Influencers and drivers of the U.S. dollar

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Introduction

Foreign currencies are the most widely-traded instruments in the world, with trading in the foreign exchange (forex) market soaring to $6.6 trillion per day in 2019, according to the Bank for International Settlements (BIS). The U.S. dollar has a premier position as the leading reserve currency, being on one side of 88% of all trades, based on the BIS 2019 Triennial Central Bank survey.

Every day, news, events, policy decisions, and even the weather play a role in currency trading, which directly and indirectly affects equities and commodities trading. Understanding the U.S. dollar's role in global trade, its effect on commodity prices, and the policies that drive these markets is crucial for any trader in any market.

This paper breaks down several of the most influential relationships between the U.S. dollar, foreign currencies, and commodities, and how these relationships might evolve in the short and medium terms based on policy, trade disputes, and the COVID-19 pandemic.

The ascent of the U.S. dollar

The U.S. dollar rose to prominence in the final years of World War II with the Bretton Woods Agreement and System, negotiated by 44 countries in 1944 in Bretton Woods, New Hampshire, at a United Nations Monetary and Financial Conference. The goals of the conference were to establish an efficient foreign exchange system, thwart competitive currency devaluations, and promote international economic growth.

Bretton Woods required other currencies to peg to the U.S. dollar and for the U.S. dollar to be pegged to gold. The exchange rate was set at $35 per ounce of gold. The purpose of countries pegging to the U.S. dollar was to stabilize global currencies and promote global trade. The agreement established the U.S. dollar as the world's reserve currency, which was backed by the world's largest gold reserves.

To be compliant with Bretton Woods, the 44 countries that were part of the system had to monitor their markets and ensure no more than a 1% diversion in the value of their currency versus the U.S. dollar. One way to achieve compliance was for a country to buy the U.S. dollar and place it in reserves held by its central bank. The limited diversion allowance would temper volatility in the international currency exchange rate, which benefited global trade relations.

Bretton Woods also created the International Monetary Fund (IMF) and the World Bank. The IMF monitors exchange rates and identifies countries in need of financial support, while the World Bank offers supportive loan and grant programs that were initially designed to assist countries devastated by World War II. Both the IMF and the World Bank include 189 country members.

The system began to unravel in 1971 when U.S. President Richard Nixon was concerned there was an inadequate supply of gold to cover the number of U.S. dollars in circulation, so he devalued the U.S. dollar against gold. A run on the U.S. gold reserve ensued, and Nixon responded by suspending the dollar's convertibility into gold. The Bretton Woods System collapsed in 1973.

After the collapse, countries were no longer obligated to peg their currencies to the U.S. dollar. They couldn't peg to gold either. Countries could link their currencies to the currency of another country, to a basket of other currencies, or let it float for the market to determine its value against that of other nations' currencies.

> The International Monetary Fund and the World Bank were created by Bretton Woods Agreement and System.

U.S. dollar index

Following the dissolution of the Bretton Woods Agreement, the U.S. dollar index was created in 1973. It was measured at a base of 100 and originally included 10 currencies. It only changed once in 1999 with the creation of the European Union (EU) and euro, with the euro replacing the West German mark, the French franc, the Italian lira, the Dutch guilder, and the Belgium franc.

Today, the value of the U.S. dollar is measured as an index against a basket of six world currencies.

1. Euro – 57.6%
2. Japanese yen – 13.6%
3. British pound sterling – 11.9%
4. Canadian dollar – 9.1%
5. Swedish krona – 4.2%
6. Swiss franc – 3.6%

The U.S. dollar index reached a high at 164.7200 in February 1985, and a low of 70.698 in March 2008.

Currency relationships

Currencies trade in pairs in the forex market because as you purchase one currency, you are selling another currency. The currency listed first is the base currency, and the currency listed second is the quote currency. The quote currency is what is shown, and the price a buyer would need to pay for the trade.

BIS, in their triennial survey of April 2019, listed the 10 most frequently traded forex pairs as follows:

1. Euro/U.S. dollar – 24%
2. U.S. dollar/Japanese yen – 13.2%
3. British pound/U.S. dollar – 9.6%
4. Australian/U.S. dollar – 5.4%
5. U.S./Canadian dollar – 4.4%
6. U.S. dollar/Chinese renminbi – 4.1%
7. U.S. dollar/Swiss franc – 3.5%
8. U.S./Hong Kong dollar – 3.3%
9. Euro/British pound – 2%
10. U.S. dollar/South Korean won – 1.9%

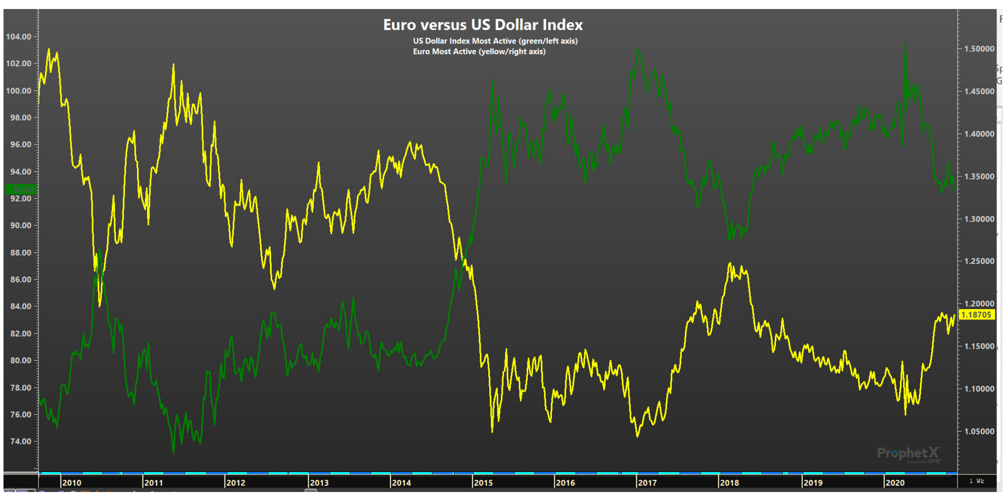
Currency pairs in forex trading typically fall into three categories: major, commodity, and cross currencies.

Major currencies, as the previous list shows, are the most traded pairs. Commodity currencies are currencies paired together that have a value closely associated with a commodity, such as crude oil and coal. Cross currencies are currencies paired together that do not include the U.S. dollar.

Euro/U.S. dollar

The euro/U.S. dollar trade is the most popular because the pairing represents the world's two largest economies. The EU is the world's single largest market with 27 countries, and the United States is the largest single nation economy. The euro is also the world's second most popular reserve currency with $2.21 trillion or 20.2% of global share in 2019, with the U.S. dollar the top reserve currency with $6.74 trillion or 61.8% of world market share.

Numerous factors affect the spread between these two currencies, with interest rates set by the European Central Bank and U.S. Federal Reserve as the dominant determinants. The currency with the higher interest rate will usually be in greater demand and will appreciate against the other currency because of the better return on the investment. Policy decisions by the two central banks can greatly affect the euro/U.S. dollar trade, as does economic growth and debt levels.



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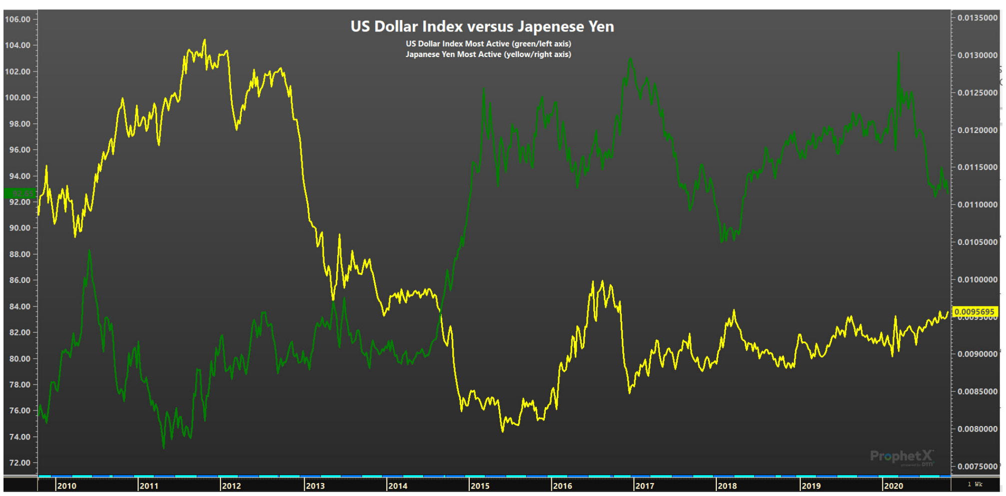
> The popularity of this trade ensures a great deal of liquidity that leads to tight spreads. These two features are alluring for large trades, since the trade can easily be filled and made with limited impact on the market.

U.S. dollar/Japanese yen

The U.S. dollar/Japanese yen is the second most popular trade, pairing the first and third largest single country economies. This high-liquidity trade pairing also reflects the fact that the U.S. dollar is the most widely traded currency in the world, while the yen is the most widely traded currency in Asia, the third most used currency globally, and lastly, considered the world's safest currency. The yen was the world's third most popular reserve currency in 2019, at $572 billion or 5.25% of market share.

The Bank of Japan, Japan's central bank, pioneered zero-interest rates to spur inflation and stimulate economic growth more than two decades ago. The decision has failed to achieve its objective so far, although many other central banks have moved to 0% interest rates, including the U.S. Federal Reserve, while the European Central Bank in June 2014 was the first major central bank to lower a key interest rate into negative territory. Japan's 0% interest rates have long fueled a popular trade because of the low cost of borrowing in yen, then using the funding to buy currencies with higher interest rates or investments with a higher yield.



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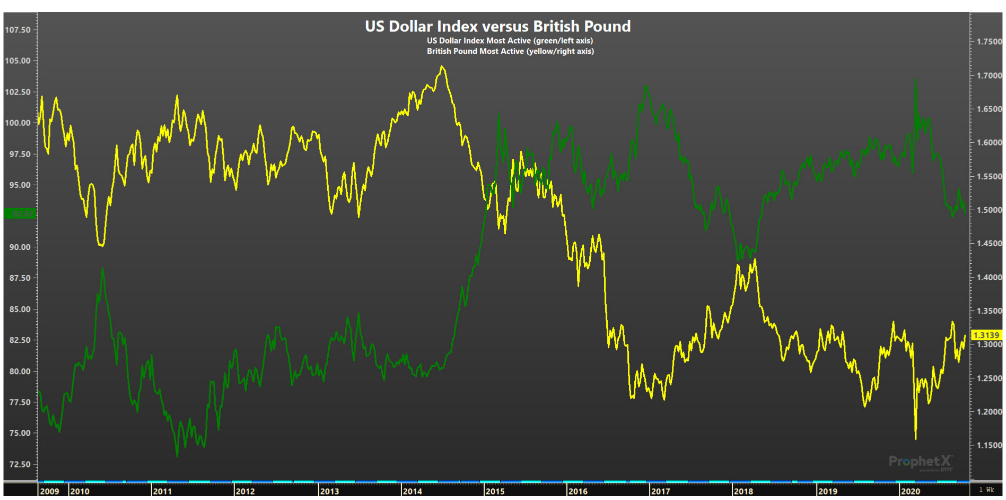
The yen serves as a measure of risk tolerance, especially in Asia, where it is known as a "safe haven" currency; typically appreciating in value amid uncertainty and bearish markets. When investors are more optimistic, the yen typically weakens against rival currencies.

British pound/U.S. dollar

One of the most active currency trades is the British pound against the U.S. dollar, with the pound the fourth most-traded currency globally; and in 2019, the world's fourth most popular reserve currency with $495 billion or 4.5% of global share. The 1,200-year-old currency benefits from London's status as the world's leading foreign exchange center, with the London Stock Exchange another feature supporting trading in the pound.

As currencies primarily reflect the nation's economic strength, Brexit is currently the greatest risk for the pound. Since the June 2016 vote by the United Kingdom to leave the EU, talks in the attempt to secure a trade deal have dragged on between London and Brussels, and the two parties remain at loggerheads over a handful of issues. The UK legally withdrew from the EU on Jan. 31, 2020, but has remained an EU member through the ensuing transition period, which ends on Dec. 31, 2020.

The reality of a "hard Brexit" will cause more pain for the UK than the EU, as they've been hit harder by the COVID-19 pandemic than the 27-nation bloc. In October, the IMF estimated a 9.8% contraction in the UK economy in 2020 compared with an 8.3% contraction for the euro area. Still, UK Prime Minister Boris Johnson has expressed no compunction in exiting the EU without a trade agreement; while Brussels, agreeing that a divorce without an accord on trade would hurt the EU, said it would not seek an arrangement at all costs. Markets will continue to closely monitor these developments through the end of 2020. And in 2021, they'll react to how a London freed of Brussels' strictures expands its trade relations globally.



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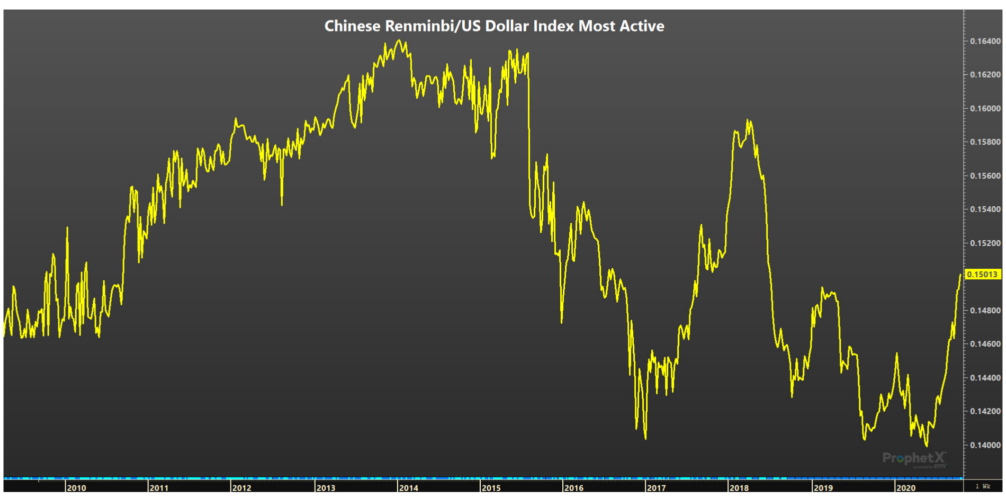
U.S. dollar/Chinese renminbi

Also referred to as the yuan, the Chinese renminbi has been pegged to the U.S. dollar since 1994. Unusual for a major economy, the government's intervention in the value of its currency ensures it will hold below the U.S. dollar; boosting China's exports by making them cheaper for a foreign buyer. China's economy has long been export-driven and pegging its currency to the U.S, dollar ensures it will be a low-cost provider of goods internationally. The strategy has also earned China the unflattering moniker of "currency manipulator," drawing sharp rebuke from government officials globally.

In January 2020, China held 3.4 trillion U.S. dollars in currency reserves, the most of any country, and $2 trillion or 145% more than Japan, the second-largest holder of the U.S. dollar.

Beijing has allowed its currency to depreciate against the U.S. dollar since the so-called trade war during the Trump administration. More recently, the value of the renminbi has strengthened relative to the U.S. dollar alongside its economy.



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China is the world's second-largest single nation economy and is growing quickly. In October, the IMF projected China would be the only major economy to grow this year as other economies contract due to the debilitating effects of the pandemic and their government responses with lockdowns, with COVID-19, ironically, emerging from Wuhan, China. IMF forecasts annualized GDP growth for China's economy at 1.9% this year and 8.2% in 2021.

China's economic strength relative to other major economies during the current global crisis does make the renminbi a good hedge. It is made more so by the increasing likelihood of a hard Brexit, a second COVID-19 wave in Europe that is triggering widespread lockdowns — and with its stalled economic growth and possible political fallout — and divisive politics in the United States.

Presently, a different story emerges. Beijing has laid bare its rejection of democracy by overthrowing Hong Kong's Special Administrative Region despite its pledge to observe a "one-country, two-system" government approach following Hong Kong's transfer from the UK in 1997 with the end of a 99-year lease. Beijing has upended Hong Kong's highly developed free-market economy and international financial market, which is sure to scare away investments. Since the spread of the coronavirus, Beijing has taken an even more belligerent tone globally, including hostility to Taiwan.

> Beijing has bold plans, and there has been speculation that China would someday replace the United States as the world's top reserve currency because of the dynamism of its economic growth trajectory. In 2019, the renminbi was the fifth top reserve currency globally with $213 billion or 1.95% of global share.

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Relationship between U.S. dollar and commodity values

The U.S. dollar strongly influences commodity values, with the relationship usually inverted since most commodities trade globally in dollar denominations. Fluctuations in the value of the U.S. dollar prompt an adjustment in the price of a commodity to reflect its intrinsic value. So, as the U.S. dollar strengthens against global currencies, fewer are needed to purchase the commodity, and the commodity's price goes down. The reverse occurs when the U.S. dollar weakens.

The relationship reverberates globally. Foreign buyers of commodities would need to pay more in their currency when the U.S. dollar strengthens, and less when the U.S. dollar weakens. Periods of strong U.S. dollar valuations relative to global currencies pressure demand for commodities since they are more costly for a foreign buyer, while a weaker U.S. dollar would encourage increased buying. This relationship is crucial for producers who are exporting their commodities to understand.

There are many idiosyncrasies in this relationship and in the drivers affecting commodity trading (i.e., weather, demand, scarcity, and seasonality) that adjust the intrinsic value of a commodity. Periods of economic optimism and recessions are also catalysts in adjusting intrinsic value, price, and demand.

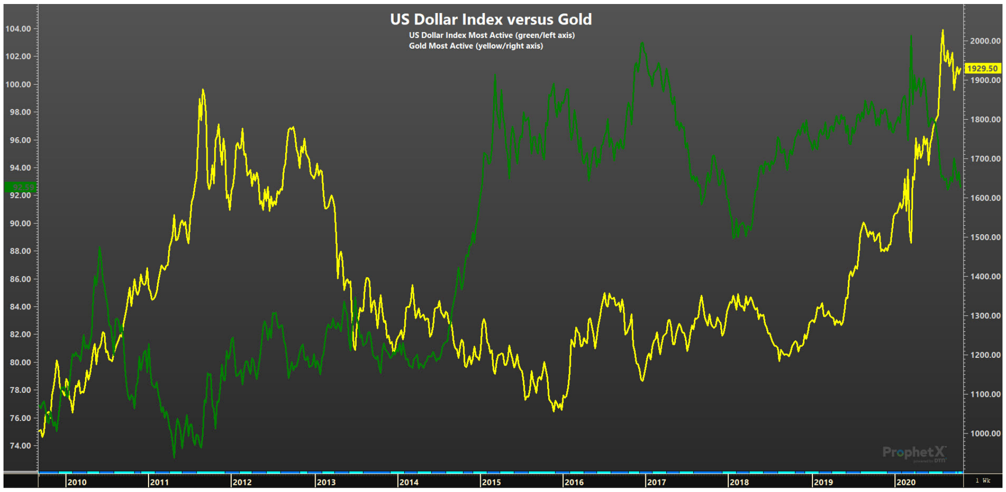
Gold

The strength and weakness of the U.S. dollar have a direct effect on the price of gold, with gold performing better when the U.S. dollar weakens. Low interest rates (as we have currently) is another bullish driver for gold prices since the investment in the precious metal will hold better value while the reward for owning U.S. dollars is limited.

Gold's appeal as an investment diminishes when the economy is strong and there are other assets to buy that generate a better return. In strong economies, the opportunity cost of owning gold is less attractive because gold doesn't generate an income. When economic performance is weak or an economy is in recession, investors look to the stability of gold's intrinsic value, and demand for the precious metal increases. As such, the strength and weakness of gold prices reflect economic conditions.

Scarcity is a key component in determining gold's intrinsic value, so increased mining of the precious metal pressures prices. World Gold Council reports global mine production of gold was 3.534 million tonnes in 2019, a 26% increase from 10 years earlier, and a 10% increase since 2014, while down 0.8% year-on-year.

Political uncertainty, which often leads to economic uncertainty, is another key dynamic in buying gold. Gold prices will continue to find buying support amid the COVID-19 pandemic that is again prompting governments in Europe to reinstate lockdowns that disrupt economies. Increasingly, the public is pushing back on the use of lockdowns, while politics in the United States are the most divisive in at least a generation. These uncertainties can create fear in investors who would look for security in holding gold.



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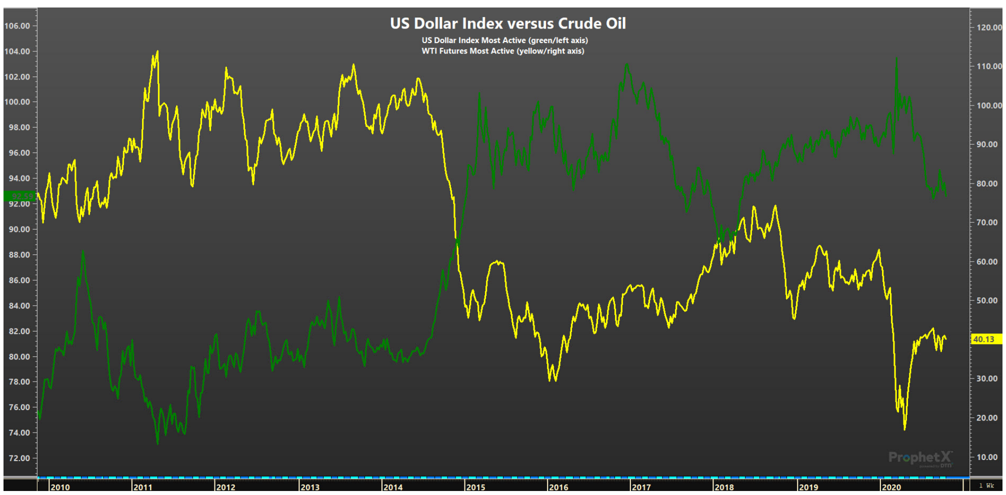
Crude oil

Crude oil has one of the closest correlations with the U.S. dollar than virtually any other commodity. This is true because crude oil is a critical commodity for modern economies, such as the United States. It trades globally in the U.S. dollar, while demand for crude oil is relatively constant. There are limited substitutes for oil, which can easily be transported.

Fluctuations in the balance of global trade factor into both oil and U.S. dollar valuations. These fluctuations can be profound, considering oil is used across the globe while production is limited regionally. As such, the resource distribution component of oil is a key factor in setting oil prices that can be exacerbated by the U.S. dollar. A strengthening U.S. dollar would push up costs for foreign buyers of crude oil, with the inflationary feature over time restraining demand by consuming nations whether through conservation efforts or by slowing economic growth. A weakening U.S. dollar would raise the price of oil for consumers in the United States, whether the oil was produced domestically or imported.



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Demand destruction, as experienced this year amid the COVID-19 pandemic, has led to a deflation in oil prices that is hitting oil-producing nations hard — especially those countries with limited non-petroleum industries. The current environment is disastrous for some of these economies, leading to recession, increased poverty, and potentially, political strife and violence.

More stimulus from Washington is expected after the presidential election in early November, no matter who wins the presidency, although the size and design of the package would differ. Additional fiscal stimulus could weaken the U.S. dollar if investors worry about the rising debt load, or strengthen if the economy responds positively to the monetary injection, with the latter supporting the desirable goal of lifting inflation. Crude oil prices won't fully escape their deflationary cycle until a vaccine to COVID-19 is discovered and distributed that leads to economic growth and greater oil demand.

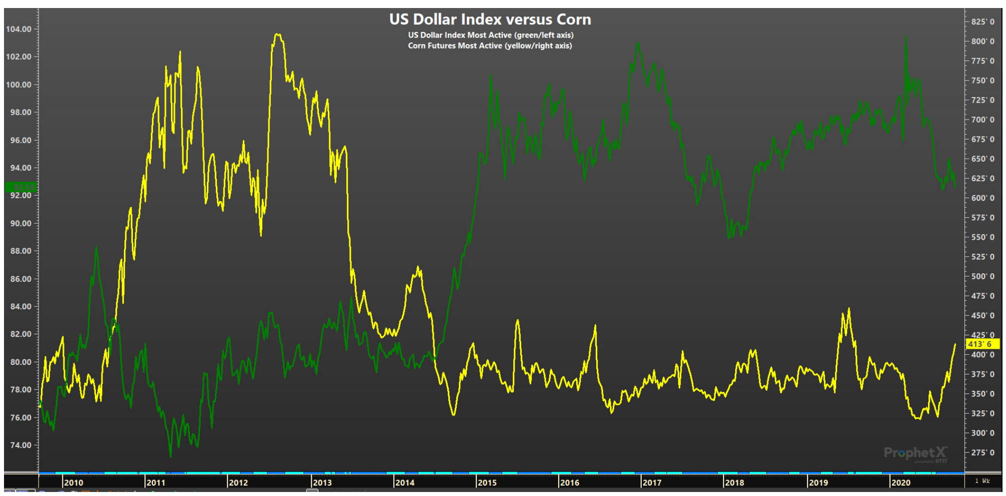
> Crude oil trades globally in the U.S. dollar and demand for it is relatively constant, giving it one of the strongest correlations to the currency.

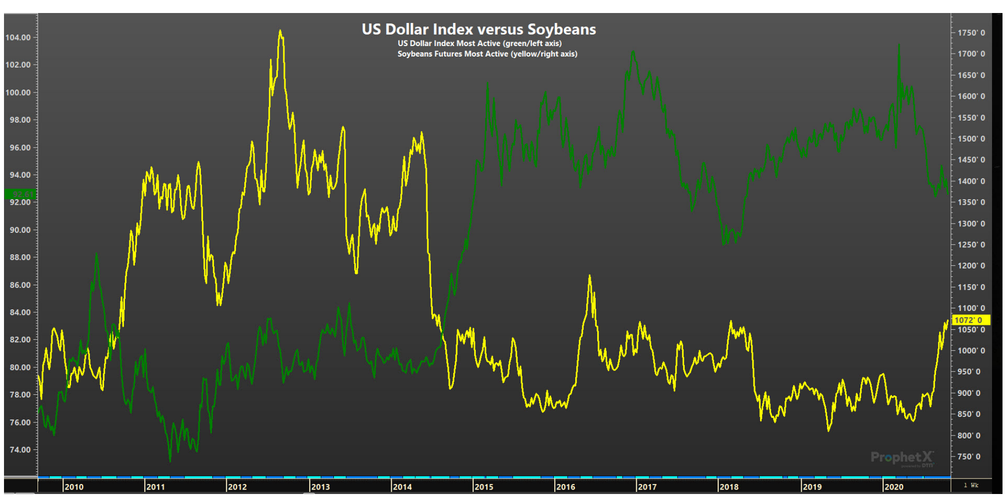
Agriculture

Market prices for agriculture products such as corn and soybeans are influenced by the US dollar, although the correlation is weaker than for crude oil or metals. Like crude oil, corn and soybeans have a negative correlation to a stronger US dollar, yet the similarities quickly diminish from there.

Agriculture products have distinct seasonality features that set it apart from other commodities, including the planting and growing periods and harvest. Weather is the primary arbiter in determining corn and soybean values.

The United States produces the majority of corn and soybeans globally and has a vibrant export market. Similar to other commodities, a stronger US dollar against global currencies raises the cost for foreign buyers and could reduce the size of their purchase or prompt them to buy their crops elsewhere such as Argentina.





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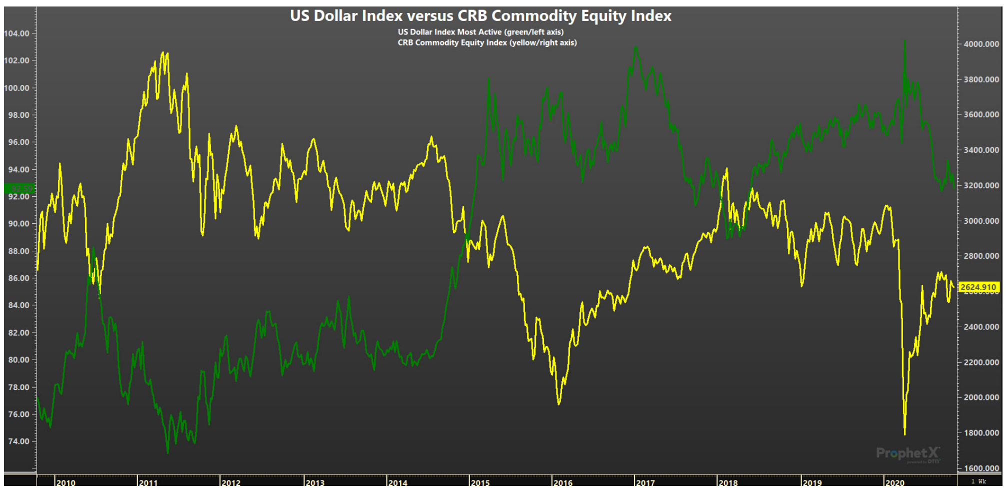
Commodity Research Bureau index

The Commodity Research Bureau (CRB) index is a basket of 19 commodities allocated between agriculture products: 41%, energy: 39%, industrial metals: 13%, and precious metals: 7%. Created in 1957 with 28 commodities, the index is designed to show the movement of prices in overall commodity trades. CRB, when plotted against the U.S. dollar index, represents the strength or weakness of the U.S. dollar against rival foreign currencies.



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The CRB index is now calculated by the price of:

Agricultural products

- Cocoa
- Coffee
- Corn
- Cotton
- Lean hogs
- Live cattle
- Orange juice
- Soybeans
- Sugar
- Wheat

Energy

- Crude oil
- Heating oil
- Natural gas
- RBOB gasoline

Industrial metals

- Aluminum
- Copper
- Nickel

Precious metals

- Gold
- Silver

In summary

Exploring and tracking the complex relationship between the U.S. dollar and the global commodities trade can be a full-time job. Indeed, for some economists, it has defined their careers! If this paper whetted your appetite to learn more about how and when to move money into currency markets or commodities trading, we urge you to contact a qualified financial advisor with your questions.