CIBC

THE FUTURE OF THE U.S. DOLLAR

Dominant currency or one of many?

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1. Summary

- The U.S. dollar is widely recognized as the pre-eminent global reserve currency. This status quo has persisted for an unprecedented eight decades.
- A gradual but permanent shift in the status of the dollar is underway. Evidence suggests the embryonic emergence of a multi-currency reserve system. Credible long-term rivals to the dollar include the euro, renminbi, and gold.
- This long-term trend has important implications for every investor with global investments, including in equities, bonds, and alternatives.
- Less dollar dominance will likely improve the functioning of the global financial system by reducing the global propagation of shocks. In particular, this will be a long-term positive for emerging market economies and assets.
- The value of the dollar is expected to trend lower and could weaken beyond the levels implied by traditional quantitative Fair Value models.
- The dollar will also likely become more correlated to cyclical economic growth, challenging traditional strategic assumptions around the treatment of passive currency exposure when dealing with global investments.
- Prospective rivals to the dollar are expected to experience stronger trends, a rise in contra-cycle correlations, and structural economic shifts consistent with rising reserve status.

2. What is a global reserve currency?

Currencies issued by large and stable economies that exhibit well developed, deep and liquid financial markets supported by strong legal infrastructure are typical candidates to be global reserve currencies. To solidify their potential status, prospective reserve currencies should exhibit these characteristics:

- The currency is perceived to be a reliable store of wealth by private consumers and investors, as well as central banks in both the issuing country and broadly across the global economy.
- The currency is commonly used as a unit of account, including in the pricing of traded physical commodities.
- The currency is widely used as a means of exchange in cross-border trade invoicing and payments.

Across all these criteria, size and stability are at a premium.[2] Many currencies meet one, or even two, of these criteria. Only the U.S. dollar currently meets them all. The status of the dollar, and of U.S. financial markets, is unrivaled.

These criteria are mutually reinforcing. Countries tend to hold a relatively high share of foreign exchange reserves in the currency of their largest trading partner. This is especially true when that currency is highly correlated to the domestic currency and is the leading global invoicing and pricing currency.[3] This allows central banks to meet domestic demand for foreign currency that arises from international payment obligations or import financing coverage, and to provide adequate liquidity in periods of shortage.

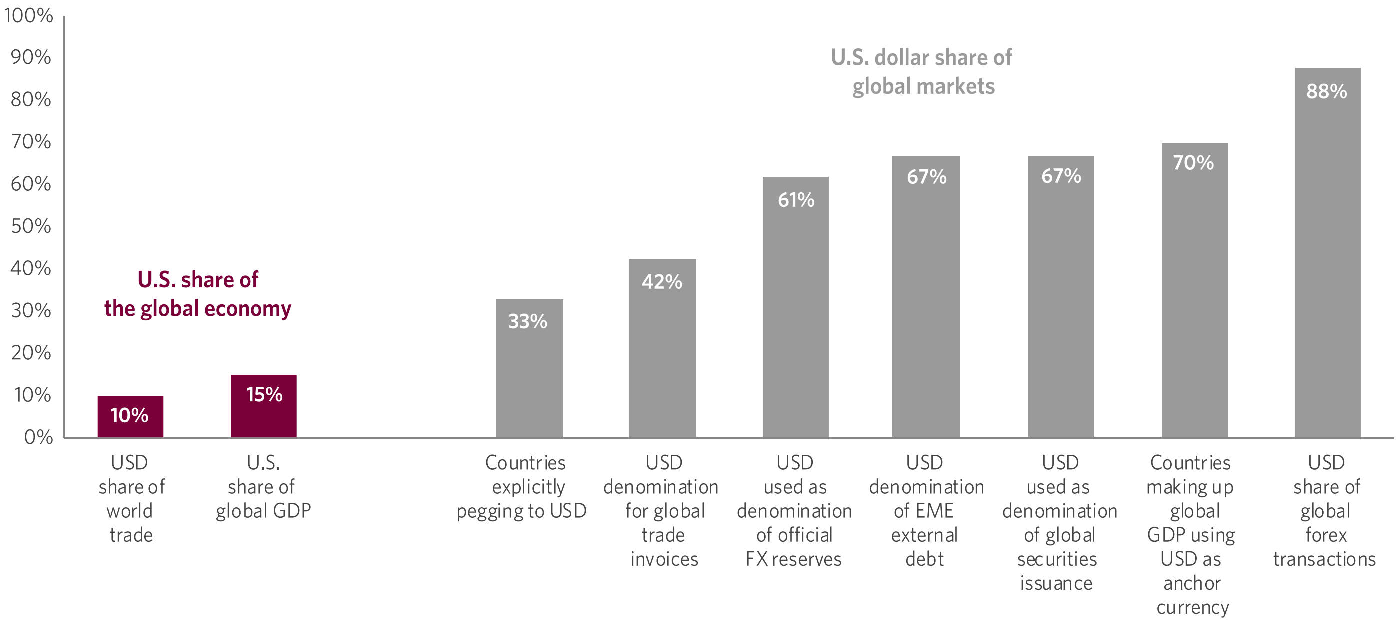
As the demand for an asset—in this case, the dollar—rises, its expected return declines. A lower return also implies lower costs for borrowers, domestic and foreign, when raising trade credit and issuing debt. Lower financing costs encourage a disproportionate demand for dollars.

A greater stock of dollar-denominated credit and debt motivates more invoicing of sales in the dollar, to facilitate corporate asset-liability matching. More usage of the dollar by the non-financial private sector motivates central banks to build dollar reserves.[4] And so the circle continues.

For emerging market (EM) central banks specifically, maintaining an adequate stock of an internationally recognized reserve currency encourages foreign investor confidence in domestic economic and financial infrastructure. This confidence mitigates the risk of economic crises induced by sudden capital flight. It also motivates more demand for U.S. dollars.

These mutually reinforcing network effects have fostered the multi-decade status quo of U.S. dollar global reserve currency hegemony (Figure 1). This dominance is unprecedented in modern history.

Figure 1 – Global use of the U.S. dollar (USD) far exceeds the size of the U.S. within the global economy



Source: The information was prepared by CIBC Asset Management Inc. using the following third-party service providers' data: Carney (2019), BIS (2019). Data as at October 1st, 2020.

3. What are the benefits & costs of issuing a global reserve currency?

Whether the benefits of owning and issuing a global reserve currency outweigh the costs depends on who you ask. For the better part of a century, successive U.S. administrations responded affirmatively, and have been content to preside over the dollar's continued global hegemony.

By contrast, Japan in the 1970s eschewed the opportunity to promote the yen as a global reserve currency for fear of losing control over its supply. Germany followed the same path with the Deutsche mark, via imposition of capital controls that were only finally lifted in 1990 as the push towards European Monetary Union began in earnest. China has so far been reticent to fully embrace the potential global role of the renminbi, for similar reasons.

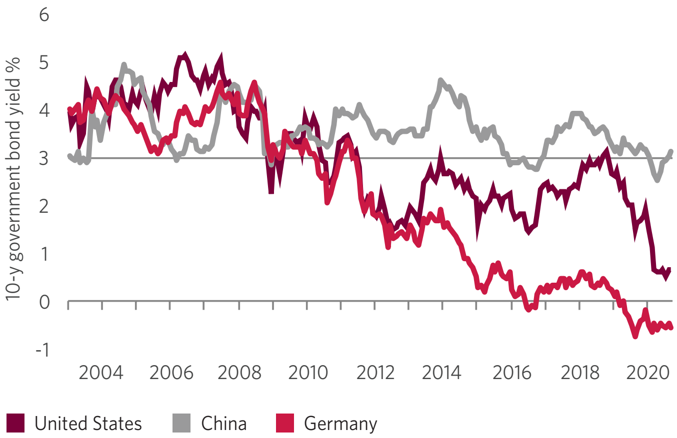
The magnitude of the net economic benefit accruing to the U.S. has likely declined over time, and may even have turned negative in recent years. As Bernanke (2016) concludes, "the fact that English is the common language of international business and politics is of considerably more benefit to the United States than is the global role of the dollar."

The main benefit accruing from the dollar's status as the dominant pricing and invoicing currency is a reduction in exchange rate risk for U.S. corporations that trade internationally. As the dollar floats against the currencies of most of the U.S.'s largest trading partners, this is an important advantage. The quid pro quo is a currency that tends to trade rich to its fundamental equilibrium, measured in the absence of any bid due to its reserve asset status. In recent years, this persistent overvaluation has contributed to chronic U.S. current account deficits.[5]

Access to cheaper borrowing costs is also a benefit, albeit a smaller one. Domestic interest rates are typically lower at each maturity along the U.S. yield curve than they are along curves of other countries with similar creditworthiness. Relatively lower U.S. interest rates reflect high demand for dollar-denominated assets from foreigners seeking to recycle persistent dollar inflows.

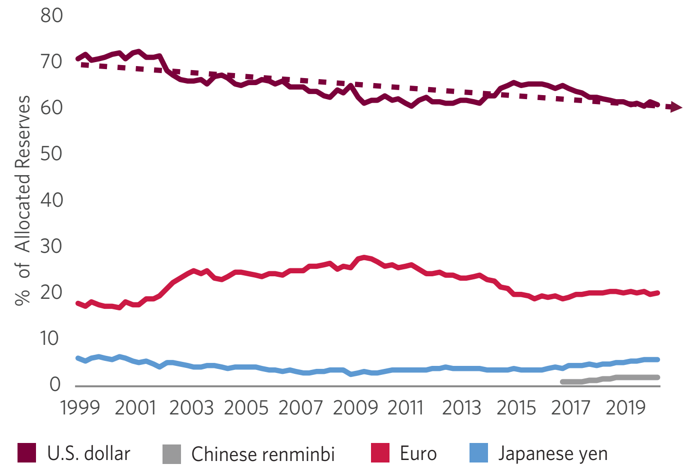
The value of this benefit to the U.S. was previously estimated at around 0.6% of annual GDP.[6] It has diminished in recent years, as the current weak economic environment has driven interest rates of some countries below dollar rates, and negative along most yield curves. From a Chinese perspective, this benefit would still be relatively large, as domestic interest rates and debt servicing costs remain well above U.S. comparables, and would likely fall with greater internationalization of the renminbi (Figure 2).

Figure 2 – Interest rates remain higher in China than the U.S. or Euro Area, indicating one potential economic benefit from increased renminbi internationalization



Source: The information was prepared by CIBC Asset Management Inc. using the following third-party service providers' data: Refinitiv Datastream. Data as at October 1st 2020.

Figure 3 – The U.S. dollar is experiencing a trend decline in its share of central bank foreign exchange reserves



Source: The information was prepared by CIBC Asset Management Inc. using the following third-party service providers' data: IMF COFER. Sample: 1999 Q1 – 2020 Q2. Data as at October 1st, 2020.

Another benefit on the wane is seigniorage. This is the income earned by a central bank on behalf of the domestic government from the issuance of its domestic currency; the cost of minting new notes and coin is lower than their face value, generating an income stream that can be invested in interest-bearing securities. The stock of dollars in circulation equates to $1.95 trillion,[7] generating an annual seigniorage income equivalent to 0.1-0.2% of nominal U.S. GDP.

The seigniorage benefit of issuing a reserve currency will increase to the extent that digital central bank currencies progressively usurp paper money.[8]

Finally, and reflecting a persistent inflow of dollars seeking relatively safe assets, the U.S. economy benefits by being insulated against the risk of capital flight during periods of market stress. This benefit exists even when the U.S. is the source of the stress—the dollar appreciated during the 2007/08 Global Financial Crisis (GFC) that was triggered by the U.S. sub-prime crisis.[9]

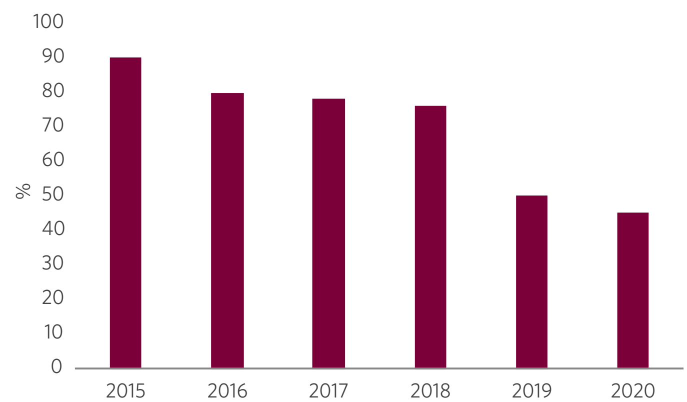
Of course, this is also the quintessential problem of a global financial system dominated by a single currency— domestic U.S. conditions and policy responses are transmitted throughout the global financial system, for better or worse.

4. The end of dollar dominance?

Data on central bank reserve holdings suggest a gradual trend away from dollar hegemony has begun (Figure 3).

A similar pattern emerges from analysis of global invoicing data.[10] This trend is particularly apparent in settlement data for bilateral trade between China and Russia (Figure 4).

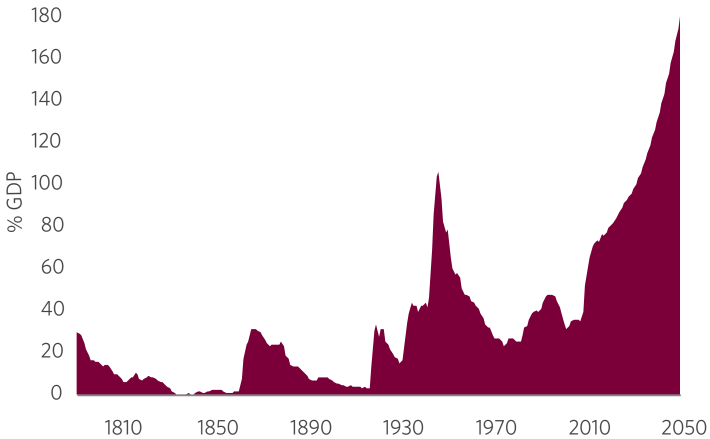
Figure 4 – U.S. dollar's share of China-Russia bilateral trade settlements has declined substantially



Source: The information was prepared by CIBC Asset Management Inc. using the following third-party service providers' data: Boz et al. (2020). Data through 2019. As at October 1st, 2020.

There are several themes encouraging this embryonic trend against the dollar. A number are homegrown, including unprecedented money printing and the adoption of a more inflation-tolerant policy framework by the Federal Reserve, concurrent to record debt accumulation by the U.S. government (Figure 5).[11] Similarly, the adoption of a more aggressive U.S. foreign policy—including trade tariffs and restrictions on access to U.S. technology and markets, particularly in regards to China, and a tendency to 'weaponize' the dollar[12]—is unlikely to be helpful to the dollar's status. This seems especially true at a time of deep domestic political division, and perhaps even democratic decay.[13]

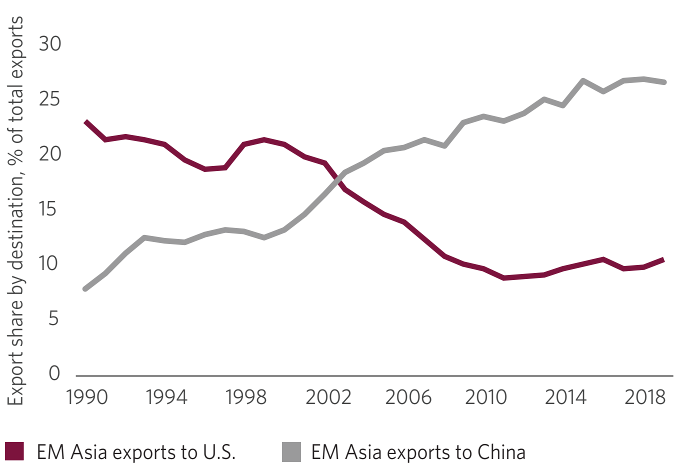
Figure 5 – U.S. government debt is already at unprecedented levels, and set to rise much higher



Source: The information was prepared by CIBC Asset Management Inc. using the following third-party service providers' data: Congressional Budget Office (2020; www.cbo.gov/publication/56020). Data sample: 1790-2050. As at October 1st, 2020.

From an external perspective, the share of the U.S. economy in global trade is trending down. EM economies in Asia, which are expected to be in the vanguard of global economic growth over coming years, have a much larger and growing trade exposure to China than the U.S. (Figure 6).

Figure 6 – EM Asia exports more to China than to the U.S.



Source: The information was prepared by CIBC Asset Management Inc. using the following third-party service providers' data: Refinitiv Datastream. Data through 2020 Q2, and as at October 1st, 2020.

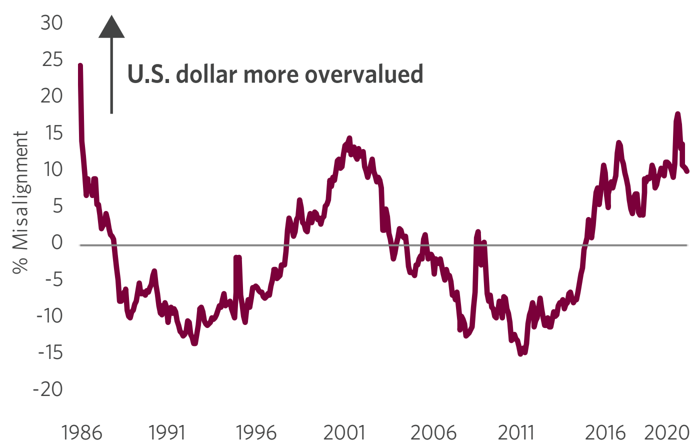
More broadly, policy debate and academic research emphasizes the importance of a reduction in the dominance of the U.S. dollar for the systemic health of the global financial system.[14] Less dollar usage could weaken spillovers from the U.S. economy, and reduce the synchronization of trade and financial cycles, to the benefit particularly of emerging market economies and assets. As Carney (2019) argues, a high degree of synchronization associated with a dominant U.S. dollar is less important when the global economy is expanding. But when domestic economic or financial conditions warrant tighter U.S. policy than elsewhere, systemic strains become evident, as they did in 2017-2019.

5. Why does a challenge to dollar dominance matter to investors?

Waning dollar status has many important implications. In addition to facilitating a desynchronization of financial and economic cycles across the global economy, there are at least two other important implications for asset managers.

First, the global stock of central bank foreign exchange reserves is estimated to be $12 trillion[15] and a majority are held in U.S. dollar assets. Any significant shift in the currency composition of reserves motivated by the growth of alternate reserve assets would likely have an important and sustained impact on exchange rates. This would include a trend weakening in the U.S. dollar greater in magnitude than currently suggested by traditional quantitative valuation indicators (Figure 7).

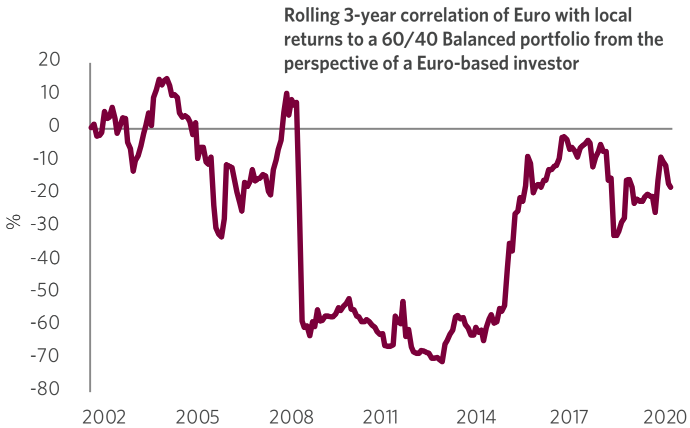
Figure 7 – The trade-weighted U.S. dollar is overvalued, and likely to weaken over the next several years, by more than implied by quantitative Fair Value models



Source: The information was prepared by CIBC Asset Management Inc. using the following third-party service providers' data: Refinitiv Datastream. Data sample: January 1986 to October 2020. Data as at November 1st 2020.

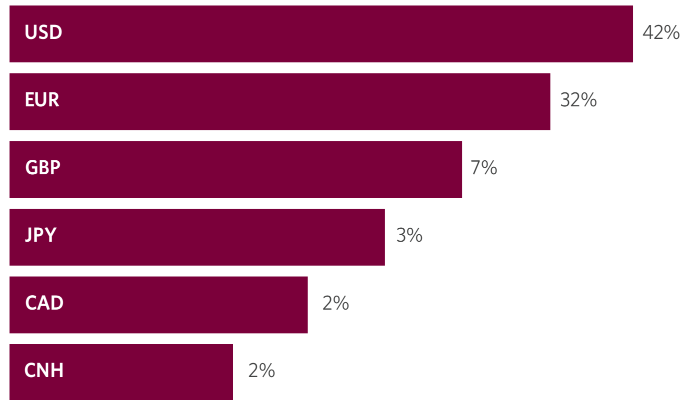
Second, reserve currencies tend to exhibit contra-cyclical behaviour. This insight informs strategic currency hedging decisions in investment portfolios exposed to global assets. When the euro lost credibility in the mid-2000s, it switched abruptly from a contra- to a pro-cyclical currency (Figure 8). Previous strategic currency hedging decisions became invalid, and portfolio risk assumptions became inaccurate. Understanding how currency reserve asset status is likely to evolve over rolling 3-5 year horizons will provide clarity regarding the likely correlation structure of currency risks, and facilitate more informed strategic investment policy decision-making.

Figure 8 – The correlation of the Euro with local asset returns changed abruptly in the mid-2000's



The information was prepared by CIBC Asset Management Inc. using the following third-party service providers' data: Bloomberg LLC.. Data report the rolling 3-year correlation of currency returns to a Euro-based investor with local returns to a global 60/40 Balanced portfolio. Data as at October 1st, 2020.

Figure 9 – The dollar still dominates cross-border trade settlement



The information was prepared by CIBC Asset Management Inc. using the following third-party service providers' data: SWIFT. Based on value. Data as at July 31st, 2020.

6. Which currencies will challenge the dollar?

As the U.S. dollar's status declines, the global influence of other currencies will increase. In this section, we discuss the merits of several potential rivals: the euro; renminbi; gold; the yen; and cryptocurrency.

6.1 Euro

The euro has several attributes required of a global reserve currency. These include a large and diversified economy, well-developed financial markets, and relatively low currency volatility. Yet some important structural features remain absent.

As the inheritor in 1999 of Bundesbank credibility, the euro was initially perceived as a nascent rival to the dollar. This perception was encouraged by the liquidity and breadth of euro financial markets,[16] as well as its significant use in international invoicing and pricing (Figure 9);[17] with the caveat that Euro usage was, and still is, limited predominantly to trade that includes Euro Area economies on one or both sides of the transaction.[18]

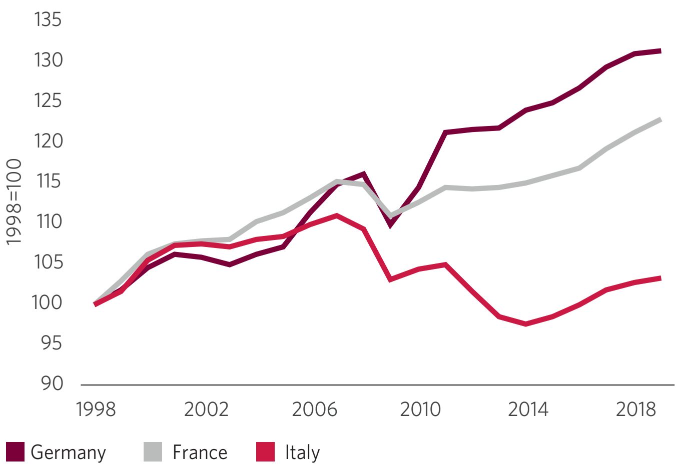
Appetite for the euro waned beginning in the mid-2000s. Antipathy initially reflected growing investor awareness of continued intra-European sovereign credit risks, despite a re-rating of Member States by credit rating agencies.[19] These credit risks were exposed—almost fatally for the euro—by the 2007/08 GFC that originated in the U.S. but subsequently spread to and intensified within the Euro Area banking sector. Credit risks heightened further during the subsequent 2011/12 euro debt crisis.

The status of the euro remained moribund through much of the next decade. The reality of Brexit, the threat of Italexit, the persistent lack of a central fiscal authority, and the lack of a deep government bond market were all perceived to be insurmountable obstacles to the euro becoming a global reserve currency.

Euro prospects have recently brightened significantly. First in 2018, with reiteration by the European Commission of its commitment to further develop the euro's status as an international currency (European Commission, 2018). And second in May 2020, with the Franco-German proposal for a European Recovery Fund. This Fund was initially intended as a response to the economic impact of COVID-19 and reactive shutdowns. It's likely to become much more than this, which has profound implications for euro-denominated bond markets, as well as for the future status of the euro.

We highlight three implications. First, the Fund will facilitate intra-Europe, and particularly North-South, fiscal transfers. This idea was previously unconscionable to northern member states. These transfers will likely be persistent and unidirectional. This underlines the remaining systemic weaknesses that the Euro Area must address in order to ensure its long-term legitimacy in a way that does not bankrupt its most prosperous member, Germany (Figure 10). However, these weaknesses are less differentiating versus the U.S. than the absence of a centralized fiscal authority, and so are potentially less harmful to the euro's prospective status as a major reserve currency.

Figure 10 - Euro Area per capita GDP trends reveal continued structural weaknesses



The information was prepared by CIBC Asset Management Inc. using the following third-party service providers' data: Federal Reserve Bank of St. Louis. Sample: 1998-2019. Data as at October 1st, 2020.

Second, the Fund will facilitate the emergence of the European Commission as a major—and relatively attractive—debt issuer; the magnitude of annual issuance will be comparable to second-tier European sovereigns such as Spain. It will create a new, relatively safe asset to which global investors, including sovereign wealth funds (SWFs) and central bank reserve managers, can allocate. To get a sense of magnitude, the Recovery Fund is expected to issue approximately €850bn (equivalent to US$1tr). Assuming SWFs and central banks take up half of this issuance, the euro's share of total foreign exchange reserves would increase by 4% and consolidate its position as the second largest reserve currency.

Third, EU supranational issuance will be a stabilizing force in the market, reducing the risk premium investors place on the EU's lower-rated peripheral sovereigns, as well as the euro.

Additional, necessary steps to better position the euro as a major rival to the U.S. dollar include the completion of its banking union and reconsideration of the use of negative interest rates as a monetary policy tool.

But progress has been made, and the euro appears well positioned to become part of a multi-polar global reserve currency system.

6.2. Renminbi

The renminbi is often considered the most likely long-term rival to the U.S. dollar. We agree.

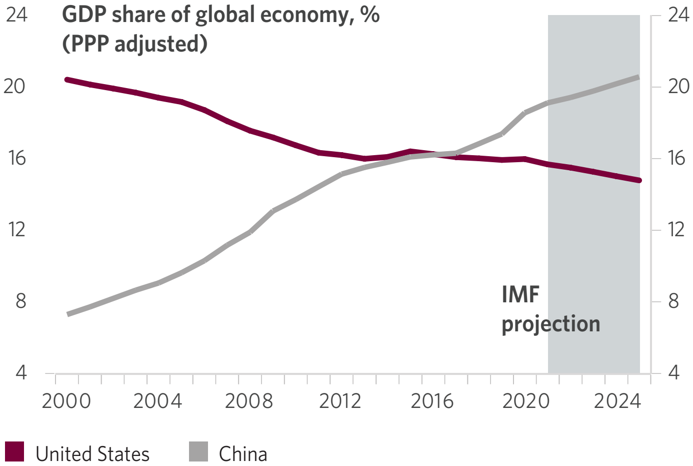
Progress in this rivalry has been slow, reflecting the push and pull of contradictory incentives on Chinese policy authorities to reform financial markets and facilitate wider use of the renminbi (Figure 11). But a number of advancements are noteworthy.

Figure 11 – The use of the renminbi as a settlement currency in Chinese cross-border trade has plateaued in recent years

The information was prepared by CIBC Asset Management Inc. using the following third-party service providers' data: Bloomberg LLC. Data as at October 2nd, 2020.

The projected growth of China's share of the global economy remains significant (Figure 12). China is already the world's largest exporter, and the second-largest importer after the U.S.. The value of outstanding Chinese government debt will become increasingly relevant within global markets; China's recent inclusion in major fixed income benchmarks could trigger in excess of $300 billion inflows,[20] with the country set to account for 10% of the J.P. Morgan Global Bond Index by December 2020, and 6.35% of the FTSE World Government Bond Index starting in October 2021.[21] At these weights, China will still be under-represented on a GDP basis.

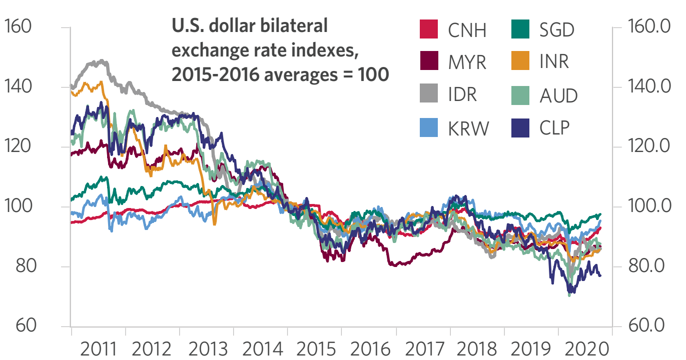
Figure 12 – China continues to increase its share of World GDP



Source: The information was prepared by CIBC Asset Management Inc. using the following third-party service providers' data: Refinitiv Datastream; IMF. Data as at October 16, 2020.

In the foreign exchange market, integration between China and other Asian economies has encouraged increasing co-movement between regional exchange rates (Figure 13); we are already witnessing the emergence of an Asian monetary bloc anchored on the renminbi.

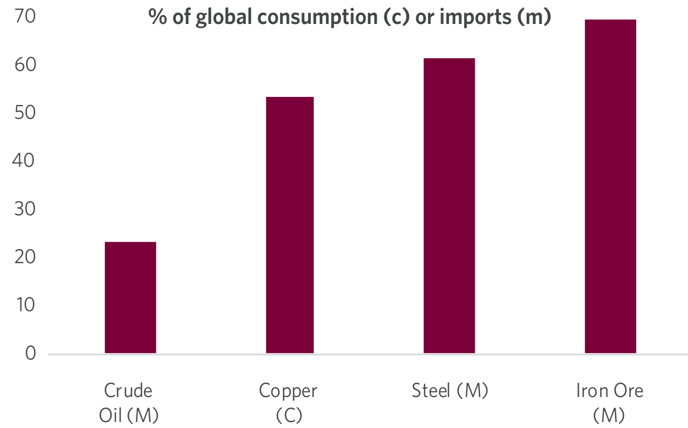
Figure 13 – Increasing currency stability points to an emerging currency bloc anchored on the renminbi



Source: The information was prepared by CIBC Asset Management Inc. using the following third-party service providers' data: Refinitiv Datastream. CNH = Chinese renminbi; AUD = Australian dollar; CLP = Chilean peso; IDR = Indonesian rupiah; INR = Indian rupee; KRW = Korean won; MYR = Malaysian ringgit; PHP = Philippines peso; SGD = Singapore dollar. Data as at October 2nd, 2020.

Commodity-related currencies, such as the Australian dollar and Chilean peso, are also increasingly correlated with the renminbi, reflecting the importance of Chinese demand for a number of commodities (Figure 14).

Figure 14 – China dominates demand for a range of commodities



Source: The information was prepared by CIBC Asset Management Inc. using the following third-party service providers' data: Refinitiv Datastream; International Nickel Study Group; BP; Statista; World Bureau of Metal Statistics. Data as at October 16th, 2020.

Chinese demand for gold and crude oil has already led to the introduction of renminbi futures contracts in these commodities; open interest in the renminbi gold contract often rivals the more established dollar contract (Figure 15).

Figure 15 – Open interest in renminbi gold futures contracts often rivals dollar counterparts

Source: The information was prepared by CIBC Asset Management Inc. using the following third-party service providers' data: Bloomberg LLC. Data as at October 1st, 2020.

Prospective economic growth suggests the pricing of gold, oil, and other major commodities could eventually switch from the dollar to the renminbi. This would represent a major shift in the relative status of the two currencies. But this is only likely to happen once the renminbi is more widely usable and trusted, including in non-Chinese trade. This would afford commodity producers the ability to confidently recycle accumulated renminbi back into purchases of finished goods and services, or freely tradable financial assets.

Through a persistent current account surplus with the rest of the world, including the U.S., China has accumulated a large and growing stock of U.S. dollars. Traditionally, these dollars have been recycled into U.S. Treasuries. In the context of current extremely low interest rates, and amplified political tensions, Chinese appetite for further Treasury accumulation has lessened, in favour of foreign private investments with superior expected returns.

These investments form part of the Belt and Road Initiative (BRI). By 2027, this is expected to total around $1.3 trillion and encompass 50 typically lower income countries that account for half of the world's current population and 15% of global GDP.[22] BRI investments will allow China to export excess domestic productive capacity and reduce exposure to U.S. trade and Treasuries; BRI spending in 2019 was equivalent to about 10% of China's holdings of Treasuries.[23] These investments are also intended to nurture increased economic integration with the rest of Asia, as well as Africa and Europe, by financing construction of development infrastructure.

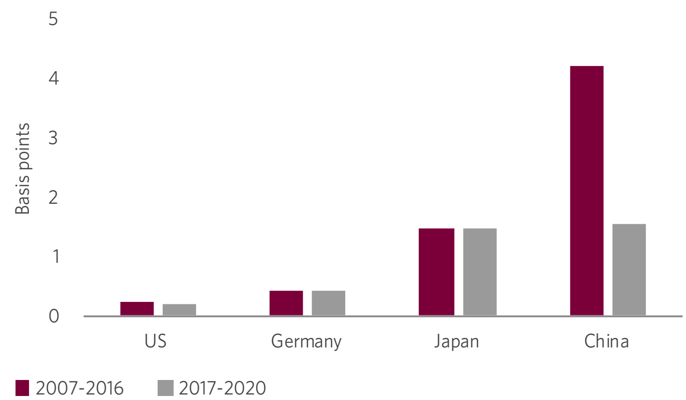
Renminbi internationalization is a logical corollary of the BRI; it is implausible that China will allow the U.S. dollar to be the unit of account for the broad and deep integration expected to result.[24]

Despite substantive progress in many areas, the renminbi still has a long road to travel if it is to rival the U.S. dollar.

The renminbi's role in the broader, global currency market remains modest. Its share of total global foreign exchange reserves is low, at around 2%. It ranks only 8th in terms of share of global daily foreign exchange transactions.[25] More pertinent, 95% of renminbi transactions have the U.S. dollar on the other side.[26]

The domestic Chinese financial system is already large enough to support an international currency.[27] But it remains relatively closed. Foreigners own just 3% of the local currency government bond market;[28] this compares to 41% foreign ownership of the U.S. market.[29] Chinese capital markets are also relatively illiquid, with sovereign bond bid-ask spreads substantially wider than major market comparators (Figure 16).

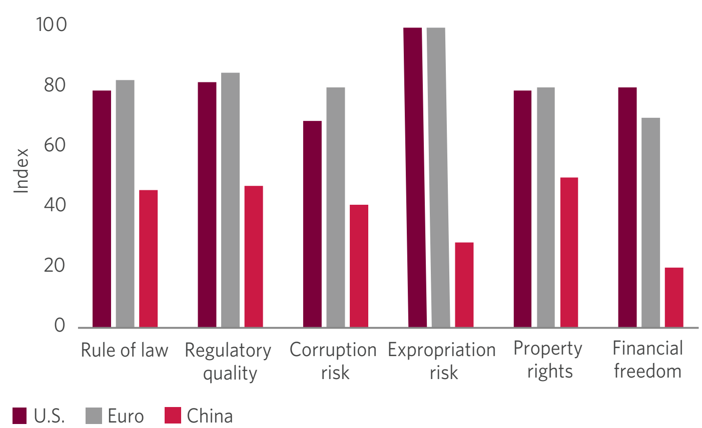
Figure 16 – Bid-ask spreads in the Chinese sovereign bond market remain wide relative to developed market comparators



Source: The information was prepared by CIBC Asset Management Inc. using the following third-party service providers' data: Bloomberg LLC. Data as at October 1st 2020.

Underlying these limitations, Chinese capital controls remain prohibitive and institutional foundations relatively weak, particularly in relation to the size of the Chinese economy (Figure 17).

Figure 17 – Chinese institutional quality remains relatively low, versus the U.S. & Europe



The information was prepared by CIBC Asset Management Inc. using the following third-party service providers' data: TheGlobalEconomy.com. For all measures, a higher number is indicative of lower risk. Data as at October 1st, 2020.

Delivering further reforms will be challenging and not without risk. Financial market liberalization could encourage additional outflows of domestic savings, for instance due to heightened concerns over domestic financial stability. And the pace of financial sector reform will likely be held back by a demonstrated aversion of the Chinese Communist Party to cede policy autonomy, and because, as discussed above, the net benefits of becoming the issuer of a reserve currency are increasingly modest.

There are also costs associated with not opening domestic financial markets to foreign participants. For instance, by shielding the Chinese financial system from international competition, capital controls have allowed unwanted inefficiencies to persist.[30]

Ultimately, the costs of inaction will likely outweigh the risks of progress. The direction of travel seems certain, although the journey will remain gradual, and major financial market reform appears unlikely during the next 5-10 years.

Even in the absence of additional wide-ranging financial sector and economic policy reforms, the renminbi's international role can continue to increase. Based on China's contribution to world trade, the renminbi's share of global central bank foreign exchange reserves should already approach 20%, higher than the actual 2%.

With more substantive reform, and further opening of domestic financial markets to foreign participation, the scope for the renminbi to rival the U.S. dollar sooner will grow commensurately larger.

6.3. Gold

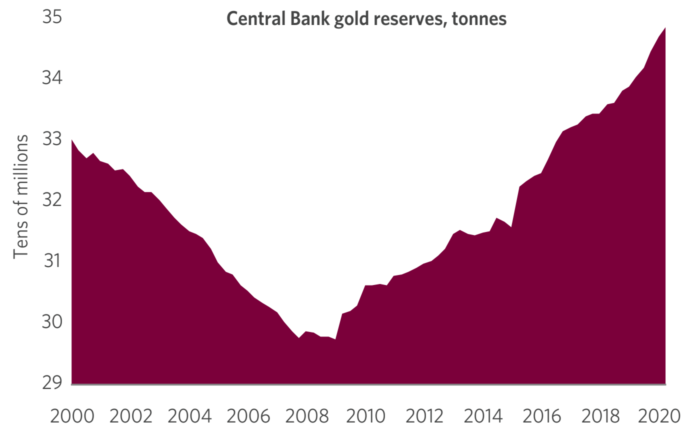
Gold has been used broadly as a store of wealth and a medium of exchange for thousands of years. It still performs these roles today despite the introduction over time of many new asset classes. Key to its longevity, gold has tended to maintain its real purchasing power over the long term, albeit not without large short-term deviations.

Investors have also used gold as a hedge against structural tail risks that threaten to erase the real value of other financial assets. The most important of these risks is currency debasement by a government or central bank intent on generating significant inflation through a large and sustained increase in the supply of money. During the last two episodes of currency debasement—the 1930s and then again in the 1970s—paper currencies devalued by approximately 60%. The real price of gold increased in both periods.

There are analysts who consider this threat to be increasingly relevant today. This is particularly true given the manner in which governments have inserted themselves into the money creation process in the aftermath of 2020 economic shutdowns, through various bank lending directives and loan guarantee initiatives.[31] We have sympathy for this view, directionally at least, despite current low rates of inflation.

After declining for many years, central bank gold reserves have trended higher over the past decade, reaching their highest level in 2020 since the late-1960's (Figure 18). Most of the growth in official demand for gold has come from emerging market economies, motivated by a combination of economic, political, and financial factors.

Figure 18 – Gold has benefited from the absence of substitutes to the dollar



Source: The information was prepared by CIBC Asset Management Inc. using the following third-party service providers' data: World Gold Council. Data as at September 30th, 2020.

We've already laid out the economic justification for continued central bank accumulation of gold reserves: strong growth in developed country debt burdens may encourage concerns over the future value of fiat currencies, including the dollar. And yet higher inflation may be an attractive solution for publicly elected governments. Alternative solutions—higher taxes, reduced public services, or outright default—would likely be neither financially or socially acceptable to already disgruntled, and arguably overtaxed, middle classes.

Recent adoption by the U.S. Federal Reserve of an Average Inflation Target (AIT) policy framework points to a new, asymmetric attitude to inflation; target overshoots will be tolerated more than undershoots. A greater effort by central banks to achieve their inflation targets may also nurture inflation volatility, which has often been an important factor that determines gold prices in real terms.

From a political perspective, with the U.S. disengaging from the world stage and often using the dollar as a weapon with which to coerce changes in foreign trade policies, it is likely that countries, particularly in the emerging markets, will continue to seek lower dependency on the U.S. and the dollar, including in favour of gold.

From a financial perspective, gold represents a good portfolio diversifier, has no associated credit risk, is liquid, and often performs well in the event of positive inflation surprises or episodes of risk aversion (Figure 19).

Figure 19 - Gold offers attractive long-term correlations to other core asset classes

	Gold	S&P 500	UST	Real estate
Gold	**1.00**		n/a	
S&P 500	-0.26	**1.00**	n/a	
UST	-0.32	0.02	**1.00**	
Real estate	0.04	0.11	-0.26	**1.00**

The information was prepared by CIBC Asset Management Inc. using the following third-party service providers' data: Aswath Damodaran (http://pages.stern.nyu.edu/~adamodar/). Sample: 1971-2019. Annual data. Correlations calculated as sample averages, and using asset classes returns. UST = U.S. 10-year Treasury Bond.

To be sure, gold has weaknesses. Some of these draw a distinction with other available safe-haven assets; for instance, the price volatility of gold is much higher than typically associated with a safe haven. Others highlight commonality. Like most safe havens, gold is far from a perfect hedge even though, on average, it increases in value during periods of stress. For instance, its price actually fell for a time both during the GFC and at the onset of the 2020 market dislocation, as market participants initially moved to price substantial disinflation (Figure 20).

Gold has the added headache of storage and custody. It's a substantial understatement to say that gold coins and bars are cumbersome means of payment. This is one of the key reasons why fiat, or paper, money was invented.

On balance, we don't expect a reversion to the gold standard days of Montagu Norman.[32] But we do expect gold to form part of a multi-polar reserve currency framework.

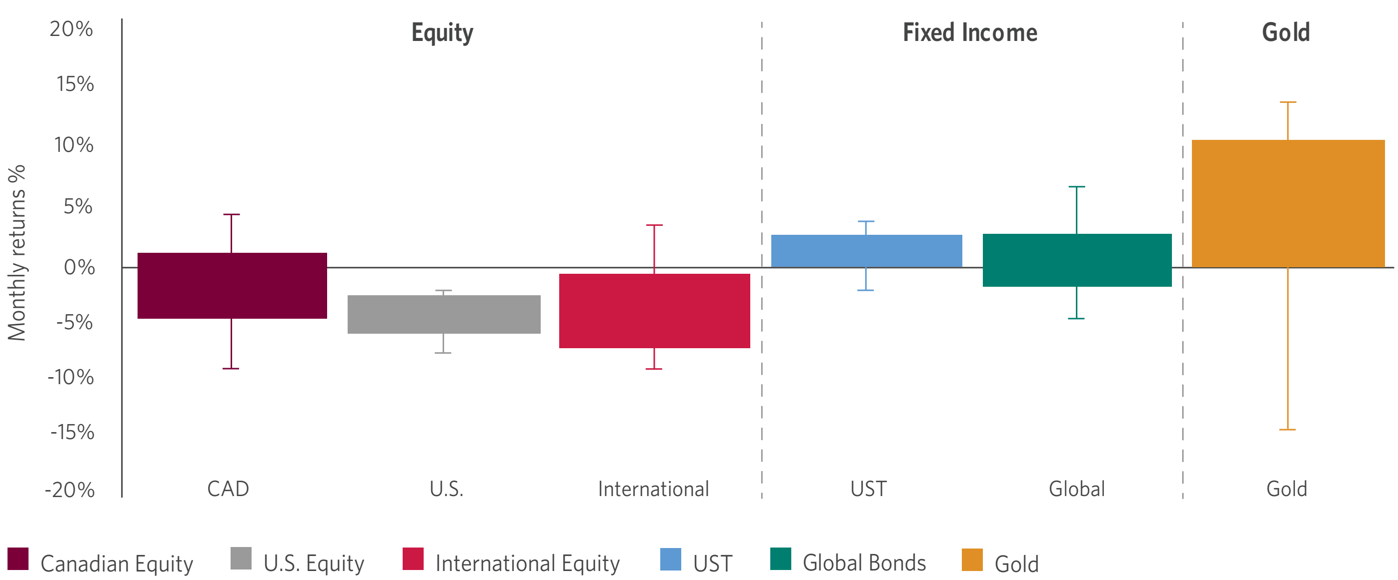
6.4. Japanese Yen

In periods of market stress, the yen typically appreciates, consistent with the behaviour expected of a reserve currency. On average, it has an associated negative expected return; investors are willing to pay for exposure to assets that do not exhibit positive beta to the broad equity—and macroeconomic growth—cycle.

This behaviour notwithstanding, the yen is not a global reserve currency. Its safe-haven characteristics derive from Japan's position as a large, and growing, creditor nation, and not, for instance, from a widespread use of the yen as an invoicing currency.

Despite large and deep yen-denominated financial markets, two reasons explain the yen's failure to challenge the dollar's reserve currency status. First, during the 1970s Japanese authorities were unwilling to liberalize domestic financial markets. This reluctance reflected concern over encouraging destabilizing in- and outward capital flows, and the potential for these flows to compromise the Bank of Japan's ability to conduct monetary policy. Second, Japan experienced a major economic crisis in the early 1990s and has since remained in a protracted stagnation.

Figure 20 – Asset return dispersion when negative monthly returns to U.S. equities are greater than one standard deviation of sample average



The information was prepared by CIBC Asset Management Inc. using the following third-party service providers' data: Bloomberg. Data sample: January 1990 to March 2020. Monthly data.

Although Japan did eventually liberalize its financial markets, this took place in the context of its economic decline. Japan's share of global exports has fallen to 1.0% from 6.1% in 1990, and the yen's share of global currency reserves is approximately 5%, down from a peak of 12%.

Creditor status is not necessarily a constant, and not all sectors of the Japanese economy share equally in this status; the government has accumulated a huge stock of outstanding debt. As only a minority of this debt is publicly traded, the risk it poses to the yen's value and contra-cyclical behaviour appears limited, for now. But the persistence of the yen's ability to provide safe harbor during periods of market tumult is less entrenched than the dollar's, for which the extent of international supply chain networks provides a high degree of inertial support.

Whether the yen will remain an idiosyncratic currency with a tendency to outperform during periods of general market stress is a point for debate. Its inability to challenge the status of the dollar is not.

6.5. What reserve asset role for cryptocurrencies?

A short answer: none.

Here we differentiate between private sector cryptocurrencies—Bitcoin or Ethereum are examples—and planned central bank digital currencies, including Sweden's e-krona and China's DC/EP, which are paperless versions of existing fiat currencies.

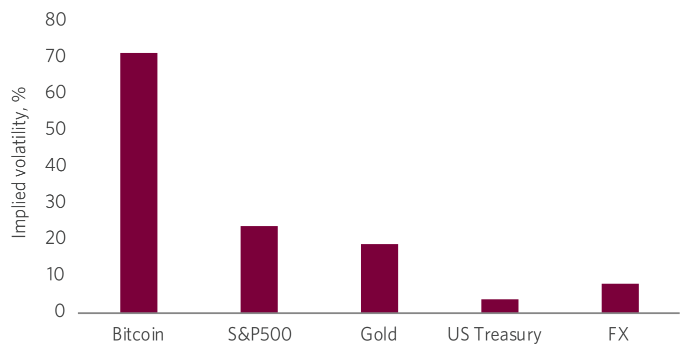
There are several reasons for our skepticism. First, low market capitalization. This currently stands at $355 bn and encompasses 3,600 coins and tokens.[33] Only a handful have sufficient size to be of potential interest to large investors.

Second, and more fundamentally, there is no natural user of private cryptocurrency. Taxes are not paid in cryptocurrency. The local Whole Foods Market or Costco will not accept it in direct payment for the weekly shopping.[34] And cryptocurrency trade invoicing is practically non-existent. This lack of use as a medium of exchange makes it unlikely private cryptocurrencies will ever become a credible unit of account, and makes it difficult to establish intrinsic value.

Third, the anonymity of private digital currencies, considered by some to be a positive attribute, makes them attractive to those seeking tax avoidance or other criminal activities. But growing popularity motivated by an ability to obscure the purpose of associated transactions will surely encourage greater regulation and legal action on the part of sovereign governments.

Fourth, cryptocurrencies have proven insecure from criminal activity, despite assurances of developers. Alongside their outsized volatility—multiples higher than gold, equities, or bonds, let alone traditional safe-haven fiat currencies such as the dollar (Figure 21)—this relative lack of security undermines any claim to be a store of value.

Figure 21 – Cryptocurrency implied annualized volatility is much higher than mainstream assets



The information was prepared by CIBC Asset Management Inc. using the following third-party service providers' data: Bloomberg LLC. Data as at October 1st, 2020.

The positive pairwise correlation of cryptocurrency returns to equities is also suggestive of a speculative, not safe haven, asset (Figure 22).

Figure 22 – Bitcoin correlations to equities are consistent with a pro-risk, speculative asset

	Bitcoin	Infra-structure	Real Assets	MSCI World	S&P 500	EAFE®	Barclays Global Agg.	Barclays Global HY	Hedge Funds
Bitcoin	1.00								
Infrastructure	0.30	1.00							
Real Assets	0.27	0.95	1.00						
MSCI World	0.25	0.82	0.85	1.00					
S&P 500	0.24	0.75	0.80	0.97	1.00				
EAFE®	0.25	0.81	0.82	0.96	0.88	1.00			
Barclays Global Agg.	0.21	0.50	0.53	0.27	0.19	0.26	1.00		
Barclays Global HY	0.29	0.89	0.93	0.82	0.75	0.81	0.46	1.00	

The information was prepared by CIBC Asset Management Inc. using the following third-party service providers' data: Bloomberg LLC. Data as at October 1st, 2020.

7. Conclusion

The U.S. dollar has had an exceedingly good run. Its longevity as the dominant currency at the center of the global financial system is unprecedented.

All things come to an end, eventually. The status of the dollar is under threat, from within the U.S. and without. Some challengers appear more credible than others. The euro, renminbi, and gold appear likely to form, along with the dollar, a multi-currency reserve system that we expect to gradually take root during the next decade.

The diminishing status of the dollar has profound implications, including for the global financial system, and for the cyclical behaviour and growth performance of economies, including the U.S..

It also has important, immediate and long-term, implications for investors. This includes investors in global assets that have an associated inherited currency exposure. It also includes those who allocate risk to active currency or multi-asset absolute return strategies that add value from the ability to accurately identify the sign and rank of risk-adjusted expected currency returns.

Seismic changes of the kind we discuss in this paper will take time to fully play out. Their likely magnitude and reach suggest investors take notice at an early stage. We have.

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Let's connect

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[2] Geopolitical alignment can be considered another criterion. For instance, Japanese and German willingness to maintain high U.S. dollar reserves long after WWII may in part have reflected the U.S. provision of protective security in both countries. Similarly, sterling reserves were relatively more prevalent among Commonwealth countries in the late 19th and early 20th centuries at the end of sterling's period of reserve currency primacy.

[3] Ito & McCauley, 2019; Carney, 2019

[4] Carney, 2019

[5] A current account deficit is not necessarily a defining characteristic of the global reserve status of a country's currency. Between 1930 and 1980, the U.S. accumulated a current account surplus equivalent to 90% of nominal GDP.

[6] Dobbs, et. al., 2009

[7] As at August 5, 2020. Source: Board of Governors of the Federal Reserve System. https://www.federalreserve.gov/faqs/currency_12773.htm

[8] In a recent survey, 80% of central banks reported investigating the merits of digital currency, and 50% indicated implementing practical experimentation, including pilot schemes (BIS, 2020). Development of a digital version of a national currency changes the way it is accessed by users, without changing the criteria the currency must meet to attain reserve status.

[9] Eichengreen, Mehl, & Chitu, 2018

[10] Adler et. al., 2020

[11] This is not to suggest the U.S. policy response to Covid-19 was incorrect. In our opinion, it was appropriate. But it also comes with longer-term consequences, particularly given a starting point of weak trend growth and already high indebtedness.

[12] Paulson, 2020

[13] Bryant, 2020

[14] Carney, 2019, Adler et. al. 2020

[15] Statista, 2020

[16] Galati and Woodridge, 2006

[17] Swift, 2020; Figure 9

[18] Adler et. al., 2020

[19] As Connolly (2012) discusses, this re-rating appeared to reflect two assumptions: that Euro (Maastricht) Treaty mechanisms would make countries financially sounder; and the existence of an implicit German bailout should they fail to do so. Neither assumption was valid, particularly for southern Member States, prior to 2020. The second assumption now appears, belatedly, valid.

[20] J.P. Morgan, 2020

[21] This weight will make China the sixth biggest component of the WGBI index, behind the U.S., Japan, France, Italy, and Germany, but larger than, inter alia, the U.K.

[22] We exclude India and Euro countries from BRI data. Geopolitical tensions could minimize their participation.

[23] Refinitiv, 2020

[24] Gave & Gave, 2019

[25,26] BIS, 2019

[27] Cruz et. al., 2014

[28] Financial Times, 2020

[29] CBO, 2020

[30] Kruger and Pasricha, 2016

[31] For instance, Napier 2020

[32] Montagu Norman was Governor of the Bank of England at the time of sterling's ill-fated return to the gold standard in 1925.

[33] http://coinmarketcap.com. Data as at October 16, 2020.

[34] There are some exceptions, primarily in countries where economic crisis or legal dysfunction is particularly prevalent. For instance, Venezuela. But even here, latest data estimate weekly peer-to-peer Bitcoin use was just $8mn (data as at October 1st, 2020; source: https://news.bitcoin.com/venezuela-to-start-using-bitcoin-in-global-trade-in-efforts-to-fend-off-u-s-sanctions/)" https://news.bitcoin.com/venezuela-to-start-using-bitcoin-in-global-trade-in-efforts-to-fend-off-u-s-sanctions/. In addition, a few mainstream retailers do accept payment using Bitcoin directly, for instance Overstock.com. But again, associated trade values are trivial. Most firms do not accept crypto-currency as a means of payment, unless indirectly via, for example, crypto-currency debit cards or payment processors.