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How Money Disappears

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Summary

*Money is part of our everyday lives. Low inflation and constant technological innovations make it look like the stability of money is a given. Even the very **existence of money** seems incontestable. But facts show money is rapidly being squeezed out of the economy and society. De-cashing on the way to the cashless society of the future will leave the general public without safe money and a risk-free means of payment issued by the central bank. This will mean the loss of non-interest safe assets that preserve the nominal value stability of central bank money. Stable prices of goods, services, and real and financial assets are unthinkable without nominally stable money.*

Key words: *de-cashing, cashless society, legal tender myth, non-interest safe assets, stable prices, risk-free means of payment, nominally stable money, government money.*

Background

Money is part of our daily lives, as a measure of value, means of payment, unit of account, or store of value. Low inflation in recent decades has made money stable, whilst technical innovations have ensured it is easily accessible and readily transferrable. In an era of electronic debit and credit cards, ATMs, PoS terminals, and smartphones that allow contactless payment, stability of money seems to be self-evident. Not only that: even the very **existence of money** looks to be beyond question. At the time of the greatest monetary expansion in history, it appears difficult to credit the notion that the very existence of money could be brought into doubt. And yet this is exactly what is taking place, as borne out by the Hamlet-like question posed by a leading monetary expert: ***do we need a nominal asset with a zero nominal rate?***¹ Simply put, **do we need money?**

The seemingly controversial view of the fate of money is evidenced by facts showing cash is rapidly being squeezed out of the economy and society. Many central banks are seriously considering scrapping money they issue for use by households and businesses, in a de-cashing exercise designed to construct the cashless society of the future.² This would deprive the general public of **direct access** to a central bank's *safe money and a risk-free means of payment*. For that reason, these facts and their fundamental and far-reaching consequences should be made plain to as many people as possible.

Neglected characteristics

Ever since its first appearance, *money has been a non-interest nominal asset*. This characteristic is shared by both *coins*, or money made from metal, and *banknotes*, money made of paper or polymer plastic. The former is usually minted by government mints that are parts of finance ministries, and the latter is printed by central banks. Banknotes are, therefore, considered *central bank money*, and, together with coins, they comprise *currency* or *cash*.

Money in the form of notes and coins has unchanging nominal value, which makes it an automatic nominal value stabiliser. This trait may seem trivial, but it is a defining characteristic: after money is put into circulation, no-one can change its nominal denomination: \$10 is always 10\$, €10 stays €10, and £10 remains £10.

Money kept in current accounts with commercial banks lacks these traits, as it can earn interest at both positive and negative nominal and real rates. This is what allows \$10 in your transaction account in a bank to turn into \$9.95. Moreover, *non-cash money* in commercial banks constitutes a ‘promise to pay’ and is only fractionally covered by reserves, or central bank money. Economists often refer to this money on account as *bank money*.³

The expectation that money in a transaction account with a bank can both earn interest and be freely withdrawn dates from the 18th and 19th centuries, a time when there was no difference between transaction accounts and other bank deposits. Hence the innumerable banking crises and bank insolvencies, despite interventions by the central banks of the day, long before the appearance of the *lender of last resort* concept. Having identified the source of the problem, during the 20th century most central banks forbade commercial banks to offer interest-bearing transaction accounts. What they could not do, however, was prevent bankers from making innovative efforts to attract clients, such as allowing clients to draw cheques on term deposits, which are by definition not money (they may be ‘near money’, but are not money as such).

This is how these traits of money became progressively more blurred, creating the impression with money holders that money can earn interest in and of itself, even though we all intuitively know that interest is opportunity cost of liquidity. Money was originally a *non-interest financial asset*, characterised by its nominal nature as contained in one of its core functions, as *unit of account*. Banknotes are the keepers of the nominal value stability of central bank money; they act as a nominal anchor of sorts that keeps even their own issuer in check. Nevertheless, central bank money on account, or central bank deposits, do not possess nominal stability. The ability of central bank deposits or reserves to accrue nominally negative interest threatens the function of money as a *unit of account*.

The nominal instability of central bank deposits will in all likelihood be inherited by central bank digital currencies (CBDCs), in spite of official assurances that ‘£10 of CBDC would always be

worth the same as a £10 banknote'.⁴ An account-based CBDC lacks stable nominal value by definition.

The application of negative rates on our transactional deposits in banks means we ourselves face nominal instability, as the numerical amount of our money automatically decreases⁵ If there is no cash, meaning if central bank money is not available to the general public, we cannot stand up to this sinister monetary repression. And it is the authentic non-interest money that faces the greatest threats to its existence.

Threats to money

Changes to the structure of broad money reflect this growing peril. The 'M1' is the best known monetary aggregate, the sum of cash and bank money. Due to its convenience for wholesale payments, bank money first began to displace cash in the early 17th century. Cash was used by the broader public for retail payments, but began to increasingly lose this function as payment methods were modernised with the increasing availability of payment cards, ATMs, and PoS terminals. This process has accelerated exponentially in recent decades due to the emergence of online banking, the internet, and global telecommunications.

Cash has thus shrunk to only a small proportion of broad money in most countries, even dwindling to negligible rates in nations such as Sweden (where it accounts for less than 6% of all payments). In this country the network effect is inexorably squeezing out the remnants of central bank money from public use, which is why the Riksbank, the Swedish central bank, was the first such institution in the world to react to this threat. 'One key issue we face is whether central banks can stop supplying a state-guaranteed means of payment to the general public', noted the Riksbank's Governor Ingves as early as two years ago.⁶ The situation reached alarming proportions when, following the example of most shops and restaurants, many banks began to simply inform customers that they do not accept cash,⁷ at which point the **Riksbank** petitioned the Riksdag, the country's parliament, seeking a solution to *the state's role in the payments market*. This petition contains a direct warning of the threat posed to the public by the disappearance of central bank money and highlights its differences in relation to bank money:

*There is, however, an **important difference** between central bank money and private bank money. Central bank money is issued by, and forms a claim on, the central bank, that is ultimately the central government, while private bank money is a claim on the banks, which are private companies. Central banks can always create money and can, by definition, not become bankrupt, while the banks can and actually do sometimes go bankrupt.*⁸

The issue of central bank money becoming marginalised in use by the general public extends beyond Sweden. Many shops and restaurants in New York will not take US dollar banknotes, whilst those in London refuse to accept British pounds. There's a long list of countries and cities affected by the spread of this monetary contagion. Interestingly, unlike the Riksbank, the Federal Reserve System and the Bank of England didn't react to their products being rejected by the

payments market. When it did, the response came from non-monetary authorities: in January 2020, New York City Council approved a bill which *prevents most retailers from refusing to accept cash or charging customers more if they use it*. Apart from New York City, similar regulations were also enacted by Philadelphia, San Francisco, and the state of New Jersey.⁹ The UK is facing even direr straits. The authors of the most comprehensive report on cash, published in 2019, emphasise that ‘[t]he UK government doesn’t currently have a policy on cash. There isn’t a clear government position on whether it would be good or bad if Britain went cashless. ... There is no single regulator or central body responsible for cash itself.’¹⁰

The central banks’ complete lack of interest in the future of *their own key product* – *central bank notes, or banknotes* – has proven conducive to the ejection of notes from the payment system. If no attempt is made to modernise them, central bank notes are condemned to extinction in the emerging world of digital means of payment. There is no doubt that the new must replace the old, but, disquietingly, the disappearance of money in its old form means the *end of money’s genetic code*.

Research done by central banks in recent years is just a belated reaction to the imminent severance of their direct link to the general public. The Riksbank has been leading these efforts as it was the first to face widespread non-acceptance of its own currency, the krona (see *CBDC: currency or platform?*).¹¹ Most central banks contented themselves by declaring they would supply money to the public to meet any demand. The fact that demand has fallen to a historic minimum did not make them anxious, and neither did their complete failure to consider digitalising their own product. Only in the past two years have some central banks begun to examine the monetary, legal, and technical options for issuing CBDCs. To assuage public concern, a *central bank group to assess potential cases for central bank digital currencies* was created at the Basel Bank for International Settlements (BIS) in January of this year.¹² Paradoxically, these delays in modernising central bank money may yet prove beneficial, as they have to date prevented the introduction of a substitute for money with stable nominal value.

The private sector has long since taken the initiative: until 2008, commercial banks led efforts to modernise means of payment, with the torch then passing to the countless payment providers, which saw themselves as the new issuers of money. And yet none of these ‘private payments innovators’ bothered to check why the private banks of London had abandoned banknote issuance by the mid-18th century to focus instead on non-cash money on account. It seems that London’s private bankers of 250 years ago knew something that the payment intermediaries of today do not, just as Adam Smith identified issues with the Bank of Amsterdam which are ignored by many economists of the present. ‘In a cashless society, the general public does not have access to public money’¹³ is a claim that would cause an examining Professor Smith to fail all academics of today, since the Bank of Amsterdam was a public bank.

The rapid distribution to the public of *helicopter money*¹⁴ announced in response to the Covid-19 pandemic in the spring of 2020 will not affect the survival of money in any way. The one impact

that unrestricted dispensation of central bank money may have is to threaten the real value of our money by promoting inflation. The source of the controversy is not the idea of giving aid to households and firms, nor is it its unprecedented volume: rather, it is the employment of central banks' issuing authority. 'Fiscal policy is not part of the Fed's mandate', and the same holds true for all other central banks. It is difficult to disagree with Willem Buiter on this, or indeed oppose his proposed 'return to narrow central banking'.¹⁵

This summary of current dangers to the existence of money must close with a re-iteration that **the digital revolution is not a threat to money**, as money first came to be as a technological innovation par excellence. The evolution of money reflects technical advances in minting, printing, clearing, settlement, telegraphy, wire transfers, and other fields. The existence of money is brought into question by attempts to use technology to change the characteristics of money and create 'new issuers'.

Consequences

The general public is a natural deterrent to these efforts, as the population will find it difficult to accept nominally unstable money that is the product of discretionary *monetary policy without constraint*. However, people will feel the consequences of the elimination of nominally stable money from the economy and society only when cash is completely gone. This is when they will face the instability of their own incomes and asset prices, turbulence in the financial markets, and generalised uncertainty.

Stable prices of goods, services, and financial assets are unthinkable without nominally stable money. The scrapping of cash would do away with the unit of account, the nominal anchor of the economy and society. There is no sense in legislating a definition of the unit of account in a cashless society, as it can be altered through discretionary measures adopted as part of a monetary policy without constraint.

One of the most commonly cited consequences of the disappearance of cash is the loss of anonymity in transactions. Safeguarding transaction privacy is of crucial importance for any democratic society, but this has already been sacrificed in the war on terror, crime, and tax evasion. Privacy considerations become meaningless if your bank won't let you keep cash in your safe: in 2015, the American Chase Bank went 'as far as to **prohibit** the storage of cash in its safe deposit boxes'.¹⁶ Under the same pretext of combating terrorism, many countries have already introduced safe deposit box registers, including the famously banking-oriented Luxembourg. Home safes remain the only option for anyone hankering after privacy, although they carry their own risks (of burglary, fire, flooding, etc.) but also offer undeniable benefits. It is only a question of time, however, before you'll have to register your safe, as you already do with firearms.

The banishment of cash from shops and restaurants, from payment operations and safety deposit boxes, from the economy and society, will extend to the cash in our wallets. Those who turn their noses up at old-fashioned wallets will be able to switch to digital ones. But they'd do well to

remember that digital wallets won't contain digital cash, but, rather, digital means of payment, whose nominal value will become uncertain once cash has gone.

Perspectives

If you expected that governments were gearing up to address the disappearance of central bank money, you'd be mistaken. The Swedish example cited above is the best illustration. Whilst the Riksbank has been piloting the 'e-krona' for the past two years, it was only in late November 2019 that the Riksbank Committee of the Riksdag welcomed 'the Riksdag's announcement ... to the Government about appointing an inquiry with a broad mandate to investigate the role of the State in the payment market, digital central bank money and the meaning of the concept of legal tender.'¹⁷ At the same time, in Stockholm and all across Sweden, most shops, restaurants, even churches, continued to reject the Riksbank's krona notes. Only public healthcare facilities were in the meantime required to accept cash.

It would also be misguided to expect CBDCs to provide a solution. None of the CBDC arrangements proposed to date constitutes a 'digital version of cash', and neither is it true that 'central bank money – cash or CBDC – is perfectly stable as store of value (again, in nominal terms).'¹⁸ *Cash is perfectly stable as a store of value in nominal terms*, but a CBDC is not. **Not one proposed CBDC is a digital version of cash.**

The only option for keeping money stable is to retain banknotes (especially in the event of power grid failures and natural disasters). They could be complemented by **digital central bank notes**, but these have not been proposed anywhere yet. Such digital notes would have to circulate in the payments system with no direct connection to central bank accounts, payment platforms, or digital tokens, just as banknotes do today. The transferability of these digital notes between individuals, as well as between individuals and companies, shouldn't pose a problem, given the technical capacity provided by smartphones and other digital devices.

Nonetheless, digital central bank notes could constitute a nominal anchor with stable nominal value only if underpinned by traditional banknotes, which will serve as proof of their nominal identity, just as our own personal identity documents prove our identity. This is the only way to keep the nominal value of our money stable – or, in terms made universally understood by the Covid-19 pandemic – our monetary immunity, which depends on us alone.

KEEP YOUR MONEY'S NOMINAL VALUE STABLE

KEEP YOUR MONEY IN YOUR HANDS

¹ Katrin Assenmacher (2019), Cash and the zero-lower-bound constraint, Presentation, *Cash on Trial*, SUERF Conference – Frankfurt, 20 May 2019.

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² ‘The monetary authorities in many countries have already taken steps towards de-cashing.’ Alexei Kireyev (2017), The Macroeconomics of De-Cashing, *IMF Working Paper 17/71*, March 2017.

³ The commonest name for ‘bank money’ is ‘bank deposit money’. This term is incorrect, as officials statistics consider ‘money aggregate M1’ to be comprised only of coins, banknotes, and transaction (sight or demand) deposits, not other deposits – time, savings, and the like. It is a well-known fact that money can’t be withdrawn from non-transaction deposits, and neither can they be used for payments. This article therefore uses a more precise term, ‘bank money’, although this too could be questioned as every one of us believes we own the money in our current account, whilst the bank is just storing it.

⁴ Bank of England (2020), Central Bank Digital Currency: Opportunities, challenges and design, *Discussion Paper*, March 2020.

⁵ See: V.V. Lepin (2020), Negative Nominal Interest Rates, *CBM Research*, Paper 5, April 2020.

⁶ Stefan Ingves (2018), Going cashless, *Finance & Development*, IMF, June 2018, p. 11-12.

⁷ Sveriges Riksbank (2019), Payments in Sweden 2019, p. 12.

⁸ Sveriges Riksbank (2019), Petition to the Riksdag – *The state’s role on the payment market*, Summary, p. 8.

⁹ USA TODAY, New York says don’t ditch your cash: City is latest to ban cashless restaurants, stores, January 23, 2020.

¹⁰ Access to Cash Review, *Final Report*, London, March 2019, p. 104.

¹¹ See: V.V. Lepin (2020), CBDC: Currency or Platform? *CBM Research*, Paper 6, April 2020.

¹² BIS (2020), Central bank group to access potential cases for central bank digital currencies, *Press release*, Bank for International Settlements, Basle, 21 January 2020.

¹³ Markus Brunnermeier, Harold James, and Jean-Pierre Landau (2019), The Digitalization of Money, *Working paper 26300*, National Bureau of Economic Research, Cambridge MA, September 2019.

¹⁴ Vineer Bhansali (2020), Helicopter Money Is Here!, *Forbes*, 17 March, 2020.

¹⁵ Willem Buiter (2014), Central Banks: Powerful, Political and Unaccountable? *Discussion paper No. 10223*, CEPR, October 2014.

¹⁶ Joseph Salerno, ‘Chase Joins the War on Cash’, Mises Institute, Blog, 20 April 2015.

¹⁷ The Riksbank Committee proposal for a new Riksbank Act – Summary, 2019-11-29, p. 75.

¹⁸ Tobias Adrian, Tommaso Mancini – Grifforli (2019), The Rise of Digital Money, *Fintech Notes 19/01*, IMF, July 2019, p. 1, 6.