Sethaput Suthiwartnarueput: The future of money

Speech by Dr Sethaput Suthiwartnarueput, Governor of the Bank of Thailand, at the Central Banking Summer Meetings, London, 11 June 2025.

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It is a pleasure and privilege to be asked to speak at the Central Banking Summer Meetings on the future of money. It is also a daunting and difficult task given the rapid developments and sheer number of initiatives going on in this area. Before looking forward to the future of money, it may therefore be helpful to first look back at the basics and the fundamental functions of money. What are some of the things that will not change? This will help us to anchor what any well-functioning future monetary system should look like. We can then also use these fundamentals to help serve as guidelines and guardrails for assessing monetary innovations so that they improve and strengthen the system without inadvertently undermining it. Along the way, we will see that while the future of money will have many innovations that we cannot foresee and many functions that are best left to the private sector, there are some critical functions that central banks must continue to provide, whatever the future holds.

The fundamentals of money

The main purpose of money and the monetary system is to facilitate exchange. At its most essential, this system consists of 3 elements: (1) a unit of account (UOA), (2) a means of payment (MOP); and (3) mechanisms to transfer the means of payment and settle transactions.

While all three elements are essential, the UOA function is perhaps the most intrinsic and one upon which the other elements build. It is the metric by which the value of all goods, services and financial assets are measured. Being a purely abstract, immutable unit of measurement like the unit of distance, it acts like a language to translate and compare relative values of goods and services. This comparison of relative values – in other words an exchange rate among goods and services – underlies trade. And having a common numeraire greatly reduces the number of relative prices that need to be known. The UOA is primitive in the sense that it is the underlying basis upon which the rest of the monetary system builds on.

The second element, the means of payment (MOP), is a representation of the UOA and acts as a generally accepted instrument that settles obligations. It underpins the quid-pro-quo process of exchange in a decentralised trading system. Being a representation of the UOA means that the MOP should at all times and across all forms have a fixed exchange rate of 1 relative to the unit of account. The "singleness of money" means that all monies trade at par relative to the UOA, and hence to each other. The alternative is needless complexity, cost and confusion. Ruling out fluctuating exchange rates between different forms of money allows money to circulate freely and play its role in helping to coordinate economic activity.

The third element, the mechanism for transferring the MOP, must be secure, efficient, and timely. This guarantees integrity in the transfer of value across counterparties, enabling settlement finality.

Many of you will have noticed that I have left out the traditional store of value function of money. This is not because it is unimportant. But it is simply not a distinguishing feature of money. Any asset, financial and real, is a store of value. Moreover, because a viable MOP must have a fixed exchange rate of 1 relative to the UOA, by construction it must also intrinsically be a store of value. There is therefore no need to refer to this function separately.

Trust in money: the role of central banks

While the three elements described are the essential technical components of a monetary system, underlying it all and even more fundamental is trust. A precondition for the system to work at all is trust that the measure of value will stay relevant, that the object functioning as money will be generally accepted and that payments will be executed. As they say, money makes the world go round, but trust is what makes money go round. Ensuring trust is difficult and calls for a strong institutional setup. Central banks, along with banking and payment supervisory authorities, are key pillars of this edifice.[1]

Safeguarding the integrity of the UOA is the chief responsibility of central banks through its conduct of monetary policy, ensuring that the UOA (the price of money in terms of goods and services) can be well-anchored. Like most essentials, the critical importance of the UOA is most apparent when it fails. Loss of integrity of the UOA means high inflation or persistent deflation. Both are highly disruptive to the process of exchange. In the extreme case when trust in the UOA disappears, the economy adopts other countries' UOA (dollarization) implying a loss of monetary sovereignty.

While the issuance of the MOP and the mechanism for transferring it can, in part, be outsourced to the private sector (e.g., bank deposits, e-money), maintaining trust requires strong regulatory and supervisory frameworks to ensure they function as they should at all times. The singleness of money, for example, is not something that obtains naturally, but must be actively maintained. The difficulty of creating and maintaining trust in money is evidenced by that fact that most private initiatives creating money essentially piggyback on the prevailing system by adopting existing national units of account and tying settlement ultimately to bank deposits. Sound monetary policy and regulatory frameworks will continue to be the bedrock of any future monetary system.

So what else does the future of money hold?

My guess would be a continuation of the general direction of travel in recent years in two areas: (1) more flexible monetary policy frameworks; and (2) enhanced interoperability of the payment system. Let me discuss each in turn.

First, a more flexible monetary policy framework. Inflation targeting has proven to be a robust framework for safeguarding the UOA. But as the economic and financial landscape changes, it will need to evolve. One particular challenge is the greater role of

sector-specific factors as well as supply shocks more generally in driving price movements. As witnessed during the post-pandemic global inflation surge, persistent supply-side pressures can generate sharp and heightened bouts of inflation volatility as well as drive large sustained relative price changes. Global trade frictions, reconfigurations of supply chains, technological innovation, demographic changes and the climate transition will exert persistent pressures on trend inflation.

The greater prominence of idiosyncratic price shocks and relative price trends, means that inflation may deviate from targets more often and more persistently even as it is anchored over time. The ability of central banks to steer inflation, especially within narrow ranges, becomes more limited. In such a setting, there is a need for greater flexibility and tolerance both for the size of deviations from inflation targets, as well as the time horizon over which inflation is brought back to target. We need to recognize clearly the risks associated with overly active and excessive fine-tuning of policy. Inflation targeting should evolve towards increased flexibility, reducing the heavy emphasis on achieving precise numerical targets, and allowing monetary policy to keep a sharp focus on the medium term. At the Bank of Thailand, this approach allowed us to look through Covid-era inflation and enabled a smooth transition to a more neutral policy rate without overshooting and supported a rapid disinflation to pre-pandemic levels in just 6 months without disrupting the economic recovery.

Second, greater payments interoperability. The other two of our three elements, the MOP and mechanism for its transfer, which I will loosely refer to as the payment system, have seen extremely rapid innovation and progress. The dimension in which the payment system will continue to evolve is interoperability, broadly defined as the ability of the various forms of MOP to be seamlessly exchanged against one another and to be interlinked with other information systems. Greater interoperability will need to be underpinned by three pillars: a technical pillar that enables different systems to communicate and exchange data seamlessly; a legal pillar that ensures rights and obligations of transacting parties are upheld across potentially different regulatory schemes; and an economic pillar that creates incentives for service providers to facilitate interoperability.

An interoperable payment system is crucial for efficient and secure digital transactions allowing, for example, the transfer of money on one system to be linked to those in another (PvP), to the transfer of securities (DvP), or to other preset conditions prescribed in information systems that embed particular states of the world (programmability). The push for interoperability is not new. One can think of the ATM machine as an example of an innovation that allowed interoperability between cash and bank deposits.

The creation of PromptPay, our retail fast payment system enhanced interoperability of bank deposits across institutions. It has been a game changer, enabling the rapid take-up of digital payments. This was aided tremendously by the development of a single, standardized QR code for payments. Not only did this prevent fragmentation, but it also allowed merchants to accept electronic payments simply using a printed QR code rather than installing costly payment terminals – a major factor in driving adoption for an economy with a large informal sector.

We have also focused heavily on enhancing interoperability of money across borders, given the well-known inefficiencies and pain points that exist in cross-border payments. At the retail level, we continue to build on cross-border QR payments connecting PromptPay with payment systems in 8 Asian countries. This allows Thai merchants to receive payments from abroad as seamlessly as domestic transactions. Through the PromptPay-PayNow linkage with Singapore, the world's first linkage of fast payment systems, residents in both countries can send and receive money instantly, 24/7, at low cost using just the recipient's mobile phone number. On a multilateral basis, we are working through Project Nexus to establish a platform through which a single connection would allow fast payments system to reach all other countries on the network. At the wholesale level, we continue to explore in cooperation with three other central banks through Project mBridge the creation of a scalable platform for cross-border payments on a distributed ledger. The platform has demonstrated that payment costs could be reduced by half, settlements could be done in seconds, and settlement risk could be eliminated through payment-versus-payment (PvP) transactions.

With the more widespread adoption of DLTs, interoperability of the payment system going forward will center around two challenges: (i) interoperability of money across different DLT networks (e.g., through "bridges" or interledger protocols); and (ii) interoperability between DLT networks and external off-chain data sources, including the traditional financial system (e.g., through 'oracles'). The former is a precondition for preserving the singleness of money in tokenized form. The latter is the basis for programmability. Together this could enable the movement of digital assets and value across different platforms to be synchronized, potentially generating large efficiency gains through the simplification of the clearing and settlement process. Through our enhanced regulatory sandbox, we are currently exploring some of the potential new payment functionalities that come from interlinking money with various information triggers.[2]

Anchors and guardrails for the future of money

When thinking about the future of money, it is important to recognize that the current system, despite its flaws, rests on very solid foundations. The bar for innovation should therefore be reasonably high. There is a lot of hope, and a fair amount of hype, surrounding potential new forms of money. We should add a measure of humility to the mix. As we continue to innovate the form of money, we must make sure that we don't inadvertently undermine the basic elements that make money function well. Some of the purported new forms of money need to be critically assessed in this light. Cryptocurrencies, for example, do not offer a sound UOA, while stablecoins are susceptible to breaking par – and hence violate the singleness of money – even as they piggyback on existing national units of account.

The stability of the monetary system is tied to its inherent hierarchy. Standing at the top, central bank money (bank reserves and cash) are the ultimate means of payment. One level down, bank deposits are a form of credit in that they are promises to pay cash or to confer payment finality through ultimate settlement in the central bank balance sheet. Further down the pyramid, non-bank monies (e-money, stablecoins) are promises to pay bank deposits. At each layer of the hierarchy, diverse institutional mechanisms underpin the credibility of such a promise to pay, but it is still a promise to pay a higher

form of money. In normal times, the hierarchy matters little. In stress periods, however, the differentiation in the claims of various instruments along the hierarchy reasserts itself as agents shift into liabilities higher up in the hierarchy.[3] In this way, central bank money acts as an anchor for the whole system. All monies rely ultimately on recourse to central bank money, something that becomes most evident during crises.

No matter how the future of money evolves, I am therefore absolutely confident of one thing: the continued centrality of central bank money. I am equally confident that the future of money is not decentralized digital tokens which are completely untethered to central bank money. We will continue to have a critical role to play, one which we cannot outsource. We central bankers and regulators will therefore need to continue working hard to sustain the foundational trust that must underpin any well-functioning future monetary system.

Thank you very much.

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[1] See Borio, C (2019): "On money, debt, trust and central banking", BIS Working Papers No 763 for a more detailed discussion.

[2] These include automated escrow agents to eliminate the need for manual approval and reduce the risk of non-payment or fraudulent claims; payment-versus-delivery with respect to goods for use in e-commerce; purpose-bound loans where funds are automatically directed to a designated recipient, such as a supplier, ensuring that a loan is used as intended.

[3] For a more detailed exposition, see Mehrling, P (2013): "The Inherent Hierarchy of Money" pp. 394-404 in Social Fairness and Economics: Economic Essays in the Spirit of Duncan Foley, edited by Lance Taylor, Armon Rezai, and Thomas Michl, Routledge.