A Mechanism for Saving the Eurozone - DRAFT

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The Eurozone is a federation of states without international exchange rate mechanisms.

Lacking a mechanism for monetary equilibration between member states, it was predicted by many (including the author) that the Eurozone would suffer precisely the sorts of problems it has. To wit, economically strong states able to capture demand effectively do so at the expense of Eurozone neighbours. Weaker states (possibly fed outlandish estimates of future growth) borrow intensively to spend in a Keynesian model of government expenditure, but without long-term strategic impact. Even without the serious shocks of the dotcom crash and the bungee snap of the 2008 financial crash, such a Eurozone model was still too flawed to last.

The mechanism for monetary equilibration wasn't implemented because no-one bothered to figure out properly how to avoid the case where one state effectively freeloads government expenditure off the backs of others. It isn't such a bad thing if the expenditure works to equilibrate economic development and growth of economic activity. But if such expenditures fail to have long-term strategic impact, then the governments concerned are likely to end up being considered profligate by their redoubtable neightbours. This problem still requires solution, and we present an attempt to solve it forthwith.

We postulate that the real problem in the Eurozone is the trapping of excessive risk, in large amounts, in attachment to particular spatial regions or states. While specific rulesets of the Eurozone monetary mechanism and concomitant international banking legislations gave rise to this situation, we argue that it is *not* clear that extensive legislative change in favour of strong fiscal union is necessary when attempting to 'unwind' the stocking of risk within and by the system.

We endeavour in the following to outline a mechanism that would have solved this risk-trapping problem in the past, and which could now be used either to save the Eurozone in its entirety, or to permit the smooth disengagement of particular states from troubling aspects of the monetary union.

I. DIFFERENCES OF INFLUENCE AND DECOUPLING

We begin by noting that there is a spectrum of influence over Eurozone decision-making available to states within and around the Eurozone, and that this must influence the strategies of individual states in respect of the present financial crisis. It is obvious that a state with little or no influence over the core decisionmaking in the Eurozone must pursue a strategy of decoupling from the systemic financial risks in the absence of further information. However, it is argued that for states outside the monetary union that this need not entail disengaging entirely from the functioning of states that are at risk of significant debt default and secession from the Euro monetary union.

Let us begin by considering the case of nation outside of the European monetary union, nation X, with little or no influence over the core decision-making, yet faced with the prospect of being a significant creditor to a nation, Y, within the Eurozone liable to default on a major portion of debt (either sovereign or private sector). How would X decouple from Y in such a way as to minimize the domestic consequences? It is clear that a default by Y could result in a sudden loss of income to X, where that income might also play a major role in further economic turnover for X. Nation X must seek to buffer itself in two ways: Firstly to find interim sources of funding to maintain continuing turnover, and secondly to find alternative sources of income in order to cover the loss of the original income from Y.

Firstly, presume that nation X can find interim funding sources. Then the task is to find alternative (buffer) sources of income, possibly during a time of wider economic downturn. If we further presume that the majority of investments X made into Y were of a financial nature, then it is possible that a concerted mitigation strategy might involve X deliberately maintaining a banking presence in nation Y so as to take advantage of lower cost opportunities in funding the maintenance of public services and industry in spite of higher level financial decoupling. Just because Y is forced to default on debt repayments to other contracts does not mean that an entire nation need cease to function overnight. It is also likely that a nation that secedes from the Euro will be forced to take on an exchange rate which is favourable to X seeking to make judicious investments during the storm, so to speak. So while Y's debt default could cause a significant cascade through various financial markets, it is not clear that a nation like X outside of the Eurozone need do more than ensure that the storm is shortlived, domestically, overseas in nation Y, and with respect to other debtors affected by Y.

This gives rise to the question: Is is possible for X to make prescient investments into a nation like Y that is on the cusp of dramatic financial shrinkage? The answer to this is likely to be yes, if those investments are somehow themselves buffered from the shock of a sudden downgrade in their worth owing to Y seceding from the Eurozone and taking on a less valued exchange rate. Na-

tions like X perhaps should seek to maintain cross border funding arrangements that are thus highly dynamic and rely on rapidity of micro-transfers across borders so as to limit exposure. The strategy would seek to return Y to acceptable levels of growth and stability as rapidly as possible, while generating trusted provider status (a.k.a. brand kudos) that provides for future investment growth. So the main issue for a nation like X is not one of having no access to a strategy for the future, rather it is one of mitigating sustained consequences from impending financial shocks. Institutions and companies within X need not coordinate explicitly because the strategy has clear advantages for the majority of actors. Institutional and market actions will be reasonably well aligned in this situation.

Consider now the fate of a nation Z that has access both to the core European decisionmaking process but which is also heavily exposed to nation Y not only through financial exposure but also through legislated obligations as a partner in the Eurozone. There are several main problems here. First, there is the risk that being within the Eurozone Z lacks sufficient distance from the consequences of Y's problems to be able to raise adequate sources of mitigation funds. Secondly, not only is the financial exposure of Z to Y likely to be greater because of prior institutional faith, but also Z is less likely to have additional opportunities to fund Y's continuing function as a way of weathering the storm. Thirdly, Z is intimately responsible for choosing the mechanisms by which a financial and economic catastrophe is either overcome or played out. The markets know this.

Consider two types of market player, M_A which has significant exposure within the Eurozone and M_B which does not. Any investment opportunity that mitigates current exposure for M_A is also an opportunity for M_B. If a supra-bank like the ECB offers eurobonds purely on that premise that they are better guaranteed than the bonds of Y, and yet the markets know that the ECB needs to sell enough of these bonds to cover the risks that Y situation is generating, what prevents the markets, M, from waiting until the ECB is forced to sell the bonds at rates which adequately match M's desires? Thus a shock is just displaced to a higher and more central institution and the levels of risk are not mitigated. It is said that the key issue is 'faith', but in reality it is a limited form of faith concerning only whether investors will get their interest payments, or the value of their investments returned. If investors are unlikely to get either, as they see it, then it is unsurprising if they swoop upon any mechanism that offers a proxy or replacement. That is, if the Eurozone members are unable to offer effective mechanisms for defraying and mitigating systemic risks the markets will pursue any strategy that mitigates individual short term risk, even if this is at odds with the longer term survival of European institutions and possibly individual national government interests. Even if Eurozone members are merely seen as unlikely to provide a useful risk mitigation mechanism, the market movements will appear biased against successful resolution, even though the markets are simply in blind pursuit of (for them) useful risk mitigation strategies. So any risk mitigation strategy has to align with markets' shorter term desires or risk tactical failure.

II. BOND SOVEREIGNTY TRANSFER MARKETS

We propose as a mechanism for the immediate term solution of present problems the idea of a Bond Sovereignty Transfer Market (BSTM). The BSTM is intended to address only the issue of resolving or mitigating the problem of excessive risk being attached to particular spatial entities (in this case, nations that have issued the bonds). The essential idea of the BSTM is that in addition to the usual process of bond owners being able to sell their title to a bond to a purchaser, owners should be able to transfer the sovereignty between nations in order to manage their risks. So, for example, owner A owns sovereign bonds from nation N, but nation N is having a financial crisis such that there is an real risk that owner A will lose both the interest payments and the initial (principal) downpayments. In these circumstances, owner A can elect to pay a fee to another nation M, with less risks, in order to have M act as the sovereign agent backing the bonds. Ideally, under usual market conditions, because M is at less risk of crisis, and therefore normally able to sell bonds at lower interest rates, the bond from nation N would assume the lower rates of interest associated with nation M. Under different circumstances A might also decide that their bonds were not earning enough interest and would therefore pay a fee to country P to transfer sovereignty to a nation with higher interest rates on bonds. Initially, of course, it is likely that bonds will be transferred *en masse* away from a nation at risk, N, to one with lower risk, M. This will of course have an adverse effect on M's finances for a while. Therefore additional mechanisms are required to help mitigate this risk.

There remain two problems that must be resolved in order for the BSTM system to function well. The first problem is that a bond from N could have been purchased at a time of low risk with, say, an interest rate of 3%, and set to mature in 5 years. After 5 years N is at financial risk so owner A is at risk of losing an income stream and the principal on the bond. Therefore A elects to move the bond to M where the prevailing rate of interest is 3%, and pays a fee to do this. However, the bond is now due to mature, so in effect M is now carrying both the same interest rate on the bond and the weight of bailing out the principal. This only makes sense for M if accepting the bond will mitigate the overall risk to the wider system; that is, if it mitigates the risk of even greater payouts later on. Depending on M's own financial status, it may therefore make more sense to M for the act of transferring the bond's sovereignty

to carry also at least one of: a mandatory extension of the period until maturation; or a mandatory decrease in the interest rate paid on the bond. So from M's point of view there should be a calculation whereby bonds cannot be tranferred into its sovereignty in such a way as to raise the risk to M's finances unacceptably. Owners like A therefore pay a cost for mitigating risk, and if they attempt to mitigate their risks in troubling ways then they can expect to pay more costs. In this way there is a market 'sweet spot' for mitigating risk, some combination of a particular nation and its financial wellbeing, such that the costs of transferring a bond's sovereignty are acceptable to both parties.

Now what of the other case, where owner A wishes to transfer a bond with a low interest rate into a nation with a higher interest rate? Obviously if a nation like N already has a higher interest rate on bonds then this means that its costs of borrowing are higher, so it is having trouble obtaining the funds it wants. Why would N choose to accept A's bond under these circumstances? N might do this, if the transfer fee could be set high enough to constitute, in effect, an additional principal payment. So, for example, a bond purchased from M for €100 with 3% interest could be transferred into N's accounts as a bond at €75 with 4.5% interest, plus a cash influx of the transfer fee plus €25. Again, in reality there should be some calculation that offsets the gains to A from interest against the gains to N of the immediate cash influx. Markets should therefore also be able to find a sweet spot combination of particular nations and interest rates for taking on more bond ownership risk.

III. ESSENTIAL PROPERTIES OF THE BSTM

The aforegoing sections have provided only a rough outline of how the BSTM system might function, but it is possible to indicate the essential properties that the mechanism must have if it is to be robust. It should, for example, have an overall risk (potential) profile that is concave-up (like the curve of the function $f(x) = x^2$). That is, both too low a risk and too high a risk of investment are considered bad. Whereas being near the minimum is considered better. Such a profile contributes stability to the system. If every nation uses the same risk profile all the time then the system as a whole will be very stable, possibly too stable to generate interesting competitive market conditions. But there is no *a priori* reason why nations should not implement different risk profiles at different times, or have dynamic risk profiles, that seek to optimise their ability to raise funds when needed.

Moreover, the minimum of a nation's risk profile should perhaps move, on average, in line with market pricing indexes. This is because there are factors behind the pricing of bonds such as the state of government finances, and national economic forecasts for taxation, that will affect the capacity of states to pay interest or principals. The combination of a concave-up risk profile and the tracking of market pricing indexes means that no nation should be able to overreach its ability to repay to such an extent that massive defaults are inevitable. That is, in the absence of other external shocks the window of low risk for a nation should remain broad and move, in market terms, comparatively slowly. This would hopefully create circumstances in which government policies are less make-or-break but rather cause more manageable ups and downs.

We consider it important not to overspecify at this stage the minutiae of how the BSTM will work. It is important for nations to experiment with the mechanism on a small scale at first, and steadily evolve their understanding concerning the management of risk profiles. That is, while the overall functioning should adhere to the general properties asserted above, the precise form the system will eventually arrive at cannot, *and should not*, be dictated in advance. To do so would be to sacrifice its essential flexibility and risk frustrating opportunity.

Moreover, we stress a belief in the need to test actual prototypes with real traders with real portfolios of a broad range financial instruments. This is because we consider it beyond the means of even the most concerted simulation programmers to cover in advance the full range of psychological states, information contexts, strategies and tools, possessed by real agents. Given a new form of market, real agents are able to construct new (possibly high-frequency) trading tools with new algorithms. Nor can the possible forms of new talents arising in response to new market forms be adequately foreseen. For example, traders could begin to nest carry trades on various (nested) financial instruments by securitising on bond trades, rather than bonds themselves, to a novel extent. So while the BSTM might restore risk redistribution (and therefore stability) at a more fundamental level, it might also expose which other markets have poorly designed average risk profiles. (The markets love these 'broken' risk profiles because they are a free lunch, up until the point where they break everything. So it serves everyone, in the long run, to patch up such profiles quickly.)

IV. THE BSTM AND DECOUPLING

An aspiration of the BSTM proposal is that not only should it provide a mechanism whereby the market is able to manage its own mitigation of excessive risks within the Eurozone, but also that the mechanism minimise the extent to which there is a need for strong fiscal union, with this in turn driving excessive executive centralisation. It is suggested that the BSTM will supply an effective fiscal union by implication, without the need for the attempt to force absolute economic lock step among nations. A key feature of the BSTM is that not only can sovereign financial crises be defused, in principle, but also that states' finances are only coupled to each other

in dynamic fashion. If nation N looks likely to default on sovereign debts, markets can move their risk out of nation N, thereby decoupling their risks from the nation in trouble. Nation N is then placed in a better position to restore health through control of finances. But in the worst case scenario, decoupling a nation from the monetary union is reduced largely to the problem of assigning a new exchange rate to the currency replacing the Euro (and the practicalities of putting cash into the public sphere). This raises the intriguing possibility that the manner in which a nation might move towards joining the Eurozone could be by first gradually making its sovereign bonds available for transfer via the BSTM.

If a nation decouples from the Euro currency and needs a new exchange rate there is one possible step to take that might mitigate much of the possible civil unrest that could result. This is to allow savers with savings below a certain limit, say €$100,000$, to consider their savings as being denominated in Euros after the exchange rate has been fixed, and then allowing them to take advantage of the new exchange rate. Though in the short term this might lead to inflation in consumer prices it could also help to ensure the continued functioning of cashflows to business and industry.

V. MATTERS NOT YET CONCEIVED...

... This proposal cannot predict the future. It only offers some ideas about a design that might prove useful.