

Many roads lead to Rome – not all by the shortest path.

Comments and reflections on *The Chicago Plan Revisited*

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1. Introduction

In 2012, IMF staff members Benes and Kumhof published a report entitled *The Chicago Plan Revisited*.¹ The Chicago plan was one of a number of approaches to 100%-reserve or full-reserve banking of the 1930s. The members of the Chicago-based group of economists behind the plan – among them Henry Simons, Frank Knight, Jacob Viner and young Milton Friedman – called it 100%-banking.² An equally influential variant, called 100%-money, was laid out by Irving Fisher.³ A detailed discussion of 100%-reserve banking is available on this website ([> link | sovereignmoney.eu/100-per-cent-banking-and-plain-sovereign-money](http://sovereignmoney.eu/100-per-cent-banking-and-plain-sovereign-money)).

Since Benes/Kumhof refer to the Chicago plan, one would assume the report to be another plan for 100%-reserve banking. At second glance, however, things are less clear. The paper contains a DSGE model of what is supposed to be a 100%-reserve system. In fact, however, the report is about a model of plain sovereign money as a liquid asset, rather than liability-side deposit coverage increased from 10 to 100%. The model thus appears to be somewhat ambiguous in that it assumes an asset-side sovereign money system, but does not shed the logic and vocabulary of a traditional two-circuit, liability-side reserve system.

I will not insist on asking to what extent it is appropriate to relate this model to the Chicago plan or to Fisher's 100%-money of the 1930s, and to what extent this is actually a model of its own, including a number of elements that were absent in the original versions of the approaches to 100%-reserve banking. Instead, I will take the paper in its own right, as a contribution to contemporary new currency theory and monetary reform. Since the authorship of the report can for the most part be ascribed to Michael Kumhof, and since the authors say that the report represents their personal view, not an official IMF position, I will refer to the report hereafter as the Kumhof plan.

¹ This text refers to the revised draft of the paper from 2013; see the bibliography. Numbers in brackets after quotations indicate the page numbers of the revised draft. If quotations end with (pc) this refers to a personal communication of Michael Kumhof from September 2012. This may be an unusual practice, not verifiable to third parties, but that communication helped to clarify a couple of aspects that seemed to be less clear at first glance.

² Hart 1939, Simons 1948 [1936], Friedman 1948, 1959, 1969.

³ Fisher 1935, Douglas et al. 1939, Phillips 1995.

2. The proposal represents a sovereign money approach, although it retains the form and logic of a two-circuit reserve system

The 100%-reformers of the 1930s remained rather implicit about certain operational details of their plans, for example about the difference between liquid payment reserves (hitherto called excess reserves) and illiquid deposit coverage or about the interplay between clearing and netting of deposits (bank money) and settlement in reserves (central-bank money). They did not explicitly reflect on the two-circuit reality of a reserve system, i.e. the interbank circulation on central-bank reserves, and the public nonbank circulation on banks' demand deposits.

One of the decisive differences between a reserve system and a plain money system is whether or not each bank payment as well as each customer payment is carried out in full by transferring liquid sovereign money, resulting in a deduction of liquid money on the asset side of that actor's balance sheet. Nothing speaks against the clearing of payments in and out *if* clearing *and* settlement is completed in sovereign money only, while clearing in bank money and settlement in central-bank reserves is ruled out.

In this respect, the Kumhof plan appears to be of a somewhat hybrid character. The plan provides for '100% backing of deposits' (4) and argues that 'the banking system's monetary liabilities must be fully backed by reserves' (6). It explains then, however, that the reserves 'behind' a deposit always migrate immediately with the deposit itself. Every single deposit, be it a demand deposit or a savings or time deposit, would be covered by a matching reserve at all times – a reserve migrating 1:1 with a respective deposit. This, however, is not what reserves in a reserve system actually do when the burden of deposit coverage is not borne by the bank that creates a credit (= deposit = bank money), but by the banks receiving that bank money on behalf of their customers. Kumhof's intention, though, is to design a plain sovereign-money system. This becomes clear from the explanation 'to think of the Chicago Plan as requiring that all money in existence must have the same status as treasury coin' (7).

This also means that sovereign money – regardless of whether it is issued by the central bank or a monetary commission under the roof of the treasury – is part of that institution's *equity* rather than representing a *liability or debt* (7); that this money is a liquid asset on the balance sheet of everybody else, be this a bank or another financial institution, the government, a company or a private household; and that no one else, including banks and other financial institutions, is allowed and operationally able to create such sovereign money. The money system is supposed to operate on such sovereign money only.

Full reserve, by contrast, is normally understood as bulking up a 2–10% minimum reserve requirement to 100%. This requirement is not meant to be a liquid asset. It is not even meant to be a safety net. It is meant to be a central-bank policy instrument, a lever aimed at controlling banks' credit/deposit creation (according to the fallacious reserve position doctrine).

The Kumhof plan, however, is about liquid payment reserves (available excess reserves), not idle deposit-coverage reserves as fractional reserve requirements do represent. However, if Benes/Kumhof say that all of the banking system's monetary liabilities must be fully backed by reserves of government-issued money (4), this then is likely to be misunderstood in that it seems to suggest 100% idle deposit coverage rather than 100% liquid payment reserves. It might actually be more appropriate to say that all payment reserves (government-issued money) belonging to customers must be documented 1:1 as a liability to those costumers on that bank's balance sheet. If this is the case, though, what then is the purpose of still having 'deposits' and 'deposit coverage', and an interbank circulation of '100% reserves' apart from the circulation of 'deposits' that represent sovereign money and no longer represent bank money?

The conversion of illiquid deposit-coverage reserves into liquid money remains an implicit element of the Kumhof plan. The authors do not explain that they are going to redefine what 'reserve' means, and what kind of reserve they are actually referring to, i.e. that the Kumhof plan implicitly converts traditional, illiquid deposit-coverage reserves into liquid payment reserves. The Kumhof plan stands for a sovereign money system that keeps the old, and in my analysis actually obsolete, form of a two-circuit reserve system.

Just sovereign money, i.e. liquid payment assets, would fully suffice. If managed by a bank on trust on behalf of customers, that money ought to be owned by the customers, not by the banks (which is another legal aspect of such a reform on which the 100%-reformers of the 1930s did not systematically reflect). If customer money is not taken off a bank's balance sheet but kept on it, then it must be made sure, that customers' liquid payment reserves (asset) and demand deposits (liability) are tied to each other 1:1 as a 'sterilised' pair. There would need to be a legal provision that this 'sterilised' pair is the property of the customers rather than the bank and that it is excluded from the bankruptcy estate. The traditional deposit-coverage reserve requirements would have to be abolished.

Even in a sovereign-money system based on non-cash fiat money, the word 'deposit' might habitually still be used for liquid money on account or for short-term customer

loans to banks (which are loans indeed, not deposits strictly speaking). Ultimately, however, there is no convincing reason why 'deposits' in any traditional sense would have to be part of sovereign-money system and why there would be any need for coverage reserves at all.

3. The Kumhof plan includes *all* deposits in M1–M3, not just liquid deposits in M1, and excludes nonbank lending to money-managing banks

In the Kumhof plan, *all* of the banking system's monetary liabilities must be fully backed by reserves. This means that in the transition from bank money to sovereign money, the Kumhof plan provides for including *all* deposits, including those in M2/M3, not just deposits in M1 that are available at any time on demand (in Europe M1 plus a small part of savings deposits; in the US disposable broad money M2).

This is another important feature of the Kumhof plan that is poorly explained, only becoming apparent incidentally, for example, from the statement that under the plan US reserves would rise to about 180% of US GDP (61). This is a rather high figure that certainly includes a maximum of bank liabilities. In comparison, M2 in the US is at present 67% of GDP, and M1 in the euro area about 45% of GDP.⁴ As a result, the one-off transition seigniorage (as discussed below) is of course very high in the Kumhof model, with an accordingly great potential for reducing the currently high levels of debt, or monetary and financial assets, respectively.

Most monetary reform approaches just include liquid deposits. The reason is that other deposits in M2/M3 that are not immediately available would best be treated as if they are genuine 'loans to' or 'investments in' the banks, just as overnight deposits are treated in the transition process as if they represent money that was originally created by the central bank rather than by the banks themselves (thus being redeclared upon transition from a liability to the customers into a liability to the central bank). The Kumhof plan, by contrast, transforms all deposits into traditional regular deposits of old. These deposits do not represent irregular-deposit claims on money that is elsewhere, but *are* in fact money-in-deposit.

There were doubts concerning whether including *all* deposits in such a scheme would create too big a money supply. The answer is: not necessarily, and not immediately, because a major part of the money would be inactive. M2/M3-deposits are not intended to be spent immediately by the depositors, but in a more or less distant

⁴ ECB, Monthly Bulletins, Tables 2.3, 5.2.

future. A certain part of M2/M3 is always being liquidated, but at the same time other savers are making new provisions. If, however, for whatever reason, critical masses of people feel driven to liquidate M2/M3-deposits as soon as possible, this creates problems in any system. In a covered deposit system this could not create a bank run anymore, but it would certainly cause consumer or asset inflation. In a system with no coverage of M2/M3-deposits, the effect of withdrawals would be similar to a traditional bank run, though less dramatic because it would be stretched over time.

The 100%-reserve theorists of the 1930s were not so clear in the beginning about whether or not to include M2/M3-deposits, but they too finally referred to demand deposits or checkable deposits only. They furthermore wanted banks to be able to borrow from their customers by way of M2/M3-deposits that would represent true short- and mid-term loans with a maturity of up to two years.

In the Kumhof plan, by contrast, any transfer of a demand deposit into an M2/M3-deposit would have to be backed immediately by equal-maturity reserves 1:1, in the same way that demand deposits have to be backed. No deposit can be lent to a deposit-managing bank (though deposits can be lent to 'investment trusts', as discussed in the next section). The M2/M3-deposits would remain idle and not be available until maturity or notice. What, though, is the use of retaining M2/M3-deposits if these are literally useless for a deposit-managing bank, while that bank is nonetheless expected to pay interest on those deposits?

Some authors would refer to such inactive holdings of money as being 'hoarded'. That notion dates back to metal-based currencies, in which money hoards represented a reduction of the circulating stock of money, which was damaging to the economy on the whole. Modern fiat money is different in that it can be created deliberately to any amount. Thus, holding money instead of spending it is no problem, assuming that the underlying preferences follow a largely steady path and pattern. Nonetheless, holding M2/M3-deposits under the Kumhof plan is like keeping bundles of banknotes in a safe, and yet these deposits are thought to yield interest.

Kumhof sees the financial role of M2/M3-deposits in serving as collateral. Without such deposits, major problems are said to occur in financial markets. This role, however, is somewhat elusive. Even if such deposits were not idly 'deposited' in a bank, but lent to the bank for further use, the resulting claims that customers have on banks from such M2/M3-deposits can no doubt serve as collateral in much the same way as securities, i.e. they will probably not be counted at 100% but, say, at 80%, analogous to sovereign bonds or blue-chip stocks. In relation to a house bank, that

bank would actually have no good excuse for not counting its customers' savings at full value.

Moreover, *regular deposits* are not interest-bearing, because the deposit-holding bank is not allowed to make use of regular deposits. When depositing something for safekeeping, depositors have to pay a fee; they are not paid interest. Paying interest on *regular deposits* is a confusion of concepts.⁵ Interest is paid on money lent or let otherwise for some purpose.

Under the Kumhof plan, as will become clear in the following section, interest on customer deposits could only be paid if the treasury in turn paid interest on the reserves held by the banks.⁶ What meaning can be attributed to a scenario in which the monetary authority would have to create additional money for the purpose of paying interest on a stock of money of a magnitude of 180% of GDP (M1/M2/M3)? How could one at all justify additional money creation by the treasury in order to pay for interest on banks' reserves, or customers' deposits, respectively, that are *not* available to the banks?

4. How do banks obtain 100% reserves and loanable funds under the Kumhof plan? Types of banks. Issuance of new money as debt or debt-free?

The banks in the Kumhof plan are different from today's commercial and investment banks or universal banks. The plan includes the separation of two types of banks:

a) Banks specialising in money management. Benes/Kumhof simply call them *banks*. More specifically, they might be called *money banks*, or *money service banks* or *money-managing* banks. They are in charge of account management, payment services and cash exchange, presumably including foreign exchange. Money service banks do not borrow and lend or invest, either from and to nonbanks, or from and to banks of any kind.

b) Banks specialising in borrowing and lending, as well as maybe investing. They correspond to today's commercial banks. Following Simons and colleagues, these banks are called *investment trusts*, whereby the extent to which they may engage in investment remains unclear. In contrast to universal banks today, investment trusts in the Kumhof plan act as pure money intermediaries, no longer capable themselves primary credit and thus bank money.

⁵ Cf. Huerta de Soto 2006, chapters 1–2.

⁶ The Bundesbank in its time never conceded to pay interest on reserve requirements, but the ECB confusingly does.

A banking separation of the same kind was already included in the approach of Simons and colleagues as well as Fisher and later Allais.⁷ They thought of the money service function as representing a sort of money 'warehouse', a new type of banking company, separate from commercial and investment banking.

One of the questions that remained open in the 1930s concerned how banks would be able to obtain the required 100% reserves, given that they do not have enough high-quality collateral to borrow so much money from the treasury. To start with, banks would have to sell all of their securities to the treasury, or, as proposed by Fisher, to the money commission under the roof of the treasury. Selling their credit claims too was not yet an issue (and selling packaged credit claims should not be an issue in the future either). Since the amount of reserves that could be acquired in this way would not be enough, banks would have to gain access to a non-securitised large lending facility. Otherwise, the reserves would have to be given to the banks for free, i.e. free of interest, as Knight, one of the Chicago 100%-banking reformers, ultimately suggested in the 1930s.

In Benes/Kumhof these questions are neither discussed nor resolved. They simply state that 'banks borrow the required backing of their deposits from the treasury' (5–6). Today as before, however, the bank holdings of securities that can be sold to the treasury in exchange for reserves are not enough to cover fully all the deposits in M1/M2/M3. The difference to make up 100% would have to be lent unsecured to the banks by the treasury as an interest-bearing loan.

This contradicts the plan's feature that money service banks are *not* supposed to take up money. An exception would have to be permitted. Interest payments on such loans, or even repayment, could only be financed by way of customer fees – which might turn out to be expensive. If money service banks were affiliated with investment trusts (which is not part of the plan), cross-funding might help a little by sharing the burden among yet more customers. Credit from investment trusts to money service banks (which is not allowed in the plan) would not be an alternative, since investment-trust credit would certainly be more expensive than treasury credit.

Renaming lending banks *investment trusts* is reminiscent of Kotlikoff's all-funds model of separate banking.⁸ While Kotlikoff, however, thinks of a multitude of highly specialised funds, Benes/Kumhof do not consider whether to prefer specialised, mixed

⁷ Simons 1948 [1936], Fisher 1935, Allais 1988 [1977].

⁸ Kotlikoff 2010.

or universal banking structures – which in fact is a question of broader banking and financial-market reform reaching beyond monetary reform in particular.

With regard to separate banking, the important things are, first, to make sure that no bank is legally permitted, and technically capable, to create primary credit (bank money), second, that proprietary trading is tightly restricted or banned altogether and, third, that financial investment is funded by on-lending of already existing means, in particular that the loanable funds available to banks (investment trusts) are banned from being lent for leveraging financial investment. If these conditions are met, and the *function* of money creation is separate from the *functions* of borrowing, lending or investing, then *institutional* separation of banking companies is actually not required.

In a plain sovereign-money system, customers' money accounts are off-balance items, just like the cash held by customers that is in their own pocket and not in a bank's vault. Money service banking thus is a function that per se is separate from commercial and investment banking. Accordingly, institutional separation of banks is not required, even though specialised money service banks may come up.

The above statement that banks have to borrow the 100% backing of their deposits from the treasury clearly relates to the *money service banks*. *Investment trusts*, by contrast, are given two options for obtaining loanable or investible funds. The first option is to borrow from nonbanks, or to sell debentures to nonbanks. The second option is borrow directly from the treasury. The latter option is relevant in the Kumhof plan for extending the quantity of money, i.e. adding new means to the money supply. According to Benes/Kumhof, this element was 'considered in the government versions of the Chicago plan formulated by Means (1933) and Currie (1934), and also in the academic proposal by Angell (1935)' (18).

Basically, such an arrangement ensures the safety of money as well as far-reaching control of the quantity of money, and therefore also control of inflation, asset inflation and boom and bust cycles.

The Kumhof plan claims to provide for a debt-free money base (5–6). If, however, part of the 100% reserve upon transition from here to there has to be borrowed from the treasury, and all additional reserves have to be borrowed from the treasury, then this represents interest-bearing credit and debt. The government would certainly be the primary creditor, not a debtor, but the banks that have to borrow from the treasury are primary debtors. As a result, the existing stock of money would entirely be sovereign money that would represent a treasury credit asset, not a government debt. However, it would be interest-bearing debt of money service banks and investment

trusts. The stock of sovereign money would thus only partially be debt-free, and would continue to be debt to a considerable extent.

The ensuing seigniorage would represent interest-borne seigniorage from *loaning* money into circulation, in contrast to genuine seigniorage that accrues from *spending* money into circulation. The option of spending new money into circulation, say, by way of government expenditure, free of interest and redemption, does not seem to be part of the plan. There is just an occasional remark that new money could also be *spent* into circulation, not only *loaned* or *credited*: 'Money under the Chicago Plan can be put into circulation through a number of ways, not just new treasury credit. The alternatives are for it to be directly spent into circulation and, as under the present system, open market operations'(pc, 21). Therefore, genuine seigniorage and a debt-free money base may basically not be excluded, though neither are they systematically included.

Most present-day monetary reform proposals basically do not differ from this too much. Even if the bigger, long-term additions to the money supply are thought to be issued by way of debt-free government expenditure (genuine seigniorage), smaller, short-term additions by way of primary credit to banks remain as an option – if required by special circumstances. This may not only be a pragmatic fall-back option, but may also be indispensable for the ability to implement monetary policies flexibly. It ought, however, only apply to a small part of the money supply. In the Kumhof plan it would foreseeably represent a major part of the money supply, and over time certainly the biggest part.

5. Insertion of new money into circulation. Scope of monetary reform

There are certain dirigiste elements in the Kumhof plan, for example, the compulsory use of the one-off transition seigniorage as discussed below or the precept that additions to the money supply have to enter circulation by way of investment rather than consumption or government expenditure. Irrespective of how questionable such directives may be, it should be pointed out here that rules of this kind are stretching beyond the boundaries of monetary reform into more far-reaching measures of banking reform and financial-market reform. They raise the question of where the boundaries should be drawn between the monetary system and the banking and financial system beyond, and between monetary policy strictly speaking and banking and financial-market regulation in a broader sense.

For example, monetary reform by itself includes that element of separate banking that sets money service banking apart from the lending and investment functions.

Conversely, however, separate banking as such, especially the separation of commercial and investment banking, does not pertain to monetary reform. Similarly, rules regarding bank equity and liquidity buffers, or a ban on off-balance risks, or the introduction of a financial transaction tax, etc., are banking and financial-market reforms that do not come under monetary reform.

The Kumhof plan basically achieves what is central to any currency teaching: the separation of sovereign *money* creation from bank *credit*, or, more generally speaking, the separation of money *creation* from the *use* of the money. The plan nonetheless shows a certain tendency towards blurring the boundaries between control of the overall quantity of money and control of the uses of the money, or, say, between monetary policy and outright credit guidance or compulsory use of money. Credit guidance by the central bank or treasury may conflict with the structural principle of keeping the control of money and credit apart. Otherwise, the central bank and treasury might be in an overly powerful position, which may not fit in with a Locke- and Montesquieu-style liberal democracy and market economy based upon the separation of powers or functions, also known as checks and balances.

It is desirable to reach some agreement on whether, or in which way and to what extent, compulsory *first* use of money and credit guidance beyond it may be admissible. This would apply above all to *primary* credit creation and the use of *new, additional* money to be inserted into the economy. It should not apply to *secondary* credit, i.e. on-lending of already existing money. If, however, the control of asset inflation becomes another regular policy target, it might be necessary under certain conditions to set credit ceilings on various financial investments (if bank credit for financial investment is not precluded at all).

One element of the Kumhof plan is to restrict additional credit creation to investment credit only *and* to compel the treasury always to fulfil the demand from investment trusts for additional money for investment credit:

'Under the Chicago Plan ... the government has completely taken away the power of financial institutions to create their own funds in the act of lending. Instead they have to compete for spare cash, and the government can influence the quantity of such non-bank financial intermediation by adjusting the quantity of money. But for investment loans financial institutions partly retain that privilege, because the government is on call to supply funds whenever they want to lend more' (pc). - Banks thus 'still retain a lot of control over the total volume of investment credit' (7). - '... the only credit remains is lending for productive purposes' (19). - 'Credit consists only of investment loans' (7).

The treasury (not the central bank) is ascribed the role of lender of last resort for businesses and companies. The treasury is bound to finance willingly any demand for investment credit.

The background to this, and to the overriding significance of investment credit in the Kumhof plan, seems to be mechanical-sequence ideas of old according to which primary credit (new money) must enter the economy through business investment. In my analysis, this is an outdated productivist assumption of the 19th century, (neo-)classical and (neo-)Austrian-school axiomatics, detached from present-day realities, though for a while resurgent in the 1970–80s as half-blind supply-side ideology.

The idea may have been plausible in earlier stages of the Great Transition from traditional to modern economies, when productive capacities were still not sufficiently big and flexible, and lagged behind the potential consumer demand so that additions to consumptive funds may have created inflation in the first instance rather than contributing to the build-up of productive capacity.

In today's more advanced economies such a mechanism of 'first production, then consumption' no longer applies. What serves production best today is sustained consumption rather than deferred consumption. Production and consumption, work and leisure, match one another much better than in former stages of industrialisation. Productive capacities are large and flexible, all the more so in globalised chains of production and trade. Quality consumption may not be saturated, though quantity consumption is, as far as old-industrial countries are concerned.

From the microeconomic perspective of private and public households and companies, the distinction between investive and consumptive allocation still makes some sense, even though the respective classifications are often enough quite arbitrary. On the macroeconomic level of a service and high-tech economy, the difference between investive and consumptive expenditure vanishes ever more, which basically applies to government budgets and private households as much as to companies. The supply side and the demand side are indissociably interrelated in one feedback system, no matter whether they are upstream or downstream in the chains of provision. Furthermore, in the financial system, and its interfaces with the real economy, money circulates from anywhere to everywhere.

The funding of production *and* consumption is not necessarily dependent on having loanable funds available but can also be based on deliberate additional creation of fiat money. New money can be inserted into the economy through a variety of channels, regardless of whether they are dubbed consumptive or investive. There is no

mechanical sequence in the money circuit. There is no need for rules like 'First production, then consumption', or 'First private, then public distribution'. The more relevant question today is whether disposable income and new money feed real-economic purposes or whether the money is put into self-referential asset-inflationary financial investment largely detached from real-economic purposes.

6. Is the treasury or the central bank the better arm of the sovereign monetary prerogative?

New money issued by the treasury was already a feature of the full-reserve approaches of the 1930s. In Fisher, for example, the role of monetary authority was ascribed to a government *currency commission*.⁹ In a certain sense this corresponds to the US Constitution, of which Art. 1, Section 8, gives Congress the power 'to coin money, regulate the value thereof, and of foreign coin.'

This is open to interpretation in that in 1787 there still were coin currencies, whereas today's currencies are entirely based on digital money-on-account (with coins and banknotes no longer being of constitutive importance to the monetary system). What, however, may not be open to interpretation is the fact that the US Constitution conferred the sovereign prerogative of creating money to parliament (legislative power), not to the treasury as part of the executive power. Nor was it conferred to a public central bank (which does formally not exist in the US to date), and of course not to commercial banks or to a private central bank of theirs, as is the *Federal Reserve of the United States*. Congress entrusted the 'Fed' with the role of being the national monetary authority in 1913. As of today, the 'Fed' is still a private banking corporation, even though law and regulation have created some sort of public-law overlay.

In the US, since the era of colonial bills in the 18th and greenbacks in the 19th century, the history of government-issued money has had a certain patriotic character, while the history of central banking has been an ongoing struggle between constitutional liberal democracy and the rule of private banking.¹⁰

In Europe, the role of the government and central bank in monetary matters is seen differently. The history of government-issued money, or government control of the issuance of money, is associated with high inflation and rotten currencies. It thus has

⁹ That element might have been adopted from Silvio Gesell's *Währungsamt* (currency authority), since Fisher, before developing his concept of 100%-money was a supporter of the Gesellian stamp scrip movement.

¹⁰ Zarlenga 2002, chapters 14–20.

earned a bad reputation. Central banks are more respected as issuers and guardians of a currency. Central banks in Europe have increasingly also been nationalised throughout the 20th century and established as national monetary authorities. The introduction of the euro has reinforced this development in that the eurosystem had to be based upon EU law and intergovernmental law.

As a result, American monetary reformers have reservations about central banks. They normally want to incorporate the money-issuing authority into the treasury, whereby the US Constitution and laws give Congress a big say in what the treasury can and will do. To European monetary reformers, by contrast, the obvious choice is national central banks, or the European Central Bank, respectively.

Both Americans and Europeans want the monetary authority to be independent, i.e. shielded from government directions as much as from private banking interests and other commercial interests, actually in the sense of representing a fourth branch of government in its own right—the monetary state power. If, however, that monetary authority (money commission) operates separately from the central-bank, and is going to be installed within the treasury, how can this body be assumed to be an independent fourth state power, duty bound only to the law and the professional state of knowledge?

The Kumhof plan is in the tradition of government-issued money. It does not dispense with central banking, though. However, by the treasury lending new money to banks rather than to the central bank, and by the banks redeeming such loans to the treasury, i.e. extinguishing that money, the treasury assumes classical central-bank functions. This is reminiscent of the sector balances approach (public-private account mechanics) that indiscriminately lumps together monetary and fiscal functions.

Unavoidably, the Kumhof plan is a target for the broader-brush sort of neoclassical and banking-doctrinaire attacks in the vein of 'government versus market', 'state bureaucracy versus free citizens', or similar. Kumhof retorts that, according to all monetary standards, private fractional-reserve banking surely performs worse than governments. In fact, such a hypothesis may well stand the test of historical scrutiny. Comparing times when either the government or the banking industry had decisive control of the money supply, the historical record for governments shows a mixed performance, whereas the result of the banking industry's 'control' of the money supply always and everywhere is inflation, asset inflation and overshooting boom and bust cycles leading to recurrent crises.

Even if this can be verified in many cases, governments' mixed performance may actually not be that convincing as the lesser evil. Kumhof's argumentation does not shed the logic of 'state vs market', 'treasury vs banks', or similar. This then seems to be a merely ideological choice, a matter of arbitrary political preference rather than of striking an institutional and functional balance of powers.

The superiority of [currency theory over banking teaching | weblink] lies in the historical experience and systemic insight that markets with regard to modern money hitherto did not work properly because modern money is fiat money that can freely be created out of thin air, basically to any amount by whosoever is authorised and capable. In consequence, the historical record shows that modern money and capital markets do not reach a state of self-limiting equilibrium of money supply and demand, and are compelled to readapt only by way of damaging crises.

Systemic market analysis explains why. Banks' credit and deposit creation in fact cannot reach a state of self-limiting equilibrium, because the pro-cyclical *demand* for money is self-propelling while the *supply* of bank money does not have an anchor of scarcity – in gold no longer, in overall economic productivity (as measured e.g. by GDP) not yet. The price mechanism, i.e. appropriate interest rates, thus is undermined and cannot but fail to do its job. Unrestrained credit and debt creation provides lots of all too cheap money to put in the global casino or to pile up as ever higher mountains of government debt.

With the general financialisation of all economic activities, the financial economy needs to be anchored in a stable money and banking system, but fractional-reserve banks and capital markets are systemically unable to fulfil the functions to achieve that goal. This is why there is a real need for an institution that has full control of the quantity of money and is able to tie it reliably to the real growth potential of an economy. This certainly was and is a core function of central banks, which however they have not been able to achieve since the overwhelming development of fractional reserve banking has undermined the control capacities that central banks may have had to a certain extent. The monetary privileges of determining a nation's currency, issuing the money denominated in that currency and being the first user and beneficiary of that money are all part of a state's sovereign monetary prerogative. Today, this sovereign prerogative has largely been captured by the banking industry. It must be repatriated.

All in all, there needs to be a monetary state authority, preferably an independent public central bank, representing a fourth branch of government, which is in charge of

the *creation and control of the quantity* of money, while leaving the further *use* of money, its allocation and distribution, largely to market forces, or, institutionally speaking, to companies, private households, banks and other financial institutions and – certainly not as the last chain link in the money circuit – the government.

7. Discretion versus rules

The 100%-reserve bankers of the 1930s, in particular Simons and Friedman, wanted monetary policy to be governed by rules, not by some authority. Fisher, by contrast, was in favour of discretionary monetary policy. The Kumhof plan is rules-based: 'The growth of broad monetary aggregates could be controlled directly via a money growth rule' (5, 10, 18).

Again, what that rule might be is not explained in more detail, but reference is made to Friedman whose idea of a money growth rule was very mechanical: '4 to 5 per cent per year for the US'.¹¹ Such a mechanistic idea of growth is not appropriate to the reality of growth processes, or it is based on an equally unrealistic assumption that the money supply is the central and all-decisive control lever for determining growth. Processes of modernisation, structural change and growth, however, represent complex cyclical realities reaching far beyond merely the monetary aspect, even beyond economic aspects. These realities cannot be met by some simple rule, except if such a rule would in itself be complex, flexibly applicable and refer to moving empirical targets. Such a 'rule' could, for example, read like this: Keep the money supply commensurate to the overall productive potential of the economy.

The choice between discretionary and rule-based monetary policies might in the end not be as clear-cut as it appears at first glance. What is of the utmost importance to any monetary reform proposal, however, is to be clear about how to determine and implement the quantity of money deemed appropriate. Any currency theory is based not only on the separation of money and banking, but also on the quantity theory of money. This is to say that currency theory and monetary reform must in no way be biased, either towards banking and capital interests, or towards the spending interests of clientele-oriented governments. Keynesian 'deficit spending' and 'functional finance' ended up in permanent and increasing money printing for government deficit spending, thus complementing banks' money printing for financial-investment leverage. That is no solution to the problem, but more of the same, worsening the situation on the whole. Simply replacing money printing by the banks with direct

¹¹ Friedman 1969 38, 47.

money printing by the government for the same old purposes will not resolve the situation at all. Here again the need for a fourth state power, a truly independent monetary power, becomes apparent.

8. Monetary and fiscal functions

There is another related aspect that is not always given sufficient attention, i.e. the mingling of monetary and fiscal responsibilities. If monetary policies were directly influenced by fiscal interests, the result would definitely be as damaging as banks' overshooting credit creation for financial leverage. Genuine and interest-borne seigniorage from additions to the money supply can and should certainly be transferred to the government, adding to its budget in much the same way as today's central bank profits. But the decisions on how much money is needed must be based on monetary considerations only and must be shielded from having to consider fiscal interests.

Conversely, parliament and government must not be given a say in monetary decisions, just as they have no say in judicial procedures and judgements. It would be a fatal error to look at money creation as a major source of funding government budgets, possibly even as a substitute for long-term government debt, taxes and social-security contributions, or for funding a basic citizens' income or any other favourite ideas people and politicians might have. Besides the fact that government budgets require far more means than adequate additions to the money supply can deliver, the idea of funding government through money creation is a mistaken concept in itself.

Keynes's attitude towards monetary quantity theory was straightforward: 'This theory is fundamental. Its correspondence with facts is not open to question.'¹² Many Keynesian as well as post-Keynesian economists, however, tend to be lax about the quantity theory of money and about distinguishing monetary from fiscal concerns. In particular, this applies to analyses based on sector balances (account mechanics), as especially in Modern Money Theory MMT. If the central bank, treasury and parliament are lumped together in one 'public sector', while within this sector there is no differentiation between financial and real-economic processes, not to mention financial differentiation between monetary and fiscal flows, and if hence one starts to imagine that central-bank credit and government expenditure, credit redemption and tax payments are of the same nature, then outright confusion, not just of monetary

¹² Keynes 1923 74.

and fiscal matters, appears to be a deliberate part of the program.¹³ Consequently, any such distinction is declared to be irrelevant. Under present conditions, MMT helps to conceal the capture of the sovereign monetary prerogative by privileged banking interests. After monetary reform, it would predictably help to capture the monetary prerogative by the treasury's fiscal interests.

The creation of bank money under conditions of fractional reserve banking results in abuse of that monetary privilege. The introduction of sovereign money without clearly separating monetary and fiscal powers will result in statist mismanagement of a nation's money. Keeping apart monetary and fiscal matters is an indispensable component of checks and balances in any system of liberal rule of law.

9. Monetary quantity policy versus interest-rate policy

In the 1980–90s, central banks went through a shift from quantity policy to interest-rate policy. In both cases, the attempts of central banks to exert control over banks' credit and deposit creation proved to be unsuccessful. Quantity policy was based upon the reserve position doctrine. It failed because banks create credit prior to fractional refinancing ex post, so central banks have no choice but to accommodate the facts that banks have created. Interest-rate policy fails for the same reason. Since facts have been created beforehand, the demand for reserves afterwards is not price-elastic. The fractional demand for reserves needs to be met in order to keep payment transactions going, regardless of whether there are higher or lower interest rates at the moment. Maybe there is a slight feed-back effect in the mid-term. Just a slight effect it certainly is because the amount of reserves needed is not higher than about 4% of banks' turnover in Europe and about 11–12% in the US. The transmission effect on 100% of banks' credit creation thus cannot be important.

In a plain sovereign money system, by contrast, the monetary authority would have full control of the quantity of money. It thus could effectively implement quantity policy, at the same time flexibly, by means of a variety of open-market instruments for releasing or absorbing money. If the monetary authority managed to keep the money supply and economic growth reasonably commensurate, that would provide the much-needed anchor of scarcity of modern money, not a mechanically fixed money base, but a proportionally stable one. This by itself would not fail to create adequate market prices, i.e. interest rates. As a result, setting interest rates can be assumed not to be a major tool of monetary policy anymore.

¹³ Cf. Huber 2014

The Kumhof plan is somewhat ambiguous in this respect. It says:

The model does not assume, because this is clearly not possible, that the government controls both the real quantity of money and the interest on reserves. What it does assume, and this is possible, is that it controls the nominal growth rate of money (à la Friedman) and the interest rate on reserves. ... The interest rate on reserves indirectly controls the real quantity of money (pc).

If the government does not use any prudential tools to actively limit the quantity of lending, then the interest rate rule alone gives the banks great freedom to decide on the overall quantity of lending. In fact the government acts as substitute depositor that supplies deposits fairly elastically (pc).

This type of reasoning still appears to cling to monetary policy under fractional-reserve banking, even though interest on 100% payment reserves can of course be expected to be more effective than interest on just 4% or 12% reserves.

One reason for Benes/Kumhof's indecisive attitude can be seen in the plan's rule according to which the demand from investment trusts for investment funds overrules everything else. Setting a growth rate for the money supply and an interest rate on it might seem to be a not too difficult statistical exercise with continual near-time foresight. If, however, additions to the stock of money are determined by the investment trusts' demand for investment funds, the exercise may actually turn out to be rather difficult, ending up in another struggle between the central bank/treasury and the financial industry.

The Kumhof plan can certainly be assumed to intend real-economic investment. Again, though, this remains implicit. Among the several rules of the plan for guiding monetary policy there is no rule on how to deal with the question of real-economic versus purely financial investment. If the treasury were really obliged to fulfil any demand for investment funds, much of this would still flow into casino-style investment banking. To prevent this from happening, the treasury would have to resort to credit guidance. Since investment trusts have to demand additional funds at the treasury, the treasury could easily exert control over the purposes for which respective funds are granted. This, however, would clearly be a piece of centralist bureaucratic planning and control.

Another element of interest-rate policy in the Kumhof plan is this: 'Associated with ... different degrees of liquidity of deposits would be a range of interest rates, including perhaps also negative interest rates for the most liquid liabilities, as suggested by Gesell' (6). This is one of the elements that was absent in the original Chicago plan, but was present in Fisher.¹⁴ Negative interest rates are likely to be a problematic

¹⁴ Fisher 1935, chapter VI, 4th subchapter.

instrument in that their effect is, similar to inflation, a punishment-like decrease of the money holders' purchasing power. It helps the banks to maintain a decent profit margin. By entailing very low interest rates in general, it is also a relief regarding the public debt burden. At the same time, it acts as a permanent urge to expend, i.e. as a growth stimulus, and as such it may conflict with organically decreasing growth rates in advanced industrial societies. It should not be talked down that any wilful increase in inflation or decrease of purchasing power is a partial expropriation of the people's monetary property.

10. Paying down debt with one-off transition seigniorage

Monetary reform is going to substitute sovereign money for bank money. The Kumhof plan, more precisely, would substitute treasury credit for primary bank credit. Essentially, this should create a big one-off transition seigniorage that amounts to the deposits that are going to be substituted—quite big if just demand deposits in M1 (narrow money) are included, and very big if deposits in M2/M3 (broad money) are included too. The resulting one-off transition seigniorage represents a literally unique opportunity to pay down a large part of today's high levels of public debt. Under the Kumhof plan, which intends to nationalise broad money in its entirety, there even appears to be enough money to pay down private debt too:

Because under the Chicago Plan banks have to borrow reserves from the treasury to fully back these large liabilities, the government acquires a very large asset vis-à-vis banks, and government debt net of this asset becomes highly negative. This asset, which we will refer to as treasury credit, represents a very large stock of seigniorage gain by the government. In effect the government reappropriates, in one instant, banks' cumulative historic money creation, which is equal to their stock of deposits (7). ...
The treasury then makes a partial distribution of the new credit balances that it holds against the banking system (pc).

Can it really work that way? Not quite. If the procedure would actually be, first, that banks borrow the required reserves from the treasury and, second, the treasury then intends to make a partial distribution of the new credit balances, there would in actual fact be nothing that could be distributed. However one accounts for money creation, and no matter whether the money due is entered into the books as a *liability* or as part of a nation's monetary *equity*, what Kumhof prefers as most reformers do, and regardless of whether treasury credit is granted for the initial 100%-reserve or for additional investment, the money is directly bound to end up in an account of a money service bank or investment trust. On the asset side of the treasury's balance sheet there would be the treasury's credit claims on banks and investment trusts. On the

liability side there would be an addition to the treasury's monetary equity. The money, nonetheless, as soon as it is paid out, is with an investment trust or a money service bank, not in the public purse. The corresponding equity is invested indeed, and thus no longer available to the treasury.

As a result, the assumption of a 'negative' debt balance is certainly right, i.e. banks would owe more money to the treasury than public bodies owe to banks. The money would nonetheless be circulating in M1 or stay idle in M2/M3, as 100% payment reserve. The money would be here and there except in the treasury's operational account as a readily available liquid asset. It looks as if an accountancy illusion is involved here. It probably stems from entering the additional reserves into the books, but omitting to re-book the amount as a credit claim upon disbursement of the money to banks and investment trusts.

For sure, banks would purchase required reserves by selling government bonds and other securities in their balance sheet to the treasury. Public debt would in effect be cancelled to the same extent. This, however, could provide only for the lesser part of the required reserves. The remaining major part would have to be lent to the banks (unsecured), for serving as 100% deposit coverage—for which purpose these means remain committed. Supposed equity gains of the treasury from bulking up fractional to full reserve ignore the fact that these means are committed and cannot be made available twice.

Apart from this, the type of reasoning involved here literally fuses monetary and fiscal accounts. It thus is again reminiscent of oversimplified public sector balances in which the central bank, treasury and other public bodies are 'consolidated' into one account, which is to say that they disappear into that black hole called the 'public sector' where differences between monetary and fiscal, financial and real-economic transactions disappear regardless.

What the treasury in actual fact would receive from the outlined procedure, in terms of liquid money, is interest-borne seigniorage derived from the major debt part of the stock of money. This would actually be a large amount of money (equal to the interest on up to 180% of GDP) and would not be one-off but permanent. However, far from representing a cost relief, it would be an additional burden on the economy in permanence. As far as the initial 100%-reserve is concerned, it is unlikely that money service banks could pay for this, since they have to defray all the costs from customer fees. Investment trusts would be better placed.

In Fisher, the idea of 'wiping out' public debt was for the money-issuing currency commission to absorb all sovereign debentures in the banks' portfolio in exchange for the additional reserves the banks need under full reserve.¹⁵ At the time, this largely fitted with important domestic bank holdings of public debt in the US. Thinking in terms of sector balances, government debt and holdings of that debt by the currency commission would have netted each other out. Both bodies, the treasury and the currency commission, could have agreed on cancelling the corresponding claims and debts. Today, however, domestic banks' holdings of sovereign debt, even though big, are not big enough to provide for sufficient deposit coverage, all the more as M2/M3-deposits would also have to be covered. As a result, only a minor part of total public debt today could be 'wiped out' in this way.

In Huber/Robertson, the proposed mechanism for substituting sovereign money for bank money, and thereby benefitting from the one-off seigniorage, is different.¹⁶ According to this proposal, customers' current accounts are declared to be sovereign money accounts and taken off the banks' balance sheet. Simultaneously, the banks' overnight liabilities to customers are redeclared to be liabilities to the central bank, as if the central bank had created that money in the first place. Banks have to redeem the corresponding amount of previous demand deposits in M1 to the central bank, which would happen according to the maturities of outstanding loans, or according to some other negotiable arrangement. The central bank then, in order to provide for an adequate money supply, can decide how much of that money will immediately be re-issued into circulation, be it as debt-free genuine seigniorage to the treasury, or, if urgent need be, as an interest-bearing loan to banks. The government ought to be obliged to use the means from the one-off transition seigniorage to redeem public debt as it becomes due at current maturities. In the end, when loans to the amount of the former demand deposits have been paid down after several years, the government should have paid down the bigger part of its debt.

To return to the Kumhof plan, let us assume for the moment that there would actually be a very large amount of money available from the one-off transition seigniorage.

Then the plan would proceed as follows:

'The government has the option of spending part of the windfall by repaying large amounts of private bank debt. This can be accomplished through a transfer of a part of government-held treasury balances to citizens by way of a citizens' dividend, whose mandatory first use is the full repayment of any outstanding private debts by the recipient' (8)...

'In the simplest case this could take the form of equal per capita transfers. The transfer

¹⁵ Fisher 1935, chapter XI.

¹⁶ Huber/Robertson 2000, chapters 1 and 3.

goes into restricted accounts that can only be used for two purposes. The first purpose is the mandatory repayment of any outstanding private debts against banks' (30) ... If there are credits left, 'the second purpose of the restricted accounts is then that they must be spun off into investment trusts that intermediate from lenders (or shareholders) to borrowers. They intermediate, but can no longer create money' (pc).

Neither of these components was part of the original plans for 100% reserve. 'Equal per capita transfers' rather resemble the economic-democracy ideas of C.H. Douglas; in this case, social credit paid out to the citizens as a national dividend. Douglas may have taken the idea from the 18th century practice of handing out colonial bills as uncovered paper money in North American colonies, for example in Maryland from 1733 to 1751 as a per-capita dividend of 30 shillings to all taxable individuals.¹⁷

In Maryland and in Douglas, however, people were free to spend their money on whatever they deemed worthy, while in the Kumhof plan the money is given to the private households for compulsory use, i.e. for having to pay down existing private debt and for having to invest a possible remainder in an investment trust. This is one of the dirigiste elements in the Kumhof plan, maybe well-intended, though questionable, and unnecessary with regard to the biased 'productive investment'-approach as discussed above. The government can oblige itself to use seigniorage for paying down sovereign debt over time; it should not, however, oblige citizens to make use of their money in a particular way.

There is yet another question to be answered. If the major part of public and private debts were actually paid down, what would the creditors do with all that money? Over time, alternative investment opportunities related to the real economy may certainly emerge. In the short run, however, another asset-inflation bubble, say, in real estate, is among the most likely results, or a huge capital outflow into foreign economies.

Neither the original 100%-reserve plans of the 1930s nor the Kumhof plan include a mechanism for reducing the existing stock of money upon transition. Some such reduction, however, may be necessary considering that in recent decades the major part of additions to the money supply was fuelling asset inflation. Temporarily absorbing money by way of open-market operations is not really an answer to this. In the Huber/Robertson proposal, by comparison, the central bank can decide how much of the money from old credit contracts which banks redeem to the central bank will be re-issued into circulation, for example, all of it, i.e. 100 currency units in replacement of 100 redeemed ones, or just 80 or 70 units.

¹⁷ Hixson 1993 56.

11. To what extent will the need for credit in a sovereign-money system be reduced?

In the Kumhof plan, the treasury is always on call to provide funds for investment credit. What has not been discussed yet is that the Kumhof plan allows for investment credit only. Via mandatory use of transfers to households as well as via direct expenditure, the government is supposed to cancel 'mortgages, consumer loans, and firms' working capital loans, but not investment loans. ... So we are left with treasury credit financing investment loans' (pc).

It is concluded therefrom that there would be no more mortgages, consumer loans, firms' working capital loans and government debt, because firms and private and public households will no longer need loans.¹⁸ Benes/Kumhof, as they say themselves, are thus 'making a very strong statement about credit. Namely, the need for credit throughout the economy is very much reduced, because we no longer need credit to create money' (pc).

Primary bank credit certainly is no longer possible and not needed to create an adequate money supply. However, interest-bearing primary treasury credit to investment trusts *is* possible, as well as secondary credit of all kinds. The no-more-much-credit conclusion will certainly not hold true. Even if the money were issued as debt-free genuine seigniorage only, adequate additions to the stock of money would be of the order of current growth rates, and thus far below the much higher funds that government, companies and privates always need to take up in order to pay for expenses too large to be paid out of their current income. Privates have savings to put in, though not all of them, and not enough in most cases; companies too have normally not enough provisions; and the government operates from hand to mouth anyway. Seigniorage from money creation can contribute to funding government expenditure only to a small extent. The government will no doubt have to finance costly long-term investments, say, in infrastructures of traffic, energy, water, health, education, culture, etc. Such investment will not be payable out of the current tax revenue; hence, the government will also have to incur debt also in a sovereign money system.

The economy's need for loans and equity will not shrink as a result of monetary reform. Regardless of the extent to which the money base is debt-free, borrowing and lending, thus incurring debt, will always have to take place in order keep the economy functioning. Fulfilment of the expectation that people or firms will achieve higher incomes or acquire more assets and equity will not be a result of monetary reform

¹⁸ Also comp. Benes/Kumhof 2012, Annex figure 3, on Post-Transition 2, page 81.

itself. It could be a result of certain fiscal and financial reforms not necessarily related to monetary reform.

What actually can be expected with regard to indebtedness in a sovereign-money system are falling and lasting lower levels of casino-style financial investment. Since the money supply will be anchored in real-economic relative scarcity, disproportionate means for fuelling financial speculation cannot cheaply be made available. If demand for such investment nonetheless rises, so will interest rates for such investment, making it expensive. At the same time, expectations of high returns from speculative investment will be disappointed rather than self-fulfilling (until the next crisis), as is the case today.

The volumes of financial investment must shrink until reaching levels of financial stocks and flows compatible with what the real economy in fact needs and can afford. Such an overall correction of the proportions and relations between the real and the financial economy includes by itself a significant reduction in the level of total indebtedness. Beyond that I see no reason why the ensuing level of indebtedness in a sovereign-money system should be reduced further. There is a future for banking and financial institutions also and specifically in a sovereign money system, including new business models for intermediating between creditors and debtors, providers and users of money.

12. Would monetary reform increase or decrease the level of interest rates and the volume of interest payments? Banking profits

Proposals for monetary reform often meet the objection of raising the level of interest. For this objection to make real sense, one would need to know the normal or natural level of interest. It may be left to economic statisticians and historians to form an idea of the empirically normal level of interest. Today's levels are clearly abnormally low and will in any case have to rise to a normal level to be able to serve again as a reliable market guide.

Besides that, the objection can easily be cleared up with regard to plain sovereign money approaches.¹⁹ It is as simple as this: Under present conditions, banks already pay interest on all M2/M3-deposits, certificates and bonds on their balance sheet, as well as dividend on equity. In a sovereign-money system, they would continue to do

¹⁹ American Monetary Institute, draft of the US NEED Act (<http://www.monetary.org/american-monetary-need-act>), Positive Money UK (<http://www.positivemoney.org/our-proposals>), MoMo Switzerland (www.vollgeld.ch), Monetative Germany (www.monetative.de), Huber/Robertson 2000.

so. The difference would be in the purpose rather than in the level of interest. Under fractional reserve, banks have to pay (possibly low) deposit interest in order to immobilise customer claims. On balance, banks do *not* obtain additional reserves from deposits (excess and minimum reserves), and they do not need to have many reserves for creating primary credit and maintaining payment transactions. Immobilising customer claims prevents the banks from running into liquidity problems, which might occur because of the displacement of non-immobilised funds, while it enables the banks at the same time to keep creating primary credit at possibly high interest. In a plain sovereign money system, by contrast, when customers pay money into a savings account, they actually make that money available to their bank, as is still the case today with cash. Sovereign money in fact is non-cash currency on account, like coins and banknotes in the pocket and e-cash on a money storage device.

When discussing questions of interest, the level of interest rates is often confused with the volume of interest payments due to the volume of interest-bearing assets, or debt, respectively. After monetary reform, today's disproportionate levels of financial assets, and of the interest payments related to these, will fall to a certain extent. Even though this does not necessarily bring about a lower level of interest rates, it will reduce the overall share of financial income to the benefit of earned income. Much the same holds true for a 100%-reserve system and the Kumhof plan.

With regard to interest payments from and to banks, however, the situation is different. In a plain sovereign-money system there are no longer reserves, either for deposit coverage or for payment, just plain liquid money in an integrated single circuit. Accordingly, banks will be relieved of interest payments related to reserves. In a 100%-reserve system, by contrast, the 100% reserve has to be created *in addition* to what already exists. That is, reserve holdings amounting to 2% or 10% of deposits have to be bulked up to 100%. This includes having to pay additional interest on 100% reserves rather than just on 2% or 10%. This not only adds to the volume of interest due; it may also increase the level of interest, depending on the availability or scarcity of money.

Since, however, sovereign money can be supplied to any adequate amount, the availability or scarcity of sovereign money is not a fateful fact as it is under a gold standard, rather a skilful artefact that also enables the control of the level of interest by controlling the quantity of money, instead of wilfully administering interest rates. As a result, the level of interest rates in a sovereign-money system will be what the monetary authority wants or tolerates it to be.

In the Kumhof plan, there is yet another factor driving up interest payments. Since investment trusts under the plan cannot make use of traditional deposits, they will have to issue more certificates, bonds and stocks. Such items, as Kumhof explains,

tend to be about 1 percentage point above deposit interest. On the other hand, when 100%-reserve brings about a very large reduction of debt throughout the economy, this will lead to lower risk-free interest rates plus lower spreads above risk-free rates. We estimate this benefit at around 2 percentage points. On balance therefore, funding cost would drop. Of course this involves a number of assumptions, but at least those are explicit.²⁰

As discussed above, there would certainly be a reduction of total debt. It is doubtful, however, that this would be 'very large' in the sense of the no-more-much-debt assumption. Moreover, I prefer not to set expected or model-calculated interest rates against each other. In addition, with regard to the volumes of interest payments due, it is not self-evident that more interest paid on deposit-related 100% reserves would be offset by higher revenues from interest payments or other sources.

With regard to the entire economy, it might plausibly be assumed that the reduction in the volumes of interest payments on the total financial assets is higher than the increase in banks' interest payments on 100% reserve, but who will be the winners and losers in this? The winning side will be the real economy and earned income, while the losing side will be monetary and financial fortunes, with the gains and losses unequally distributed on both sides. It would come as a surprise if banks in this context were still among the winners. Even though banks are likely to maintain normal profit margins, it is unlikely that they will maintain the same levels of transaction volume. As a consequence, the banking business will probably be as profitable as ever, but it is bound to become a less oversized business, especially as far as hypertrophic investment banking is affected.

Banks today, after all, are the main beneficiaries of disproportionate levels of monetary and financial assets and debts. If these stocks are reduced, banks are bound to lose out in addition to facing increased borrowing costs for 100% reserves. The extent to which this may finally result in higher borrowing costs to customers depends on the structure of interest rates and on market competition.

All in all, it cannot be asserted that monetary reform will raise the level of interest above normal, either in a plain sovereign money system, in which the quantity of money directly determines the level of interest, or in a 100% reserve as in the Kumhof plan, because, if there is a quantity of money sufficient to cover all the costs, this will

²⁰ Personal communication.

entail additional borrowing requirements and thus will not raise the level of interest, though it will raise the volume of money that banks need to take up.

13. Main expectable results. Conclusion

The Kumhof plan expects to achieve important goals similar to those of other monetary reform approaches. The DSGE model calculations report the following goals to be accomplished:²¹

1. elimination of bank runs
2. better control of business and credit cycles, including better control of inflation
3. reduction of government debt
4. reduction of private debt.

With regard to the safety of money, including the safety of deposited money, and the elimination of bank runs, the Kumhof plan is certainly at the top of the league. The system, though, does not preclude capital flight in a political state of emergency – which is just a remark, not an objection. In a plain sovereign money system, money-on-account is completely safe as well, although money deposited (money invested in a bank) is not. Runs on savings and time deposits in the form of massive withdrawals upon maturity, possibly in connection to capital flight, are basically possible. Deposit insurance may still be required to some degree.

As for the control of inflation, asset inflation and business and financial cycles, the Kumhof plan ensures much better control than there is today, but not full control. The reason is that there is no full control of the money supply because demand for investment credit must always be met. This component is beyond the control of the treasury, but bound to contribute considerably to determining the money supply, and thus also inflation, asset inflation, cycles and possible crises.

Concerning these aspects, a plain sovereign money system would be more effective since it grants unimpaired control of the money supply. This, though, would not be 'perfect' either, since it does not grant control of the uses or purposes for which money is going to be spent by the government, companies and households. This, however, should not be seen as a defect. It is what a free society will want to live with.

As far as the reduction of public debt is concerned, the extent to which this would actually be possible, and bound to happen, remains unclear. Fundamentally, this also applies to the planned reduction of private debt, even though the intended method for

²¹ Benes/Kumhof 2012 4, 51, 55.

achieving it is clear. That 'partial distribution of the new credit balances' the treasury would hold against the banking system appears to be fictitious; not the credit balances, but the distribution, because the additional new money has directly to be lent to the banks for serving as 100%-reserve in permanence, and must not be monetised a second time. The result, rather than debt-free genuine seigniorage, is interest-borne seigniorage, representing a burden on the private economy in addition to existing taxes.

Moreover, the plan for reducing private debt is rather dirigiste in that it involves the compulsory use of that money exclusively for paying down private debt, and putting the possible rest into an investment trust. The latter element is also biased towards neoclassical and neo-Austrian production models, involving an understanding of productive investment that may have been plausible in earlier stages of industrialisation, but not in advanced stages of service and high-tech economies.

The plan is likely to overestimate the potential for total debt reduction as a result of monetary reform. At the same time, it underestimates the demand for secondary credit (and debt) from companies, private households and the government that would need to exist in a sovereign-money system too – government debt, consumer loans, ways and means advances, mortgages and building loans, in addition to investment loans.

The plan has a certain statist touch and is not very sensitive to structural principles of liberal rule of law regarding checks-and-balances-oriented separation of functions. In particular, it charges the treasury with classical functions of central banks and does not care about differences between monetary and fiscal functions.

The basic design problem of the Kumhof plan can be seen in the 100%-reserve design as such, i.e. having reserves and deposits in parallel in a split two-circuit system. The plan intends to implement a sovereign liquid money system, but sticks to the logic of a reserve system, thereby also sticking to the 'coverage' logic, while implicitly transforming all the coverage reserves (former minimum reserves) into payment reserves; liquid in M1 and immobilised for an agreed period in M2/M3.

In a reserve system, the money of customers is still on one and the same balance sheet together with the assets and liabilities of a bank itself. This holds true even if the loan and investment business is entirely separate from money service banking. If customer deposits and corresponding reserves were not 'sterilised 1:1' by regulation and declared to be the property of the customers, the reserves involved would be the property of the banks, while the deposits would be liable to the customers. Customers

would still not positively 'possess' or 'have' their money as they have cash on hand outside the bank, or more precisely, off the bank's balance sheet.

The Kumhof plan, so to say, synchronises the creation as well as the flow of reserves and deposit-money, without however removing the split between the two, i.e. not integrating them into one single money supply M that circulates as a liquid asset only, among *all* actors in the same way, banks and nonbanks, government and privates alike.

Deposits in the Kumhof plan represent regular deposit contracts, not available to a money service bank, but managed in trust by them for a fee. Yet these deposits are treated as if they were irregular deposits expected to yield interest. As discussed in section 2, in practice this could only be the case if the treasury paid interest on reserves. Deposit interest on fractional reserves is not reasonable today, and would be even less so with much higher 100% reserves.

In spite of the questions to be asked about various aspects of the Kumhof plan, its basic full-reserve design certainly represents a way to replace fractional reserve banking with a predominantly sovereign money system. In monetary reform too there are various roads leading to Rome. The Kumhof version of the Chicago plan is another such road, but the route it chooses is not exactly obvious.

14. Literature

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