

A personal safe account for everyone

Ons Geld advocates the introduction of a personal safe account. Safe accounts are held at a public depository and accessed via a payment environment of choice. The market provides payment convenience and the government secures stability. The safe account paves the way for liberalisation of lending and implementation of digital cash.

This article explains the safe account and places it in the context of both the current monetary system and digital cash. It consists of three chapters, a conclusion and an endnote. Chapter 1 describes the background of the safe account. Chapter 2 deals with the personal safe account itself. It is followed by chapter 3 on the organisation of the monetary system, and how it should change. The article ends with a conclusion. The endnote is devoted to the cash-based money system and how it relates to the present monetary credit system. We are happy to receive your comments.

Chapter 1 – Background

We are all financiers. Whether we want it or not. With our bank accounts we finance certain companies, banks, who take risks and can lose our money. Our savings and the money in our checking accounts are constantly at risk.

Some say this is good, as they think it is the only way banks can acquire sufficient funding to provide credit. But is that really true? Are banks unable to attract sufficient financing from investors? And is that a good reason to force savers to lend their money to banks?

Freedom of choice

We believe that account holders should be given more choice. To this end, a safe place for cashless money must be introduced. Account holders can then consciously choose whether or not to lend their savings to a bank. Presently, if you do not want to put your savings in a bank, you must withdraw it in cash. That is not very safe nor convenient as today, most payments are cleared electronically.

In a few decades, banks took over the money circulation. Cashless money has been digitised at a rapid pace. Cash has meanwhile fallen hopelessly behind. So much so that the legal tender seems to be losing out compared to private payment methods, such as checking accounts and credit cards.

Digital cash

To prevent the disappearance of cash, it must be adjusted to the digital age. We therefore advocate the introduction of digital cash; a digital version of euro notes and coins, which combines the security of cash with the ease of bank accounts.

The development and adoption of digital cash will take years. We do not have to wait for this, though. With the current techniques and within the existing frameworks, the government can already provide a safe alternative to bank accounts in the short term, thus paving the way for digital cash.

Citizens' initiative "Ons Geld" (Our Money)

In 2015 we put the modernisation of our money system on the political agenda in The Netherlands. We did so via citizens' initiative "Ons Geld" which was supported by more than 110,000 people. That caused a lot of debate and led, among other things, to the initiative for a full reserve bank. Subsequently (in 2016) the House of Representatives [voted unanimously](#) in favour of a safe place for book-entry money, as proposed by the full reserve bank. Unfortunately though, the realisation of this full reserve bank ran into legal obstacles.

Also in 2016, the Scientific Council for Government Policy (WRR) was asked to investigate the monetary system. Early this year (2019) it published its report, which confirmed what the Lower House had already felt. It is wise to create a safe depository for cashless money. This is good for the account holder, but also for the structure of the financial system.

Financing of banks

Today, the supervision of the financial sector has a dual character. In part it aims at due market processes based on transparency and deliberate risk acceptance by informed market participants. That is the supervision of business-conduct exerted by the Authority for the Financial Markets (AFM). There is also a part however, where market processes are missing. Here the government undertakes to estimate risks so that the public is not burdened with that. That is the banking supervision.

The banks subject to that supervision are in a curious position. They can finance themselves with other people's money, without asking and without indicating what they will do with it. Banks thereby dictate the conditions under which they take in savings from the public as financing. Thus, market forces have been side-lined for bank funding. Account holders are not supposed to wonder what risk they take when putting money "in the bank". They are often not even aware that they are funding a bank with their savings. Anyone who puts money in the bank believes that he owns that money and is typically not interested in investing in a bank.

Lending to banks is therefore not subject to sound market processes for assessing, pricing and acceptance of risk. There is a kind of communism in the financing of banks, where costs and risks are borne by society at large. This financing is virtually unlimited since the banks themselves create the deposits with which they are financed. In this way, banks determine autonomously which risks they expose themselves and society too. From their privileged position, banks can finance themselves easier and cheaper than other market participants. As

a result, they dominate lending in society. Credit decisions are taken centrally, at corporate level and from a banker's interest, at the expense of diversity. The real economy is impacted negatively, for instance because SMEs are not accommodated properly by the dominant banking sector, which tends to over-finance speculation. The dominance of banks has a self-reinforcing effect and continues to lead to further concentration in the banking system.

Historical explanation

The elimination of market processes regarding lending to banks can be explained historically. In the past, banks provided flexibility for the money supply, which was otherwise unable to keep pace with economic development under a metal standard. In addition, banks facilitated distance payment by arranging payment on the basis of mutual settlement instead of transferring cash. For that to work, confidence in claims on banks had to be beyond any doubt. This required that the public should ignore the risk to which money "in the bank" is exposed. That is still the premise of the monetary system. For example, the European banking union is designed to ensure that account holders in the eurozone do not make a distinction between the reliability of, for example, an Italian and a Dutch bank. That is old thinking however, as the necessity for money circulation to run through bank balance sheets has become obsolete through the internet. If Europe was committed to introducing a digital euro, it would not be in need of a banking union, and could avoid the market distortion and risk sharing that come with it.

Flexibility

Flexibility of the money supply is important to support economic development and to maintain price stability. However, the special rules for banks no longer make sense in this regard and are counterproductive. The metal standard has been abandoned. The money supply has become a function of available financial assets ("debt") with a reliable cash flow. Money is available to the extent that society can bear and service debts. This initially led to economic growth (in the period after the Second World War). In the meantime, however, such debt levels have been reached in developed countries, at which further money creation based on debt does not support the development of prosperity, but actually [hampers](#) it. The privilege that banks enjoy with regard to their financing does not contribute to optimising the money supply. It [hampers prosperity growth](#) and generates unnecessary risks and [volatility](#).

Furthermore, banks are losing their exclusivity with regard to money creation. Non-banks, too, can create liquidity ("money market instruments") based on financial assets, thereby affecting the money supply. With digitisation this will take-off as new liquidities administered on distributed ledgers emerge.

Flexibility of the money supply is no longer a reason to favour banks. It is precisely a reason not to do that anymore. The money circulation would benefit from undisturbed market processes regarding the financing of banks and governments, the pricing of risks and the

functioning of security markets. All of these are severely distorted though, under the current monetary regime. So much so that the side effects prevail, and the effectiveness of monetary policy is questionable.

Liberalisation of lending

Unfortunately, the central bank is stuck in a straitjacket, where it does not come out so easily. As long as the money supply runs on bank balance sheets, it cannot leave those banks to their own devices (and subject them to market forces). That would, after all, jeopardise the money supply. To overcome this, society is in dire need of a convenient alternative to book-entry money. That is where the relevance of digital cash comes in.

Digital cash can free the government from the need to interfere with the liquidity and funding of banks. The condition of banks and the interbank settlement system should then no longer be a public concern. In a digital cash system, the government can treat banks and non-banks equally and refrain from market disruption. This requires a process of years that must gradually take shape. The aim of this process is to demonetise debt, liberalise lending and to realise safe and stable money.

The safe alternative to the bank account recommended by the WRR is the first step in this development. This can take several forms, including the form of electronic money, a full reserve bank (whether or not owned by the government) or an account with the central bank. The common denominator is that the public is given the opportunity to park money - directly or indirectly - at the central bank.

Chapter 2 – The personal safe account

To this end, we propose to introduce a generic *safe account* that can be opened by any Dutch person. This account is held at a [public depository](#). This is an independent part of the Ministry of Finance which takes money into custody and keeps it available to the account holder. This institution does nothing with the money entrusted to it, apart from holding it in its account with The Dutch National Bank.

The Dutch National Bank (DNB) could also issue the safe account itself. We do not support that, though. Implementation and supervision would then be conducted by one and the same institution and be withdrawn from democratic control. Introduction of the safe account concerns market regulation, which is the responsibility of the legislator, not of the central bank. Still, introduction and regulation of the safe account must happen in good coordination with and under the supervision of the central bank (DNB and ECB).

The safe account can be introduced immediately. It does not need any adjustment of legal frameworks nor development of new technologies. It fits well with PSD2, the European legislation for payment services, which provides for the possibility to offer payment services on the basis of an account held elsewhere. The safe account is held at the public depository.

Depending on the account holder's wishes, it can also be included in the payment environment of any other payment service provider. Large banks, small banks, internet giants and fintech start-ups can then offer the same safe account. A level playing field for payment services is being realised, while the safety of clients' money is improved.

The safe account is personal. The holder takes it to his payment service provider of choice. An ING customer places his safe account in his ING payment environment. However, he can also choose to transfer the same account to another bank or a different type of payment service provider. He can also decide not to allow any commercial payment service provider access to his safe account. He then manages it from the digital environment that the public depository provides. The holder of the safe account determines who has access to his payment data, and for what purposes this data can be used.

Market processes

The safe account makes it easier to change banks, which benefits competition. Moreover, if the safe account is generally adopted, it becomes possible to liberalise lending. The safe account offers an alternative to deposit guarantees, which can then be phased out. That makes it less easy for banks to finance themselves with savings, and encourages them to finance themselves as non-banks do. The WRR recognises that this improves the financial system. Gradually, the risk awareness of account holders is then increased. They learn to distinguish between parking money safely and making money available to someone else. In the long term, banks will have to explain to their account holders the risks associated with making their money available to the bank, just as companies do when they issue bonds. This creates an incentive for banks to profile themselves explicitly, for example with regard to their capital buffers and investment policies.

Costs and benefits

Substantial costs are involved with the introduction of a safe account. Certainly, if all Dutch citizens and businesses are eligible for such an account, those costs should not be underestimated. However, there are tremendous social benefits to it. These concern the gradual phasing out of state aid to banks and other financial institutions, liberalisation of lending and the precision and effectiveness of monetary policy. Part of the benefits are related to a reduction in the social costs of the current money system. These costs are not limited to the costs of bail-outs in crises. They include the distortion of securities markets by the central bank, distortion of the housing market, distortion of lending, over-regulation, over-indebtedness of society, impediment of prosperity growth, instability, uncontrollability, inflation and concentration of power.

The safe account is a prerequisite for making the money system more manageable, subjecting banks to undistorted market processes and abolition of all preferential rules for banks. The link between monetary growth and increase of debt can then be broken, which enables the

government to make the currency safe and stable and to remove the debt related impediments to prosperity growth. The social benefits and cost savings that come into view as a result of the safe account are numerous. If these are taken into consideration, the costs of the safe account will show to be a moderate and prudent investment.

Benefits for banks

The safe account can also be a cost saving for banks. It reduces their exposure to negative interest rates and releases them from the costs of deposit guarantees. The introduction of the safe account also offers the opportunity to modernise and standardise administrative processes. A part of the 'know-your-customer' processes could be carried out centrally in connection with the safe account, so that not every bank has to go through these separately. In the long term, the safe account relieves the banks of taking care of coins and notes. If the safe account has become the standard, it becomes logical that the public depository where these accounts are held will assume that task and cover the costs.

Combined with accessible and standardised ICT, the safe account contributes to the diversity in the banking landscape, by strongly lowering entry barriers. It gives newcomers the opportunity to offer a full range of payment services independent from banks and without having to meet capital and compliance requirements applicable to banks. Also, it appears to us that the safe account fits well with the development of standardised access to payment accounts as prescribed under PSD2.

Europe

The safe account can have a stabilising effect within the eurozone. It provides a remedy for capital flight from weaker Member States. If, for example, Italians can keep their money safe in their own country, they have less reason to transfer it to Dutch or German banks. This prevents a further increase in imbalance in the eurozone and may help to reduce it. In addition, it deprives the ECB of the reason to encourage bank consolidation. Its policy can then be focused on competition and greater diversity in lending.

The safe account sheds new light on risk sharing in the eurozone. It reduces the chance that stronger member states will have to bear risks from weaker member states. To that end, the safe account must be set up per Member State and positioned as an alternative to deposit guarantees. The Netherlands can initiate such a development in Europe by introducing a safe account on its own initiative. This will undoubtedly attract attention from Frankfurt and Brussels and bring the discussion about safe money and liberalisation of lending to "Europe".

Internet giants

The safe account mitigates the risks emanating from big-fintech enterprises. It exposes these enterprises to full competition by making the network benefits of the general payment infrastructure accessible to all market participants. This would make it almost impossible for

big-fintech enterprises to curb competition in this field through market dominance. The government determines the conditions for use of the safe account. That enables it to eliminate systemic risk. The safety and stability of the money in the safe account is entirely under government control, regardless of any market dominance of parties that provide payment services based on safe accounts.

It remains possible though, that dominant market participants establish their own currencies outside the safe account system. The chance that they are successful in this, however, decreases as state support for banks is phased out. By losing state support, bank deposits become increasingly unattractive as underlying value for digital currencies. Ultimately, abolition of state support implies that deposits become unsuitable for establishing a fixed exchange rate between a digital currency and the euro. This strongly reduces the chance that a digital currency such as Facebook's Libra will ever displace the euro. Digital currencies would become unable to establish themselves by feeding upon the euro against the will of the government. To the extent that Facebook would like to bring the Libra into a fixed exchange rate with the euro, Facebook would have to revert to using the safe account, thereby subjecting itself to the rules that come with it. Systemic risk emanating from the Libra and abuse of market power can then be excluded.

Gradual transition

The safe account bears the solution to the major challenges facing the monetary system. Its introduction, therefore, must not be delayed. However, this introduction must happen gradually. Banks in particular need time to adjust. They are now largely financed with the savings from their account holders. If this is suddenly transferred to personal safe accounts, banks run into problems. Banks must be given time to gradually adjust the composition of their financing. This is possible by limiting the amount of money that can be held freely in the safe account. However, setting a strict upper limit on the credit in the safe account is impractical. After all, the account holder has no control over the amounts that are transferred to him. For example, he must also be able to receive the prize on his safe account after winning the lottery.

Still, use of the safe account can be discouraged from a certain upper limit. To this end, a (progressive) tax should be levied on the excess surpassing this upper limit. That ensures that the outflow of funds from the banks takes place gradually. The upper limit can be raised annually, so that households and businesses can secure an increasing share of their money free of charge, and banks can get used to the new situation. Ultimately, banks will then fully finance themselves as non-banks do. They then only attract financing from the public through the issue of securities, such as shares and bonds.

Upper limit

The availability of sufficient amounts of safe money is of social importance. However, it is also important that sufficient financing is offered in the economy. Therefore, the upper limit on the safe account will also remain necessary when banks no longer fund themselves with deposits. This upper limit is then determined by the liquidity buffers that households and companies ideally should have at their disposal. From this upper limit, a (progressive) tax stimulates households and businesses to spend or invest the excess. They then consciously choose how they let their assets contribute to the economy, and what risk they wish to take with it. This is in line with current practice, where households hold a basic capital in money, and invest the rest of their savings for a return.

The upper limit and taxation of the excess are not only necessary as an incentive for investment and spending. They also have a function in controlling money circulation and combating inflation.

Inflation

Ideally, the safe account is interest-free. After all, the money in this account is not invested. It is not lent to a bank that finances its business with it. It has been given in custody. However, interest-free money requires an inflation-free monetary system. Otherwise the interest-free money would lose its value.

The current money system is focused on inflation, though. The central bank even sees it as its task to ensure moderate inflation. This is often justified by the argument that deflation is more difficult to combat than inflation. Perhaps that is correct within the present monetary credit system, in which money cannot be given away for free by the issuer. Things will be different, however, in a money system based on cash. In a cash-based money system deflation is easy to combat, simply by "printing" digital cash and putting it into circulation.* The inflation target of the central bank is therefore not a monetary necessity. It is a choice related to the way the money system is organised.

Chapter 3 – Organisation of the monetary system

In the current order, banks create money by granting credit, and the central bank ensures parity between the credit-balances thus created and the euro. Parity means that those balances ("deposits") and the euro always exchange 1 on 1, without taking into account the risks to which those balances are exposed. Because the central bank ensures parity, deposits can function as money.

Liberalisation of lending, however, requires that deposits are ultimately demonetised. This means that they get a free exchange rate against the euro. A cash balance of 100 euros at ABN AMRO then does not have a fixed rate of 100 euros, nor does it have the same rate as a cash balance to the same amount at ING. Deposits then take on the character of an

investment instead of money. They are then subject to undistorted market processes for assessment, pricing and acceptance of risk.

Apart from deposits, other debt instruments that are used as money must be demonetised too. For example, money market instruments and blockchain-based liquidities will also have to have a free and genuine exchange rate with the euro. This requires that the government refrains entirely from supporting private forms of liquidity (“quasi monies”). To this end, the government should not be allowed to accept quasi monies for tax purposes, nor may it finance itself through such liquidities. The government should not exert any demand for liquidities other than those it has issued itself, as otherwise it favours the issuers of these liquidities.

Monetary policy

After demonetisation of deposits and other debt instruments, the money supply will consist entirely of cash, in physical and digital form. Monetary policy can then be conducted efficiently and without market distortion. The money-supply can then be controlled on the basis of real-time information about the stocks and flows of digital cash. Monetary management will intervene directly and without friction in the digital money circulation. This happens via taxation or, for example, by providing extra money to all citizens. Complex transmission mechanisms via financial institutions and markets will no longer be of use. The current instruments of monetary policy: setting interest rates and purchase, sale and pawning of securities then become superfluous and unwanted.

In a digital cash system, inflation and deflation can both be counteracted effectively by direct control of a transparent money circulation. Monetary policy can thus be focused on absolute price stability. That is not only a possibility, but also a requirement for the digital currency of the future.

Digitisation will lead to an explosion of many other easily transferable forms of liquidity that compete with the currency. An inflationary money system will easily lose out to the plethora of privately issued liquid stores of value. The currency will be disciplined by the many alternatives that are constantly available. We therefore believe that there is no room for inflation in a digital cash system, let alone for an inflation target. Care for the liquidity buffers in society will have to take place under strict maintenance of price stability.

Inflation compensation

However, as long as the monetary system is geared to inflation, it is justified to compensate holders of a safe account for the corresponding loss of purchasing power. A source for this compensation can be created by taxing banks for use of deposits as financing. This accelerates the removal of their improper competitive advantage over non-banks. Another source are the taxes charged on safe account balances in excess of the upper limit.

In general, sources for inflation compensation can be created by creaming-off the profits that are made within the banking system with money creation. This curtails bank money creation and gradually removes the need to offer inflation compensation.

Credit crunch

Are we, with the liberalisation of lending, not running the risk that lending will cease? After all, the savings that are now invested in the economy through the banks are being made inactive. Savings are then no longer at work in the economy and remains idle on safe accounts.

The supply of credit will not stall if the safe account is introduced gradually and controlled. Its introduction actually helps to balance and control the existing system. Quantitative easing has overflowed the financial system with liquidity. The safe account is a tool to clear excess liquidity and make negative interest rates unnecessary. In the first few years, we therefore believe that fear for credit contraction is unrealistic. In subsequent years, in which everyone can secure an increasing share of their savings free of charge, credit contraction will not be an issue either, provided that the liberalisation is implemented consistently. This requires modernisation of monetary policy.

Modernisation of monetary policy

The current monetary system focuses on the funding of banks, which gives those banks their dominance in lending. The public “money printing press” is at the service of the banks. It is used to provide banks with sufficient liquidity and increasingly also to maintain the value of their assets. House prices and securities markets are artificially inflated with loose monetary policy.

Liberalisation of lending, however, requires the central bank to refrain from systematic lending to banks and disrupting financial and other markets. Instead, monetary policy instruments should be geared towards society at large. These instruments should not be based on lending, but on cash, in physical and digital form. The central bank thus has to transform gradually from a credit institution for banks, into an institution that monitors and adjusts liquidity buffers in society at large. It must ensure that these buffers are always sufficient to absorb financial shocks, to keep the economy going and to provide sufficient financing for investment. All this under the restriction of absolute price stability. This reformed central bank then provides liquidity to society - through the government budget - in the form of (digital) cash, so that society can flourish and finance investment. Because it no longer takes funds nor extends credit, this reformed monetary authority is no longer referred to as a bank.

Market processes

In a liberalised system, lending is subject to undistorted market processes and is no longer dominated by banks. Credit decisions are then taken decentrally by those who also bear the risk. Market processes for assessment, pricing and acceptance of risks can then function properly, improving allocation and mitigation of risk. It is to be expected that lending becomes more diverse and more focussed on the productive economy. In addition, a shift can be expected towards financing with equity rather than borrowed capital, resulting in lower levels of debt.

In a liberalised system, interest rates are no longer centrally managed but used as an indicator of the situation on the credit markets. If high interest rates frustrate much needed investments in the real economy, the monetary authority can cap the interest rate by making extra money available for lending at that rate. Market processes then prevail, and the monetary authority makes adjustments where necessary.

Public care for the money system

Introduction of the safe account starts a process that gradually changes the organisation of the monetary system. Public care for the money system will shift from securing the liquidity and solvency of banks (and money market funds) to ensuring the stability and general availability of money. The assets of banks then lose relevance as underlying value to back-up money. These assets do not contribute to confidence in the currency anyway. They rather cast doubt over the currency because underlying value is not free of risk.

The stability of the currency is best maintained if the currency is abstracted from underlying value. This removes any friction in control over the money supply, which can then be adjusted freely to whatever is necessary for stability, without unwanted side effects. In a digital cash system, this can be done on the basis of real-time information about the money circulation. The accompanying monetary management instruments can thus be calibrated, making control of the money system increasingly refined and precise.

The new instruments of monetary policy are simple in principle. These instruments concern determination of the amount of digital cash that each person can hold freely, and a (progressive) taxation of the surplus. This is a monetary tax that is not based on government financing, but on monetary management. The levying of this tax is an exclusive competence of the monetary authority. The money that is taxed away can be recirculated depending on the need to tighten or not. The money supply is expanded via the government budget, whereby the government obtains the funds to be added, free of charge from the monetary authority. The latter also applies if it is not necessary to tighten nor to expand. The proceeds of the monetary tax are then recirculated through the government budget.

Modern jubilee

In the long term, monetary policy no longer focuses on banks, but on society at large. The euro is thereby abstracted from underlying value. The assets of the central bank are then released. In a digital cash system, they are no longer necessary for the implementation of monetary policy, nor as a cover for the money supply. These assets can then be used to reduce debt levels in society. This debt reduction can take the form of an accelerated repayment of existing debts to banks, combined with subsequent repayment of debts from banks to the central bank.¹ This reduces the amount of debt that currently stands in the way of prosperity development and social and economic integration. This debt reduction vitalises the banks that from then on will stand on their own feet, without any state support.

Conclusion

The creation of a safe repository for cashless money is a logical step in the development of our money system. It adapts the system to ongoing digitisation and supra-nationalisation, and enables the government to secure the safety of money in a cost-effective way. It also paves the way for appropriate market organisation, in which the government refrains from market distortion, and creates a level playing field for both payment services and lending.

The safe repository can take the form of a personal safe account, which is held with the government, and can be included in the payment environment of any payment service provider of choice. This increases the freedom of choice and raises risk awareness among the public. Banks are encouraged to finance themselves more responsibly; not with savings of the public but with funds that have deliberately been made available to finance that specific bank. If the safe account is adopted in other Member States too, it offers a remedy for risk sharing in the eurozone.

The safe account is a step towards the development of digital cash, and to diversion of the activity of central banks from providing liquidity to commercial banks, to providing liquidity to society at large. The money circulation then becomes homogeneous in nature, and consists only of physical and digital cash. Private monies then no longer need to be supported by the government, nor should the government be allowed to do so. Private monies are not banned either. The public money system is disciplined by the presence of many privately issued liquid stores of value that will be available abundantly in an increasingly digitised and competitive financial system. An inflation target will become incompatible with monetary policy, which will have to work under the restriction of absolute price stability.

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***The cash-based money system**

What is the role of cash? What is a cash-based money system and how does it relate to the present monetary credit system?

In a cash-based money system, digital cash is the primary instrument of monetary policy. The money supply is managed directly by increasing or reducing the amount of digital cash in circulation. Reduction is achieved by taxation, typically via a (progressive) levy on amounts exceeding the upper limits of digital cash accounts. To increase the money stock, additional cash is made available to the government, which obtains it for free. There is no debt, or any other obligation attached to it apart from the obligation to put it into circulation. The government is free to give it away, lend it out, spend it or otherwise incorporate it into its budget.

The prohibition on monetary financing (Article 123 TFEU) does not stand in the way of the provision of cash to the government, provided that this is done for free. Today, this is not possible though, because in the current monetary system money enters into circulation as (interest-bearing) credit backed by underlying value. This means that money itself needs to be financed. In a digital cash system, money is created as an expression of sovereign will, which needs no financing. The money thus created embodies the currency and needs no underlying value to back it up. As digital cash does not have to be financed, it can be made available as a utility function for free. This is a prerequisite for making money serve society and enabling society to flourish to its full potential. It is also a prerequisite for making money stable and inert to credit and market risks.

In a cash-based money system, digital and physical cash can exist side by side. Use of digital cash does not require abolition nor degradation of physical cash (notes and coins). In a digital cash system, physical cash remains important for anonymity and as a substitute in the event of a power failure.

Monetary credit system

The current money system can be described as a *monetary credit system*. In this system, credit extension is the primary monetary policy instrument. Whenever it is said that the money printing press is turned on, it means that extra credit is granted. This concerns credit extension by the central bank to the banks, or credit extension by the banks to the central bank. The latter is the case when the central bank expands by buying bonds. It pays for those bonds by crediting the accounts of the relevant banks. These banks don't experience that as credit extension to the central bank though, since the resulting credit is as good as money. It can be used in payment to other banks or be withdrawn in cash. Parity with the euro is assured, since the central bank itself is the issuer of the euro.

Supply of cash

In the present system, cash is supplied fully elastic with demand. The banks can withdraw their credit with the central bank entirely in cash, and the central bank prints as many notes as necessary to meet that demand. Literally speaking, it should be this money printing that is meant by "the money printing press". However, this is generally not the case, since this literal money printing press has no influence on the money quantity.

Notes come into circulation through substitution. That can be understood as a purchase. Bank notes are bought and paid for by (central) bank credit which is reduced to the amount of the corresponding cash withdrawal. The issue of notes does not change the money quantity, as credit is replaced by cash. Neither does the money quantity change when cash returns to the (central) bank, since this is then exchanged in other notes and coins, or credited to an account with the (central) bank.

In a cash-based system, withdrawal of physical cash also entails to substitution. However, when digital cash is added, this is not a substitution. It is an addition, accounted as an asset of the government acquired for free.

¹ The modern jubilee based on safe accounts is explained in '[Scenario for a modern jubilee](#)'. A blue print for a modern jubilee in the eurozone based on a digital euro is available in the working paper: '[Deleverage without a crunch](#)'. An easy-to-read introduction is provided [here](#).