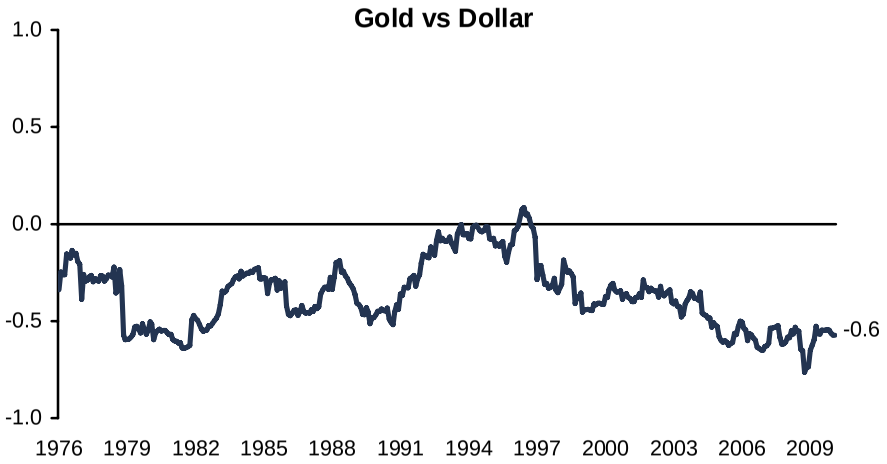
Source: Thomson Datastream.
Notes: The percentage from 200-day moving average graph uses daily data. All other data are monthly.

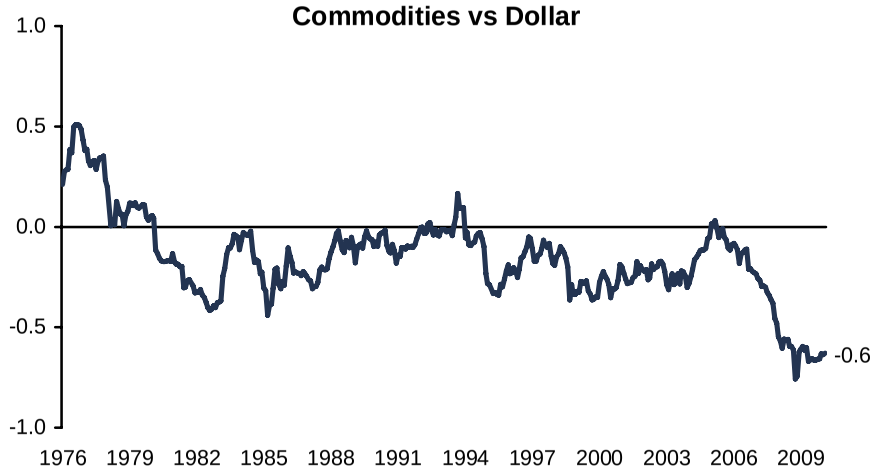
Exhibit 2

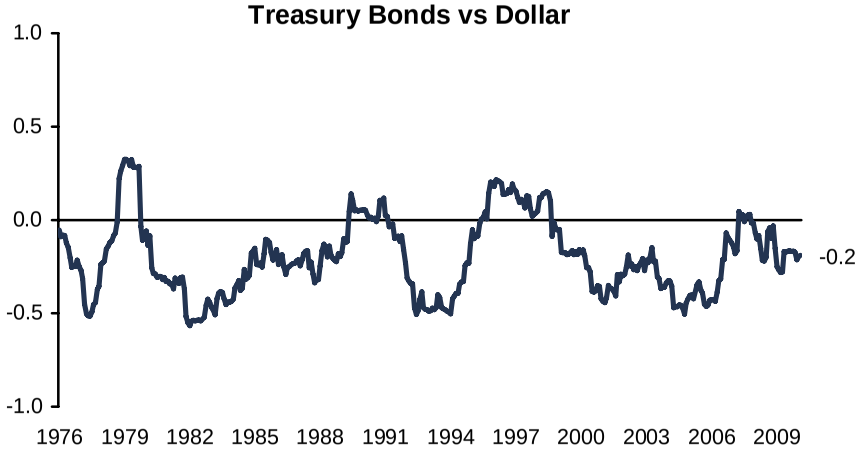
Rolling 36-Month Correlations

January 31, 1976 – February 28, 2010







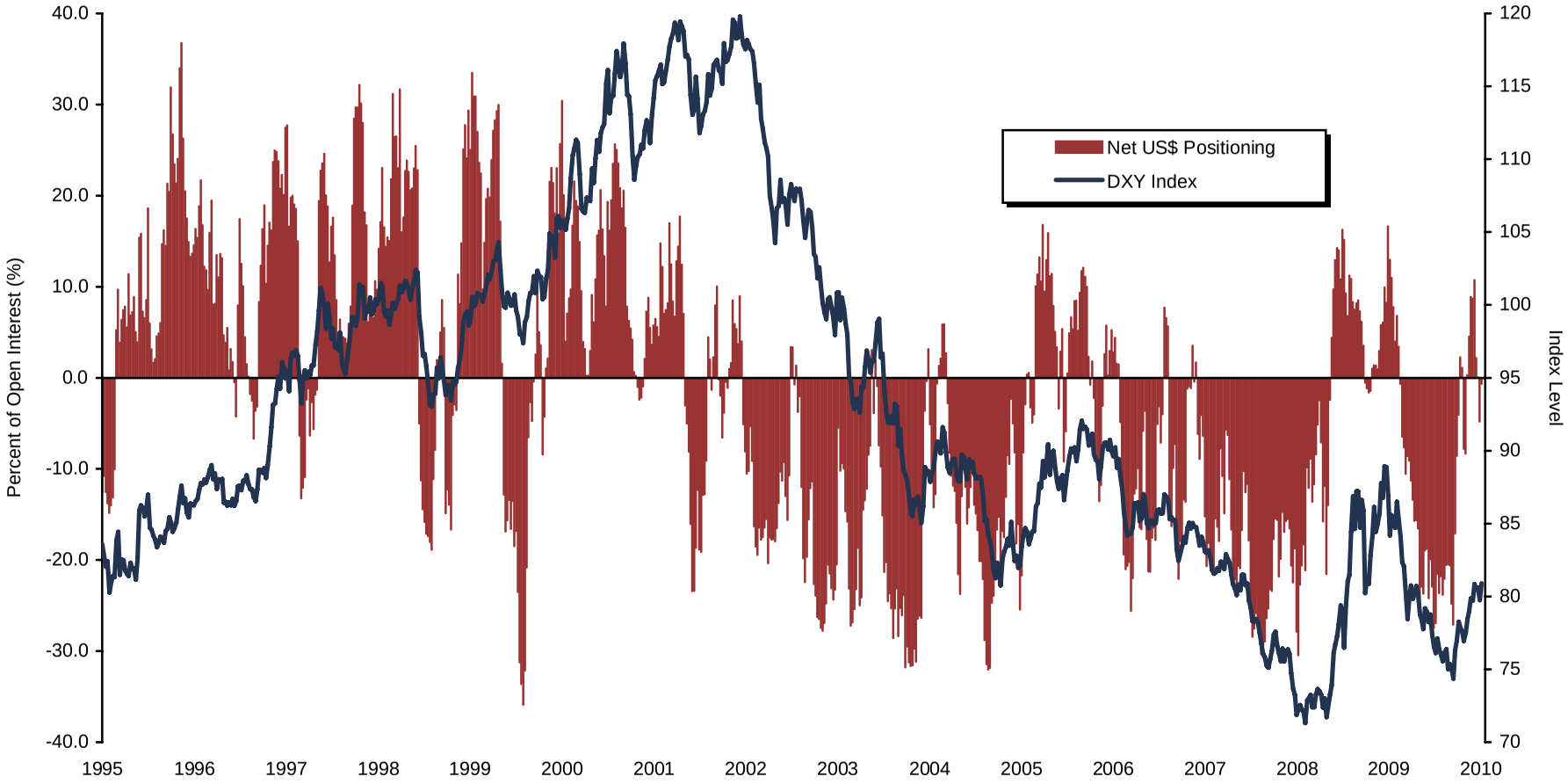


Source: Thomson Datastream.

Exhibit 3

Net Aggregate Non-Commercial Positioning of the U.S. Dollar

March 21, 1995 – March 23, 2010



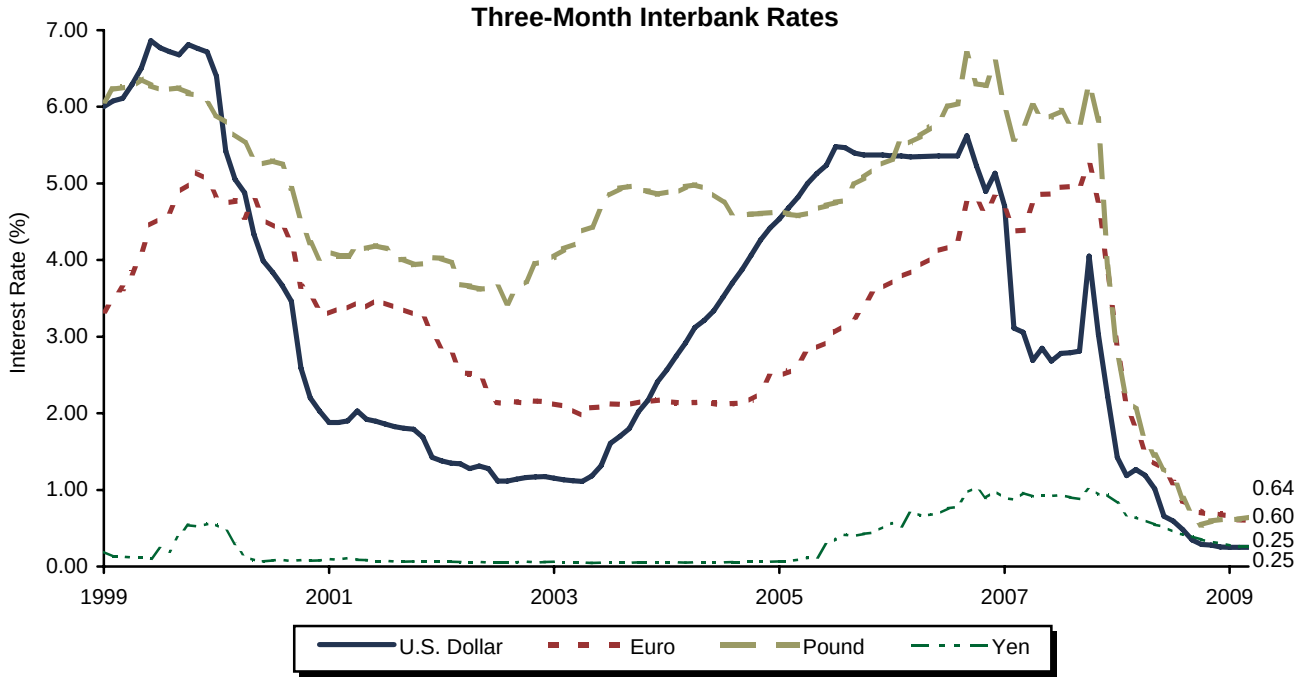
Sources: Thomson Datastream and U.S. Commodity Futures Trading Commission.

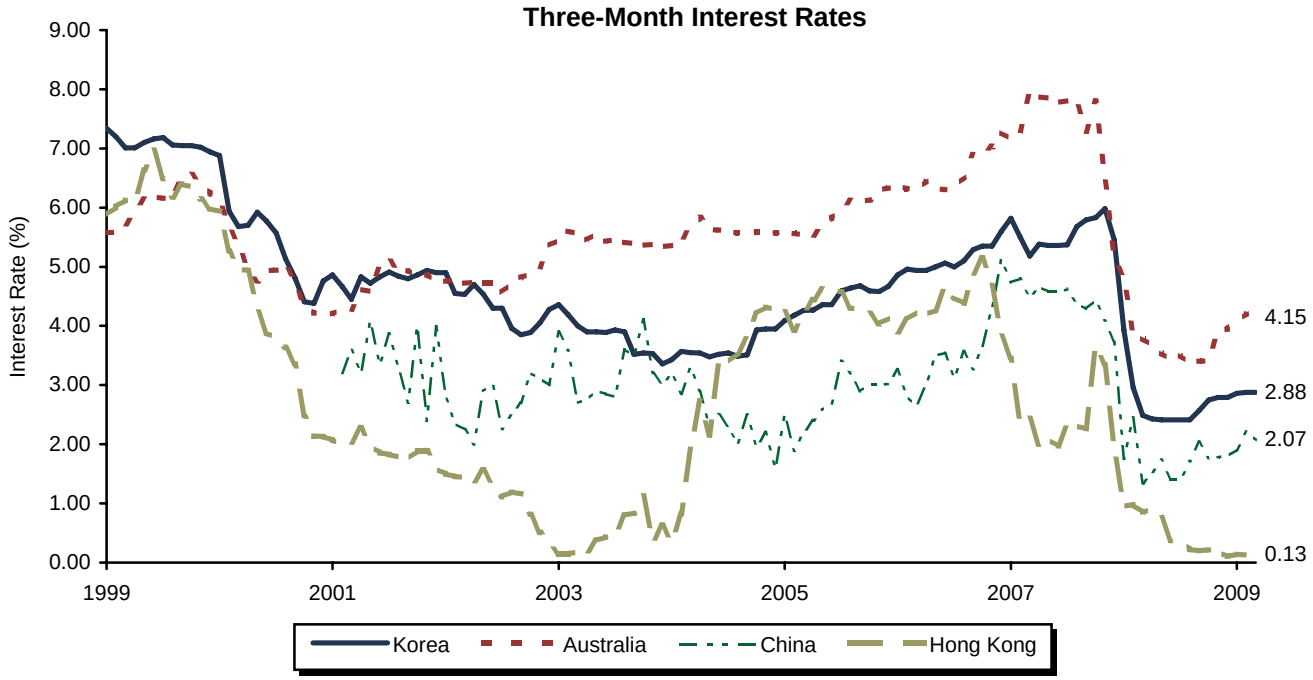
Notes: Data are weekly. US$ positioning tracks the net aggregate futures positions of non-commercial speculators against the Australian dollar, Canadian dollar, Swiss franc, euro, U.K. pound, Japanese yen, Mexican *peso,* and New Zealand dollar traded on the Chicago Mercantile Exchange as a percent of the total open interest. A negative number indicates a net short position on the dollar while a positive number indicates a net long position. The DXY index is a contract traded on the IntercontinentalExchange (ICE) based on the trade-weighted value of the dollar.

Exhibit 4

Short-Term Interest Rates

December 31, 1999 – February 28, 2010





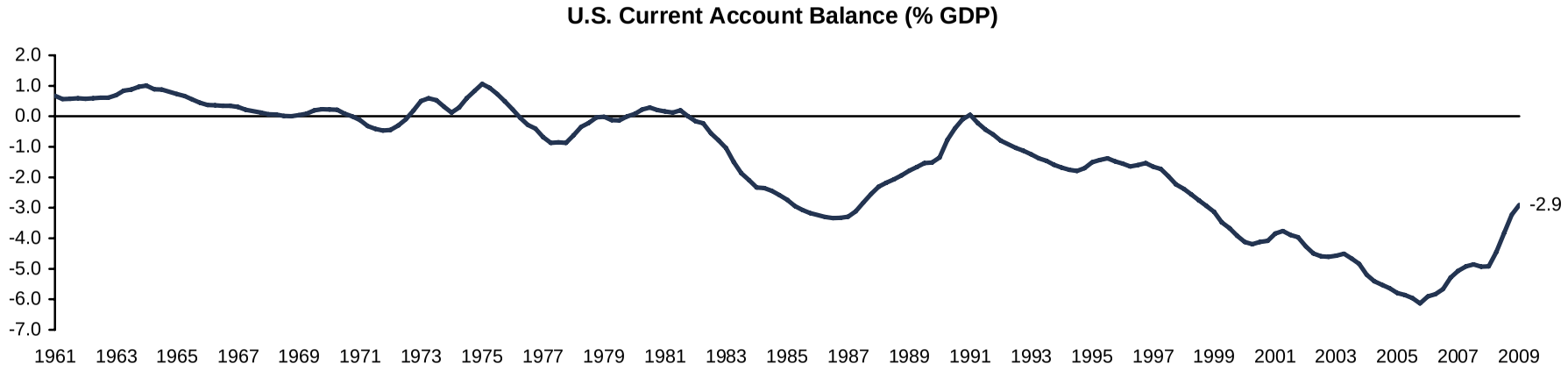
Source: Thomson Datastream.

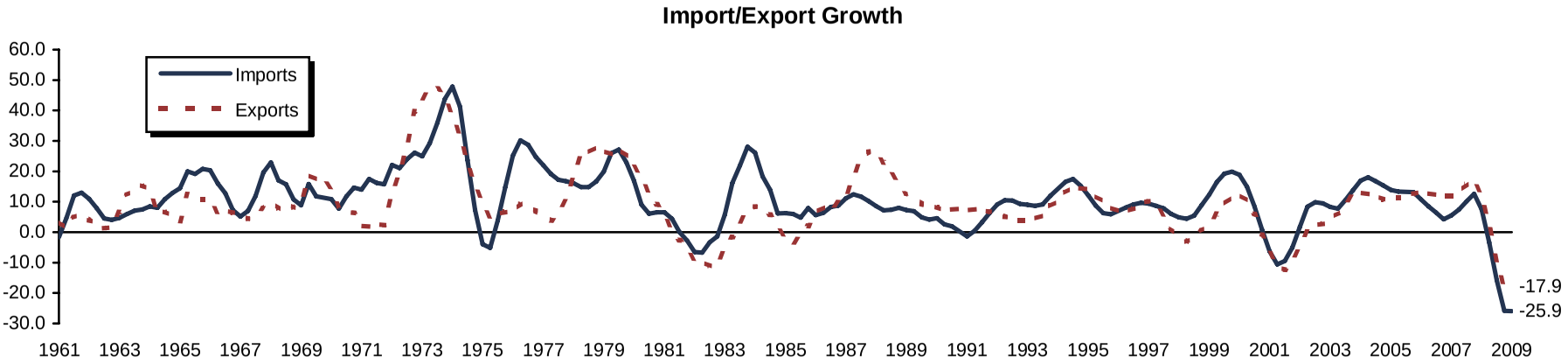
Notes: All interest rates in the top graph are three-month LIBOR. The Korean rate is a 91-day money market rate. China and Hong Kong are three-month interbank rates. Australia is three-month LIBOR.

Exhibit 5

U.S. Current Account

December 31, 1961 – December 31, 2009





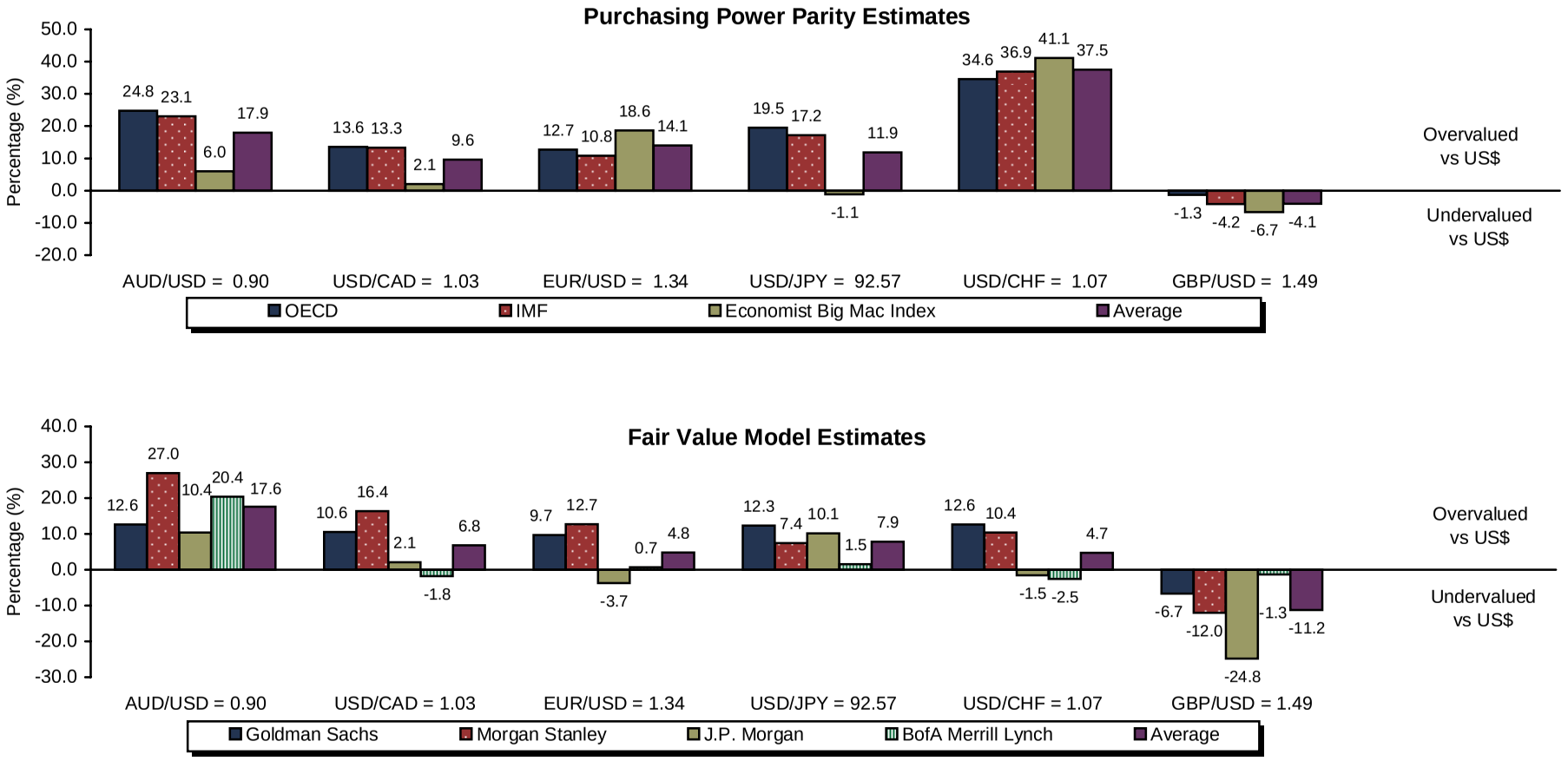
Source: Thomson Datastream.

Notes: Data for U.S. current account balance are based on the previous rolling four quarters relative to nominal GDP. Import/export growth is year-over-year based on previous four quarters of trade.

Exhibit 6

Valuation versus the U.S. Dollar: Developed Markets Currencies

As of March 26, 2010



Sources: Bloomberg L.P., BofA Merrill Lynch, The Economist, Goldman, Sachs & Co., International Monetary Fund (IMF), J.P. Morgan Securities, Inc., Morgan Stanley, and the Organization for Economic Cooperation and Development (OECD).

Notes: Bold exchange rates represent current spot rates. PPP-implied exchange rates are based on relative price levels between countries, with the assumption that a basket of identical goods should cost the same across countries. OECD and IMF PPP estimates based on consumer prices, while IMF PPP estimates are based on 2010 forecasts. Fair value model estimates are derived from econometric models that take into account several variables such as PPP, interest rate differentials, fund flows, etc., to produce an equilibrium exchange rate. These fair value estimates differ from currency forecasts, as it is not always assumed that currencies revert to fair value over the forecast horizon.

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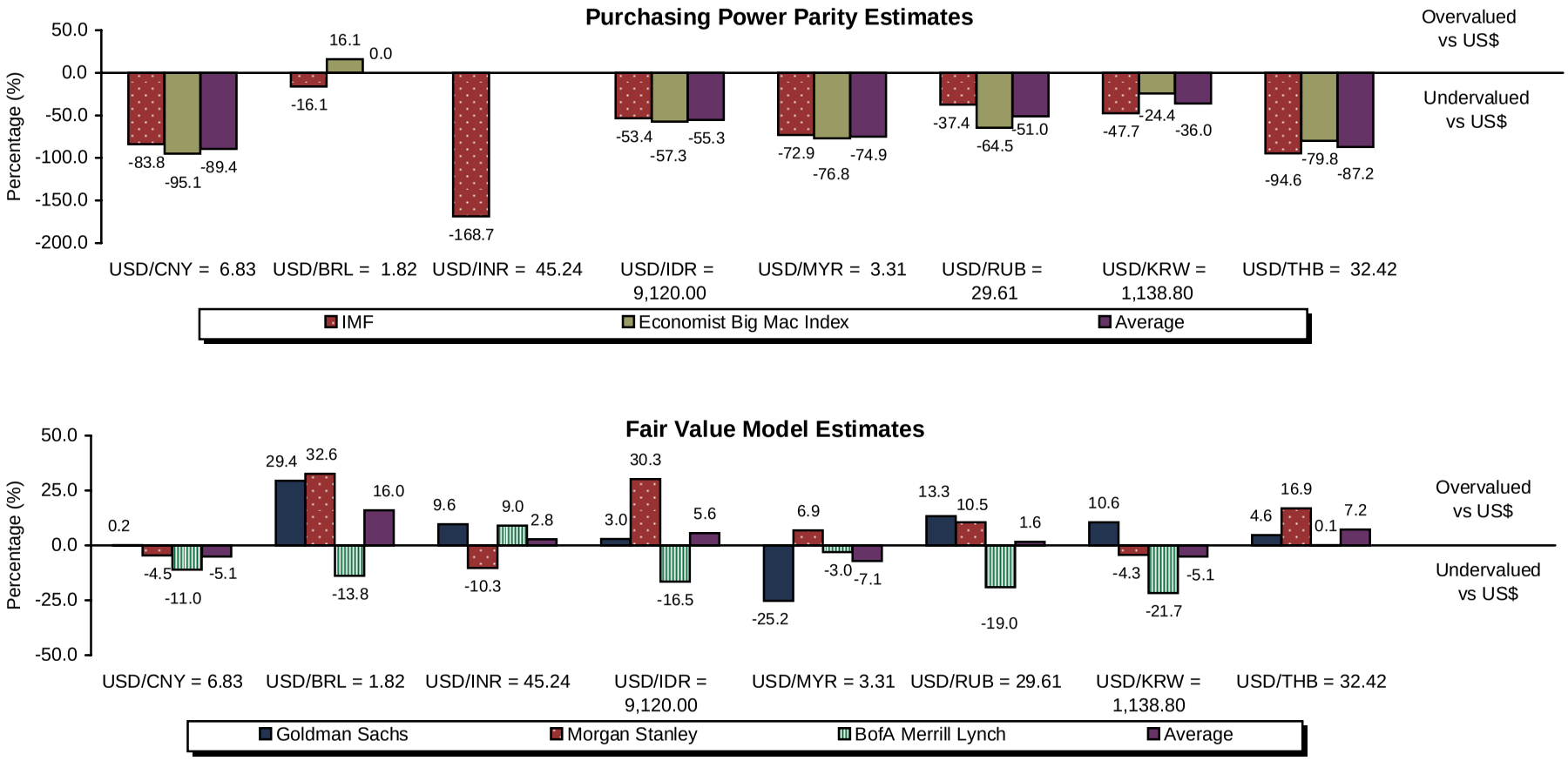
Exhibit 7

Valuation versus the U.S. Dollar: Emerging Markets Currencies

As of March 26, 2010



Sources: Bloomberg L.P., BofA Merrill Lynch, The Economist, Goldman, Sachs & Co., International Monetary Fund (IMF), J.P. Morgan Securities, Inc., Morgan Stanley, and the Organization for Economic Cooperation and Development (OECD).

Notes: Bold exchange rates represent current spot rates. PPP-implied exchange rates are based on relative price levels between countries, with the assumption that a basket of identical goods should cost the same across countries. OECD and IMF PPP estimates based on consumer prices, while IMF PPP estimates are based on 2010 forecasts. Fair value model estimates are derived from econometric models that take into account several variables such as PPP, interest rate differentials, fund flows, etc., to produce an equilibrium exchange rate. These fair value estimates differ from currency forecasts, as it is not always assumed that currencies revert to fair value over the forecast horizon.

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Exhibit 8

Currency Movement of the Broad Trade-Weighted Dollar Index

As of February 28, 2010

	Trade Weight	Dollar Performance (%) Three Months	12 Months	4/31/1995 – 1/31/2002	12/31/2001 – 3/31/2008
Major Index	**49.5**	**4.7**	**-10.5**	**40.5**	**-36.3**
Australian Dollar	1.2	2.2	-28.6	43.4	-44.0
Canadian Dollar	15.2	0.3	-16.7	16.9	-35.7
Euro	17.7	10.0	-6.9	55.3	-43.8
Japanese Yen	8.7	3.2	-9.2	59.2	-24.1
Swedish Krona	1.0	1.8	-20.9	46.4	-43.5
Swiss Franc	1.4	6.8	-7.9	49.9	-40.4
U.K. Sterling	4.3	7.8	-6.4	13.9	-26.8
OITP Index	**50.5**	**0.6**	**-8.3**	**51.3**	**-9.5**
Argentine Peso	0.5	1.3	8.3	97.6	216.6
Brazilian Real	2.0	3.6	-23.8	164.6	-24.3
Chilean Peso	0.8	6.2	-11.5	75.0	-33.9
Chinese Renminbi	17.3	0.0	-0.2	-1.6	-15.3
Colombian Peso	0.5	-3.3	-24.3	158.3	-19.6
Hong Kong Dollar	1.7	0.2	0.1	0.8	-0.2
Indian Rupee	1.6	-0.9	-9.8	54.3	-16.8
Indonesian Rupiah	0.9	-1.3	-22.1	361.9	-11.5
Israeli Shekel	1.1	-0.3	-8.9	54.9	-20.0
Malaysian Ringgit	1.9	0.4	-8.1	53.9	-15.8
Mexican Peso	9.7	-1.0	-15.3	54.6	16.3
Philippine Peso	0.7	-2.3	-5.5	96.6	-19.1
Russian Rouble	1.2	2.3	-16.6	531.8 *	-23.1
Saudi Riyal	0.8	0.0	0.0	0.0	0.0
Singapore Dollar	2.0	1.5	-9.1	31.8	-25.4
South Korean Won	3.5	-0.2	-24.4	72.4	-24.6
Taiwanese Dollar	2.4	-0.3	-8.2	37.7	-13.2
Thai Baht	1.4	-0.5	-8.6	79.1	-28.8
Venezuelan Bolivar	0.5	---	---	350.9	183.5
Broad Dollar Index		**2.4**	**-7.2**	**42.9**	**-24.7**

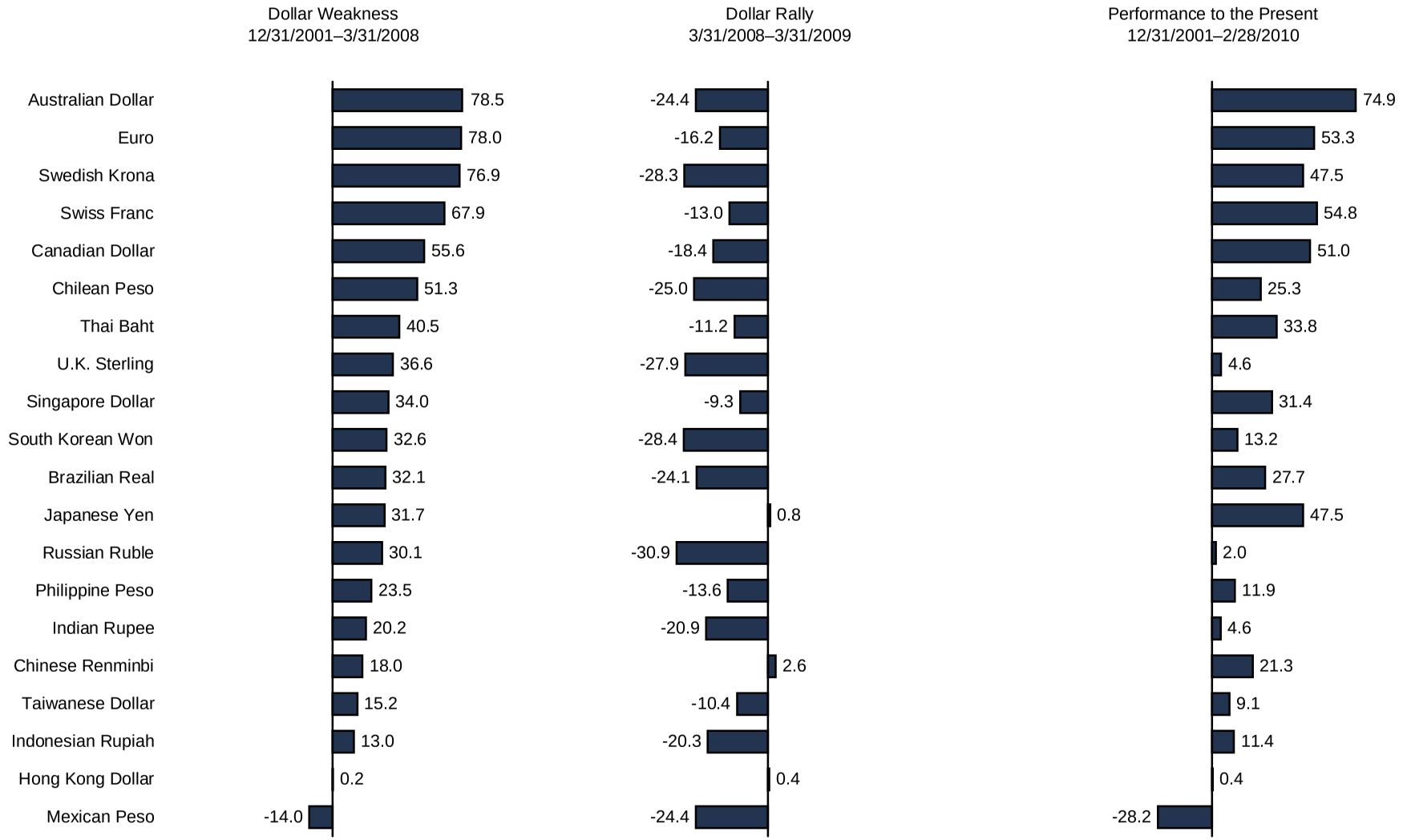
Sources: Federal Reserve and Thomson Datastream.

Notes: The Venezuelan *bolivar* has experienced a series of devaluations versus the U.S. dollar over the last year. Trade weights based on Federal Reserve calculation for the Broad Trade-Weighted Index.

* Performance is measured from March 1996 through January 2002.

Exhibit 9

Comparative Currency Performance versus the U.S. Dollar

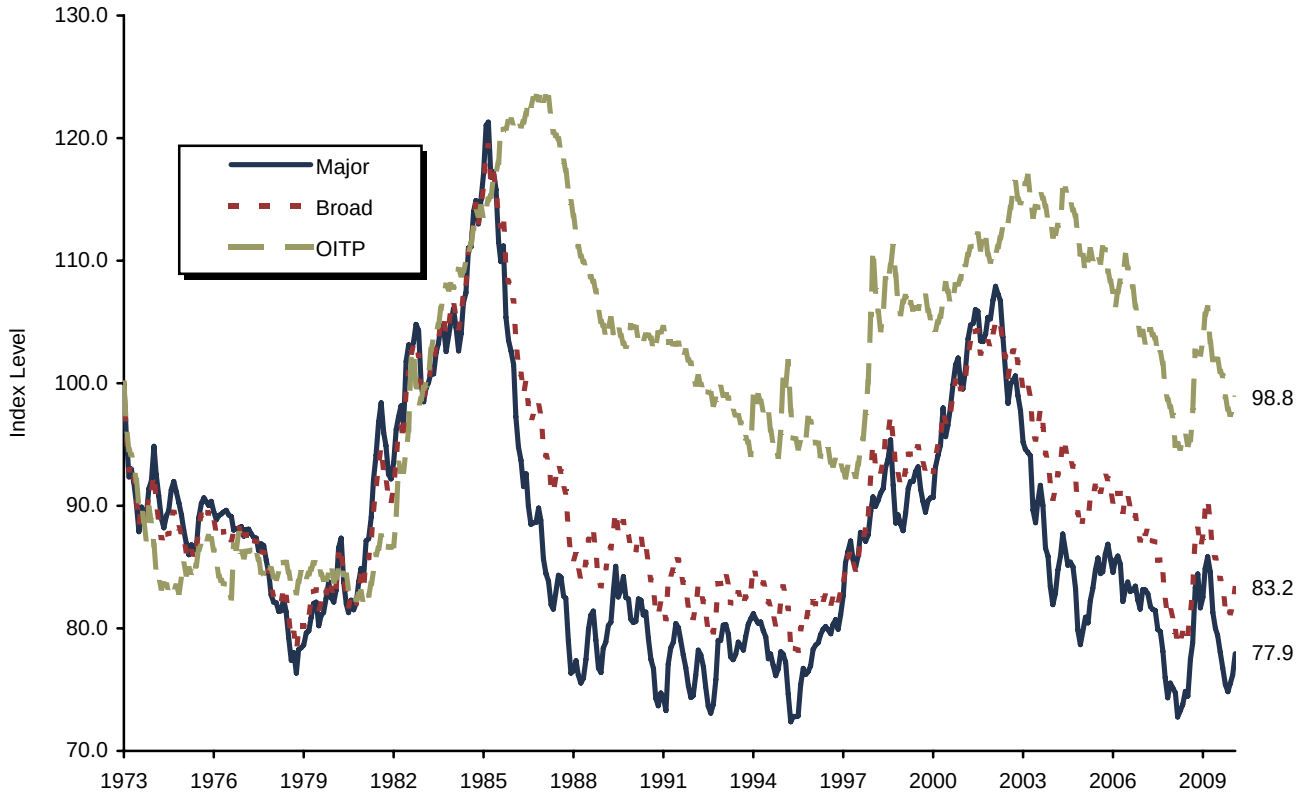


Source: Thomson Datastream.
Note: All data are monthly.

Exhibit 10

Real Trade-Weighted Value of the U.S. Dollar

January 31, 1973 – February 28, 2010 • January 31, 1973 = 100



Percent Change of U.S. Dollar Cycles

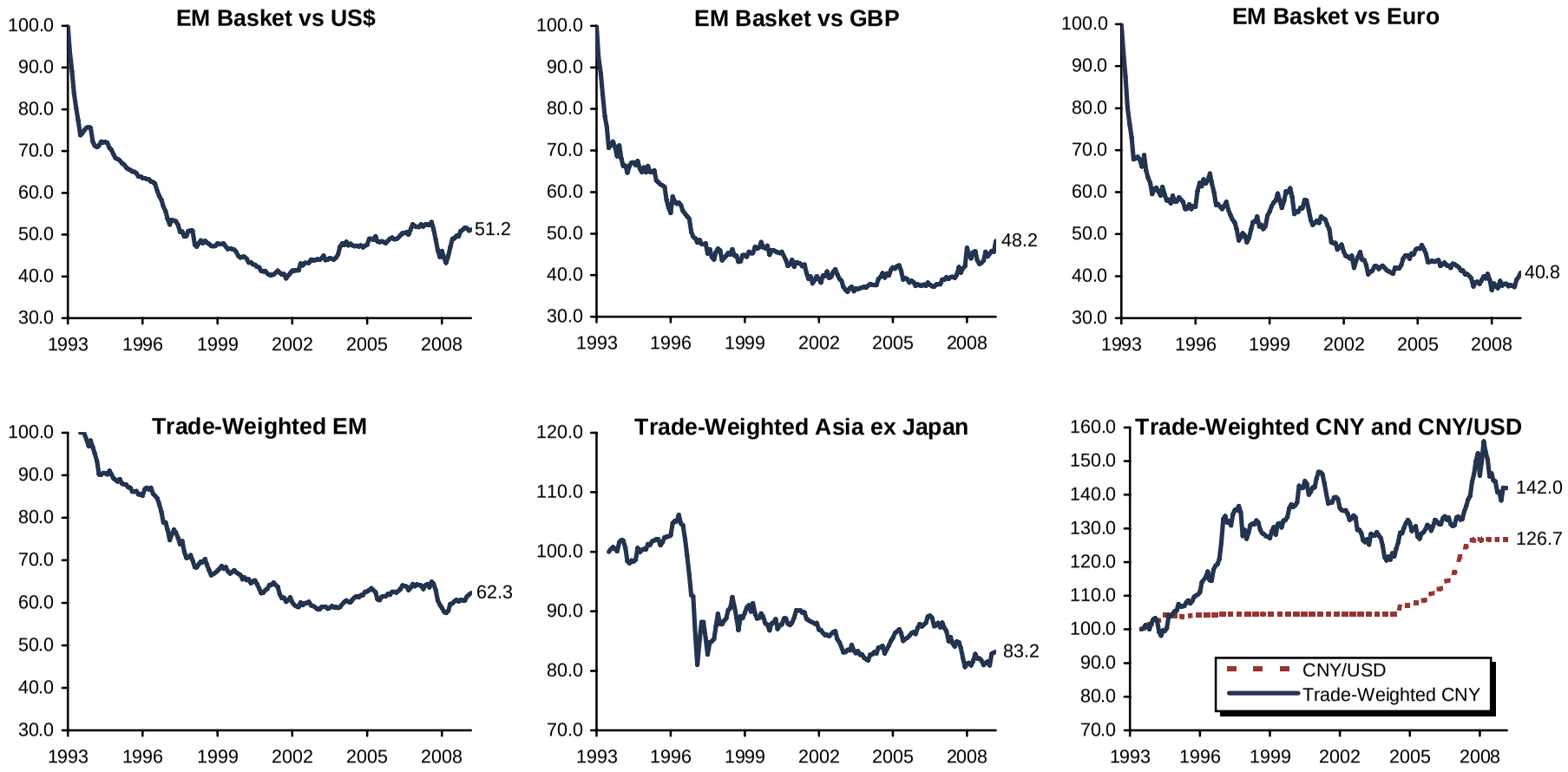
	1973–78	1978–85	1985–95	1995–2002	2002–08
Major Index	-16.8	62.1	-44.8	40.5	-37.6
Real	1973–78	1978–85	1985–95	1995–2002	2002–08
Major Index	-23.7	58.9	-40.3	49.1	-32.6
Real	1973–78	1978–85	1985–95	1995–2002	2002–08
Broad Index	-21.8	52.7	-34.5	32.8	-24.8
Real	1973–81	1981–86	1986–97	1997–2003	2002–08
OITP Index	-18.0	51.1	-25.4	26.5	-18.8

Sources: Federal Reserve and Thomson Datastream.
Notes: All indices rebased to January 1973 at 100. Cycles based on peak-to-trough changes in monthly index levels of each year. The monthly index level is an average of the daily levels for each month. The U.S. Federal Reserve calculates nominal and real (inflation-adjusted) trade-weighted indices of the U.S. dollar to measure overall movements in the currency. The Broad Index consists of the currencies of 26 "important" U.S. trading partners. The "Major" and the "OITP" (Other Important Trading Partners) indices are subsets of the Broad Index. The Major Index includes seven of the most traded international currencies including the euro, and currencies from Australia, Canada, Japan, Sweden, Switzerland, and the United Kingdom. The OITP Index consists of 19 currencies of mostly emerging markets economies, including those of Argentina, Brazil, Chile, China, Colombia, Hong Kong, India, Indonesia, Israel, Korea, Malaysia, Mexico, the Philippines, Russia, Saudi Arabia, Singapore, Taiwan, Thailand, and Venezuela.

Exhibit 11

Emerging Markets Exchange Rate Movements

December 31, 1993 – February 28, 2010

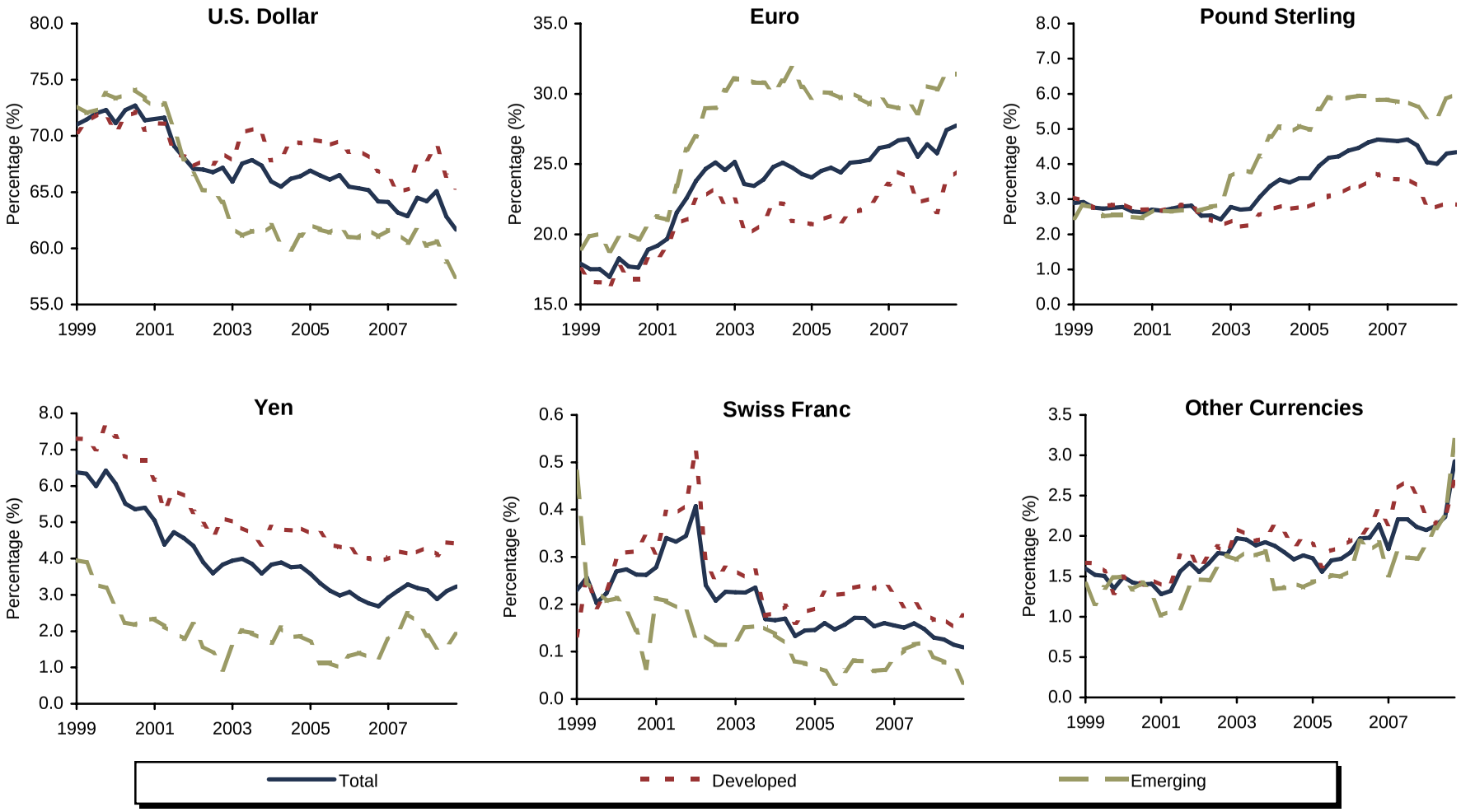


Sources: Federal Reserve, J.P. Morgan Securities, Inc., MSCI Inc., and Thomson Datastream. MSCI data provided "as is" without any express or implied warranties.
Notes: Graphs are based on monthly data. Emerging markets currency basket is the cumulative differential between returns for the MSCI Emerging Markets Index in local currency terms and the corresponding returns in US$, GBP, and euro terms. Thus, it represents the movement of emerging markets currencies weighted by each country's market capitalization in the MSCI Index. Currency baskets are rebased to 100 on December 1993. Trade-weighted indices are rebased to 100 at June 1994, and reflect movement of an equal-weighted average of country level trade-weighted indices, provided by J.P. Morgan. The U.S dollar/Chinese *yuan* exchange rate has been rebased to 100 at June 1994.

Exhibit 12

Share of Global Foreign Reserves

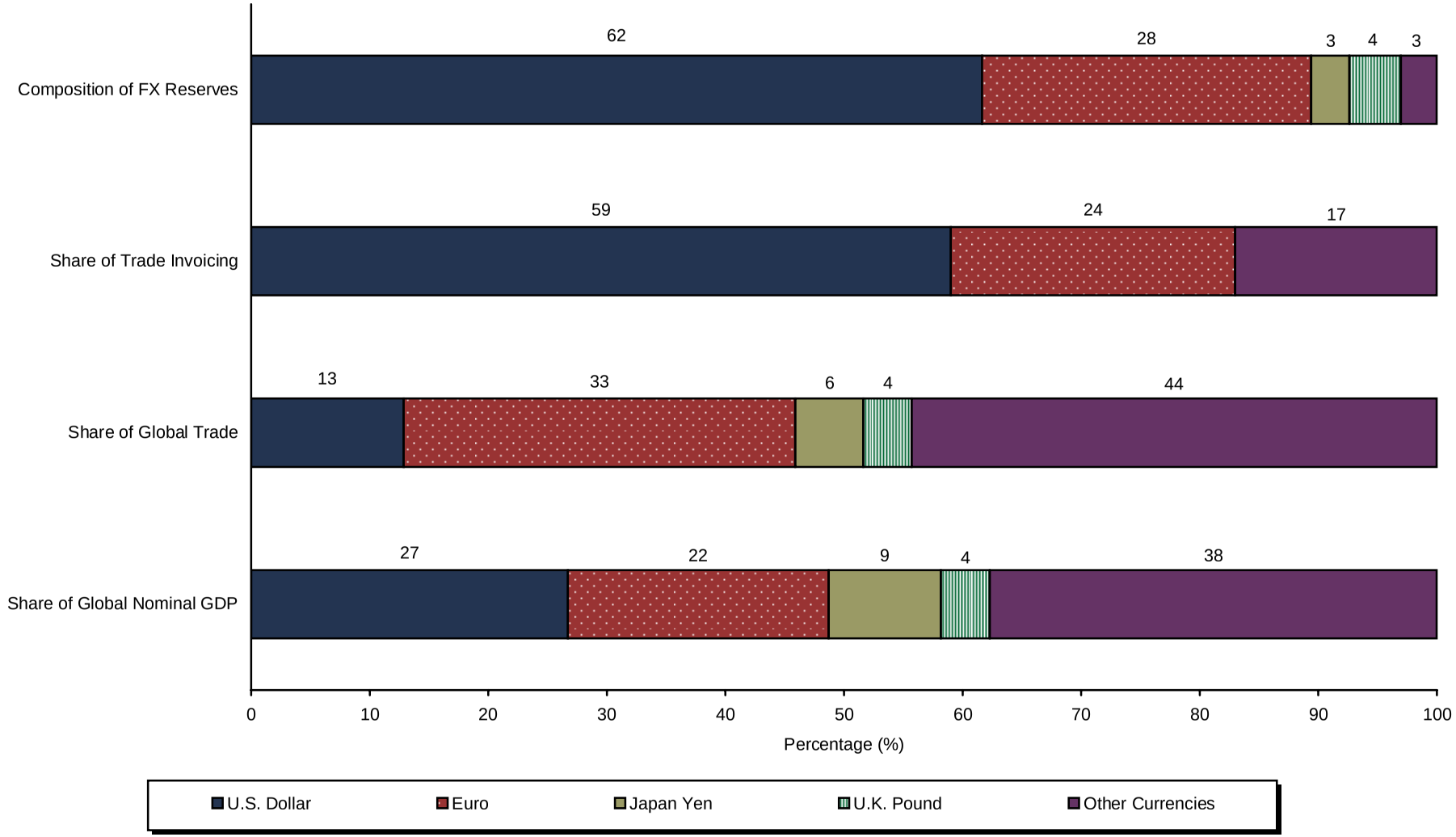
December 31, 1999 – September 30, 2009



Sources: International Monetary Fund - COFER database and Thomson Datastream.
Note: Data cover only countries that declare the composition of their local currency reserve holdings.

Exhibit 13

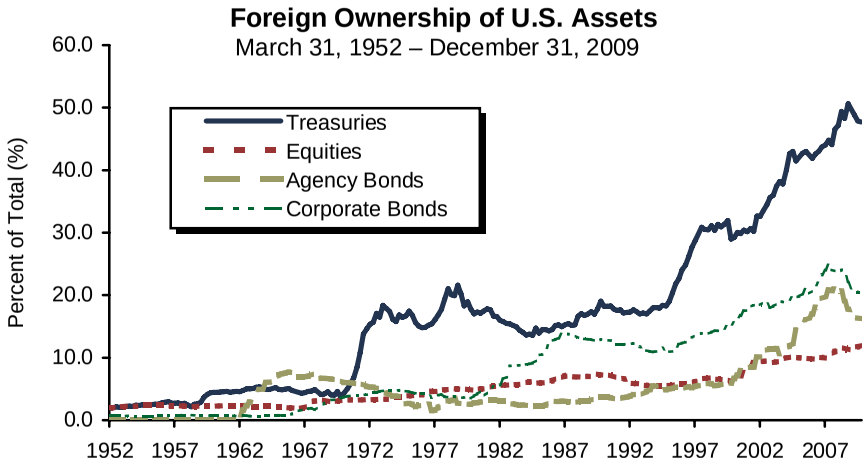
The U.S. Dollar as the Global Reserve Currency

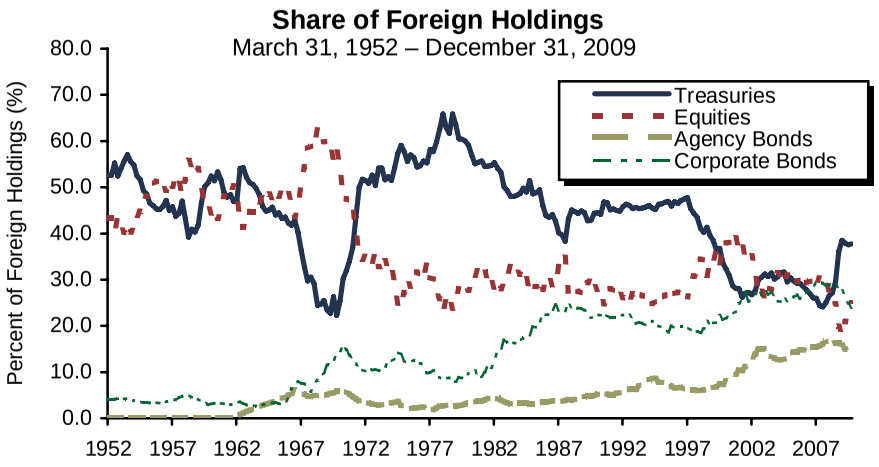


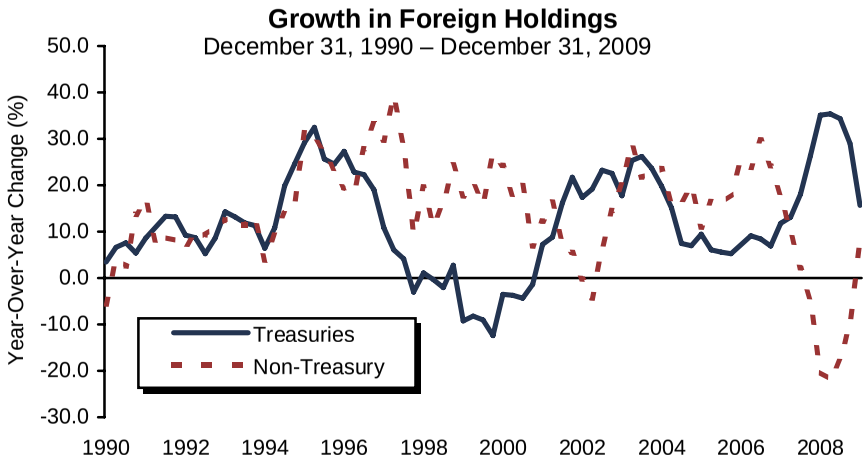
Sources: Goldman, Sachs & Co., Independent Stategy, and International Monetary Fund - COFER database.
Notes: Foreign reserves data are as of September 30, 2009. Trade invoicing data are estimates from Independent Strategy based on 2005–06 data. The "other currencies" bucket for trade invoicing includes yen and pound. Global trade data are as of 2008. GDP data are as of 2009.

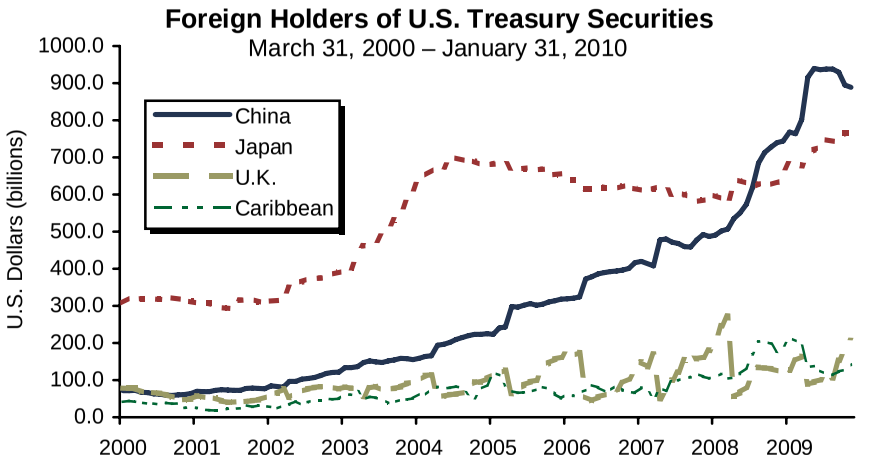
Exhibit 14

Foreign Purchases of U.S. Assets









Source: Thomson Datastream.
Notes: Data for the bottom right graph are monthly. All other data are quarterly.

Exhibit 15

Fiscal Health Forecast

2009–11

	Gross Government Debt (% of GDP)			Net Interest Payment (% of GDP)			Budget Deficit (% of GDP)		
	2009	2010	2011	2009	2010	2011	2009	2010	2011
United States	83.9	92.4	99.5	1.6	1.9	2.3	-9.9	-11.1	-10.8
Canada	82.8	85.7	88.9	0.8	0.6	0.6	-3.2	-3.6	-2.9
Japan	189.3	197.2	204.3	0.9	1.1	1.5	-7.4	-7.8	-7.3
European Monetary Union	81.8	88.3	93.2	2.7	2.8	2.9	-6.3	-7.2	-6.5
Germany	77.4	82.0	85.5	2.3	2.5	2.7	-3.2	-5.6	-5.3
Greece	114.9	123.3	130.2	4.5	4.7	4.7	-13.0	-9.5	-6.0
Italy	123.6	127.0	129.7	4.9	4.9	5.0	-5.0	-5.0	-4.8
United Kingdom	71.0	83.1	94.1	2.4	2.8	3.5	-11.4	-13.5	-11.5

	Real GDP Growth (%)			Inflation (%)			Current Account (% of GDP)		
	2009	2010	2011	2009	2010	2011	2009	2010	2011
United States	-2.5	3.1	3.0	-0.4	2.2	1.9	-2.8	-3.0	-2.5
Canada	-2.5	2.9	3.2	0.3	1.8	2.2	-4.0	-2.9	-3.6
Japan	-5.3	1.9	1.6	-1.3	-1.1	-0.3	2.8	2.9	3.0
European Monetary Union	-3.8	1.1	1.5	0.3	1.1	1.4	-0.6	-1.0	-1.0
Germany	-4.8	1.7	1.6	0.3	0.8	1.2	4.1	2.6	1.9
Greece	-1.3	-1.3	0.3	1.1	1.6	1.5	-11.2	-8.6	-5.5
Italy	-4.8	0.8	1.2	0.8	1.5	1.8	-2.6	-3.0	-2.9
United Kingdom	-4.5	1.4	2.3	2.1	2.6	1.7	-1.3	-0.7	-0.4

Sources: Consensus Economics, Economist Intelligence Unit (EIU), the Organization for Economic Cooperation and Development (OECD), and Thomson Datastream.
Notes: Net government debt and net interest payment forecasts are from OECD. Budget deficit and current account forecasts are from the EIU. Real GDP and inflation forecasts are from Consensus Economics.