



Sound Money Introduction Plan

Restoring Sound Money in Europe

Lithuanian Free Market Institute

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Introduction

The study consists of three chapters.

The first chapter deals with the questions “why exit” and “where to”, defines principles and tasks that will serve as a foundation for further work. The real reasons for the eurozone crisis are addressed as they help guide us towards the best solutions and establish the fundamentals on which to build the new currency. The implications for the eurozone are reflected. Alternative scenarios are based on the evidence from relevant historical examples (e.g. the end of various currency pegs and previous monetary unions) and are outlined in the boxes. The overview of alternative scenarios logically leads to the best grounded scenario.

The second chapter describes specific action steps in the exit scenario and answers practical questions regarding conversion. The exit procedure is displayed and specific proposals are derived from the best experiences of the disintegration of monetary unions. Questions about sovereign debt, savings, domestic mortgages, international contracts denominated in euros and the effects on the stability of the banking system and the timetable of transition are discussed and answered in the second chapter.

The third chapter deals with further consequences of the transition and points to the need for the second step, i.e. re-pegging. Changes in the money supply and the on-going operation of the monetary system, economic and institutional implications are discussed. The questions on how to best achieve the desired effects of economic growth are discussed in this chapter.

The implications for the rest of the eurozone (not the exiting countries) and the entire combined membership are addressed throughout the study.

We conclude the study with the synopsis of the exit and references.

Chapter I. WHY and WHERE TO

1. Principles and tasks

Different scenarios may be designed for countries which decide to leave the eurozone. Each scenario would depend on an author's vision, interests and capabilities.

Let us start by stating certain ideas and principles, the common denominator, essential to outlining the problem for choosing the solution from various alternatives: *money is a universal equivalent of economic resources, while economic resources are known to be scarce. Recent monetary history represents human attempt to overcome the scarcity of resources by making money abundantly available. This makes this crisis a product of human nature rather than mismanagement or miscalculation.*

Ordinary people want more money more quickly to satisfy their needs, so they borrow - they spend money "ahead of time". But as we know - time is money. So, there is a general tendency in modern world to spend time and money prematurely and to spend money ahead of money, to spend time ahead of time. Money printing, credit expansion and derivative markets make all this possible.

While *companies* desire more and "quicker" money as well, their appetite is somewhat limited by that archaic mechanism, known as profit and loss. A company's desire for money is constrained by competing market participants, who include rating agencies, insurance providers, security traders and speculators, as long as they reflect the needs of the market rather than government regulations.

Governments yearn for "more and quicker money" as well. Their needs grow as their functions expand, undertaken by both national and supranational states. Citizens are raised in the spirit of "rights". "Rights" require financing. Nobody cares where the money for them comes from. Humanity is facing a critical point where "all is possible", where members are contributing "from each according to his abilities" and receiving "to each according to his need".

The current crisis therefore reminds us that a success-oriented transition from the eurozone to stand-alone currencies should not be limited to the technical details of the required substitution of currencies; it should include a revival of all the basic functions of money.

Our plan is designed with the avowed purpose of reviving sound finance. The challenge of leaving the eurozone for a single country is daunting, yet it may be a unique opportunity to re-establish sound currencies. We believe that Europe is the place which has the capacity (and responsibility) to show the world the path to financial transparency and stability. The plan does not aim at specific interest groups or institutions; rather, it provides a solution which will benefit every citizen but not at the expense of others. Only such a currency is compatible with the goals of future growth and prosperity.

It is often said that there is no exit from the eurozone as the exit mechanism wasn't thought of and included in the membership agreement. None of the monetary unions had an exit plan developed in advance; however, almost all unions went through disintegration process. So, there is always an exit, and the eurozone makes no exception.

Our proposed exit from the eurozone is nothing else but the introduction of a new better performing currency. So, in principle we are solving two major tasks. The first is how to conduct the exit process itself, although this process raises many questions, mostly technical ones, there are also many more or less successful historical precedents. The second task is to provide the market with a new kind of money, which must be essentially different from the euro or the majority of existing currencies.

By the proposed plan we seek:

- 1) to lay the grounds for the viability of the new currency;
- 2) to respect and protect the rights of creditors;
- 3) and to maintain stable trade, financial and other commercial ties between counterparties.

This exit from the eurozone is a challenge with the much more serious implications than the creation of the eurozone. Reformers should not assume that there are easy and costless ways to exit the eurozone. One must admit that there is no ideal exit scenario; one should choose the exit that is the least damaging and provides a solid basis for future competitiveness and economic growth.

2. Causes of the euro crisis

In order to formulate clear guidelines for a transition and to determine the new currency's qualities, one must begin by recognizing the real causes of the euro crisis.

The euro was created as a single currency not only to facilitate exchange and to reduce transaction costs, but also to end the economic conflict conducted by the European countries in the currency arena. After the fall of Bretton Woods's system in 1971, Central banks of Western European countries lost the control over the money supply. Huge exchange rate fluctuations harmed international trade and capital movement. German exporters (especially automotive companies) were most unsatisfied with the strong Deutschmark. Something had to be done to stop the currency wars, and Europe opted for the euro. The founding fathers of the euro understood that economic rivalry among countries may be moved from the currencies arena to the debt arena. That is why the criteria to adopt the euro, the Maastricht criteria, were designed to prevent countries from manipulative games in the single currency field. However, since there are no legal or economic consequences for the countries that break the Maastricht criteria (at least none of the existing mechanisms, such as EU excessive deficit procedure, were applied), the fear of fiscal wars became the present reality. While countries lost the possibility to issue unlimited amount of national currency, they engaged in large scale borrowing, and single currency euro even facilitated this.

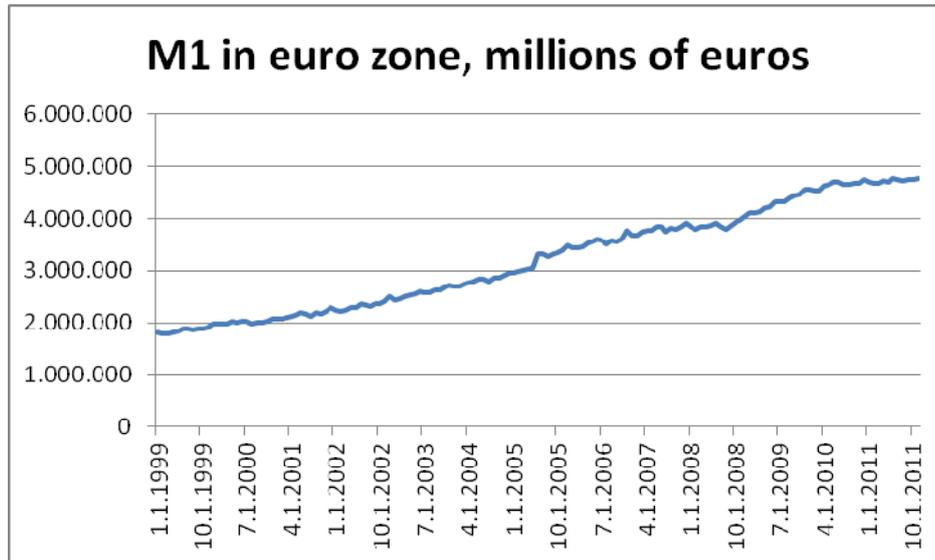
Today the euro has been weakened by attempts of some irresponsible governments to cover **public deficits or to finance public debt** via monetary means, i.e., to monetize the debt. Irresponsible fiscal policies create huge public debts which cannot be repaid, thus put pressure on governments and central banks to monetize these debts. Currently, there is no direct monetization; instead, monetization is being conducted indirectly through the lending facilities of the European Central Bank (ECB) and emergency lending facility of the central banks that belong to the ECB system. Commercial banks have huge incentives to lend to the governments since sovereign bonds are less risky assets and they can use these bonds as collateral with the ECB. This is indirect and, of course, quite limited way to monetize the debts, therefore irresponsible countries would demand larger scale of intervention. This process increases the supply of money and thus weakens the euro's purchasing power.

Monetization of debt means that disciplined countries take the burden of undisciplined ones, and that the citizens and businesses of disciplined countries bear the burden of decisions made by undisciplined governments. This redistribution takes many forms but in addition to its economic outcomes causes moral hazard and public dissatisfaction. Such a system is not sustainable from a more general point of view than just the economic ones.

In addition, the official public debt figures hardly capture the scope of the present debt problem because they do not include the long term obligations of the state social security (welfare) systems; this is invisible debt. This debt will reveal itself in the years to come as its obligations come due. If current policies continue, economic tragedy is inevitable: the euro will lose value, or government will default on their debt instruments and social security obligations, or both.

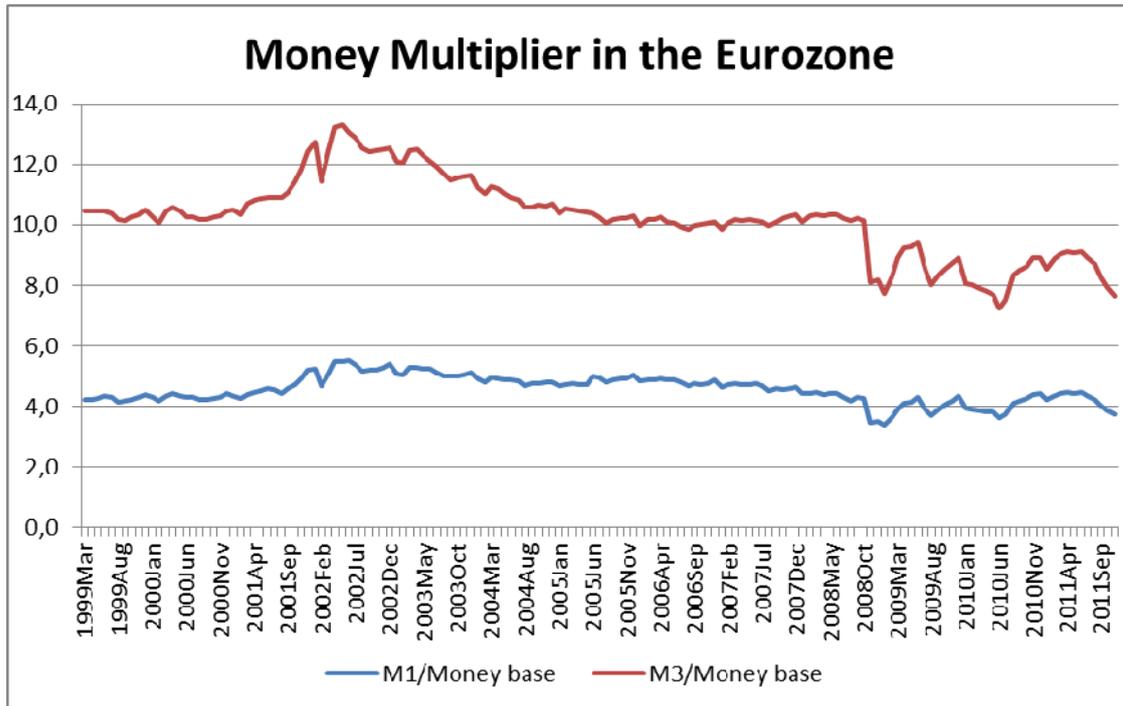
The single currency also allowed large scale **international cross-subsidizing and redistribution** to emerge. The euro provided credibility to economically weaker countries, allowing them to cheaper finance their public deficits. That created an illusion that economic prosperity can be easily achieved by cheaper financing alone. Essential economic reforms of welfare systems and the improvement of the business climate were not addressed in a timely manner. These unsolved tasks will inevitably require attention as the monetary means for stimulating economic growth have already been exhausted. Economic prosperity can only be achieved by effective production, by competitiveness that is reached through production rather than redistribution.

The public debt component in the euro crisis is crucial; however it should not overshadow the other weaknesses of the euro, i.e. credit expansion and fractional reserve system that creates the money multiplier. The ECB issues euros by granting credits to commercial banks at an arbitrary interest rate (which is misleadingly called the "basic interest rate"). That creates an increase in the money supply which damages the economy due to monetary and general price inflation, redistribution of wealth and by malinvestment. Despite the fact that the ECB monetary policies have been more disciplined than the Federal Reserve's it is still engaged in monetary expansion. The ECB's has increased the money supply (M1) 2.6 times since its single monetary policy began in 1999. See the graph below.



Source: ECB

After money is issued, commercial banks can increase the money supply through the fractional reserve system. The ECB requires a minimum reserve on only 2 % for demand deposits and that allows the money supply to multiply, in theory, by a maximum of 50 times. The actual money multiplier in the eurozone is 3.7 for M1 and 7.7 for M3. See the graph below. The constantly deteriorating purchasing power of money depreciates savings and income and thereby encourages society to indulge in “fast living”. People tend to spend their money as fast as possible (to consume), and neither people, nor businesses should be blamed for that.



Source: ECB

The euro is facing problems now not because the eurozone's 17 countries are too different to have a single currency. The world is much more diverse than the eurozone, but most of the globe was once comfortable with single currency - gold and silver. The Neither does the eurozone suffer from its lack of financial integration (as proponents of financial integration point to the eurozone's lack of single budget, harmonized taxes, Eurobonds, etc) as well. Economic integration comes from free trade, free movement of people, capital, goods and services. If someone wants more integration, they should focus on these 4 liberties that were initial goals of the EU. If euro crisis is solved in a timely manner, then real European integration, based on free trade, can proceed.

In sum, the main reason for the euro crisis is that the single currency is no longer scarce and this harms the current membership. The constantly increasing supply of euros redistributes wealth among member countries and generations, destroys prices and savings, and causes malinvestment which leads to the consumption of capital and, in the long run, - the general impoverishment of the eurozone society. The euro's problems stem from its lack of the anchor, that European nations lost after the fall of Bretton Woods system in 1971 (which, it should be acknowledged wasn't a perfect system either).

3. Reasons for exit and implications for the EMU

The exit from the eurozone may be needed if:

- a country decides to create a better currency and protect itself from the overspending of the remaining eurozone countries ("German" type exit);
- EMU members decide to exclude overspending countries from the eurozone ("Greek" type forced exit) and to protect euro;

- a country seeks to monetize the debt or to create a bigger inflation (“Greek” type voluntary exit).

All 3 reasons may become a real cause for the exit, but the market expectations will strongly differ depending on which country is exiting. The implications to the current EMU will differ as well.

If the country like Germany was to reintroduce the Deutschmark, the markets are likely to believe that the new Deutschmark will keep its value for long. A lot of euro holders in countries like Greece will transfer their euro stock and contracts to the countries like Germany, because they expect to exchange euros into a stronger currency – Deutschmark. That will lead to liquidity problems in the banks operating in countries with the weaker currency. In the worst case scenario, the solution for the remaining countries in the eurozone will be either to tolerate bank mergers and even bankruptcies or to engage in large scale lending facilities. This deleveraging process may become the main impulse to inflate the euro. That will lead to the rapidly weakening euro and further collapse of eurozone in the long run. The exit of a strong economy from the eurozone would speedup the full scale disintegration of the eurozone.

“Greece” type exit would be beneficial to the eurozone itself in the short run, as there would remain less pressure on the euro to monetize the debt of indebted countries. However the adjustment processes will take part in this case as well. If Greece is about to return to drachma, markets are unlikely to believe that the new drachma will keep its value in exchange for a long time. Money and capital will flow out of “Greek” type country immediately after the country announces the exit. To face the problems in the banking sector, the central bank may inflate the currency and turn on the inflationary circle.

However, this will have implications on the eurozone as well. If drachma is inflating, the exporters from the eurozone countries might be complaining about strong euro. Interest groups may put pressure on the governments to weaken the euro. To protect the euro from the political pressure and the pressure of interest groups, euro itself needs the stronger anchor rather than formulas according to which the money issue is organized. Therefore we would suggest the ECB to start using some fragments of this transition plan, mainly pegging, if it seeks to increase the purchasing power of the euro, to protect savings from inflation, to provide for market interest rates, to depoliticize the issue of the currency and to pursue transparent monetary policy.

The use of our proposed exit **mechanism** is not limited by a country’s size or economic potential, but the effect of the country’s exit on the other eurozone members will vary. In German” type exit, there is only a question of time when the full disintegration of the eurozone comes about. In the “Greek” type exit, both - voluntary or forced, the eurozone may try to pursue sound policies. It would have to improve the monetary rules, to put restraints of public finances and to implement core economic reforms, mainly in the welfare systems. The wide range revision of business regulations is inevitable to increase the competitiveness of the EMU. We stress that money is a crucially important part, however at the moment insufficient to put soundest foundations for the future economic growth of the European Economic and Monetary Union.

4. Alternative exit scenarios

The world has seen the collapse of several monetary unions, such as the independence of British colonies, the fall of the Austro-Hungarian Empire, the abolishment of Bretton Woods's system, the fall of the ruble zone and currency splitting by the new countries of the former Yugoslavia and Czechoslovakia. The disintegration of most monetary unions was caused by political separation; however, this is not a prerequisite for monetary disintegration. Political conflicts add more risks to monetary disintegration, as the changeover process can be followed by the introduction of trade barriers or other obstacles to the cross-border economic relations.

In order to develop the most grounded exit scenario, we discuss and evaluate main alternatives in this section.

The various scenarios for exiting a monetary union are:

1. Parallel circulation of currencies without sole legal tender laws:
 - a) when no new currency is issued;
 - b) when the new currency is issued by the central bank of the country leaving the union;
 - c) when new currencies are issued by private banks of the country leaving the union (including minted gold).
2. Adoption of another state's currency (dollarization, poundization, etc).
3. Introduction of the national currency (or the return of previous currency) as *fiat* money, with the classical functions of the central bank, possibly with different targets.
4. Currency board arrangements such as:
 - 4.1. A currency board-like system (or the reserve currency standard), with the new currency pegged to the foreign currency (or a basket of currencies) with full backing;
 - 4.2. A pure (orthodox) currency board system (or the reserve commodity standard), with the new currency pegged to a commodity (gold, silver or the basket of precious metals) with full backing. One may choose any commodity; however this leads to the fundamental question, which commodity and for what reasons. There is no evidence or any solid arguments that other commodities, such as oil, aluminum, crops, etc., can serve as a reserve for a paper currency. Therefore, we only mention gold and silver as money since they have been chosen by people in the past by a sort of evolutionary process. People declined those commodities that had served worst and chose those commodities that had performed the monetary function best.

The parallel circulation of foreign currencies

In the parallel currencies scenario, all new contracts can be done with a freely chosen currency (that can be any currency that parties agree to use). Currency competition is beneficial to market participants, because this allows them to choose the currency which suits them best. Therefore parallel currencies are an attractive option for the new contracts, however, this is not the case with current liabilities (mortgages, debts, labor contracts) designated in the old currency.

If a country wants to abolish the euro as its sole legal tender and does not introduce a new currency (scenario 1a), complex processes are involved. The exiting country and its commercial banks lose the window to the euro. The exit means that the exiting country will lose direct access to euro “production”: it will no longer be able to issue euros, local commercial banks will not be able to use open window financing at the ECB. However banks will have to fulfill long-term debt obligations that have been done in euros. Thus, the main challenge with the parallel currencies scenario is obtaining the liquidity for the fulfillment of former contracts designated in euro. This challenge arises mainly in the banking system where all liabilities are multiplied through the fractional reserve banking.

The issue of a new currency in a parallel currencies scenario (1b) may only create a competition for existing currencies, however the liquidity problem in the banking sector remains unsolved, as the compulsory denomination is not compatible with the parallel currencies concept. To alleviate the liquidity problem one must opt for other scenarios from the list.

Parallel currencies without an issue of new money (1a scenario) are an exit option for the least problematic countries, those with a small public debt, low money multiplier, and a strong reserve base. In any case the state would have to set a common denominator (the default currency) for transactions with the state such as public procurement and tax payment). Therefore we consider this scenario unsuitable for a sound and comprehensive exit. However the principle of having a free choice of currency in new contracts is worth applying after a country has exited from a common currency.

The adoption of the currency of the other state

The adoption of the currency of the other state is suitable for countries where major part of savings is kept in the foreign currency and central banks hold (sufficient) foreign currency reserves. If that is not the case, the adoption of the currency of the other state leads to the same major problems as the introduction of parallel currencies - liquidity. The country introducing a foreign currency should enter into cooperation with the central bank issuing this currency if it opts for this scenario.

There have been successful examples of the unilateral introduction of a foreign currency, such as Montenegro adoption of the euro.

Introducing the national currency as *fiat* money

The goal of the central bank - issuing the *fiat* money - is to ensure price stability and to hit the inflation target as measured by the Consumer Price Index. Other mechanisms to regulate the money supply may be chosen (corridors, crawling pegs). The fiscal discipline may be imposed through laws. However, the main risk in the system is that the national central bank sets its own monetary rules and may change them at any time if sees fit. Fiscal discipline may not be obeyed even if it is stated in the law, the law itself may be changed. The pressure comes either from interest groups, or political bodies. Thus, the main risk in the fiat money system is that the national central bank inflates currency. This risk exists

because there are infirm rules for the issuance of money. *Fiat* money is not related to any commodity, it is not a claim. *Fiat* money is the reason for and the inevitable extension of the inflation-driven approach to economic growth, which discredited itself in the past years.

In the *fiat* money systems, there usually are additional goals that governments want to achieve with the aid of money. These are to stimulate markets, to finance public deficits and to redistribute wealth. The ECB stresses that its only target is price stability however it is constantly pressured to monetize debt or to engage in stimulus plans. The mentioned problems will remain in the national currency scenario if strict rules on money issue are not imposed.

Inflationary currencies do not perform the function of saving, as money holders simply want to get rid of money that is losing its value. Furthermore, bad money pushes good money out of circulation. (This process is known as Gresham's law). It may happen that new independent currency, if inflationary, will push the euro out of circulation (into savings, hoarding). This would be quite likely in a "Greek" type scenario. Capital/savings flee the country, and people invest in stronger euros, gold, real estate or any other tangible good. Governments may seek to protect the NIC through declaring it to be the sole legal tender and discriminating against other goods and currencies by taxing them or even fixing the official exchange rate (Belarus example).

The introduction of the national currency as *fiat* money is the scenario which governments would most like to adopt. However, the users of the national currency, except perhaps exporters and new debtors, have interests diametrically opposed to those of the government's. People and businesses may fear that *fiat* money will bring problems that they had experienced before, mainly the constant devaluation of the currency unit with regard to other goods and services. Therefore, people, markets and the entire economy would benefit the most from clear restrictive rules concerning the issuing of money. These rules could be imposed with the currency board arrangement.

Currency board arrangements

Despite its "exotic" image, currency boards were quite wide spread during the 19-20th centuries and several are operating successfully today. An orthodox currency board is supposed to keep gold and silver reserves and is known as a gold standard system.

Within the EU there are currency board-like systems, in Lithuanian and Bulgaria, which issue national currencies with the peg to euro. Estonia began a currency board system when it introduced the Estonian kroon (EEK) in 1992. Lithuania followed Estonia's lead and introduced a currency board system on April 1, 1994. The IMF initially opposed the introduction of these systems, but later could not deny the success of the Estonian currency board. The IMF extended a credit to the Bank of Lithuania to strengthen its reserve base before pegging Lithuanian national currency Litas to the US dollar. Lithuania successfully repaid the debt. At present, after 18 years of existence of the currency board, the amount of Litas in circulation is covered by over 130 % with euro reserves (Source: The Bank of Lithuania, December 2011).

Currency board-like systems protect the market from the domestic source of inflation; however they suffer from the inflationary policies of the reserve currency countries.

A currency board, whether orthodox or a currency board-like system, is simple to run. The issue of money is automatic, without political interference and by itself does not increase inflation. The system is so flexible, that it can smoothly switch to another reserve currency.

For example, Lithuania re-pegged the Litas from the US dollar to the euro on February 2, 2002 without causing any problems to the market.

Therefore, we consider that elements of a currency board mechanism would be useful during the process of exiting from the eurozone as well.

To sum up, we would propose to employ the currency board elements during the exit and, preferably, after the exit from the eurozone as this would provide the soundest foundation for the future growth and prosperity of the current membership.

Chapter II. THE NEW CURRENCY INTRODUCTION

5. Is debt an obstacle?

The main economic question is whether the exit mechanism is suitable for heavily indebted countries, such as Greece or Italy, which clearly have difficulties repaying their debt. For these countries, the sheer size of their public debt is a fundamental problem that will need to be solved whether they are within or outside the eurozone. Changing the currency alone will not diminish their debt. The debt problem will need to be dealt with and there are 4 possible ways to solve a debt crisis:

- 1) Budgetary means (reduction of expenditure or an increase in taxes, or both);
- 2) Monetary means (monetizing the debt, i.e. an issue of money to repay the debt);
- 3) Default or debt restructuring;
- 4) Some combination of the first 3 options.

We do not include the economic growth as a financing source for repayment of debt, as the expected EU economic growth is far too little for that purpose, thus would create inadequate expectations. We also hardly see any attempts that countries try to decrease the size shadow economy and by this increase tax revenue, therefore we also do not see the shadow economy as a realistic source of financing.

It is important to note that each of the ways to deal with the debt problem produces winners and losers. Therefore, solving the debt crisis is a matter of choosing which group will bear the loss. The immediate winners and losers as well as long term consequences are presented in the table below.

| | Winners | Losers | Long term consequences |
|-------------------------------|---|--|--|
| Budgetary means: | | | |
| Increase in taxes | State creditors, if extra income is generated and if this income is used to repay the debt | Taxpayers (of the increased taxes) | Increasing shadow economy, shrinking tax collection, slower growth from the increased tax burden |
| Austerity measures | Taxpayers | Public sector employees, recipients of transfers and businesses engaged in public procurement process | Possible revenue increase due to Laffer effect, economic growth |
| Monetary means | In the early stages of inflation - state creditors and exporters. Rising inflation helps bank debtors to repay the debt | Rising inflation eventually hurts the entire population, especially savers, employees, consumers and receivers of fixed income | Slower growth from the inefficiency loss of a stable unit of account. Lost trust in the currency, inflation, business cycle |
| Default | Creditors of non-state debt | State creditors | High financing costs due to the loss of faith by creditors, difficulties for further borrowing |
| Restructuring the debt | Those to whom debts have been repaid (the general population in most cases) | Those who were forced to renounce their claims (banks and funds in most cases) | Lost trust of creditors, higher financing costs |

The ability of an indebted country in the eurozone to monetize its debt is limited because the country (its central bank) cannot directly issue money in the desired quantities. For indebted countries, an exit from the eurozone is an opportunity to monetize their debt, to undertake a “Greece” type exit. As it is shown in the table above, monetizing the debt has devastating effects on the whole population. It also bears the moral stigma that risk takers are bailed out at the expense of the rest of the economy.

Increase in taxes may be applied up to the certain level. Given tax rates are already high in the most of European countries, there is little room remaining for the tax increase. With the each increase in the tax rate, each percentage point of the tax raises less and less revenue. Tax increase pushes businesses and people in to the shadow or out of the economic activities.

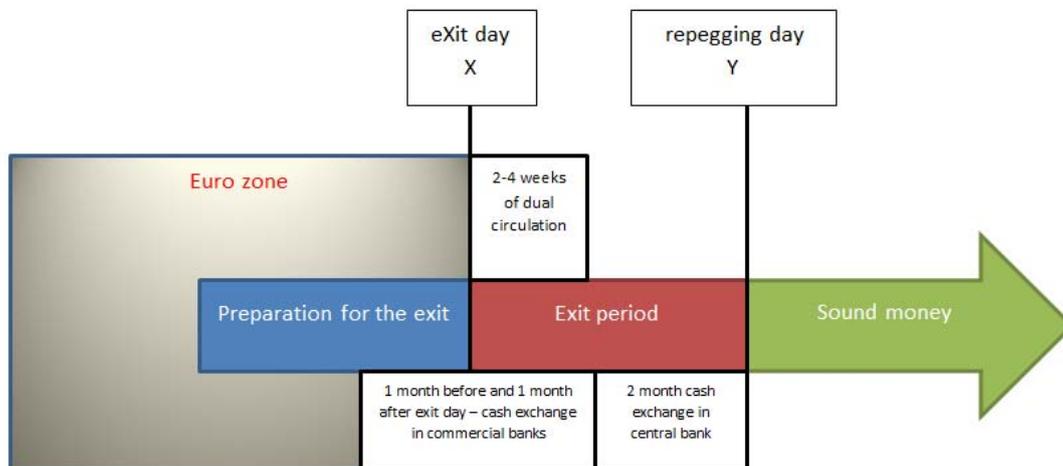
Thus, we would favour a combination of austerity, debt restructuring and - in the worst case – debt default as the least damaging solution to the debt question and the best preparation for future economic growth. These measures are also most compatible with the proposed exit plan.

6. Principles of the transition

The main principle is to apply the **currency board elements**. These include:

- a) A fixed exchange rate between the euro and the NIC during the transition period. We recommend using a 1:1 exchange rate for the sake of simplicity. That will allow avoiding confusions over prices and having to round them off.
- b) The central bank holds 100% euro reserves to back the NIC in circulation (Money base, or M0).
- c) Unless the counterparties otherwise agree, from 2 to 4 weeks of dual circulation of the euro and the NIC should be applied to avoid panic in the market and to avoid disruption of everyday activities. Shops should give change in the NIC (unless otherwise agreed among counterparties). The broadest possible rights should be granted to private parties to specify which currency to use in daily contracts.
- d) No sole legal tender should be specified for new contracts during and after the transition, which means that people and companies may use any currency upon mutual agreement in their contracts and payments (with the exception of accounting and paying taxes).

The scheme of the transition



7. The introduction

The introduction includes the following integral parts:

- 1) The concept of the introduction of a new currency (timing, redenomination of debts, contracts, etc);
- 2) Preparation and technical readiness;
- 3) Exchange of cash holdings and denomination.

7.1 Concept of the introduction of a new currency

Timing. There are 3 main ways to conduct the introduction of a new currency:

- 1) **The “surprise” scenario.** An unexpected introduction of the new currency would be sensible if the country intends to monetize the debt and to introduce an inflationary currency (“Greek” type of exit). This would prevent a large-scale outflow of euro deposits to the banks of other countries, which would otherwise cause a lack of liquidity in the commercial banks. However, it is hardly possible to implement the surprise scenario, since it requires confidentiality, which is difficult to maintain while the required review of exit related legislation and the production of the new currency was being done.
- 2) **Quick transition.** A quick transition after serious preparation makes sense. If the exit is well thought through beforehand, there is no need to have a long transition

period. The maximum term of the transition is determined by the time required to physically exchange the currency. The denomination of contracts must be specified to occur on one day, eXit day X.

- 3) **Extended transition.** A longer period of transition would be suitable if the currency exit is being forced by external factors and the central bank and the government is not prepared for a quick introduction of a new currency. Evidence shows that long transitions create more uncertainty in the market.

Lithuania's exit from the ruble zone is an example of an extended transition. When Lithuania proclaimed independence, it was still using rubles. The inflow of rubles was huge, people from former soviet republics were coming to Lithuania to buy the goods in deficit. That emptied all shelves in the shops, therefore Lithuania had to introduce food (and other goods, for example, soap) coupons for citizens. But that was not sufficient to deal the deficit of products problem. To limit the amount of incoming rubles, the central bank issued temporary money (coupons) that at first were used together with the ruble, then later instead of the ruble. The national currency Litas was only introduced after 3 years of this transition, on June 25th, 1993. The inflationary Litas hardly reminded the "golden" Litas that was first introduced in 1922. This long transition period was inflationary, full of uncertainty and contributed to economic instability. Only following the introduction of currency board in 1994 was the inflation reduced.

To sum up, the best scenario is a well-planned quick transition, as proposed in this plan.

How much cash is needed? The exchange of cash is voluntary, and the only question to be solved is the quantity of new notes and coins that should be printed. The main unknown is what will be the "propensity" to exchange and, consequently, how many notes and coins will be needed for an uninterrupted initial exchange of currencies. Of course, the central bank will provide more notes and coins in the future as part of its operational activities.

The propensity to exchange euros into the NIC will mainly depend on the market's expectations regarding the qualities of the new currency. If the markets expect a weak currency (e.g., a drachma), the main demand for cash will be driven by the compulsory denomination of deposits and the need to pay them out in cash. So, the amount of demand deposits can serve as a benchmark for the stock of the NIC cash.

If the markets expect a strong currency (e.g., a Deutschmark), the need for cash will be significantly larger. In the "German" scenario one may need to think about the limitations on the amount of cash that is exchanged at the fixed exchange rate. The country that intends to run the strong currency may wish to switch to the other peg, or the freely floating exchange rate more quickly, or even immediately after the eXit day X. This can be done through the shortening the exit period. However, this is only partial solution, as that would create waiting lines for those who want to exchange euros into NIC at the initial exchange rate, expecting it to be getting stronger. However, one should not fear that all euro-cash is

exchanged into the NIC. The stress should be put not on the initial exchange, but on the further policies that will become crucial for NIC holders.

Demand deposit accounts. The owners of demand deposits are the most vulnerable creditors because they are involved in the fractional reserve system in commercial banks against their will and without their consent. For example, legal entities must keep most of their money in banks as it is not legal to use cash for payments larger than the amount set by the government. It means that these holders of demand deposits may not have any other option to safeguard their money, they cannot “run to cash” or move to any other e-money systems because there is a monopoly in payments which favors commercial banks. It is common that the entrance in to the payments/clearing system is very limited; normally commercial banks are the main service providers of e-payments. Therefore it can be expected that demand depositors will want the right to choose their currency.

However, if currency choice were allowed, then the commercial banks would confront insurmountable problems and face mass bankruptcies. Thus, the sound exit would then fail too. The first reason is that the euro and the NIC currency position cannot be controlled by the commercial banks, if the voluntary denomination of banking loans and deposits was allowed. Second, if contracts remain in euro, the commercial banks will not be able to convert euro-deposits into euro-cash, since the central bank cannot fully provide commercial banks with euro after the exit. Thus, exposure to the euro must be strictly limited. **This requires the full changeover (denomination) of the euro deposits into new independent currency at the eXit day X at the fixed rate 1:1.**

Term deposits. All euro-denominated deposits should be changed into the NIC at an exchange rate of 1:1. All those who do not want their deposits to changeover may withdraw, terminate, transfer or convert euro deposits before the exit period (before “eXit day X”). To reduce the risk of a bank run, legal guarantees must be issued that the exchange rate will be fixed during the entire exit period. Moreover, the longer prospective should be given to the NIC holders, mainly, passing the legislation and explaining the future monetary policies. However, there is a risk that a bank run cannot be prevented and that local central banks will engage in emergency lending facilities by still using the euro. This emergency lending process in euros will end with the introduction of the NIC.

Bank loans. In order to manage currency risk and to leverage the currency of banks’ assets and liabilities, the euro-loans must be denominated into the NIC at the fixed exchange rate specified for the day “X” (1:1).

Private sector (non-bank) loans and other private contracts, including wages and salaries. The default is to denominate these in the new currency. All private sector contracts are denominated in NIC at the eXit day X at the fixed exchange rate 1:1. However, there is some space for the decisions of the counterparties involved. Since entities other than commercial banks do not suffer from the money multiplier, the counterparties may mutually agree not to denominate the contract in the NIC.

Denominations (statute (authorized) capital, shares). Any currency should be allowed for denomination with the decision taken by the counterparties involved by majority rule.

Public sector debts (bonds). Since our plan holds that the new currency cannot solve debt problems and that they should be dealt with separately by non-monetary means, there is no general rule for the denomination of debt. Of course, the country that intends to monetize its debt will denominate its debt. However, if the country is committed to having a strong currency, then it may make sense not to denominate the debt, since the expectation would be that the value of the euro will fall against the NIC. The option not to denominate the debt is more preferable since: that will not create legal problems (euros received, euros repaid) and encourage non-inflationary monetary policy. The argument for denomination is that the tax revenue would be received in the NIC, an advantage since this revenue would be the source for the repayment of the debt. It comes without saying that countries will take a decision that is more beneficial for the debtor.

Public sector obligations. All public sector obligations to citizens, such as pay-as-you-go pensions and unemployment benefits must be denominated. The reason for that is that taxes would be collected in the NIC. When revenues and expenditures are denominated in the same currency, this doesn't cause currency exchange risk.

Public procurement contracts. Since payments for the provision of goods and services are made mainly from the tax revenue, the contracts have to be denominated.

Accumulated values (pension funds, investment funds). Pension and investment funds keep their assets in the form of shares, bonds and deposits, so these institutions will face the denomination of cash holdings kept in local banks, but there other assets, such as stocks and bonds, may or may not be denominated. Since their assets are both denominated and non-denominated, pension and investment funds should be granted the right to decide whether and how much they switch to a new currency.

Accounting. Accounting is recorded in the new currency.

7.2 Preparation and technical readiness

Preparation and technical readiness stage must be accomplished before the eXit day "X".

Tasks of the preparation stage are the following:

- a) To establish the exit's legitimacy, i.e. to create a multilateral agreement. The Parliament of the exiting country must pass a law which has to be ratified by the other member states. If this multilateral agreement option proves unrealistic, which is very likely, the second best solution is a bilateral decision by the exiting country and a relevant EU institution. (There is no such an institution at the moment; however it may be assigned). The least desirable option is a unilateral exit.
- b) To form a **special task force** to coordinate the exit process. This committee should include top decision makers from the government (ministers), the central bank and the securities commission.

- c) To draft **legislation**. Before the drafting of any legislation, a review should be conducted of all existing legislation which will be affected by the exit, including: laws concerning Central Bank, the new currency, laws regarding accounting and payments, the civil and commercial code (and other laws on contracts), laws on budgets and public finances, laws on prices, laws on commercial banks, laws on shareholding companies, pension and investment funds and any other laws that may be related to the currency switch. Special regulation regarding the transition will be needed. At this stage, the decisions should be made about the name of the new currency, its initial exchange rate with the euro, what will be the denominations of the new notes and coins, which will be the “eXit day X”, what legal guaranties should be made to creditors and what clear rules should be declared for the issue of the new currency.
- d) To **print, mint and supply commercial banks with** the new money. Sufficient stock of the NIC must be kept in the vaults of the central bank and those commercial banks which handle the physical exchange of cash. Of course, the new bank notes and coins must first be designed and minted. Since these same notes and coins will keep circulating after the exit period as well, it seems worthwhile to produce a genuinely new currency rather than over stamp an old one (or put stamps on euro-notes), in order to increase its credibility and to reduce counterfeiting. **IT solutions** need to be developed to enable interbank settlements with the new currency.
- e) To raise **public awareness**. A successful information campaign is crucial for a smooth transition. Full information about the exit period must be available to the general public. In addition, bank depositors and borrowers should be individually notified of how the exit will affect their saving and debts.
- f) To set aside a **transition fund**. This fund will be used to compensate commercial banks for the currency exchange transactions and to cover other transition costs.

7.3 Physical exchange of euro-cash holdings and denomination

The exchange of euro-cash to the NIC is voluntary.

The physical exchange of cash holdings should take place in two stages:

1) Commercial banks exchange euros into the NIC 1 month prior to the eXit day “X” and 1 month after the day “X” at the fixed exchange rate 1:1. No commissions or any other charges should be levied on the euro holders, since the banks will be compensated from the transition fund. All euros received during the changeover are transferred to the central bank. These euros will become the reserve in the central bank to back the NIC in circulation. Most euro-cash will be exchanged in to the NIC via commercial banks as these banks have necessary infrastructure to serve the currency holders.

2) The central bank exchanges euro-cash to the NIC at the fixed exchange rate 1:1 for the rest of the exit period (the remaining 2 months).

The denomination of all other assets, debts, etc is done on the eXit day “X” according to the concept detailed above in the Section 7.1

Chapter III. RE-PEGGING

8. The need for re-pegging

After the transition period is over, the situation is as follows:

- The NIC is in circulation and in accounting;
- The NIC and the euro are fixed at the exchange rate of 1:1, the central bank holds sufficient (100%) reserves to back the exchange. That means that the central bank must keep the euro reserves outside the country (in deposits, bonds), so as not to increase the domestic money supply.

If the central bank ends the changeover at this stage, that means that a country merely appears to be using a currency different than the euro but in reality it simply imports the European monetary policy, either good or bad. Because the country's goal was to exit the eurozone, at this stage, the goal has not yet been achieved and the process is still incomplete. The country must follow whichever monetary scenario (as outlined in Chapter 1, Section 3) provides their new currency with the desired qualities: Alternative *1a* (the parallel circulation of the currencies when the new currency is issued), or *3* (*fiat* money) or *4* (currency board). As the comparative analysis in Section 3 suggests, we would proceed with the currency board alternative.

8.1 How much reserves are needed and how to define the exchange rate?

After the first step, the central bank holds its reserves in euros (since it received them through the conversion of euros into the NIC), other foreign currencies and gold. These are the initial reserves that must be turned into the chosen currency or commodity at the market rate (purchase or exchange must be done). To strengthen the reserve basis, loans (for example, from the IMF) can be taken.

Since:

- currencies of other countries (baskets of other currencies) face inflationary dangers, they cannot serve as an anchor currency;
- a basket of metals (or commodities) would render the system less transparent, however it may help to leverage the risk of the falling price of one commodity;
- any choice of the other commodities or the basket of them would be arbitrary decision, *a priori* not reliable;
- gold was the last money that markets spontaneously - historically chose to facilitate exchange - therefore we propose to choose gold as a reserve commodity with the full understanding of the benefits and shortcomings. In the Section 8.3 we will address main critiques regarding the returning to the gold standard money.

After the purchase of additional quantity of gold is completed, the central bank has a certain quantity of gold (in tons) at day Y. These are their initial reserves, and they become the starting point to define the

exchange rate of the NIC to gold. The initial amount of the reserves is more important psychologically than economically. Fixing the money to the quantity of gold will disclose the value of other paper currencies as defined by a quantity of gold. Both the price of gold and the value of a currency will become evident each time currencies are exchanged on the Forex market in addition to the commodities market. Once world has at least one currency pegged to gold, and then all shortcomings of all other currencies become obvious (that explains why almost all central banks refused pegging their currencies to metals almost simultaneously).

So, the central bank has a certain quantity of gold. It also knows how many NIC it has issued by exchanging into euros – it is its money base. The arithmetic ratio between the amount of the NIC and gold is the backing ratio and will become the fixed exchange rate from the day Y to the future.

The main function gold performs here is to limit issue of the NIC. The exchange of the NIC into foreign currencies is done on the market. However, if the NIC holder is willing to exchange his NIC into gold, the central bank must create a mechanism to do that at any request, including the minimum amount of the NIC, settlement time, restricting commissions, etc.

It is not possible to physically indicate the exchange rate on the banknotes immediately as they were printed during the first-step of the transition, however, from now on, it is sensible to gradually introduce this marking of the exchange rate while exchanging the worn notes for the new ones. “I promise to pay the bearer of NIC *xyz* amount of gold”.

8.2 Institutional implications

The functions of the central bank must be redefined and stated in the law. These functions should include:

- 1) The issue of paper money and coins;
- 2) The exchange of notes and coins into gold (of a certain quantity);
- 3) Stockpiling gold and managing gold deposits;
- 4) Optional – defining minimum reserve requirement for the commercial banks.

These functions are different from those of a classical central bank. The functions of a classical central bank are to be the lender of last resort, to supervise commercial banks, to engage in open market operations (loans and deposits), to serve as an agent for the treasury and to set the base interest rate. Bank supervision should be assigned to a separate institution. Other functions should be eliminated.

The main task of the central bank is to ensure the stability of money by backing it fully with the reserve commodity. That means that the central bank is not producing money inflation. That also means that operation of the bank becomes simple and needs fewer resources, including staff. The bank earns seigniorage from interest; they may also charge clientele for the exchange operations. The size of commissions must be set by law and should not be exceeded.

The law must provide full accountability to the citizens, mainly by declaring the amount of reserves (in physical terms, as the price of gold in relation to other currencies will fluctuate) and the paper money in circulation. The above-mentioned legislation will ensure transparency and discourage political influence.

If the central bank does not set the minimum reserve requirement, commercial banks in such a system will choose what fraction of demand deposits they reserve (at present the minimum reserve requirement is set by ECB). There will be a tendency towards increasing reserves and thus increasingly stable banking system. Banks will find it beneficial to disclose and publicize information about the size of their reserves in contrast to the present situation where the central bank sets the uniform minimum reserve rate and bails out commercial banks if they are in trouble.

8.3 Economic implications (deleveraging process, deflation, competitiveness)

One major criticism of using gold as reserve for currency is that the price of gold may be overvalued, that the price is in a “bubble”. This critique can be countered by recognizing that the increase in the gold price has two main reasons: 1) gold is keeping its value against inflating currencies, and 2) markets expect governments to monetize their debt, so investors are waiting for that to happen. Afterwards the gold will be sold by speculators, they earn the arbitrage (and can cover their liabilities easier), and the gold price will go down due to big and sudden supply of it. There is no need to define which component is dominating today in the gold price, as both reasons confirm the need for gold backing of money as apposed to the monetizing debts.

The money supply in the proposed system automatically increases whenever there is an increase in the reserves. There is no other way to provide the liquidity to the commercial banks from the central bank, so there is a danger that banks will have difficulties in going through the deleveraging process. As banks will not get additional liquidity from the central bank, they will reduce lending. The amount of bad debts will increase, as some clients will not be able to refinance their debts. Banks will confront a lack of capital and private owners may be unwilling or incapable to increase the capital.

In relation to this, it is worth to scrutinize the Swedish example. During the banking crisis in 1990, Swedish banks used their money to buy public bonds, and the government used the revenue to strengthen the capital base of the banks. This was viewed as an example of how banks used an absurd method to get themselves out of difficulty (rather like Baron Munchausen pulling himself from the swamp by his own hair) – however, this was the only way to get around the imposed regulations (mainly capital adequacy).

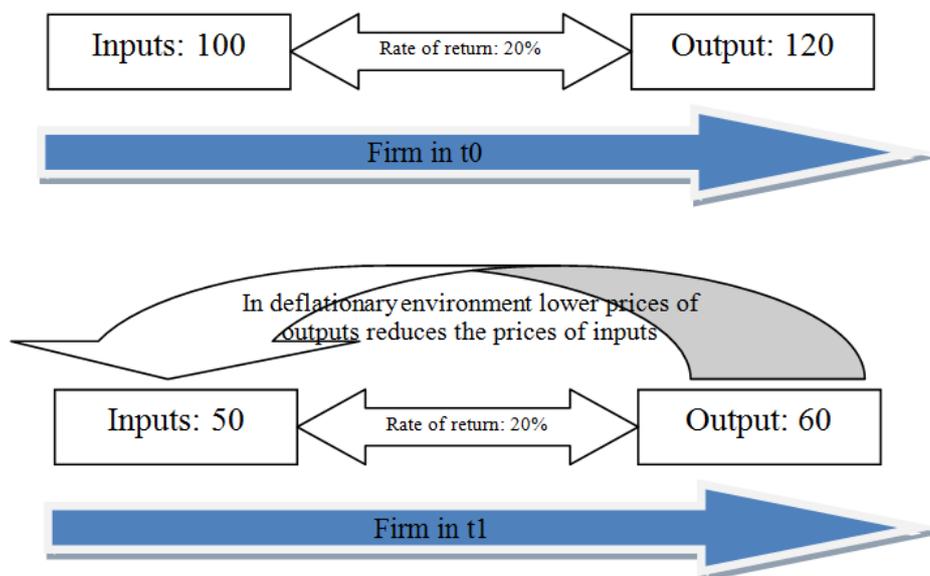
There are several approaches to the banks deleveraging. First, deleveraging must be alleviated by financial inflows (credits, deposits, increase of capital). Second, the steep deleveraging is beneficial as it quickly brings about the correction in the market.

Whichever approach is assumed, there will be more or less visible implications related to the smaller amounts of lending, such as an increase in the loan interest rates, corporate bankruptcies (due to discovered malinvestment), bank mergers/bail-out/bankruptcies. It should be noted that the deleveraging process will increase the interest rates not only for loans, but for savings as well. This will bring about new reliable sources for the capital formation.

The main critique of the currency board (or any other commodity money or commodity-related money) centers on the fear that deflation is very likely in these monetary systems. The historical evidence of the 19th century shows that before the establishment of central banks, the supply of money remained relatively stable while the production increased which led to falling prices or deflation. Many observers considered price deflation as an obstacle to economic growth, and its dangers were stated by John Maynard Keynes. However, there is now vigorous analysis done and a strong intellectual argument developed that natural price deflation is a more desirable state for the market. (Especially in the works of Josef Sima, Jorg Guido Hulsmann, Philipp Bagus and Joseph Salerno). Or, to be more precise, any situation that is caused by market forces rather than by the regulation or intervention is more desirable.

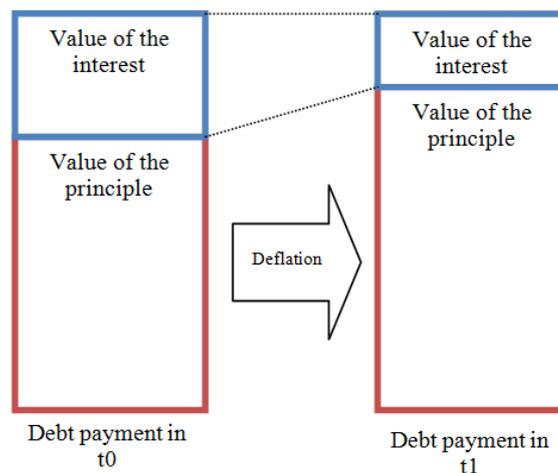
There are three main arguments that relate deflation with undesirable economic outcomes. We will deal with each of these arguments below and show that deflation, when it is brought about by a system of commodity-related money is a natural and healthy phenomenon.

One argument is that if output prices fall while the prices of inputs, the factors of production, don't fall (or don't fall by the same proportion that output prices do), then producers will go bankrupt. But this argument ignores the fact that in a market economy prices of inputs (the factors of production) necessarily depend on the prices of the outputs (consumer prices). The demand and the price for the product that a company produces set the demand and the price that a firm can pay for the factors of production. Therefore, falling output prices lowers demand and the prices of inputs, thus creating room for earning a profit even in the deflationary environment.



A second argument against deflation is that in a deflationary environment, people and firms tend to postpone their purchases, because they expect the prices for goods and services to fall in the future. This is said to be harmful for the economy because it reduces demand. However, even those inclined to save the most still have the “constraint of the stomach”. This means that people have to fulfill their current needs and cannot postpone all their purchases. All people act according to the rule of time preference, which states that people tend to buy goods and services and fulfill their needs sooner rather than later. All this means that the postponement of the purchases in a healthy deflationary environment would not occur or would be insignificant. Moreover, postponed purchases always mean more savings, and savings, not consumption, are the soundest foundation for future productivity, economic growth and prosperity.

A third argument is that deflation increases the burden of debt for firms, because while income is reduced, their debt and interest are not. It is true that in a deflationary environment, the burden of the debt is increased. But this problem would only exist in a transitional period. In the system of commodity money, firms would have to anticipate changes in their income and calculate interest while making debt contracts. It is not impossible, and it was a common practice in the systems of commodity money, to reduce the problem to simple arithmetic. In a deflationary environment, the value of the loan’s principle increases but it is possible to offset that by decreasing the interest rate, and in this way, firms are able to pay their debt.

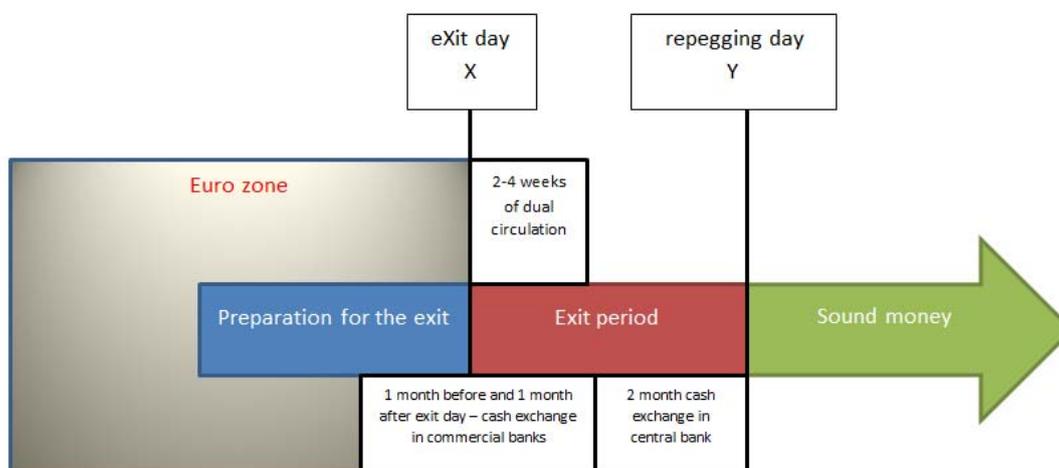


It is often mistaken that competitiveness comes or is facilitated by the decreasing purchasing power of the currency unit. An inflationary currency helps exporters to sell their goods in the strong currency markets and to earn “extra” income in the local currency (they sell at the let’s say fixed price in foreign currency, exchange in to local currency and gets more local currency, however, if the main expenditure is in the local currency (rigid wages and salaries), the producer gains monetary profit. As the exporter is the first receiver of income he gains. In time, the employer would have to increase wages and salaries due to inflation. Still, the producer is ahead of inflation that is why many exporting industries favor inflation. However these windfall gains would disappear immediately if the producer has to buy raw materials in foreign currency, or labor unions push him to raise salaries even more. This shows that real competitiveness is built on other fundamentals rather than constantly weakened currency.

9. Synopsis of the plan

To sum up, this plan proposed to introduce a commodity - standard money and this goal is achieved in two steps:

1. Day X – the introduction of a new currency based on currency board-like principles with a euro peg and 100 % reserves.
2. Day Y - changing the peg and most of the reserves from the euro to gold. It would be possible to combine these two stages; however, we recommend implementing them separately within a restricted time frame to ensure simplicity, understandability (which is crucial) and transparency.



Exit period – this period starts at the announced eXit day “X” and lasts 3 months. During the exit period:

- 1) euros are exchanged into the NIC at the fixed rate 1:1 in commercial banks (1 month) and the central bank (2 months);
- 2) dual circulation of euros and the NIC 2-4 weeks.

The exit period may be reduced down to 1 month if the euro behaves in the worst case scenario quickly losing its value and causing economic damaging as long as it is a temporary peg. The exit period ends on day Y ($Y=eXit+3$ months), which is the day of the NIC re-pegging to gold. After day Y the euro/NIC exchange rate is freely floating.

Cash is exchanged 1 month prior and 1 month after the eXit day “X” at commercial banks. The central bank exchanges euros in to NIC from the day “X”+1 month), until the day Y (i.e 2 months). The total period for changing the cash is 4 months (more than sufficient).

During the exit period (from day X to day Y) the new money is still *fiat* money; however, it has as many commodity money features as possible. It is limited in supply, new money printing is not allowed and neither is credit expansion, except for the purchase of euros during the exit period.

On day Y, which is the first day after the exit period, the NIC is re-pegged from the euro to gold. This means that after the transition the NIC will be backed by gold reserves. The real meaning of the promise that is symbolically still on the pound “I promise to pay the bearer on demand the sum of ... pounds” will be a fundamental feature of the new currency.

It is important to specify the strict rules for the issuance of an additional quantity of money in order to safeguard its purchasing power. The central bank should not be allowed to engage in open market operations and provide credits to commercial banks, which means that it will not set any base interest rate. The issue of the new NIC must be limited to the inflow of euros (at a fixed exchange rate) during the exit period or to gold reserves after the exit period.

The proposed exit plan allows increasing the purchasing power of the new currency, to protecting savings from inflation, it provides for market interest rates, depoliticize the monetary policy, provides for a transparent monetary policy and for a small efficient central bank.

The ECB may also use this transition plan from the second stage described in chapter III (it would have to peg euro to other currency, or commodity), if it seeks to increase the purchasing power of the euro, to protect savings from inflation, to provide for market interest rates, to depoliticize the issue of the currency and to pursue transparent monetary policy.

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