Currency Wars

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Many countries are facing structural headwinds to domestic economic growth, and are increasingly turning to exports to help their cause. One way for a country to boost its export competitiveness is to reduce the value of its currency. Unfortunately, one country's trade gains from currency devaluation may come at the expense of another's, causing retaliation. In this paper, we provide a brief overview of currency markets, discuss the motives and potential dangers of currency wars, examine some historical examples, forecast what may lie ahead, and offer some direction as to how investors might position themselves.

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Currency Markets Basics

When President Nixon announced the end of the gold standard for the U.S. dollar in August 1971, it ushered in a new era of "fiat currency." As of that date, the U.S. dollar (or any other currency, for that matter) was no longer convertible into gold at a fixed rate. Paper currency was no longer "backed" by anything tangible. So what, then, determines the value of a country's currency? In today's fiat world, currency values are largely subject to the standard laws of supply and demand.

A currency's value is always expressed relative to another currency, via the official exchange rate. For example, if the U.S. dollar/Japanese yen exchange rate is 92, then one U.S. dollar can be exchanged for 92 Japanese yen. Thus, it is important to note that when the value of one currency declines (e.g., yen), the value of the other must go up (e.g., dollar).

Below are some key factors that drive the demand for a country's currency:

Interest Rates - Investors often prefer to buy currencies of a country with higher interest rates than their own, so that they can lend money to people in that country and make a profit from the spread between their home currency interest rates and the foreign country's rates. Thus, all else equal, higher interest rates increase demand, which increases a currency's value.

Inflation – Inflation eats away at the real value of a currency. Thus, a currency with low inflation will better hold its value over time. Investor demand for low inflation currencies is high, which pushes up the value of low-inflation currencies and vice versa.

Economic Strength - A nation's currency can rise or fall depending on the performance of its economy and the confidence of its investors. If standard economic measures such as employment and GDP are strong, then demand for the currency is also likely to be strong.

Debt - High government debt can reduce a currency's value. If investors become overly concerned that a government will need to print new currency to service debts, thereby increasing the currency's supply and potentially inflation, they will sell the currency, causing its value to decline.

There are benefits and drawbacks to having either a strong or weak currency. As noted earlier, a strong currency is usually reflective of a strong economy. A strong currency also helps to preserve the purchasing power of a country's citizens by, among other things, keeping the price of imports relatively low.

The reverse is also true. A weak currency, while increasing the cost of imports, decreases the cost of exports and makes a country more competitive in global trade. Similarly, a weak domestic currency can boost corporate profits, as revenues earned in higher valued currencies are worth more when translated back to the home country.

As a result, a country's desire for a strong or weak currency is largely a function of current economic circumstances. If there are enough major countries on either side of the strong/weak currency dynamic, then the world can largely stay in balance. Too many countries on one side or the other, however, can cause instability, and that is where the world finds itself today.

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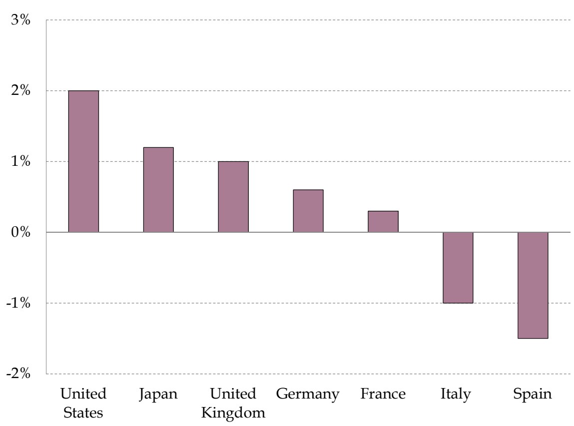
What is a Currency War?

A "currency war" occurs when multiple countries pursue a simultaneous course of competitive devaluation of their own currencies to increase export competitiveness. Burdened with oversized debt loads, many countries around the world have exhausted domestic monetary and fiscal stimulus in recent years and are increasingly turning to exports to try to grow out of their problems. For example, faced with a sluggish recovery from the Great Recession, in September 2010 President Obama outlined a plan to double U.S. exports over the next five years as a way of stimulating economic growth. While the forced devaluation of one's own currency is rarely discussed publicly as a tool to increase export growth, it is nonetheless a tempting option.

While there are countless historical examples of individual countries devaluing currencies to increase exports, the world is currently facing an unusual set of circumstances. Countries that devalue currencies to increase exports are essentially seeking to boost their own slow growth rates by leveraging the faster growth of other nations. But what happens when slow growth countries far outnumber fast growth countries?

2013 Forecasted GDP Growth Rates



In 2013, many countries are struggling to increase, or at least maintain, their share of a shrinking level of overall global growth. As stated earlier, one country's currency value is always expressed in terms of another country's currency. Therefore, for every country that competitively devalues, there are other countries that experience increases in their currency values. If there are enough high growth countries with the capacity to withstand rising currencies, this may not present a problem. But in today's growth-challenged world, the country on the other side of a competitive devaluation is quite possibly in the same boat as the country that initiated the process. Thus, rather than simply accept the consequences of a rising currency value, they may be more likely to retaliate. Such retaliation is known as a "currency war."

"Central banks around the world are printing money, supporting their economies and increasing exports. America is the prime example. If it goes on like this, the yen will inevitably strengthen. It's vital to resist this."

- Shinzo Abe, Prime Minister of Japan, December 23, 2012

"The euro foreign-exchange rate is dangerously high."

- Jean-Claude Juncker, President of the Euro Group, January 16, 2013

"China is fully prepared in terms of both monetary policies and other mechanism arrangement [sic], China will take into full account the quantitative easing policies implemented by central banks of foreign countries."

- Yi Gang, Vice Governor, People's Bank of China, February 3, 2013

The heightened level of volatility that could result from a full blown currency war may add further stress to a still fragile global recovery. Geopolitical risks are likely to escalate, with unpredictable consequences. The risks of excessive inflation will likely increase as well for all parties involved. Countries that print currency to decrease their currencies' values risk oversupplying the market with that currency and stoking inflation. Meanwhile, much of this newly created money will likely find its way into high growth countries, putting upward pressure on inflation there as well.

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Perhaps the greatest risk of currency wars is that they may eventually evolve into outright trade wars. In theory, currency wars do not change the overall volume of global trade; rather, they simply alter its distribution. Trade wars, however, are much more damaging in that they can reduce the volume of global trade. For example, countries may introduce trade barriers such as increased taxes and tariffs to protect local industries from foreign competitors. If enough countries pursue this course, the resulting drop in global trade will have broad negative consequences. This is one of the key lessons from the Great Depression.

Case Study: The Great Depression

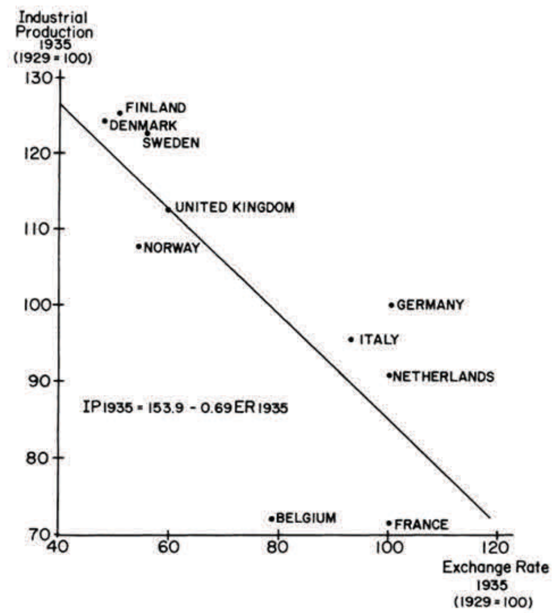
As noted earlier, while there are countless historical examples of individual countries devaluing currencies to spark economic growth, to find a truly global example of this dynamic we need to go back to The Great Depression. While there are critical differences between the world of The Great Depression and the world today (most notably the gold standard), the early to mid 1930s nonetheless offer a valuable case study of how a truly global currency war may evolve.

Similar to today, the 1930s was a period of high unemployment and low growth around the world. As the social and economic pain of this difficult combination became too much to bear, governments began looking for solutions. Unlike today, however, governments were unable to devalue their currencies to stimulate exports so long as they were "trapped" in the gold standard (i.e., the value of their currencies was directly linked to gold).

The United Kingdom was the first major country to officially leave the gold standard in 1931. Their currency immediately began to tumble versus the rest of the world and their exports began to increase as a result. Hoping to replicate that initial success, most of the other major global powers followed the U.K.'s lead in the subsequent four years.

By 1935, most of the world was officially off the gold standard. Some countries benefited greatly from this transition, while others not nearly as much. The key difference appears to have been timing. In fact, as seen in the chart below, one of the key lessons from the last truly global currency war seems to have been that he who devalues first, devalues best. The countries that devalued first (U.K., Sweden, Norway, Denmark and Finland all left the gold standard in 1931), enjoyed far higher industrial production in subsequent years than those countries that chose to remain on the gold standard.

Changes in Exchange Rates and Industrial Production 1929-1935



Source: Eichengreen and Sachs, "Exchange Rates in Economic Recovery in the 1930s," 1985

The other key lesson from the 1930s currency war is the danger of escalation. After the U.K. went off the gold standard in 1931, many countries responded not by going off the gold standard, but rather by introducing direct controls over free trade (e.g., tariffs, quotas). This had the effect of reducing global trade sharply (see the following chart). The gap between global production and trade caused chaos in the countries that relied on trade to drive domestic economic growth, and deepened the already difficult global recession.

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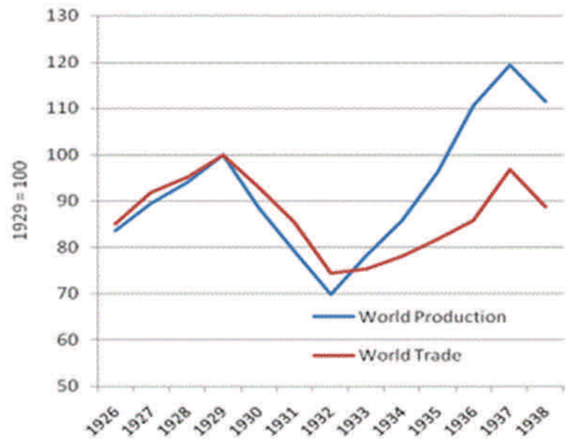
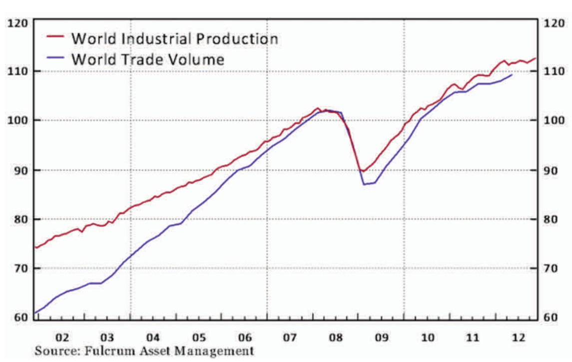
World Trade and Production, 1926-1938



Source: Eichengreen and Irwin, Vox EU, 2009

Fortunately, in this most recent bout of currency devaluations, countries have largely refrained from implementing that type of direct trade control. Thus the gap between world production and world trade has been much less pronounced and much less damaging (see the following chart). We can only hope that the world has learned this lesson well, as trade wars represent a far more dangerous escalation of currency wars.

World Trade and Industrial Production in the Great Recession of 2009
2008=100



Case Study: Asian Financial Crisis

The dynamics of the Asian Financial Crisis also present some concerning parallels to the world today. Many economists believe that a competitive devaluation of the Japanese yen in 1996 was the spark that ignited the crisis the following year. The recent actions and comments from Japanese Prime Minister Abe have again resulted in a sharp decline in the value of the yen, and stoked fears that a similar fate may be in store for Japan's Asian counterparts.

In the mid 1990s, smaller Asian countries such as Thailand, Indonesia, and South Korea, were ill-equipped to handle the destabilizing currency manipulation unleashed by Japan. These economies had grown extremely rapidly in the decade prior, but did so largely on the back of a dangerous combination of cheap exports and debt-fueled fixed asset investment (largely financed in U.S. dollars as opposed to their own currencies).

Yen depreciation quickly hurt the competitiveness of these countries' exports (as they lost market share to Japan), and a sharp slowdown in economic growth ensued. Exacerbating the problem, many of these Asian countries had loosely pegged their currencies to the U.S. dollar, which was appreciating at the time due to rising U.S. interest rates. Thus, the value of their currencies were increasing at the same time as the currency of their main export competitor, Japan, was decreasing. As growth (and hence, government revenues) began to slow, the ability of these countries to service their mounting debts grew increasingly difficult.

Foreign capital began to flow out of Asia just as quickly as it had poured in. One by one, these Asian countries ran out of the foreign currency reserves necessary to defend their currencies (i.e., to purchase their own currencies using foreign reserves) and were forced to devalue. As much of their debt was U.S. dollar-based (a condition that did not seem so risky when their currencies were initially pegged to the dollar), a devaluation versus the dollar implied a corresponding explosion in debt servicing costs. Ultimately, Thailand, Malaysia, Indonesia, and South Korea were all forced to receive bailouts from the IMF.

The Asian Financial Crisis offers another lesson in the collateral damage of currency wars. While Japan was simply acting in its own self-interest, no country can competitively devalue its currency in a vacuum, and certainly not a country the size of Japan. The motivation behind Japan's actions was to stimulate its own economy, not to hurt their neighbors, but the

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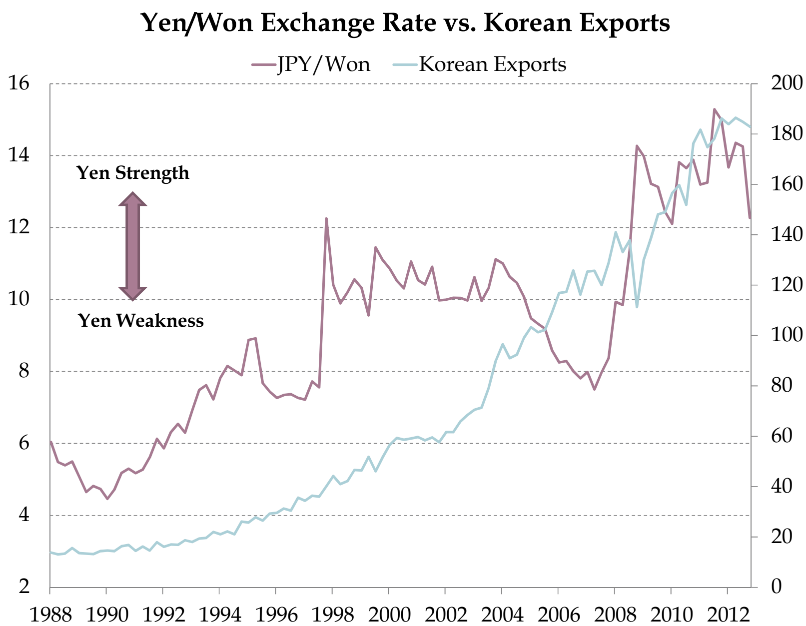
dynamics of global currency markets make it impossible to completely separate the two.

In many ways, Japan finds itself in an even more difficult situation today. Its "lost decade" has turned into two decades and counting, and the country's once vaunted export machine is a shadow of its former self. Unsurprisingly, the fall of Japanese exports has benefitted other Asian countries. South Korea, for example, has enjoyed strong growth from Samsung and Hyundai at the expense of Japan's Sony and Toyota. While certainly not the only reason, currency values have undoubtedly played a significant role.



As shown in the chart above, Korean exporters have benefited from the yen's strength (and the won's weakness). This trend has been reversed, at least temporarily, by Abe's new policies. While Japan's stance has been made clear by their new prime minister, Korea's response has yet to be announced. Long since freed from any sort of currency peg to the U.S. dollar, the Koreans are now able to respond to Japan's competitive devaluation with one of their own. The only question now is will they, and if so, where does it stop?

Looking Ahead

If the world is, in fact, headed down the road of global currency wars, who might "win"? And furthermore, what does "win" really mean in this context? The vast majority of countries in the world today are facing some type of structural growth headwinds at home, but not all can boost growth by exporting. In other words, export growth is essentially a zero-sum game. For one country to materially boost their own growth through exports, they will likely do so at the expense of others.

Recall that the biggest trade off to currency devaluation is inflation. Countries continually need to balance the external positives of devaluation (increased exports) with the internal negatives (inflation). Thus, countries where inflation is already a greater risk (e.g., many emerging markets) are unlikely to be able to fight a currency war long enough to "win." In contrast, countries that are battling strong deflationary forces from the deleveraging of excessive debt loads (Japan, Europe, U.S., etc.) are much more likely to be able to stay the course for longer. Inflationary consequences also mean that relatively poor countries are likely at a big disadvantage in a currency war. This is because inflation often shows up in food prices first, which is far more damaging to poor countries than their wealthy counterparts.

Central bank policies and actions will also play a critical role going forward. The typical market response to an increase in inflation expectations is to demand higher interest rates for a country's bonds. Increasing interest rates mean higher debt servicing costs, which can further strain government resources and increase risk. If central banks are actively intervening in government bond markets to suppress interest rates (by printing money to buy government bonds), this reduces the near-term risk of a sharp rise in interest rates. While such nonconventional central bank policies may have longer-term consequences, they can pro-

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vide short-term advantages for any country engaged in a currency war.

How much does a currency need to devalue to have a real impact? What about all of the other economic factors that influence a country's growth rate? All else equal, a cheaper currency should lead to more exports, but all else is never equal. For this reason, among others, there is no conclusive evidence that currency devaluation actually achieves its desired effect.

In an article for the *Journal Of Economic Development* entitled "Are Devaluations Contractionary?," author Ilker Domac summarizes the results of 22 independent studies on the effects of currency devaluations, in both developed and emerging markets, using a variety of analytical approaches. He concludes that "the results of the studies concerning the effect of devaluation on output have been quite mixed; while some studies suggest that devaluations have an expansionary effect on output, others argue that they lead to a contraction in the economy."

There are a number of reasons why currency devaluation might not boost overall economic growth or even export growth. One potential reason is that while currency devaluation makes exports cheaper, it also makes imports more expensive. Thus, if some of the inputs to making a given export product need to be imported from other countries (and they are now more expensive), devaluing the currency can actually force up costs on par with revenues. In addition, the potential inflationary effects of currency devaluation can erode the real purchasing power of a country's citizens, thereby reducing aggregate demand.

Investment Opportunities and Potential Risks

It would be very difficult, if not impossible, to forecast which specific currencies would do better or worse in the event of a full blown global currency war, because much of this would be determined by future policy decisions. A more prudent way to hedge against this type of outcome, in our opinion, is with real assets. Real assets can include commodities, infrastructure, real estate, and natural resources. As opposed to many financial assets, whose value can be significantly eroded over time by inflation, real assets should provide their investors with protection against broad currency debasement. Inflation-linked bonds would also prove to be a valuable asset in this scenario.

Another beneficiary, at least short-term, is likely to be the emerging markets. If developed markets continue to pursue aggressive monetary easing, there will potentially be a lot of new money looking for a home. A good portion of that increased liquidity is likely to find its way into the faster growing economies of the emerging markets. These capital inflows will initially be a positive for both the stock and bond markets of emerging countries. Furthermore, if developed market countries are successful in devaluing their currencies, emerging markets currencies should appreciate as a result, increasing the short-term return for U.S.-based investors. Longer-term, however, significant capital inflows can be problematic if they are not allocated efficiently (a phenomenon that has led to boom/bust cycles in emerging markets). And since many emerging markets are less likely to be able to defend their currencies, their exports, and hence earnings, will likely decline over the longer term.

A number of important risks would also arise from a potential currency war. As discussed earlier, the most concerning risk is not necessarily a currency war itself, but rather the effects of a currency war. A global trade war (i.e., protectionism through tariffs/taxes on foreign goods) could severely reduce overall global trade, damaging economies around the world.

A rise in geopolitical tension is another potential effect of currency wars. To date, a somewhat coordinated effort from global central banks to ease monetary conditions has been a major factor in calming capital markets around the world. Should this coordination deteriorate into competition, risk and volatility are likely to rise across the globe.

Lastly, a discussion of potential risks brings us full circle back to Japan. With the largest government debt-to-GDP ratio in the world (230%) and some of the lowest interest rates in the world, Japan would be in a very difficult posi-

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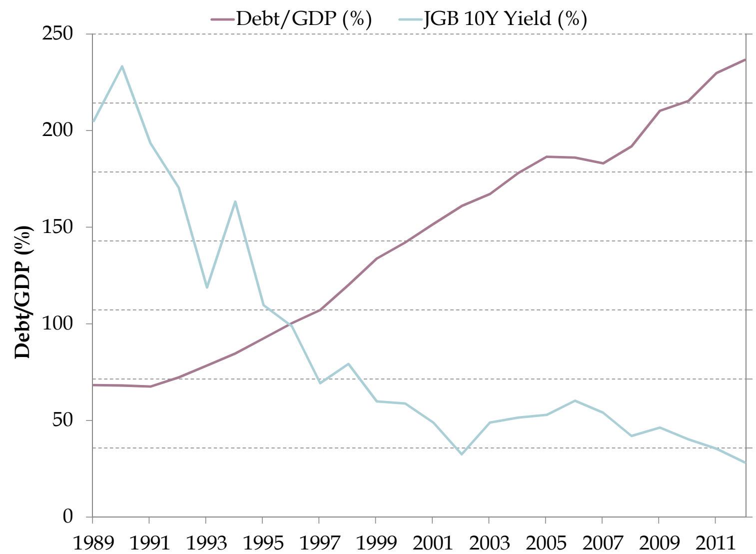
tion should their bond market begin to price in an expected jump in inflation through higher interest rates. Even with an interest rate of just 0.56% on ten-year Japanese government bonds (as of March 25, 2013), interest expense on their outstanding debt alone already consumes roughly a quarter of their tax revenue. Thus, while the government is attempting to increase inflation (with a devalued currency as a byproduct), a corresponding rise in interest rates may create dramatic long-term problems as new debt is issued at higher interest rates.

Japanese Debt/GDP vs. JGB Yields



Conclusions

The potential for currency wars will remain elevated for a prolonged time, given the structural issues facing most of the developed world today. It is difficult to forecast future outcomes, as much will be the result of policy decisions that will likely be motivated by politics as much as economics. Furthermore, there is a lack of historical precedent for today's economic landscape to provide clues as to how this may all play out. Thus far, currency wars have been fought more with words than actions, but it is a situation that warrants monitoring closely.

As shown below, the election of Abe in Japan and the coincident easing of monetary policy has caused a rapid decline in the yen. The euro has been devalued at times over this period largely due to market reaction to various banking and sovereign debt crises. While the U.S. dollar has weakened over the full period relative to all these currencies, competitive devaluation could alter the playing field significantly in the future. We believe the incentive to devalue will mean continued volatility in the currency markets for many more years to come and, therefore, increased uncertainty in the global economy.

Major Currency Values versus U.S. Dollar
March 2009 – March 2013