

# A SIMPLE ANALYSIS OF THE VOLLGELD INITIATIVE

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The Swiss citizens will vote in 2018 about a popular initiative called in German the “Vollgeld-Initiative” (in short VGI). In French it is called “Monnaie Pleine” and in Italian “Moneta Intera”. This initiative aims at a fundamental reform of the Swiss monetary system, and is very technical.

The debate on the VGI has so far been extremely polarized. The experts from industry, government and academia are almost unanimous against it. They have explained their views in studies or press articles that are not easily accessible to the public. The promoters of the VGI claim that these experts are wrong and refer to economic theories that are not widely accepted in the academic community. Moreover, they often use arguments that reflect more their political views than a true economic analysis.

The two authors are professors of banking at UZH and UNIGE and have been teaching banking economics for many years. We thought there was a need for a widely accessible booklet that would allow Swiss citizens to form their own opinions on this highly technical topic. Instead of producing yet another technical report, we have decided to describe the initiative in simple terms, and explain the different views expressed by the different protagonists in a non-partisan way.

## **The VGI in a nutshell**

The VGI has two main components: a 100% reserves requirement for banks, and a reform of monetary policy, based on the concept of “debt free money”.

The 100% reserves requirement means that all sight deposits in Swiss Francs (CHF) in Switzerland would have to be entirely kept as reserves in the Swiss National Bank. This implies that commercial banks would not be able anymore to use a fraction of these deposits to finance their lending activities, as they currently do. Swiss money would then entirely become “sovereign money”, controlled by the Swiss National Bank.

The concept of debt free money is a consequence of the observation that, contrarily to privately issued money such as bank deposits, base money (the money issued by the central bank) will never have to be repaid. Therefore, the promoters of VGI consider that this money should not be viewed as a debt of the SNB and could be issued directly, without having to buy securities to guarantee its value as the SNB currently does. New money would simply be distributed directly to the Confederation, the Cantons and maybe even to the Swiss residents themselves. This would imply a radical change in the way the SNB conducts monetary policy.

This book explains in simple terms the arguments put forward by the promoters of the VGI, and confront them with the views of its opponents, so that any Swiss citizen can form a truly informed opinion.

The following non-technical document explains in simple terms the main arguments put forward by the promoters of VGI and the likely consequences VGI would have on financial stability, money creation, credit provision and public finances.

## 1. The arguments for a 100% reserves requirement

The main argument in favor of the 100% reserves requirement is the fear of bank runs. A bank run is a situation where a large proportion of the depositors of a bank want to withdraw their sight deposits simultaneously<sup>1</sup>. If this occurs in the current system, the bank does not have enough reserves to repay all of these depositors and may be forced into bankruptcy. With the 100% reserves requirement, this could not happen anymore: even if all the depositors wanted their money immediately, the bank would have enough reserves to cover these withdrawals.

Some economists also consider that the current system, where banks keep in reserves only a fraction of sight deposits (this is why it is called the fractional reserve system) generates financial instability. Indeed, banks tend to lend too much when things go well, and too little when things go badly, generating credit cycles, characterized by credit booms that bid up asset prices, alternating with credit crunches that may provoke large numbers of corporate defaults during recessions. Some economists argue that credit cycles would disappear if the 100% reserves requirement was imposed but this position is not widely accepted.

These arguments in favor of the 100% reserves requirement are not new. They were put forward in 1933, during the most severe banking crisis in US history, by a group of economists of the University of Chicago, as a solution to that crisis. Their proposal was called the Chicago Plan and it was meant to restore confidence into the US banking system. The Chicago Plan was presented to President Franklin Roosevelt who nearly accepted it. However, the US bankers convinced in extremis President Roosevelt to follow a different route for restoring financial stability<sup>2</sup>.

The proposal for 100% reserves banking was later defended by many famous economists with very different political stands, among which the Nobel laureates Maurice Allais (who was very much on the right of the political spectrum), Milton Friedman (the famous pro- market economist from Chicago) and James Tobin (who was an active advocate of government intervention in the economy).

After the financial crisis of 2007-08, the idea popped up again and was advocated by influential people such as Mervyn King (who was then Governor of the Bank of England), Adair Turner (who was then the Head of the UK Financial Services Authority), Wilhelm Buiter (the Chief Economist at Citigroup) and Martin Wolf (the famous Financial Times journalist). The 100% reserves requirement has recently been discussed by the Parliaments of several countries, in particular in the US, the UK, Iceland, the Netherlands and Switzerland. No country has adapted it, though. The Swiss VGI therefore is a first test at the ballots.

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<sup>1</sup> A famous example is the run on the Scottish bank Northern Rock, which happened in 2007.

<sup>2</sup> The Federal Deposit Insurance Corporation was created to insure small depositors in case their bank would go bankrupt. This is another way to prevent bank runs by small depositors. Moreover, a set of strict regulatory rules were imposed on US banks to tame their tendency for excessive risk taking.

## 2. The arguments for debt free money

Since 2002, the SNB has completely abandoned the convertibility of Swiss Francs into gold that had prevailed for so long. The promoters of VGI argue that this implies that the SNB does not need any more to maintain the large reserves in gold and foreign currency that it uses to back the money it has issued. Current accounting rules impose indeed that the money issued by central banks is considered as debt, and thus appears on the liability side of its balance sheet. This implies that it has to be backed by assets, essentially in the form of gold and foreign currency reserves. If there were not enough assets to cover the debts of the SNB, it would be technically bankrupt<sup>3</sup>.

The promoters of VGI argue that the accounting rules that count government issued money as debt are obsolete, because this money will actually never be repaid to the bearer. Indeed, government issued money, which is called base money and denoted M0, consists of the bank notes in circulation and the banks' reserves deposited at the SNB. The SNB has no obligation to repay it in any way. This is why the promoters of VGI consider that it could be issued without counterparty, simply by distributing it to the Confederation, the cantons or even directly to the Swiss residents. This idea is quite revolutionary, and would imply a fundamental change in the conduct of monetary policy, as we explain below.

## 3. The notion of Sovereign Money

So to wrap up, the 100% reserves requirement would imply that all the Swiss money in circulation (bank notes plus sight deposits in the banks, which is denoted M1 by the economists) coincides with the base money M0 (bank notes plus reserves of the banks at the SNB) that is controlled by the SNB. Moreover, the debt free money concept would imply that this money can be distributed without counterparty to the Confederation, the cantons and even to the Swiss residents. The two reforms taken together constitute the sovereign money proposal.

As a matter of fact, this proposal is being discussed internationally. Several groups defend similar reforms in other countries. For example, the NGO Positive Money was founded in 2010 by the British activist Ben Dyson. It supports a program of monetary reforms that is very similar to the VGI<sup>4</sup>. Similarly, Joseph Huber, a professor of economics and environmental sociology at the Martin Luther University in Halle, Germany defends similar views.<sup>5</sup>

The main argument for sovereign money is in fact political. It considers that commercial banks have taken too much power in advanced countries, and are responsible for financial instability. The VGI promoters see it as a way for the government to restore financial stability, to regain a full control of money creation and to fully appropriate the associated revenue.

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<sup>3</sup> Moreover, as we will see, these reserves give to the SNB some flexibility in the conduct of monetary policy and contribute to the confidence of the public in the Swiss financial system.

<sup>4</sup> These proposals are explained in detail in his book "Sovereign Money, Paving the Way for a Sustainable Recovery".

<sup>5</sup> These views are explained in the book "Creating New Money", written by Huber and James Robertson, a consultant.

## 4. The VGI and financial stability

As we already mentioned, the first pillar of VGI, namely the 100% reserves requirement, would solve the problem of runs on sight deposits. In the current system, this problem is tackled by another tool, namely deposit insurance. Indeed, sight deposits below 100'000 CHF are insured against the default of the bank that has issued them. Thus even if a bank does not have enough reserves to repay all small depositors, these depositors have no reason to worry because they are entirely covered by this deposit insurance in case their bank defaults.

However, the main source of fragility of modern banks is not their sight deposits (like it was in the previous century), precisely because of deposit insurance. It is rather the wholesale short term debt issued by banks and held by professional investors, including other banks. These investors, who are not insured, may suddenly stop lending to a bank (this is called a wholesale run)<sup>6</sup> if they suspect that the bank may have solvency problems. This wholesale short term debt is an important source of funding for the banks in the current system, but it is also a source of fragility, as the Global Financial Crisis of 2007-2009 has shown.

The 100% reserves requirement would not apply to short term debt. The promoters of VGI are aware of this problem. To tackle it, paragraph 2 of article 99a of the VGI mentions that the SNB would have the power to set a minimum duration for the debt issued by commercial banks. The VGI does not give much detail on this question, but it is clear that a new liquidity regulation would have to be introduced as a complement to the 100% reserve requirement. Indeed, financial stability can only be guaranteed in the Vollgeld system if the banks are strictly limited in their ability to issue wholesale short term debt as they do today. This would have a strong impact on the functioning of the interbank market.

The Basel Committee on Banking Supervision has introduced liquidity requirements (in the context of the Basel III accords) for limiting the fragility generated by wholesale short term financing by banks. These liquidity requirements have been transposed into Swiss legislation. Adoption of the VGI would force Swiss authorities to modify these rules, which would necessitate legislative effort and place Switzerland in a singular position vis-a-vis all the countries that have adopted the Basel III reforms.

Another argument used by the promoters of VGI (and more generally of the sovereign money initiatives put forward in other countries) has to do with the stabilization of credit cycles. Credit cycles refer to the fluctuations of aggregate bank credit periodically experienced by most advanced countries, with periods of credit booms where economic activity is boosted, followed by periods of credit crunches where economic activity is depressed. Following the views of Austrian economists of the last century such as Von Mises and Hayek, some economists (often referred to as the “Austrian School”) consider that the fractional reserve system is the source of this instability. There does not seem to be any empirical evidence that clearly sustains this claim<sup>7</sup>. Moreover, the views of the Austrian School are not widely accepted among academic economists.

Following the Global Financial Crisis, Swiss authorities have adopted new regulations, also in the spirit of the Basel III accords, aimed at stabilizing credit cycles and limiting real estate

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<sup>6</sup> This is what happened in 2007 to the Scottish bank Northern Rock. The run on retail deposits, which was heavily publicized, came after the run on short debt.

<sup>7</sup> In particular, the correlation relation between money and credit at the macroeconomic level seems to be rather weak.

bubbles. As a matter of fact, Switzerland is a leader on this front. It was the first country to legislate a new regulation called the “countercyclical capital requirement” and also the first to activate it.

In sum, it is not clear that the 100% reserves requirement would do a better job at improving financial stability than the regulatory system currently in place in Switzerland. Moreover, the VGI would have to be accompanied by liquidity regulations that are not specified explicitly in the text of the initiative. These new regulations would have to replace existing ones and would probably put Switzerland in a singular position vis à vis other advanced countries who have harmonized their new banking regulations in the spirit of the Basel III accords.

## 5. The VGI and Money Creation

In the current system, money is created both by the SNB and by the banks. To make things simple and go to the essential, we are not going to talk about coins and bank notes, which only represent a small fraction of total money<sup>8</sup>. We concentrate on scriptural money, which consists on the reserves of the banks at the SNB<sup>9</sup>.

The money created by SNB is called base money. It does not circulate in the economy but is used by commercial banks to finance a fraction of their loans to the private sector. The SNB can create base money by lending to banks or by buying assets (mostly in foreign currency and gold) from commercial banks<sup>10</sup>. In both cases the SNB credits the deposit accounts of the banks with the corresponding amounts. Since the commercial banks can only transform their deposits into bank notes and vice versa, the total amount of base money (deposit accounts of the banks at the SNB+ bank notes) is completely controlled by the SNB, through its monetary policy interventions. When the SNB increases the base money, it collects a revenue called seigniorage, which is the modern equivalent of the revenues pocketed by feudal lords (“seigneurs”) when they minted coins with a nominal value in excess of their production costs.

Money creation by the commercial banks is a bit different. When a bank grants a loan to one of its customers, it starts by crediting the deposit account of this customer of the amount of the loan. When the borrower uses the loan (say to buy a house) the funds are transferred to the deposit account of the seller of the house, which is likely to be in another bank. Then the bank of the borrower has to “refinance” the loan, typically by borrowing reserves on the interbank market. If there were no “leaks”, the newly created money would stay in the system, as the bank of the seller would simply lend it back to the bank of the buyer in the form of reserves. In that case, the new money would circulate in the system, until the borrower repays his loan, which destroys the newly created money.

Moreover, there are “leaks” in the system. In particular, the seller will not keep the entire proceeds of the sale on his sight deposits account. He will probably only keep a small fraction for his liquidity needs and will put the rest in a more lucrative investment vehicle such as a

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<sup>8</sup> Currently, bank notes only represent around 13% of total money (M1) in Switzerland.

<sup>9</sup> The SNB calls them the “sight deposits of the banks at the SNB”. To avoid confusions with the sight deposits of the public at the banks, we will refer to the former as the reserves of the banks at the SNB.

<sup>10</sup> At the date of writing of this document (October 2017), the SNB only creates base money by buying assets from banks (this is called non-conventional monetary policy). Banks do not use the possibility to borrow from the SNB.

savings account. Doing so, some money (in the strict sense of M1) will be destroyed<sup>11</sup>. Similarly, the seller of the house may decide to invest abroad, in which case he or she would have to use his or her deposits to buy foreign currency. Ultimately, only a small fraction of the money initially created by a bank will stay in the system. The remaining fraction will have to be financed by resources that are external to the banking system, typically by issuance of bonds and equity on financial markets.

Note that a bank will only grant a loan if the operation is profitable. This depends on the risk of default of the borrower, but also on the cost of borrowing money on the interbank market (or on other financial markets that the bank might use as funding source). This cost of borrowing on the interbank market (usually measured by the 3 month Swiss franc LIBOR) is controlled by the SNB through its monetary policy interventions. The SNB sets the interest rate at which it lends to banks (repo transactions) and provides or absorbs liquidity in the financial system so that the supply of money matches the demand for base money by banks. By controlling the 3 month Swiss franc LIBOR rate, the SNB influences the profitability of credit provision by banks, and thus the total volume of credit they will provide to the Swiss economy. Since credit influences money (as we saw above) the SNB also indirectly impacts money creation.

So to wrap up, money creation by banks is temporary and only generates revenues coming from the difference in interest rates on loans and deposits (the intermediation margin). This intermediation margin is limited by the competition between banks. If the VGI was adopted, the banks could not create money anymore. They would just become the custodians of the money of their customers and they would manage this money on their behalf. They would continue providing credit to the economy, but this would be financed by the savings of their customers, as well as debt and equity issued on financial markets.

The promoters of VGI argue that the control of M1 would be much more direct and efficient if their initiative was adopted. With the VGI, money creation would be completely disconnected from credit provision. Money creation would be entirely determined by the demand for sight deposits by households and businesses, which could be steered by setting an appropriate interest rate on reserves. Note however that some of the promoters of VGI suggest that the interest rate on sovereign money should be systematically zero. This might create some difficulties, because interest rates have become a fundamental instrument in the conduct of monetary policy. The VGI promoters may have in mind a targeting of the quantity of money, as was done by the SNB before 2000. Nowadays, most central banks in the world have abandoned this quantitative targeting: they now control interest rates, and not the quantity of money.

## 6. The VGI and credit provision

If the VGI was adopted, the banks would not be able anymore to use the sight deposits of their customers to finance their credit activities. All of these sight deposits would have to be kept as reserves at the SNB. The banks would have to fund their loans to the public by other resources, such as by issuing debt or equity, which may take some time. The VGI contains transitory dispositions (article 197, ch.12) aimed at avoiding a disruption of the credit market at the time the 100% reserves requirement would be adopted. The SNB could simply recycle the new funds it has received from depositors and provide the banks with the loans they need to finance their credit activities. If the interest rate charged by the SNB on these loans

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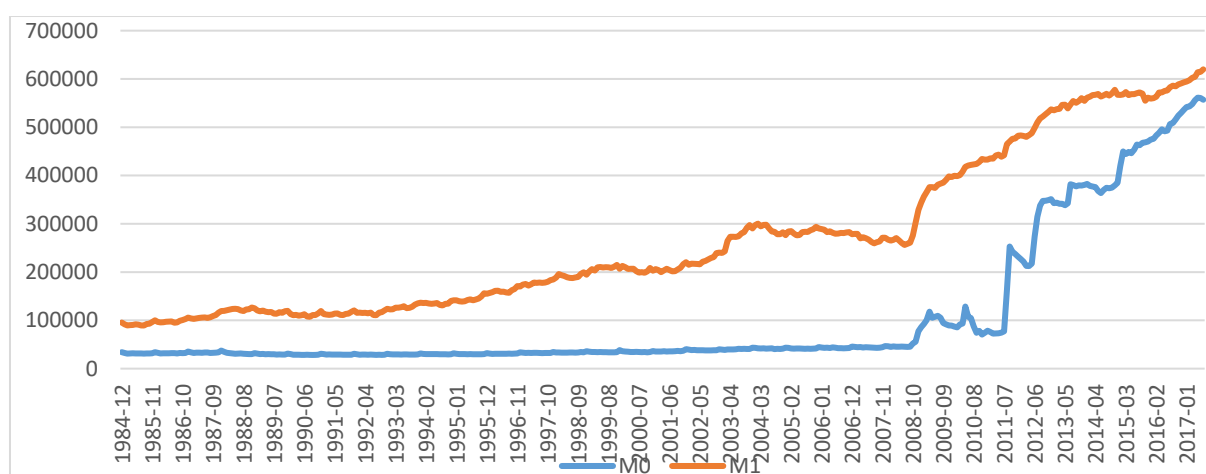
<sup>11</sup> Term deposits and savings accounts are sometimes called quasi money. However they would be concerned by the VGI.



corresponds to the rate previously paid by banks on the interbank market, the profitability of banks would not be altered and credit provision would not be impaired. This would guarantee a smooth transition.

The question is whether the SNB would continue providing risky loans to the banks after the end of the transition period. This would allow the SNB to directly control the total volume of credit to the Swiss economy by setting the interest rate on its loans to the commercial banks. In principle, the SNB could thus control separately the quantity of money in circulation and the total amount of credit to the Swiss economy. This would obviously give a lot of power to the SNB. It would also expose it to the risk of default of the banks.

In many countries, central banks have recently adopted non-conventional monetary policies. In particular, they have bought large amounts of the assets of the commercial banks in the hope that these banks would use the proceeds of these purchases to lend to the private sector. These asset purchase programs are often called Quantitative Easing and have not yet been fully successful because commercial banks have often decided to keep large amount of reserves rather than granting new loans. The figure below shows the evolution of base money (M0, in blue) and total money (M1, in orange) in Switzerland over the period 1984-2017, in Million CHF. It is remarkable that base money (the money issued by the SNB), after remaining stable for the whole period 1984-2007, has increased dramatically since 2008. By contrast, the money issued by commercial banks (essentially the difference between the two curves, i.e.  $M1 - M0$ ) has decreased steadily: over time Swiss banks create less and less money, while the SNB creates more and more.



Ironically the consequence of this evolution is that we are currently very close to 100% reserves. The following figure shows the evolution of the ratio of sight deposits over bank reserves during the same period. The 100% reserves requirement would mean that the blue curve would have to coincide with the red line, which is currently the case.



After growing steadily during the period 1984-2004 (reaching values in excess of 7!) this ratio has plummeted and is now close to one, as the 100% reserves requirement would mandate. Of course this situation might change in the future. However, even if one is convinced by the arguments in favor of the 100% reserves requirement, it does not seem to be an urgent preoccupation, since the banks have spontaneously chosen to keep almost of their customers' sight deposits in reserves at the SNB.

If the SNB decides to stop issuing risky loans to the banks after the transition period following the implementation of the VGI, commercial banks will have to entirely finance their credit activities by issuing long term debt and equity. Since these instruments have required rates of returns that are typically higher than short term rates, this means that the cost of credit is likely to increase. However, this is not necessarily a bad thing. It may indeed correspond to the abolition of distortions coming from hidden subsidies from taxpayers to bankers, such as the Too-Big-To-Fail subsidy. In fact, the debate on the impact of VGI on the cost of credit is very similar to the animated discussion that took place in 2008-2010 among economists and bankers about the appropriate level of capital requirements for banks: If banks are made safer by the VGI (which remains to be established) it could be that the cost of credit will not increase so much if the VGI is adopted.

However, if Switzerland is the only country to adopt a sovereign money system, it will be in a singular position vis a vis other developed countries, who have gradually harmonized their regulatory rules. Unless other countries follow and adopt similar rules as the VGI, there is an important risk of displacement of some of the activities that have made the success of the Swiss financial industry.



## 7. The VGI and public finances

In the current system, the money created by the SNB is essentially invested into foreign securities. This allows the SNB to manage the exchange rate between the Swiss franc and major currencies. The revenues generated by these investments, net of the operating costs of the SNB, are distributed in the form of dividends to the Confederation and the cantons, who are shareholders of the SNB.

With the VGI, the money created by the SNB would not be used to buy securities but would be distributed to the Confederation and the cantons, as a pure gift. What would happen with the existing reserves of the SNB is not specified by the VGI, but some commentators have evoked the possibility to invest them into a sovereign fund.

Ultimately, this discussion boils down to two questions:

1. Should the money created by the SNB be spent immediately by the government or be put in reserves?
2. Should the reserves be controlled by the SNB or by a sovereign fund?

These questions are obviously more of a political than of an economic nature. However, two economic considerations should be kept in mind. First, foreign reserves give a lot of flexibility for the conduct of monetary policy, especially when management of the exchange rate is a major preoccupation of the SNB. Without reserves, the SNB would not be able to implement a restrictive monetary policy if it was needed in the future for example for fighting inflation. Second, rating agencies and financial analysts often use the volume of foreign reserves as an indicator of the capacity of a central bank to resist speculative attacks. An insufficient volume is considered to be a signal of fragility. It is true that the Swiss franc currently benefits from investors' confidence into the Swiss financial system and of the good prospects of the Swiss economy. However, this might change in the case where the reserves of the SNB would be sold to finance government expenditures. In that case, the Swiss franc could be exposed to the risk of speculative attacks by foreign investors.