

July 2023

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Summary

- China-US rivalry and the West's freezing of Russia's FX reserves in retaliation for invading Ukraine are intensifying doubts about US hegemony and the dollar's international dominance.
- Previous contenders the yen (1980s) and euro (2000s) competed and lost on economic grounds, but geopolitical
 contests have accompanied most changes in international currency leadership.
- A two-pronged framework integrating geoeconomics and geopolitics can be used to assess the contest:
 - I. Geoeconomics: International currencies can be measured by the three classical functions of money unit of account (pricing/invoicing); means of payment (settlement); and store of value (official international reserves).
 - The data show China's international settlements shifting to renminbi rapidly.
 - The dollar seems likely to remain a natural fit for invoicing because it is freely tradable while the renminbi is a
 managed currency subject to resident capital controls.
 - US markets are large and liquid enough for the needs of reserve-holders, unlike other markets.
 - II. Geopolitics: Hegemonic stability theory suggests that global use of a currency issued by the leading economic/military power enhances global stability, growth and prosperity.
 - Macro/financial interdependence cut across US allies and adversaries/. Full decoupling/de-dollarisation seems excessively costly and unlikely in all but a full-blown conflict scenario.
 - Official reserves are concentrated: Of some US\$12 trillion in global gross FX reserves, 60% are in dollars. The top 10 holders account for about 75%, split roughly evenly between US allies/friends who would probably resist dedollarisation and those who might prefer it.
 - The US runs large, consistent current account deficits. Many other democracies run smaller deficits. Surplus countries cut across geopolitical fault lines Eurozone, Japan, China, Saudi Arabia, Russia.
 - In proposing a shared international currency, the BRICS Brazil, Russia, India, China, South Africa are revealing unwillingness to use renminbi despite perhaps due to China's global heft.
 - However, central bank digital currencies, in which China is a world leader, can serve as a new "plumbing" for central banks to transact directly, potentially disintermediating the dollar.
- The renminbi seems poised to keep gaining ground in payments, yet the dollar's advantages suggest it will remain "primus inter pares" as the leading global pricing and reserve currency.
- Policymakers, reserve managers and investors alike, therefore, are likely best served by leading with traditional macro/financial considerations, while factoring in geopolitics and technology.



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I. The De-dollarisation Debate

The world is gripped by its latest bout of disgruntlement with the US dollar. Investors, central bank reserve managers, policymakers, even heads of state are discussing "de-dollarisation".

Previous de-dollarisation challenges have been about economic and financial competition. The yen (1980s) and euro (2000s) started to compete with the dollar on economic grounds. China's economic rise, desire to reconfigure the international system, efforts to internationalise the renminbi have been latent challenges to the dollar for a decade. Yet challenger reserve currencies failed to dethrone the dollar because their economies have so far failed to outcompete US.

Today's currency competition is mainly geopolitical and geoeconomic, and state-led rather than market-driven. Dissatisfaction with the dollar has widened for years because of US sanctions. The West's freezing of half Russia's official international reserves in retaliation for invading Ukraine is a potential game-changer. Losses in growth, returns or efficiency from dedollarisation may be acceptable for some governments to secure national security and foreign policy goals.

For some, then, de-dollarisation is becoming a goal, for others a threat. For all concerned, de-dollarisation could be a sea change in global markets and the international system. It could curb American/allied capacity to isolate countries that threaten global security (e.g., Iran, North Korea, Russia). It could make money laundering, terrorism finance and tax evasion harder to control. It could herald major shifts in the geoeconomic/geopolitical balance of power, conceivably relocating global economic leadership to Beijing from Washington – or contribute to "de-globalization".

Global economic history is punctuated by changing leadership among military, technological, economic and financial powers. Changes now underway cut across many areas of the international system, calling for a multidisciplinary approach, like other shared challenges. This paper therefore aims to synthesize economic, financial and geopolitical experience and analysis. The analysis points to limited, not full-blown de-dollarisation in a world economy experiencing "re-globalization" – a reform/restructuring, not total deglobalization.

II. From Geoeconomic Challengers to Geopolitical Challenges

Previous contenders — the euro in the 2000s, the yen in the 1980s — competed on economic and financial grounds, eventually falling by the wayside on the same basis. Advanced-economy democracies with liquid, open financial markets, Japan and the Eurozone were potential substitutes for the US. In principle, the yen or the euro could compete with the dollar, wresting market share within the existing international architecture.

In the event, neither the yen nor euro dethroned the dollar. Neither Japan nor the Eurozone fully recovered from their systemic financial crises in the early 1990s and 2010s, at least not enough to keep pace with the US after the Global Financial Crisis in 2008-09.

Japan experienced an extended deleveraging and transitioned to an ageing, shrinking demographic. Japan remains the world's third largest national economy, but its global heft has been diminishing for three decades, and so lacks the necessary size and dynamism for global economic/financial leadership.

The Eurozone, a large, high-income, highly productive democracy has also failed to keep pace with the US, and the euro to overtake the dollar, despite high hopes. The 2009-12 Eurozone crisis revealed an incomplete monetary union, lacking adequate economic, fiscal and ultimately political integration to manage excessive internal imbalances that threatened to tear it apart. The euro lost ground because it could not compete with the dollar. The Eurozone might not have the staying power or safe-haven characteristics of the US – or indeed, China, Japan, the UK or potentially other large or multinational monetary/fiscal/political unions.

However, subsequent external shocks, such as Brexit, COVID-19, the Ukraine war arguably reunified the Eurozone and EU. Joint Eurozone fiscal programs for the COVID shock and green transition have been called "Hamiltonian Moments", after the first US Treasury Secretary. So how does Economic and Monetary Union stack up against the American union? Economic history and financial markets suggest not well enough.

A 1787 fiscal crisis in Massachusetts spread financial contagion across the US, pitting northern American debtor states against southern creditor states, threatening the new union with collapse. Hamilton led the way in remaking the US



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confederation into a federal political/fiscal/financial union. Among his most important achievements was the establishment of US Treasury bonds, through the 1790 federal assumption of the 13 states' legacy/wartime debt.

A decade on from an eerily similar experience also a decade after its founding, the Eurozone's fiscal union remains a work in progress. Monetary union is arguably complete with the ECB as a federal/supranational central bank, yet the EU remains a confederation with voluntarily pooled sovereignty. So far, fiscal risk-sharing has been deployed for shared crises – not "asymmetric" shocks in individual member-states, nor conventional economic cycles, and possibly mainly because southern debtor countries objected to excessive state aid by northern creditor countries.

Thus, Eurozone fiscal burden-sharing still falls far short of the full-fledged fiscal/political union used by other major monetary unions to address crises or structural and cyclical challenges. Eurozone bond yields, which had converged in the 1990s, are now distinguished by pro-cyclical sovereign risk premiums, rising and falling with perceived political, economic or financial-sector risks – especially Italy, the Eurozone's largest sovereign debt market. Without a large, liquid, unified bond market, can the Eurozone compete with the dollar and Treasuries as global reserve asset?

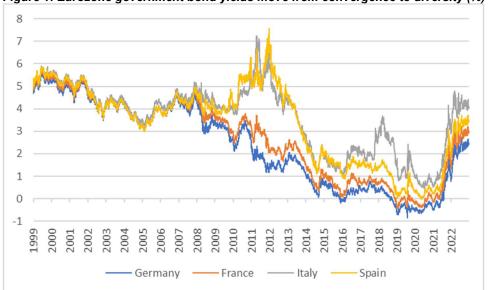


Figure 1: Eurozone government bond yields move from convergence to diversity (%)

Source: Bloomberg, Macrobond, Invesco. Daily data to 28 July 2023.

As a practical matter, the absence of fiscal/political federalism limits the integration and dynamism of the Eurozone – specifically banking union, by extension capital markets union and ultimately full economic union. Fully integrated banking and capital markets would entail common deposit insurance, bankruptcy/resolution and associated fiscal backstops that would likely be too large for individual member-states vis-à-vis pan-Eurozone banks. In its systemic crisis, the Eurozone could not deploy an equivalent to the US Troubled Asset Relief Program (TARP) – a fiscal program to support recaptialisation of the US banking system. Incomplete integration probably increased the need for deflationary deleveraging across the Eurozone after its financial crisis.

In stark contrast to the Eurozone and Japan, the US restored its economic, financial and technological dynamism after its 2008-09 systemic financial crisis, using TARP to recapitalise its banking system. True, the US faces severe socio-economic challenges, reflected in polarized politics that constrain its internationalism. But other major economies also face social, demographic, macro/financial challenges that may also limit their global capabilities or appeal. Meanwhile, the dollar retains the powerful advantage of incumbency in the international system as the US retains a powerful lead in per capita income and wealth at the technological frontier.



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60000 50000 40000 30000 20000 10000 1884 1912 1943 1973 2004 -US UK Germany China India Brazil

Figure 2: US per capita income outstrips other major economies

Source: Maddison Project Database, Macrobond, Invesco. Annual data to 2018 as at 21 July 2023.

Today, however, the focus of international currency competition is state-led rather than market-driven. Some countries are actively "de-dollarising" their international economic and financial activity. Russia has been doing so in direct response to financial sanctions since 2014. China and others to protect their policy freedom from US/Western pressure, potentially sanctions.

Unlike Japan or the Eurozone, China as the main challenger may now prefer an alternative system instead of trying to displace the US within the existing system. Motivated by national security concerns and great-power ambitions, China and other countries may mount a more determined, more sustained challenge, and be prepared to opt out of the dollar system.

III. A Two-Pronged Framework to Track De-dollarisation

With no global government to enforce its use, the arrival and survival of a leading global currency depends on its economic and geopolitical use case. We therefore use a two-pronged framework encompassing macro/financial and geopolitical considerations to evaluate the progress and prospects of de-dollarisation.

First, how do the dollar and renminbi compare as international currencies, using the three classical functions of money — unit of account, means of exchange and store of value. International transactions benefit from a single price to avoid arbitrage, and the dominant international currency provides a common basis as a unit of account. Transactions are generally more efficient if payment and settlement across borders occurs using a common currency. Official international reserves represent a store of value, to be used in troubled times.

Second, how to assess the geopolitics of international currency competition? "Hegemonic Stability Theory" holds that a dominant global currency issued by a credible, legitimate superpower supports geopolitical and geo-economic stability, helping to boost global growth and prosperity. Is the world best served by the US dollar? Or is trust in the dollar system so broken that global dollarisation is no longer viable, whatever the benefits of hegemonic stability? Would a challenger, most obviously the RMB, be preferred? If not, what about the recently proposed BRICS currency?



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IV. Currency Competition and the Three Functions of Money

Most governments legislate sole use of national currencies within their borders. This legal monopoly links and reinforces the three use cases for money — unit of account, means of payment and store of value — around public money. Firms, households and government send or receive funds, value contracts and measure wealth and debt using the same legal tender.

Effective, credible states can generally sustain domestic monopolies on money. Instability and arbitrary gains or losses, for example, through high or volatile inflation often undermines public moneys, often leading to "dollarisation" (or euroisation in some cases) throughout the economy and financial system, including liability-dollarisation, or dollar-linked/denominated debt contracts. Thus governments can even lose their domestic monopoly on currency.

In the absence of a global monopoly over money, the dollar and the renminbi need to provide sufficient usability and credibility across these unit-of-account/means-of-payment/store-of-value functions of money. How do they stack up?

Means of Payment

Payments and settlement are where challenges to dollar dominance are likely to be most direct, driven by both geopolitics and technological change, as many governments move to protect their ability to conduct international trade and investment free from interference by the US or the West.

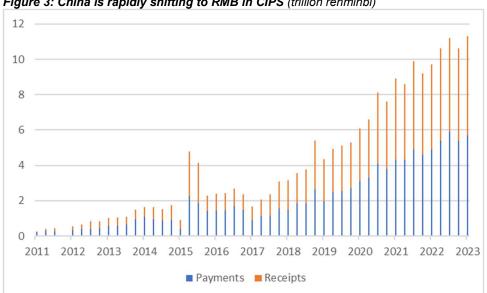


Figure 3: China is rapidly shifting to RMB in CIPS (trillion renminbi)

Note: CIPS – China International Payments System; SWIFT – Society for Worldwide International Financial Transfers. Source: Macrobond, Invesco. Quartely data to 1Q-2023

The data show China's payments and receipts are already moving substantially into RMB. This rapid shift in China's payments implies that an alternative payments system is already forming, since it is the world's largest trading nation and the largest trading partner for many countries.

Furthermore, China is a world leader in using technology to reorganize payments. Among the many central banks studying, trialing, or indeed implementing CBDCs – Central Bank Digital Currencies – China's PBoC is among the most important and most advanced. Depending on its design and scope, one CBDC could be "interoperable" with others, potentially enabling seamless, rapid payment and settlement directly between central banks.

Several major trading nations are reportedly considering, planning or conducting trade in with China in renminbi – Brazil, Saudi Arabia, Russia. Thus, China's rise as a major trading nation, its geopolitical motives to avoid sanctions and the advent of CBDCs increase the chances of disintermediating the dollar.



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Unit of Account

International transactions arguably gain more from a shared unit of account than domestic transactions. Exchange-rate risk in any given transaction can be hedged (even if settlement and invoicing use different currencies), of course. Using different currencies for pricing would not work as a practical matter in the aggregate: Potentially large exchange-rate movements would create arbitrage opportunities that would likely push the markets back towards uniform global pricing.

The RMB faces an uphill climb to replace the dollar as a global unit of account. China maintains fairly effective resident capital controls to manage both its exchange rate and interest rates. While helpful for economic and financial stability, the renminbi exchange rate is not a market price, unlike other major currencies. Using the RMB for pricing would expose international contracts to the risk of currency realignment, which is more difficult to hedge than exchange-rate risk.

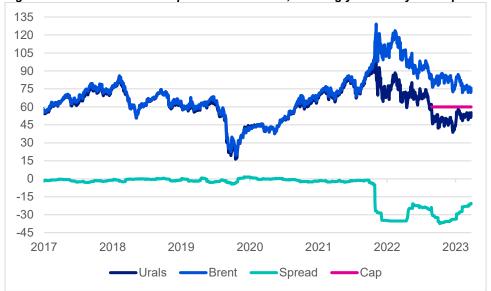


Figure 4: Russian Urals at deep discount to Brent, seemingly limited by G7 oil price cap

Source: Bloomberg, Macrobond, Invesco. Daily data to 15 June 2023.

Meanwhile, the dollar seemingly retains its role in oil pricing – even Russian oil, despite the well-publicized shift to RMB in China-Russia trade; even as oil markets are segmented by war and sanctions. Since the invasion, for the first time, Russia's Urals crude oil benchmark has traded with a deep discount to Brent. The price spread went deeply negative even as the underlying oil price rose. Furthermore, the discount was much more stable than oil itself for much of 2022. Since the G20 oil price cap took effect in December 2022, the published Urals price has traded below the US\$60/barrel cap.

Russia-India trade offers an important anecdote. Reports indicated India would pay for Russian oil in rupees, but Russia had second thoughts. It would run large surpluses that could easily be used only to buy Indian exports. Instead, Russia asked India to settle in UAE dirham – which happens to be pegged to the dollar. Even Russia seems to want the dollar as its unit of account.

The Russia-India case illustrates the benefit of using one currency for pricing/payments/reserves and the problem with bilateral transactions. Exports and imports rarely match, credit/debit balances will build, possibly substantial and lopsided over time. If these balances cannot be used for trade generally or as reserves for intervention, switching away from a leading global money restricts national flexibility instead of increasing it – even in wartime. So how are reserves evolving?

Store of Value: Stock of Official FX Reserves

IMF reserves data show the renminbi slowly gaining ground, most likely due to two factors – Russia's sanctions-evading shift from dollars after the 2014 annexation of Crimea; and renminbi reserve allocations after inclusion in the IMF's Special Drawing



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Rights basket in 2016, with a 12.28% weight. Meanwhile, the dollar share, by far the largest at nearly 60%, is shrinking perceptibly.

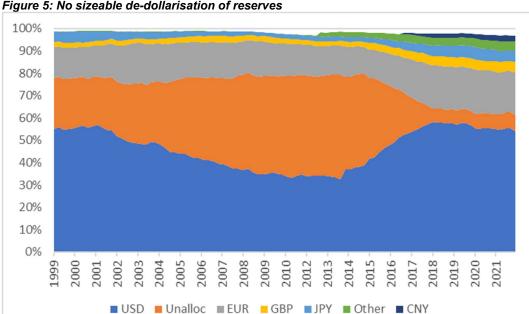


Figure 5: No sizeable de-dollarisation of reserves

Source: IMF, Macrobond, Invesco. Quarterly data to 3Q-2022.

Yet the dollar may have more staying power and China less upside than it might appear. Many central banks hold renminbi allocations in the "investment tranche" of reserves for diversification and return. The more conventional, lion's-share "liquidity tranche", used for intervention, continues to be held mainly in liquid Western reserve assets, mainly the dollar.

Dollar reserves seemingly fell rapidly in the 2000s to only about 35%, in favour of "unallocated" reserves (currency unspecified). However, as the currency mix was gradually revealed in the 2010s, unallocated reserves proved to be heavily skewed towards dollars.

Gross global reserves total about US\$12+ trillion equivalent, with US\$7-8 trillion held in dollars. Most of this is intended to be available for intervention, so it needs to be liquid. Ideally, market demand for reserves should move opposite to the currencies and financial markets of the reserve-holder, to maximise their usability for intervention. The dollar and US Treasuries generally work well for these purposes – a weak dollar is well known to be supportive for emerging markets, and vice versa. However, China's close trading relations with many reserve-holding countries imply correlation rather than countercyclicality – which could tilt renminbi exposure from liquidity to investment tranches of reserves.



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V. Hegemonic Stability Theory

The American policymaker/economic historian Charles Kindleberger helped conceive the dollar-centric, post-WWII international system using ideas now called "Hegemonic Stability Theory": The United States would underwrite a stable international framework for maintaining and promoting peace, economic stability, and prosperity in a virtuous circle, based on historical experience.

Several key points stand out from history. Changes in currency leadership accompanied shifts in the military/economic balance of power. Currency leadership has lasted about a century in modern times, suggesting the dollar is ageing. The Italian city-states were exceptions to the link between currency and geopolitical leadership but were hotbeds of financial innovation.

Drachma Solidus Florin 1250AD - Portuguese Real 500 BC 400 AD 1450 AD **Dutch Florin** 1635 AD Pound Sterling 1815 AD US Dollar 1973 AD US Dollar 1925 AD Franc 1710 AD Spanish Real 1525 AD Arab Dinar Ducato Aureus 100 BC 600 AD 1300 AD

Figure 6: International currency leadership has tended to reflect geopolitical leadership

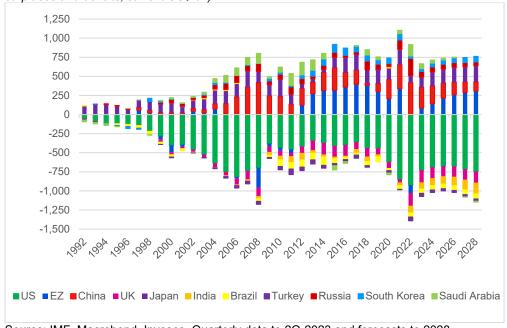
Note: Dates represent estimated start dates of currency eras. Source: Invesco, for illustrative purposes only

Perhaps above all, most leading international currencies were gold/metallic standard currencies. Credibility depended on sufficient gold reserves for the leading power and other states. Shifts in the balance of power were sometimes accompanied by gold flows following military defeats or interventions by a rising power – notably after WWI and again in WWII confirmed that the global balance of power had clearly shifted from warring European empires to the US.

There have been only two leading international fiat currencies – the Dutch florin in the 1600s and the US dollar now. In today's fiat-currency world, the credibility and authority of the state backs its currency. States without sufficient credibility tend to use capital controls or need to maintain enough reserves to manage shocks. So how does the current US fiat-dollar standard fare vis a vis global interdependence, stability and prosperity?

In today's economically integrated and dollarised world economy, flows of trade/current-account balances and FX reserves stocks are linked. Major deficit economies are mostly democracies, with the US by far the largest and most consistent; many are US allies, like the UK; others, like India, increasingly friendly; some like Turkey are allied but uncertain. Major surplus economies cut across US allies (Japan, Eurozone), adversaries (China, Russia) and others arguably in the middle with strong security ties to the US and economic ties to China (Saudi Arabia).

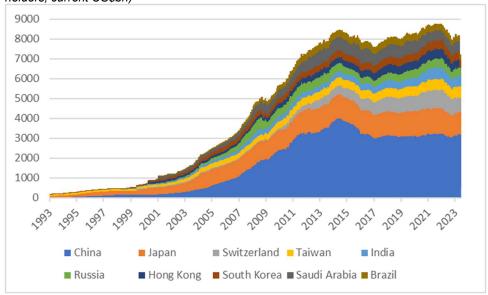
Figure 7: Democracies import goods/services/capital from democracies and autocracies (Current account balances – surpluses and deficits, current US\$ bn)



Source: IMF, Macrobond, Invesco. Quarterly data to 2Q-2023 and forecasts to 2028.

International reserves are concentrated. The top-ten holders account for 75% of reserves of the global total of US\$12 trillion in reserves, some 60% of which is in dollars. And the split is roughly even between US allies, who would probably stick with the dollar, and adversaries or others who probably would not.

Figure 8: FX reserves are split among US allies/friends, adversaries and those in between (Top-10 global reserve holders, current US\$bn)



Source: IMF, Macrobond, Invesco. Monthly data to June 2023.



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Taking current account balances and reserves together, the interdependence is striking. Deficit and surplus countries are intertwined across geopolitical fault lines. It would be extremely costly and disruptive to de-dollarise reserves or decouple current account surplus/deficit relationships. There would likely be significant growth and financial costs from decoupling because it might be very difficult or impossible for both exporters and importers to replace trading partners. "Re-globalization" to diversify supply chains and protect national security seems a far more likely policy choice than deglobalization – absent a direct trigger for open conflict.

Hegemonic stability or uncertainty?

The "Global South" – emerging markets, former European colonies – opposes Russia's Ukraine war; most condemned the act in the UN General Assembly. Yet few are participating in sanctions. Some have maintained or enhanced ties with Russia, China with a "no-limits partnership."

Many worry that freezing Russia's reserves and their potential seizure to fund Ukraine's eventual reconstruction may set a harmful precedent. What if they offend US/Western preferences? Might their elites be sanctioned, their reserves frozen, their trade cordoned off?

All reasons to switch from the dollar, with China an obvious substitute. Yet, the BRICS – Brazil, Russia, India, China and South Africa, leading lights in the Global South – have proposed studying a shared BRICS currency rather than switching to renminbi.

Why a new currency instead of the renminbi – despite Russia's deep China/renminbi relationship, as well as Brazil's and South Africa's increasingly close ties to China? India probably will not use the renminbi: An unresolved border war flares up occasionally, a long-standing rivalry, a sense of encirclement given Chinese ties with Pakistan, Sri Lanka, increasingly with Russia. For India, the dollar may be a better bet on hegemonic stability than the renminbi – though it might never acknowledge such a position.

VI. Conclusion:

Today's international system has no rules or treaties enshrining the centrality of a currency. The dollar's preeminence depends on usability and trust. Equally, any challenger must compete on its ability to support international stability, trade/investment and prosperity.

For decades, the dollar has had no head-on competitor. The yen and euro challenged the dollar on economic grounds, but neither Japan nor the Eurozone were able to keep up with the US in technology, finance and geoeconomics, let alone geopolitics.

Now, the game has changed from economic to geopolitical competition. China is a challenger with an economy as large, pushing the envelope in cutting-edge technologies, the largest trading nation, potentially capable of challenging US military prowess. In short, China now seems to be a geopolitical/geoeconomic peer.

Yet China seems less likely to directly take on the US or the dollar than to establish an alternative system, into which some countries may opt-in, at least partly. China seems unwilling to liberalise domestic capital controls, implying that exchange rates and interest rates are not market prices, undercutting the renminbi as a unit of account. Its financial markets are large, but not as large or liquid as those of the US. It extensive trade links with reserve-using emerging economies suggests shared, not countercyclical macro/financial performance as would be ideal for reserve assets. Above all, China is shifting its international payments to renminbi, and important trading partners are willingly participating, probably to reduce exposure to US/Western financial sanctions – which could be useful not just for China but other countries in a stand-off with the US.

On this basis, the likely best course of action for both policymakers and market participants is to keep a close eye on geopolitics and technology; to monitor activity in international payments, invoicing and reserve allocations; yet to operate on a traditional macro framework, since currency competition is likely to continue but be constrained by the need for large, deep, liquid markets. If there is to be a major change, the renminbi seems much more likely to provide a partial alternative to the dollar, especially in payments, than a full substitute, deeper and longer are the downturn.

Source: Invesco, July 2023



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