Why government should encourage and defer to, rather than compete with, private sector payment systems

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Whether the private sector or the state provides payment systems has enormous implications for value and innovation. It is a consequential issue that should be recognized and addressed by policymakers in the public and political arena.

Governments should not provide payment systems unless the private sector is unable to serve an important need or there is a compelling national-security interest to do so.

Public and private sector payment networks have different DNA, levels of dynamism, resources, accountability, power over their competitors and users, incentives, and objectives. Private sector payment systems enjoy greater dynamism, are more innovative, accountable, and self-correcting. Moreover, the playing field is not level. Central banks enjoy unlimited resources, do not have to generate an economic return on capital, and have a conflict of interest when they regulate their private sector competitors.

The world is served by a patchwork of interoperating, complementary and competing public and private sector payment systems. They include payment networks such as physical cash, digital currencies, ‘card’, person-to-person and billing payment networks, as well as alternative payment systems, interbank-payment networks and the like. All enable payments between parties.

Private sector and public payment systems have existed for thousands of years. The first coins were minted by the Lydian kingdom in the 7th century BC. Coins are a two-sided payment network. The first paper money was issued by Chinese merchants early in the 9th century during the Tang dynasty. In the 11th century during the Song dynasty, government took over paper-money issuance.

Italian and Flemish merchants and money traders issued promissory notes serving as money during the medieval ages. During the 17th century, the

American colonies issued paper letters of credit that were a means of payment.

The private Bank of England issued the first banknotes at the end of the 17th century. US and Canadian banks issued banknotes well into the 20th century.

Why Central Banks Operate Payment Systems

There are overlapping reasons governments today operate payment systems. There may be national-security concerns. The private sector may be viewed as unable to serve a need or less efficient than a single system run by the central bank. Government payment systems may provide additional resilience in sectors served by private sector payment networks. Policymakers sometimes view payment systems as too critical to trust to the private sector. And, viewed through the lens of Nobel Prize winner James Buchanan’s public choice theory, government bureaucrats seek to expand their remit, power and prestige.

National-Security Concerns

Imperial Russia built its own card and cross-border financial messaging system networks because of national-security concerns.

After Russia's 2014 invasion of Ukraine, Washington cut off the use of US-domiciled payment systems in Crimea. In 2014, Russia's central bank launched its System for Transfer of Financial Messages to reduce dependence on Swift.[i] The Bank of Russia also started work on a national payment card system, which was established to process Mastercard's and Visa's domestic transactions and to develop the long-contemplated national-champion card network, Mir. Moscow mandated that Mastercard and Visa process domestic payments in-country using the central bank's card-processing subsidiary.[ii] In late 2015, the Mir card network was launched. So, during Russia's second invasion of Ukraine in 2022, the US Treasury Department and global payment networks Mastercard and Visa, could not turn off the domestic payments switch.[iii]

In 2022, US sanctions required Mastercard and Visa stop serving Russian banks listed as Specially

Designated Nationals. The global payment networks went further, blocking all cross-border payments and cash withdrawals from and to Russia. French Mastercard cardholders cannot pay Russian merchants in-person or online. Russian Mastercard cardholders cannot pay for hotels and car rentals abroad in-person or online. They can also not withdraw cash at automated teller machines outside Russia.

National-security concerns would prevent Washington, Tokyo and Delhi from permitting the People's Bank of China (PBOC) subsidiary NetsUnion Clearing Corporation to process domestic interbank payments in the USA, Japan and India, respectively.

Nevertheless, private domestic payment networks can be regulated to assuage national-security concerns.

System Resilience

Central bank payment systems may provide additional resilience to critical sectors served by private sector payment networks. Such system resilience could, however, be preserved if the central-bank systems were privatized. The change in governance and ownership would make them more competitive, innovative and responsive to the market.

Financial-stability considerations

It has been suggested that payment systems should be run by central banks in order to safeguard financial stability. In fact, government has been the principal source of financial instability. No banking or financial crisis in the developed world in recent memory has been caused by the failure of a private sector payment system. In their seminal, ‘Fragile by Design: The Political Origins of Banking Crises and Scarce Credit’, Charles Calomiris and Stephen Haber document how the politicisation of the banking system and credit have been the major cause of financial crises.[iv] The 2008 financial crisis was caused by the US government weakening credit standards, resulting in a tsunami of risky mortgages and a housing bubble, which, when the music stopped, precipitated the financial crisis and great recession.[v] To the extent that payment systems have played a role in creating economic crises, this has been when governments have massively debased the currency, resulting in hyperinflation, such as in Zimbabwe and Venezuela.

Efficiency

It is sometimes argued that a single payment system would be more efficient than multiple competing payment networks, and further that only government can be trusted to run it. At the Federal Reserve Bank of Kansas City's "The Changing Retail Payments Landscape: What Role for Central Banks?" conference in 2009, Harry Leinonen, from the Bank of Finland memorably contended that the USA had too many competing payment networks and that a single system would be more efficient.[vi] That is the reigning orthodoxy with cash, and, to a large extent, with interbank-payment platforms. If enlightened central planners designing and managing a state payment system could match the market's dynamic distributed intelligence, that view might have merit.

David Ballaschk, Senior Payment Expert, Strategy, Policy and Oversight for Payments and Securities Settlement at the Bundesbank, argues that competition is the way to maximise efficiency.[vii]

Nobody would argue the public would be better served by a single credit-card network. Vigorous payment-network competition maximises value and innovation for consumers, merchants, and banks.

In the 21st century, most governments monopolise the issue of physical cash. It is widely assumed that issuing cash is the natural prerogative of central banks. This was not always the case. Indeed, banks still issue banknotes in Scotland, Northern Ireland, Hong Kong, and Macau.

Are Interbank Payment Systems Different?

Governments' prerogative to provide digital cash and interbank-payment systems is widely taken for granted.

Central banks execute monetary policies and serve banks. The case for them to provide payment systems serving banks, consequently, has seemed natural.

Interbank payments infrastructure is often thought of as a natural monopoly utility. In many countries, it is provided by the central bank. However, interbank payment networks are also operated by bank cooperatives and commercial networks. Interbank payment systems benefit from choice and competition, and from private sector pluck and innovativeness, just as retail payment networks do.

Real-time interbank payment systems have become a sine qua non of modern and efficient payment systems. More than 70 countries have some flavour of instant interbank payment system(s). Central banks run many of them. But bank cooperatives and commercial payment networks too provide instant, irrevocable funds transfer between bank accounts and, in markets like Brazil, the EU, and the US, compete with central banks.

Where permitted, competition ruthlessly regulates interbank payment networks, forcing them to continuously enhance value delivered.

Is Cash Different?

Private and public digital currencies are near instant. They can co-exist and compete. In his seminal 'Denationalisation of Money: The Argument Refined', economist and philosopher Friedrich Hayek cogently argued that as with other goods and services, competition between currencies, which are payment systems, produces superior results.[viii]

Competition between central-bank fiat monies checks weak currencies. People find alternatives to severely flawed payment systems. In Venezuela, for example, dollars are widely used in lieu of debased bolivars.

Government, however, has a history of dealing harshly with would-be payments competitors. E-gold launched in 1996. Users exchanged digital tokens representing gold ownership. By 2006, it operated in over 100 countries and was doing roughly US$3bn in annual payment volume. In 2005, the US Secret Service and Federal Bureau of Investigation raided founder Doug Jackson's home and office. In 2007, Jackson, his companies and partners were charged with operating an unlicensed money-transmitter business and conspiring to money launder.[ix] In 2009, E-gold shuttered. China and Saudi Arabia ban the use of cryptocurrencies like Bitcoin. When social media colossus Facebook (Meta) announced its stablecoin-based payment system Libra (rebranded Diem), it was pilloried by regulators and politicians on both sides of the Atlantic.

Central Bank Digital Currencies

The Atlantic Council tallies 130 countries exploring or issuing wholesale or retail central bank digital currencies (CBDCs).

CBDCs have underwhelmed. In developed markets, established digital payment systems work well, have critical mass and are habit. There's no compelling use case. CBDCs have also failed to get traction in emerging markets. Existing payment systems including cash, work. Lack of trust in government and of electronic infrastructure have also impeded CBDC adoption.

The first CBDC was Ecuador's central bank's dinero electrónico: a digital dollar.[x] Launched in 2014, it was decommissioned in 2018. Legislation in 2014 gave the state a monopoly on electronic money. Ecuador's central bank issued dinero electrónicos and the state-owned telecom enjoyed a monopoly distributing them. Ecuadorans, however, never trusted it. At its peak, Ecuador's CBDC balances were only US$11.3m; less than 5 hundredths of 1 percent of the country's M1 money stock.

The Bahamas central bank's ballyhooed digital sand dollar launched in October 2020. It has had limited adoption. The Eastern Caribbean Monetary Union, Jamaica and Nigeria launched CBDCs in 2021. All have struggled for adoption.

The mother of all CBDCs is the People's Bank of China's digital yuan. The PBOC started its e-yuan pilot in 2019. The e-renminbi is intended to displace anonymous physical cash, increase payments efficiency, provide a means of surveillance and, ultimately, to make China more independent of the dollar-anchored international financial system. Government is paying civil servants and suppliers in digital yuan to boost use. As of June 2023, cumulative digital yuan transactions and volume had reached reportedly 950 million and US$249.9bn, respectively, according to Yi Gang, the former PBOC governor.[xi]

Private Sector Digital Currencies

The private sector is eminently capable of providing digital currencies.[xii] There are more than 9,000 cryptocurrencies.[xiii] Cryptocurrencies with no intrinsic value are potentially payment systems. While cryptocurrencies like Bitcoin have been interesting speculative investments, none has yet proved fit for purpose on a widespread basis for licit payments. Volatile values, lack of network critical mass, regulatory hostility and a lack of compelling use cases, have stymied their adoption.

Fiat-currency-backed stablecoins issued by banks and regulated FinTechs address value volatility and are more palatable for regulators. They could be a 21st century analogue of banknotes but have yet to prove their utility for more than trading in and out of cryptocurrencies.

The Private Sector Can Serve Most If Not All Payments Needs

If there were a compelling payment need the private sector could not serve, there would be a case for government to step in. It is not clear, however, that there are any payments needs the private sector cannot adequately serve, if permitted.

Why Central Banks Should Not Develop and Run Payment Systems

There are compelling reasons why competing private sector players rather than the state should provide payment systems.

Innovation in Payments

The private sector is far more innovative. 'Most payment innovation comes from the private sector, which invented cash, checks, interbank clearing, credit cards, global bankcard networks, electronic bill and P2P payment systems, e-wallets, and digital currencies':[xiv]

'In the 9th century, Chinese merchants invented paper money. In the 19th century, Scottish banks created two-sided banknotes. In 1950, NYC financier Frank McNamara invented the general-purpose payment card Diners Club. US banks created global bankcard networks Mastercard and Visa. In 1981, fitness club operator Pete Kight launched what became America's leading electronic bill payment system Checkfree. In 1998, Peter Thiel started PayPal. In 1999, radio DJ Steve Streit created the first general-purpose prepaid card…

…Computer scientist David Chaum invented the first digital currency Digicash. Entrepreneurs Jeremy Allaire and Sean Neville with Circle and Brock Pierce and Craig Sellars with Tether were stablecoin pioneers. Pony Ma's Tencent developed digital currency Q Coin and WeChat Pay. Jack Ma's Alibaba created Alipay'.[xv]

China provides a vivid example of private sector payment dynamos innovating and putting a quasi-state payment system China Unionpay on its backheels. Liberalising PBOC governor Zhou Xiaochuan gave private sector payment systems Alipay and WeChat Pay latitude to transform the Middle Kingdom's payments landscape. 'Zhou's policies tilted the playing field in Favor of FinTech entrepreneurs, which would not be forced to comply with rules designed for the old institutions.'[xvi] While the Sino-liberalisation window has closed, Alipay and WeChat Pay are well established and many outside China seek to emulate their 'super-app' model'. [xvii]

'China's FinTech revolution was driven by a combination of galling need; great visionary and opportunistic entrepreneurs, like Jack Ma and Pony Ma; regulatory forbearance; political air cover for liberalizing regulators; and the advent of enabling platform technology, such as mobile smartphones'.[xviii]

Central banks have conflicts of interest

When a central-bank payment network enjoys regulatory authority over its competitors and potential competitors, there is a patent conflict of interest. In the US, the EU, and Brazil, central banks compete with payment systems that they regulate.[xix]

The Fed is the paramount US financial-system regulator. It regulates banks that own the interbank payment processor The Clearing House (TCH). The Fed's FedNow, ACH and Fedwire systems compete with TCH. Plus, TCH is designated a systemically-important financial market utility and subject to special supervision by the Financial Stability Oversight Council, on which the Fed is a member.

In 2023, the Fed launched its real-time payments system FedNow. The market was already served by multiple private sector instant-payment networks. TCH's real-time-payments network RTP launched in 2017. Instant-payment network Visa Direct debuted in 2014. Its cousin Mastercard Send started in 2015.

Bank cooperative instant-payments system Zelle launched in 2017. FIS and Discover have real-time payment systems as well.

In the EU, the European Central Bank (ECB) regulates banks that own interbank-payment processor EBA Clearing and systemically important payment systems. The ECB's real-time payments system TIPS competes with bank cooperative EBA Clearing's RT1 payment network.

In Brazil, the central bank is the supreme financial system regulator. In June 2020, the Brazilian central bank suspended social-media colossus Facebook's WhatsApp Pay, on the grounds that it had launched without prior authorization from the central bank, despite operating as a digital wallet supporting P2P and retail payments rather than an instant-payment system per se.[xx] The central bank already oversaw the banks, payment networks and processors supporting WhatsApp Pay, but the Banco Central do Brasil declared that if it didn't analyse WhatsApp Pay, it could damage the Brazilian payments system in 'the areas of competition, efficiency and data privacy'. It was a convenient and self-serving justification. Suspending WhatsApp Pay cleared the field of a competitor with enormous resources and reach. WhatsApp now has 147 million Brazilian users.[xxi] In November 2020, the Brazilian central bank launched its instant-payment system, Pix.

Pix is lauded as the world's most successful instant-payments network. With aliases facilitating person-to-person, business-to-business, consumer-to-business, consumer-to-government and business-to-government payments, it has enjoyed torrid growth. In September 2023, Pix hit 3.9 billion transactions, up 70 percent year-on-year.[xxii] There are now more Pix than credit and debit card payments in Brazil.

What would have happened absent Pix, however, we cannot know. WhatsApp Pay, digital wallets like PicPay, MercadoPago and PayPal, and Visa Direct, and Mastercard Send, likely would have been larger and have addressed the market need.

FedNow, TIPS and Pix could be privatised, eliminating the conflict of interest and putting private sector sensibilities and vigour in them.

Private sector payment systems are more accountable

Private sector payment systems are accountable to users and self-correcting. Resources are constantly reallocated from payment systems that fail to satisfy users, to those delivering the greatest value, ideally delighting users.

The private sector engages in experimental innovation, with the strongest models prospering. Many putatively better private sector payment systems fail. In spite of proposing to be less expensive, more secure, or more convenient, payment systems such as Beenz, Flooz, DebitMan, Revolution Money, Bling Nation, Pay by Touch, Cybercent, Milicent, Netbill, Peppercoin, Digicash, and Mondex, failed.[xxiii] Putative EU payments champions like the Euro Alliance of Payment Schemes, Monnet and PayFair, went belly up. National Dutch, Finnish and Irish debit networks PIN, Pankkikortti and Laser, respectively, were shut down, replaced by Mastercard and Visa.

Public sector payment systems are less accountable. They are inherently political and when run by independent or semi-independent central banks, removed from both market and political accountability.

Central-bank-run systems enjoy an unfair advantage

The competitive playing field between central banks and private payment networks is not level. Central bank payment systems are not subject to requirements to generate a return on capital like commercial payment networks. While by statute the Fed must set fees to recover payment-system costs, it takes a longer view than any private sector competitor or would-be competitor. For most payment systems, it has taken a ten-year cost-recovery horizon, which is longer than any private sector system could contemplate. For FedNow, the central bank suggested it may take even longer to fully recover costs.

Payment networks provide little value unless and until they achieve a critical mass of people willing to use them to make and accept payments. Finding a path to payment-network critical mass is difficult. Nobody wants to use a system if nobody accepts it, and nobody wants to accept it if nobody wants to pay with it.

However here, government payment systems have an advantage. Often, they can compel participation. For example, the Brazilian central bank mandated that large payment service providers support Pix, solving the network critical-mass challenge by regulatory diktat.

Central banks are venturing into retail payments

Central banks provide physical cash, but electronic retail-payment networks have generally been provided by the private sector.

In the US there are four national competing general-purpose credit-card networks: Visa, Mastercard, American Express, and Discover There are more than a dozen debit card networks.[xxiv] It would be politically difficult for Washington to justify spending taxpayer funds to develop and run a competing card network, or worse to mandate a single putatively more efficient system designed and run by government bureaucrats. The competitive interplay of fiercely competitive, self-interested commercial networks vying for share, delivers better value to cardholders, merchants and banks. In France, three card networks, cooperative Cartes Bancaires, Visa and Mastercard, blanket the country. A card network run by the Banque de France would not solve a problem.

Nevertheless, central banks are venturing into retail payments. Russia's Mir, Brazil's Pix, China UnionPay, and most CBDCs, are retail-payment networks.

Owned by Sri Lanka's central bank and public and private banks, LankaPay runs the national card scheme and interbank processing platform.

In 2023, Nigeria's central bank launched the AfriGo card network. But Nigeria was already served by card networks Verve, Visa and Mastercard, as well as a range of alternative payment systems including KongPay, MTN MoMo, OPay, Paga, JumiaPay, PayPal, and Carbon.

The central bank in the United Arab Emirates plans to develop a domestic card scheme.[xxv] The Nepalese Clearing House partly owned by and 'under the guidance' of the central bank, plans to launch retail-card network NepalPay.

Central banks operating payment systems stifle competition and innovation

Central bank payment systems deter private sector entrants. Central banks enjoy unlimited resources and are often the regulator. Few if any investors want to deploy capital to compete with a noneconomic actor that controls the playing field's rules.

Policy Recommendation

Given the wide range of user needs addressed by the private sector payments industry and its incentives to anticipate and address new needs, and to innovate, there is rarely cause for central banks to provide competing payment systems. The bar for governments providing payment systems should therefore be set high. Unless the private sector is unable or unwilling to serve important payment needs or a compelling national-security interest is at stake, the state should encourage and defer to private sector payment systems.

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