

CBDs: Geopolitical Ramifications of a Major Digital Currency



dGen

BEYOND

CBDCs: Geopolitical Ramifications of a Major Digital Currency

September 2020

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dGen is a not-for-profit think tank based in Berlin, Germany. We focus on how blockchain technology can contribute to a decentralized future in Europe and what this might mean for people, society, private entities, and the public sector over the coming decades.

We're working with a team of researchers exploring how decentralisation will shape our future. Our insight reports focus on specific topics and industries to drive ideas for adoption in Europe. To find out more, please visit us at dgen.org.

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dGen, 2020

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Foreword

China made waves at the end of August with the soft launch of the digital Yuan. The quiet launch garnered so much attention that soon after, the wallets were disabled.

And, this swing of extremes - of an unannounced launch gaining widespread attention - is indicative of Central Bank Digital Currencies (CBDCs) this year. They have run the gamut. At the beginning of the year, major nations still spurned them, but by March, they emerged as part of a crisis response to Covid-19. It's hard to find, much less keep, a pulse for CBDCs.

However, while conversations at governmental levels have yet to find a single voice and consensus, blockchain communities continue to drive forward innovations and use-cases for programmable money. DeFi's massive developments attest to this.

With blockchain's opensource and decentralised nature lending to individual initiatives that cannot be quashed, it's not hard to see why governments and ingrained financial institutions are struggling to find their place in these crowd-sourced solutions.

However, CBDCs offer central banks the chance to reevaluate the mission of money. With the wealth of opportunities currently available, and even more being developed at a break-neck pace, each nation has the opportunity to determine how a CBDC can best serve their citizens and residents.

From banking the unbanked to streamlining trade operations, CBDCs offer the chance for nations to redefine the purpose of their money. With more nations focussed on retail CBDCs, it's clear that digital currencies are not just here for businesses and trade. Their impact will be felt by individuals, businesses, and nations alike.

In light of this, the race to release the global reserve currency of the digital economy does not only have to be about vying for international prominence. It can also be the impetus to shift the focus of our financial institutions back to the people they serve and the people who make up our economies.

Jake Stott & Nick Dijkstra

Founding Board, dGen

Executive Summary

Money's introduction launched society from barter systems to our complex monetary systems of today. With more of our lives streamlined through the internet, though, it is time for money to catch up. We need a digitally native currency for our digital lives.

Speculation about the end of the US Dollar as the global reserve currency puts extra pressure on countries to research, develop, and experiment with digital currencies.

Countries around the globe recognise this, which has spurred a race to release a Central Bank Digital Currency (CBDC). Speculation about the end of the US Dollar as the global reserve currency has put extra pressure on countries to research, develop, and experiment with the different possibilities that digital currencies present.

History of Leading Global Currencies

International trade led to the rise of global reserve currencies - or currencies that are used for trade between different nations and held in reserve by central banks.

The US Dollar has been the global reserve currency since 1920. However, global reserve currencies have a history of dropping out of prominence after 80 to 111 years. The US Dollar is nearing this mark, at 99-years. Additionally, many countries are itching to get out from under a Dollar-dominated system and the political power of the Dollar.

Makings of a Strong Currency

While the Dollar is currently the world's most prominent currency, several other currencies hold reserve status and have sway in the global economy. Several factors influence the strength and global power of a currency, including:

- interest rates
- inflation
- economic growth
- stability and external influences.

History & Current Strength of the Euro

The Euro came into being in 1999, and now is the official currency in 19 EU member states. It is managed by the European Central Bank (ECB).

It is currently the second most widely held reserve currency and serves as the peg for 60 countries outside of the EU.⁸

In Q1 of 2020, about \$2.2 trillion worth of global reserves (18.73%) are held in euros, compared to the \$6.8 trillion (57.92%) of reserves held in US dollars.⁹

Based on multiple indicators, the Euro is widely viewed as the second most important currency globally.

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What's Next for the Euro?

While the Euro holds a strong position, growth has stalled. CBDCs could change the positioning of currencies, though, especially as the US appears to be quite far from launching a digital currency.

However, whether the introduction of a major CBDC will be enough to dethrone the US Dollar remains to be seen. As the second most important currency, the Euro now could suffer if a digital currency eats up much of the trade that is not currently managed in dollars.

Additionally, a digital Euro will have a massive impact on the European financial system. The implications will be two-fold:

- a holistic impact on the common European financial sector
- impact on individual member states' financial systems.

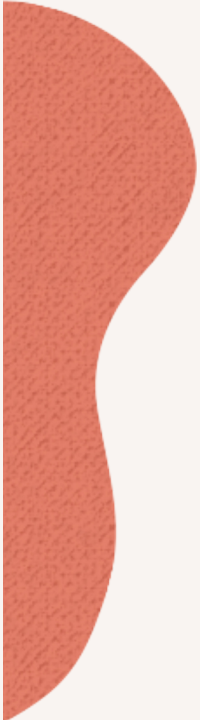
Current World Trade & Potential Shifts

At present, the US Dollar, the Euro, and the Chinese Yuan hold the top three positions globally. China's massive rise in prominence also makes their dissatisfaction with a Dollar-dominated system more clear. They have implemented several concrete steps towards de-dollarisation, including the Belt and Road Initiative (BRI), which brings together a number of Asian nations and Russia to boost economic growth and trade. China has also launched a CBDC initiative, called the Digital Currency/Electronic Payment (DC/EP), or digital Yuan. This initiative appears to be moving far more rapidly than the other economic superpowers moves towards digitisation, and could pose a serious threat to both the Dollar and the Euro.

Private Threats to Global Currencies

Private cryptocurrencies and stablecoins also emerged as a growing threat to government-issued currencies. They have the

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Governments will have to focus on providing digital currencies that can match or outperform privately issued monies.

benefit of not being nationally bound, and could therefore serve as a truly global currency with greater adoption, as well as sidestepping many of the regulations that governments face.

Therefore, to compete with this emerging threat, governments will have to focus on providing digital currencies that can match or outperform privately issued monies.

A Strong Digital Euro

Introducing a new currency could upset many delicate financial systems. Therefore, attention must be paid to the positioning and function of a digital Euro. It must be capable of efficiently facilitating:

- frictionless transactions
- nearly instantaneous money transfers
- government disbursements.

Ultimately, it should widen the range of financial instruments and have the capacity to onboard new users on a massive scale.

For this, the ECB needs to implement:

- sound technical infrastructure
- global expansion
- incentivised adoption
- competitive positioning.

These variables will have implications both within and outside of the Eurozone, as the top three currencies vie for prominence.

Long-Term Implications of a Strong or Weak Digital Euro

Currency strength impacts imports and exports. This has been a sticking point for the Eurozone from inception. Stronger economies, like Germany, push for a stronger currency, while weaker economies, like Italy and Greece, have repeatedly called for a weaker currency to boost their economies.

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The restructure required by launching a digital currency will require all members of the Eurozone to reconsider the goals of the combined currency. Ideally, this will revive the common goals of the Eurozone, and strengthen the bonds of the different member states.

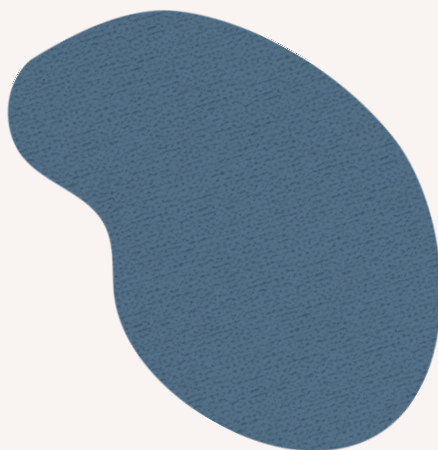
This is even more important as countries both in- and out-side of the Eurozone actively explore CBDCs, which may fracture the Eurozone if launched.

Conclusions

The Euro, while quite strong now, cannot bet on its global relevance in the future. However, with the launch of a well-designed digital currency, the Euro has the opportunity to become an effective settlement method for international trade outside of the politics of the US-China currency war.

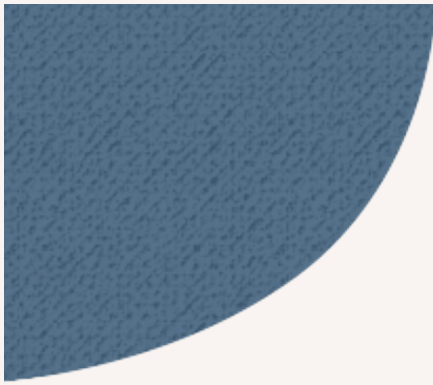
Therefore, we expect:

1. A digital Yuan will not unseat the Dollar.
2. CBDCs will have to play nice with private stablecoins.
3. Three to five nations globally will completely replace their currency with a CBDC by 2030.
4. Smaller nations will consider a switch to the digital Dollar.
5. The Euro will be overtaken by the digital Yuan if Europe has no CBDC by 2025.



1

Introduction



Introduction

Money is arguably one of the greatest human inventions. Though it is hard to ascertain the true origins of money, its central role in the development of modern civilization is clear. Particularly the transition from barter-trade systems to monetary systems was monumental, and a critical part of human history, enabling growth, investment, and savings previously not possible. Since then, money has undergone constant innovation, taking different shapes and forms based on needs, practicability, and technological advancements.

Simply put, we need a digital currency for a digital economy.

Now, money is on the cusp of yet another revolution, as we get ready to usher in a fully digital world. With the digitisation of every other aspect of human life, money too must follow suit to ensure practicability and compatibility. Simply put, we need a digital currency for a digital economy.

Central banks across the world are now in a race to launch digital currencies. Despite how daunting this task is, nations and regional economies are actively researching, developing, and experimenting with different kinds of digital currencies. The potential rewards for whoever emerges on top are too great to ignore. Early adopters will get to play a leading role in the transition to a completely digital economy, as well as guiding the new world order. The first truly digital currency could also become the next global reserve currency, although whether or not this is enough to topple the Dollar remains to be seen. Regardless, the stakes are high.

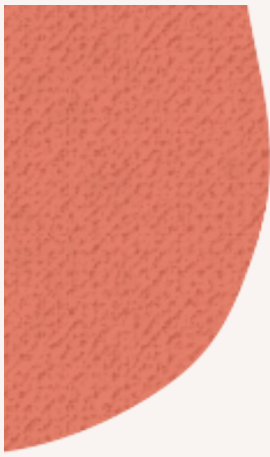
This is better understood by reviewing the history of leading global currencies.

History of Global Currency Dominance

Powerful economies' domestic currencies serve as the world's reserve currency, or common currency of most international trade.

Leading global currencies have a history that stretches back to ancient times, with dominant empires controlling trade and the flow of money. This trend repeats in modern history, with powerful economies' domestic currencies serving as the world's reserve currency, or common currency of most international trade.

Reserve currency status carries several benefits. First, is that as most international trade will be conducted in the reserve currency, it reduces the cost for the country whose currency serves as the reserve, as there is no exchange rate.¹ Second, are lower borrowing costs.¹ All of this comes with more political



power globally, as by imposing tariffs and sanctions, countries with reserve currency status can put pressure on those without.

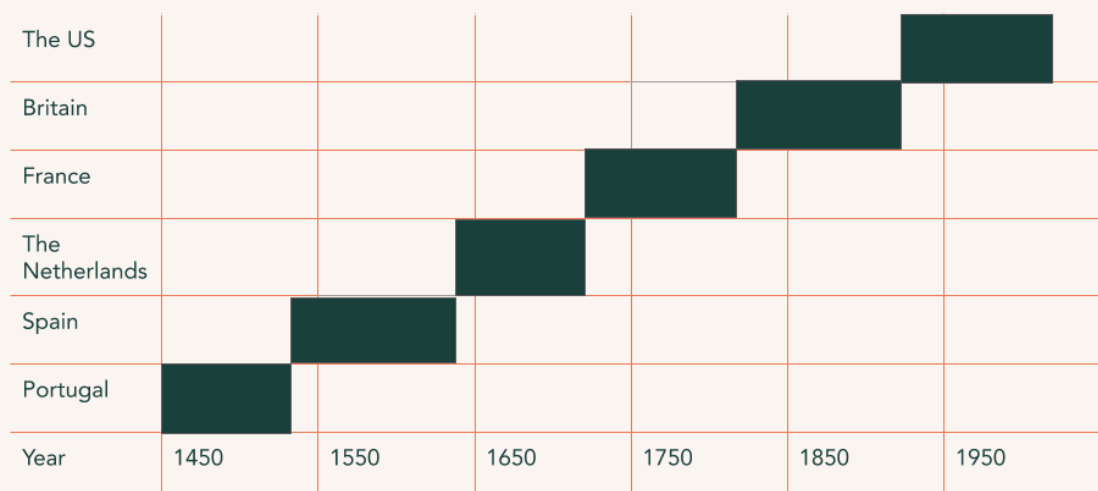
Currently, the US Dollar serves as the global reserve currency. Its dominance went into effect around 1920 following World War I.² The Bretton Woods system in 1944 further strengthened the position of the US Dollar.³ This system pegged the US Dollar to the price of gold, making it the principal currency for the world and giving it a powerful trade position. Consequently, many other currencies were pegged to the Dollar and remain so to date, even after the suspension of the Dollar-Gold peg in the 1970s by President Richard Nixon. Now, a floating currency market exists with the Dollar still dominating global trade.

These economic powerhouses continue to exert pressure in international markets, and are aggressively pushing to end the USD 100-year dominance.

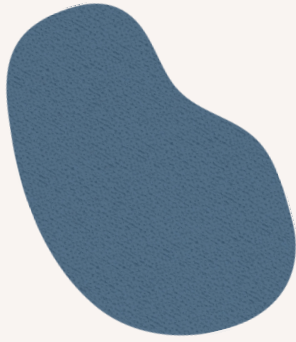
However, the Dollar hasn't been without its challengers, with a few leading economies coming to the fore in recent years. Currencies like the Euro, Japanese Yen, German Mark - before the Euro -, and Chinese Yuan all take up substantial portions of the Dollar's share of global trade. These economic powerhouses continue to exert pressure in international markets, and are aggressively pushing to end the USD 100-year dominance.

This push is backed by a long history of power transfers. Before the US Dollar, the United Kingdom's Pound was the dominant global trade currency, from 1815 to 1920.⁴ The Pound was preceded by native currencies from France, the Netherlands, Spain, and Portugal between 1450 and 1815.⁴

Reserve Currency Status Does Not Last Forever



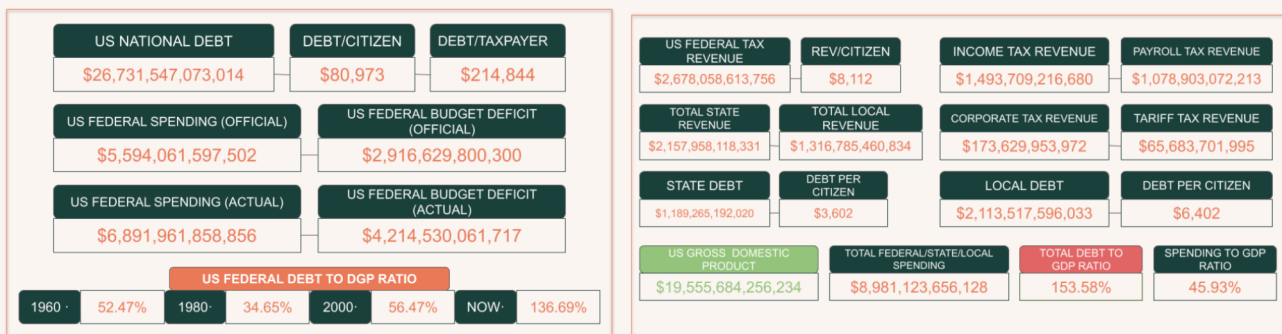
Source: ⁴



Interestingly, each of these currencies served as major reserve currencies for between 80 and 111 years. This averages to around 95 years with a 10-year variance.⁴

More interestingly, all of these regimes began and ended in similar ways. The beginnings often feature bad luck befalling the dominant nation followed by war and victory by the successor. This was followed by empire building by the new world trade leader as they exert dominance. This eventually spills over ending in reckless spending and huge debts - the downside of reserve currency status.

UNITED STATES DEBT CLOCK




Source: ⁵

As things stand, the US seems to be following this pattern, indicating that the end of the Dollar's reign is nigh. The US has a total national debt of \$26.59 trillion,⁵ and is on the cusp of major political and social upheaval. Competing nations feel that under the circumstances, the Dollar might have run its 100-year course and it is now time for a new global reserve currency. Whether or not this is true, remains to be seen. Regardless, in the power struggle that continues over leading economies, every player has a vested interest in remaining relevant, even if not ascending to the top position.

Makings of a Strong Currency

While the Dollar is currently the largest reserve currency, several others have reserve currency status, and maintain relatively strong positions behind the Dollar. The strength of a currency is influenced by both country-specific variables and external factors. The country-specific variables such as political stability, fiscal policies, and other economic indicators have



greater impact on a currency's strength. The external factors usually emanate from other nations, and provide the benchmarks to measure the strength of a particular currency against.

Economic Factors

Among the multiple economic factors that affect currency value, three stand out as the most important:

- interest rates
- inflation
- economic growth.

Interest Rates

A country's central bank sets the interest rates to either stimulate or slow down the economy. Higher rates are set during periods of huge economic growth and lower rates imposed to spur borrowing in an economic downturn.

These adjustments influence a currency's value in global markets, with higher interest rates increasing demand for a particular currency. Investors and international traders earn an extra return on exchanges of currencies with higher interest rates. Currencies with low-interest rates have less demand in global markets, as investors earn lower returns from their investment in that specific country.



Inflation

Inflation, just like interest rates, is controlled by a country's central bank through a raft of economic policies. Strong fiscal discipline, therefore, helps promote the value of a currency. The adoption of anti-inflationary monetary policies helps stabilise the price of commodities in a specific nation. In global markets, this contributes to maintaining a rate of inflation that is relatively low compared to other countries. This, in turn, makes a nation's exports more competitive, raising demand for the local currency. Additionally, low inflation rates mean foreign goods become more expensive, resulting in fewer imports. This has a net effect of raising the value of that nation's currency.

Economic Growth

Expansion of a national economy contributes significantly to the strength of the local currency in global markets. Economic growth goes hand-in-hand with increased demand for goods

Economic growth goes hand-in-hand with increased demand for goods and services, higher employment rates, and a rise in household income.

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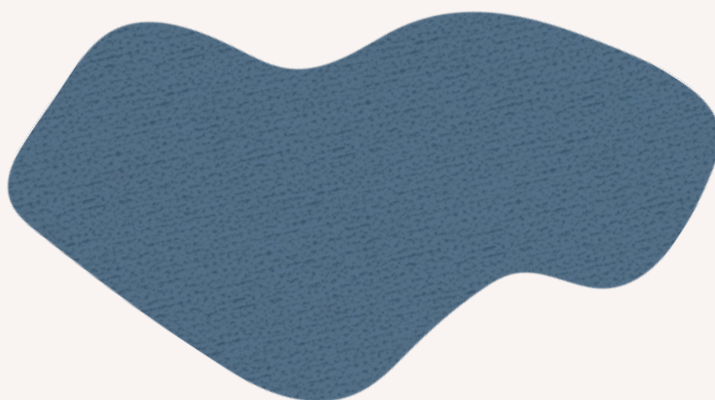
A strong economic growth rate also makes a country more attractive to foreign capital and investments. The increased global demand for locally produced goods plays a critical role in boosting the value of the local currency. This is best illustrated by the increased strength of the Chinese Yuan spurred by the nation's explosive growth over the past 30 years. The Yuan rose from relative obscurity in global markets to become a top challenger for the US Dollar as a reserve currency over this period of sustained economic growth. It currently stands in third for the amount of currency held in reserve.

Stability and External Influences

Nations with strong governments, political stability, and a history of sound economic policies usually have strong currencies.

Nations with strong governments, political stability, and a history of sound economic policies usually have strong currencies. Such nations attract investments since their reputations promise they can safeguard and grow this wealth. Other nations, corporations, and individuals feel assured while holding and trading the currency of such nations like the US, UK, Japan, Switzerland, and Germany, as they have well-established stability.

The strength of a currency is further augmented by the external factors affecting other nations. For instance, the US Dollar has been able to retain its value through recessions, fiscal problems, and declining interest rates. This is partially because other nations have similar problems, so the top currency remains relatively strong.



2

The Euro



The Euro

History of the Euro

The Euro is the common currency for member countries of the European Union (EU) and is managed by the European Central Bank (ECB). It serves as the official currency in 19 out of the 27 EU members.⁶ Each of these nations independently develops fiscal policy, which influences the Euro's value.

The Euro first came into existence on 1 January 1999, but its history dates back to the early 1960s when it was first proposed to unify and strengthen the EU.⁷ This was realised with the Maastricht Treaty in 1993, creating a united economic and monetary policy for the region. The currency initially launched virtually as a unit of account in 1999, with note and coin circulation beginning in 2002.⁷

Since then, the Euro gained widespread use across the EU, replacing several member states' national currencies. Recognition and adoption of the Euro outside the EU is gradually expanding to date as it continues to fuel global trade.

Current Strength of the Euro

The Euro performed remarkably well in the first 20 years of existence. Over 340 million people living in the EU use the Euro for daily transactions.⁶ Globally, 60 countries outside the EU have pegged their currency directly or indirectly to the Euro.⁸ About 175 million people live in nations with a domestic currency pegged to the Euro.⁸

The Euro ranks highly on the global stage, indicating immense strength for a relatively young currency. The Euro stands at second in terms of foreign exchange reserves held by central banks around the world.⁹ In 2019, foreign governments held \$8,965.71 trillion worth of Euro reserves (19.15%) as compared to \$26,953.05 trillion (57.55%) held in US Dollars.⁹

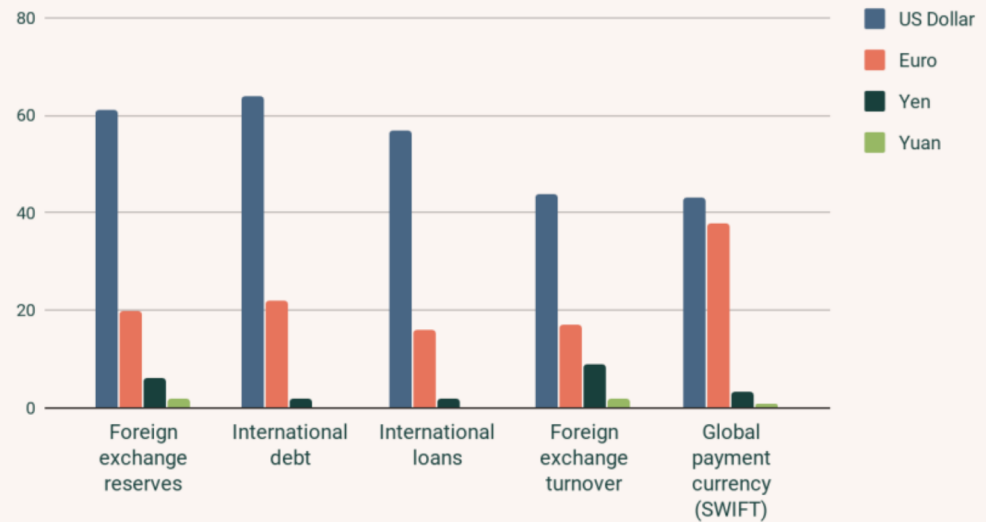
The Euro is holding onto its second position this year, with about \$2.2 trillion worth of global reserves (18.73%) held in the currency in 2020 Q1.⁹ About \$6.8 trillion (57.92%) worth of reserves are held in the US Dollar for the same period.⁹

The Euro remains firmly behind the US Dollar across multiple indicators, making it the second most important currency in the international monetary system. According to data from the fourth quarter of 2019, the Euro outperforms most other currencies across different measures¹⁰ as seen in the chart

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below:

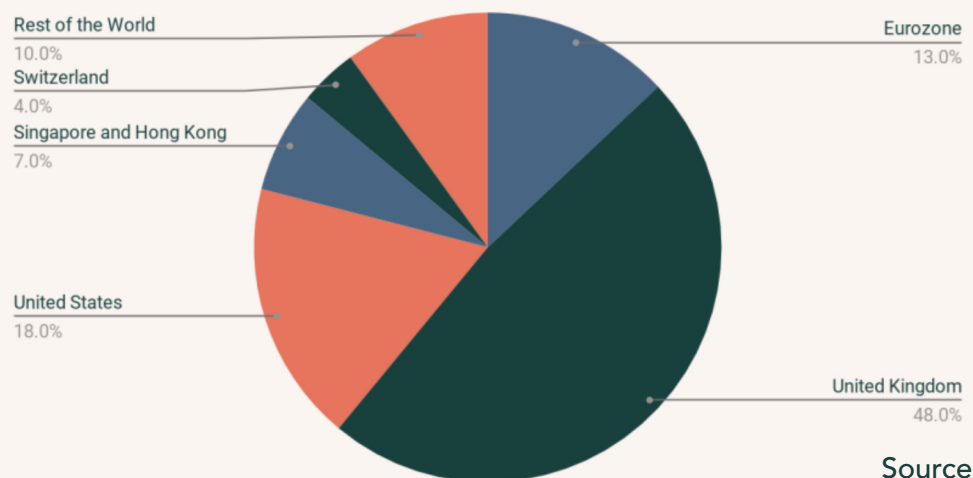
Snapshot of the International Monetary System (Percentages)



Source: ¹⁰

Interestingly, data suggests the Euro gained widespread use across the world, with most foreign exchange transactions occurring outside the Euro area. The United Kingdom accounts for 48% of these transactions followed by the USA with 18%, both more than the 13% from the Euro area.¹⁰

Share of Selected Countries in Global Foreign Exchange Transactions in Euro, 2019



Source: ¹⁰

What's Next for the Euro?

The Euro rapidly ascended to be the second most important currency in the world in just 20 years. However, its progress seems to have stalled, leaving the goal of dominating the global economy a far-fetched dream. Currently, the USD dominance persists. It will require monumental change to dislodge it.

A digital Euro will not only transform the Eurozone monetary system, but also could completely change the global economy.

Central Bank Digital Currencies (CBDCs) could bring this change. While many countries are invested in developing their own digital currency, launching a digital Euro could herald this new era due to its current strength. Therefore, a digital Euro will not only transform the Eurozone monetary system, but also could completely change the global economy. However, its launch, as with any new currency, will not be without its complications.

While retaining a powerful position for the Euro should be a primary goal, the difficulty of toppling the US Dollar calls into question whether or not it is advisable to push for the top position. However, in a changing economic landscape, especially with China emerging as an ever-stronger competitor, maintaining a position of relative strength without massive economic and political upheaval will require forethought. Releasing a strong digital currency may be a necessary step to retaining a powerful position in global markets.

Regardless, introduction of a digital Euro is bound to have drastic effects on the European financial system. The implications are two-fold:

- holistic impact on the common European financial sector
- impact on individual member states' financial systems.

With several European nations pushing for or developing their own national CBDCs, the likelihood of pushback and increased fragmentation in the EU financial system is increased. This will, of course, be accompanied by political, economic, and social struggles between nations. Wealthier nations may exert more power, further weakening and endangering the Euro.

On the other hand, substantial adoption of a digital Euro across the region could result in one of the strongest currencies in the digital era. Mass adoption among EU member states, advanced technological economies, and recognition by global trade partners could significantly boost the strength of a digital Euro. According to Estelle Brack, PhD, Founder & Chairman of KiraliT

'[A] digital Euro could be a real unfragmented Euro within the Euro area and outside'.

- Estelle Brack, PhD. Founder & Chairman, KiraliT & dGen Fellow

and dGen Fellow, 'a digital Euro could be a real unfragmented Euro within the Euro area and outside', which may well increase its value globally as a reserve and invoicing currency.

Current World Trade & Potential Shifts

There have been significant changes and shifts in global trade over the last few decades, with greater globalisation. However, very little has changed in terms of the dominant forces behind the movement of goods, services, and money globally.

Despite the ascension of the Euro and the Chinese Yuan in global market charts, the US Dollar still denominates close to half of all global trade. The Eurozone is the leading trading bloc, accounting for 16% of all global trade.¹¹ China remains the top trading nation on earth.

However, this glance at the statistics does not paint a full picture of happenings on the global stage. There are multiple initiatives and developments that will likely have a huge impact on global trade in the coming decades.

The Belt and Road Initiative (BRI), formerly One Belt, One Road, threatens to shift economic power from advanced to emerging economies, with China at the helm.¹² The BRI seeks to accelerate economic growth, development, and trade across the Silk Road Economic Belt, which spans from China through Southeast Asia, South Asia, Central Asia, Russia, and provides access to Europe.¹³ This initiative is an ambitious attempt aimed at intensive integration of China into the global economy.

The success or failure of BRI will have a lasting effect on global trade, as it entails significant shifts in trade patterns.

Additionally, China is bringing along other emerging and developing nations with this plan through the development of infrastructure. Already the project is in motion with roads, railways, airports, and seaports under development across a host of China's trading partners. The success or failure of this project will have a lasting effect on global trade, as it entails significant shifts in trade patterns.

The ongoing 'currency wars' are not expected to decrease any time soon. Rather, they are expected to rise in earnest, and already are, as nations continue to find ways to wriggle out of the Dollar-denominated currency exchange system. China's determination to overcome US-imposed tariffs and economic control is not limited to the BRI. A digital Yuan, formally known as the Digital Currency/Electronic Payment (DC/EP), is increasingly part of the plan to dismantle the Dollar. In fact, the plan for the DC/EP includes the Blockchain Services Network

(BSN), which will boost blockchain adoption in China, and is specifically designed with digital assets in mind, paving the way to a more integrated payments method.¹⁴ The battle for economic prominence continues to grow and has turned into an increasingly ugly political and economic battle.

China is not alone in its plans to bypass the Dollar in global trade, although as expected, China and Russia are at the forefront with multiple initiatives aimed at shielding the Yuan from Dollar hegemony. Both nations have collaboratively developed cross-border interbank payment systems to replace SWIFT. Russia's System for Transfer of Financial Messages (SPFS) and China's China International Payments System (CIPS) are both up and running. As of 2019, 10% of the global market share of financial institutions use their networks.¹⁵ This figure is expected to grow as they rope in more nations and institutions seeking alternatives to the US politicised SWIFT and weaponised Dollar.

India, Pakistan, and Central Asian states have also joined forces with China and Russia. These nations met in March 2020 to develop a roadmap for a separate collaborative system.¹⁶ Besides bilateral trade and investments, they aim to conduct mutual settlements and issue bonds in their national currencies.¹⁶

The impact of these initiatives have not yet been felt in global markets, but their influence is expected to rise in the coming decades, especially as more nations join the initiative.

Private Threats to Global Currencies

Aside from nations, large corporations and people-led initiatives also threaten to change the landscape of international trade in the coming decades. Cryptocurrencies, such as Bitcoin and blockchain-based stablecoins, emerged as a force in the international currency war. In the future, this is expected to increase, with corporations adding their power to these technologies.

The biggest challenge to establishing a common international currency is largely geography. Nation-led initiatives often succumb to political, economic, and social opposition. As stablecoins are ruled by code, they can more easily avoid such issues. Reserve-backed stablecoins are gaining traction, and may gain widespread use compared to fiat currencies. Benoît Coeuré, a Member of the Executive Board of the European Central Bank (ECB), admitted almost as much, stating that

The impact of these initiatives have not yet been felt in global markets, but their influence is expected to rise in the coming decades, especially as more nations join the initiative.

'[A] possible future central bank digital currency (CBDC), if launched, should be designed in such a way that it would not crowd out functioning private sector solutions'.

- Ulrich Binseil, Director General of Market Infrastructure and Payments, ECB

stablecoins had a better chance of challenging the USD in the global market than a fiat currency.¹⁷

With greater interest from established corporations, stablecoins could balloon in the coming years. As it is easier to connect a new currency to an established network of users than to build an entirely new network for an existing currency, some of these initiatives pose a serious threat to the established financial system. For instance, Facebook's proposed stablecoin, Libra, could easily gain global adoption in comparison to the Euro.¹⁸ However, Ulrich Binseil, Director General of Market Infrastructure and Payments for the ECB, believes:

'that a possible future central bank digital currency (CBDC), if launched, should be designed in such a way that it would not crowd out functioning private sector solutions for fast and efficient retail payments in the euro area'.

Binseil continues, 'there would be ample potential for both and, in actual fact, there could even be synergies'.

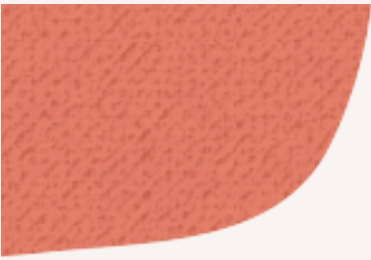
However, at present, the biggest stablecoins are all dollar-pegged. Even as they threaten fiat currencies, they continue to maintain the Dollar as the most important reserve currency.

All of this to say that, while the Euro has maintained its positions as a top currency, it is by no means safe. A successful digital Yuan could very well unseat the Euro for the second spot, especially with China aggressively partnering with other nations to dethrone the Dollar. This could remove the Euro from relevance.

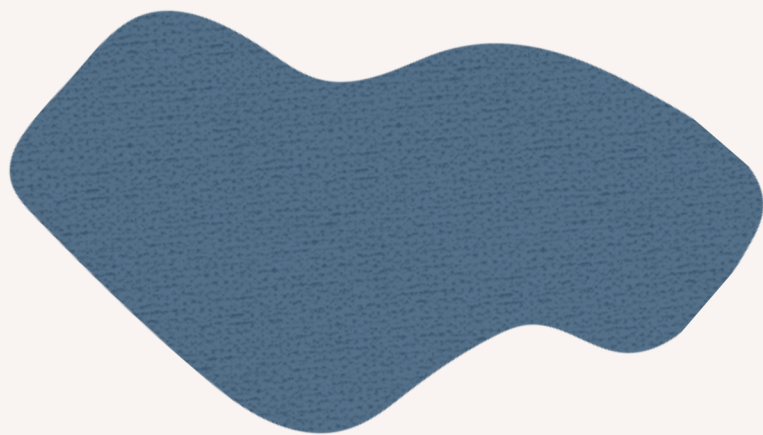
Additionally, private stablecoins also present a threat to government-issued currencies. As privately-issued currencies do not have the clout of a nation behind them, they do, and will, rely on offering better services. This needs to impact how governments design digital currencies. Floris van Lieshout, Manager of Deloitte Digital Risk Solutions, laid out the issue as such:

'It's our task to help innovation come from central banks, but that doesn't come naturally because they are looking from a monetary policy perspective, from banking and regulation perspective, not from a technology innovation perspective. And those perspectives are not necessarily very well aligned'.





Governments need to be increasingly aware of the threat of private currencies and create digital and programmable currencies that can compete with private stablecoins for usability. Or, to not be completely forced out of the market, adopt policies that work side-by-side with these privately-issued currencies, as Bindseil argued, and make sure that no one corporation establishes a monopoly.



3

A Strong Digital Euro

A Strong Digital Euro

There are several components needed to create a strong digital Euro. At its core, a European CBDC should be capable of efficiently facilitating:

- frictionless transactions
- nearly instantaneous money transfers
- government disbursements.

According to John Ho, Head of Legal, Financial Markets at Standard Chartered Bank:

‘Depending on the design choices made, there could be a number of implications for investor and consumer protection, monetary policy, financial stability, safety, and soundness of the CBDC arrangement’.

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- John Ho, Head of Legal, Financial Markets, Standard Chartered Bank

A digital Euro should widen the range of capabilities by enabling new financial instruments and the expansion of monetary policy. Most importantly, a digital currency should have the capability to onboard new users on a massive scale across the globe. Now, the big question is, how do you achieve all of this?

Sound Technological Infrastructure

A digital Euro needs to be built on a highly technical yet easy-to-use infrastructure, one that supports multiple functions while remaining flexible enough to accommodate the different needs of users.¹⁹ The system architecture for a European CBDC also needs to strike a balance between requirements for privacy and transparency.¹⁹

A well-functioning digital Euro will need a highly secure, yet transparent design that protects users’ data from abuse while allowing selective data mining procedures. This is useful for service customisation and meeting legal requirements for disclosures without harming user privacy. Such flexibility will enable a digital Euro to meet its current use cases and emergent functional requirements in the future.

Global Expansion

A digital Euro can be strengthened further by boosting its competitiveness in the global markets. The ECB should focus on having as many people as possible using a digital Euro in the



A digital Euro should be made widely accessible through simple convertibility between currencies.

world. As such, measures that enable easy mass adoption internationally are needed. First, a digital Euro should be made widely accessible through simple convertibility between currencies. This should begin with all Eurozone members and residents of the 60 countries whose currencies are pegged to the Euro. This should be followed by aggressive expansion into other nations with a prioritization of the bloc's trading partners. The penetration of a digital Euro in more familiar territories should provide the blueprint for its global takeover.

Incentivised Adoption

Currently, a huge proportion of global trade is dollar-denominated, to the point that even Eurozone key trade partners prefer US currency for invoicing. With global trade rapidly transitioning towards mass digitisation, any digital currency will have a leg-up on less streamlined fiat currencies. A digital Euro is well-positioned to eat into the Dollar's market share given its large user- and trade-base. A digital Euro should offer modern solutions to facilitate effective trade between nations. However, any well-designed CBDC, especially those with a decent user-base already, will see similar advantages. A digital Yuan is a particular threat, given China's position as the world's top exporter.

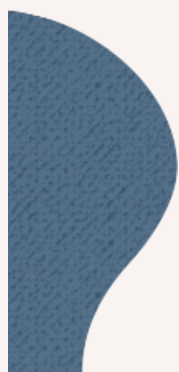
With global trade rapidly transitioning towards mass digitisation, any digital currency will have a leg-up on less streamlined fiat currencies.

As such, the ECB should leverage the changing landscape to boost digital currency penetration. Offering incentives to existing and future trade partners will encourage them to embrace Euro invoicing for global trade. These incentives can be:

- better rates
- reduced tariffs
- favourable trading terms.

All of this could sway countries to adopt digital Euro invoicing.

The ECB can further strengthen a digital currency by offering digital Euro-denominated debt to nations across the world. This effectively raises demand for the currency and increases its market share globally. Offering lower interest rates targeted at nations with weak currencies will further boost the uptake of Euro-denominated debt. The provision of favourable repayment terms and expansion of trade between the Euro area and such nations will raise demand for a digital Euro. This will ultimately increase its use case and adoption internationally, which further boosts its strength.



Competitive Positioning

A digital Euro's expansion cannot go unchecked. Moves by other major players to launch CBDCs prove this. The dominant US Dollar will not be so easily toppled and China's moves as a strong emerging economy are among other top global players who will not sit by as the Eurozone bites off a huge chunk of the pie. The ECB must anticipate pushback from these nations and develop strategies to overcome any potential pitfalls that endanger the current strength of the Euro. Most importantly, structures that aid relevancy must be implemented.

Several countries are rethinking Dollar-dependency, and are actively pursuing other options. This is both an ideal opportunity and a time to prepare for change as the economic landscape shifts.

Besides creating strategies to defend the position of the Euro, the ECB should also look for ways to take advantage of any opportunities that arise in the global market. For instance, weaponisation of the Dollar has been a major pain point for multiple nations.²⁰ Countries like China, Russia, and Iran have been the latest victims of US sanctions, limiting their ability to participate in global markets.²¹ Now, several countries are rethinking Dollar-dependency, and are actively pursuing other options. This can be seen as both an ideal opportunity and a time to prepare for change as the economic landscape shifts.

The Euro could further strengthen its position by stepping in as a more inclusive currency. Being the second most used global reserve currency, the Euro is effectively positioned to benefit from the fallout of the de-dollarisation campaign. The Euro offers a suitable replacement for the Dollar that enables affected countries to lower their Dollar exposure. It could also help these nations to reduce the economic shocks associated with the Dollar boom and bust cycle.

De-dollarisation does not guarantee benefits for the ECB, though. Rather, as covered before, the Euro faces a huge fight against the Chinese Yuan in the bid to replace the US Dollar. The Chinese Yuan emerged as a serious contender for the global reserve currency thanks to remarkable growth over the past few decades.²² The growth of intra-Asian trade and increased borrowing from China lends to its rapid rise. The Chinese Yuan continues to rise in global markets.

Further, the Chinese government is fast-tracking the development of a digital Yuan to become a global leader in the digital economy.²³ The actualisation of a digital Yuan before the Euro could cause a major upset to the ECB's efforts to increase its foothold in the global economy. However, in this race, getting it right is more important than getting there first. As Carlos Gomez, dGen Fellow and Talent Acquisition Manager at CryptoRecruit, told us, while 'China [is definitely the economic

A 'CBDC Euro could be seen as a neutral/middle group currency available for both sides' in the current currency war.

*- Carlos Gomez, dGen Fellow
& Talent Acquisition Manager,
CryptoRecruit*

super power] that will have their own CBDC up and running first', he doesn't foresee 'US-based trading companies using it'. Rather, a 'CBDC Euro could be seen as a neutral/middle group currency available for both sides' in the current currency war, though perhaps not for the major players themselves. Therefore, the ECB still has a hold in the market and should focus on developing a highly functional and reliable digital currency that delivers the promise of a fully digital economy.

Digital currencies have yet to be proven for widespread retail use. To inspire confidence globally and provide a suitable alternative for those nations seeking to move away from the Dollar monopoly, digital currencies will need to prove that they are reliable and highly usable. Further, as Europe is generally viewed as more politically stable than China, even with an earlier launch of a digital Yuan, a digital Euro could still see greater global adoption if designed right and launched not too far behind a digital Yuan. The US appears to be lagging behind both the ECB and the People's Bank of China in the development of a CBDC, leaving room for these two to vie for prominence.

Flexibility

Besides national currencies, a digital Euro will be faced with competition from privately issued currencies. Blockchain-based stablecoins, like Tether and USDC, are increasingly popular for money exchange on the internet. Their rise in popularity has ignited interest from tech corporations and financial institutions. Particularly, Facebook's proposed Libra cryptocurrency aroused great interest and trepidation over the past year. Its potential implications for government-issued currencies in the digital realm are expected to be severe, but cannot be fully anticipated.

These asset-backed stablecoins pose a huge threat to the government-issued digital currencies due to their salient differences. Stablecoins have global reach, since they are not affiliated to any specific government. This feature alone helps them address a huge unmet demand for seamless cross-border payments. They also have simple onboarding processes, which enables fast, cheap, and easy transactions globally.

Government-issued CBDCs are limited in this respect, as they are stifled by strict regulatory requirements, as well as differing national interests. Therefore, for a digital Euro to succeed, there is the need to evaluate its ability to serve a global demand without infringing on different national laws. Most importantly, proper design to surpass the expectations of users



already used to the simplicity, effectiveness, and flexibility of private digital currencies and being able to seamlessly onboard new users is essential.

As the ECB continues to mull over the development of a digital Euro, several shifts are occurring with the digital finance economy rapidly growing. There are multiple financial products and services currently offered through virtual currencies. Particularly, Decentralised Finance (DeFi) is gathering steam, with users able to access a wide range of financial services powered by blockchain technology.

On top of that, the Libra development team has proposed the introduction of its wide-ranging services. The ECB estimates that Libra's global reserves could reach as high as €3 trillion if the currency is widely adopted as a store of value.²⁴ This is a colossal amount of assets that would be under the management of a single corporation. 'There have to be enough checks and balances if a centralised commercial party has too much power', especially in the context of our financial systems, according to Floris van Lieshout, Manager of Deloitte Digital Risk Solutions. The possibility of a global monetary monopoly is further exacerbated by the sheer size of Facebook's network and its aggressive business practices. Therefore, every nation needs to be wary of the threat posed by private digital currencies, and implement the checks and balances van Lieshout referenced.

'It's really the task of governments and central banks to provide money as a public utility'.

- Floris van Lieshout, Manager of Digital Risk Solutions, Deloitte

As Jonas Gross, Research Assistant and Project Manager at the Frankfurt School Blockchain Center, says:

'Both Libra and the Chinese CBDC could, in theory, also be used for retail payments in the Euro Area and, therefore, reach a sizable market share. Hence, central bankers are concerned about the potentially reclining role if Euro payments via bank deposits or cash are substituted by "synthetic" Euro payments via Libra and the DC/EP'.

Therefore, the ECB must focus on creating a more flexible and dynamic digital Euro capable of achieving, if not exceeding, the potential of private stablecoins and outpacing widespread adoption of a different CBDC. Building a holistic ecosystem that serves the unmet demand for financial products and services globally would help address this. According to van Lieshout of Deloitte, 'it's really the task of governments and central banks to provide money as a public utility'.

4

Long-Term Implications of a Digital Euro

Long-Term Implications of a Strong or Weak Digital Euro

A digital Euro will have major implications for the Eurozone, its individual member states, and global trade at large.

A strong digital Euro has the potential to elevate the Eurozone's position in world trade, as it makes foreign products cheaper.

The strength or weakness of a digital Euro will have a lasting effect on the region and its member states' competitiveness in international markets. A strong digital Euro has the potential to elevate the Eurozone's position in world trade, as it makes foreign products cheaper. Therefore, businesses and other economic players within the Eurozone would be more incentivised to shift to Euro invoicing. Considering that the EU is a net importer of primary goods, this would increase the share of Euro-denominated global trade.

Though the strengthening of the Euro will boost domestic demand, it is detrimental to local businesses in the short term. Especially for nations dependent on exports. Appreciation of the currency would make European products less competitive abroad resulting in shrinking export volumes. While at first glance it appears this would hit Germany the hardest, as the EU's top exporter, with just shy of \$1.5 trillion worth of exports in 2019,²⁵ the multi-nation set-up of the Euro complicates this.

Germany is actually driving the Euro to be stronger than some member states can easily bear, putting pressure on the Eurozone. Italy is particularly vocal about this disparity, with several calls of the years to leave the Eurozone. Even as Germany is currently the top exporter, they do not rely on a weak Euro, as German products rarely undercut the price of others, but are rather valued for precision mechanics.²⁶ Instead, it is Italy, as the EU's fourth-biggest exporter,²⁵ and several other members, that need a weaker currency to boost trade. These countries will likely be the hardest hit by a particularly strong digital currency.

On the other hand, a weak digital Euro would make locally produced goods less expensive globally, driving export volumes up. However, the effect of these currency movements can be easily tempered by the effective positioning adopted by EU member states. Presently, EU-based businesses are well integrated in global value chains with fragmented operations, which helps lower their exposure. This would be highly beneficial in the long-term, as the EU's openness to international trade would aid member states to remain competitive in the long term.





The strength of a digital Euro will greatly affect Europe's sovereignty over monetary policy and member states' desire to continue to use the Euro. The European Union has grappled with their ambition for an Economic and Monetary Union. The successful introduction of the Euro was a major step towards the achievement of this goal. However, Brexit posed a major setback to these operations. The EU is braced for further uncertainty, with different nations repeatedly threatening to opt-out. With the difficulty of creating a single currency for so many economic zones with differing strengths and exports, it's easy to see why.

In light of these events, it's fair to say that a digital Euro could be a timely intervention needed to protect the EU. A strong digital Euro may reignite the push for the Economic and Monetary Union of the EU. The joint shift towards a digital Eurozone economy would entail a review of the region's monetary policies. It would also necessitate setting new objectives commensurate with the EU's long term goals in international trade. In this respect, a well-positioned digital Euro may renew the backing of all its member states with a unified agenda of maintaining Europe's sovereignty over its monetary policy. A digital Euro may empower the smaller EU economies through strengthened monetary cooperation among member states and their central banks.

National European CBDCs


However, the future of a digital Euro is uncertain. Various countries including the UK, France, Switzerland, and Sweden are exploring national CBDCs,²⁷ independently from the Euro, although. This would be a huge blow to the ECB and could be a detriment to the launch of a digital Euro. Furthermore, this could have much more significant consequences on Europe's sovereignty over monetary policy and position in global trade and politics, as it could fracture the European Union.

This potential fallout would result in a weak digital Euro, as it will greatly fragment the European financial system. With each nation seeking to promote their currency in global markets, it is highly unlikely that they would trade using a digital Euro. A mass exodus by member states and increased popularity of national digital currencies would substantially lower the Euro's global trade volumes.

The biggest winner from all of this would likely be the Dollar. A fractured European economy translates to more centralised power in the US, and by extension, an even greater Dollar monopoly. Ultimately, this reverses the gains made over the


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past two decades by a variety of nations towards de-dollarisation. However, a weakened Euro could also result in the rapid rise of the Chinese Yuan, as it will also take up some of the Euro's share of global trade. In this scenario, the US Dollar and Chinese Yuan would likely hold the lion's share of the global market and dominate global reserves.

A rapid shift to a much weaker Euro will have much broader shockwaves, though. A fractured Eurozone and potentially weak digital Euro will also result in mass losses across major international monetary systems. Other nations' central banks are likely to shun the Euro, lowering its proportion of global reserves. Similarly, there will be a sharp decline in Euro-denominated debt as faith in the currency declines. As such, the number one priority of the ECB is to maintain the stability of the Euro, especially while exploring the potential of a new digital currency.



The failure of EU member states to collaborate in the development and adoption of the common digital currency will adversely affect the region, resulting in major risks. Many see the most drastic outcome of this as the dissolution of the Eurozone. The resulting collapse of the Euro would be disastrous if not entered into with the same careful planning, intention, and long timeline that the creation of the Euro saw. However, even with these considerations, it will likely negatively impact the economies of these nations, although far less dramatically.

One major issue that would likely arise is funding issues for member states and complications in the management of Eurozone sovereign debt. Though highly unlikely, it must be considered as a potential risk and should be addressed accordingly.

To retain a cohesive Eurozone, the ECB may need to increase its digital payments timeline to be in line with the member states currently driving innovation.

Currently, 'no central bank is currently engaged in the large-scale deployment of CBDC across its currency area' in Europe, according to Ulrich Bindseil, Director General of Market Infrastructure and Payments, ECB. All the same, to retain a cohesive Eurozone, the ECB may need to increase its digital payments timeline to be in line with the member states currently driving innovation. In addition, even those European countries that are not in the Eurozone, such as Switzerland, pose a threat to the Euro and a digital Euro if they launch a CBDC prior to a digital Euro.

Further, the region is grappling with the financial crisis resulting from the Covid-19 pandemic, requiring its member states to pull in the same direction to help in economic recovery.

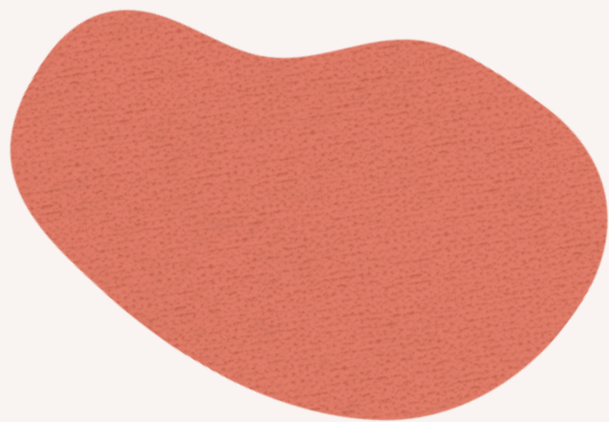
Development of a digital Euro, although a difficult and likely expensive endeavour, could help boost the region's economy by strengthening its currency relative to other nations globally. As Bindseil of the ECB continues:

'As a result of the fast-changing environment driven by technological innovation, it remains unclear how people's behaviours will change and how payments will be made in the future'.

- Ulrich Bindseil, Director General of Market Infrastructure & Payments, ECB

'As a result of the fast-changing environment driven by technological innovation, it remains unclear how people's behaviours will change and how payments will be made in the future'.

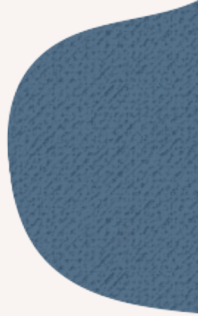
The fallout from Covid-19 could accelerate this field, as we have seen impacts in many different fields. However, any fights from within could derail such plans resulting in a weak currency post Covid-19 crisis. Whichever direction this takes will have huge implications for the EU economy, as it determines the region's position and role in the international market.



5

Conclusions & Predictions

Conclusion



The Euro has performed remarkably well over the past 20 years, rising to the second most widely used currency globally. Growing dissatisfaction with Dollar-dominance and the potential that digitisation presents foreshadow a tough battle to maintain the position of the Euro.

Given the current race for both CBDCs and a large-scale private stablecoin, we predict:

1. A digital Yuan will not unseat the Dollar.

The Chinese Yuan is gathering speed, given its importance in the global supply chain as the world's largest exporter.²⁸ However, launching a digital Yuan will not unseat the Dollar - at least not immediately. Even though China could exert significant pressure on trade partners to move away from the Dollar, political unrest in China and the effort of shifting reserves and invoicing will hinder adoption. Greater incentives and faith will need to be instilled before a digital Yuan will be able to make any moves towards global reserve status.

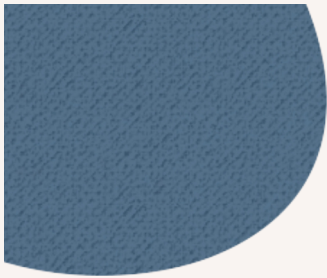
The 5-10 year gap while economic powers vie for prominence in a digital economy will leave room for other digital currencies, including private stablecoins, to emerge as strong contenders.

The launch of a digital Yuan will have major implications for all major economies, though. Europe's position in second is especially precarious, as many speculate that while a digital Yuan may not be enough to unseat the Dollar, it will drastically cut into the market shares. With the amount of dollars currently held in reserve, launching a major digital currency will speed the race to determine who will come out on top, rather than immediately declare a winner. The 5-10 year gap while economic powers vie for prominence in a digital economy will leave room for other digital currencies, including private stablecoins, to emerge as strong contenders.

2. Three to five nations globally will completely replace their currency with a CBDC by 2030.

While many countries are looking outside their borders to boost trade and increase their global clout, some have been focussed internally on improving payment systems for citizens. Sweden is a prime example of this, with an already heavily cash-free society. The announcement of e-krona testing foretells the second working national cryptocurrency, after the Bahamas.³⁰ Their goal of going cash-free by 2025,³¹ sets them up for rapid adoption of the CBDC.

Several other nations will likely follow suit in the coming years, especially if the e-krona launch is successful.



3. Smaller nations will consider a switch to the digital Dollar.

Even with several smaller nations beating economic powerhouses to the punch with CBDC releases, it would be naive to assume that these digital currencies would become major players. While they may well help shape the future of payments and act as a blueprint for future digital currencies, shifting reserve currency stores and invoicing currencies is no small feat.

'The less change stakeholders have to operate between currencies, the happier they are'.

- Estelle Brack, PhD. Founder & Chairman, KiraliT & dGen Fellow

It is likely that for a digital currency to see major adoption, it will need to be launched by an existing major trading nation. Therefore, in the coming decade, with the launch of a digital Dollar, digital Yuan, and digital Euro, we predict that smaller nations will take the path of least resistance, and opt for using and storing the digital Dollar. 'The less change stakeholders have to operate between currencies, the happier they are', as Dr. Estelle Brack, Founder & Chairman of KiraliT & dGen Fellow, put it. However, as Floris van Lieshout, Manager of Deloitte Digital Risk Solutions, pointed out:

'China and Russia have been trying to make deals amongst themselves to lessen their exposure to the Dollar. So, per the expression "while two dogs are fighting for a bone a third runs away with it", there is an opportunity for the European Union'.

For this to come to fruition, fairly drastic steps for adoption and global expansion will be necessary, but are not out of the question.

4. The Euro will be overtaken by the digital Yuan if Europe has no CBDC by 2025.

Even while there is room for a strong contender to the Dollar and the digital Yuan to emerge, remaining as it is, the Euro will become obsolete. According to Philipp Sandner, Professor and Head of the Frankfurt School Blockchain Center:

'[The] ECB's reaction has been too slow. Especially, the benefits from a CBDC for the industry, e.g., based on programmable money, are currently neglected. Given Libra and the DC/EP, the ECB has to react quickly to keep its geopolitical position'.

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- Philipp Sandner, Professor & Head of the Frankfurt School Blockchain Center

The ECB needs to establish a suitable environment for the prosperity of a digital Euro by laying foundations for strengthening the currency. These include sound technological

infrastructure, global expansion, and a competitive position. As Max Forster, Co-Founder of CashOnLedger, warns:

'[European] businesses won't matter for a global market if we can't use new infrastructure'.

- Max Foster, Co-Founder, CashOnLedger

'The Euro will stay prominent in Europe, as we represent the largest contiguous economic area, but our businesses won't matter for a global market if we can't use new infrastructure'.

Therefore, to retain a strong global trade position, a digital Euro should be flexible enough to accommodate various uses and financial products in the digital realm. Most importantly, the ECB should incentivise adoption across the globe through better rates, reduced tariffs, and favourable trading terms.

Looking forward, digital currencies will become the norm in the next decade. According to Gregory Klumov, CEO of Stasis, though:

'Since the digital Yuan is in the pilot stage already, European central banks can observe its performance and take possible mistakes into account when designing its own European CBDC'.

As such, even as it is imperative for nations and their central banks to evolve to stay in sync with the changing times, the Eurozone can still benefit from learning from other digital currencies. That being said, so far, all CBDCs have remained behind the curve as private "money", like cryptocurrencies and stablecoins, gained adoption and attention.

5. CBDCs will have to play nice with private stablecoins.

As corporations look to join the party, the government's monopoly on money issuance will be seriously challenged by organisations with huge networks. So far, governments have been able to delay the adoption of private "money", like Libra, by flexing their power via legislation and executive powers. This cannot hold for much longer, as new technologies like blockchain help to circumvent government rules and regulations.

While national digital currencies offer a solution to the threat of private "money", it may not be enough to keep private stablecoins at bay, especially with the opensource and decentralised solutions that blockchain enables. As such, the ECB should accelerate its development of a digital Euro, but also needs to ensure that there are allowances for stablecoins. Jonas Gross, Research Assistant and Project Manager at the Frankfurt School Blockchain Center, pointed out:

'Central bankers primarily see a CBDC as a digital equivalent of cash'.

- Jonas Gross, Research Assistant & Project Manager, Frankfurt School Blockchain Center

The Euro, currently holding onto the second position for a global reserve currency, but likely behind China for the launch of a digital currency, finds itself in a precarious position.

'Central bankers primarily see a CBDC as a digital equivalent of cash. As long as cash is used heavily, as is currently the case in the Euro Area, the ECB does not see the necessity to issue a CBDC'.

However, this overlooks many of the main uses that private stablecoins hope to bring to the market and does not foretell a digital Euro that will be globally competitive. Foster of CashOnLedger pointed to 'digital (or programmable) currencies as new monetary infrastructure to fuel entirely new business models'. It should not simply replicate cash, but outperform it. In any case, dealing with new forms of money, including privately-issued "money", will be a delicate dance. It may be wise for central banks to foster an environment that coexists with private stablecoins, but does not allow one stablecoin to corner the global market.

Digital currencies are an impending change. However, they will not quietly enter the global stage. Their impact on global economies remains to be seen but promises to be great. The Euro, currently holding onto the second position for a global reserve currency, but likely behind China for the launch of a digital currency, finds itself in a precarious position. To remain relevant on the global stage, launching a prominent and highly usable digital Euro should be a prime objective of the ECB.

The first nation to successfully launch digital currency could potentially change the political and economic landscape in the future. By being first they assume the leadership role and act as the blueprint for the digital economy. As such, pressure is on the ECB to accelerate the pace of a digital Euro, especially in light of the news that China is already piloting its national digital currency.²⁹ Moreover, Libra's development is moving fast, requiring the ECB to fast track a digital Euro's development to defend its position in the international market.

However, hope for the Euro to remain prominent is not lost, as the battle for the new powers in the digital economy will likely last several years. Plans for a strong digital currency must be set in motion now, though, so as not to be left behind.



About dGen

After Gen X, characterised by big societal shifts, Gen Y, better known as millennials, and the digital native Gen Z, the decentralised generation will grow up in a future shaped by different dynamics and technological developments. AI, blockchain technology, and IoT will individually bring disruption to many industries, but it's at the crossroads where we expect our whole socio-economic fabric to change.

dGen is a not-for-profit think tank based in Berlin, Germany. We focus on how blockchain technology can contribute to a decentralised future in Europe and what this might mean for people, society, private entities, and the public sector over the coming decades.

Emerging technology focused on decentralising society will shape the next part of the twenty-first century; The dGen will grow up with opportunities for borders to fade and traditional networks to dissipate. Meanwhile, most blockchain developments are still in the early stages; focusing on building solid products and exploring regulatory requirements to create a fertile yet safe environment for companies and investors. The industry is focused on solving the big topics right now, while we encounter a lot of great ideas in the blockchain community about adoption. It's time for those ideas to find a purpose and for the real decision-makers in the world to learn what decentralisation will mean for them.

We're working with a team of researchers exploring how decentralisation will shape our future. Our insight reports focus on specific topics and industries to drive ideas for adoption in Europe. If you're researching how decentralisation is shaping our future, and would like to get involved, please get in touch at den.org. dGen is part of Beyond, a venture studio exploring a new world. For more information, go to beyond.ventures.

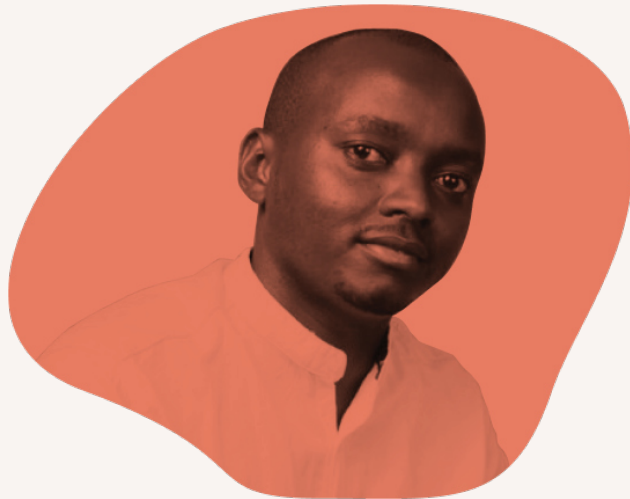


BEYOND

Author

Edwin Kinoti

Edwin is a naturally curious person with a deep interest in blockchain, finance and new tech, fields which he dedicates his time to researching and documenting. Edwin has been a member of the crypto community since 2015 and has written widely about the novel blockchain technology. When not writing, he is actively creating awareness about Bitcoin, crypto and emerging financial technologies through meetups and outreach programs.



Contributors

Jake Stott



Before founding dGen, Jake was originally a partner at Signal Ventures, investing in blockchain tech. In late 2017 he founded hype partners to help build and nurture ecosystems for blockchain projects and has worked with many top 100 projects. With these combined experiences he is able to distinguish legitimacy, necessity, and nonsense in this space. Jake is one of the founding partners of Beyond, a venture studio exploring a new world.

Nick Dijkstra



One of the founders of dGen and with a rich background in tech, Nick knows how to build organisations from scratch and can transform ideas to great tech products. As a former Product Manager at LiveIntent and Director of Customer Success at Avari he shipped software to a user base over 15% of the US population and has organised 200+ events in Berlin. As the COO at hype partners he is currently helping top-tier blockchain firms strategise their market approach. Nick is one of the founding partners of Beyond, a venture studio exploring a new world.

Maggie Clarendon



Maggie is a writer, researcher, and editor. Trained in literature, critical theory, and gender studies, they are now exploring the ways that technology is changing the landscape of human interaction.

Francisco Rodríguez Berenguer



Francisco has a degree in Business and Law, and is currently working for dGen to communicate its vision for blockchain adoption to an audience of thought leaders in tech companies, corporates, and the public sector as a researcher and marketer.



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Evelyn has recently graduated in International Politics and Diplomacy at the University of Padua. She has a background in awareness campaigns and is working with the dGen team as Marketing & Content Writer Intern.



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Tikshala is a Master's Student in the EIT InnoEnergy program, focused on sustainable business and innovation in the energy sector. A tech enthusiast, she is researching on the possible applications of emerging technologies that address the most pertinent issues of the industries.

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