A NOTE ON HOW TO RESOLVE THE EURO AREA CRISIS[1]

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[1] I would like to thank the University of Auckland for hosting the Roundtable event on 17th October, 2012 that prompted this paper, and in particular to Professor David Mayes and Mutsumi Kanazawa of the Europe Institute at the University of Auckland for organizing the event.

1 Introduction

When the project that spawned the euro, namely Economic and Monetary Union, was begun after the signing of the Maastricht Treaty in 1991, there was great excitement in Europe about the prospects for the single currency. Indeed, the logic presented at the time[2] was that to most effectively reap the benefits of the single market, a single currency was required. While the logic used for this argument was an argument for more integration, at the same time the benefits for the single market needed to be offset against the appropriateness of a single currency in terms of the appropriate economic criteria for membership.

The Maastricht convergence criteria were formulated by civil servants as part of the Maastricht Treaty but to many economists the criteria did not collectively match the economics interpretation of what constituted suitable criteria for assessing suitability for membership of a single currency. In particular, analyses of the criteria in the context of the economic theory underlying the suitability for membership of a single currency have found the Maastricht criteria wanting.[3]

2 The Theory Underlying Adoption of a Single Currency

The starting point for analysis of the current problems surrounding the single currency is the economic theory behind whether you should adopt a single currency or not. The only theory relating to single currency areas was originally formulated by Robert Mundell,[4] which specified the economic conditions under which it would be advantageous for a country or member state to join a single currency area and this is known as the optimal currency area theory. It essentially states that a country's business cycle has to be synchronized with that of the other members of the group, or have

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[2] See European Union, 'One market, one money. An evaluation of the potential benefits and costs of forming an economic and monetary union', *European Economy* 44 (October) (1990).

[3] See Willem Buiter, Giancarlo Corsetti, Nouriel Roubini, Rafael Repullo, and Jeffrey Frankel, 'Excessive deficits: sense and nonsense in the Treaty of Maastricht', *Economic Policy* 8(16) (1993), pp. 57-100, and Patrick Crowley, 'EMU, Maastricht, and the 1996 Intergovernmental Conference', *Contemporary Economic Policy* 14(2) (1996), pp.41-55, for example.

[4] Robert Mundell, 'A theory of optimum currency areas', *American Economic Review* 51(4) (1961), pp657-665.

some prospect of becoming synchronized, for it to be advantageous to join.

Mundell[5] also specified that one could also have some offsetting features that would then mitigate any lack of synchronization with the single currency, namely a high degree of labour mobility or supranational fiscal transfers. It is noteworthy that Europe has neither of these offsetting features, as although labour is theoretically mobile, that mobility is hindered by lack of cultural and linguistic homogeneity, and the institutional structure of the European Union (EU) does not permit any automatic supranational fiscal transfers, although countries such as Greece and Cyprus have now received emergency loans from the EU, which represents a quasi-internal transfer. In the case of the EU though, these transfers are not permanent and will have to be repaid, thereby making it even harder for indebted member states such as Greece to emerge from their economic downturn.

A further extension to the Optimal Currency Area theory points out that timing was all important in terms of the classic steps of economic integration.[6] The main theoretical insight[7] was to note that regional integration projects that had already established a high intensity of trade and therefore were further along the stages of economic integration were better suited to adoption of a single currency or monetary union. This was also extended to encompass endogeneity of optimal currency areas,[8] the idea here being that if countries formed a monetary union, this would eliminate currency conversion costs and foster greater trade and therefore more convergence between economies within the monetary union, perhaps then satisfying the Optimal Currency Area (OCA) criteria *ex-post*, rather than *ex-ante.*

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[5] ibid.

[6] Jeffrey Frankel and Andrew Rose, 'The endogeneity of optimal currency area criteria', *Economic Journal* 108(449) (1998), pp.1009-25.
See Bela Balassa, 'Trade creation and trade diversion in the European Common Market', *Economic Journal* 77 (1967), pp. 1–21, for the original notion of the economic integration framework and Patrick Crowley, 'Is there a logical integration sequence after EMU?', *Journal of Economic Integration* 21(1) (2006), pp.1-20, for an extension of that framework.

[7] Frankel and Rose, 'The endogeneity of optimal currency area criteria' (note 6).

[8] Jeffrey Frankel and Andrew Rose, 'Is EMU more justifiable ex post than ex ante', *European Economic Review* 41 (1997), pp753-760.

This latter consideration is an important issue, as it implies that even if the criteria for entering EMU were inappropriate, the euro area might still, after a certain unspecified length of time, have satisfied the stipulations to become an OCA.

3 The Maastricht Treaty

3.1 The Economic Convergence Criteria

The Maastricht Treaty was signed by the then European Community members in December of 1991 and it contained legal criteria for joining the euro, which had clearly been put in place by politicians and their civil servants as part of the negotiation process. Economic considerations were included in the criteria for membership of EMU, but these were largely built around the existing edifice, the Exchange Rate Mechanism (ERM) of the European Monetary System (EMS). The criteria were to:

(i) keep budget deficits below 3% of GDP;

(ii) keep public debt below 60% of GDP, including a let out clause which permitted member states with debt to GDP ratios falling towards that level from higher levels to qualify;

(iii) keep long term interest rates within 2% of the average of the lowest 3 in the ERM;

(iv) keep inflation rates within 1.5% of the average of the lowest 3 in the ERM; and

(v) stay within the ERM bands without realignment for at least 2 years beforehand.

It is clear that the Maastricht criteria have little in common with Mundell's simple idea of an OCA. Indeed, three of the five criteria were simply conditions for maintaining longer term membership within the ERM of the EMS, which was effectively a target zone currency system. To maintain a reasonable level of fixity within a target zone system over the longer term, clearly inflation rates need to be reasonably aligned, as do interest rates - the last criteria referenced the ERM itself. The first two criteria were additional criteria relating to fiscal policy but they were not related to either the ERM or the OCA criteria. Not only were the Maastricht criteria

misaligned with the ERM criteria but they also allowed too many EU member states that were not suited to a single currency into the EMU project, Greece and Portugal being the prime examples, as illustrated by their lack of convergence to the economic cycles in the rest of the euro area.

3.2 A Bowling Club Analogy for the Maastricht Criteria

To give an analogy, if one was starting a bowling club, and although you knew that the best members, regardless of their weight, ethnic background, height or hair colour, would be those that are interested in bowling, you decide that membership should depend on being over a certain weight, under a certain height, long arms and preferably black or blonde hair, simply because you might have watched professional bowling and seen that the players tend to have these characteristics. Therefore it is perhaps logical to assume that in receiving membership applications these were the features one thought to look for. This is precisely analogous to what happened with EMU. Those that were let in had to satisfy certain criteria at a certain point in time which had very little to do with whether the member state would be an appropriate member of a single currency.

The extension to the OCA theory, namely the endogenous OCA approach referred to earlier, says that because monetary unions usually occur after common markets (which is usually the prevailing level of economic integration prior to monetary union) then using the euro might stimulate more flows of factors of production between the member states, making them more economically integrated with one another which might then lead their business cycles to move more closely together. In other words, *ex-ante*, a member state might not look as though it was eligible to be a member but, *ex-post*, its economic dynamics might start to change so that ultimately it reaches the stage where it would have been selected as a member under the OCA approach, so causing greater convergence.

Moving back to our analogy with the bowling club then, if you let members in who were not very good at bowling but were committed to regular attendance and keen to participate, socialize and ask other more experienced and better players for advice, they could become good bowlers after a time. Of course if you used the analogous method to the Maastricht criteria, in other words selecting members according to certain specific features, you would hope that

the members you let in would grow longer arms, become shorter and weigh more and change their hair colour. This would obviously be delusional for the most part.

3.3 The continuation of criteria

Given that there is a membership problem right at the outset, even before the economic downturn at the end of the last decade, some stresses and strains within the euro area were obviously going to be apparent. This is particularly because member states had to continue to limit their budget deficits under the Stability and Growth pact (SGP) but obviously, when the major downturn occurred, the OCA theory began to accentuate the membership problem.

Although many commentators have emphasized public sector debt accumulation in the southern EU member states due to the ECB's low interest rates during the 2000s, there is also evidence that many of these member states have not converged with the rest of the euro area, and this showed quite clearly in papers emphasizing the grouping of business cycles, particularly those that used cluster analysis.[9] Given the exceptional events of 2007-2009, particularly in relation to the financial and housing sectors, it is perhaps not surprising that stresses and strains emerged in the euro area during this period and in the aftermath of the global financial crisis.

In particular, the continuation of the fiscal criteria, especially the budget deficit criteria, led to clear fault lines among the euro area members, with the fact that labour markets lag behind that of the general economy giving rise to some awkward decisions on the part of the European Commission. It is clear that the budget deficit itself is not the most appropriate way to coordinate fiscal policy in the EU and may limit the fiscal latitude that a member state has to stimulate its economy during a downturn. As a consequence various other measures have been suggested.[10]

There are thus two concerns. On the one hand some member states may be inadequately convergent at any particular time to find

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[9] See Patrick Crowley, 'One money, several cycles? Evaluation of European business cycles using model-based cluster analysis', Bank of Finland Discussion Paper 3/2008 (2008) for example.

[10] See Cristina Checherita-Westphal, Andrew Hughes Hallett and Philipp Rother, 'Fiscal sustainability using growth-maximizing debt targets', ECB Working Paper No. 1472 (2012).

it easy to be a member of the euro area. But on the other while some member states have been able converge progressively such that this problem diminishes to manageable proportions, other do not seem to be able to close the gap. For the first group, early membership may pose problems if there is an adverse shock not long after joining but, in general, early membership will simple accelerate the process of convergence. For the second group, early membership may simply make the problem worse, as not only are some of the constraints imposed by trying to meet the Maastricht criteria removed but some of the ability to adjust to asymmetric shocks is also removed. Thus early membership may actually be a hindrance to longer term sustainable membership.

Unfortunately, it is not immediately obvious ex ante where the boundaries should be drawn as both groups will show insufficient convergence initially. Both are likely to show a history of increasing convergence prior to membership but OCA or the Maastricht criteria are not sufficient to determine whether the process is going to continue thereafter in a favourable or divergent direction.[11]

4 Economics and the Euro Area

4.1 Theory and Practice

If the OCA theory is correct, then one cannot simply ignore theory without there being serious consequences. Analogously, one cannot build a house or construct a ship without obeying some principles of construction (unless you like to witness disasters). Likewise, one cannot build a monetary union without having some preconditions, and those preconditions are very neatly laid out in Mundell's OCA. Any policymaker ignores them at their peril.

Looking at the euro area through this lens, as there is very limited labour mobility in the EU and little prospect of a federal political system being introduced in Europe, then having synchronized business cycles is key to remaining part of the euro area. Research shows[12] that certain member states, although they might have been hitting the headlines recently for their economic problems, are much more easily going to be able to stay in the euro area than other

[11] I am obliged to a referee for this point.

[12] See Patrick Crowley, Enrique Garcia and Chee-Heong Quah, (2013), 'Is Europe growing together or growing apart?', mimeo, forthcoming as a Bank of Finland Discussion Paper, available at *http://euce.org/eusa/2013/papers/10h_crowley.pdf.*

similarly troubled member states. Member states such as Spain and Italy, for example, even though they have deep-seated economic problems, have growth patterns that are quite similar to other euro area member states, while member states such as Greece and Portugal do not have such similar patterns of growth, and therefore do not fit well, in good times or bad. Some member states such as Finland seem to conform to the endogenous OCA view, as Finland started off not conforming well but over time its growth dynamic appears to have converged and be much more in line with that of the rest of the euro area.

4.2 Strategies to Resolve the Euro Area crisis

Given that the OCA theory is meaningful and correct, what should happen to resolve and therefore end the euro crisis? From an economics perspective, economic theory, when available, should be used to guide policymakers if the discipline is to have any credibility, particularly given the lack of foresight in other areas of major concern where economists demonstrably failed to take warnings seriously and do proper research to be able to make useful policy recommendations.

So to end the euro area crisis, either:

1. the euro area moves towards a more federalist structure, with permanent mechanisms in place for fiscal transfers. Canada has them set up as a formal policy structure (the 'equalization payments') and the US has them on an informal basis (through the US budget). Either would work, but that is the only way that if we stay with the current members that this situation will get resolved in the long term; or
2. the member states that do not form part of an OCA, and given that they've been members for over 5 years already, show little sign of becoming part of one in the future, need to be instructed or given incentives to leave.

The danger of neither of these options occurring is probably greater than the danger of one of the corrective actions recommended above. Why is that? Because if nothing is done, then internal indebtedness inside the EU must increase as lending to certain member states has to be maintained for them to remain members. So if the Europeans decide to be polite – then no one is going to ask you to leave given

that you want to stay, so the only way to stop contagion to other member states is to keep changing your bailout rules and mounting new lending programmes, as we lurch from one emergency to the next.

In fact the most dangerous path to take is the one that we are currently now on – whereby the Greeks and Cypriots decide to try and stay in the euro area, despite the fact that their economies remain in depression and the austerity packages continue to fail because the economy is shrinking so fast that tax revenue is falling while at the same time public expenditures and wages are having to be savagely cut, reinforcing a downward spiral. The costs of leaving might be large, but the longer term benefits from having a sustainable currency union are significant.

As stated recently in the *Financial Times*[13], Willem Buiter claims that if this crisis continues much longer then Germany, Finland, Austria and others might start to contemplate leaving the euro themselves, as despite the advantages of being members right now, if things continue too far down the road of trying to keep the current membership at the expense of the clear OCA members (the 'hard core'), then the disadvantages of being members may start to outweigh the advantages. So the scales might then tilt so that it might appear to be the best course of action for these natural OCA euro members to leave.

5 The Politics of Resolving the Crisis

Given the approach taken above, there are essentially only 2 sustainable options for the euro area. But which of these options would be preferable in an ideal world and why; and probably more importantly, which is going to be more palatable from a political point of view?

From the perspective of European integration, a more federalist structure is preferable, as it then means that the OCA problem goes away and no member state is forced to leave the 'club' – hence recent proposals for euro area bonds by influential figures such as George Soros. Even officials from German Chancellor Merkel's

[13] See http://ftalphaville.ft.com/2012/01/10/825331/buiter-on-odds-of-german-vs-greek-euro-exits/

government have referred[14] to this as being a feasible long term economic solution, but the Germans are politically unwilling to propose such a move given popular domestic sentiment, which is against euro area bonds. German Chancellor Merkel has now gone on record as stating that there will be no euro bonds "as long as I live"[15] as this would be tacit funding by the more convergent member states for those that are less convergent, and this is now unacceptable to the majority of the German electorate. Notwithstanding German public sentiment on this issue, the other major problem with this proposal is that it is likely to mean that any federalist type structures or financing would cause Europe to splinter, as a federalist type EU governance structure is not something that the UK or many Central and East European member states (such as Poland) would want or be likely to accept. But in this author's view, given that the EU is not an OCA, then ceteris paribus at some point the EU will have to accept some form of collective debt issuance if it is to avoid future crises, and this will likely cause a move towards what most political scientists refer to as a permanent state of so-called 'variable geometry'.

The upside to the second option, that of asking member states to leave (either directly evicting them, or indirectly by refusing to make any further concessions or mount bailouts), is that once done, the OCA issue becomes moot, because the member states that were the problem in the first place leave, with the remaining member states now forming a much better approximation to an OCA. But the downside here is that there will be considerable resentment and bitterness in member states like Greece, Portugal and perhaps Cyprus, given that they have made valiant efforts to conform to the strictures imposed by the EU. It also means that the EU's vision of a single currency for the whole of Europe can be essentially written off. Of course with this option, further integration does not have to be considered – essentially there is the recognition that a monetary union without further integration is only viable with certain member states involved (i.e. France, Germany, and Italy) but at the same time

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14 See http://www.nytimes.com/2012/05/23/world/europe/search-shifts-for-euro-zone-relief.html

15 See http://www.spiegel.de/international/europe/chancellor-merkel-vows-no-euro-bonds-as-long-as-she-lives-a-841163.html

this will likely lessen the political resistance to further (selective member state) integration if there is a consensus that it should take place, as the economic impediments will no longer be pertinent.

The most difficult aspect of the whole issue lies in the last issue to be addressed: which of these options is going to be more palatable from a political standpoint? The truth is that neither solution is palatable to the EU at the present time. It is likely to take another crisis of some sort to force some resolution, but in the meantime the 'hard core' of the EU has already started making life more difficult for Greece and other Southern EU member states. The tolerance for further bailouts or other assistance to Southern EU member states is now clearly limited, so that the onus for achieving convergence has been firmly placed on the shoulders of the errant member states, despite the fact that there is currently still a slump in growth in the EU.

The last concern on a political front relates to the stance of member states in relation to new initiatives within the EU. Given the current standoff between those member states that are clearly members of the 'hard core' euro area member states and the Southern EU member states in particular, there is now a much greater concern with acting on the basis not of the good of the whole (i.e. the EU), but in terms of what is in the best interests of each member state or group of member states. In other words the crisis itself may have served to bind the 'hard core' of the euro area much more closely together, which will then lead to much less compromise in the EU and may make it much harder to get agreement in other policy areas. This is also the case for Southern EU member states which may also be more likely to be unwilling to compromise if they feel that they've been bullied or not dealt with fairly when it comes to their involvement in the single currency.

6 Conclusions

If economics and economic theory are relevant to the real world, then all the indications suggest that there is a problem in the euro area. As OCA theory states, unless there are offsetting measures to compensate for any lack of synchronicity in business cycles, then if synchronicity is not high, the member state in question should not be a member of a single currency. As the EU does not have any of the offsets mentioned in the OCA theory in place and, if one accepts that

the OCA theory is the relevant theory for the suitability of member states to be part of a currency union, then the euro area is not sustainable in the long run.

Given the long run unsustainability of the euro area, there are essentially two options to resolve the current crisis or any future crises in the euro area: either implement one of the offsets in the theory to allow for the fact that not all business cycles are synchronous, or eject the member states that are not synchronous. If one accepts the logic of these two options, there is no clear answer to which one is desirable from an economic standpoint, so therefore political considerations are likely to be paramount in any strategic decision.