OUTLOOK

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ECONOMIC DATA AND COMMENTARY

Outlook for the U.S. Dollar

A look inside what really affects the value of our currency – and its impact on the American economy

The U.S. dollar has been on a tear recently. Thanks to a relatively strong U.S. economy, rising interest rates and other factors, the American currency is at its strongest position in more than a dozen years. The euro, for example, has lost more than 30 percent of its value versus the dollar since 2008. But a strong dollar presents a mixed blessing for U.S. businesses, says Mauro Guillén, Professor of International Management at the Wharton School of the University of Pennsylvania. A higher dollar makes American exports more expensive, and can have detrimental effects on the service economy as well, but also has positive effects on many corners of the economy.

President Trump has openly declared that he favors a weaker currency, but in a complex global economy with many moving parts, even the president has only so much control over the direction of the dollar. And sometimes, Dr. Guillén notes, efforts to protect domestic companies and jobs can backfire. He spoke with OUTLOOK about why the dollar is surging, what businesses are most likely to prosper or feel the pinch, and what's ahead in the ever-shifting realm of global currency valuations.

OUTLOOK: What determines the strength or weakness of a currency?

Mauro Guillén: There are four main factors. The most important is interest rates, since "interest rate" is another way of saying the price of money. If a country's interest rate goes up, the value of its currency rises as well. Second is the strength of the economy relative to other countries. The third factor is whether you're running a high trade deficit, which tends to weaken a currency. Finally, there's the question of whether your money is a reserve currency – in other words, one that people around the world have confidence in. The dollar is the most widely used currency in the world. Something like 90 percent of all the trade in the world is invoiced in dollars, and more than 60 percent of the reserves in the world are kept in dollars.

It's important to note that those four factors don't always move in unison. The United States, for example, runs a significant trade deficit, but its economy has been performing relatively well. Given all of these variables, multiplied by all of the different countries and currencies, you can see why currency values worldwide are in constant flux.

This Month's Expert

A professor at the Wharton School, Mauro F. Guillén directs the Joseph H. Lauder Institute at the University of Pennsylvania, which focuses on management and international relations. His most recent books include "Global Turning Points" and "Emerging Markets Rule," both published in 2012. He is also the author or co-author of "The New Multinationals" (2010), "Green Products" (2011) and several other books.

A specialist in globalization and the internationalization of companies, Guillén serves on the World Economic Forum's Global Agenda Council on Emerging Multinationals. He is the winner of the Aspen Institute's Faculty Pioneer Award.

OUTLOOK: What's the most reliable index for currency values?

MG: For gauging the dollar, the best index is the Fed's Trade Weighted U.S. Dollar Index. It shows the exchange rate of the dollar relative to all currencies in the world simultaneously, and it's weighted toward those currencies from countries with which the U.S. has the most trade, such as Canada, Japan, Mexico, and the euro area. Since 2012, the dollar has been going up and up. In January 2017 the dollar index surpassed 127, the highest we've seen since 2002.

OUTLOOK: What are the main reasons behind the dollar's recent surge?

MG: There's been a lot of volatility around the world, which tends to strengthen a reserve currency such as the dollar. Since the Brexit vote last summer, for example, the dollar has appreciated significantly against the British pound. While our trade deficit rose for 2016 overall, it declined in December. And although growth slowed in the fourth quarter of 2016, the U.S. economy is still doing better than many others in the world.

But the most important factor is that the Federal Reserve has changed its interest rate posture, by raising rates. That essentially means that U.S. assets are becoming more attractive.

OUTLOOK: What does a stronger dollar mean for U.S. consumers?

MG: For the average U.S. consumer, it's a positive. If you've been planning an overseas trip, now may be the time. Even if you don't travel, everything you buy that's imported is going to be less expensive. The impact may not be immediate, but over time, competition means companies will pass those cheaper prices along to consumers. That's true whether you're shopping at Wal-Mart or buying a luxury car from Germany or Italy. To the extent that increased buying power adds to consumer confidence, the strong dollar can also strengthen the economy.

OUTLOOK: What impact does a strong dollar have on agriculture and other U.S. industries?

MG: The general rule, of course, is that a strong dollar hurts U.S. exports by making our products more expensive overseas. Clearly, that includes U.S. agriculture, which exports goods around the world. It's also a challenge for global exporters such as Boeing, as well as manufacturers trying to compete against emerging-market companies in Mexico or China. But there are some positives as well. Agricultural producers who buy equipment or supplies made overseas benefit from cheaper prices, as do manufacturers who source components from overseas. So the benefits and costs really go case-by-case.

TRADE WEIGHTED U.S. DOLLAR INDEX

Source: The Federal Reserve

OUTLOOK: How is the service economy affected?

MG: Because so much of what U.S. consumers buy these days is imported, the retail sector tends to do very well when the dollar is strong. Tourism, on the other hand, suffers when it becomes more expensive for foreigners to visit the United States. Another industry that struggles is one people may not think of, but which is actually a major contributor to the U.S. balance of payments, and that is higher education. The U.S. attracts students from all over the world, many of whom pay full tuition. Fewer of them will want to come when the dollar grows stronger.

OUTLOOK: What did you think when President Trump's recent comment to the Wall Street Journal that the dollar is "too strong" caused a temporary drop in its value?

MG: It's important to distinguish between daily, short-term fluctuations, which occur constantly, and longer trends. A single comment from the president can cause a temporary blip, but long-term trends are going to be driven by more basic economic factors, such as the ones I described earlier.

OUTLOOK: What do you see as the future of the dollar during the Trump administration?

MG: The number one factor will have less to do with President Trump and more to do with the Federal Reserve, which operates independently. If the Fed continues to raise interest rates, as appears likely, I think the dollar will grow stronger for at least the next three years or so. I could see the dollar increasing in value by 3 percent to 5 percent over today.

That said, the president's policies can have a significant impact. For example, if President Trump's promises to strengthen the economy are fulfilled, that could further strengthen the dollar. Fiscal stimulus can also have an impact. A massive infrastructure program could stimulate economic growth and strengthen the dollar, at least temporarily. On the other hand, given that we have relatively low unemployment, a major stimulus program could also generate inflation, which could undermine the dollar's value. A president's policies can also have consequences – intended and unintended – when it comes to the strength of the dollar versus the currencies of individual countries.

> "The president's policies can have a significant impact. If President Trump's promises to strengthen the economy are fulfilled, that could further strengthen the dollar."

OUTLOOK: What sort of unintended consequences?

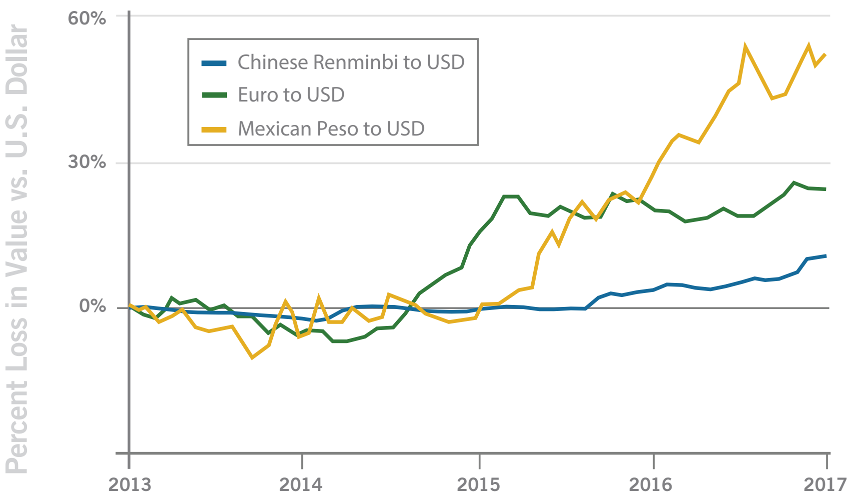
MG: Mexico depends on the United States for something like 90 percent of its export market. Trump has taken a very confrontational approach with Mexico on everything from U.S. companies with factories in Mexico to trade to immigration and national security. One of the president's proposals includes a possible 20 percent tariff on goods from U.S. companies manufacturing in Mexico. Despite the president's statements about preferring a weaker dollar, the peso has lost about 18 percent of its value relative to the dollar since the week before the election, largely based on Trump's confrontational approach. That 18 percent drop effectively negates the impact a 20 percent tariff would have, and only stands to make Mexican exports to the United States cheaper and more attractive overall.

Incidentally, a tariff on Mexico could lead to another unintended consequence unrelated to currency but directly related to agriculture. Mexico is a big importer of American grains from the Midwest. They've already indirectly suggested that they would reduce their purchases of American grains, and look for another country to supply them. What they're saying is, look, we'll have no option but to retaliate against this tariff.

OUTLOOK: Considering all of the tough talk on trade that we've heard between President Trump and China, what are the chances that a trade war with China might weaken the dollar?

MG: That's unlikely. China has two considerations: First, they want to continue exporting, so they like the stronger dollar. Second, China owns about $3 trillion in U.S. Treasuries, so a collapse in the value of the dollar would reduce their wealth. Ironically, China has emerged from the last few months as the biggest defender of the liberal global economic order. Whereas Trump is saying, "Protection, protection, protection," China is saying, "Free trade, free trade, free trade," because they have such an interest in trade. Likewise, the United States economy, as well as consumers, benefit from free trade. For all of the harsh words, both sides have a strong interest in avoiding a trade war.

THE DOLLAR VS. CURRENCIES OF MAJOR TRADING PARTNERS



Source: www.tradingeconomics.com I OTC Interbank

OUTLOOK: What's the outlook for other global currencies, such as the euro – especially given all of the economic and political tensions in Europe?

MG: Europe has a lot of unresolved problems right now. It's not just Brexit – it's also the weakness and instability of Italian banks, and ongoing Greek deficits. But the biggest question for Europe is how many more stimulus policies they're going to have to implement before their economy recovers. The European economy has never really recovered from the financial crisis, and that's a huge problem. It's not clear that the euro is going to survive. It will survive to the extent that Germany continues to bankroll it, essentially. Doubts about the euro have certainly contributed to the dollar's strength.

But Europe is a huge market. If you consider the 28 member countries of the European Union, it's bigger than the United States. The disappearance of the euro would be a major source of upheaval and turmoil in the world. I don't think we want to go there.

OUTLOOK: Do you foresee a time when there will be a truly global currency, one that all countries use, thus eliminating currency fluctuations?

MG: There is some serious talk right now about a digital currency that might be issued by the United Nations or the International Monetary Fund. The current situation, with the dollar as the world's reserve currency, is not ideal, given the changes we've seen in the global economy. It's important to remind people that the U.S. now represents about 18 percent of the global economy, compared with about 50 percent in the years following World War II. The reality – and this is not just Donald Trump talking – is that we cannot be everything and do everything for everybody in the world. Not anymore.

But the political obstacles to a global currency are enormous. The IMF already has a reserve asset known as SDR, which stands for Special Drawing Right. It's not a currency, but a basket of global reserve currencies including the dollar, the euro, China's renminbi, the yen, and the pound sterling, that IMF member nations can draw on to supplement their own reserves. The reality is that, most likely, a global currency would have to take the same path, being based on a basket of major currencies rather than replacing them. The challenge with baskets of currencies is that you still have all of the political issues of how to weigh each of those currencies in the basket.

For the foreseeable future, we will continue to use currencies issued by individual governments. What I'm saying is that I think we're stuck with the U.S. dollar for a while.

Interest Rates and Economic Indicators

The interest rate and economic data on this page were updated as of 1/31/17. They are intended to provide rate or cost indications only and are for notional amounts in excess of $5 million except for forward fixed rates.

KEY ECONOMIC INDICATORS

Gross Domestic Product (GDP) measures the change in total output of the U.S. economy. The Consumer Price Index (CPI) is a measure of consumer inflation. The federal funds rate is the rate charged by banks to one another on overnight funds. The target federal funds rate is set by the Federal Reserve as one of the tools of monetary policy. The interest rate on the 10-year U.S. Treasury Note is considered a reflection of the market's view of longer-term macroeconomic performance; the 2-year projection provides a view of more near-term economic performance.

ECONOMIC AND INTEREST RATE PROJECTIONS

Forecasts courtesy of Bloomberg and Blue Chip Economic Indicators

				US Treasury Securities	
2017	**GDP**	**CPI**	**Funds**	**2-year**	**10-year**
Q1	2.20%	2.40%	0.69%	1.22%	2.50%
Q2	2.30%	2.40%	0.83%	1.38%	2.62%
Q3	2.40%	2.30%	0.95%	1.54%	2.71%
Q4	2.30%	2.30%	1.11%	1.70%	2.82%
2018	**GDP**	**CPI**	**Funds**	**2-year**	**10-year**
Q1	2.40%	2.30%	1.21%	1.85%	2.88%

PROJECTIONS OF FUTURE INTEREST RATES

The table below reflects current market expectations about interest rates at given points in the future. Implied forward rates are the most commonly used measure of the outlook for interest rates. The forward rates listed are derived from the current interest rate curve using a mathematical formula to project future interest rate levels.

IMPLIED FORWARD SWAP RATES

Years Forward	3-month LIBOR	1-year Swap	3-year Swap	5-year Swap	7-year Swap	10-year Swap
Today	1.02%	1.25%	1.72%	2.00%	2.19%	2.39%
0.25	1.18%	1.39%	1.82%	2.05%	2.24%	2.41%
0.50	1.33%	1.53%	1.92%	2.13%	2.29%	2.48%
0.75	1.47%	1.65%	2.01%	2.22%	2.37%	2.53%
1.00	1.56%	1.77%	2.07%	2.26%	2.40%	2.57%
1.50	1.84%	1.96%	2.23%	2.40%	2.51%	2.64%
2.00	1.94%	2.15%	2.34%	2.49%	2.59%	2.70%
2.50	2.08%	2.24%	2.42%	2.55%	2.65%	2.74%
3.00	2.22%	2.34%	2.49%	2.60%	2.71%	2.78%
4.00	2.37%	2.49%	2.66%	2.74%	2.80%	2.85%
5.00	2.53%	2.67%	2.76%	2.83%	2.84%	2.90%

HEDGING THE COST OF FUTURE LOANS

A forward fixed rate is a fixed loan rate on a specified balance that can be drawn on or before a predetermined future date. The table below lists the additional cost incurred today to fix a loan at a future date.

FORWARD FIXED RATES

Cost of Forward Funds

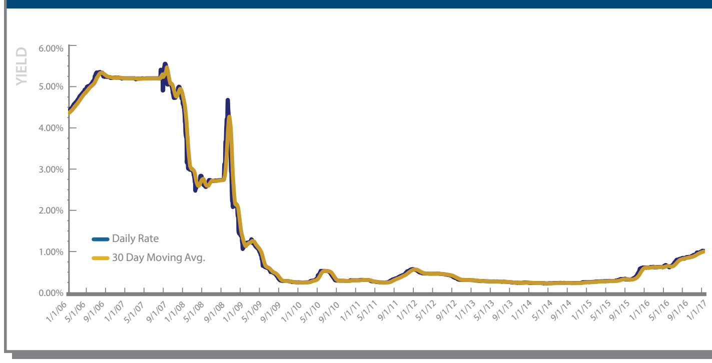
Forward Period (Days)	Average Life of Loan			
	2-yr	3-yr	5-yr	10-yr
30	6	6	6	5
90	12	13	13	10
180	18	22	23	17
365	44	44	44	32

Costs are stated in basis points per year.

SHORT-TERM INTEREST RATES

This graph depicts the recent history of the cost to fund floating rate loans. Three-month LIBOR is the most commonly used index for short-term financing.

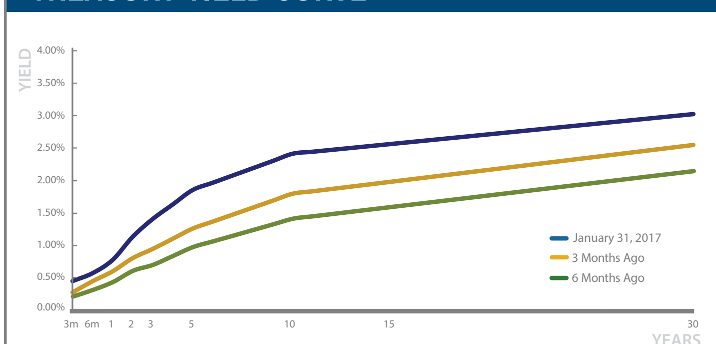
3-MONTH LIBOR



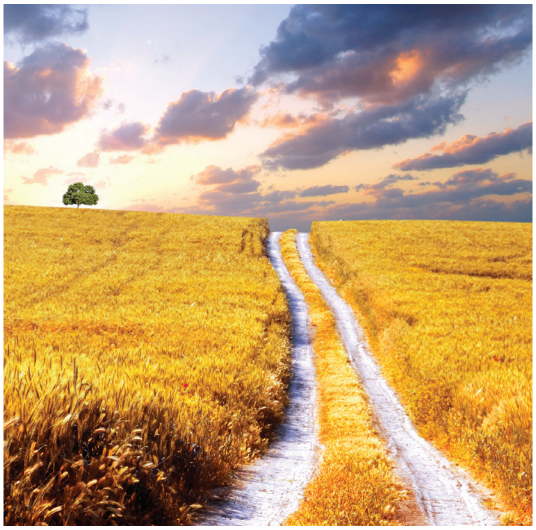
RELATION OF INTEREST RATE TO MATURITY

The yield curve is the relation between the cost of borrowing and the time to maturity of debt for a given borrower in a given currency. Typically, interest rates on long-term securities are higher than rates on short-term securities. Long-term securities generally require a risk premium for inflation uncertainty, for liquidity, and for potential default risk.

TREASURY YIELD CURVE



COBANK UPDATE



CoBank Reports Full-Year Financial Results for 2016

CoBank has announced its financial results for the full year and fourth quarter of 2016. Net income for the year rose 1 percent to $945.7 million, reflecting increased net interest income offset by a greater provision for loan losses as well as higher Farm Credit insurance fund premiums and other operating expenses. Net interest income increased by 7 percent to $1.4 billion, as a result of higher loan volume and increased earnings from balance sheet positioning, partially offset by lower spreads in the bank's loan and investment portfolios.

CoBank's average loan volume increased 10 percent in 2016, to $91.6 billion, driven by higher levels of borrowing from affiliated Farm Credit associations, grain cooperatives, food and agribusiness companies, rural electric cooperatives and communications service providers.

For the fourth quarter of 2016, net income was $227.3 million, compared to $236.3 million in the same period of 2015. Earnings declined primarily due to a $15 million provision for loan losses taken during the fourth quarter of 2016, which more than offset the positive impacts of higher net interest income. Net interest income for the quarter increased 3 percent to $345.0 million as a result of higher average loan volume. Average loan volume increased 7 percent during the period, to $93.2 billion.

Thomas Halverson

"2016 marked another year of strong business and financial performance for CoBank," said Thomas Halverson, CoBank's chief executive officer. "Loan volume and net income reached all-time highs, while credit quality, liquidity and capital levels remained solid. Most importantly, we continued to fulfill our mission by delivering dependable credit to our customers, partnering effectively with other Farm Credit institutions, and providing support for rural industries and communities."

In March, the bank will distribute a record $588.1 million in total patronage to customers, including $473.9 million in cash and $114.3 million in common stock. "Patronage is an important part of the value we provide as a financial cooperative," Halverson said. "It effectively lowers the overall cost of borrowing for customers while enabling them to build equity in the bank and have a voice in the governance of our business. We're delighted with the level of patronage approved by our board of directors and look forward to delivering this benefit to our customers in coming weeks."

About CoBank

CoBank is a $126 billion cooperative bank serving vital industries across rural America. The bank provides loans, leases, export financing and other financial services to agribusinesses and rural power, water and communications providers in all 50 states. The bank also provides wholesale loans and other financial services to affiliated Farm Credit associations serving farmers, ranchers and other rural borrowers in 23 states around the country.

CoBank is a member of the Farm Credit System, a nationwide network of banks and retail lending associations chartered to support the borrowing needs of U.S. agriculture, rural infrastructure and rural communities. Headquartered outside Denver, Colorado, CoBank serves customers from regional banking centers across the U.S. and also maintains an international representative office in Singapore.

For more information about CoBank, visit the bank's web site at www.cobank.com.

CoBank Reports Full-Year Financial Results for 2016 *Continued*

Credit quality in CoBank's loan portfolio declined slightly during the year but remained favorable overall. Nonaccrual loans increased to 0.22 percent of total loans, compared to 0.18 percent at year-end 2015. Adverse assets were 0.81 percent of total loans at year-end, compared to 0.70 percent at December 31, 2015. CoBank recorded a $63.0 million provision for loan losses in 2016 due to growth in overall lending activity as well as credit quality deterioration in its Agribusiness operating segment. The bank's allowance for credit losses totaled $662.5 million at year-end, or 1.37 percent of non-guaranteed loans when loans to Farm Credit associations are excluded.


David P. Burlage

"Agribusiness borrowers are facing a number of challenges, including the continuing softness in commodity prices, a strong dollar, and slower economic growth in China and other international markets," said David P. Burlage, CoBank's chief financial officer. "It's possible CoBank will see further deterioration in credit quality as a result of these trends. That said, overall credit quality continues to be strong, and we remain confident in the bank's risk-bearing capacity and its continued ability to meet the borrowing needs of its customers."

Capital and liquidity levels at CoBank remain well in excess of regulatory minimums. As of December 31, 2016, shareholders' equity was $8.6 billion, and the bank's permanent capital ratio was 15.47 percent, compared with the 7.0 percent minimum established by the Farm Credit Administration (FCA), the bank's independent regulator. At year-end, the bank held approximately $30.2 billion in cash and investments. The bank had 197 days of liquidity at the end of 2016, which exceeded the FCA minimum.

Halverson noted that CoBank is dealing with a number of marketplace dynamics that could negatively affect earnings in the year ahead, including intense competition from other lenders, continued margin compression and a sustained low interest rate environment that impacts returns on invested capital. Nonetheless, he said, the bank remains fundamentally sound and well positioned to serve customers.

"CoBank is a unique financial institution with an intrinsically strong business model," Halverson said. "Under the guidance of our board, we remain focused on fulfilling our mission and building the financial strength and flexibility of the bank for the long term."

The 2016 financial results discussed herein are preliminary and unaudited. CoBank's audited financial statements for the year ended December 31, 2016, are expected to be available on or about March 7, 2017.