Response to Charles Goodhart "Global Macroeconomic and Financial Supervision: Where next?"

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Charles's paper starts with the problems created by the divergence between a highly integrated global economy and the fact that political legitimacy, and in particular the legitimacy of regulation, taxation, public expenditure and fiscal transfer, resides at national level.

The problem that "a global trading and financial system coexists with national sovereignty over political and fiscal powers".

He notes, as many have, that logic would drive us in one of two opposite directions.

- Towards more global or regional political integration.
- Or towards more national control of economic and financial processes through, for instance, subsidiarisation of banks by country and, possibly, capital controls.

But any movement towards the latter option is in Europe's case "likely to be limited", given the adamant commitment of the European Union to the existence of a single market, including a free flow of capital "despite the role that such capital flows have played in the current crisis there". Indeed, as Charles says, "it is in the EU, and even more so in the Eurozone, that the conflict, the fault-line between supranational and national, reaches its most extreme."

It is on these issues of the appropriate balance of national and supranational within the EU, and specifically within the Eurozone, that I would like to focus my response today.

As Charles notes, the Maastricht Treaty was intended to ensure appropriate fiscal discipline at what he labels the "subsidiary sovereign" level. And that phrase, "subsidiary sovereign", usefully focuses our attention on the highly specific feature of the Eurozone – which is the existence of political units which are clearly "subsidiary" in that they do not have currency issuing powers, but which in their fiscal activities, and in the scale of their fiscal revenues and expenditures as a percent of GDP, seem like fully sovereign states.

The Maastricht Treaty was intended to address the tensions created by this specific feature. But Charles argues that it was faulty because focused too exclusively on the issue of public debt

positions, ignoring the problems potentially created by private sector indebtedness, indebtedness which might well find its counterpart in external current account deficits.

That clearly, however, poses the question: do external current account deficits matter, and if so why? And in particular, do they matter and why within the single currency zone? For there has always been a school of thought which says that external current account deficits produced by and financed by private debt flows do not matter. Nigel Lawson argued in the 1980s, for instance, that we need to draw a clear distinction between external deficits arising from fiscal deficits and those arising from "consenting adults" in private contracts (quoted in William Cline, "International Debt Reexamined").1

It is therefore on this issue of what categories of debt matter – external or internal, public or private – that I will concentrate today, seeking to identify the relevant specific character of the Eurozone in this respect, and ending with a proposal for what the Maastricht Treaty should have said to achieve a coherent balance of national and supranational roles within the Eurozone single currency.

Do external accounting balances matter in either stock or flow term? Should we, in other words, consider the aggregate of the external indebtedness (gross or net) of all counterparties in a country – the state, the households and corporates – or should be consider their indebtedness as quite separate issues? At several points in his paper Charles talks of a "country" being indebted – defining the "country" balance sheet as the aggregate of state, household and corporate sectors. But is "country" actually a useful aggregation?

To analyse that question it is useful to consider the different answers which most commentators would give and have in the past given when considering two different cases:

- the emerging markets which got into unsustainable debt positions in the 1980s in particular in Latin America;
- or an individual state within the US, say, California.

In relation to the first, almost all commentators at the time assumed that what mattered was the aggregate external balance. Indeed both at the time and in subsequent historical accounts, that assumption has been so dominant as to be often unstated. Thus for instance in William Cline's classic account of the 1980s emerging markets debt crisis ("International Debt Reexamined"), almost all of the figures given are for the total external balance (whether in stock or flow terms) with only imperfect and incomplete data distinguishing between public and private counterparties, and with no comprehensive data on the domestic internal indebtedness of either private or public sectors. The focus is on the combined indebtedness of public and private sectors, but only on their external indebtedness. The assumption is that what matters is the aggregate external position and the resource flows required to service that debt.

At the other extreme, consider the case of California (or any other US state). Within California different counterparties could be in debt - the state of California, Californian households, or

¹ William R. Cline, *International Debt Reexamined*, Institute for International Economics, 1995.

corporate businesses or banks registered in California. And there could be concerns about the sustainability of those categories of debt. But in this case, almost no one ever calculates the aggregate ("country") debt of California, combining the debt of each of these sectors. Conversely, when we do think separately about the sustainability of the debt of each of these sectors (or of specific counterparties within these sectors) we make no distinction between whether this debt is held by investors within California or out of state.

- We therefore do not calculate and worry about the overall current account balance of California as a "country".
- Nor is it usually considered relevant whether the debt of Californian corporates is held by Californian households and institutions or by institutions and households in other states of the US.
- Nor whether Californian state debt is held by investors within state or without.

Thus, (Exhibit 1):

- While in the Latin American case the usual focus was on <u>external</u> debt only but on the level of external debt aggregated across all sectors.
- Analysis of debt sustainability for Californian counterparties is typically considered sector by sector, but with no particular importance attached to the distinction between whether that debt is held internally or externally.

So was that approach to Latin America debt appropriate? Is this approach to the debt of different Californian sectors appropriate? And should we think about Eurozone countries as we thought about emerging market countries in the 1980s, or as we typically think about individual US states?

The argument for considering Californian sectoral debt burdens quite separately is that their sustainability appears to be quite separate (Exhibit 2):

- No sector has guaranteed the debt of any other sector.
- Californian householders could be in payment difficulties even if the state were financially sound, and vice versa.
- Credit worthy households in California might well be able to get access to credit provided by banks either within or outside California, even in the midst of a Californian state debt default.
- And indebted corporates or banks which happen to be headquartered in California could be quite able to service their debt even if the state of California went bankrupt. In the US, nobody assumes that the credit rating of the corporate cannot exceed the credit rating of the state or city in which it is headquartered. And the bankrupt state of California would have no right to grab the assets of Californian corporates in order to pay its debts.

As a result, when New York City teetered on the brink of bankruptcy in 1975, it was not assumed that had necessary consequences for the solvency of banks or corporates which happened to be headquartered in New York City.

The logic against aggregating the debt levels of counterparties/sectors which happen to be located in a specific state therefore seems clear: why should we aggregate the debt positions (in either stock or flow terms) of different sectors which are not cross-guarantors and whose economic prospects are not necessary correlated? In general, it seems we have good reasons not to work out current account balances or net external balance sheet positions for individual US States. ²

But the reference to the "correlation" of economic and debt sustainability prospects suggests that in some circumstances and to some degree it might actually be useful to look at aggregate debt levels for all Californian sectors – public and private; and perhaps also to look at external aggregate imbalances. Because in several ways sectoral debt sustainability prospects might be correlated, with correlation flowing both from public to private and private to public (Exhibit 3).

- If private household debt has driven property price inflation and a construction boom, and if state revenues are highly dependent on property prices and transactions as well as on the general buoyancy of economic activity, then high and rising levels of private household debt might indicate future problems for state finances when the bubble bursts.
- And if state debt is in danger of becoming unsustainable, then the state might in future have to increase taxes and reduce expenditures, which could undermine the debt servicing capacity of private households and businesses.
- And a current account deficit funded from outside the state, while in some circumstances reflecting capital flows which finance revenue generating investments, could in other cases indicate that real wages have been driven above competitive levels in the traded sector of the economy because of a debt financed expansion of non-traded sectors (such as construction). A divergence of real wages which, if the construction boom turns to bust, will then result in some mix of:
 - Unemployment if real wages cannot flexibly adjust to restore competitiveness.
 - Increased real debt burdens if real wages do flexibly adjust, cutting wages relative to debt levels.
 - With consequent pressures on state revenue and state debt sustainability as well as on private debt sustainability in either of these cases.

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² Indeed it is possible that if we had worked out current account deficits for US states over the course of the last 50 years, adverse policy reactions to sustainable current account deficits would have resulted. Thus for instance if Florida ran a current account deficit continually in the 1950s and 60s as a result of inward private capital flows (eg., Northerners purchasing and developing real estate), any attempt to use public policy to reduce these deficits might well have had adverse economic effects.

Thus, while the presumption that we should not add up sectoral debt levels to produce a "country" aggregate for individual US states has considerable power, even in these circumstances we must recognise that sectoral debt sustainabilities might be somewhat correlated, and that if they are correlated then there is some value in considering their aggregate cross-sectoral size.

The general criterion for useful aggregation therefore is the degree to which different sectoral prospects are inter-related or correlated. And the reason it made sense in the 1980s emerging debt crisis to focus on aggregate debt and on external debt was that there were specific factors which justified that focus (Exhibit 4).

- First, there was a high degree of correlation between state and corporate debt prospects. This resulted not only from the factors which apply even in the case of an individual US state, but also additional factors specific to emerging market economies at that time.
 - The fact that much apparently "corporate" debt was in fact due from parastatal organisations.
 - The fact that access to foreign exchange to service private debt might be dependent on government capital control and exchange rate policies which could in turn be influenced by the sustainability of the government's own external debt position.
 - The reasonable suspicion of private credit providers that still imperfectly democratic states might use sovereign powers to seize private assets if needed to service its own debt.
 - And a resulting danger that even inherently credit worthy private projects might become unfundable amid concerns about the state's credit worthiness, so that a government wishing to ensure a continued flow of credit to the private sector might have to guarantee or take over the private debts as the Argentinean and Chilean states effectively did in the early 1980s³.

These special conditions are what make William Cline's almost exclusive focus on aggregate country debt sensible.

- Equally, there were some specific factors which appeared to make a predominant focus on <u>external</u> rather than internal debt justified.
 - External debt was foreign currency debt which, unlike domestic currency debt, could not in extremis be monetised away.

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³ See William Cline, *International Debt Reexamined*, Chapter 6.

- And it was assumed that access to external debt was particularly important in order to finance net real resources flows without which economic development and growth would be hampered.

Together, these factors provide some justification for the focus on the external position alone – though with the caveat that internal state debt levels might still be relevant if they had consequences for the ability of the state to service its total combined debt (internal and external) out of real tax resources rather using the monetisation route to reduce the domestic element.

So (Exhibit 5) both the tendency of 1980s analysis to focus on aggregate country external debt and the tendency of most analysts to ignore the current account flows or aggregate balance sheets of US states are largely, though not entirely, justified by the different circumstances. There is a spectrum of different circumstances which justifies a spectrum of analytical approaches.

Where within the spectrum should we locate Eurozone economies? Should we focus on their external balances as we did on those of emerging economies in the 1980s? Or focus solely on state finances, treating for instance the debts of Greek shipping owners as utterly separate from the Greek state?

The crucial issue is the extent to which the debt sustainability prospects of different sectors are correlated. Analysis of that correlation within the Eurozone argues, I suggest, for three things:

- (i) A far stronger focus than under Maastricht on <u>aggregate</u> debt levels, looking at the combined debt levels of all sectors.
- (ii) A considerable focus on external imbalances as potentially important indicators;
- (iii) but also and crucially the need to <u>avoid taking false comfort</u> from a balanced external position within which debt is primarily internally financed.

(i) Strong focus on aggregate debt levels

We now recognise that high private sector debt levels within the Eurozone can make state finances vulnerable. (Exhibit 6) This is for the same reasons which could theoretically apply even in the case of a US state, but with added importance in the Eurozone due to the absence of automatically stabilising fiscal transfers, and the much larger fiscal role which Europeans states play compared with US states. US states tax and spend on average about 5% to 10% of GDP: they finance neither Medicare/Medicate nor social security. Eurozone states tax and spend somewhere in the region of 35% to 45% of GDP. As a result, the fall in Eurozone national revenues as a percentage of GDP which will occur following a property bust, is likely to be much larger than in the case of a US state, and any fiscal consolidation to offset an emerging deficit is in turn likely to have a larger depressive effect on the country/state economy.

This absence of automatic fiscal transfers and larger size of the state are, I suspect, more important differences between Eurozone countries and US states, than the frequently mentioned lack of labour mobility, which in debt sustainability terms is a double edged sword – positive

because the unemployed may emigrate; negative because tax payers may migrate away from the increased tax rates required to achieve fiscal consolidation.

(ii) Focus on external imbalances as indicators

Equally, we need to place greater weight on external current account imbalances than we did precrisis, though more as indicators of problems than as direct "financing challenges". (Exhibit 7)

- A current account imbalance can represent a "financing challenge" for a country if the attitude of external creditors to the credit worthiness of, say, a well-run Spanish company is influenced by creditor beliefs that *in extremis* all debts are linked, e.g.,
 - Because a Spanish government unable to pay its debts may leave the Eurozone and in doing so not only re-denominate its own debt but those of its corporates in New Peseta.
 - And/or if it is believed that the Spanish state in order to pay its debts will impose unavoidable taxes on the credit worthy Spanish company, and/or impose capital controls.
 - i.e. if debt sustainability prospects are closely inter-related.⁴

These are the sort of concerns which made the concept of "country" financability relevant in 1980s emerging markets. *In extremis* they could apply in a Eurozone under extreme stress.

• But even if the danger of such an absolute financing constraint is slight, external imbalances are certainly important <u>indicators</u> of potential problems, and in the case of, for instance, Spain and Ireland, should have been treated as indicators of disequilibrium in real wage competitiveness which were likely, once the construction booms bust, to result in high unemployment and rapidly rising state debts even in countries which during the boom appeared to have strong state finances.

(iii) Avoid taking false comfort from internal debt financing

So external imbalances may matter and should certainly be carefully monitored. But conversely, the absence of external imbalances should not be taken as indicating that high levels of state, private or aggregate debt pose no challenges. For indeed, if we go back to the crucial question of whether debt sustainability prospects in different sectors are correlated, it is clear that large internal holdings of state (or other debt) can in some cases create greater vulnerability than large external holdings. Thus (Exhibit 8):

⁴ A key measure of whether the market takes a 'country' rather than an individual counterparty attitude towards credit-worthiness and thus financability, is whether the CDS spreads of corporates are always higher than those of the countries/states in which they are headquartered/legally domiciled. In emerging markets this is almost always the case; in relation to individual US States it is often not the case; in relation to Eurozone countries it is generally the case but with some exceptions.

- Suppose California, through some variant of default / renegotiation / restructuring, imposed a haircut on holders of the state debt. The impact of that on the Californian economy would almost certainly be greater if a large proportion of that debt were held by Californian households and institutions rather than held out of the state, because the impact on those debt holders' wealth and in turn their consumption decisions would produce a further negative impact on California's state revenue.
- And the impact would probably be greatest if a large proportion of that defaulting state debt were held by Californian banks, and particularly if those banks held so much state debt that their solvency was undermined by state default.

In the Eurozone, one of our greatest vulnerabilities derives precisely from the fact that large proportions of national debt are held internally within each country by the banks of that country. It is this exposure, combined with the assumption that fiscal resources for any bank bail-outs must come from national budgets, which has created the inter-linkage between state finances and banking systems which is the most dangerous feature of our current predicament.

Past assessments of Italy's level of high state indebtedness have often taken some comfort from the fact that "the debt is primarily internally financed". But in fact that very internal financing, especially to the extent that it is through the banking system, has created extreme vulnerability. If a Californian state bank held a high proportion of its liquid resources in Californian state bonds, nobody would assume that this made Californian state debt in some senses more sustainable, and it would be recognised that such an undiversified portfolio increases financial instability risks. And conversely, if a larger proportion of Italian debt were held not by the Italian banking system, Italian households or other Italian institutions, but by investors outside Italy, that would reduce the likely downside effect of Italian debt restructuring on the Italian economy and on Italian banking system fragility.⁵

So Charles is quite right that the Maastricht Treaty, in attempting to constrain the risks involved in a multi-nation state currency union, focused too exclusively on state debt levels. ⁶ But on what should we focus: state debt, total debt, or external debt? I think we need to focus on all three and to think through the different implications of each. (Exhibit 9)

• We clearly need to focus on total debt levels, internal and external, government and private combined. Because we have learned that debt burdens which legally are quite separate can in economic terms be closely correlated. Once leverage across the whole economy has become high, it turns out to be incredibly difficult to reduce aggregate leverage rather than to simply shift it from one sector to another – deleveraging in the

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⁵ What is true is that a high proportion of debt held internally may, for a period of time, make it easier to re-finance existing debt and to issue new debt, since internal debt providers, as a result of a home bias, may be willing to ignore potential solvency problems for longer than external investors. Countries with higher proportions of debt held internally may therefore be less susceptible to temporary contagion and liquidity effects, and to the danger of irrational self-reinforcing cycles in which market concerns drive increasing debt servicing costs. If and when debt solvency pressures do result in actual default/restructuring, however, this internal bias becomes a point of vulnerability rather than strength. In addition, the very fact of a home behavioural bias, particularly if reinforced by regulators who require or encourage the banking system to hold greater debt, may make it more likely that state debt is able to grow to unsustainable levels in the first place

⁶ Quite apart from the fact that even in respect of state debt levels, it failed to provide effective discipline.

private sector producing an automatic deterioration in public finances, and some would argue a need to accept an increase of public deficits in order to avoid recession. The Japanese experience over the last 20 years illustrates this dynamic (Exhibit 10).

- But we need also to focus on external debt levels, or at least on their flow counterpart current account imbalances as important <u>indicators</u> of real wage disequilibria which may lead to future debt sustainability problems in either the state or private sectors.
- But we must also focus on total state debt levels, internal or external, and particularly so in any country which does not have freedom in extremis to monetise its debt, a crucial difference between the internal debt burden of say Italy today versus Argentina in 1980. For a nation which cannot print its own money, a domestic debt burden can be as unsustainable as an external burden; and in these circumstance indeed, a high proportion of internally held debt, particularly if held by the banking system, can increase the country's vulnerability to state debt default or haircuts.

What is apparent therefore is that the Eurozone's current construct – the Eurozone's answer to the questions Charles posed about the appropriate balance of supra-national and national responsibilities – is an inadequate one, reflecting inadequate attention in advance of the Eurozone launch to the *sui generis* nature of the Eurozone – a zone in which nations are neither equivalent to completely independent countries with their own currency nor fully analogous to US states without their own currencies, but something in between and requiring specific institutional rules to make the system stable.

It is the failure to address this sui generis character, and to construct fiscal and financial stability arrangements appropriate to this character, which helps explain the phenomenon that the Eurozone has both the lowest aggregate debt to GDP of the four major developed economy currency zones, and the highest average bond yields (Exhibit 11).

Faced with the current predicament, there are two issues:

- First how to get out of the position we should have never got into.
- Second what is a better set of arrangements for the future?

The former is of course the harder question. But since Charles largely avoided it in his paper, I feel justified in doing likewise in response, except for two observations. The first increasingly accepted, the second perhaps more controversial.

The first is that we have to recognise that some of the accumulated national debt levels of individual Eurozone countries exceed sustainable levels, and that if these debts remain denominated in Euros, i.e. if the countries do not leave the Eurozone and are therefore unable to consider monetisation options, some degree of restructuring/haircutting is inevitable. A specific example of the wider point that Charles makes that in some

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⁷ Richard Koo, "The Holy Grail of Macroeconomics, Lessons from Japan's Great Recession", makes a persuasive case that the increase in Japanese government debt as a % of GDP was both the naturally arising consequence of corporate deleveraging and essential to prevent a still deeper recession than in fact occurred.

circumstances there should be "partial default and restructuring" and that a system which does not allow for controlled restructuring in the face of economic realities will be a suboptimal one in both macro-economic and financial stability terms.

The second, that even if we focus on the currency blocks where the sovereign debt issuer is the currency issuer (Japan, UK, US) or even if we focussed on the total Eurozone debt burden ignoring the particular problems created by the national debt versus Euro currency split, we may in some cases face levels of debt as a percent of GDP which are very difficult to reduce through the processes of fiscal consolidation alone, without the helping hand of exceptional monetary measures which take us closer to debt monetisation.

But those comments aside, what structure makes sense for the Eurozone for the long term? What is increasingly agreed is that the general direction has to be towards a much greater degree of economic policy integration than put in place when the Eurozone was launched. And in respect to such integration, the UK government in July signalled a significant shift from Britain's historic approach – still clear that Britain will remain outside the Eurozone, but willing to accept and indeed encourage necessary integration within that zone.

But the question is what degree of and what form of integration, and with what consequences for national authority over taxes, over expenditure and over public debt? Let me suggest some contextual thoughts on the fiscal arrangements – but then focus on my key concern, the implications for financial stability arrangements (Exhibit 12).

I think it is clear that total integration of tax and spend decisions, or even a division of responsibilities between federal and local level equivalent to US arrangements, will not emerge and indeed does not need to. German tax payers are not going to take direct responsibility for paying Italian pensions. And there is no reason why the Eurozone should not be characterised by significantly different levels of tax and spend as a percent of GDP, reflecting different and sustainable social choices (Exhibit 13). High public spend as a percent of GDP is compatible with Eurozone membership and with constrained debt levels – as Finland illustrates, and as I am sure Sweden and Denmark would demonstrate if they were also in the Eurozone. What needs to be disciplined is debt issuance not expenditure levels per se.

But what is probably needed on the fiscal side is:

- At least some degree of Eurozone level automatic fiscal stabilisation, implying some Eurozone direct tax revenues and expenditures which can vary with the economic cycle.
- And some elements of countercyclical fiscal transfer from above trend to below trend states, a feature which would tend naturally to follow from feature 1.

Such arrangements could, however, still leave national states responsible for the vast majority of tax and spend decisions. The crucial question then becomes what will be their degrees of freedom in relation to debt finance?

The key to designing a sensible way forward in that respect is, I suggest, a clear focus on Charles' essential distinction between "full sovereigns" and "subsidiary sovereigns" and the debt which they issue.

That distinction suggests some clear design principles (Exhibit14).

- First that it is essential the debt issued by subsidiary sovereigns by sovereigns which cannot in extremis monetise it away is limited by strong political or preferably by market disciplines.
- Second, that we need to de-couple the noxious interconnection between banking system and sovereign debt – by reducing national banking system exposure to subsidiary sovereign debt.
- Third, that the issuance of common liability Eurobonds could bring major funding cost advantages, but that the scale of issue of Eurobonds needs to be subject to effective discipline.

Those principles in turn, might suggest something like the arrangements outlined on this exhibit, (Exhibit 15) with:

- Eurobonds issued as joint and several liabilities of Eurozone governments, funding national governments up to an equalised percentage of GDP, and with debt service contributions equalised as a percent of GDP.
- National bonds issuable in addition, but clearly not jointly guaranteed, and clearly carrying a far greater degree of default/restructure risk, which should be accepted, as per Charles proposals, not as something catastrophic and unacceptable, but as a naturally present possibility in any coherent and market discipline system.

Such proposals, from a public finance perspective, have now been put forward by several commentators in particular by Jacques Delpla and Jakob von Weizsäcker, in a pamphlet issued by Bruegel Policy Foundation.^{8 9} The specific point I would like to stress, however, is that for such proposals to work we would have to ensure that these different categories of debt were treated quite separately in bank capital and liquidity regulations, and in central bank operations.

■ Eurobonds would be extensively held by banks, favourably treated in liquidity regimes, and awarded low or even zero capital weights (when held by banks with predominantly Euro balance sheets), because they would be – in terms of nominal repayment – close to risk free. They would be eligible collateral at the ECB, key instruments in which the

distinction between safe bonds which could be important assets for the banking system, and higher risk national sovereign bonds (or the riskier trades of pooled bonds) which should ideally be held outside the banking system.

⁸"Eurobonds: *The Bluebond concept and its implication*, Jacques Delpla and Jacob von Weizsäcker, Bruegel Policy Foundation, March 2011.

⁹ An interesting variant of this approach, which does not create a common liability Eurobond, but which creates 'safe' and 'high risk' tranches out of pooled national debts up to some proportion of GDP, with unpooled national debt in addition, has been suggested by the Euronomics Group. (See *European Safe Bond*, (ESBies), the Euronomics Group, September 2011). In this proposal, as in that which I illustrate on Exhibit 15, there would be a clear

ECB would conduct open market operations, central to monetary policy transmission mechanisms, and they would be the asset purchased in any quantitative easing operations, and if ever necessary, in more explicit and permanent forms of debt monetisation.

By contrast national bonds should ideally be held entirely outside the banking system, not central to ECB operations, and with no potential for monetisation. They would clearly need to pay a significant risk premium over Eurobonds, and one which would vary with perceptions of credit worthiness. But that would be a useful discipline on excessive debt finance.

Now of course, even to put up this possible ideal is to illustrate immediately how very far we are from it, and how incredibly difficult it would be to manage the transition. We start with banks whose liquidity buffers are stuffed full of subsidiary sovereign debt. So I am sure that what will actually emerge will be significantly different from this ideal, and will emerge only very slowly and torturously. But it is important even when groping our way through the pragmatic compromises required to drag ourselves out of a bad position, to at least keep in mind desirable principles and objectives.

And Charles has identified that one of the central principles of better financial stability design is that "risk weightings of all sovereigns <u>cannot</u> be zero" and that "the idea that sovereign debt is riskless, let alone sub-sovereign debt, has to go".

But I think we need to stress still more than Charles' paper the importance of the "full sovereign" versus "subsidiary sovereign" distinction, and focus even more than Charles does on the dangers of the banking system/subsidiary sovereign interconnect. Charles suggests at one point that "sovereign debt held by financial intermediaries of that same country might still be zero weighted". If we mean here "fully sovereign" debt then maybe yes, but if we mean "subsidiary sovereign" debt, then absolutely no.

As Charles stresses not all sovereign debt is the same. But the most essential distinction (Exhibit 16) is between full sovereign debt issued by a money issuing authority, and subsidiary sovereign debt issued by a subsidiary sovereign with no currency issuing powers. The failure to recognise that distinction drove one of the most crucial design faults of the Eurozone which has left us today with the worst combination of all.

- With no equivalent of the full sovereign debt (ie., Eurobonds) which banks should hold as the ultimate liquid asset, and which market signals suggest would currently allow the Eurozone to raise money at very low rates.
- And with unsustainable levels of subsidiary sovereign debt, held in large and dangerously undiversified portfolios by national banking systems.

As best we can, we need to crawl towards a more coherent system.

And to sum up, the need clearly to distinguish full sovereign and subsidiary sovereign debts, is one of four general themes that I suggest in response to Charles' paper.

- First that the aggregate scale of all debt in the system public and private combined is a crucial potential driver of financial and macroeconomic instability.
- Second, that one of the reasons why we should worry about high aggregate leverage is that once we have it, it is incredibly difficult to reduce, rather than just shift from one sector to another.
- Third, that it is crucial for us to understand the interconnections between different sectoral or counterparty debt burdens, and the extent to which the sustainability is correlated.
- And fourth, that in the sovereign arena, fully sovereign debt and subsidiary sovereign debt are very different things.