

U.S. Commodities Markets

A Dollar Crises for U.S. Commodities? A Look at What Is Driving U.S. Dollar Strength and The Impact on U.S. Agricultural Commodity Exports

- Last week, the U.S. dollar reached a historical high against the euro, pound, and yen. When comparing the dollar to the currency of other agricultural commodity exporting countries like Australia, Brazil and Canada, there is a divergence, but the dollar is not at record levels.
- Global geopolitical risks combined with the relative strength and stability of the U.S. economy and the current Fed policy are converging to influence the dollar's performance.
- The dollar's strength creates substantial headwinds and has turned into a clear negative for U.S. futures and physical commodity exports. This price effect is particularly visible for commodities like corn, cotton, wheat and corn.
- In contrast with the <u>structural supply deficits affecting select U.S. agricultural commodities</u>, we see the U.S. dollar creating short and medium term demand related challenges.

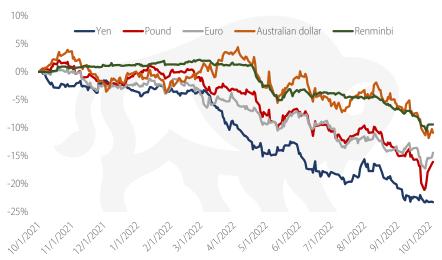
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ven has been unparalleled.

King dollar The recent dominance of the U.S. dollar compared to major developed market currencies like the euro, British pound, the Japanese yen has been unparalleled. Whether the dollar's

strength is related to global currency fundamentals, tepid local economic conditions, interest rate disparities, or investors seeking for a true risk-free asset is very hard to say. It is probably safer to say that in 2022 a combination of these variables has propelled the U.S. dollar to historical levels. While a plethora of positive and negative repercussions emanate from a strong U.S. currency, the impact on U.S. agricultural exports can be restrictive and create structurally bearish headwinds.

Performance/Change in U.S. Dollar



Source: HilltopSecurities, Bloomberg

Please see disclosure starting on page 6.



Developed market currencies as safe havens

During times of regional and global political instability, economic uncertainty or when markets go "crazy", investors tend to seek safe havens to allocate risk assets. Historically, because of their perceived economic, financial and political stability the developed market (DM) economies of the U.S., UK, EU, Switzerland, and Japan, have been the primary destinations for global investors seeking a temporary refuge from volatility. During these times, the preferred asset held is simply cash. Cash represents a true risk-free asset.

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In 2022 the U.S. dollar becomes the premier global safe haven

Thus far, 2022 is categorized as a year of regional political turmoil, economic uncertainty, and acute volatility inside the global equity, sovereign debt and commodity markets. What's unique about the financial challenges of 2022 is that the volatility has been the most amplified in traditional DM safe havens. Countries like Germany, France, and the UK are experiencing institutional and structural economic challenges that have led global investors to lower their confidence in their ability to successfully navigate these burgeoning issues. Declining confidence has resulted in investors selling sovereign debt instruments which has had numerous financial ramifications and has inflicted further volatility on the pound, euro and to a lesser extent, the Swiss franc. This heightened economic and political uncertainty is perpetuating the pace of the dollar's historical surge while reinforcing the U.S. dollar's position as the premier global safe haven.

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- Widespread uncertainty in the UK and Europe. The regional geopolitical turmoil in Ukraine, deteriorating foreign relations with Russia and precipitous inflation are the primary catalysts that are generating questions about the future health of the European and the UK economies. Amplifying economic and financial concerns about the EU's and UK's ability to control inflation while generating economic growth inside of an energy paradigm that is structurally short supplies has increased the risk profile of the euro and pound relative to the dollar. In the UK, the political and financial uncertainty following the September election of prime minister, Liz Truss are magnifying the pound's risk premium. These increased risk concerns are bearish the euro and the pound and have accelerated the flight to quality move towards the dollar.
- The stagnating Chinese economy heightens regional economic risks. China's commitment to a zero-COVID policy is resulting in 2022 GDP forecast at +2.5-3.5% YoY which would be the country's second slowest growth since 1990. This ripple effect of this slowdown is creating both regional and global concerns about the potential of intractable inflation and economic growth. While China is not considered a DM safe haven, questions about the country's political and economic policies are exacerbating broad upstream global inflationary pressures that are impacting both safe haven and non-safe haven currencies.
- Japan is trying to generate inflation. While it is convenient to blame China for the yen's struggles, Japan has been struggling with decades long deflationary tendencies that are perpetuated by a low interest rate climate. While the Japanese yen is a regional and global currency safe haven, current

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yen weakness is best attributed to the growing interest differentials with the U.S. These interest rate spreads, are exacerbating the yen's weakness as traders continue exploit "carry trade" opportunities.

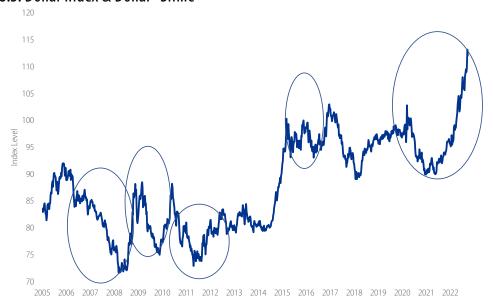
- The relative strength of the U.S. economy and monetary policies are supporting the dollar. When compared to the UK, EU and Japan, the U.S. economic outlook and trajectory is less about pessimism and more about cautious optimism. U.S. employment remains strong, wages are growing, COVID-related economic pressures have largely dissipated and consumer health, while fragile, has been largely resilient.
- With the Fed actively using monetary tools, raising the overnight lending rate, to combat downstream domestic inflationary pressures and slow economic expansion, the widening sovereign interest rate differentials is another key variable that is supportive the dollar.
- Overall, it is the size, scale and security of the U.S. economy and confidence in the central bank that makes the dollar the world's principal reserve currency by a large margin. In 2022, the U.S. is the safest way to store riskless assets, cash, while still earning an arguably decent return.

In 2022 the dollar "smile" is creating bearish tendencies for U.S. commodity exports

While the relative strength of the U.S. dollar ebbs and flows over time, the "smile" like characteristic is evident when the currency over and underperforms relative to the U.S. dollar index. While there are numerous economic theories to describe the dollar's performance, one theory that resonates better with us is that currency levels are influenced by economic extremes. When the U.S. economy is in a deep slump or experiencing torrid growth the U.S. dollar strengthens. During periods of moderate economic growth, the dollar exhibits periods of weakness. In 2022, we believe that the continuous upward trajectory of the right-hand side of the U.S. dollar "smile" which is pushing the currency to extreme levels is being more driven by the relative, and not the absolute strength of the U.S. economy.

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U.S. Dollar Index & Dollar "Smile"



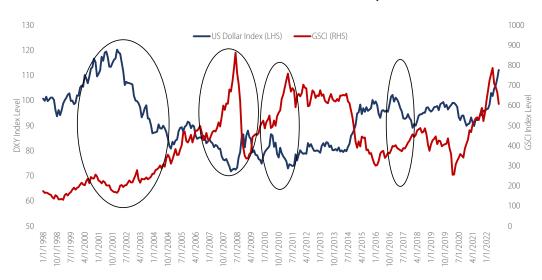
Source: HilltopSecurities, Bloomberg



Determining the fundamental inflection points that articulate the dollar's strengthening cycle is a technically arduous prognostication assignment. We see slowing core PCE inflation pressures, slowing wage growth, declining job openings, strengthening of the Chinese economy along with the political economic stabilization of the EU economies as some of the leading catalysts that can shift sentiment and stem the strength of the dollar. If history is a guide, we believe that when the dollar reaches an inflection point and the weakening cycle starts, the symmetrical reversal should help create structural tailwinds for U.S. commodity prices and U.S. agricultural exports.

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Historical U.S. Dollar Index & S&P Goldman Sachs Commodity Index (GSCI)



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Source: Hilltop Securities, Bloomberg

How dollar strength creates headwinds for U.S. commodity exports

Because the global agricultural commodity trade is settled in U.S. dollars this creates two principal challenges for U.S. exports. First, as the value of the U.S. dollar rises the commodity exported from the U.S. loses competitiveness. Second, as the local currency weakens against the dollar, the local export pace can hasten and crowd out U.S. exports as demand to own dollars increases. The demand to own U.S. dollars is stimulated by an increased local wealth effect when dollars are exchanged for the local currency, or as a protection against local inflation tendencies.

Because agricultural commodities like corn, cotton and wheat are highly fungible, global end users generally have a choice in the origin they purchase from. Holding all else equal, these users will generally purchase from the lowest cost origin. As the U.S. dollar climbs against local currencies, the cost of the U.S. based commodity becomes more expensive versus its competitors and demand for it drops mechanically. Reduced export demand can be added back to the domestic balance sheet which can result in lower futures and cash values.

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The relationship between acute dollar strengthening and U.S. agricultural commodities prices is noteworthy

We focus on the price responsiveness and causality of the second futures contracts of CME corn, live cattle, soft wheat (SRW) and Kansas City wheat (HRW) and the ICE cotton contracts during periods of acute dollar strength, or the right side of the smile pattern. Using the dollar index (DXY) as the independent variable, the table below shows the correlation and R2 values during these periods. The data illustrates that the greater the fungibility or substitutability of the U.S. commodity, the higher the sensitivity to the appreciating dollar. During H2-2022, we view U.S. dollar strength as a primary variable that is contributing to the lackluster export sales of corn, cotton, and wheat.

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Relationships During Dollar Appreciation of The "Smile"

November 2009 - June 2010

| | Corn | SRW | HRW | Cotton | Live Cattle |
|-------------|-------|-------|-------|--------|-------------|
| Correlation | -0.62 | -0.73 | -0.66 | -0.47 | 0.68 |
| R2 | 0.38 | 0.53 | 0.36 | 0.21 | 0.09 |

August 2011 - June 2012

| | Corn | SRW | HRW | Cotton | Live Cattle |
|-------------|-------|-------|-------|--------|-------------|
| Correlation | -0.78 | -0.65 | -0.77 | -0.78 | 0.22 |
| R2 | 0.61 | 0.42 | 0.49 | 0.66 | 0.01 |

August 2016 - January 2017

| | Corn | SRW | HRW | Cotton | Live Cattle |
|-------------|------|-------|-------|--------|-------------|
| Correlation | 0.64 | -0.40 | -0.47 | -0.40 | 0.39 |
| R2 | 0.41 | 0.16 | 0.23 | 0.14 | 0.04 |

April 2018 - March 2020

| | Corn | SRW | HRW | Cotton | Live Cattle |
|-------------|------|-------|-------|--------|-------------|
| Correlation | 0.03 | -0.11 | -0.66 | -0.72 | 0.29 |
| R2 | 0.00 | 0.01 | 0.22 | 0.31 | 0.04 |

June 2021-Current

| | Corn | SRW | HRW | Cotton | Live Cattle |
|-------------|------|------|------|--------|-------------|
| Correlation | 0.58 | 0.51 | 0.61 | 0.21 | 0.70 |
| R2 | 0.34 | 0.26 | 0.26 | 0.14 | 0.04 |

Source: Hilltop Securities, Bloomberg

Argentina as an example of how foreign exchange rates can influence U.S. agricultural exports

Argentina has been mired in a multi-year economic crisis that includes rampant inflation, massive government budget deficits, along with political and financial uncertainty. Historically, this paradigm has created low global investor confidence

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which resulted in a weak peso/dollar exchange rate and has been mildly supportive Argentine agricultural exports. In 2021, the U.S. dollar's fundamentals relative to Argentine peso caused further acute dollar strengthening. In 2022 the global flight to U.S. dollars has exposed the structural weaknesses of the peso. Similar to the recent performance of the dollar to the pound, euro, yen, and a host of other DM and EM currencies, the peso is trading at historical weakness. Despite the Argentine government's efforts to restrict agricultural exports of corn, soybean oil, soybean meal and beef, we interpret 2022 global trade data as evidence that the unyielding strength of the U.S. dollar versus the peso is creating structural headwinds for U.S. agricultural export sales. At the same time, the weak peso has helped accelerate Argentine agricultural exports. In particular, we believe in select corn export markets U.S. dollar strength is directly attributed to lower U.S. export sales and export volumes.

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