Katrin Rabitsch[1]: 10th Annual Macroeconomic Research Workshop at MNB: Fiscal Rebalancing, Public Debt, and its National and Global Implications*

On September 15-16, 2011 the annual Macroeconomics Research Workshop took place at Magyar Nemzeti Bank, Budapest, celebrating its 10th year of existence, out of which it was organized jointly with the CEPR for the 4th time. The workshop's title and main theme was "Fiscal Rebalancing, Public Debt, and its National and Global Implications", the topicality of which could hardly be higher at times at which countries' excessive levels of public debt, and the deepening of a European debt crisis, make the headlines in newspapers around the world almost on a daily level. The keynote speakers of the event were professors Eric M. Leeper (Indiana University) and Carlos A. Végh (University of Maryland), two renowned academics and leading experts in the field. In addition a great selection of presenters and discussants contributed to a wide array of topics, such as the macroeconomic effects of fiscal shocks, the size of fiscal multipliers, linkages between fiscal policy variables and the financial cycle, sovereign default and default risk premia on public debt, or the role of fiscal uncertainty on economic activity. The workshop brought together macroeconomists from a wide background, academics and researchers from policy institutions alike. This meant that not only the audience benefited from a wide angle of perspectives, but also that the workshop was stage of quite a few of disclaimers of presenters that they are not representing their institutions. Finally, this year's workshop also featured a panel discussion that invited for a more policy-oriented exchange of thoughts, on 'Debt Problems in Europe'.

In the following, this article aims to provide a summary of some of the lessons from the workshop, focusing in particular on reviewing the contributions by the keynote speakers and the panel discussion on debt problems in Europe.

FISCAL POLICY AND THE BUSINESS CYCLE

Professor Carlos A. Végh dedicated his keynote speech to giving an overview on Fiscal Policy and the Business Cycle. The talk nicely reflected much of his research agenda and was centered around three main questions.

However, before discussing these three questions, it seems necessary to define the anticyclical and procyclical fiscal policies. A *countercyclical* fiscal policy is reflected in a public sector that runs fiscal surpluses in economic expansions, but that is able to expand and stimulate the economy in times when the economy is performing badly. A *procyclical* policy on the other hand is characterized by periods of fiscal austerity when the economy is in recession, and by fiscal expansions at times when the economy experiences a boom, when they are least needed.

The first question is, why fiscal policy in the emerging market world is typically procyclical, while for industrialized economies fiscal policy is acyclical or countercyclical. Two, if, over the course of decades, there are countries that have 'graduated', in the sense of formerly having fallen into the class of countries with procyclical fiscal policy but closing ranks with the industrialized world. And three, if and under what conditions fiscal policy can be an effective countercyclical tool?

Based on a data set that results from some prior work (Ilzetzki and Végh, 2008), and that comprises roughly 50 countries from both the industrialized and emerging market world, Professor Végh provided some stylized facts on the cyclical behavior of fiscal policy with the business cycle. The strong empirical finding from this dataset is that in the emerging market world fiscal policy is found to be strongly procyclical. These findings come from inspecting two

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* The views expressed in this article are those of the author(s) and do not necessarily reflect the offical view ot the Magyar Nemzeti Bank.

Chart 1a
Correlation between GDP and government spending

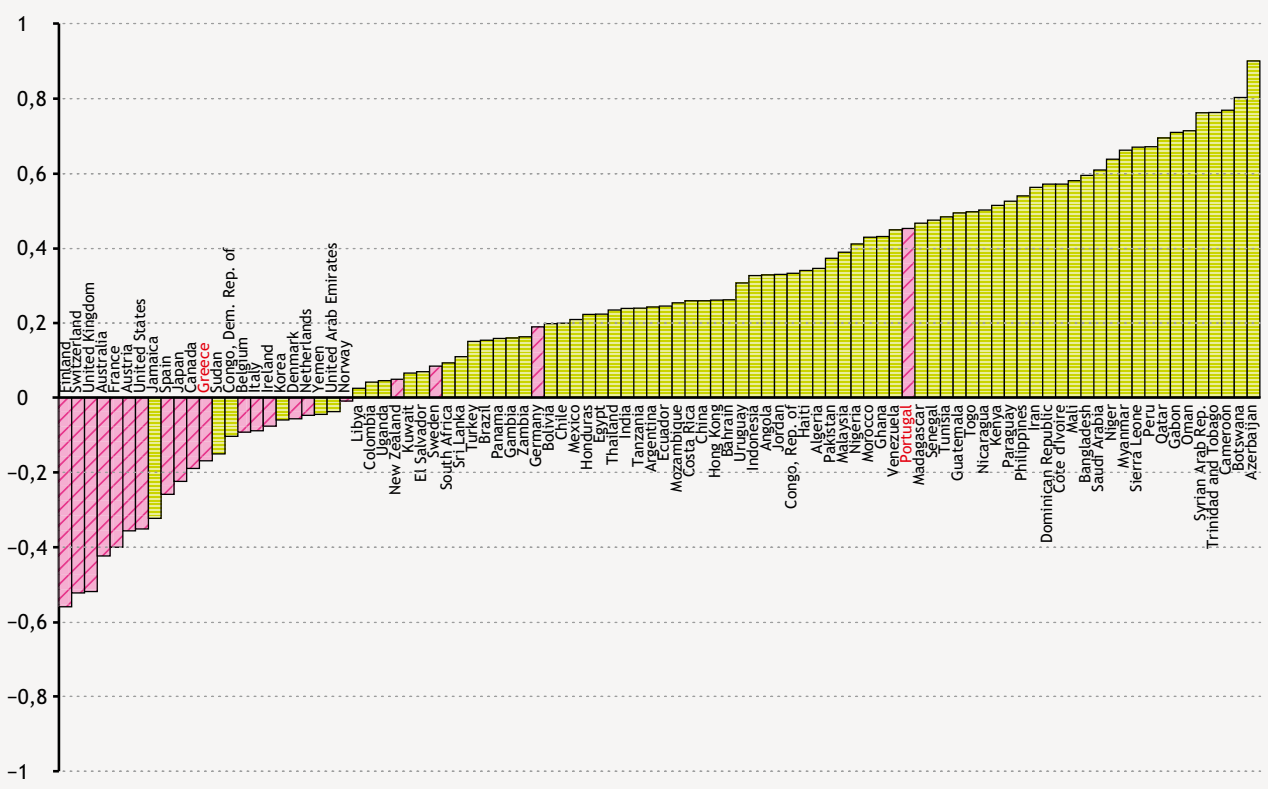
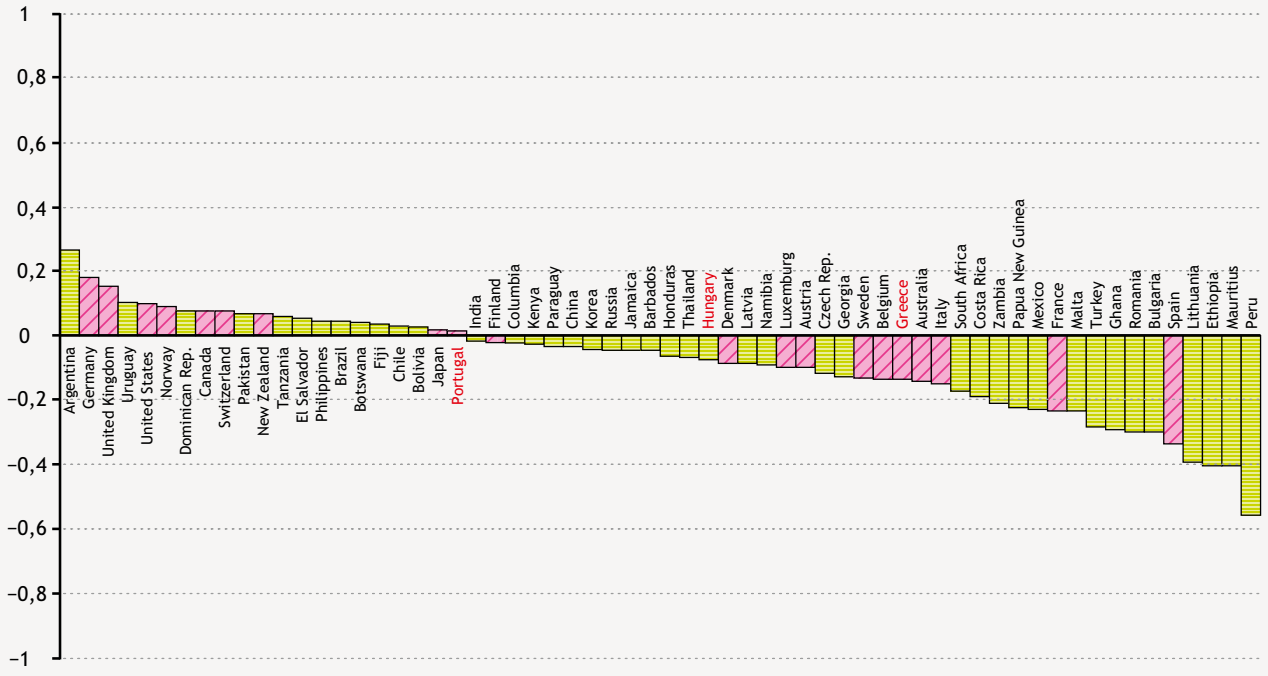


Chart 1b
Correlation between GDP and tax index

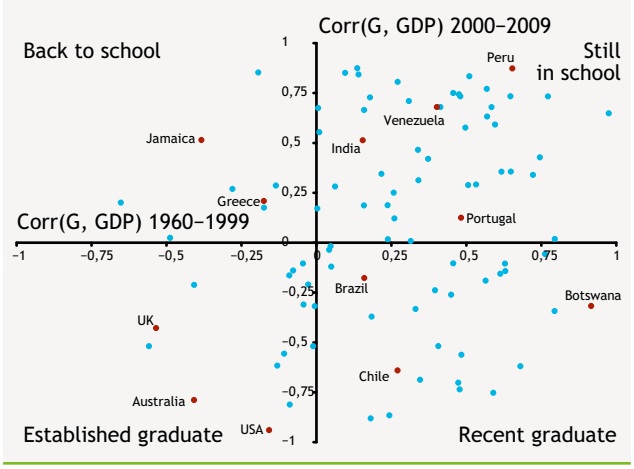


different measures to evaluate and establish procyclicality of fiscal policy: a positive correlation of a country's government expenditure with its GDP, and a negative correlation of a tax index[2] with GDP. These correlations for the two measures of cyclicality of fiscal policy, is nicely captured in the Chart 1a and 1b: it makes clear that, compared to industrialized countries, emerging economies typically reduce their spending and increase their taxes in bad times, and/or are not able to keep government expenditure low and taxes high in good times.

Among the potential explanations for the strong finding of procyclical fiscal policy in the emerging world are imperfections in the access to international capital markets – with limited access to international markets an economy can only insure partially against the shocks it faces. As a consequence, in bad times it has too little resources available, needs to cut government expenditure or increase tax rates to keep the public budget in control.[3] Political distortions in emerging economies may in addition contribute to the procyclicality through the presence of a possible 'voracity effect': the fact that it is hard to say no to pressures on the government to spend in good times (see Talvi and Végh, 2005). Professor Végh mentioned Argentina's Domingo Carvallo as an example of such voracity effect induced procyclicality, who in 1993, when the economy was in boom, publicly announced that he was reducing the tax rate to give back to households and companies because they would make better use of the money.

The good news is, however, that countries suffering from fiscal procyclicality have to potential to overcome their past, and close ranks with other industrialized economies. Comparing correlations of government spending with GDP for two subperiods, the period of 1960–1999 with the period of 2000–2009, allows one to classify countries into four different groups, represented by the four quadrants of Chart 2 below. About one third of the countries that formerly, in the period of 1960–1999, were characterized by a procyclical policy, have 'graduated' to countries with a non-positive correlation of government expenditure with GDP in the sample after 1999. The poster children of this group of 'recent graduates' are, e.g., Latin America's success stars, Chile and Brasil. There are also countries that formerly were displaying a non-positive comovement of government expenditure with GDP that had to 'go back to school', that showed signs of procyclical fiscal policy in the

Chart 2
Correlation between GDP and government spending in the periods between 1960 and 1999, 2000 and 2009



period 2000–2009 – interestingly, one such example is Greece.

Professor Végh then gave an overview of what determines if a country's fiscal policy can effectively be used as a countercyclical tool. In the literature, this policy effectiveness is typically measured in terms of fiscal multipliers, that is, in terms of the quantitative effect that an additional unit of currency of government expenditure has on GDP.[4] He documented that the size of fiscal multipliers depends strongly on country characteristics such as the exchange rate regime, the degree of openness, the cyclical position, or the debt level. In particular, fiscal multipliers are generally found to be lower in emerging countries than in industrial countries. The exchange rate regime matters for the size of multipliers because it determines how monetary policy affects real rates: under flexible exchange rate regimes fiscal multipliers are close to zero, but they are positive under fixed exchange rates. Similarly, the fiscal multiplier is zero in very open economies, but positive in closed economies, it is larger in recessions than in booms, is zero or even negative in highly indebted countries compared to positive multipliers for countries with only moderate levels of debt. For a small open, high-debt country with flexible exchange rates the short run gain of fiscal stimulus may thus be rather small compared to the long-run pain inflicted. Finally, it may also be of importance what kind of public expenditure the fiscal multiplier captures: for the

[2] The tax index used is constructed from information on the top marginal personal income taxes, top corporate income taxes and value-added taxes.
[3] Some of the work in this area includes Riascos and Végh (2003) and Végh and Vuletin (2011), that focuses on normal times, or Cuadra and Sapriza (2010), that focuses on crisis times.
[4] In addition, there typically is a distinction between impact fiscal multipliers, that measure the immediate, contemporaneous effect on GDP, and cumulative fiscal multipliers, aimed at capturing the output effects over a longer term.

group of emerging markets the government investment multiplier typically looks very different from government consumption multipliers (for industrialized countries looks similar), namely, the former typically being higher.

In terms of policy lessons to take away, Professor Végh emphasized to recognize that fiscal procyclicality is a big macroeconomic problem in emerging markets, and that it is essential for fiscal authorities to be able to save in good times. A helpful means for emerging markets to achieve this objective may be the creation and implementation of fiscal rules, that would discipline them and would help them avoid the political pressure to spend in good times (voracity effect). Otherwise, as Professor Végh put it, it is as if driving a car and having one foot on the accelerator – expansionary fiscal policy, leading to an overheating the economy –, and the other foot on the brake – with tight monetary policy reacting to the fiscal expansion, leading to high interest rates cooling down the economy again.

PERCEPTIONS AND MISPERCEPTIONS OF FISCAL INFLATION

In his keynote speech, Professor Eric M. Leeper started out to note that the current Euro sovereign debt crisis has made us loose perspective of the fact that the current short-run fiscal stress is small compared to the large long-run fiscal stress we are going to face. In the long run the main cause of the enormous fiscal stress is the rapidly aging population. (This problem has been elaborated on at a later point of the presentation.) He believes that the economics profession has a narrow perception of how fiscal policy affects aggregate demand and inflation, and that this perception is based on our belief that we can treat monetary and fiscal policy separately. While in principle, monetary policy (MP) and fiscal policy (FP) have just two joint objectives – keeping inflation and keeping debt under control – the separate treatment of both is manifested in the fact that, today, most economies have set up institutions in which monetary policy is characterized by an independent central bank that follows the clear mandate of actively controlling inflation. For fiscal policy no such institutions have been created and there are no explicit mandates. Nevertheless, in normal times we expect fiscal policy to set taxes and generate surpluses in such way as to insure that the economy's debt level is stable. We expect it to take as given the price level or inflation rate that is determined through monetary policy, and to passively react by adjusting surpluses to keep debt stable. We would call this world of active monetary authority, and passive fiscal policy, regime M. As Professor Leeper emphasized, this monetary-dominant regime M, is probably the scenario that macroeconomists are most familiar with, and corresponds to our view of how the world works in 'normal times'. Much of the keynote speech then focused on the case in which this regime M breaks down, and this is particularly the case in an era of fiscal stress – in such world, fiscal policy may not set surpluses to meet debt but sets them independently of it, thus fiscal policy may give rise to (fiscal) inflation.

Undoubtedly, we are currently facing such era of fiscal stress. The current recession has led to increased deficits and large outstanding public debts in most advanced economies (though not so much in emerging economies). But while the current situation of fiscal stress is definitely worrisome, this, as the keynote speaker stressed, is the short run. The real problem is the long run and the perspective of the enormous fiscal stress that our societies are going to face through a rapidly aging population. With dependency ratios[5] for most countries more than doubling until 2050, countries are to expect huge contingent liabilities. According to projections by the Congressional Budget Office (CBO), debt-GDP ratios will rise to ranges of about 300-600 per cent until 2083. While cost increases from social security can still be contained through adjustments in retirement ages, the true factor responsible for the high debt-GDP projections is medical spending, that is projected to account for about 25 per cent of annual GDP at the end of the projection horizon in 2083.

It should be noted that, obviously, these long-run projections are sole accounting exercises and simply cannot happen, as debt cannot grow exponentially and grow faster than the rate of the economy forever. So before any economy would reach the projected 400 per cent debt-to-GDP ratios, people would long have stopped buying its government bonds; there necessarily need to be adjustments relative to the assumptions on which the CBO's projections are based. These adjustments could take on a number of different forms. One, the form of substantially higher growth than we are currently experiencing, such that economies will grow out of the deficits. Two, it could be the case that governments will just outright default on their debts. Three, fiscal policy will have to adjust surpluses such as to stabilize debt. Four, the paths of inflation that are assumed in the underlying projections will turn out to be quite different than assumed. Or, five, some combinations of these. Point one, that countries simply grow out of their deficits appears to be an overly optimistic view. Point two, outright default is onerous, governments do everything to

[5] The dependency ratio captures the fraction of the population that is over 65 years relative to that aged 15 to 64.

Chart 3a
Long-run projection of the Congressional Budget Office for the debt to GDP ratio and its components in the USA

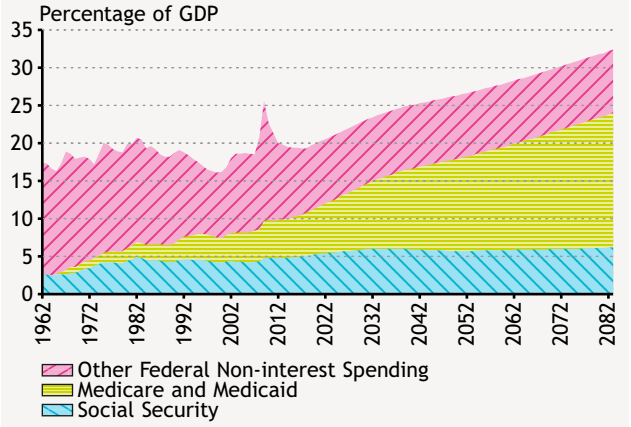
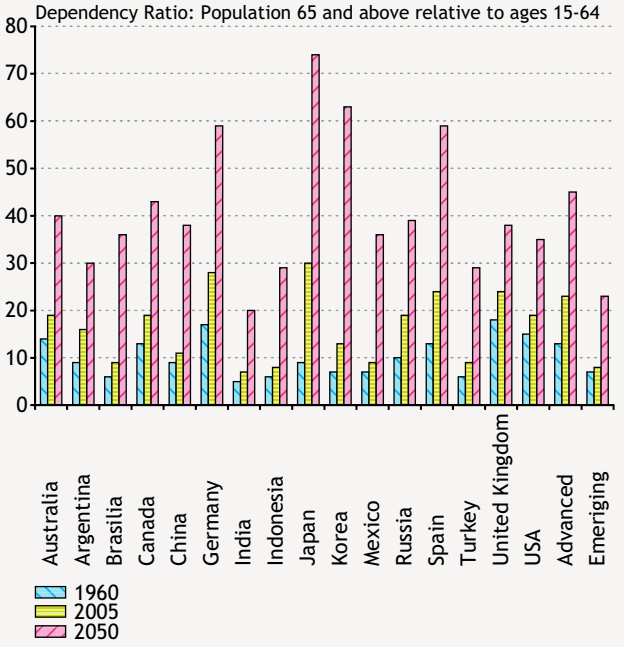


Chart 3b
The evolution of the dependency ratio and its long-run prognosis for some developed and emerging countries



avoid that. Point three is probably what most central bankers hope for, that surpluses 'magically' arise to stabilize debt, where the adjective 'magically' is consciously used in light of the dimension of the adjustments that would be required to finance the contingent liabilities stemming from population ageing. A not unlikely scenario, so the keynote speaker, is therefore point four, that the paths of inflation will turn out to be different.

How will they turn out to be different? How might unresolved fiscal stress affect inflation and aggregate demand? And, consequently, can central banks retain control of inflation and aggregate demand in the face unresolved fiscal stress?

In this regard, Professor Leeper again mentioned the problem of treating monetary & fiscal policy asymmetrically and having put them into two separate boxes. While the separate treatment can be understood in terms of historical reasons, treating monetary and fiscal policy asymmetrically denies the intrinsic economic symmetry between the policies, in that their main joint objectives consist of essentially two tasks: (1) they have to determine the price level/ control inflation; and (2) they have to insure that the debt-to-GDP ratio is stable, that debt does not explode. As he notes, there are two different policy mixes that can accomplish these tasks, the one most economists are familiar with, which previously was labeled Regime M (monetary). This constitutes the 'conventional' assignment where MP targets inflation and FP targets real debt (called active MP/passive FP). In principle, an alternative assignment could, however, also deliver the two objectives, one in which FP controls inflation and MP maintains value of debt (called passive MP/active FP). This is labeled Regime F. While the normal state of affairs is that we reside in regime M, regime F can arise in an era of fiscal stress, when fiscal policy sets surpluses independently of targeting debt. In such times, the possibility that the economy may hit its fiscal limit[6] rises. The policy mix that generates this, so the keynote speaker, is precisely the policy mix that we have seen the past 3 to 4 years. In the US interest rates have been (and are likely to still remain) close to zero for some time, while at the same time, there were incidents of political gridlock, fiscal policy could not agree on anything to generate adjust surpluses, so was not responding to targeting debt. Similar things can be observed in Europe now, where the European Central Bank (ECB) keeps interest rates low and at the same time we are not seeing all the fiscal adjustments that are required to be in regime M.

There are essentially two ways in which Regime F can arise in an era of fiscal stress: one is Sargent and Wallace (1981)'s *unpleasant monetarist arithmetic,* and, two, the *fiscal theory of the price level*. Sargent and Wallace's unpleasant monetarist arithmetic is probably the concept we are most familiar with, and corresponds to the common perception of fiscal inflation. This is the classical example from Latin

[6] The fiscal limit is defined as the point at which, for either economic or political reasons, surpluses can no longer adjust to stabilize debt.

America: the economy hits the fiscal limit, for some reason surpluses are no longer responsive to debt, the government then puts pressure on the central bank to run the printing presses and create seignorage revenues, which ends up producing high and volatile inflation. If we believe that the sole mechanism through which fiscal policy can affect inflation is through unpleasant arithmetic, then having created the (asymmetric) institutional structure of an independent central bank that commits to price stability leaves no room for inflation to bail out fiscal policy, then we would not need to worry about fiscal inflation. This is, however, as Professor Leeper puts it, a deeply ingrained misperception coming from the view that – with an inflation targeting independent central bank – inflation is completely insulated from FP, and stems from beliefs that MP reform can force FP reform.

The point is that there is indeed another channel through which fiscal policy can affect inflation and aggregate demand, and that is the second way in which regime F can arise, the fiscal theory of the price level (FTPL). What the FTPL plays off of is the fact that governments issue mostly nominal (non-indexed, local currency) bonds, which is the case for the largest part of government in advanced economies (and increasingly so in the emerging world).[7] With outstanding debt in nominal terms, an increase in the price level also increases the nominal backing of government debt, in the sense that more nominal debt can be supported with no change in surpluses or seigniorage. It is important to note that while unpleasant arithmetic is about seignorage, the fiscal theory is not. What happens under the fiscal theory in Regime F is that FP sets primary surpluses independently of debt, which shuts down the feedback from debt to fiscal instruments. This means lower current or future expected surpluses. MP then must choose compatible interest rate policy, that is, prevent interest payments on debt from exploding, thus revaluing nominal debt to align its value with expected surpluses. With the news of lower future expected surpluses, the value of debt is reduced and people then want get out of debt, shifting into consumption, which raises aggregate demand and inflation. In a fiscal theory equilibrium, it is thus FP that controls what is happens to the present value of inflation, or the (long-run) inflation rate.[8]

Professor Leeper provided a couple of illustrative examples of ways in which MP can loose control of inflation. In one example he explicitly introduced the idea of a fiscal limit and showed that in the long run inflation is determined fiscally. Even if the world starts in 'normal times' (that is, with a regime M policy of active MP/passive FP) if agents begin to doubt that the necessary fiscal adjustments will be forthcoming and believe that at future date T, the economy hits the fiscal limit and Regime F is adopted, then inflation is determined by fiscal expectations, as forward-looking agents bring those effects into period before the fiscal limit is actually hit. The long run is being pinned down by expectations that the economy ends up in regime F, and inappropriate or uncertain FP makes MP unable to anchor inflation expectations.

In another example, monetary policy's control of inflation may get undermined through risk of default on sovereign debt, as the expected default rate induces deviations of inflation from its target. Or, in yet another example, in a two country model of a monetary union, in which one of the countries sets to keep debt stable and one of the countries sets surpluses independent of debt, he shows that the union wide inflation rate is determined by the latter country. News about surpluses in that country will affect union-wide inflation and therefore the value of debt in both countries, which then feeds into requiring surpluses even in country 1. This example shows that having sovereignty over fiscal policies in Europe, but in any equilibrium there are necessarily interactions going on between what happens in country 1 and 2. Important to study these interactions if you seriously want to think about a fiscal union.

In his concluding words Professor Leeper emphasized that empirically it may be harder to tell at first sight if a country is in a fiscal-dominant world, i.e. regime F, or a monetary-dominant, i.e. regime M, world, as it neither needs to be the case that regime F is necessarily combined with high inflation rates, nor is it the case that regime M brings about inflation rates are low and stable. The conventional perceptions of inflation miss a channel for fiscal inflation, a channel that channel may be become particularly important in times of fiscal stress. As the existing monetary-fiscal frameworks are largely silent on how tensions get resolved, which needs resolution – and therefore a lot of research in this area – before the big fiscal stress hits.

PANEL DISCUSSION OF DEBT PROBLEMS IN EUROPE

The second day of the workshop featured a more policy oriented event on the workshop program, a panel discussion focusing on debt problems in Europe. The discussion was

[7] 90 per cent of U.S. debt, 80 per cent of U.K. debt, and 95 per cent of Euro-area debt is issued in nominal (non-indexed, local currency) bonds.

[8] While MP is not impotent, while it does not loose its ability to control any kind of inflation, it cannot control both actual and expected inflation, and looses its ability to control long run inflation. In regime F, the anchoring of expected inflation is really driven by FP, MP only determines timing.

moderated by MNB Vice-Gouvernor Julia Kiraly, and included keynote speaker Eric M. Leeper (Indiana University), Professor Philip Lane (Trinity College Dublin), and Ludovit Odor (advisor to the prime minister of Slovakia) as panelists. The topics of the panel were Sovereign Debt Problems in Europe, the management of current crises as well as their prevention in the future. Questions addressed concerned the institutions – at national, international, EU and/or Eurozone level – that can manage the current sovereign debt crises and contain contagion effects. How debt crises can best be managed: how to design of austerity packages, how to best restructure debt, to allow (partial) default, what the trade-offs of official lending sources versus creating incentives for private investors are. Or, what institutions – either existing today or institutions that will have to be created – can help prevent sovereign debt crises in the future?

Ludovit Odor's position was that, as we stand now, all three pillars of the Eurozone are ruined. These pillars were set up as firm Euro institutions ment to avoid free-riding and moral hazards, and included a no-bailout clause, the Stability and Growth Pact (SGP), and the independence of central banks. The no-bail out clause has, in crisis times, largely been rewritten to a no-default clause, the SGP has been seriously compromised several times, and the ECB, because of the lack of any crisis resolution mechanisms, had to several times deviate from its core mandate and, e.g., step in to purchase government bonds.

Mr. Odor sees three possible solutions to respond to the ruin of pillars: one, the simplest but most dangerous and least wanted: a break up. Two, to go back to old principles; going back to old principles would, however, not mean to go back to old pillars, but would require having to build new institutions. Among these would be the need of a new SGP with implementation of strong fiscal rules (possibly constitutional) and independent fiscal councils. Three, to embrace fiscal federalism as a long-term goal, instead of the current system of (big) fiscal transfers.

While working out the precise setup and features of such system of fiscal federalism, there are several measures needed in the short run. For the short run, replacing the current no-bail out rule, that has become incredible, with an more powerful version of the European Financial Stability Facility (EFSF) and/or the creation of a European Stability Mechanism (ESM) seems necessary, that allows managed default for countries whose problem clearly is not one of lack of liquidity but lack of solvency, and that has explicit exit rules. Also needed would be to allow for flexible use of the funds within the facility, such as the issue of recapitalization of the banking system.

In his opening statement Irish economist Professor Philip R. Lane compared the current situation in Europe to Ireland since it is in crisis since autumn 2007. He emphasizes the interplay between the banking sector (banking crisis) and the sovereign (current debt crisis), emphasizing that sovereign debt crisis becomes way more complex with a weak banking sector. The challenge in such situation is therefore how to simultaneously solve the two. The question of what the right analytical framework is needs revision and leaves much work to be done for researchers in the field. The search for a better framework to analyze these questions is also an active research area of a group of macroeconomists and finance professors, of which Professor Lane forms part, which all have different local experiences, and whose goal is to try to come up with new analysis and new sets of policy recommendations.[9]

Professor Lane sees an only narrow role for increased fiscal federalism in Europe, namely that of a common fiscal backing of the banking system. As it is now, the national banking system typically holds way too much of its national bonds, and is thereby too exposed to the local economy. If the economy experiences trouble and the fiscal deficit goes up, this in turn means that banks look weaker and experience higher exposures to loan losses. In turn, when banks look weaker and markets begin to question if they need to be bailed out, the sovereign gets downgraded, triggering such negative feedback loop. There could be several ways to improve the functioning of the European banking system and to break this link between the national banking system and the national sovereign.[10] One would be to have diversification requirements on sovereign bonds, or there could be European level deposit insurance, a European level recapitalization fund or European level guarantees. In the current state, without such institution, recapitalization of banks largely is the job of individual countries, and such national recapitalization do not provide any risk sharing. While creating a buffer and overcapitalizing banks is one way to insure against large idiosyncratic shocks to the banking sector of an individual nation, it is a quite expensive option. On the other hand, while self-insurance (by building up a buffer) is more expensive than collective insurance, but with collective insurance we face large moral hazard problems that we don't know how to deal

[9] The group includes, other than Philip Lane, prominent academics such as Markus Brunnermeier, Ricardo Reis, Dimitri Vaianos, Marco Pagano, Luis Garicano, Tano Santos, Stijn Van Nieuwerburgh.

[10] The situation in the US is different: should, e.g. the economy of Arizona be experiencing rough times, the banking system of Arizona is still backed by the Federal Government.

with. So Professor Lane agrees there is increased need for fiscal cooperation in that narrow segment of banking (only), but does not see why a fiscal union should be the answer in general.

In addition to the required improvements on banking system aspects, there is a need for European institutions that allow sovereigns to default in a way that does not lead to instability, that allows being true to the no-bail policy. In the short run, this is needed for Greece, in the long term a system is needed for crisis management in the future. This system does not necessarily need to be a rigid rule-based system, such as firm restructuring requirements for all countries when a certain debt-to-GDP ratio is reached. As Professor Lane stresses, it is, however, important to recognize that the line in the liquidity versus solvency debate is not always a hard line, there are episodes at which at a certain interest rate a sovereign may look insolvent but at a lower interest it would not. For some countries the downside scenario (the scenario of insolvency) can be mitigated. As an example he points to the Irish case: when Ireland had 130 per cent debt-to-GDP everybody was talking about default. After some rounds of reforms and recapitalization of banks this ratio now stands at about 105 per cent, and the public opinion in Ireland is somewhat more relaxed. Liquidity crisis can be quite contained, the concept of liquidity is not a one week concept but can easily extend over 1 or 2 year horizons, macro-adjustments can take time. Banks that have long term assets, such as sovereign bonds or mortgages, may look better again if they hold on to it. If a country, such as Ireland, had to downsize its banking system within 90 days it may be worth nothing, if it were to do it over three years recovery rates are much higher. To insure such easier handling of providing liquidity over one or two year horizons, there is need for institutions such as the EFSF or the ESM. These institutions should also be able to treat individual countries differently, there is not one set of rules that should be applied to each country.

Professor Eric M. Leeper argued that as of now, it is just one country (Greece), that has debt crisis, and that the term PIGS (or, 'US PIGS' if one were to include the US) lumps together economies that are facing very different problems: Ireland experienced fiscal stress as a response to a very severe banking crisis, Italy and Spain certainly face long-term fiscal stress, but it is less clear why they should be having immediate problems, and the US has a problem that is due to a current dysfunctional political process, but not because of any threat that it may be near its fiscal limit. Yet, financial markets do not seem to distinguish countries according to their country specific situations in such systematic way, which is reflected in high and widely varying credit spread implied default probabilities of these countries. This is, so Professor Leeper, because we completely lack fiscal institutions or systematic analysis of fiscal policy. Currently we rely on financial markets to see when fiscal policy is in trouble, and future fiscal actions often seem like a roll of a dice.

Unlike for monetary policy, our societies have failed to create robust fiscal infrastructures, we have given almost no thought at all how to coherently run fiscal policies. Being aware of the institutional contrast between MP and FP is instructive: central banks are independent (that is, not political), are staffed with economists, have earned credibility from following a clearly stated long-term objective, they conduct research to understand and optimize the long-term objectives, and they tend to integrate research with policy analysis.

In contrast, fiscal institutions are not independent, but are purely political.[11] Unlike central banks fiscal agencies are not staffed with economists but with politicians that may have their own political careers objectives, they have no clearly stated economic objectives or rule-based behavior, and no research is being conducted.

Professor Leeper argued that the short run fiscal needs that Europe, the UK or the US are facing are very different from the long run fiscal needs. The real short run problem is unemployment, as the fiscal consequence of which means large deficits and rising debt. It is important to note, however, that to some degree this is exactly what one should expect when going through the biggest recession since the Great Depression. Optimal policy calls for smoothing tax rates and government investment by using debt as a shock absorber. It may also call for only very gradual adjustments of future policies to retire debt from its high levels. In contrast, what policy institutions are delivering across the Euro Area, the UK, and the US are large immediate cuts in expenditure and some increases in taxes. Fiscal consolidation coupled with fixed CB interest rates can raise real interest rates and could amplify the contractionary effects on the economy. There is a huge need for conducting research that forces decisionmakers to think about what the tradeoffs are, research that allows us to develop the economics to inform us about how to undertake these reforms. If fiscal decisionmakers are presented with the economic consequences (both macroeconomic and distributional consequences) of alternative resolutions to fiscal stress, this will make a

[11] In the US they are called 'bi-partisan', but this clearly is a different concept than independence.

difference in their decisions. Such research agenda must include the development of formal models for monetary-fiscal policy, that allows for features such as risky sovereign debt, the importance of the banking systems, the possibility of substantial fiscal consolidations in the short and long run, adoptions of fiscal rules and targets, or creation of independent fiscal councils. Useful work will explicitly model the political economy aspects of policy choices, in the hope of arriving at credible and enforceable policy rules that can be implemented and that also happen to deliver good economic performance.

CONCLUSION

The workshop provided an excellent opportunity for macroeconomists in the area of fiscal policy to meet and discuss the current state of research of models with monetary-fiscal interactions, sovereign debt and sovereign risk, or questions concerning fiscal stimulus versus fiscal consolidation. The topics covered in the keynote speeches, the contributed papers of presenters, or the panel discussion, as well as the mix of academic and policy-oriented elements of the workshop likely have provided many workshop participants with a lot of food for thought in the current policy debates or in future academic work.

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