

On The Design of a Temporary Exit of Insolvent Countries from the Euro Zone*

By

Beatriz Armendáriz*

And

Alejandro Reynoso **

Abstract

Inspired by monetary reforms in Latin America during the last century, this essay proposes a temporary exit of highly-indebted-euro-zone countries where these can swiftly move from recession and deflation to growth and moderate inflation while avoiding contagion. Key to our proposal is a non-confiscatory principle according to which the redistribution effects of a monetary reform are minimized via a set of tools to be used in two well-designed institutions, namely, EUROFICORCA and EUROUDI. Both institutions are labelled after FICORCA and UDI, which were created in Latin America with the principal objective to support the transitional effects of altering the exchange rate regime. Moreover, we propose deficit-reduction policies under the umbrella of a forum, which we label European Social Pact (ESP). Our proposal suggests a transitional passage from recession-with-no-growth to a moderate-inflation-with-growth equilibrium in the periphery where the core European countries credibly commit themselves to support the three growth-enhancing institutions we propose. In return, each departing euro-zone-country commits itself to a no default clause via setting verifiable outcomes reflecting their commitment to the non-confiscatory principle. We argue that this equilibrium can be sustained if the institutions we propose work effectively. To this end, we deliver a basic toolkit. We further argue that the three institutions should work under a free monetary convertibility environment until insolvent euro-zone-exiting-countries in the periphery catch up with the living standards of living in the core.

Key Words: euro zone, contagion, non-confiscatory, EUROFICORCA, EUROUDI, European Social Pact.

JEL Classifications: E31, E42, E50, E51.

* We gratefully acknowledge inspirational support and transmission of knowledge from our PhD supervisor, Rudiger Dornbusch. Without his constant presence in our minds and hearts, this essay could have never been written. The ideas entertained in this proposal are however solely ours, and we very much hope are neither misinterpreting nor conveying a misleading image of Rudi's great mind. The standard disclaimer applies: the ideas contained in this proposal are entirely our own, and not those of Harvard University, University College London and Protego Casa de Bolsa.

* Harvard University & University College London

** Protego Casa de Bolsa, Mexico

Introduction

Financial crisis episodes in middle-income countries abound.¹ Yet, very few have been followed by well-documented monetary reforms. Noticeable exceptions are found in Latin America throughout the last quarter of the twentieth century. During this period, middle-income Latin American economies have been meticulously followed by academics working in universities, and by researchers working in international organizations and think tanks. It is much to their credit and that of well-trained policy makers that we now have a wealth of information on failed and successful monetary reforms. In this essay we will argue that Latin American monetary reforms can shed light on the current euro zone (EZ) debt crisis.

Before describing our views on potentially replicable experiences from Latin American countries to the troubled debtors across the Atlantic, let us start with some historical highlights regarding the construction of the European Union (EU), and the architecture of the EZ. The EU has considerably evolved since the 1957 Treaty of Rome. Nowadays, seventeen out of the twenty-seven European member states have adopted a fixed exchange rate mechanism, namely, the Euro. The Euro became a legal tender when euro-denominated bills, coins and all financial transactions replaced a dozen European national currencies in 2002.² At this point in time, sovereign countries which are now considered as peripheral nations to be distinguished from the so-called EZ core, were regarded as qualifying nations for they had met the convergence criteria as per the 1992 Maastricht treaty.³ During the roaring 90s and beyond, hardly anyone could have predicted that a major fixed-exchange-rate-euro-crisis would violently erupt less than ten years after the launching of the Euro. A currency widely accepted by more than 500 million individuals for daily transactions, and used not only as a means of exchange but also as a store of value.

While some would argue that the roots of the current crunch date back to the 2007 – 2008 sub prime crisis and before, to many observers the EZ was not, is not, and will never be an optimal

¹ See, for example, Reinhart-Rogoff (2008) and Reinhart-Rogoff (2009) for an extraordinary account of financial crises dating back to England's fourteenth-century default.

² Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal and Spain. As this article is being written, enlargement of the EZ has created a fixed-exchange block of seventeen countries. The inclusion of five additional countries to the block occurred at different points in time. The joining five countries in alphabetical order are Cyprus, Estonia, Malta, Slovakia and Slovenia.

³ The EZ peripheral countries are Greece, Ireland, Italy, Portugal and Spain. The EZ-core is led by Germany and France. It also includes Belgium, the Netherlands, Luxembourg, Austria and Finland. Relative to the periphery, the latter countries review higher average income per head, and lower debt to Gross Domestic Product (GDP) ratios. With regards to the 1992 Maastricht Treaty. Broadly speaking, the Treaty established five main criteria for countries wishing to join the EZ. First, inflation rates could not exceed 1.5 percentage points per year at the time of joining the EZ block. Second, annual government deficits could not surpass 3 percent of the country's GDP at the end of the preceding fiscal year prior to joining the block. Third, the ratio of gross domestic debt to GDP could not exceed 60% of the country's GDP at the end of the preceding fiscal year; the applicant countries should have joined the European Exchange Rate Mechanism under the now defunct European Monetary System, and should not have devalued their currencies for two consecutive years prior to joining. Fifth, the nominal long-term interest rate could not exceed more than 2 percentage points than in the three lowest inflation EU member states.

currency area. They therefore believe that the launching of the Euro in 2002 was a blunder to begin with.⁴ This debate is however beyond the scope of this proposal.

Instead, we focus on the highly-indebted-EZ-periphery, which currently represents a major threat to the global financial system.⁵ Not only is income per capita in the periphery lower than in the EZ core but also, and most importantly, various peripheral countries have suddenly become insolvent in their euro-denominated obligations vis-à-vis domestic and foreign creditors. These debts cannot be repaid in the near future. Insolvency in the periphery, in turn represents a threat to the global financial system as banks and other financial institutions are heavily exposed. Policymakers in the EZ core have thus far failed to prevent investors' fears of contagion.⁶ This has exacerbated the crisis. Money keeps on flowing out of the EZ risking banking panics as depositors are losing confidence in the Euro at a rapid pace. A speculative attack on the Euro similar to that experienced during the Great Depression in the 1930s cannot be ruled out under the current fixed exchange rate regime. The deflationary trend, rapid contraction of output, and record high unemployment rates are more severely felt in peripheral EZ highly-indebted nations.

Inspired by monetary reforms in Latin America during the last century, this essay proposes a temporary exit of highly-indebted-euro-zone countries where these can swiftly move from recession and deflation to growth and moderate inflation while avoiding contagion. Key to our proposal is a non-confiscatory principle according to which the redistribution effects of a monetary reform are minimized via a set of tools to be used in two well-designed institutions, namely, EUROFICORCA and EUROUDI. Both institutions are labelled after FICORCA and UDI, which were created in Latin America with the principal objective to support the transitional effects of altering the exchange rate regime. Moreover, we propose deficit-reduction policies under the umbrella of a forum, which we label European Social Pact (ESP). Our proposal suggests a transitional passage from recession-with-no-growth to a moderate-inflation-with-growth equilibrium in the periphery where the core European countries credibly commit themselves to support the three growth-enhancing institutions we propose. In return, each departing euro-zone-country commits itself to a no default clause via setting verifiable outcomes reflecting their commitment to the non-confiscatory principle. We argue that this equilibrium can be sustained if the institutions we propose work effectively. To this end, we deliver a basic toolkit. We further argue that the three institutions should work under a free monetary convertibility environment until insolvent euro-zone-exiting-countries in the periphery catch up with the living standards of living in the core.

⁴ See, for example, Krugman, Ofstfeld, and Melitz (2012). In this book, the three authors in question describe the meaning of an optimal currency area, and argue that in their own view, the EZ does not accord well with their description of what an optimal currency area should be.

⁵ Again, as already spelled out in footnote three above, we refer to the periphery as those five EZ countries which debt to GDP ratios are high relative to the rest. These peripheral countries are viewed as urgently needing to strengthen their finances and repay their debts for they pose a real threat to the global financial system to the extent that they are unable to meet debt repayments. The peripheral countries we are referring to, in alphabetical order, are Greece, Ireland, Italy, Portugal and Spain.

⁶ We refer to the core EZ countries as those founding members European states which debt to GDP ratios are relatively low when compared to the periphery. These countries are Germany, France, The Netherlands, and Belgium.

We distinguish two equilibria in the current EZ debt crisis. First, the status quo, where relative to the core, highly-indebted countries in the periphery review more acute deflation rates and output contraction, lack of liquidity, and latent political unrest. We view this deflation-with-no-growth equilibrium as an exceedingly unstable one: it suffices that one country exits in a disorderly fashion for it to provoke a bank run triggering a major crisis in the international financial system. Second, a moderate-inflation-with-growth equilibrium in exiting EZ members in the aftermath of a transitional period. Throughout this critical period, contagion is contained via a strict adherence to a non-confiscatory principle. This principle is respected by means of a toolkit to be used in support of our three pillar transitional institutions namely, EUROFICORCA, EUROUDI, and ESP.

This essay elaborates on the transition from the current equilibrium to the new one. Based on historical episodes, notably from Mexico, a country that not only is geographically close to a major common currency nation, namely, the United States of America, but that also trades with such a gigantic nation under the North American Free Trade Agreement (NAFTA), we argue that in the aftermath of a well-designed transitional phase where an insolvent country exits the EZ in an orderly fashion, a moderate-inflation-with-growth equilibrium can be attained. At the same time, minimum contagion effects can be expected throughout the transitional stage.⁷

How can a departing country manage its economy during and in the aftermath of the transition? How can contagion and consequent collapse of the international financial system be prevented when a highly indebted country leaves the EZ core? How can a departing country implement growth-enhancing structural transformation, return to solvency and eventually rejoin the EZ core? What kind of support international organizations can lend to the periphery during the transition in order to prevent contagion? We do not claim to have an answer to each of these questions. We however hope to shine light on possible venues.

The remainder of this proposal is structured as follows. In section one we describe the current crisis as we view it. We argue that relative to the status quo, a monetary reform under full convertibility in a departing EZ-member-state is a superior second-best scenario for both the core and the periphery. Inspired by well-documented evidence and historical experience, in section two we spell out twelve suggestions for a successful monetary reform, two-thirds of which rely on our three confiscatory-deterrent pillar institutions. In section three we describe the simple analytics of a monetary reform in order to convey our main message: a well-designed non-confiscatory reform should preserve the value of hard-currency denominated assets accumulated in the past and should allow for a smooth transition to a future income stream denominated in weak currency without altering the composition of economic agents' portfolios. In section four we highlight ten main challenges which merit special attention upon an EZ departing country embarks itself in a monetary reform. In section five we finally unleash the

⁷ The experience of Mexico is very relevant indeed. Mexico is the country in that has found itself in default for the longest period of time since 1860 up to these days (Reinhart and Rogoff (2008)). It is also the country that has successfully managed to deal with crises, built a wealth of experience on foreign debt negotiations, and enacted exemplary growth-enhancing institutions throughout its most difficult crisis episodes.

modus operandi of the three main pillar institutions in support of our suggestions, and a toolkit to confront the ten challenges. In section six we spell out a few concluding remarks.

1. The Euro Zone Crisis As We See It

Well-documented historical precedents on the splintering of nations under a common currency and interlinked assets and liabilities exist in large numbers.⁸ An exit from the EZ by a member state is however unprecedented. To most observers, the magnitude of an eventual exit is enormous. First, because of the large volume of transactions in the EZ involving over 500 million individuals who use the Euro as a legal tender and at least 200 million more in the EU involved in daily euro-denominated trade electronically. Second, because relative to most recent break-ups in, for example, the former Soviet Union in 1989, EU residents live in an increasingly globalized economy where transactions denominated in euro can be performed instantly across the entire world.

An eventual collapse of euro-denominated transactions therefore affects billions of economic agents in countries that have already established financial institutions and stock markets in the twenty first century such as the BRICs.⁹ A disorderly exit of a peripheral EZ member state can thus have disruptive consequences in the world financial system and daily lives of billions of people across the globe.

An orderly departure, on the other hand, could have myriad and immediate effects in the departing nation (s) and in the remaining ones. We will however argue that in the event of an eventual departure, provided this is well thought out, the catastrophic consequences predicted by a vast majority of observers thus far can be avoided at best, minimized at worse. Such an exit can only be an imaginative one if only because of the lack of legally binding provisions in EU treaties, which do not contemplate EZ exits. Even if there were a benchmark, legal or otherwise, history has taught us that there is no equivalent of Chapter 11 bankruptcy procedures governing international debt contracts, inclusive of cases where such contracts are private.¹⁰

If we were able to anticipate some of the consequences of an EZ country exiting, what would our forecast be from the standpoint of the departing country? Irrespectively of whether the departure is sudden and disorganized, one should expect the establishment of a local central bank, a devaluation of the local currency, inflation, a complete reorganization of the departing country's payment system, and an imminent necessity to deal with debt: agreed rescheduling

⁸ The splintering of a modern nation followed by the introduction of local currencies in each successor nation, and subsequent sharing of assets external debt obligations is not new indeed. The earliest case concerns what used to be known as Great Colombia in 1829. More recent historical examples include the break-up of Austro- Hungarian Empire in 1918, the dissolution of the Ottoman Empire after World War I, the divorce of the Central African Federation in 1953, and the disintegration of the former Soviet Union in 1989. See, notably, Armendáriz-Williamson (1993), and Garber (1994) for more detailed description and insights.

⁹ The acronym stands for Brazil, Russia, India, and China. Relative to the United States and Europe, these are fast-growing economies, which are rapidly becoming important players in financial markets worldwide.

¹⁰ Under the prevailing so-called Chapter 11 legal provisions in the United States, for example, a enterprise that is unable to meet repayment obligations has some remaining assets, which are either served to repay the creditors of the troubled enterprise or become under direct control by the bankrupt enterprise's creditors.

and write-downs of existing liabilities in one scenario, outright default is another. Moreover, the departing country's residents will inevitably experience various monetary shocks, notably those of individuals under credit and labour contracts, and investors in stock and money markets, to mention a few. The rapid cascade of events can easily spiral out of control in which case we may expect stagflation, that is, zero or negative growth alongside hyperinflation. Our main focus here would therefore be on the effects in the departing country, which can inevitably have a contagion effect on other economies.

In our view, widespread insolvencies in exiting EZ members and chaotic scenarios elsewhere are rooted in confiscatory redistribution. When economic agents fear that their assets will be confiscated as a result of a EZ exit by a member state, confiscation of assets in the departing country and beyond represent a major threat. From the standpoint of the EZ core, EU members, and beyond, the fears of a confiscatory reform taking place in the EZ exiting member state imply asset confiscation in the EZ and elsewhere. Those fears may provoke a chain of bank runs, which can in turn trigger a collapse of the fixed exchange rate system in the entire EZ, an eventual disintegration of the EU, which member states can reinstate trade barriers, free movement of capital, and obstacles to labour mobility across EU borders.

As dramatic as the above scenarios might appear, the truth is that one cannot rule any out. It is therefore legitimate to explore venues for an orderly exit of one or various peripheral EZ members in an attempt to minimize unavoidable costs during a critical transitional stage. We will argue that orderly exits can only take place after the enactment and consolidation of stable institutions in the entire EZ, not only as a way to contain EZ and EU disintegration, but must importantly, to reignite growth and prosperity. We are henceforth taking a clear stand: we do not embrace the idea that, relative to an orderly and well design exit, a disorderly one can benefit anyone.

Under an orderly exit, that is, under an well-designed monetary reform (MR) as we contemplate it, the details of which will be deferred to section five below, an EZ member considering to break away, albeit temporarily, should prioritize an institutionalized debt-rescheduling of the internal and external obligations via a well thought out mechanism. Note that departing from the EZ and MRs are used interchangeably throughout this proposal.

Our conjecture on an orderly departure being preferred over a disorderly one prioritizing debt is inspired by successful monetary reforms in Latin America. By way of an example let us assume for a moment that a sovereign member of the EZ exits in an orderly fashion. What do we mean by orderly? The departing country states from the start that its ultimate objective is to take a "sabbatical", that is, a temporarily leave of absence from the EZ fixed-exchange-rate core in order to more easily generate hard currency to meet its euro-denominated obligations on the one hand, and to brighten its growth prospects on the other.¹¹

¹¹ An alternative scenario would be that of a disorderly exit where the EZ member defaults. Based on historical examples from the 1980s in Latin America, we know that the standard reaction by the indebted country's creditors acting in a concerted action fashion is expected to be harsh if only because creditors may be tempted to send "a signal" which can potentially deter future defaults. (For more on this see, for example, Armendáriz (1999a)).

Note that what we are suggesting is not an unreasonable strategy because the exiting EZ state can potentially generate current account (CA) surpluses more quickly under a flexible exchange rate regime as opposed to relying on the long-term deflationary effects under a fixed exchange rate. To generate a CA surplus, however, the departing EZ member will inevitably have to introduce its own local currency via its own and resurrected central bank. These new bills will be worth less than the Euro (henceforth: the hard currency). In other words, a departing country should expect a devaluation of its own currency and an ipso facto inflationary spiral. Moreover, the departing EZ nation should also expect capital flight and, possibly, more severe political unrest relative to the already existing one. In what follows we will argue that, from the standpoint of an insolvent EZ-member in the periphery, and despite the incommensurable costs, exiting the EZ in an orderly fashion Pareto dominates the status quo.

Following the introduction of the local and weaker currency, fighting inflation is most likely to represent a major challenge. In parallel to enacting EUROFICORCA to deal with debt, the departing country must therefore keep inflation under control if only because it would wish to avoid the risk of hyperinflation and consequent costs.¹² To this end, our proposal will therefore involve the launching of EURODI, an institution designed to facilitate a continuous re-benchmarking of price de-indexation in an inflationary environment where economic agents risk confiscation. EURODI should in turn be supported by context-specific ESPs to properly contain the risks of over-indexation and hyperinflation in the labour market. The details on how to establish such inflation-deterrent and growth-enhancing institutions will be spelled out in section five below.

Our idea so far is anything but new. Ever since Dornbusch's seminal contribution dating back to the mid-1970s, it has been widely recognized that the static effects of a deflation and a devaluation of a local currency might be in principle the same in the long run, but that their dynamic effects in the short and long run are quite different.¹³ Specifically, because of price stickiness, a deflation is reflected slowly in the CA unlike a depreciation, which has an immediate short run effect. A depreciation via a MR might therefore be preferred at this critical juncture in the EZ periphery.¹⁴ A real depreciation induces economic growth within a shorter time frame relative to a deflation.¹⁵ Such growth-enhancing effect works through the CA. And what we will be arguing in this proposal is that growth-enhancing CA surpluses can only be reinforced when

¹² Even if high inflation is anticipated, hyperinflation creates inefficiencies such as menu costs and shoe leather costs which countries in South America, notably Brazil and Argentina, are quite familiar with following unsuccessful monetary reforms in these countries, especially during the monetary reforms which took place during the 1980s debt crisis.

¹³ See, notably, Dornbusch (1976), and Rogoff (2002).

¹⁴ As this manuscript is being written, at least one example may illustrate the immediate need of hard currency to avert a disorderly default on foreign obligations by a euro zone member within weeks. Greece, in particular, is under intense pressure to repay 14.4 billion euro of its outstanding debt to bondholders by March 2012 (The Financial Times, January 14/15 2012). On a somewhat larger scale, similar pressures are being felt by Italy, Spain, Portugal, and Ireland, which risk of default, as reflected by their bond yields, are soaring.

¹⁵ This has been widely acknowledged and proven to be empirically true in various countries including Brazil, Colombia, Greece, India, Israel, Malaysia, the Philippines, Sri Lanka, Thailand, South Africa, and former Yugoslavia. See, for example, Edwards (1986).

accompanied by the above-mentioned transitional institutions so as to permanently improve competitiveness.¹⁶

One should expect that a real depreciation of a local and newly created currency (henceforth: the weak currency), assuming away transaction and switching costs for the moment, to be a superior option to that of the deflationary venue currently promoted on by core EZ leaders. The question again is what exactly do we mean by well-designed transitional institutions. In addition to mutually reinforcing EUROFICORCA and EUROUDI, and as we already mentioned above, we advocate context-specific ESPs to avoid the temptation of over-indexation and to control inflation in a concerted manner among key economic players in the departing peripheral country. Moreover, we suggest the creation of a ESP across the entire EZ countries. We ask our readers to be patient with regards to the details and logistics involved in the creation and modus operandi of these key institutions.

Let us focus for the moment on the critical transitional stage. This passage is so exceedingly delicate that only by clearly understanding it, can we possibly justify the creation of three institutions in lieu of or in addition to those that the EU members have already invested in. In our view, EZ peripheral countries are already going through a transitional stage. The current scenario in those countries is one of recession, deflation and associated costs. The costs of staying in for the periphery are gradual. Most notoriously, these costs are reflected in changing economic agents' relative incomes and wealth levels. In particular, income distribution distortions have already surfaced via high levels of unemployment and a fall in real wages. In the long run, however, as in the case of Argentina during the 1990s, a prolonged deflation in a country reviewing debt to gross domestic product (GDP) ratios seemingly manageable *ex ante* can lead to *ex post* insolvency and an eventual collapse of the fixed exchange rate regime.¹⁷

Now let us compare the above-mentioned status quo, to an scenario where a EZ member decides to exit in an orderly fashion. Associated costs for the departing country are unavoidable too. Again, the idea is not new. Krugman and Taylor's important contributions in the 1970s delivered main insights. Transitional costs can indeed be high, particularly when relative price volatility is intense. These must be expected in economies with dysfunctional payment systems, weak banking sectors, and low average household wealth levels.¹⁸

Our point up until now is that, having taken a stand on an orderly departure based on theory and, most importantly, on experience from successful monetary reforms, we are well aware of the potential consequences of introducing a MR. In a nutshell, a MR followed by a depreciation of the weak currency may have considerable effects on wealth distribution because of debt and inflation and, in most instances, the transitional adjustments may have a confiscatory dimension.

¹⁶ Note that the key assumption we are making here for the case of a splintering EZ state undertaking a monetary reform is that the Marshall-Lerner condition holds, that is, that *ceteris paribus*, a real depreciation improves the current account, which usually happens if imports and exports are sufficiently elastic with respect to the real exchange rate. For greater details on this, see, for example, Davison (2009).

¹⁷ For a deeper understanding of the Argentine crisis in the 1990s and at the turn of the twenty-first century, see Hausmann-Velasco (2002)

¹⁸ See, Krugman and Taylor (1978), and Reynoso (1989) for an in-depth analysis on an array of potential costs associated with monetary reforms.

It is important to note that when we use the term “confiscation” here, we are not referring to a legal appropriation of private property. Rather, we associate the term confiscation to those cases where policy makers take critical decisions, and where those decisions can drastically deteriorate the value of economic agents’ financial assets. In section two below we borrow from a wealth of experience on MRs in Latin America to more clearly see how the confiscatory effects of MRs can be potentially minimized.

Why worry about confiscation? Fears of confiscation of assets can exacerbate panics and crashes, which the EZ core is rightly concerned about. Investors know that upon breaking apart, EZ policy makers’ decision in the departing state can severely affect income distribution, and that assets both in the core and the periphery may end-up being confiscated. Key actors in the EZ departing state and in other countries linked to it are expected to react defensively against any kind of confiscation associated with the value of their financial assets. This is particularly true when the government of the departing country introduces capital controls and/or imposes multiple exchange rate regimes, which have been widely endured by, for example, millions of Latin Americans following widespread defaults in the 1930s and 1980s.¹⁹ Taxation of financial transactions often referred to as Tobin taxes, might also be perceived as having a confiscatory dimension. The confiscatory effects of a MR by a departing EZ member can therefore be multidimensional, and are often poorly understood.

Let us attempt to shed light on the meaning of confiscatory MRs. Our focus for the moment will be on just creditors, debtors, and depositors whose transactions take place via financial intermediaries (henceforth: banks) located in a departing EZ country. Prior to the MR, the banks’ assets and liabilities are denominated in Euros (henceforth: the hard currency). Our three actors in this example will ask/speculate on what will happen to their assets in the aftermath of the reform. One option that the local government has is to label all assets and liabilities in the weak currency. In this case creditors would worse off because the own, which are an asset from their standpoint, would be worthless. Likewise, debtors will be better off because the value of their liabilities vis-à-vis their creditors will decrease as their past liabilities in hard currency can only be paid out of their current income denominated in the weak currency. How about depositors? They will be clearly worse off too because their hard-currency denominated savings would suddenly have lost value due to the MR.

We view this as an undesirable scenario if only because depositors would attempt to take their assets out of the country, potentially triggering a chain of bank bankruptcies. Even when the government of the exiting EZ nation manages to take depositors by surprise, capital flight will affect both, the country where the MR takes place and other states in the core and elsewhere. Hit by a massive inflow of capital may prompt other national authorities to intervene, as such inflows can create inflation. The European Central Bank (ECB), for example, which has an inflation-targeting mandate might have to intervene. Also the Federal Reserve Bank in case Euros flow out of the EZ.

¹⁹ For a detailed account of Latin America’s sovereign defaults in the 1930s and 1980s, see Armendáriz (1990), and for the one in the 1980s see Sachs (1982) and Sachs – Cohen (1992). Cardoso – Helwege (1992) deliver a excellent overview on how unnecessary distortion such as multiple exchange rate regimes and capital controls can be counterproductive, also in the context of the Latin American crises after World War II.

The situation can be even worse for creditors and banks that are reluctant to grant debt restructurings. This is because debtors can default, in which case, their assets will be completely confiscated. Even temporary confiscation will be harmful. Creditors and banks would like to be repaid on the day repayments are due, if not before, in an attempt to minimize losses. Confiscation in this case, in instances where the government declares that all assets in the aftermath of the MR will be denominated in the weak currency, will need to be endured local and foreign creditors, banks, and depositors.

Now, let's suppose an alternative scenario, which is closer in spirit to what we advocate in this proposal. Assume that creditors, banks, and depositors in the country which is on the verge of engaging itself in a MR, are governed by policy makers who credibly recognize all existing assets in the strong currency. Specifically, by decree, policy makers declare that all assets held by creditors, banks, and depositors will be fully convertible into local currency at the prevailing market exchange rate. Transaction costs aside, creditors are not affected by the reform. Banks will not be affected neither and nor will depositors. The three actors under this scenario can fully convert their local-currency assets into hard currency, and keep them safely anywhere they wish.

Under this new scenario, debtors are relatively worse off when compared to their creditors, because their obligations in weak currency at the prevailing market rates cannot be repaid out of their current income. Unlike the previous scenario, creditors and banks are relatively better off, while debtors are worse off. Debtors' insolvency is clearly due to the potentially huge and involuntary hike in their debt obligations relative to their current cash flows. Aren't creditors and banks hit by debtors' insolvencies? Of course they are. But relative to debtors' outright defaults, creditors and banks would be better off if they agree to grant debt restructurings in an orderly and institutionalized fashion via EUROFICORCA.

On a bright note, it is important to point out that debtors' insolvency problems – be this sovereign or private – namely, that of generating income in the weak currency in order to repay in hard currency is transitional. The reason being that one should expect that in an economy where there is a local currency issued by the country's central bank, growth prospects are brighter. This solves debtors' insolvency problem in the long run.

The problem, in our view, is one of insolvency in the short run or throughout the transitional stage. Quite simply, the difference between cash flows in local currency and debts denominated in hard currency, albeit at convertible exchange rates determined by the market when debt obligations have to be repaid, can lead to a chain of debtors' bankruptcies. This is always true when debtors, be these private or public, in a country launching a MR do not meet their obligations, and banks and other creditors refuse to grant debt rescheduling. Failure to grant debt rescheduling can in turn lead to a chain of bankruptcies if and when depositors fear that bankrupt banks are no longer solvent and therefore are no longer perceived as trustworthy guardians of their deposits.

What we have just described attempts to display our understanding of the current EZ crisis. First, and quite independently of the roots of the crisis, an orderly departure by EZ members is a

second-best scenario. To be precise, it is the best possible scenario at this particular point in time. Once EZ member states in the periphery publicly recognize that MRs are the way out from their insolvency and political problems, they must also distinguish quite clearly, and declare it: what will exactly happen with past assets and liabilities. Moreover, they should also spell out quite clearly what will be done in the future. That is, post-reform scenario. Once a clear view is credibly conveyed regarding what the faith of median voters' previous assets and liabilities are with an eye on the future, policy makers should credibly convey that vision and make it public. We believe that with a strong endorsement of "that" vision by the EZ core and international aid agencies, the transitional stage can have minimum contagion effects. The policy makers' vision in the departing EZ state, prior to a convened splintering from EZ core, must be on the architecture of the new financial system.

First, and prior to the MR, policy makers in the EZ exiting periphery must chose between a free convertibility system and another one with convertibility restrictions. Under the former, which is the one we advocate, banks, enterprises, and individuals' balance sheets can be accounted for in more than one currency. To be precise, in Euros, in the country-specific weak currency, and in country-specific EUROUDIs.²⁰ Second, from the standpoint of remaining EZ core member states, and without underestimating the sunk costs incurred in the architecture of the EZ, we advocate a re-examination by the core of keeping the EZ periphery in.

A devaluated Euro these days is largely perceived as being rooted in the EZ periphery's default risk and potential contagion-related costs. Paradoxically, the peculiar type of contagion under the status quo is beneficial to the EZ members. It is not deliberate, but is nevertheless positive because by keeping the periphery within, the core enjoys the benefits of a depreciated euro, which is in turn beneficial, particularly to the core EZ members' CAs. Note that we are referring to a real depreciation in the EZ core, which might be quite substantial indeed, if only because of the mandate of the ECB, namely, that of being an inflation targeting institution. We believe that, political considerations aside, the peculiar type of contagion we are referring to under the status quo is largely offset by the costs of disorderly and possibly unavoidable peripheral departures.

On the other hand, there are measurable financial costs of keeping the periphery within the EZ. An obvious one is the contribution by the core EZ members to bailouts under the European Financial Stability Fund (EFSF).²¹ Further contributions to this fund might be needed to bailout peripheral countries threatening to leave for the sake of avoiding widespread bank runs. The idea of establishing a Banking Act similar to the one launched in the United States in the aftermath of the Great Depression, which was approved and signed by President Roosevelt, might also be a necessary cost that the EZ core must have to consider soon, if only because contagion derived from insolvencies and follow up bankruptcies is mitigated when depositors

²⁰ Note that we are using the word EUROUDI interchangeably when referring both to an institution and a currency. This may be potentially misleading. To be perfectly clear, EUROUDI here is used in connection with inflation-adjusted units of account, often used in financial markets going through an emerging market phase. Clarifying details are fully explained in section five below.

²¹ The EFSF has already committed 780 billion Euros to temporary lend over 400 billion to the periphery in order to avert defaults. Subsequent contributions are expected as the crisis unfolds. See, The Council of European Report (2011) to be found in http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/ecofin/123979.pdf

are insured across all EZ member states. Additional intangible costs are incommensurable. Downgrades by international rating agencies and their effects must be factored in.

On a more theoretical note, the Coase theorem would suggest that there are efficiency losses in the presence of transaction costs emerging from ongoing negotiations among the core states and between the core and the peripheral EZ members. In a similar vein, Pigouvian taxation must also be considered because perceived positive externalities generated by the core lead to underinvestment in contagion. This is due to the fact that such externalities are not internalized by the periphery.²² Underinvestment in contagion is in turn adding tensions among EU member states. A recent case in point is the divide between the United Kingdom and the main EZ core leaders, namely, Germany and France.

Moreover, EZ member states are democratically elected politicians, and voters' dissatisfaction might further exacerbate political-economy generated turmoil and associated costs. Hence, our answer to the question as to whether the tangible and intangible costs of keeping the EZ block as it is outweighed by the benefits of allowing an orderly monetary reform in the periphery is cautiously a positive one. To close this section we hereby take a clear stand on this too: an orderly monetary reform in the peripheral EZ members can have a positive impact on growth and a speedy passage from insolvency to solvency with minimum contagion effects if and only if all EZ members in the periphery considering a successful monetary reform adhere to our non-confiscatory principle via the three institutions to be spelled out in section five below.

2. Twelve principles for an effective Non-Confiscatory Monetary Reform.

As stated from the onset, we cannot think of a better benchmark for the EZ crisis to assess MRs than the one offered to us via an extraordinary wealth of experience on this very subject by middle-income Latin American economies. In our own experience and review of the literature, Latin America exhibits multiple ways of launching MRs, but hardly any of those focuses on our non-confiscatory principle. Quite simply: We view this as a constraint on EZ departing governments. Also, and perhaps more importantly, as a precondition for minimizing and even avoiding the negative contagion effects, which are already looming.

While fully recognizing that minimalistic confiscatory effects drawn from Latin American MRs, which we encapsulate in twelve critical points, might not be replicable to the EZ highly-indebted states, we nevertheless point them out in hope that at least a subset of those might deliver useful insights. This being said, we believe first, that by focusing in priority on the know how and the logistics via spelling out what seems to us very common indeed can be helpful at this particular juncture, and, second, that the EZ peripheral countries considering to abandon the EZ fixed exchange rate regime might benefit considerably by the following practical suggestions:

²² See, Coase (1960) and Pigou (1920). As this essay is being written, however, the EFSF has been downgraded by grading agencies, which hinders euro zone leaders to increase core members' and other international agencies contributions to the bail-out fund. The greatest fear is that the current bail-out strategy aimed at keeping the periphery within the euro zone is simply not working. Greece's external debt obligations alone amount to approximately 350 billion euro, that is, nearly half of euro zone core commitments to the EFSF. (International Herald Tribune, January 18, 2012)

1. **Introduce State-Contingent Mechanisms of Debt Restructuring With Creditors as an integral part of the Monetary Reform.** Uncertainty can have a positive value added. Unlike the current cost of deflation-with-no-growth in the periphery, which are certain and even quantifiable, these costs are low relative to contingent transitional costs under uncertainty. Specifically, relative to certainty under the status quo, incurring contingent costs in an uncertain world is a preferred strategy for all parties involved. Contingent repayments by otherwise solvent debtors prior to the reform are possible under flexible mechanisms that allow for automatic state-contingent debt rescheduling, like the Mexican FICORCA, which de-tropicalise under the label EUROFICORCA. In a nutshell, and analogous the latter, the former institution has proved to be efficient in that debt restructuring is granted selectively to a subset of otherwise solvent debtors. In principle, these debtors are allowed to make repayments contingent on observables, such as inflation, growth rates, and real wages. Debtors' ability to meet full and timely repayments without the need of automatic restructuring critically depends on how quickly economic growth is reignited.

2. **Avoid Over-indexation.** Exiting a fixed or semi-fixed exchange rate regime is equivalent to devaluing the local currency in the country that undertakes a MR. A devaluation of the local currency can, in turn, improve solvency because of its swift and direct effect on the country's CA. We view this as the only way to return to positive and sustained economic growth. We however acknowledge the obvious: devaluations are inflationary. And inflation has a confiscatory element. It affects income distribution in a way that is biased in favour of wealthier local actors who can more easily hedge against devaluation and inflation. The confiscatory effects of a devaluation and follow up inflation, even it has not happened yet, are inevitable. In the particular case of the EZ, wealthier individuals are already taking their hard-currency denominated deposits out of potentially departing EZ peripheral countries. The confiscatory effects of inflation, however, can be minimized if and only if efforts are made to keep inflation under control via mutually reinforcing EUROFICORCA and EUROUDI, supported by country-specific ESPs.

3. **Keep Budget Deficits Under Control.** Confiscatory effects rooted in devaluations, inflation aside momentarily, other transitional costs of a MR are inevitable. Such costs can be high indeed. These include transaction costs, switching costs, and political costs, to mention a few. A well-designed reform can considerably lower these costs. However minimal these costs might be, we believe that such costs should be in a first instance absorbed by the government. We recognize that these costs will ultimately have to be shouldered by the departing country's taxpayers. We advocate the introduction of a fair taxation system. Specifically, fully-enforced progressive income taxation as opposed to value added taxes and obscure distortions, typically biased against the poor can keep confiscation at its minimum if only because political-economy considerations can be exceedingly destabilising and hinder economic growth and prosperity.²³ In the context of a EZ state undertaking a MR, and

²³ See, for example, Alesina-Perotti (1996) whose empirical work suggests that the effects of increasing income inequalities can have a negative impact on growth via lowering investment. In the same vein we argue that a

to the extent that large deficits contribute to high inflation, and that high inflation can erode the budget itself, we further emphasize the inflation-deterrent role of a state contingent mechanism for debt restructuring, an adequate benchmarking for de-indexation, and the introduction of a convening platform to conduct income policies, via EUROFICORCA, EUROUDI and ESP. These institutions must be put to work in conjunction with a revamped and independent central bank, the treasury department, and the judicial system in the departing EZ member. We cannot emphasize enough the key role of budget deficit reduction policies per se. These policies should be viewed as a necessary condition in their own right for ensuring macroeconomic stability and microeconomic efficiency.²⁴ Well-designed budget deficit reduction policies can further minimize the confiscatory effects of a reform.

4. **Flee From Any Slant that may ignite Panics, Bank Runs and Contagion.** On a larger scale, the costs of a monetary reform may be a by-product of panics, bank runs, and contagion effects. These can be mitigated or avoided once economic agents are persuaded that a non-confiscatory principle will be institutionalized before and after the reform. And in the context of the EZ, via our three pillar institutions. Creditors should be re-assured that the value of their assets will be preserved, even though repayments will necessarily have to be written down and/or delayed via debt-restructurings in departing EZ states. We also recognize that this has a confiscatory dimension because of the following three reasons. First, because write-downs are clearly costly to the creditors. Second, because repayments via debt rescheduling will be made to local creditors in local currency, which investors may wish to convert into hard currency involving transaction costs. Third, because delayed repayments lower the value of financial institutions' assets given that proceeds from otherwise timely repayments have alternative uses. That is, rescheduled debt can be invested in more attractive projects yielding higher returns. We also recognize that depositors will have to be insured, and that deposit insurance involves costs, which ultimately will be borne by taxpayers. Avoiding these confiscatory costs is impossible, minimizing them is. The earlier economic growth kicks off with the supporting above-mentioned pillars, EUROFICORCA, EUROUDI, and country-specific ESPs, the lower the costs of potential panics and crashes, and the lower the confiscatory element of a monetary reform.
5. **Embrace Free Convertibility.** Avoiding unnecessary distortions is a key element of a successful monetary reform. Imposition of currency denomination of bank holdings, exchange rate controls, dual or multiple exchange rates, Tobin taxes, among others are confiscatory. Without a priori value judgement on any such type of interventions, we strongly adhere to a free convertibility regime and property rights protection of already acquired assets by all economic agents prior to the MR. We fully acknowledge that creditors' lack of caution prior to the 2007 – 2008 sub prime crisis is not unprecedented and that their

monetary reform can worsen income distribution and that to the extent that low growth is biased against the poor, the confiscatory effects are more severe as the poor suffer most relative to wealthier individuals.

²⁴ See Córdoba (1992) for a lucid exposition of the Mexican experience on budget-deficit reduction policies during the debt crisis of the 1980s, and their potential replication to the case of transitional economies in Eastern Europe in the aftermath of the fall of the Berlin Wall.

investments in the periphery were made within the context of a growing world economy which came to a halt rather late due, partially, to financial engineering. We however believe that keeping creditors confiscation at a strict minimum, namely, via state-contingent economy-wide rescheduling facilities under the umbrella of EUROFICORCA is the only way to move forward.

6. **Ensure International Cooperation.** Any reasonable proposal of a monetary reform has an inter-temporal dimension. We have emphasized its dynamic effects when comparing the potential benefits of a monetary reform relative to those of a deflation under the status quo. The missing piece of this seemingly complicated set of suggestions thus far is that the potential benefits of a MR can only be reaped with the support of international organizations' assistance, both financial and technical. Only with the endorsement of a well-design monetary reform by international organizations can investors be reassured on minimalistic confiscatory effects triggered by EZ departures. When viewed this way, cooperation between the periphery and international organizations is mutually beneficial for cooperation is the only way to avoid a major crisis. In section five below we explain how cooperation can more easily be achieved via a EZ-wide a EUROFICORCA and a EU-wide ESP.
7. **Make Debt Redemptions in Local Currency.** Indeed, we strongly believe that financial transactions contracted in hard currency prior to the MR should be respected according to the terms and conditions specified in each and every contract. Debt repayments to foreign creditors via EUROFICORCA should be made in weak currency by a multiplicity of local debtors, but outlays from EUROFICORCA to foreign creditors should be made in hard currency. However, if and when foreign creditors refuse to grant debt rescheduling under already negotiated agreements with EUROFICORCA, debt redemptions accruing to foreign creditors should be made in local currency. All debt contracted with local financial intermediaries should always be repaid and redeemed in local currency.²⁵ Note that income from debt repayments and redemptions accruing to local creditors in weak currency can be fully converted into hard currency at the prevailing market rate. We recognize that this has a confiscatory element in favour of partially insolvent debtors. We however believe that such confiscatory effects can be kept to a minimum in comparison with outright defaults and if a well designed monetary reform is clearly announced, understood, more importantly, negotiated and accepted by all creditors leading to the establishment of a comprehensive MR via EUROFICORCA.
8. **Issue New Debt in Local Currency Only.** After the monetary reform has taken place, newly contracted debt within the boundaries of the departing country should be denominated in local currency. New debt with external creditors, on the other hand, should be contracted in Euromarkets, and be governed by the external creditors' rules and regulations in external creditors' countries of residency. Confiscation in this case is negligible because local

²⁵ Note that this might be partially violating our non-confiscatory principle because there are undeniable transaction costs. Specifically, debtors are repaid in local currency, which they most either spend in the departing EZ state or exchange for hard currency. Avoiding transaction costs is impossible, however. In section five we explain efficiency gains emerging from making repayments to local creditors -who can freely convert those repayments into hard currency - in local currency in lie of making those repayments in hard currency directly. Our conjecture is that such efficiency gains largely offset transaction costs.

currency denominated obligations can be converted into hard currency obligations at net present value prices, and because the return to Euromarkets by the periphery in the foreseeable future is unrealistic unless, of course, departing countries are willing to pay a high risk premium, which we do not anticipate it to be post reform scenario very different from the current one. Further, we anticipate that countries in the core will be able to be less credit constraint, and that the value of the EFSF will be upgraded enabling the core to lend more in support of well-design MRs in the periphery. Using the EUROFICORCA venue for newly contracted debt will be useful if and when unforeseen contingencies emerge and newly contracted debt needs to be restructured again. Our conjecture, based on historical evidence, is that EUROFICORCA will also help to relax credit constraints in a post MR scenario.

9. **Obtain IMF Endorsement and Support.** A departing country's central bank can only issue local currency. It should however enjoy access to hard-currency denominated debt, which will be redeemed in hard currency. Notice that this could have a confiscatory ingredient if taxpayers were forced to pay for enjoying the benefits of bailouts such as contagion with uncertain returns. But this can be avoided via Stand by agreements with the International Monetary Fund (IMF). We view the IMF as a key international institution to minimize the confiscatory dimension of a successful monetary reform if only because the IMF has accumulated a wealth of experience in extending loans to countries going through transitional balance of payment crises. While some of these experience can be transmitted to other institutions such as the European Bank for Reconstruction and Development (EBRD), it has taken the IMF a great deal of trial-and-error fine tuning to make sure that countries, particularly those in middle-income Latin America, to ensure compliance with economic policies that make sense. These policies are required in those EZ departing countries in order for departing EZ countris to have their solvency status reinstated. The role of the IMF potentially working in tandem with the EBRD is indeed exceedingly valuable in dealing with the current EZ crisis. At current market rates, concessionary loans do not involve a high cost on taxpayers while their return in terms of technical assistance to troubled debtors in the periphery are high and of crucial importance to the stability of the global financial system.
10. **Maintain the Option to Revert to the Core.** A departing country can revert to the core countries' currency if and when both the core and the departing country find it mutually convenient. We should note that while a forced exit might have a very large confiscatory component in the aggregate, particularly on the periphery, what we advocate here is a voluntary exit. We could understand that core EZ members might be tempted to penalize EZ countries in the periphery as a signalling device to other nations in the periphery. This strategy is unreasonable, however, because signalling via small states in the periphery is not credible by large insolvent countries.²⁶ More importantly, political instability and consequent effects on growth is unwarranted under forced exits. If well designed, a voluntary, transparent, and mutually agreed upon exit has minimum confiscatory effects relative to forced departures. It is also the only way to guarantee a mutually convenient

²⁶ Armendáriz (1999a) elaborates on this for the particular case of Bolivia vis-à-vis larger countries in Latin America such as Brazil and Argentina in the context of the 1980s Latin American debt crisis.

return of EZ peripheral countries, which investors might factor in when evaluating the confiscatory dimension of the reform. We therefore insist on a negotiated sabbatical during which the EZ periphery will do what is needed to return, in exchange of conditional and credible support by the EZ core.

11. **Tolerate Dual Currency Transactions.** The departing country must tolerate free circulation of both, hard and weak currencies, at the prevailing exchange rate determined by the market.²⁷ Banning free convertibility and circulation of hard currency by the departing country exacerbates distortions, ranging from under-invoicing and over-invoicing of exports and imports to the emergence of black markets for hard currency, which can further erode the departing country's ability to remain solvent in hard currency. Confiscation in the absence of free circulation and convertibility is therefore biased against the country's treasury departments and ultimately against the taxpayers.
12. **Delegate The Introduction of New Bills Onto a Third Party.** As in any monetary reform we know of, there are transaction and switching costs associated with withdrawing hard currency to be converted into local currency for daily transactions. We endorse a cost-effective transition, which is country-specific. In some instances the over-stamping of bills might be the a cost effective solution, as it was the case during the well-documented Austro-Hungarian empire monetary collapse. Whichever venue the departing country wishes to take, cost effectiveness should take into account the new reality. Dismantling an entire network of electronic cash dispensers does not seem to be a cost-effective strategy. Adding a technological devise to existing cash dispensers seems more realistic. This challenge should be taken on board by countries in the core, where high skill labour is relatively abundant. As for the issuing of new bills, most efficient money printing bills can be found elsewhere.²⁸ We therefore advocate cost effective delegation of both cash tills and new bills onto countries that are most efficient so as to avoid forgery, and keep transaction and switching cost at a strict minimum, thereby lowering the confiscatory effects of the reform.

Note that our endorsement of policies (1) – (8) above aimed at minimizing confiscation critically relies on our three pillar transitional institutions. The question remains of course as to what exactly are those? Again, we postpone this question to section five further below.

²⁷ This is already happening in a considerable volume of electronic transactions where costumers are given the choice to select the currency they wish to pay with when using a credit or debit card. For example, prior to making a payment at a store in France a UK resident inserts her card into a machine, which displays a menu to chose from, namely, a payment in Euros or Sterling Pounds. Once a choice is made by the costumer, she is requested to enter her personal identification number (PIN) and the transaction takes place provided, of course, that the costumer in question has enough funds in the case of a debit card or has not exceeded her credit ceiling in case she chooses to make the payment using her credit card. We suggest something similar for the case of cash payments in the country that has undertaken a monetary reform. She should be able to pay in hard or local currency. Transaction costs are low relative to consolidation of residents' expectations on policy makers honouring free convertibility at all times. The only difference in the case of cash transactions is that local bills and coins will not be accepted as a medium of exchange in a country belonging to the euro zone core.

²⁸ New Zealand is a case in point. Not only it has a proven record of cost effective money printing, but the new money in circulation has proven to be anti-forgery and environmentally friendly. New Zealand's technology at producing bills for daily transactions in cash has been recently replicated in Australia.

3. The Simple Analytics of a Non-Confiscatory Monetary Reform

A major advantage of a monetary reform as outlined so far is that prioritizes EU residents' expectations. Indeed, the non-confiscatory principle cemented by the three pillar institutions outlined in section five below, will guarantee that the value of bank deposits in hard currency will be preserved. As for the value of bills and coins in circulation, full convertibility and transferability of deposits, bills and coins will limit the scope for depositors to take their weak currency out of the EZ periphery, which in turn prevents panics, bank runs and crashes. In other words, local policy makers in the departing country should guarantee full recognition of previously contracted hard currency denominated debts before the reform, with prior endorsement of the EZ core and international agencies. We therefore see no reason why a country's residents in the EZ periphery launching a monetary reforms under full convertibility would have an incentive to change the composition of their portfolios and/or to locate their financial assets elsewhere.

Post-reform scenario and from the standpoint of, say, a single resident of a country that has undertaken a monetary reform, her experience in daily transactions should not differ from that of changing her residency to a peripheral country where a weak currency is used as means of exchange and future store of value. To better illustrate the simple analytics behind our view, let us take the example of a single migrant who has resided in a hard currency country, has earned income, consumed and saved part of that income in hard currency. Upon migrating to her country of origin where the currency in circulation is the weak currency, her past will continue to be denominated in hard currency. But in her future, she will earn, consume, and save in the weak currency. What this example shows is that migrating does not alter the denomination of this particular migrant's past. The only thing that changes is the currency denomination of her future.

The above example, however trivial it may seem, is experienced by millions of migrants every year. And this is exactly what would happen to an EZ country in the periphery that undertakes a MR. Its past remains in hard currency and its future in weak currency. It is important to note that our example does not apply to returning migrants only. In the case of the EU, free labour mobility facilitates unemployed individuals in the core to migrate to the periphery where wages are lower but also the cost of living is lower. The periphery might be perceived by high-skilled unemployed individuals in the core as a place where skilled labour wages are relatively well paid because inherent scarcity of skilled labour in the periphery prior to joining the EZ, and because acquired on-the-job skills in the core are enshrined alongside high purchasing power due to relatively lower cost of living in the periphery. More generally, moving back to a country that undertakes a MR will enable migrants to move forward, save, and accumulate wealth for financing a comfortable retirement. When viewed this way, MRs should not distort migrants' smooth consumption and saving patterns as suggested by the standard life-cycle hypothesis.²⁹

²⁹ According to the life-cycle hypothesis a representative consumer plans her consumption and savings pattern at early stages in her working life so as smooth her level of consumption throughout her entire life. (See, Modigliani (1966)).

On a much larger scale, we can think of millions of migrants already residing in a weak currency country, which splinters at once. Leaving aside for the moment the above-mentioned transitional stage practicalities, one can assume that soon after their divorce from the hard-currency core, enterprises, individuals, policy makers and the government of a breaking-away nation will stand in a position where assets and liabilities will be denominated in both, the weak and the hard currencies. Checking and deposit accounts will be denominated in both currencies while current income and expenditures in non-tradable commodities will take place in the weak currency. How can one replicate in the aggregate what at an individual level seems relatively trivial?

The answer to this question is at the heart of our proposal. We argue that by adhering to the non-confiscation principle, property rights of economic agents' past assets denominated in hard currency must be honoured in hard currency to eliminate the risk that investors in hard currency incur. Somewhat paradoxically, a reform involving full convertibility and preservation of investors' property rights simplifies the problem. It points out one venue, namely, debt, and the restructuring of it at all levels. Unavoidably, debt-restructuring must be mutually agreed upon *ex ante*, that is, prior to a MR, by all participants. Just as in the case of a migrant. Postponing repayments in hard currency must be negotiated with her bank in the hard-currency country prior to moving to the country where her income will be denominated in the weak currency. At the level of a country, debt restructuring *ex ante* must be negotiated with the EZ core and international aid agencies prior to taking off.

In reality, insolvencies in the peripheral EZ countries predate potential monetary reforms. However, because we are assuming that under a flexible exchange rate regime the probability of repaying by a debtor country and its residents is higher than under a deflationary scenario under a fixed exchange rate regime, the net present value of future obligations by domestic and foreign debtors is higher under a MR. However, in the aftermath of the reform, the sudden adjustment of the exchange rate when external debt obligations are denominated in hard currency can trigger debtors' default when debt restructuring and automatic rescheduling is not contemplated prior to any MR.

This proposal focuses on partial debt rescheduling of obligations that cannot be repaid out of current income by residents of a country who earn current income in the weak currency. It deliberately leaves aside exchange rate controls, multiple exchange rates, and related bureaucracy, which make the picture obscure at best, can be counterproductive at worse. For the sake of clarity, we have chosen to focus on a single issue, namely, that of generalized debt restructuring and cum depreciation of the local currency, which we have been referring to as a monetary reform or a MR.

Debt restructuring can be difficult in practice, however, if only because it involves an entire country already entangled in different types of debts and dealing with a multiplicity of creditors at once. It should be noted, however, that our understanding of the situation in the EZ is largely based on proven MR experiences in Latin America. And that it is on the basis of these experiences that we will be addressing directly the way Latin America has approached the problem of automatic debt restructuring institutionally, which by and large simplifies the problem.

4. Facing Ten Main Challenges To Make This Proposal Viable

The viability of our proposal heavily relies on how the departing EZ member, the EZ core and international aid agencies respond to the following ten challenges:

1. **The problem of local debtors vis-à-vis banks established within the boundaries of the country where the monetary reform takes place.** This is a relatively minor problem when applied to the case of enterprises engaged in short term tradable transactions, but is a gigantic challenge in the non tradable financial sector. Long term debt such as mortgages, for example, merit special attention. A devaluation per se does not trigger debtors' insolvency in this case. Instead, a devaluation enables economic agents to more clearly distinguish the true prices of their cash flows on the one hand, and the collateral value of their debt obligations on the other. Both are obscure relative to a non-reform scenario. Post reform scenario the departing country will face a major liquidity problem because there is an inevitable a mismatch between debtors' current income in the weak currency and debtors' long term obligations denominated in hard currency. An illiquid position takes the form of a contractionary devaluation in the short run. We suggest that EUROFICORCA lends support to illiquid debtors experiencing such a mismatch as a venue for otherwise solvent debtors to preserve their credit standing vis-à-vis their creditors during the transition. In the long run debtors should be able to meet their obligations as the short term mismatch following a sudden devaluation will disappear.
2. **The problem of local debtors vis-à-vis banks established outside the boundaries of the country that undertakes the monetary reform.** A somewhat similar scenario to the one we just described emerges vis-à-vis foreign creditors. Under a non-confiscatory reform both domestic and foreign creditors are repaid but domestic creditors must accept repayments in the weak currency which they can convert into hard currency. Foreign creditors on the other hand must be repaid in hard currency. Because during the transition the supply of hard currency cannot be controlled by the local government, and this constraint is likely to be tight. EUROFICORCA will need international aid agencies to address the hard and weak currency mismatch. Binding hard currency constraints can only be relaxed with international cooperation throughout the transition. Again, post reform scenario, and in the long run, the shortage of hard currency constraint will no longer be binding and solvent debtors at this point can pay their hard currency obligations without the support that foreign agencies.
3. **The adverse selection problem.** In the previous paragraph we emphasized the need to grant debt restructuring to debtors who were solvent prior to the reform. This highlights a key issue, namely that of the effects of a devaluation on otherwise solvent debtors. After the reform, solvent debtors become insolvent in hard currency because their current cash flows are denominated in the weak currency. In the aftermath of the reform we therefore face a typical adverse selection problem à Stiglitz-Weiss in that creditors cannot distinguish ex-ante between insolvent and solvent debtors leading to an undesirable exit

of otherwise solvent debtors.³⁰ Both types are experiencing debt repayment difficulties in hard currency, and there is an informational asymmetry in that creditors cannot tear apart whose debtors are solvent and are therefore relatively less risky post reform scenario. One way to circumvent this problem is via granting debt restructuring only to those debtors who were solvent prior to the reform.³¹ This does not differ from a typical adverse selection scenario in credit markets where only solvent debtors will self-select themselves into debt rescheduling agreements, with the added bonus that many would self-select in knowing that only in a post-reform scenario they stand a chance of becoming solvent via EUROFICORCA. Likewise, debtors who perceive themselves as insolvent debtors prior and post reform will self-select themselves out. When compared to a situation where widespread debt restructuring is granted to both solvent and insolvent debtors before and after the reform, granting debt rescheduling to the solvent ones only –which is what FICORCA did in the case of Mexico, while writing off the debts of those individuals/firms/governments who self-select themselves out is efficient. Otherwise stated, this does not differ much from Akerlof's market for lemons scenarios where one group of economic agents know their own types while the other does not leading to a market collapse.³² In the international finance arena, a collapse is synonymous to outright and unilateral defaults. We argue that there will not be a collapse because granting debt restructuring to ex ante and ex post solvent debtors is a way circumventing adverse selection inefficiencies. It is in thus in the creditors' own interest, both domestic and foreign, to have a well-designed institution like EUROFICORCA to address the issue of short term insolvencies. International cooperation is therefore not a gift that will benefit debtors only. Instead, EUROFICORCA should be viewed as an institutionalised venue that reinforces incentive compatible debt contracts for it is in the creditors' own interest to reschedule debtors' obligations to preserve their option value. Likewise, it is in solvent debtors' own interest to preserve a good credit standing vis-à-vis their creditors. Moreover, it is also in the departing government's own interest not to promote a culture of non-repayment. Creditors, both domestic and foreign, expect that a large portion of outstanding obligations owed to them by ex ante solvent debtors will be repaid in the long run. It is however important to emphasize that foreign creditors option value during the transition can only be preserved if EUROFICORCA obtains support from foreign agencies to honour hard currency obligations which should be repaid in hard currency via EUROFICORCA.

³⁰ See, Stiglitz and Weiss (1981). In an adverse selection model a la Stiglitz-Weiss (1981), and under the assumption that debtors do not know each others' types, say, risky or safe, Armendariz – Gollier (2000) demonstrate that cross-subsidization might be attractive to safe and risky debtors due to the fact that cross subsidization acts as collateral effect vis-à-vis the creditors, and this reduces interest rates. Negotiating debt repayments as a block, both solvent and insolvent debtors might strike a better deal, the Armendariz – Gollier article would suggest. But confiscatory effects are bound to be larger relative to negotiating debt repayments with riskless debtors only.

³¹ Alternatively, we can think of an outcome a la Bester (1985) where perfect sorting between solvent and insolvent creditors can take place if and when debtors have sufficient collateral. See, also Goodhart (1989). Our problem here is that having sufficient collateral value is not feasible for all debtor in the short run, that it, immediately after a devaluation. And it is in the short run when the decision over granting debt restructuring to troubled debtors must be taken by foreign creditors.

³² Akerlof, George (1970), "The Market for "Lemons": Quality Uncertainty and the Market Mechanism", Quarterly Journal of Economics, Vol. 84, No. 3.

4. **The lack of liquidity problem.** Local banks will need to be recapitalized following a MR. The reasons are threefold. First, local banks already owe debts to foreign creditors. Those debts have been contracted prior to the reform, and our non-confiscatory MR dictates that those debts must be repaid. The shift from the hard to the weak currency can only exacerbate banks' liquidity problems. Second, the mere fact that post reform scenario future income of local debtors is labelled in local currency generates a disconnect between past obligations denominated in the hard currency and current obligations denominated in the weak currency. And such a disconnect will further erode the quality of local banks' portfolios. Third, post-reform scenario, the banks' balance sheets in both hard and local currencies involve exchange rate risk, which is magnified by exchange rate volatility. Typically, banks cannot afford to bear exchange rate risk in the aftermath of the reform. In section five below we spell out the way to deal with exchange rate risk via EUROFICORCA in order to sustain a local banking system, which will find itself overexposed to sudden and abrupt exchange rate fluctuations. EUROFICORCA can potentially mitigate the effects of lack of liquidity ranging from further contraction of output to widespread bank bankruptcies, panics and crashes.

5. **The problem faced by local banks in need of hard-currency holdings.** Our attention now turns to the shortage of hard currency that local banks will unavoidably experience post-reform scenario. Banks operate in a global financial system, and their daily transactions beyond their local boundaries are denominated in hard currency. Moreover, banks have outstanding external debts, which must be repaid in hard currency. Local banks continued involvement in the foreign exchange market crucially depends on their holdings of hard currency. Lack of access to hard currency by local banks can be utterly disruptive to the departing country's financial system. We therefore emphasize in this proposal the crucial importance of a post reform scenario where local banks have unlimited access to local currency via their newly created central bank, because banks liabilities vis-à-vis their depositors, and because at any point in time depositors and banks should be able to fully convert their holdings denominated in the weak currency into hard currency at the prevailing market rate. History shows that when a MR takes place in the midst of a global financial crisis, it closes access to international capital markets to the governments of the country undertaking the reform, the country's corporations and the local banks. This is one of the most serious challenges that an EZ departing country is bound to face. We therefore once more reiterate the need for an internationally endorsed EUROFICORCA. Lack of support to this institution in need of hard currency can lead to hyperinflation and stagflation in the EZ exiting country, which can only be counterproductive. Bearing in mind that unilateral outright defaults cannot be ruled out and that these would inevitably lead to a complete collapse of the exiting EZ states payment system, similar effects should be expected if EUROFICORCA is not supported by international agencies. With their support, cost effective non-confiscatory reforms in peripheral countries are mutually beneficial to both debtor in the periphery, creditors in the core, the EU and beyond. A stepping-stone to growth and prosperity in the periphery is that of maintaining an efficient payments system with international support. Once the EZ core and international agencies have understood this, our conjecture is that compared to a EFSF designed for bailouts of all debt including that of

insolvent private sector enterprises and private banks, it will be more efficient to disaggregate. That is, to leave the EFSF to deal with ex ante and ex post insolvent debtors while keeping ex ante solvent debtors under the umbrella of EUROFICORCA.

6. **The problem of debts contracted outside the banking system.** With regards to all other debts, analogous to lease contracts, among local agents outside the banking system, we advocate that such debts be settled in the weak currency even though these debts have been originally contracted in the hard currency. Note that full convertibility ensures that creditors are not expropriated. In particular, and in line with the non-confiscatory principle at the heart of this proposal, such creditors will be able to transform local currency debt repayments into hard currency. In practice we should encounter the exact same problem as the one we have already discussed when referring to debts that involve the local banking system. Specifically, the reform will trigger a disconnect between debtors' hard- currency denominated obligations in their past, and the departing country's residents current cash flows denominated in the weak currency. A simple example can help us clarify the problem. Assume a worker in the exiting EZ state has to pay her rent by the end of the month in the aftermath of a devaluation. Her salary today is denominated in the weak currency while her outstanding monthly rent in the strong currency. The contract that ex ante reflected market conditions, is now completely disjointed. It will need to be renegotiated. In an inflationary environment, however, the high frequency of those renegotiations might be not feasible at best, inefficient at worse. It is in response to scenarios like the one we just portrayed by means of our example that we suggest a EUROUDI institution. As we will argue in section five, the role of EUROUDI is enhanced by the debt contracts denominated in EUROUDIs, which can easily take place under the umbrella of EUROFICORCA. EUROUDI contracts can in turn relax the budget constraints the departing country faces in the hard currency. This way the country in question will need less support from international agencies.

7. **The problem of wages in labour contracts and other prices.** Based on historical experience from monetary reforms in Latin America, we strongly advocate partial indexation, especially in merchandise and services where prices must be labelled in the weak currency. Merchandises, services and wages must however be numerically identical to those prevailing prior to the reform. The only difference is that prices must be labelled in the weak, not in the hard currency. For example, a wage labelled in five units of the hard currency prior to the reform should be worth five units in local currency. This is unavoidable and seemingly violates our non-confiscation principle. However, a partial indexation should be compared with a full indexation scenario. Under the former we expect moderate inflation, and under the latter hyperinflation which costs and confiscatory effects are far greater.³³ Hyperinflation and follow-up contractionary policies in weak currency countries can lead to stagflation thereby severely hindering the expected benefits of a monetary reform, which principal objective is to accelerate the pace of economic growth. How to avoid tensions between labour and employers under

³³ Brazil in the 1980s, for example, suffered from inflation rates of over two-hundred per cent per annum. By and large, and according to Cardoso- Helwege (1992), a contributing factor was full indexation of wages, bonds, and the exchange rate.

partial indexation? This is yet another important question, which we again address in section five below. In particular, we will be arguing that partial indexation is only feasible via country-specific European Social Pacts (ESPs).³⁴

8. **The problem of taxation.** Another problem ingrained in any monetary reform we know of since World War II is that of a sovereign debt, internal and external. While this problem has already been dealt with above for the case of private debt which we have argued must be honoured in hard currency by the departing EZ nation. In particular we have suggested that such debt must be honoured by solvent local debtors in the hard currency via EUROFICORCA to foreign creditors. And in the weak currency to domestic creditors, also via EUROFICORCA. The main problem in the case of sovereign debt is that taxes are collected in the weak currency, which under moderate inflation can be converted into hard currency to repay foreign creditors while domestic creditors will be repaid in the weak currency. The main problem here is inflation. Time again we insist on the need to keep moderate levels of inflation for the risk of a devaluation and inflation spinning out of control will delay the benefits of the reform at best, will totally counteract them at worse.³⁵ Our emphasis here is on reverse causality: while larger budget deficits are inflationary, inflationary pressures in turn hinder the government's ability to lower its deficit. Keeping inflation under control using EUROUDI and context-specific ESPs venues is therefore of outmost importance.

9. **The problem of hard- currency reserves needed by the central bank.** The focus of our analysis under this header now turns to ongoing concerns by local central banks in peripheral departing nations and their ability to accumulate hard currency reserves. While the post-reform scenario is rather standard in that a local central bank in the periphery enjoys the benefits of extending credit in local currency, the problem is that this bank will need foreign reserves to support the payments system. Specifically, the central bank during the transition will need foreign currency reserves for supplying hard currency to guarantee full convertibility on the one hand, and to make timely foreign exchange interventions to stabilize the value of the weak currency on the other. Let us be perfectly clear here. This proposal neither endorses a post MR fixed exchange rate regime nor any form of crawling peg and interventionist dirty floating of any kind. We however contemplate scenarios where intense and destabilizing speculation necessitates the local central bank intervention. The need of international reserves in the context of a freely floating exchange rate is twofold. First, as we have already argued, to support the payment system. In particular, if the local banks lack access to foreign interbank lending as we expect they will, then the local central bank can use part of its foreign reserves to maintain the flow of interbank transactions. Second, and more to the point, to mitigate destabilizing speculation, foreign reserves can play a crucial role but these should not be used to anchor the exchange rate in any way, shape or form. Moreover, we advocate that

³⁴ In a similar vein, we should also contemplate which contracts should also be labelled in local currency following the reform. The relevant question here is whether a nominal anchor can be found so that long term contracts are made consistent with constant price changes within the jurisdiction where the MR takes place.

³⁵ Note that tax collection issues are exacerbated by the Olivera – Tanzi effect. Specifically, while debt repayments must be made within a tight time-frame, tax collection is generally collected with a lag, which further erodes the value of government revenues in an inflationary environment. See, Tanzi (1977), and Dornbusch- Simonsen (1987).

these foreign exchange interventions to fight excessive speculation should be the prerogative of a fully independent central bank. We have already established that the success of a MR crucially depends on a market-determined exchange rate, which can freely fluctuate, and on the design of a mechanism that will guarantee full convertibility between the hard and the weak currency. We have also warned that this is a delicate issue for full indexation and/or excessive money printing are tempting political venues in democratically elected regimes in the periphery. Because we should expect a shortage of foreign reserves during the critical transition period, the central bank will face a problem of hard-currency binding constraints, which can only be relaxed with the support of international agencies. We need to insist on this. The question then is how to gather support from international organizations such as the European Central Bank (ECB) that has so far resisted the idea of a break-up of the periphery from the core? We do not have an answer to this question. Our only hope is that our proposal will be viewed through the lens of economic reasoning and logic behind MRs that have already succeeded elsewhere, and not from a purely political perspective. While we fully respect the historical roots which are close to the heart of the construction of the EZ common currency area by those who designed them and their predecessors, we stand firmly by our three pillar institutions as venues that make sense from an economic standpoint. Endorsement of these institutions by the core and the periphery under a fully flexible exchange rate regime is of paramount importance to economic growth and prosperity.

- 10. The problem of bills and coins in circulation being accepted as a means of exchange and capital flight.** Last but not least, the monetary reform will need to issue new bills and coins to gradually replace hard currency in circulation. To withdraw hard currency and introduce local currency, albeit at a small scale due to the large volume of electronic transactions, is easier said than done. To some observers, hard currency holders have already taken euro-denominated deposits out of the periphery and in many instances out of the entire EZ. Looking forward, though, it is conceivable that holders of hard currency post reform scenario would be reluctant to surrender their hard currency holdings for they represent a store of value. Gradually, however, all economic agents in the departing country would need to draw from those savings in hard currency, and convert them into local currency for daily transactions. Historical examples to circumvent such type of logistical problems abound.³⁶ A reversion to local currency printing in an improved and more efficient manner, via delegation onto another country, for example, has already been discussed.³⁷ It is nevertheless a costly challenge not to be underestimated.

³⁶ Most widely cited examples include successful dissolution of the Austro-Hungarian common currency after World War I when bills in successor states were stamped to devalue them. Over-stamping of a formerly common currency alongside the imposition of capital controls can limit the scope for bank runs (Aldcroft - Rodger (2010)). We have spent a great deal of time studying this scenario, and have come to the conclusion that it can only be replicated if capital controls are put in place. Since we view those as confiscatory, a replication of such an over-stamping scheme does not appeal to us in the current context of an increasingly globalized financial sector.

³⁷ New Zealand, in particular efficient at producing polymer bills, which are environmentally friendly, and considerably less prone to forgery.

5. Making the Reform viable: EUROFICORCA, EUROUDI & ESP.

In a nutshell, the challenging questions spelled out in the previous section can be summarized as follows. First, the splintering EZ nation will need to undertake a generalized debt restructuring of external and internal liabilities. Our objective here will be to find an institutional way to deal with debt restructuring in order to postpone repayments until the departing country debtors return to a solvency position. Second, the exiting EZ country will experience a devaluation of its newly created currency and an ipso facto problem of inflation. This could easily spiral out of control mostly because of the temptation of full indexation. In parallel to debt restructuring, our target here will therefore be that of detecting an institutionalized way to continuously de-index prices. Third, the departing EZ country will be facing a shortage of hard currency. It will need the hard currency to honour external debt obligations and to launch its fully convertible weak currency. To be able to have access to hard currency at all times, the country's resurrected central bank will need full cooperation from the EZ core and international agencies. Our last goal in this section would therefore be that of suggesting a way for the EZ peripheral nations wishing to leave to gather international support throughout the entire duration of their sabbatical.

In this section we borrow ideas from a wealth of reforms, most notably from Latin America, in an attempt assemble an inventory of key tools that will help us address the above challenges. In so doing we are fully aware that each monetary reform is context-specific, and that drawing conclusions from what has worked in other regions can give a sense of direction at best, can be misleading at worse.

EUROFICORCA

Let us start with the issue of rescheduling the private-sector debt.³⁸ We have stated from the onset that for the reform not to be confiscatory, all hard-currency-denominated debt must be honoured in full. The way of settling these obligations will however differ depending on the creditors' identity. Debt repayments to foreign creditors must be made in the hard currency, while debt repayments to local creditors will be made in the fully convertible weak currency. This is easier said than done. Let us not forget that the exiting country will need to deal with debt restructuring of tens of thousands different debt contracts. Doing it in a transparent, expeditious and standardized fashion is a gigantic undertaking. In what follows we borrow from the experience of Mexico with regards to rescheduling of its private-sector debt in the 1980s and 1990s.

Mexico successfully restructured its private-sector sector obligations owed by a multiplicity of debtors via an institution established almost thirty years ago. This institution goes by the name FICORCA.³⁹ Created just after a massive devaluation in 1983, its main objective was to assist

³⁸ We assume that the sovereign debt component is addressed through the mechanisms already established by the countries of the Eurozone.

³⁹ FICORCA stands for "Fideicomiso de Cobertura de Riesgo Cambiario" (Exchange Rate Risk Trust). It was established in Mexico in 1983, that is, shortly after Mexico defaulted on its external debt and the Mexican Peso was sharply devalued. (See, Zedillo Ponce de León (1985), and Informe Anual del Banco de México (1983))

Mexican corporations that had to pay hard-currency denominated debts in a global environment where the local government and private sector enterprises had virtually no access to international sources of funding.

FICORCA was incorporated as a Trust. Its Settlor was the Federal Government, and its Trustee was the Central Bank of Mexico. The Trust acted as an automatic refinancing facility for local debtors and their foreign creditors. It would collect debt repayment contributions in local currency from local debtors and then act as a payment agency to foreign creditors requesting repayments in hard currency.

Under a FICORCA agreement between a single debtor and the Trust, at each pre-established period, the debtor would pay a predetermined Peso amount to the Trust. At the same time, the Trust would pay in full and in the hard currency the due obligations of the debtors to their foreign creditors. There were instances where by the end of a given loan cycle, there was a shortfall against the Trust, which reflected the difference between the pre-determined Peso repayments made by the local debtor to the Trust and the outlays in hard currency made by the Trust to the foreign creditors. This shortfall was automatically capitalized and rescheduled, that is, it was repaid at a later date relative to that specified in the original loan contract. From the debtor's standpoint, payments in Mexican Pesos were fixed while the maturity of the loan was flexible. This mechanism of automatic restructuring was known as AFICORCAMIENTO (from the verb AFICORCAR).

Under the FICORCA by-laws, the only eligible debtors were those who were meeting their original debt obligations and/or those who had successfully restructured their loans and were making repayments on their already written-down obligations. To remain in the warship of FICORCA, debtors had to fulfil Mexican Peso denominated obligations in a timely fashion. The FICORCA contracts were designed in such a way that the repayments in Mexican Pesos by local debtors and the hard currency outlays from FICORCA to the debtors' foreign creditors were equivalent in present value terms. In practice, however, FICORCA contracts had an upper bound tenure. Therefore, there was a residual risk to be borne by the Federal Government in cases where the implied maturity of the loan exceeded the statutory maximum.

Ex ante, and to the extent that the program was part of a successful stabilization strategy, one would expect that a future revaluation of the exchange rate would translate itself into a foreign exchange gain accruing to the Trust. In the case of the Mexican experience, this is exactly what happened. By the time the last FICORCA loan was repaid in September of 1991, this facility reported a cumulative net profit of US\$1 billion over a total of US\$11 billion participating loans.

The concept of AFICORCAMIENTO as an insurance against unforeseen contingencies which prevented a debtor from honouring in full its hard-currency denominated debts vis-à-vis her foreign creditors according to a pre-specified repayment calendar, and the follow-up automatic rescheduling of the shortfall became part of the jargon of financiers in their daily parlance up until these days. At present, a wide range of contracts, from commercial loans to mortgages, have AFICORCAMIENTO clauses, and are a pretty standard practice in the Mexican financial system.

An essential component of our proposal for an orderly and temporary exit of a country from the EZ core is the enactment of an institution, which would resemble to FICORCA and, thus, we give it the generic name of “EUROFICORCA”.⁴⁰ We need to remind our readers that EUROFICORCA would be an institutionalized facilitator. A sort of go-between, which would be put together to address the fact that a devaluation temporarily weakens local debtors’ income generating ability to honour their past obligations in full, with eventual shortfalls to be rescheduled. EUROFICORCA can encompass private sector and local government debts. It should therefore be viewed as carefully-designed venue to bridge the transitional gap between the temporarily disjointed income, which is currently labelled in the weak currency and out of which past obligations in the hard currency must be honoured. In other words, EUROFICORCA should be viewed as a temporary facility that mitigates the short run effects of a devaluation and a growth spurt take off leading to full recovery with an eventual return option to the EZ core.

We must be extremely clear at this point. By design, EUROFICORCA is very different from moral-hazard-based debt-relief schemes à la Krugman.⁴¹ *La raison d’être* of FICORCA is that otherwise solvent debtors residing in the EZ exiting periphery are temporarily illiquid in hard currency. These debtors are experiencing a disconnect due to the devaluation of their countries’ currencies. Their situation is rooted in the effects of the MR on the exchange rate, and no-where else.⁴²

Let us now turn to the issue of foreign versus local debt. In line with our non-confiscatory principle, foreign debt outlays accruing to foreign creditors must be denominated in the hard currency. Local debt outlays accruing to local debtors will be denominated in fully convertible local currency. In what follows we first analyze the issue of settling local debtors’ obligations in the hard currency. For the sake of argument we will henceforth refer to such facility as EUROFICORCA-1. Ideally, the Settlor of EUROFICORCA-1 can be the EU, and the Trustee the ECB. In this case we see EUROFICORCA-1 as a facility that can address the refinancing needs encompassing both sovereign and private debt.

We must at this point warn our readers that as this proposal is being written, we remain convinced that the sovereign debt component of the peripheral EZ troubled countries has not been resolved. The transitional burden of a MR may complicate our scheme. We believe that a EUROFICORCA-1 encompassing sovereign and private-sector debt is desirable. We however understand, that there are nascent institutions, which are close to the hearts of policy makers who have already launched them. To simplify our analysis, we therefore think it would be best to put politics aside for the moment so that our ideal version of a EUROFICORCA-1 becomes viable by including a sub set of stake holders only.

⁴⁰ The words FICORCA and EUROFICORCA should not be used interchangeably. They have different meanings and are strongly attached to the contrasting state and nature of the debt crises in middle-income economies at different points in time, and different in environments across the two sides of the Atlantic.

⁴¹ Krugman (1988) and Krugman (1989) puts forward numerous debt-relief schemes which rationale is easily shown diagrammatically via what he refers to as a debt-relief Laffer curve. Those schemes facilitate the elimination of a “debt overhang”. See, also, Armendáriz (1999b) for a synthesized exposition, inventory, and rationale behind such schemes.

⁴² See the Appendix for an illustration of the potential benefits accruing to both the debtors and their creditors when an institution like FICORCA exits in the midst of a MR.

To this end, and under a less than an ideal scenario, EUROFICORCA-1 would consider exclusively the non-sovereign debt component of obligations which must be honoured by a multiplicity of private-sector debtors. Here the roles of the Settlor and the Trustee, respectively, could be delegated to the local government and the local central bank respectively. However, it should be noticed that for this to be viable, there is an unavoidable need of substantial amounts of international reserves, and therefore some support will have to come from the countries in the EZ core and/or from the European Central Bank and other international agencies. Namely, even in this less-than-ideal format, EUROFICORCA-1 will need to be capitalized in the hard currency, and may also need to borrow in hard currency. The equity component will require foreign currency funding from the local government, and the borrowing necessitates the participation of the central bank requiring funding in hard currency from the ECB. In any event, enactment of EUROFICORCA-1 is unthinkable without the participation of the rest of the EZ countries. The way such cooperation can take place will be discussed later in this section.

The main mandate of EUROFICORCA-1 would be to disburse variable hard currency debt repayments to foreign creditors in exchange of local-currency denominated inflation indexed (or analogous) fixed payments made by solvent local debtors in the post reform scenario. Note that this particular Trust receives repayment in the weak currency, which should first be converted into hard currency. By adding to this hard currency denominated amount a portion of the Trust capital, EUROFICORCA-1 can then repay in full foreign creditors' claims on local debtors. We henceforth call any contract between a local private debtor and EUROFICORCA-1 a EUROAFICORCADO-1 contract.

We should expect that at early stages in the MR, local debtors' income is worth very little because of the sharp devaluation of their newly created weak currency and because growth would not have been reignited yet.⁴³ Hence, when converting local currency into hard currency, the early stages' shortfalls we have already alluded to earlier on are expected to be large. The role of EUROFORCA-1, however, is neither to bail out insolvent and/or debtors that are unwilling to repay nor to cover ex-ante any permanent shortfall. Instead, its role is dual in that it must accept the local currency and exchange it at market prices for hard currency to make repayments to foreign creditors on the one hand, and to ensure that the shortfall is automatically rescheduled according to a pre-specified rule agreed upon between EUROFICORCA-1 and the local debtors.

We believe that EUROFICORCA-1 can potentially mitigate contagion because as it plays the much needed go-between role between a multiplicity of local debtors and their foreign creditors in adherence to our non-confiscatory principle. Our prediction is that if EUROFICORCA-1 in each country commits itself to accept local currency, and designs an automatic rescheduling mechanism, a banking crisis in the core can be largely averted.

⁴³ The growth rate in Greece alone is expected to decrease by as much as six percentage points in 2012 (International Herald Tribune, January 18, 2012). To revert this trend might take some time, and this is why we refer to EUROFICORCA as an institution for a full return to a solvency position might take a long time indeed in cases like this.

The reason is simple. Non-negligible levels of peripheral debt will typically appear in the balance sheets of banks headquartered in the core, and from a prudential supervision standpoint, capital requirements are being met via debt rescheduling. Moreover, the debt that is being automatically rescheduled is that of debtors who are solvent and/or willing to pay, that is “good” debtors. The bad externality generated by “bad” debtors disappears. Credit agencies will factor this in when assessing the quality of the portfolio of banks in the EZ core. The core must bet on private debtors in the departing country not wishing to cut ties with foreign creditors, and on sovereign debtors in the departing country wishing to return to the core if only because they wish to catch up quickly, enjoy the standards of living of core euro zone countries, and please median voters who dislike inflation.

These reasons should suffice to convince the core that investing in the creation of EUROFICORCA-1 is a bet worth taking. Our proposal thus far is best illustrated in figures 1 and 2 below.

FIGURE 1. LOAN BEFORE EUROFICORCA

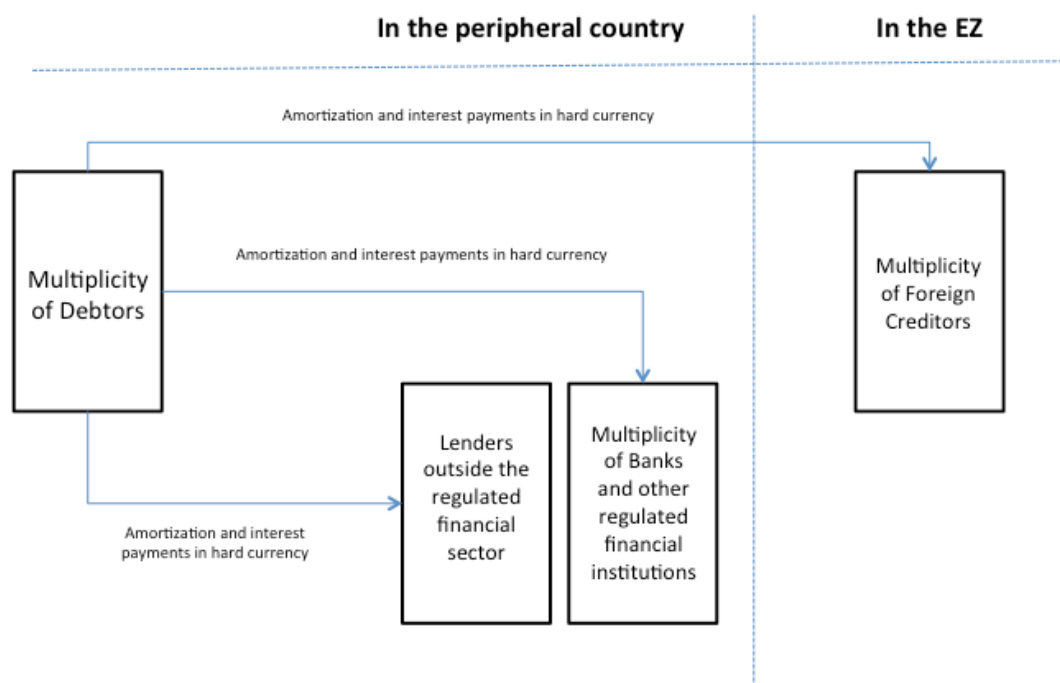
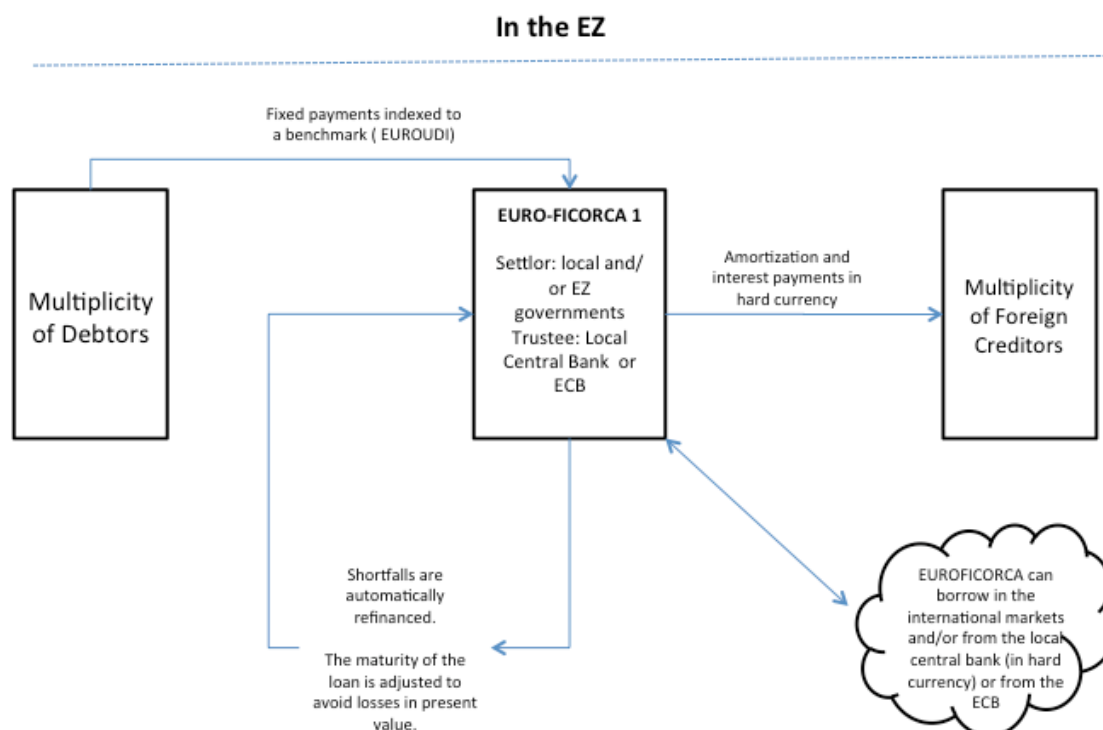


FIGURE 2. LOAN UNDER EUROFICORCA 1



We now turn to all those debts denominated in hard currency, repayable in the weak but fully convertible currency at the prevailing market rate. These debts are owed to local banks and must be repaid, again, by local debtors in the weak currency. The facility in charge of restructuring these loans will be labelled EUROFICORCA-2. Its Settlor can be the local Government of the departing country, and its Trustee the resurrected central bank. EUROFICORCA-2 will function in a similar fashion to EUROFICORCA-1, except that it will have far more flexibility because we expect that the local central bank would be able to lend weak currency denominated amounts to the Trust.

The mandate of EUROFICORCA-2 would therefore be to gather the debt service payments from borrowers and to pay in full to the local banks the obligations denominated in hard-currency, although the settlement will be made in the weak currency at the market clearing exchange rate. EUROFICORCA-2 will also have the capacity to carry out the automatic debt rescheduling on potential shortfalls, covering the shortfalls with the equity provided by the government and the potential loans it can obtain from the local and independent central bank. We should insist that relative to EUROFICORCA-1, EUROFICORCA-2 will not need to get hold of hard currency in order to honour local debtors' obligations.

It is important to note that the reason for settling local loans using the weak currency, even though such payments are equivalent -at the prevailing market exchange rate- to the original contract denominated in hard currency is twofold. On the one hand, we expect that the weak

currency will obtain public recognition in the settling local contracts, paying wages, and in most retail and service related transactions. It is then reasonable to anticipate that when local lenders are repaid, they will only convert a fraction of their income into the hard currency. This obviously contributes to the stabilization of the exchange rate and relaxes foreign reserves constraints. Second, by making repayments using the weak currency to local lenders, the central bank can more easily lend to the Trust. Bearing in mind that the central bank is independent, those loans will be extended if and when the central bank can assist. The central bank can thus more easily deal with transitory exchange rate or inflation volatility, and debt simultaneously and in a centralized manner.

EUROFICORCA-2 by-laws dictate that payments in local currency must be defined relative to a benchmark that approximately reflects debtors' ability to repay. One possible benchmark that naturally comes to mind would be a EUROAFICORCAMIENTO rule that would offer local debtors the possibility of making fixed repayment using the Consumer Price Index (CPI) as a benchmark. We will return to this issue further below.

EUROFICORCA-2 should be perceived as a powerful venue to mitigate the potential losses incurred by local banks. It would be an exceedingly useful institution, if only because it would help to smooth out the transition, and do so in a very transparent fashion. It could provide the much needed recapitalization required by local financial institutions, helping them survive the transition period in the aftermath of the reform.

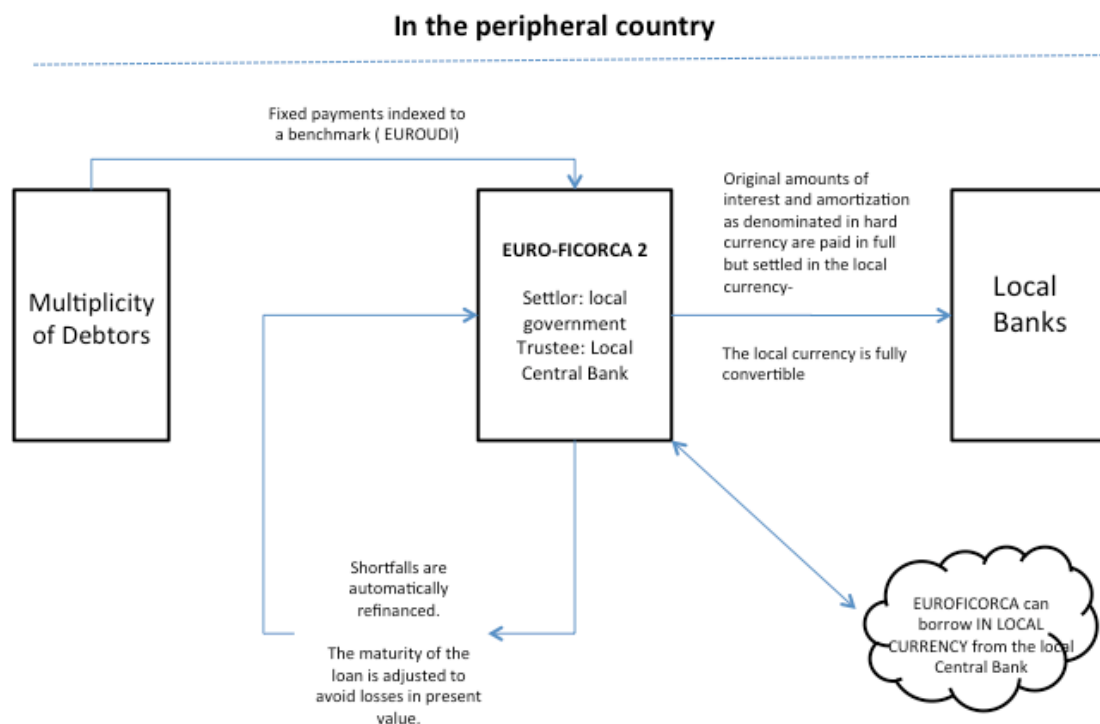
EUROFICORCA-2, like EUROFICORCA-1, should also be viewed as part of a strategy to achieve a successful stabilization. To the extent that stabilization translates into a gradual appreciation of the real exchange rate after its initial overshooting, it can also prove to be a profitable venture for the government in the long run. (In the Appendix we deliver an example).

We should note that EUROFICORCA-2 can be particularly effective when applied to restructuring long-term debt in general and, in particular, mortgages.⁴⁴ Since mortgages represent a large portion of assets held by local banks, automatic rescheduling preserves banks' equity, which we also expect to increase in value once the MR has taken hold. The inflationary risk the EZ exiting country would take by allowing its central bank to lend to the Trust would therefore be greatly abated if and when the economy bootstraps towards the good equilibrium. That is, once the EZ departing nation returns to a situation where long term solvency and financial stability is achieved.

Note that from a purely logistical standpoint, the multiplicity of debt contracts that will potentially be under the umbrella of EUROFICORCA-2 calls for a benchmark EUROAFICORCAMIENTO in the weak currency.⁴⁵

⁴⁴ This happened in Mexico (See, Sánchez – Arrollo (1995)). The magnitude and the consequences of the 2007 – 2008 sub prime crises are far greater, however, and thus the necessity of institutionalizing an automatic rescheduling mechanism under EUROFICORCA-1 as soon as possible.

⁴⁵ Also, as a practical question, individual borrowers would not deal directly with EUROFICORCA-2. A logical procedure would consist on having debtors restructuring (AFICORCAMIENTO and UDIZATION) directly with their banks; then banks would package and inscribe these loans in the EUROFICORCA-2 program.

FIGURE 3. LOAN UNDER EUROFICORCA 2

EUROUDI

In a context of an economy-wide debt restructuring, not all debts would have been contracted via financial intermediaries. We have already alluded to this problem earlier on. Specifically, our starting point in this sub section is how to deal with debts contracted outside the banking sector. We found two experiences in Latin America that can be very relevant here. The first one comes from Argentina during one of its monetary reforms in the mid-1980s. This was coined “the Austral Plan” throughout which a price benchmark called “Tablas de Desagio” or markdown tables was used. These tables made inflation benchmarks public. They were used by creditors and debtors to calibrate debt contracts, if and when abrupt and unexpected changes in inflation took place.

The markdown tables were short-lived, and the reason why they did not live up to expectations remains a subject of heated debate. Our conjecture is that on the one hand the Argentinean markdown tables were often perceived as exceedingly complex and confusing. On the other hand, they were introduced in the midst of a failed and also short-lived monetary reform, which consisted of replacing the Argentinean Peso for the Argentinean Austral with the principal objective of getting rid of the inflationary inertia, which is not the objective of a MR in a EZ exiting case.

In contrast, Chile and Mexico introduced an alternative and more transparent system, respectively, the “Unidad de Fomento” or UF, and the “Unidad de Inversión or UDI. These are units of account, which are published daily and are made available to the general public via printed and electronic media. Such benchmarks are dithered consumer price indices. They should be viewed as an official estimate of the daily consumer price index (CPI). The UDIs and UFs are calculated by extrapolating a daily value for the CPI, based on the most recently monthly (Chile) or bi-weekly (Mexico) inflation numbers.

UDIs and UFs (henceforth: UDIs) are reliable benchmarks with a conspicuous presence in the economy: tax rules often include UDIZATION clauses, there is a vast market for government and corporate bonds denominated in UDIs, there are futures and over-the-counter (OTC) derivatives in UDIs, and, more generally, all sorts of credit and service contracts are also denominated in UDIs.

Drawing from the Chilean and Mexican experience, we firmly believe that having a general benchmark like the UDI to be used by exiting EZ members is absolutely essential. The price benchmark we have in mind should be considered as a basic tool for effective debt restructuring in an environment of excessive price and/or exchange rate volatility. It greatly simplifies the issuing of all sorts of contracts within a setting where scale is of the essence.

In the context of EUROFICORCA-1 and 2, we should therefore hope to witness two concurrent ingredients in most contracts in an EZ departing country, namely, EUROFICORCAMIENTO and EURODIZATION.⁴⁶ Specifically, the repayment schedule for any eligible loan contract under EUROFICORCA-1 by-laws would be expressed in fixed or quasi-fixed amount of EUROUDIs. In addition, the loan contract will have a variable maturity depending on time-variable exchange-rate risk.⁴⁷

On a larger scale, the advantages of having EUROUDIs are twofold. First, distributional effects arising from unexpected inflation are minimized. And, second, buyers’ purchasing power across the board (inclusive of future markets in financial services) is guaranteed. Ideally, a non-confiscatory MR in the EZ departing members would be supported by the creation of these two institutions, namely EUROFICORCA and EUROUDI. This should help peripheral departing EZ members in their transition from deflation and recession to solvency and economic growth. It should also help the EZ core creditors to the extent that the choice of the right benchmark increases the probability of success of EUROFICORCA, thereby reassuring all debtors in the core

⁴⁶ The most relevant experience here is the “Punto Final” program established in Mexico after the 1994 devaluation which facilitated massive restructuring of loan portfolios of the entire banking system. Key to these restructurings under such program was the concurrent inclusion of two components, namely, UDIZATION AND AFICORCAMIENTO. See, the 1995 Bank of Mexico Annual Report for further details.

⁴⁷ Clearly, one easy way to get around this problem would be if post-reform contracts were denominated in hard currency and repaid in local currency, but this does not eliminate the mismatch between current nominal income and payments to debtors in real income. While the redistribution problem for smooth operation of the payment system necessitates FICORCA and UDI-style contracts, we should note that these institutional venues have emerged because of the inability to contract debt abroad and domestically by countries holding onto weak currencies and that have a history of devaluation and inflation. This problem is often referred to as the “Original Sin Problem”. (See, Eichengreen –Hausmann- Panizza (2002)).

that the value of their claims will be preserved. This can in turn avert a cascade of bank runs and consequent financial crash. We do not see any other way of reassuring investors' fears that a potential exit from the EZ would lead to a confiscation of their assets.

We have to bear in mind that the EUROUDIs are not just an effective tool to reassure non-confiscation of assets on already contracted debt in general. There are myriad of contracts in the economy of an exiting EZ state, which we must think of. The most noticeable ones are long-term lease contracts. Immediately after the MR, all lease contracts are denominated in the hard currency. The imminent devaluation of the weak currency makes it impossible for lessees to honour hard-currency denominated contracts. What we suggest by means of this particular example is that bilateral restructuring of such type of contracts be denominated in country-specific EUROUDIs. Contracts denominated in EUROUDIs also benefit from standardization and financial innovation. Specifically, and in the particular example of long term lease contracts denominated in EUROUDIs, real estate developers might wish to borrow in EUROUDIs, and extend leases in EUROUDIs. Real estate developers should be able to finance their investments with funds denominated in EUROUDIs, and investors should be able to hedge their balances in EUROUDIs as the derivatives market develops. We should expect this phenomenon to occur within a short-time frame. In the particular case of Mexico in the aftermath of the 1994 Peso crisis, for example, all lease contracts which were typically denominated in US dollars prior to the crisis, were quickly renegotiated in UDIs affecting the entire real estate sector. Thus, on a larger scale, we should expect that economy-wide contracts denominated in EUROUDIs will relax hard currency budget constraints.

We now return to our non-confiscatory principle which is embedded in self-reinforcing EUROFICORCA and EUROUDI institutions with regards to the legal system. A MR undertaken by a departing EZ state is no excuse to endorse delinquency and fraud. Without underestimating the shock that all economic agents may have to endure following a sudden devaluation, the risk of a poorly designed MR is that of promoting a culture of non-repayment. We hope that by describing the major guidelines and modus operandi of our twin institutions, to have convincingly argued that that risk is close to zero. The enactment of EUROFICORCA and EUROUDI sustains a solid legal framework for a continuous dissemination of contract enforcement and property rights protection.

Last but not least, we have already warned the EZ member states considering to part away from the perils of a fixed exchange rate system, that they should expect a shortage of hard currency. Euros will be scarce during the transition for at least two obvious reasons. Firstly, the local central bank cannot print them. Secondly, a country in the periphery that is highly indebted in hard currency is already experiencing a limited access to the international debt markets, and the situation can only worsen in the aftermath of a MR. How can one ensure that EUROFICORCA-1 has, directly or indirectly, increased access to the hard currency?

Drawing from a wealth of experience on sudden devaluations in Latin America, the exiting states should be warned on their continuous need to rely on international organizations. For our proposal to work, any peripheral country considering to leave the EZ will need structural loans from multilateral institutions to fund at least part of EUROFICORCA. Moreover, the local central bank must have an increased access to hard currency, which can only be obtained from

European institutions such as the ECB and the IMF. Stability and growth in the long run will however ensure that the central bank can again be in the position to build foreign currency reserves. But this by no means can happen in the transitional stage.

Political issues aside, the main question here is: what incentives do international agencies have in helping the periphery to undertake a monetary reform like the one that we just described? The standard answer to this question thus far is the fear of contagion and the consequent and incommensurable world financial crisis in case of disorderly exits. However, cooperation in this proposal suggests that avoiding disorderly defaults can be welfare improving for both creditors and debtors. The idea in the international finance literature from implicit contract theory is not new.⁴⁸ This is also true historically. And it is on this basis that we propose a growth enhancing monetary reform, which will minimize the risk of contagion under our basic non-confiscatory principle. At the same time, the MR we propose will revert the insolvency trend. This trend under the status quo is already proven to be detrimental to economic growth in the EZ.

Our proposal does not underestimate the historical roots of the euro zone and sunk costs incurred thus far. This is why we propose a temporary departure, a sort of sabbatical which length is critically dependent on the extent of support that the periphery will receive from the EZ core and international aid agencies.

Let us assume for the moment that it is indeed possible to persuade the international agencies that financial support must be granted, and that a departing country's central bank in the periphery obtains sufficient hard currency during the transition. It then becomes possible for the central bank to open a temporary discount window in hard currency to sustain the design of a stable banking system.⁴⁹ We insist on the word temporary for in the long run, the post reform scenario will review well-capitalized local banks, and the departing country will enjoy renewed access to loans in international financial markets.

In addition to the process through which the local Central Bank will build its international reserves, some regulatory measures on foreign exchange transactions –which do not involve capital controls by any means- geared towards internalizing the liquidity risk in hard currency, could be drawn from the prudential regulation in Mexico in the aftermath of the 1994 Peso crisis.⁵⁰

In 1995, the central bank of Mexico launched two important initiatives. First, it suggested a “liquidity coefficient” whereby private banks were forced to accumulate their own hard currency reserves for making timely repayments on their newly-contracted foreign currency denominated liabilities. Hence, in the event of illiquidity due to either a global or an idiosyncratic shock, domestic banks would not be affected at best, mildly affected at worse. Second, it launched an initiative called “admission of liabilities” which boils down to requiring

⁴⁸ See, notably, Crawford (1987) who shows that in a repeated Prisoner's dilemma set-up, cooperation between debtors and creditors Pareto dominates a strategy where both parties play a non-cooperative strategy. Armendáriz (1999a) conveys Crawford's main idea by means of a simple Prisoners' dilemma-type example.

⁴⁹ Further details on the logistics and success of a temporary discount window like the one we have in mind can be found in the “Informe Anual del Banco de México (1995)”.

⁵⁰ For further details on the 1994 Peso crisis, also referred to as the “Tequila Crisis”, see Edwards (1997)

banks to match their hard currency denominated assets and liabilities adjusted for exchange rate risk, credit risk and maturity. The benefits of discount windows and admission of liabilities are obvious.

EUROPEAN SOCIAL PACT (ESP)

Let us now turn to the third pillar of a successful transition, namely, the ESP (European Social Pact). We have so far emphasized that the success of a non-confiscatory monetary reform critically depends on the way creditors and debtors approach the problem of internal and external indebtedness in a departing country. In what follows we argue that this is a necessary but not a sufficient condition.

To complete the picture, the departing country can only guarantee success in the design of a MR in an environment where unit labour costs are decreasing steadily through the transitional stage. In the long run we should expect an increase in productivity and a gradual recovery of unit labour costs. Dealing with the short-run fall in real wages represents a major challenge in non-repressive regimes such as those in the EZ democracies. Since we have spent quite a bit of time in this section describing the merits of indexation in the financial sector, and a toolkit (including the discount window and admission of liabilities) to adhere to our non-confiscatory principle, this proposal might seemingly underscore non-confiscation in the labour sector by stating the inevitable fall in real wages in the aftermath of the reform. In what follows we will attempt to persuade our readers that we are fully aware of the confiscatory yet transitional dimension of a MR, which is shouldered by the labour force, but that this is a second-best scenario for EZ democracies relative to the status quo. Moreover, we will provide a toolkit for exiting EZ member states to deal with this transitional and potentially explosive political-economy problem.

History, has taught us that many monetary reforms have not succeeded because their leaders have failed to persuade workers that transitional low real wages are conducive to future prosperity. Time and again we have seen that when partial indexation gives its way to full indexation, the next step is hyperinflation and chaos.⁵¹ This is by far the major challenge we must face under in this proposal from a political-economy standpoint.

Crucial to our proposal is that an exiting EZ member state must have institutional support from outside, mostly because of the much needed access to hard currency in order to moderate the magnitude and potential excess volatility of the sudden devaluation, and its effects in the financial sector. It is now time to address the equally needed cooperation of labour, within the boundaries of the departing EZ country. Specifically, we are addressing here the gigantic issue of wage contention in support of structural reforms. Ironically, the former enables the country to support indexation cum restructuring in the financial sector, whereas the latter is all about preventing full indexation in the local labour market.

⁵¹ Note that we have been entertaining the idea of multiple equilibria a la Blanchard (2011). It is through the lens of this kind of set up where we must make sure that the economy does not end in a “bad” equilibrium (i.e., no growth and hyperinflation).

Implementing this rather contradictory approach to indexation may sound close to politically impossible, but the fact of the matter is that this monumental passage from economic policy to political-economy considerations has been successfully bridged in, for example, Spain, Mexico, and Colombia, under the name of “Pactos Sociales” or Social Pacts.⁵²

Prior to spelling out the details of this pacts, we should spare a few words on the true meaning of social pacts as we view them. Social pacts are neither purely cosmetic, nor an expression of generous good-will by democratically elected politicians and their constituencies. If well-designed, social pacts take the form of real institutionalized platforms constructed on the basis of four fundamental principles. First, social pacts are inclusive of every relevant government agency and economic and social sector. All sectors should convene and participate and have their word at regular encounters on an equal footing. Such encounters are all about the issuance of policy guidelines on initiatives launched by MR governments. Pacts are typically headed by an executive commission of business, government and social leaders; have clear rules for consensus gathering, and governance. Second, social pacts do not directly include political parties or legislators. This is indeed why they are labelled as social pacts, and not because of pure semantics. In fact, these pacts represent a concerted policy response which will later on be presented to the respective legislatures with the backing of a strong mandate from, by and large, all sectors of society. Third, social pacts manifest themselves as continuous peer monitoring devices across key sectors, with each sector ready to adjust if necessary. In fact, it is not uncommon to see that the executive committee of a typical social pact meets at least once a week in times of stress and that board members find support from outside agencies that monitor the economy using and/or generating high-frequency data on leading and unbiased indicators in a timely fashion. Social pacts should be able to deliver pro-active and swift reactions to unforeseen contingencies and to adjust members’ reactions on the basis of past performance, unbiased forward-looking outlook and context. Fourth, and most important, social pacts are all about solidarity and fairness. Their effectiveness crucially relies on everyone representing a particular sector at the meetings puts something on the table.

Quite simply, social pacts are neither an institutionalized venue for lowering wages at all costs nor a venue for inflicting loses on corporations. Instead, social pacts incarnate a natural forum for discussing structural change reforms, encompassing taxation, potential subsidies, and potential by-laws to improve competitiveness and efficiency. And last but not least, to put in place the needed social safety nets to ensure the viability of reforms in context-specific social fabrics. When viewed this way, social pacts are closest in spirit to continuous referendums on key issues through a critical transitional period.

We very much hope that at this point our readers will understand the reasons why we suggest that all tools in our two pillar institutions supporting non-confiscatory MRs in the financial sector be placed under a political-economy scaffolding of an ESP with two branches. The first

⁵² Typically, an orthodox anti-inflation package heavily relies on budget deficit reduction. What we are arguing here is that efforts to reduce the deficit while unobservable by nature, full accountability vis-à-vis enterprises and workers via full disclosure of accounts (revenues and expenditures) is necessary for enterprises and workers to cooperate. Enterprises will not increase prices and workers will not request higher wages if the treasury department persuades both sectors that budget deficit reduction targets are being met. (See, Parker (2011)).

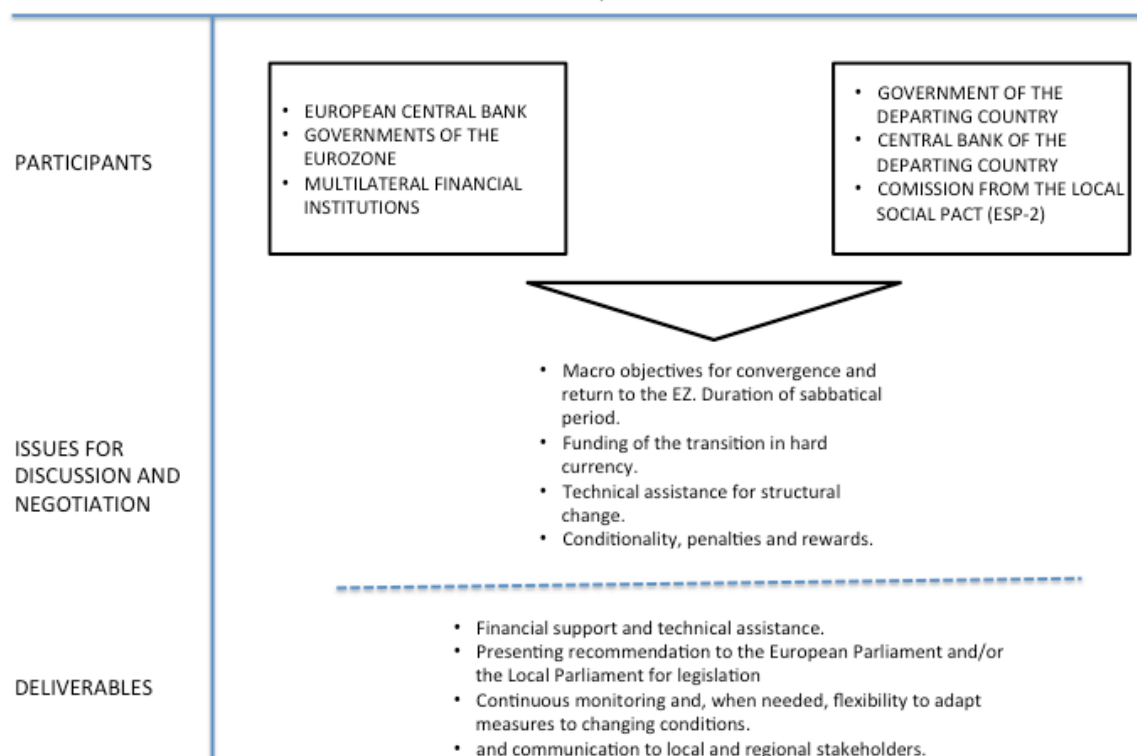
branch, henceforth ESP-1, will relate to a pact between the exiting EZ member state policy makers and key representatives of all EZ institutions. ESP-2 would henceforth be a social pact amongst the local social stakeholders within the boundaries of the exiting EZ state.

The underling rationale for suggesting the creation of ESP-1 is best understood through the lens of the foreign aid format EZ exiting states will be needing in lieu of complementary to the current bailouts. We have already referred to financial support in hard currency and technical assistance via international institutions such as the IFM. In return, international support should be made conditional financial access and know-how to the exiting country's compliance in line with the non-confiscatory principle.

We expect during its sabbatical period, the exiting country and the remaining EZ core members would find a mutually convenient return to the fixed exchange rate mechanism, whichever form it takes at the time the exiting country is strong enough and ready to return to full EZ reintegration. In other words, it would not be in the interest of the EZ to pave a way out with a no return option because it might tempt many other members to exit thereby self-inflicting its own dissolution. Instead, it is in the interest of the EZ core to strengthen over time the economies of countries in its periphery and to expand in the long run the economic impact of the monetary union.

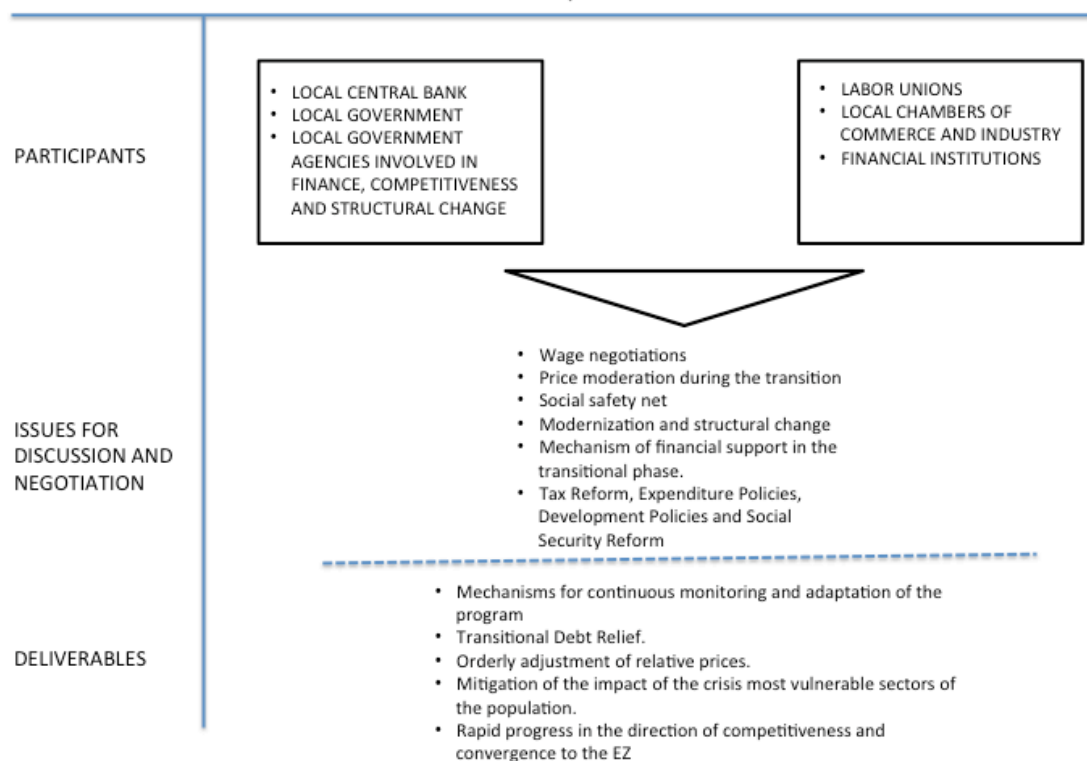
ESP-1 should be the cornerstone for rallying the consensus of the EZ members and institutions around the exiting country while imposing conditionality, which contemplates a maximum duration for the sabbatical, on a case-by-case basis. One would expect that the country on a sabbatical would receive the support from the EZ core in favourable terms, subject to conditions and ***explicit guarantees*** with some hefty haircuts. If the country successfully rejoins the union, such guarantees would be handed back. However, if the country fails to return to the EZ, either by not meeting the performance standards of the monetary union or because such a country decides to stay out of it indefinitely, then this country should be charged a pre-specified monetary amount plus a penalty for exercising rights that have been exceedingly costly to the EZ-core at this particular juncture. Figure 4 delivers a snapshot of our idea.

FIGURE 4. European Social Pact ESP-1



ESP-2 is about the internal negotiations. In the first stages efforts should be placed on lowering unemployment rates, building the road to recovery and preventing full and non consensual indexation of wages in the labour market. One would expect labour unions to internalize part of the adjustment costs in exchange for transitional social programs to help those in greatest need. Likewise, a fair self-restraint on the side of the profit margins of the private sector enterprises is unavoidable. In addition, corporations should accept a complete dismantling of industry-specific privileges and tax loopholes. Both, workers and corporations should agree with the government on short and long term steps of a fiscal reform with an eye on a social safety net. Only then a departing EZ government and policy makers can put in place the toolkit we have alluded to under the umbrella of a EUROFICORCA and EUROUDIS institutions. Moreover, and under a well-designed ESP-2, the government of a departing EZ state can establish additional programs for financial relief across the economy. In the same spirit of ESP-1, the recommendations of ESP-2 will be sent to the country's own parliament, for approval, once a social consensus has been reached.

FIGURE 5. European Social Pact ESP-2



Last but not least, we believe that the executive instances of ESP-1 and ESP2 must communicate on a regular basis, to share information and exchange viewpoints so that the distinguishing features of a social pact, namely, flexibility, inclusiveness and fairness are preserved across the board and across the two political-economy institutions.

6. Conclusion

A cooperative equilibrium in which a heavily indebted nation can temporarily exit the EZ is at the heart of this proposal. We have argued that during its sabbatical, the exiting EZ can engage itself in a well-designed monetary reform. This will be conducive to high rates of economic growth. The reform we have proposed is unprecedented in that the departing nation internalizes the potential impact on other EZ states. These would also internalize the benefits that such a temporary departure would bring to the splintering state.

As we have described the architecture of this reform, it would minimize contagion, and the negative effects emerging from high nominal and relative price volatility during a critical transitional stage. The departing nation would seek to promote growth-enhancing policies via a devaluation of its currency, and attempt to preserve the integrity of the financial and payment system.

Our proposal is based on a non-confiscatory principle according to which all assets denominated in hard currency by internal and external creditors would be honoured. The venues to facilitate

debt restructuring of both internal and external debts have been spelled out. We have argued that such venues adhere as much as they possibly can to our fundamental non-confiscatory principle.

We have highlighted that some degree of indexation in the financial sector was necessary to implement debt restructuring under a devaluation-inflation spiral. And that preventing a similar degree of indexation in the labour market was of the essence. In exchange, profit margins by private sector enterprises would be cut so as to prevent price hikes in the typical context-specific basket of goods of average households. We concluded by suggesting the enactment of a social pact to facilitate access to a moderate-inflation-with growth equilibrium. By design, the social pact is a unanimously and consensual venue inclusive of all key economic and social actors. It should achieve an orderly adjustment of relative prices within the EZ exiting state borders. We suggested a parallel social pact to work in conjunction. This would be consensual-based across the EZ core and between the EZ core and periphery.

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APPENDIX . Example of a loan with AFICORCAMIENTO

Lets consider a loan contract originally denominated in the hard currency between a borrower and a lender. Suppose the face value of the loan is 100 units labeled in the hard currency. The loan cycle is 10 years, with exact same repayments per year. The interest rate charged on this loan is 5 percent per annum. Assume the lender obtains funding to finance this loan at 150 bps below the lending rate. The debtor enjoys a (constant) yearly income of 100 units in the hard currency through the entire duration of the loan. In the absence of a monetary reform, this hypothetical the profile of this hypothetical loan is:

Performance of the loan before the Monetary Reform
(in units of the strong currency)

	Amount outstanding	Amortization	Interest	Total payments	borrower's income	Total payment/Income
1	100	10	5.0	15.0	100	15.0%
2	90	10	4.5	14.5	100	14.5%
3	80	10	4.0	14.0	100	14.0%
4	70	10	3.5	13.5	100	13.5%
5	60	10	3.0	13.0	100	13.0%
6	50	10	2.5	12.5	100	12.5%
7	40	10	2.0	12.0	100	12.0%
8	30	10	1.5	11.5	100	11.5%
9	20	10	1.0	11.0	100	11.0%
10	10	10	0.5	10.5	100	10.5%

Net present value in 10 years

\$107.21

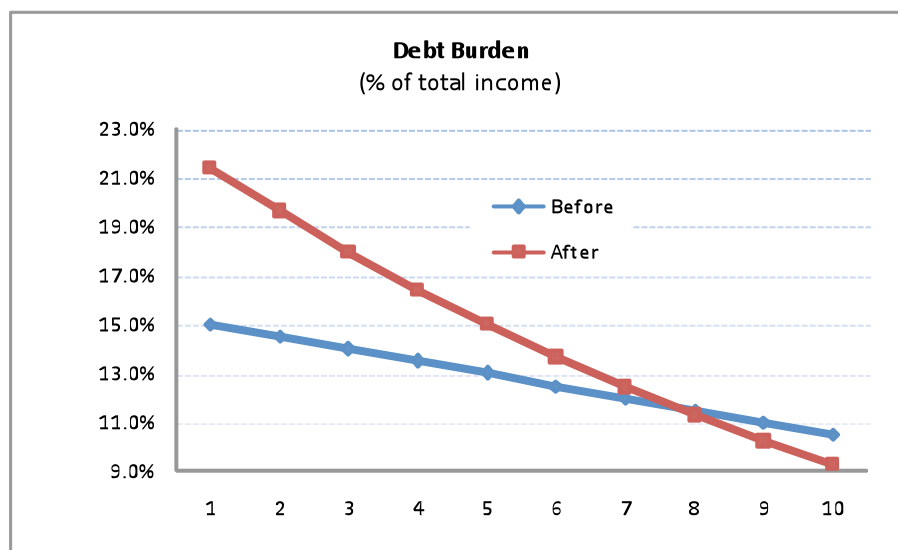
Now assume that there is a monetary reform. As a result the local currency loses value. The devaluation makes the current income of the borrower to drop by 30 percentage points when her income is measured in the strong currency. Suppose the loan contract remains unaltered. Now assume that the devaluation improves the country's current account and aggregate output. This growth spurt will benefit the borrower in that her income will increase at a 5.5 percentage points per year. Her income is now labeled in the local/weak currency. Assume that as of year seven, this particular borrower's income returns to its pre-reform level in the hard currency. Under these assumptions, the profile of the loan would now be:

Performance of the loan after the Monetary Reform

(in units of the strong currency)

	Amount outstanding	Amortization	Interest	Total payments	borrower's income	Total payment/Income
1	100	10	5.0	15.0	70.00	21.4%
2	90	10	4.5	14.5	73.85	19.6%
3	80	10	4.0	14.0	77.91	18.0%
4	70	10	3.5	13.5	82.20	16.4%
5	60	10	3.0	13.0	86.72	15.0%
6	50	10	2.5	12.5	91.49	13.7%
7	40	10	2.0	12.0	96.52	12.4%
8	30	10	1.5	11.5	101.83	11.3%
9	20	10	1.0	11.0	107.43	10.2%
10	10	10	0.5	10.5	113.34	9.3%

Note that the devaluation increases the debt burden considerably during the first years. This is detrimental to the quality of the loan. The reason why the borrower experiences a heavy burden during the first years is that the devaluation has decreased his current income, now denominated in the weak currency. And it is out of current income that she must make repayments in the hard currency. The debt burden gap prior and post reform scenarios is shown in the diagram below. By assumption, the lender's income growth in the weak currency closes the gap in the long run, which takes place as of year seven after the reform has taken place.



Now suppose the lender decides to AFICORCAR her loan immediately after the reform has taken place. As a result, the debt burden will be fixed to pre-reform levels. Her repayments will therefore be lower relative to the previous scenario. That is, the debt burden will be lowered. The shortfall between the original repayment and what the borrower is paying is automatically

rescheduled. In other words, the loan is now AFICORCADO. The profile of this loan is now different from the previous post-reform scenario. We show the AFICORCADO loan profile in the following table

Performance of the loan AFICORCADA

(in units of the strong currency)

	Amount outstanding	Amortization	Interest	Total payments	borrower's income	Total payment/Income
1	100.0	5.5	5.0	10.5	70.00	15.0%
2	94.5	6.0	4.7	10.7	73.85	14.5%
3	88.5	6.5	4.4	10.9	77.91	14.0%
4	82.0	7.0	4.1	11.1	82.20	13.5%
5	75.0	7.5	3.8	11.3	86.72	13.0%
6	67.5	8.1	3.4	11.4	91.49	12.5%
7	59.5	8.6	3.0	11.6	96.52	12.0%
8	50.8	9.2	2.5	11.7	101.83	11.5%
9	41.7	9.7	2.1	11.8	107.43	11.0%
10	31.9	10.3	1.6	11.9	113.34	10.5%
11	21.6	11.5	1.1	12.6	119.57	10.5%
12	10.2	12.7	0.5	13.2	126.15	10.5%
<i>Net present value in 10 years</i>	<i>\$93.55</i>					
<i>Net present value in 11 years</i>	<i>\$102.15</i>					
<i>Net present value in 12 years</i>	<i>\$110.91</i>					

What this table shows is, first, AFICORCAMIENTO boils down to extending the loan maturity. In our hypothetical example, the borrower now has twelve years instead of 10 to repay her debt. Second, instead of relatively high debt repayments, which will reduce the face value of the loan, debt repayments will now be lower. In our hypothetical example, this particular borrower reduced the face value of her loan by 10 units prior to the reform. She now reduced the value of its loan by 5.5 units. The remaining 4.5 units would have been capitalized. And, third, from the lender's standpoint, granting an extension of the maturity of this particular hypothetical loan by two years yields a capital gain equivalent to 3.45% .