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# The monetary system in crisis

**Monetary reform proposals,**

**and a simple suggestion for a more effective monetary policy**

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## Contents

## Introduction

From business-friendly journalists to radical monetary reformers, there is a shared understanding that our current monetary system, consisting of the central bank and commercial banks, is facing a fundamental crisis. The lingering recession that followed the financial crisis, combined with countless defaulted legacies manifested in bank balance sheets, make it impossible for the central banks to bring the economy back on track using their existing monetary policy tool of interest rate management. Negative deposit rates for excess reserves, which are what banks keep at the central bank, are the latest evidence to prove that basing monetary policy on interest rate management is no longer effective. The central banks' attempt to stimulate bank lending through the purchase of government bonds and different bank assets is unlikely to be successful if there is no corresponding demand for credit from the real economy due to a lack of investment opportunities. Since our current system only allows the money supply to grow if someone wants to borrow from a bank, stimulating the economy via money creation is hardly possible.

While many established economists are grappling with these fundamental problems, critics propose a fundamental monetary reform. On the one hand, they are challenging the money creation capabilities of the banks because these facilitated credit and finance asset-price bubbles. On the other hand they criticise that new money can only emerge through additional borrowing from banks and that debt-free money creation to fund much-needed and economically stimulating public investment is impossible. Based on proposals from the 1930s, monetary reform advocates have developed concepts in which the credit creation ability of banks is inhibited and new money is fed into the economic cycle by state spending – without incurring debts.

To achieve this goal of "Positive Money", an extensive transformation of our banking and monetary system is necessary. Consequently, most existing proposals are complex. The United States' "narrow banking" concept tries to stabilize the security of demand deposits and thus money transactions by enforcing strong restrictions even on very safe and liquid investment objectives. The supply of credit is proposed to occur via separate investment banks or funds. Other critics see the fundamental challenges in the interest system, which they perceive as creating an unsustainable pressure to grow, and have developed alternative solutions involving regional or complementary currencies.

This paper provides a summary of the current challenges our monetary system is facing and offers an overview of the different ideas for reform, discussing their practical feasibility. It will also demonstrate how a simpler monetary policy tool could facilitate the implementation of many of the ideas that reformers advocate, without a complex restructuring of the banking system. The implementation of this monetary policy tool will enable central banks to regain their ability to act effectively.

## 1. Fundamental problems of current monetary policies

The outbreak of the financial crisis has highlighted the importance of central banks for the stability of the economic and political system. Without their intervention as a lender of last resort and stabilizer of asset prices, a complete collapse of the banking system, including all transaction systems would have been unavoidable. The central banks' rescue of the banking system, by means of various measures commonly known as "quantitative easing" (QE), can certainly be deemed a success. But the initiatives taken to combat the recession that followed the financial crisis show that central banks - with their current powers, including QE – have reached their limits. They are also currently incapable of taking effective counter-measures against build-ups of asset-price bubbles.

### The duties of central banks within the monetary system

In addition to the adequate provision of legal tender, influencing the economy is one of the essential duties of a central bank. Only by stimulating or dampening overall economic activity can a central bank avoid deflation and/or keep inflation under control. Central banks are currently and almost exclusively using interest rate management as transmission mechanisms for stimulating the economy. If a central bank wants to exercise a restrictive impact on the economy, it can make refinancing conditions of banks more expensive by raising interest rates, thus decreasing the number of profitable investment opportunities, which are financed through loans. In the transmission of restrictive signals, the interest rate channel has regularly proven to be reliable.

### The impact of the interest rate channel is severely limited during a recession

However, the opposite attempt, to stimulate bank lending by lowering interest rates, often fails due to the fact that, especially during a recession, the demand for credit is no longer limited by the level of interest, but by a lack of rewarding investment opportunities. If the additional goods and services produced through loan-financed investments cannot be sold due to low demand, no revenue can be generated from which a loan may be served. There is an equally low demand for investment opportunities. In such instances, even extremely low refinancing-rates cannot help to stimulate the economy. The current attempt by the ECB to increase bank lending by introducing negative deposit rates for excess reserves therefore cannot succeed. However, if a central bank is unable to exert positive pressure on economic and price development, it loses its ability to prevent deflation. Central banks, whose financial policy tools solely consist of changing interest rates, are thus unable to fulfil their responsibility of preventing deflation.

### Permanently low interest rates lead to property bubbles

A further problem with stimulating economic activity through interest rates is due to the necessity of keeping the key interest rate very low for a long period of time. Under current regulations, central banks cannot influence specific types of credit use, meaning they are unable to prevent investors on low interest rates buying up existing assets on credit in order to profit from potential price increases instead of making productive investments.

An indirect expansive impulse to the real economy can occur with the creation of price bubbles. An increase in property- and share prices can make many households feel richer and increase their consumption. But rising asset prices as a stimulant for the economy are unsustainable, as demonstrated by the 2008 global financial crisis. After the asset bubble bursts, households will find themselves heavily in debt and curb their spending. This depresses sales, dampens investment appetite and pushes up unemployment rates.

**QE measures are not constructive in boosting economic activity**

The buying up of government bonds in the secondary markets by some central banks and most recently by the ECB in the framework of QE measures, is no sufficient guarantee for economic recovery. This action merely temporarily ensures a cheap refinancing of old government bonds and the potential extension of budgetary fiscal operating capabilities. A direct and controllable stimulation of demand and economic activity can only be created when public budgets use the QE measures of their central bank for a debt-financed increase in expenditure. The purchase of other (presumably depressed or defaulted) assets, such as CDOs from previous bank balance sheets, through the central bank will not create a direct stimulant on economic activity. The exchange of problematic receivables for fresh liquidity can boost the willingness of banks to lend. However, without credit demand these will be no additional economy-boosting lending.

**No direct economic stimulus possible**

For central banks, the key problem with boosting the economy remains that they cannot directly create the necessary demand. Due to fears about inflationary effects, debt-free money creation to directly finance public expenditure, without the detour via banking system lending, is not currently permitted. As will be demonstrated in the final part of the study, significant potential exists in unblocking this type of money creation, not only to stabilise the financial system but the entire economy.

**The current problems of financial politics can be summarised as follows:**

- In our current banking system by far the largest part of money creation occurs through credit creation by private banks. The lending ability of banks is virtually only limited by the demand for credit. The amount of money is thus defined ‘endogenously’ through the financial demands of the whole economy. Central banks have no direct opportunity to regulate the money stock. If central banks wish to influence this, they can only do so indirectly by attempting to generate a change in demand by altering interest rates.
- The deregulation of financial markets since the 1980’s has led to banks developing a large number of virtual business models, which has made credit demand independent from demand in the real economy. These banks can prioritize financing purely financial business ventures – including speculative transactions – and central banks no longer have the power to prioritize lending to the real economy, as they previously could in many countries.

- Central banks cannot influence a credit expansion during a recession because lack of economic demand means there are fewer solvent borrowers.

- As long as an increase in money stock occurs only via an increase in lending by the banking system, other economic sectors will always have to expand their debt. Without new debt, capital cannot increase.

- Debt free money creation by central banks, to directly feed in new money into the economy through public expenditure, is not allowed.

## 2. The money reformers' proposals

Many money reformers have attempted to find solutions to these fundamental problems. Their key criticism is that banks can create money through their own lending – largely unhindered by the central bank - while money creation by the central bank for directly financing public investment is prohibited. Another critique is that banks create too much credit during booms, and too little during recessions. Also, money creation by banks can only occur through creating new debt (the debt based monetary system) which is tied to an increase in interest payment obligations. A further criticism is that in the current system, the state gains very little from the profits of money creation.

There is a relatively constant line of argumentation in the money reform debate since the reformist ideas arose in the 1930s, ranging from diverse theories of monetarism to (post) Keynesianism. Monetarism's key assumption was adopted: that the economy is steered by the quantity of money. So, a central bank which can steadily increase the amount of money, e.g. by 3% *per annum,* will see a growth in economic activity by the same amount. This assumes that the central bank is in the position to determine the money creation of the economy externally (exogenously).

Empirical evidence has shown, however, that in a modern monetary system the amount of money is determined internally (endogenously), by the monetary demand of the economy and the central bank can only try, with the setting of the interest rate, to influence this process. Money reformers have adopted post-Keynesian theories to explain the endogeneity of money creation.[1] Recently the Bank of England confirmed this theory as the correct description of the real monetary economy.[2]

The key argumentation of the monetary reformers spans – with some interruptions – from the Chicago Plan and the first 100% money reformers of the 1930s to proposals for a "full" monetary system in the 1990s. A new significant contribution came with the 2012 working paper by IMF economists Benes and Kumhof.[3] Together with the revival of the Chicago Plan, the closely related ideas of 'narrow banking' are also being revived.

[1] The main part of this theory was developed from the mid 1980s onwards by Basil J. Moore. Further important contributions to the discussion around the endogeneity of money creation came from Peter Howells and Thomas Palley. See Moore, Basil J.; Horizontalists and Verticalists: The macroeconomics of credit money, Cambridge, 1988; Howells, Peter; The demand for endogenous money, in: Journal of Post Keynesian Economics, Vol. 18, No. 1, 1995, S. 89–106; Palley, Thomas; Post Keynesian economics: debt, distribution and the macro economy, Macmillan, 1996

[2] Bank of England: Money Creation in the Modern Economy, Quarterly Bulletin, Vol. 54, No. 1, 2014 Q1 http://www.bankofengland.co.uk/publications/Documents/quarterlybulletin/2014/qb14q102.pdf

[3] Benes, Jaromir; Kumhof, Michael; IMF Working Paper: The Chicago Plan Revisited, WP12/202, August 2012

The reforms currently proposed in detail are the *Vollgeld* proposal, developed most authoritatively by Joseph Huber and the 'Positive Money' initiative in the United Kingdom. Both approaches are linked through the International Movement for Monetary Reform (IMMR)[4].

The group of *Vollgeld* and Positive Money reformers[5] also includes other monetary system critics that set slightly different focal points in the analysis of existing systems and solutions.

### 2.1. The Chicago Plan and 100% Money

At the end of the global economic crisis of 1929, various economists developed concepts to end the money creation capabilities of banks through a 100% reserves obligation. Some of these economists were from the University of Chicago who went on to develop the so-called Chicago Plan, including renowned Professors such as Henry Simons, Frank Knight and Milton Friedman as well as Irving Fisher who developed his own design for 100% money.[6]

The Plan envisages that banks should only be allowed to lend up to the amount they have received in deposits from their clients. Independent money creation by banks is thus prevented. The rationale for this came from the observation of the strongly depressed money supply throughout the global economic crisis. Fisher, and later the early Monetarists around Milton Friedman saw this as the key cause of the heavy depression after the Wall Street crash of October 1929 and blamed the Fed for reacting wrongly - or not at all - to the plummeting of stock prices.

With a system of 100% minimum reserves, the boom of the late twenties, which was financed by newly created credit, would have been much less likely. There would also not have been such a stark drop in prices after the bubble burst. What was missing in the economy, according to the Chicago Plan group, was the money that had previously been created through the money creation capabilities of the banks in the boom years. The danger of a bank run, engendered by the fact that banks, through their money creation capabilities, are able to lend much more money than they have as deposits, would have been much reduced had there been an effective control of the money supply.

Thus, the key idea behind the 100%-money proposals is that the state and its central bank have complete control over the development of the monetary supply in order to be able to block excessive speculation-motivated money creation by the banking sector during boom years and stem the sudden decrease of the money supply during a recession. This idea reflects the theoretical fundamentals of monetarism, which argues that the economy can be managed by controlling the monetary supply. Economic fluctuations would be minimised or at least mitigated.[7]

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[4] http://internationalmoneyreform.org/

[5] In this paper the term *Vollgeld* refers to the German money reform campaign. Positive Money refers to the British variation of the monetary reformers. Content-wise the campaigns are so similar that this paper does not always differentiate between the two.

[6] Fisher, I. (1936),"100% Money and the Public Debt", Economic Forum, Spring Number, April-June 1936, pp. 406-420.

[7] Borchert, Manfred; Geld und Kredit, München, 2003, p. 184 f. (*In German)*

Similarly it was assumed that inflation could be managed by controlling of the monetary supply. This follows the premise of monetarism that inflation is always the consequence of a money surplus.[8]

The transition to a 100% money system would create a unique and very high money creation profit for the state, which could, among other things, be used to pay off state debt.

Moreover, the state would feel less pressured to indebt itself further in the private financial markets. Money provision for the economy would occur through public expenditure. Since 100% money and the Chicago Plan in the 1930s, there have been different conceptualisations that vary only minimally. A depiction of these minimal variations is beyond the remit of this paper.

The successful stabilisation of the monetary order after the global financial crisis and the introduction of the Bretton Woods System after WWII with set exchange rates and capital controls, made a fundamental reform of the monetary system appear unnecessary. The need for reform only became acute once again when a step-by-step deregulation of the financial markets began after the end of the Bretton Woods System in 1973. This was followed by the ban on central banks directly funding public expenditures, which had been possible, e.g. in Canada[9] and France. Governments were from then on obliged to borrow from and pay interest to private banks. Since the mid 1980's, banks have not been limiting themselves to financing the real economy but have increasingly been using their money creation capabilities to finance purely virtual financial interactions.

### 2.2. From 100% Money to *Vollgeld*

The first design that took the fundamentals of the 100% money proposal and turned it into the concept of *Vollgeld* was that of Joseph Huber in 1998[10] who developed this work further with James Robertson in 2000.[11].

The differences between the 100% money proposal and the new *Vollgeld* reforms are relatively minor. The main reason for the further development of the Chicago Plan and the 100% money idea from the 1930s was the concern that even a 100% minimum reserve would not be sufficient to prevent the banking system creating new money.

As long as its minimum reserve target, as is customary, only needs to be fulfilled on a monthly basis, a bank can find the necessary reserves to support its money creation within that timeframe.[12] Recent monetary reform proposals therefore aim to prevent the creation of deposit money through the transformation of all demand deposits into legal central bank money ("*Vollgeld*" or "Positive Money").

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[8] Huber, Joseph; Finanzreform und Geldreform – Rückbesinnung auf die monetären Grundlagen der Finanzwirtschaft, in: Verein für monetäre Modernisierung (Hrsg.); Die Vollgeld Reform, Solothurn, 2012, p. 34. (*In German)*

[9] Dobbin, Murray; Liberate the Bank of Canada, Intrepid Think Tank Urges, Sustainable Economics, June 2015, p. 71

[10] Huber, Joseph; Vollgeld, Berlin, 1998. (*In German)*

[11] Huber, Joseph; Robertson, James; Creating New Money: A Monetary Reform for the Information Age, London, 2000.

[12] Huber, Joseph; Vollgeld und 100% Reserve, http://vollgeld.de/vollgeld-und-100-prozent-reserve (*In German)*

The goal is the same: the power of money creation should lie with the state, not the banks, and the money creation capabilities of the banking system should be abolished.[13]

### 2.3. The Benes/Kumhof IMF Working Paper

The debate around monetary system reforms gained new impetus when IMF economists Jaromir Benes and Michael Kumhof published the IMF-Working Paper "The Chicago Plan Revisited" in 2012 (representing the views of the authors, not the IMF). The paper builds on a summary of the Chicago Plan by Irving Fisher in 1936.[14]

Benes and Kumhof confirm the advantages of the Chicago Plan as found by Irving: [15]

*"At the height of the Great Depression a number of leading U.S. economists advanced a proposal for monetary reform that became known as the Chicago Plan. It envisaged the separation of the monetary and credit functions of the banking system, by requiring 100% reserve backing for deposits. Irving Fisher (1936) claimed the following advantages for this plan:*

*(1) Much better control of a major source of business cycle fluctuations, sudden increases and contractions of bank credit and of the supply of bank-created money.*
*(2) Complete elimination of bank runs.*
*(3) Dramatic reduction of the (net) public debt.*
*(4) Dramatic reduction of private debt, as money creation no longer requires simultaneous debt creation.*

*We study these claims by embedding a comprehensive and carefully calibrated model of the banking system in a DSGE model of the U.S. economy. We find support for all four of Fisher's claims. Furthermore, output gains approach 10 percent, and steady state inflation can drop to zero without posing problems for the conduct of monetary policy."*

Benes and Kumhof used the DSGE analytical tool, which is modelled on neoclassical assumptions. As with most neoclassical modelling the relation to reality of the assumptions made in this study are problematic. The results, in particular the high growth rates of around 10% are questionable. Basing the paper on a proposal from 1936 also prevents Benes/Kumhof from allowing their model to be influenced by developments in reform proposals that have occurred since. Despite the convincing results, Kumhof predicts difficulties in the practical implementation. In particular, the change from our current two-tiered monetary system to a 100% system could prove difficult due to complex regulatory details.[16] Kumhof also predicts major obstacles in preventing the banking sector (or other financial intermediaries) from trying new ways to create their own liquidity with new variants of quasi-money.

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[13] Huber, Joseph; Die Vollgeld-Reform, Solothurn, 2012, p. 42. (*In German)*

[14] Fisher, I. (1936), p. 406-420.

[15] Benes, Jaromir; Kumhof, Michael; IMF Working Paper: The Chicago Plan Revisited, WP12/202, August 2012, p. 1, detailed reporting: pp. 51-52.

[16] Video-Interview with Michael Kumhof at the annual monetary convention, Berlin, Oktober 2012 http://www.youtube.com/watch?v=h5hJ_9ctzuU (*in German)*

### 2.4. Narrow Banking

As a reaction to the financial crisis, the monetary system concept of Narrow Banking has also become a prominent point of discussion.[17] The key concept of narrow banking originates from 19th Century United States. At the time, many small banks could only act extremely cautiously because they were very exposed without the existence of and thus reliance on a central bank. Lending was primarily limited to the financing of concrete projects with manageable timeframes of a few months and had to be financed from existing deposits. The attempt to lend more than available in deposits (i.e. credit money creation) and the attempt at term transformation was risky and could quickly lead to bankruptcy.[18] Since the founding of the Federal Reserve System with a central bank as the "Lender of last Resort" the risk of bankruptcy suddenly disappeared. In a banking system networked across the financial market, with a central bank through which borrowed money can be transformed into liquidity at any given time, credit creation, risk-free rescheduling and the danger of a bank run is averted. Thus, the narrow banking limitations were no longer necessary and term transformation became one of the key activities of banks. Today, the discussion around a return to narrow banking is enjoying a renaissance as its advocates are promising a reform that would end the credit creation abilities of banks, assuring stability for the entire financial system without "moral hazard" or a "too big to fail" commitment. Cecchetti and Schoenholtz describe the founding ideas of the new narrow banking concept as follows:

"All of these proposals, both the old and the new, have a common core: banks should be split into two parts, neither of which would supposedly be subject to runs. The first part is a narrow bank that provides deposits that are as safe as a central bank asset; the second operates like a mutual fund or investment company in which any risk of fluctuation in the value of the assets flows directly through to the ultimate investor."[19]

A narrow banking system proposes two types of banks. The 'narrow' banks take deposits. The second part of the bank operates like an investment fund, taking in money in the form of equity and using this equity to give out credit. Neither of these two banking parts have the ability to create credit.

Narrow banks only invest deposits in very safe and liquid assets, making the interest yields very low. The administrative costs of accounts could even turn the minimal yield into loss. However, in a banking crisis such deposits would be protected from any loss and transactions would be guaranteed, even in the case of bankruptcy by an "investment fund" bank. The danger of the state having to bail out a bank because of the risk to the economy (due to its role in completing payments) would also be averted.

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[17] Cecchetti & Schoenholtz refer in their critical observation to: Lawrence Kotlikoff, Jeremy Bulow and Paul Klemperer, as well as to contributions by: John Kay, John Cochrane, Martin Wolf , Cecchetti, Stephen G.; Schoenholtz, Kermit L.; Narrow Banks won't Stop Bank Runs, April 28, 2014; http://www.moneyandbanking.com/commentary/2014/4/28/narrow-banks-wont-stop-bank-runs

[18] Pennacchi, George; Narrow Banking, in: Annual Review of Financial Economics; Volume: 4, 2012, p. 3 ff. http://business.illinois.edu/gpennacc/GPNarrowBankARFE.pdf

[19] Cecchetti, Stephen G.; Schoenholtz, Kermit L.; Narrow Banks won't Stop Bank Runs, April 28, 2014; Narrow Banks Won't Stop Bank Runs

The focus on very secure and liquid assets and a deposit policy that does not engage in term transformation, makes the danger of a bank run very low. This is regardless of the actions of the central bank because the 'narrow' part of the banking system always has enough liquidity to service all its deposits at any given time.

Asset categories able to fulfil these high demands are mainly highly liquid government bonds. However, it is questionable, if sufficient numbers of such bonds are even in the market. Since the financial crisis, public debt securities are no longer regarded as unreservedly risk-free. Greek and Cypriot banks that had invested the deposits of their (risk averse) customers in their country's liquid government bonds have had to write off a considerable amount of their receivables after the decreed haircut.

The new 'investment fund' banks would have to take over the entire remit of lending. Savers would have to purchase shares of the investment fund and would be exposed to the risk of value fluctuations. Advocates of the system promise an end to moral hazard as depositors would decide for themselves whether to invest in a safe, but low yield, fund or a high-risk fund, with a greater return. Those suffering losses would then only have themselves to blame for taking too high a risk and would have no claim to compensation from tax payers or deposit insurance.

The principle by which every saver, now forced into being an investor, is able to select the amount of risk only works if there is absolute transparency with regards to the risks in question. Only then can depositors genuinely decide which risk to take at the offered interest rate. In the 'real world' however, there is a serious asymmetry in information between savers and banks and depositors have a far smaller chance to adequately assess how risky the bank's loans really are.

Banks do all they can to disguise risk and this will continue for as long as they are not required to only provide transparent financial instruments. For investors, it would be safer to deposit all their money in narrow banks. This would mean, however, that they would not receive any meaningful interest on their savings and money for normal lending would also not be available. One of the key principles of narrow banking is that by strictly separating the two parts of the bank, the security of assets in the narrow banking part is never compromised. In order to adhere to this principle, lending by narrow banks to 'investment fund' banks could not permitted.

John Cochrane, economist at the University of Chicago and one of the main advocates of narrow banking, sees a great stabilisation advantage in issuing shares whose value will fluctuate according to economic performance. When rates fall, investors only lose part of their money and even this is often only of a temporary nature until rates recover after a crisis. Avoiding total losses acts as a system-stabiliser.

George Pennacchi writes: "*Most importantly, a narrow-banking system could have huge advantages in containing moral hazard and reducing the overall risk and required regulation of the financial system*."[20]

[20] Pennacchi, George; p. 30

John Cochrane writes in his blog: *We want a system that allows booms and busts without crises, not the promise that wise regulators will step in to stabilize stock prices!*[21]

However, those advocating price fluctuations as a means of stabilisation neglect the fact that the opposite may occur. A sudden loss of trust could lead to steep drops in share prices, prompting many investors to sell their shares and creating panic in the markets. The market is then faced with precisely the bank run that was supposed to be avoided by the reforms in the first place.

Constant value fluctuations in the new investment fund banks is a serious disadvantage for another reason. The economy requires the existence of stable and long-term debtor/creditor relationships to make investments calculable. A financial system with strongly fluctuating asset prices cannot therefore lay the foundations for a sustainable financial system.

The idea of narrow banking is not compatible with the heavily networked banking system. Its implementation would therefore necessitate a fundamental rebuilding, with much incalculable insecurity, as would the implementation of the *Vollgeld* ideas.

### 2.5. The monetary reform proposal of Stephen Zarlenga and Dennis Kucinich

Stephen Zarlenga has developed a monetary reform proposal which more closely resembles both the *Vollgeld* model of Joseph Huber and the Positive Money initiative. Zarlenga founded the American Monetary Institute in 1996 and advocated for his proposal as an alternative to the existing 'fractional reserve' financial system in the United States. It was at this time that collaboration with then US congressman Dennis Kucinich started.

Stephen Zarlenga's model examines the suggestion of merging the central bank with the finance ministry and giving the government the exclusive ability to create money. New money is proposed to be created interest and debt free and to flow directly into the economy through government distribution.

So that this process does not become inflationary or deflationary, a newly installed fiscal supervision body is proposed to monitor the money creation process.

Zarlenga sees the proposal as necessary to end the money creation capabilities of the banking system. It converts all the credit created by banks into pure central bank money. Banks become intermediaries which can only lend as much money to borrowers as they can accumulate in deposits. The act of money creation would again become a sovereign act by government.

Zarlenga suggests that this new monetary source finances the building of modern infrastructure, education and health care, at a projected cost of $2.2 trillion over a 5-year time frame.[22]

[21] http://johnhcochrane.blogspot.de/2014/06/the-economist-on-narrow-banks.html

[22] Zarlenga, Stephen; The Need for Monetary Reform; http://www.monetary.org/wp-content/uploads/2011/10/The-Need-for-Monetary-Reform-Handout.pdf

Zarlenga's monetary reform proposal lacks the detail of the Positive Money or the *Vollgeld* proposal and similar implementation difficulties as outlined under the *Vollgeld* system are likely. These will be discussed in detail in Section 3.

### 2.6. Additional monetary reform proposals in the area of *Vollgeld* reform

After the economic recovery of the post-war decades, and with the monetary system stabilised through regulations and controls on capital movements, the 100% money reform proposals of the 1930s were initially forgotten. However, with the emergence of an environmental consciousness about the natural limits of resource-based economic growth, new proposals began to develop that saw the debt money system as a driver of the economic growth obsession. Critics developed proposals to limit the credit creation abilities of the banking system and instead make money creation interest free and debt-free. Examples of such thinkers are:

- **Hans Christoph Binswanger**

The Swiss economist Binswanger sees an innate growth compulsion in our economic system, serviced by the permanent money creation capabilities of the banking system. This compulsion is further fuelled by the fact that monetary supply is not influenced by external limitations, e.g. the availability of gold. Binswanger sees money creation as an important contributing factor to excessive growth in GDP. [23]

Due to the limits of natural resources, he calls for reform towards a more sustainable economy to reduce the obsession with growth via a new monetary system. Binswanger suggests a combination of the *Vollgeld* suggestions of Huber and Robertson and the adoption of a basic income with components of depreciative money.[24]

**- Margrit Kennedy**

Similarly to Binswanger, Margrit Kennedy saw the existing monetary system as a key the reason behind the growth obsession. However, her focus was more on interest and compound interest, which she argued is responsible for the unchecked compulsion of growth that will inevitably lead to the collapse of the economic system.

From an empirically-identified correlation of inflation and interest, Kennedy perceived interest as the key factor in inflation and argued that the elimination of interest is a way to end inflation. She also suggested that the amount of money should only be allowed to grow in step with the real economy, while non-material growth should be favoured.

[23] Binswanger, Hans Christoph; Wachstumszwang und Nachhaltigkeit, Lecture at Universität Oldenburg on 12. 11. 2008, p. 3. http://www.postwachstumsoekonomie.de/Binswanger-Vortrag-OL.pdf (*in German)*
[24] Ibid, p. 12 ff.

In her most well-known book 'Interest and Inflation Free Money,'[25] Kennedy maintained that the monetary system has to be reformed from above. In her later collaboration with money critics Bernard Lietaer and John Rogers, Kennedy saw the best opportunity for change in the monetary system in a bottom-up reform based on regional parallel currencies. [26]

**- Bernard Lietaer**

Lietaer sees the introduction of many different regional and complementary currencies as the best way to exit from the current crisis-ridden financial system and curtail the systemic crisis risk. He has developed a global reference currency, Terra, whose value is based on a basket of various raw materials. Lietaer believes it is unlikely that a sufficient number of states will accept the reference currency which leads him instead to seek acceptance from multinational corporations. [27] But the prices of raw materials are often very volatile, meaning that Terra would be significantly affected by any fluctuations in the exchange rate. Why global corporations would choose to use a currency that is not accepted by any central bank *and* whose rate is subject to heavy fluctuations, is not obvious.

Lietaer's discussion of the advantages and disadvantages of regional currencies is rather selective. While he lists the uncontroversial small advantages in minute detail, he avoids a deeper examination of the disadvantages. In particular, he shies away from an examination of the uncertainties that would occur when demands and commitments are held in mixed legal and complementary currencies. It can be assumed that central banks, in order to secure their monopoly on legal tender, would ban regional currencies if they emerge from their market niche.[28]

**- Thomas Mayer**

Thomas Mayer, former Chief Economist of Deutsche Bank, recently provided a monetary reform proposal in the tradition of the radical free-market Austrian School of Economics. [29] He divides the financial system into active and passive money. Active money is essentially commodity money as traditionally covered by silver or gold. Mayer defines passive money as all money created by banks or central banks.

Astonishingly he does not differentiate between central bank money, which the state creates as legal tender, and the credit money created by commercial banks. Perceiving a risk of debt overload and inflation in passive money, Mayer calls for a new form of active money to be created by societal agreement. Private banks and public central banks would then both be able to compete to supply active money. Commercial banks would not be able to create this money, only hold it. To promote successful competition, the state would give its citizens a choice as to which currency they would prefer to pay their taxes and receive their government transfer payments in. Daily transactions would be permitted in all competing active currencies which would be accepted by banks as legal currency.

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[25] Kennedy, Margrit; Interest and Inflation Free Money, Munich, 1995.

[26] Kennedy Margrit, Bernard Lietaer; John Rogers; People Money – The Promise of Regional Currencies, 2012.

[27] Lietaer, Bernard A.; Das Geld der Zukunft, München, 1999, p. 376 ff. (*in German*)

[28] Lietaer, Bernard A.; Das Geld der Zukunft, München, 1999, p. 338 ff. (*in German*)

[29] Mayer, Thomas; Wir brauchen ein neues Geldsystem, in: Frankfurter Allgemeine Sonntagszeitung, 05.10.2014 (*in German*)

The implementation of such a system would require a transformation of the entire financial system. Losing the ability to create money to fight a financial crisis is in itself a major risk. A further problem lies in the exploding transaction costs if all economic and business entities have to permanently consider the exchange rates of competing currencies. Maintaining the currencies' value would be a problem when the value of the assets on which the currencies are based fluctuate heavily. Currency competition only makes sense if the rates constantly adapt to new conditions. Investors are at risk of their financial reserves diminishing if their savings happen to be in the 'wrong' currency. Long-term investments of businesses that depend on predictable transaction flows and a stable creditor/debtor relationship would become incalculable and unserviceable.

A monetary order in which many different currencies compete against each other would mean the end to the state monopoly over the creation of legal tender and the state's consequent disempowerment. Presumably this is the actual reason why economists of the radical free-market Austrian School, with their suspicions of state power, find this model so attractive despite its obvious disadvantages.

## 3. The current reform proposals of *Vollgeld* and Positive Money

Positive Money and *Vollgeld* present the most detailed modelling of their proposals. Work has been done to find solutions to all the predicted implementation problems as well as to improve on weaknesses in the argumentation from previous reform plans. Due to this, as well as the fact that current discussions centre so heavily on Positive Money and *Vollgeld*, the following critical assessment is on these two proposals.

### 3.1. What do *Vollgeld* and Positive Money reformers seek to achieve?

The aims of money reformers are not solely to create a more stable financial system. They also want to contribute to a more democratic economy and society. [30] The Positive Money initiative sums up its demands on its website as follows: [31]

*"What we need:*
*1. Take the power to create money away from the banks, and return it to a democratic, transparent and accountable process*
*2. Create money free of debt*
*3. Put new money into the real economy rather than financial markets and property bubbles"*

This statement identifies both what the aims of the money reformers are and a means to achieving these goals.

[30] Dyson, Ben; Jackson, Andrew; Hodgson, Graham; Creating a Sovereign Monetary System, Updated: 15th July 2014; pp. 10-15. ; http://2joz611prdme3eogq61h5p3gr08.wpengine.netdna-cdn.com/wp-content/uploads/2014/07/Creating_a_Sovereign_Monetary_System_Web20130615.pdf
[31] http://www.positivemoney.org/our-proposals/ (accessed: 12.01.2015)

### 3.2. The analytical starting point of *Vollgeld* and Positive Money reform

What do money reformers see as the core destabiliser of the financial system? Huber summarises this as follows on his homepage: [32]

[Translated from the German original] *" Previous analyses of the 2007/08 financial crisis and the resulting legislation have considered many issues but the actual root of the problem has been ignored: the unchecked creation of deposit money by the banks."*

From this Huber deduces that the state and its central bank must regain full control over the monetary supply. [33] Only then – in his view – can it be ensured that we will not suffer from another credit-induced bubble. It is unsurprising that *Vollgeld* reformers deduce a lack of control over the monetary supply as the key reason for the financial crisis.

This perspective reflects their monetarist interpretation of the quantity equation, i.e. the volume of money is seen as the key factor for the nominal development of the economy (inclusive of asset prices).[34]

### 3.3. What does the *Vollgeld* reform proposal envisage?

Based on the key role that the monetary supply plays in a monetarist analytical context, they argue for an end to the money creation capacity of the banking system. Looking at this through a Keynesian prism, controlled growth of money, direct and technically debt-free, should occur through public finance expenditure.

To present the *Vollgeld* proposal in its original form, a quote from one of Huber's summaries: [35]

[Translated from the German original by the World Future Council]:

*"The **Vollgeld** reform proposal turns bank money into Vollgeld (central bank money), available in a bank account. The current minting monopoly of the government and the banknote monopoly of the state central bank is expanded to include all non-cash transactions in current bank accounts and mobile money storage accounts. The money creation of banks is stopped. The profit from money creation – the seigniorage – is fully gained by the public purse.*

[32] Huber, Joseph; Was ist Vollgeld? http://vollgeld.de/was-ist-vollgeld (*in German)*
[33] It could be argued that no state has ever had full control over the monetary supply.
[34] To clarify, Vollgeld reformers have only adopted the quantity-theoretical part of monetarism. The neoliberal supply-theoretical part, politically championed by Reagan and Thatcher, is rejected.
[35] Huber, Joseph; Was ist Vollgeld?, http://vollgeld.de/was-ist-vollgeld (accessed: 07.01.2015) (*in German*)

*The central bank distributes new money over the long-term and to a large extent by funding the state budget. Thus, the original seigniorage gain is realised in accordance with traditional state monetary sovereignty. This money is received and spent by the state debt and interest free. New money comes into circulation through the expenditures of the public budget. In the short-term, and to a relatively small extent, new money can also, as before, be lent to banks as central bank credit. Through this, an interest-seigniorage gain is created.*

*Vollgeld of the central bank is secure money. It cannot disappear in banking crises. Banks threatened with collapse no longer have to be bailed out by the taxpayer. The monetary supply would be totally under control and banks would no longer be able to create additional money for excessive financial speculation. Financial and business cycles would be significantly less overheated.*

*The profit from money creation would go undiminished into the public budget. As long as Vollgeld comes into circulation via the public budget it would allow the state to repay up to half of state debt without going through a 'haircut,' without asset losses for creditors and without unsocial and counterproductive austerity, i.e. belt-tightening, job losses, diminished consumer spending power and reduced provision of state services.*

*The work division between central banks and banks is thus further developed: the central bank is responsible for the provision of money to the economy; the banks are responsible for the financing of activities on the basis of that money. The banks would however, no longer be able to create the money themselves which they need for their businesses. They would have to receive the money as Vollgeld before using it – from their clients, in the public investor market, in the financial market, and when applicable, from the central bank. The role of money creation would lie exclusively with the independent state central bank and for the Euro with the European Central Bank.*

*The central bank would thus become an independent fourth state power: the monetative power, in addition to the legislative, executive and judiciary powers. The monetative branch would not just be the central bank of the banks as it is today but also return to its original role of being the bank of the state. It would not only be the lender of last resort for banks and the state but the Originator of first instance: the money source in the first and only instance."*

This extract encapsulates the basic concept of the *Vollgeld* proposal. The accounts that are to replace today's current accounts would be separated from normal credit business. Money on a current account only serves the purpose of transactions and cannot be lent by the banks in charge of these accounts. As banks would no longer be able to make a profit from the interest rates of current accounts, they would have to charge account holders a fee. If a customer would like to receive interest from his or her savings, they would have to put their money into an investment account for a set period of time.

Banks could only hand out credit from the money in the so-called investment accounts. The total amount of possible credit is thus clearly limited. Only in the case of a looming credit crunch are banks to be permitted to borrow additional money from the central bank.[36]

The proposal of the British Positive Money reformers[37] differs only in details specific to the British monetary system and the Bank of England, while the *Vollgeld* reform focuses on the Eurozone. Due to the similarity in content of both proposals the following critique is applicable to both *Vollgeld* and Positive Money.

## 4. Critique of the Money Reform Proposals

Despite some media coverage around the money reform proposal of IMF economists Benes and Kumhof, the academic discussion about the rebuilding of our monetary system goes largely unnoticed.[38] While traditionally oriented economists generally show little interest in economic concepts that question their neoclassical model, thus regularly ignoring new proposals, the (post) Keynesian economists avoid engaging with money reform proposals due to the references in the *Vollgeld* concept to monetarist economic theory.

Extensive discussions on the topic of *Vollgeld* come either from economists who are already money reform supporters or authors who limit their critique to insufficiently informed and generalised statements. An informed yet critical engagement with the reform proposals is lacking.

### 4.1. Problems during implementation of a *Vollgeld* reform

The transition of our existing monetary system to a *Vollgeld* system would engender a number of technical and monetary policy changes. Of the many challenges that could occur during the transition process, the most significant are:

- The transition to *Vollgeld* would create a significant one-off seigniorage profit which could be used to pay off public debt. This essentially welcome windfall would however, entail significant regroupings of long-term capital investments as a large part of state securities would no longer be available for investment. -

[36] Mayer, Thomas; Huber, Roman; Vollgeld, Marburg, 2014, p. 134 (*in German*) [Note from author: This Thomas Mayer is not the ex-Chief Economist of Deutsche Bank Thomas Mayer]

[37] Dyson, Ben; Jackson, Andrew; Hodgson, Graham; Creating a Sovereign Monetary System, Updated: 15th July 2014. http://2joz611prdme3eogq61h5p3gr08.wpengine.netdna-cdn.com/wp-content/uploads/2014/07/Creating_a_Sovereign_Monetary_System_Web20130615.pdf

[38] An exception is a recent critical study by Sauber, Martin, Weihmayr, Benedikt; Vollgeld und Full Reserve Banking – Geldreformen auf dem Prüfstand; in: Wirtschaftsdienst, 94. Jg, Nr. 12, 2014, p. 898-905. (*in German)* and: Dow, Sheila; Johnsen, Gudrun; Montagnoli, Alberto; A critique of full reserve banking; in: Sheffield Economic Research Paper Series, SERPS No. 2015008, March 2015.

- The existing fractional reserve system has evolved into a highly complex system with many detailed regulations. It is claimed that a transition to a *Vollgeld* system would be possible with a few simple regulations. This is very doubtful. The complexity and the danger of system failure is severely underestimated in current discussions.

These obstacles should not be a reason to drop the idea of *Vollgeld* reform if it promises success. But would a successfully implemented *Vollgeld* reform be able to stabilise the financial system?

### 4.2. Problems after the implementation of *Vollgeld* reform

*Vollgeld* reform promises to stabilise the financial system by completely stopping the money creation capabilities of banks and giving the central bank full control of the monetary supply.

In order to genuinely end all money creation capabilities of banks, the ability of banks to create money through money surrogates would also have to be prohibited. Any receivable asset can be thus used, as soon as a counterpart is available to accept the asset as a money surrogate. To prevent this alternative means of money creation by banks (and other financial market participants) would necessitate detailed control and tight regulations of the entire banking system.

Even if regulation could succeed in preventing the creation of ever-evolving money surrogates, it is to be expected that the development of the monetary supply would continue to be dominated by the lending desires of the banks rather than by the central bank. This is because, even after the introduction of the *Vollgeld* system, a part of money creation would still have to occur through the direct borrowing of banks from the central bank. That this still remains a necessity is recognised by the *Vollgeld* reformers.[39]

Otherwise the availability of money would not react flexibly enough to demand fluctuations intrinsic to the system, as feeding in new money solely through public expenditure (regardless in what form) is too inflexible. Excluding the possibility for banks to borrow from the central bank may lead to volatile increases in interest rates and credit crunches.

Money reformers assume that money demand is so stable that only a very small part of the overall money creation would have to occur via this route. This assumption finds little traction in reality. The key mistake of money reformers lies in the idealist assumption that an externally limited monetary supply would first service all sound credit demands for investments in the real economy, leaving no money for banks to lend as credit to speculative financial business.[40] Banks however, currently have no incentive to prioritise lending to real economy over speculative investments. They will continue to prioritise lending to the most profitable areas and it can be assumed that the 'virtual' financial ventures will continue to be more lucrative than investments in new real capital, which possesses little liquidity and the worth of which can fluctuate highly over the course of an economic cycle.

[39] Dyson, Ben; Jackson, Andrew; Hodgson, Graham; Creating a Sovereign Monetary System, Updated: 15th July 2014; p. 30. ; http://2joz611prdme3eogq61h5p3gr08.wpengine.netdna-cdn.com/wp-content/uploads/2014/07/Creating_a_Sovereign_Monetary_System_Web20130615.pdf

[40] Mayer, Thomas; Huber, Roman; cited on p. 135 f.

To prevent the preference of lucrative lending by banks, the central bank would have to intervene heavily in the lending business. But the *Vollgeld* reform still sees lending as the sole responsibility of banks.

If the lending preference of banks for lucrative financial investments leads to the entire banking system running out of money, because a limited monetary supply means not all credit demand can be serviced, it could not only lead to a steep increase in loan interest rates but even to a situation where credit demands of the real economy would not be serviced at all. Banks will assume that the central bank will provide the banking sector with more money in the case of a credit crunch and big rises in interest rates, meaning they have no reason to deny lending for financing speculative enterprises.

The lending ability of individual banks will always be defined by the amount of money in the entire banking system and any attempt to externally limit this engenders the risk of credit crunch.

The amount of newly created money would still primarily be defined by the lending desires of banks. As in the current situation, banks are not dependent on the money deposited by investors because they can borrow money from the central bank if faced with a looming credit crunch or rising interest rates. No central bank would risk creating a recession by being unaccommodating in this regard.

### Can investors influence the lending behaviour of banks with their deposits?

Money reformers see the *Vollgeld* system as an incentive for banks to refrain from lending to risky, virtual financial investments. Since bank deposits are no longer guaranteed by the state, depositors will only put their money into banks that invest their money into sound and safe areas.

Depositors have the choice to invest their wealth in low or high interest investments with their respective levels of risk[41], the appetite of the bank clients hereby defining the risk-level of the lending. Banks with a lending policy deemed too high-risk would loose and deter clients. However, it is doubtful whether banks offer sufficient transparency regarding their risk behaviour in relation to interest rates, leading to an information asymmetry between the bank and the client. Even with transparency measures in place, professional investors would hardly be able to identify which credit is future-proof and which is not. The uncertainties of a financial system would not be mitigated by a *Vollgeld* system.

The discontinuation of a deposit guarantee system for investors and the chance that banks could be allowed to collapse again, would lead to more insecurity for regular banking clients.[42] It is next to impossible for investors or small and medium enterprises to foresee their bank's longevity. Furthermore, the chance that banks could again and regularly go bankrupt, reinstates the danger of bank runs based on rumours. The assumption that investors can influence the credit behaviour of banks with their actions is unrealistic and the pressure on governments to bail out banks in times of difficulties will remain.

[41] Ibid.

[42] There are differing opinions within the money reform movement. Whilst the Positive Money initiative makes the explicit assumption that investment accounts are not protected by state guarantees, the Swiss *Vollgeld* initiative sees deposits of up to 100.000 Euro or the equivalent in Swiss Francs, secured. Positive Money, Creating a Sovereign Monetary System; updated 15th July 2014, p. 18; Mayer, Thomas; Huber, Roman, p. 134. f.

It is misguided to believe that the lending behaviour of banks and their money supply can be successfully controlled through a *Vollgeld* system. Within a *Vollgeld* system, the central bank finds itself in a permanent dilemma: It either limits direct lending to the banking system and risks credit crunches that could lead to a recession, rising interest rates and the bankruptcy of individual banks, or it accommodates the credit demands of the banks, thus losing control over the development of the money supply. Within the *Vollgeld* system this dilemma is unsolvable.[43]

If, in a *Vollgeld* system, the money supply cannot be controlled by the central bank, then its supposed advantages of preventing speculation bubbles and avoiding booms and busts are non-existent. The only improvement to the current situation would be that central bank profits feeding into the treasury would increase significantly due to a larger seigniorage.

In order to place our monetary- and financial system on a sustainable path, the need for an effective re-regulation - that adjusts credit demand back to the pre-financial market deregulation level - is indisputable (see section 6). In fact, it is the only effective method to reduce the money creation capabilities of banks to an economically sensible level, for no bank can engage in new lending without demand for credit, even if the money creation capacity to do so is available. It is thus unnecessary to attempt the complex and high-risk control of bank's money creation abilities by transitioning to a complete *Vollgeld* system.

### 4.3. Is excessive lending preventable without a complete *Vollgeld* reform?

If the money creation capabilities of banks can be controlled by re-regulation to limit the credit demand, a *Vollgeld* reform to end money creation capabilities by abolishing fractional reserve banking becomes unnecessary. The key objectives of the money reformers are still implementable. It would suffice if a large part of the estimated necessary new money creation occurred through public expenditure. This part of new money would enter the economy debt free.[44]

Through public expenditure the banks would come to possess the new central bank reserves, which could then be used for additional credit money creation. Excessive credit creation would now be curtailed by re-regulation to limit credit demand, leaving banks to deposit excess reserves in the central bank or engage in refinancing. The latter would lead to a reduction in the central banks' money supply and monetary supplies created via borrowing would diminish. In post-Keynesian theory this process is described as the restrictive effect of the endogeneity of monetary supply.[45]

[43] Cf. Binswanger, Mathias; Geld aus dem Nichts, Weihnheim, 2015, pp. 298-301. (in German)

[44] When the central bank feeds new money into the economy through public expenditure, it purchases newly created bonds from the state. In terms of balance sheets this means the state is indebted to its central bank. Because the central bank is part of the state, this is internal state borrowing where the balance is always zero, meaning this has no external impact: technically money creation occurs debt-free.

[45] Kroll, Matthias; Monetäre Stabilität und die Finanzierung von Staatsdefiziten durch Zentralbankkredite bei endogener Geldmenge, Berlin, 2008, p. 63 ff.

Even in practice, this effect is clearly visible since central banks, as a consequence of the recession, significantly expanded their balance sheets and increased the circulation of central bank money. Banks have excess reserves but cannot use these for increased lending due to lack of demand.

### 4.4. Is a "Partial Sovereign Money System" sufficient for achieving monetary reform?

A concept is currently being discussed within the monetary reform community as an intermediary step to complete *Vollgeld* (Fully Sovereign Money System). It envisions a large part of money creation occurring via direct public expenditure while still maintaining the existing monetary system inclusive of the money creation capabilities of banks. This concept of Partial Sovereign Money System (PSMS) can achieve the essential objectives of the money reformers:[46]

- New money can be created in a democratically legitimized and transparent process. Only a small portion would still be created through the money creation capabilities of banks.

- The part of new money fed directly into the economy through public expenditure is technically created debt free because the detour via lending to the banking system is avoided.

- New money is used directly for the financing of real investments.

A second major advantage is that the Partial Sovereign Money System (PSMS) would make the monetary policy of central banks significantly more efficient, since central banks could directly stimulate the economy without the detour of purchasing government bonds and other securities.[47] The next chapter will demonstrate that the PSMS can be developed into a new fiscal policy tool, which achieves the objectives of the money reformers while simultaneously making the actual monetary policy of central banks significantly more effective.

[46] Positive Money: http://www.positivemoney.org/our-proposals/

[47] Jackson, Andrew; Sovereign Money, November 2013; S.16. http://2joz611prdme3eogq61h5p3gr08.wpengine.netdna-cdn.com/wp-content/uploads/2013/11/Sovereign-Money-Final-Web.pdf

## 5. Developing the Partial Sovereign Money System into a new fiscal policy tool of the central bank

With the development of the PSMS into an effective monetary policy, central banks will receive a tool:

- with which to feed new money into the economy without creating new debt. This means they are no longer dependent on the willingness of business to borrow when prospects for sufficient financial returns in the real economy to repay loans with interest are lacking.

- that allows them to partially grow the real economy through money creation as this directly finances the production of new goods and services, thus engendering no risk of a speculative bubble.

- to supplement the interest rate as the single means of economic stimulation. When the central bank has the ability to directly fuel the economy, the key interest rate needs to be lowered significantly for a much shorter period of time. When yield prospects are low in the real economy, low interest rate credit is likely to be used to purchase existing assets, making price bubbles likely.

- that allows them to sustainably support democratically elected parliaments in the financing of domestic and global tasks (i.e. climate protection), without an increase in state borrowing.

With the development of the PSMS, the purchase of government bonds in the secondary market, as announced recently by the ECB, would become superfluous. Such purchases temporarily allow for a cheaper refinancing of old government bonds and the potential fiscal operating capability of national budgets is expanded. A direct and controllable stimulus of demand and economic activity is however not created.

**Why does banks retaining their money creation capabilities not lead to excessive credit money creation?**

Previous reform proposals assume that the money creation powers of banks must be stopped before debt-free central bank money creation can start, because banks would otherwise use additional central bank money for excess credit creation. This wrongly assumes that credit demand exists for every potential credit offer. The banks' ability to create credit is, in fact, always dependent on demand. No bank can enforce credit on investors that have no use or desire for it.

**Why does new demand not lead to increased inflation?**

The new money created for public expenditure is only created for financing new goods and services. Monetary supply and real production grow simultaneously. In addition to this, in a capitalist production system businesses regularly maintain free capacity in order to absorb demand fluctuation. If economic growth increases in tandem with the degree of capacity utilisation, the market will react with expansion investments and not price increases. Empirically, even in an economic boom, the average industrial capacity utilisation does not rise above 85%.[48]

[48] ECB; Monthly Bulletin, Capacity Utilization in manufacturing; Fed; Federal Reserve Statistical Release, G.17, Industrial Production and Capacity Utilization.

**How would the new monetary policy be reflected on the central bank balance sheet?**

The introduction of the new monetary policy tool would supplement interest rate management as the conduit for economic stimuli by adding a fiscal transmission route. This would provide the option for central banks to buy specifically designed bonds from their governments with very long maturity, paid for with newly created money. To prevent excess demand, there would be a set total amount of government bonds that could be bought by the central bank, dependent on the unemployment level and the economic situation, i.e. the capacity utilisation of production capital.

This route could also enable the long-term financing of pressing global tasks (such as international climate protection) that do not offer an immediate profit. New money is not created as credit that must be paid back with interest. If the central bank buys the corresponding government bonds in order to add them to their balance sheet, it would simply create an internal state debt-relationship, which does not entail an obligatory repayment requirement. The state indebts itself to itself. In the framework of desired money creation, a budget extension though the purchase of government bonds can occur unhindered, even more so with freely available production potential.

**The conflict of objectives between discretionary monetary policy and long-term financing requirements**

If long-term government activities are to be financed via central bank money creation, this may conflict with the Central Bank's ability to practice a restrictive monetary policy. To avoid this tension, bonds should be divided into two types. A part of the new bonds should form the basis of money creation and permanently be incorporated into the balance sheet of the central bank without repayment obligations.[49]

The permanent incorporation of these bonds into the central bank balance sheet is possible because even in a real economy with long-term moderate growth and low inflation, an increase in the nominal money amount is necessary in order for all economic transactions to be financed.

**Permanent bonds to guarantee normal money creation**

With these permanent bonds, activities that require continuous funding could be financed, including expenditures for necessary public activities in education, health, social services, and the maintenance of public infrastructure as well as other pressing global tasks. The total of these bonds should reflect the percentage of increase in nominal GDP.

[49] This proposal is not new. Renown authors such as James Tobin and Richard Musgrave already purported this idea. cf. Musgrave, Richard Abel: Theory of Public Finance; quoted from the German edition. Theorie der öffentlichen Schuld, in: Handbuch der Finanzwissenschaft, Dritter Band, Tübingen, 1958. p. 136. And: cf. Tobin, James: An essay on principles of debt management, Fiscal and debt management policies; quoted from the German edition: Grundsätze der Geld- und Staatsschuldenpolitik, Baden-Baden, 1978, p. 121.

**Temporary bonds to support the fiscal transmission canal**

A further part of government bonds should be designed so that the central bank can flexibly adjust their scope and retention periods according to the needs of their monetary policy. This would mean that in a recession they could finance spending that would have an immediate expansive effect on economic demand, boost economic activity, and allow credit demand to pick up in order to revive the effectiveness of the interest rate channel.

**Changes in the refinancing of banks**

Currently, banks finance their needs for central bank money from investor deposits. If these do not suffice, banks can borrow from other banks in the money market that have an excess of central bank money. If there is insufficient central bank money in the money market because too few banks have excess deposits and interest rates begin to rise, banks can borrow the necessary money directly from the central bank.

The total amount of required central bank money – the money demand – is a result of the amount of credit demand. If a significant part of new money creation occurs through public expenditure, investor deposits automatically increase. Consequently, the number of banks with a deposit deficit needing to borrow on the money market will decrease. This will also lead to a drop in the number of banks that have to refinance themselves directly through the central bank and a decline in the amount of money that would have been created by that refinancing. The central bank money supply that is additionally created because the government sells its bonds to the central bank is compensated by the decrease in the refinancing demand of the banking sector.

In the balance sheets of the central bank, the claims on the banking sector are replaced by long-term claims on its own state without any change to the balance sheet. However, it must be ensured that the banking sector as a whole must still needs to refinance itself at the central bank to an extent which allows the interest rate policy to function, I.e. the central bank must be able to impose its own key interest rate on the money market.

An exit strategy will have to be agreed to determine the total amount of bonds the state would have to buy back during an economic boom with excess demand in order to lower the monetary supply and demand again.

**Exit strategy 1**

Central banks would be empowered to demand the repurchase of bonds by the government when they need to reduce excess demand in a boom in order to dampen inflation. This reduction would be most effective if the state finances the repurchasing of these bonds through tax increases. The demand created with new money that led to the excess would be reduced and newly created money would disappear. Financing the repurchase of bonds via a demand-reducing tax increase would also allow the original goals that were to be financed with new bonds to continue. Additional spending thus does not necessarily have to be a damaging “Stop and Go” policy, as has often been the case in the past.

**Transparent rule framework for the purchase and repurchase of temporary bonds**

The purchase and repurchase obligations for temporary bonds need to be based on clearly defined and transparent rules. Economic indicators such as the level of unemployment, the capacity utilisation of production capacities as well as the inflation rate should be taken into account when defining the rule framework.

A serious threat of inflation is only to be expected when wage increases occur due to long-term levels of full employment, and persistently exceed the increase in labour productivity. Such a threat also emerges when a full utilisation of production capacities weakens competition due to persistently high demand, allowing businesses to increase prices without running the risk of losing market share. Currently there is no industrial economy where this threat is recognisable; meaning the introduction of the proposed reform could commence immediately.

**Exit strategy 2**

A second strategy available to central banks, which can absorb some of the liquidity of the financial system, is increasing the minimum reserve requirements. When the banking system uses the liquidity in a boom to service excess credit demand, the central bank can limit their lending abilities. The central bank can also dampen excess demand by increasing the key interest rate. Both methods can be used complementarily.

## 6. Regulating the banking sector is still necessary

With the introduction of the proposed reforms, the danger of asset price bubbles is reduced. In an economic crisis, interest rates have to be lowered less drastically and for a shorter period of time to stimulate the economy, as an additional means to do so now exists. But, in a deregulated financial market neither these reforms, or a *Vollgeld* reform will suffice to ensure that the banking system again serves the real econmy.

### "Finance-MOT" and the Positive List

Banks are able to sidestep or dilute most regulations. To end their strategic advantage over the regulatory bodies it is crucial to implement a type of finance-MOT and a positive list of sensible financial instruments, and reverse the onus of proof for regulation. Banks would have to run their new financial instruments through a finance-MOT to check for safety, transparency and usefulness to the real economy, before they were allowed to be sold and given legal standing.

It can be expected that banks will only put forward instruments for the MOT that have a real chance of being passed. A collated standard of financial instruments in a positive list that is recognised as safe and of benefit to the real economy can be exempted from the finance-MOT. To make avoidance less attractive, financial instruments that are not on the positive list or passed their finance-MOT would have no legal standing.

## Conclusion

The practicality of most money reforms diminishes the more complex the proposals are. The "Partial Sovereign Money System" introduced by the Positive Money initiative (UK) as well as the very similar proposal by the World Future Council to supplement the monetary policies of the central bank with giving them the power to create money for public expenditures (subject to the above conditions), can be implemented within the existing system. Both could achieve the essence of the key objectives of most of the money reform proposals without a complex restructuring of the banking and financial system.
The goals of the money reformers that go beyond what a Partial Sovereign Money System could achieve, could – as demonstrated – not be achieved by a *Vollgeld* system either. Thus sticking with a more modest Partial Sovereign Money System over a complete *Vollgeld* reform would be of no objective loss.

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