ADEMU Conference Proceedings

Anil Ari
University of Cambridge

Simon Lloyd
University of Cambridge

October 28, 2015

Abstract

On 8 and 9 October 2015 the University of Cambridge hosted the kick-off conference for the ADEMU (A Dynamic Economic and Monetary Union) Project, part of the Horizon 2020 work program topic 'Resilient and Sustainable Economic and Monetary Union in Europe'.[1] *The objective of the ADEMU research project is to reassess the overall fiscal and monetary framework of the EU and, in particular, the Euro Area.*

[1] www.ademu-project.eu.

Introduction:

Ramon Marimon (European University Institute), coordinator of the project's executive committee, opened the proceedings with an introduction to the project and a whistle-stop tour of the Euro Area's strengths and weaknesses that motivate further research. Amongst the potential strengths, Professor Marimon highlighted the benefits arising from the European Fiscal Compact, the European Stability Mechanism (ESM), the European Banking Union, the Macroeconomic Imbalance Procedure and, most importantly, the European Central Bank (ECB).

Despite these mechanisms, many weaknesses remain in the Union. Deep recession has highlighted divergence between member states. The Euro Area remains an immature and incomplete structure of institutions. In particular, Professor Marimon drew attention to persistent differences in labour productivity across member states, the lack of a risk-sharing mechanism under ESM and the absence of a common fiscal policy.

Professor Marimon highlighted a notable gap between policy-oriented analyses of EU-specific challenges and the major developments in dynamic macroeconomic theory of the past three decades. ADEMU brings together eight research groups from leading European institutions with the aim of closing this gap. It studies the overall monetary and fiscal structure of the EU and the Euro Area, and the mechanisms of fiscal policy coordination among member states.

The project is divided into four work packages (WPs):

WP1. Long-term sustainability of a monetary and fiscal union

WP2. Stabilization policy in currency unions

WP3. Macroeconomic and financial imbalances and spillovers

WP4. Policy implementation

ADEMU is at the frontier of dynamic macroeconomic research, and the project will generate new knowledge that will be used to provide a rigorous assessment of the current institutional framework, and detailed proposals for improving it. It will also be a focal point in debates among academics, policymakers and other stakeholders regarding the implementation of new policies. The scope of the project will include a full consideration of political economy and legal dimensions to alternative institutional reforms. The project will culminate in May 2018.

Work Package 1 – Long-term Sustainability for a Monetary and Fiscal Union

Charles Brendon (University of Cambridge) introduced the research agenda of the first work package, which focuses on the long-run sustainability of economic and monetary union (EMU) – in particular the sustainability of sovereign debt, and of union-wide risk-sharing mechanisms. The package has three specific objectives:

1. To clarify the determinants of sovereign debt crises, to develop new indicators that could be used to assess the risk of such crises occurring, and to devise new strategies for reducing this risk.
2. To devise credible rules and strategies for sustainable public debt management appropriate to the institutional and demographic characteristics of the EU and Euro Area.
3. To provide detailed institutional proposals for optimal fiscal risk-sharing among EMU member states, subject to the constraint that participation cannot be enforced, and to contrast these proposals with the existing institutional framework – for example, the European Stability Mechanism (ESM).

Dr. Brendon emphasised that long run sustainability encompasses financial stability, as well as debt sustainability. Within the work package, research into the ambitious agenda for fiscal union will be of particular importance, yet its implementation must be incremental. The more immediate step of establishing a European Fiscal Board should help to combine decentralised decision-making with centralised scrutiny.

The long-term aim, however, should be to develop a 'euro-area macroeconomic stabilization function' as outlined in the Five Presidents' report. Dr. Brendon recommended that such a function should focus on crisis-prevention as well as crisis-management and increase the extent of fiscal risk-sharing in a manner that combines responsibility with solidarity.

The Crisis in the Euro Area: Lessons from History and Economics – Giancarlo Corsetti (University of Cambridge)

Giancarlo Corsetti presented his research which places the recent European sovereign debt crisis in historical context. He voiced his agreement with the previous speakers that the Euro Area was launched with insufficient institutional development and noted that although this was well known at the time, the dominant pre-crisis view was that future crises would provide an impetus for institutional development, which would in turn help overcome the crises.

He suggested that the main challenge is to determine the minimum institutional framework necessary to ensure the sustainability and prosperity of the Euro Area and a better understanding of the economic consequences of an incomplete monetary union and the interaction between national and union-wide policies is necessary in order to do this.

To this end, he proposed that there is much that can be learned from a comparison with the ERM Crisis of 1992-93. Although the two episodes differ in some dimensions, such as the smaller extent of current account imbalances and the ability to adjust exchange rates during the ERM crisis, there are also profound similarities. Particularly, incomplete institutional development placed significant constraints on policy responses in both episodes and thus exacerbated the uncertainty and policy trade-offs created by the crisis.

Drawing from his earlier work with Willem Buiter and Paolo Pesenti in the context of the ERM crisis, he suggested that crises in incomplete monetary unions increase the temptation for governments to pursue opportunistic policies, making it difficult to achieve the political cohesion and cooperation necessary to overcome the crisis at the union level (Buiter, Corsetti & Pesenti, 1998). Institutional development is thus necessary to increase the Euro Area's resilience to future crises, but it will inevitably be complicated by the high degree of debt inherited from the current crisis.

On the Optimal Design of a Financial Stability Fund – Árpád Ábrahàm and Ramon Marimon (European University Institute)

Árpád Ábrahàm and Ramon Marimon presented their recent research on a constrained optimal risk-sharing mechanism for the Euro Area. Given the proliferation of asymmetric shocks in the Euro Area, and the revelation of sovereign debt as a disfunctional risk-sharing mechanism during the latest crisis, the welfare gains associated with a centralised risk-sharing mechanism may be potentially very large. In order to evaluate these welfare gains, Ábrahàm, Carceles-Poveda, Liu and Marimon (2015) apply the theory of recursive contracts in the context of a dynamic model with costly strategic default and endogenous borrowing constraints.

They find that the constrained optimal risk-sharing mechanism takes the form of a Financial Stability Fund which borrows in a non-state contingent manner from international markets and provides lending to individual countries through long-term contracts which are contingent on the state of the economy and the past history of agents. The form of these contracts is influenced by the intertemporal participation constraints of the borrowers and lenders, as well as incentive compatibility constraints associated with potential moral hazard in policy reactions.

Although this limits the extent of transfers that the Fund can implement, they find that the Fund leads to a welfare gain of between 3-7% compared to a baseline case with non-contingent sovereign debt and costly default. This welfare gain stems from the elimination of costly default and the increase in countries' debt-bearing capacity which helps reduce the volatility of consumption in response to shocks.

In the discussions, John Hassler (Stockholm University and Swedish Fiscal Policy Council) questioned the high discount rate in the calibration, which has the effect of bringing about a high debt level. Ramon Marimon pointed out that this captures the current high debt levels in Europe in line with their aim of coming up with a mechanism that can be directly applied to the current circumstances.

The Political Economy of the Euro – Jesus Fernandez-Villaverde (University of Pennsylvania)

Finally, Jesus Fernandez-Villaverde presented his research on the political economy implications of monetary union membership, drawing on Fernandez-Villaverde, Garicano and Santos (2013). The key idea behind his study is that monetary unions induce large changes in the political economy of member countries and while some of these changes may be positive (such as a rise in reform incentives due to the inability to gain competitiveness through a currency devaluation), other changes may have deleterious effects. Ultimately, the sustainability of a monetary union is determined by its effects on the political economy of member states, making these interactions a vital aspect of the design of a successful union.

Using Spain as an example, he emphasized the convergence of interest rates following Euro Area membership as a cause of significant capital inflows, which in turn fuelled domestic imbalances such as a real-estate bubble. These domestic imbalances interacted with the political economy through two distinct channels, which hampered and delayed the policy response, thus ensuring the amplification of the eventual crisis.

Firstly, the capital inflows created a period of high growth, making it difficult to deduce the quality of governance and economic fundamentals. For example, the structural budget deficit in Spain was concealed by a large cyclical surplus driven by the boom. Secondly, the concentration of the boom in a small number of sectors altered the composition and interests of party constituencies, increasing the political influence of those who have benefited the most from the bubble, and thus had an interest in delaying and minimizing the policy response.

In the discussions, Martín Uribe (Columbia University) asked whether there is supporting evidence that the price changes in the housing sector were driven by bubbles rather than fundamental factors. Fernandez-Villaverde pointed out that there is supporting evidence on TFP and governance. He also suggested that, in his view, there was a fundamental housing shortage which provided the initial spark for the bubble. He noted that for the moment, models which explore these mechanisms are lacking.

Another question was posed by Evi Pappa (European University Institute) on the political economy implications of the absence of currency devaluation as a policy instrument. Fernandez-Villaverde responded by highlighting the domestic redistributive implications of price adjustments. With an exchange rate adjustment, the price adjustment is simultaneous across the economy and almost immediate. With a real devaluation, on the other hand, the slow and uncoordinated nature of adjustment leads to a competition not to move first and triggers a process of political bargaining on who bears the burden of the adjustment. Constituencies which have strong political positions try to pass the burden of adjustment to those with weaker positions, which in turn lend support to populist parties in an attempt to break away from the adjustment.

Finally, Brigid Laffan (European University Institute) noted that the political paradigms in the member states are being influenced by several other factors, such as a leftward defection in the debtor countries driven by the recession, and a defection to right-wing parties in the creditor countries due to migration concerns which are not related to the Euro crisis. Fernandez-Villaverde agreed that some, but not all changes were induced by the Euro. As another example he noted that historical class cleavages which largely defined the party structures of Christian Democrats and Social Democrats are now disappearing due to reasons largely unrelated to the Euro.

Work Package 2 – Stabilisation Policy in Currency Unions

Work Package 2, introduced by Pedro Teles (Universidade Católica Portuguesa and Bank of Portugal), focuses on the assessment of the short-run stabilising potential of alternative approaches to conducting policy in a currency union, so as to improve resilience to macroeconomic shocks. The specific objectives of the work package include:

1. To determine the most appropriate forms of macroeconomic policy coordination among EU and Euro Area countries, and to quantify the risks associated with uncoordinated policymaking.
2. To provide an empirical assessment of the multipliers associated with active fiscal policy, and to clarify the theoretical channels through which these multipliers work.
3. To explore the theoretical channels through which social insurance and labour market policy can serve as automatic stabilising – or destabilising – devices.

Professor Teles discussed each of these three objectives in turn, highlighting existing research which falls under the remit of the work package.

Policy Coordination: What and How?

Policy coordination in currency unions has long been a subject of research. Chari, Dovis and Kehoe (2015) revisit the historical literature on optimal currency areas (see, for example, Mundell, 1961). Their research can be used to inform answers to the question: Is Europe an optimal currency area? The traditional Mundell criterion, which implicitly assumes commitment, emphasises that countries with correlated shocks should form unions. Yet, absent commitment, Chari et al. (2015) develop a new criterion: countries with uncorrelated *credibility* shocks – shocks that exacerbate time inconsistency problems – should optimally form a currency union. When these shocks are uncorrelated, a benevolent union-wide monetary policy body will be able to commit to not respond to the shocks. That is, joining the monetary union endogenously gives rise to commitment.

In ongoing work with Juan Pablo Nicolini, Professor Teles focuses on fiscal policy coordination within currency unions. He asks whether tax competition within the union is beneficial on net. He highlights that the benefits of intra-union tax competition may be large relative to the size of the country, while the costs of such competition – emanating from, *inter alia*, tax inefficiencies and exclusion for union-wide insurance schemes – may be proportionate to the country's size. Within this environment, it may be optimal for a small union country or region to act as a tax haven. Further work on the policy implications of this research is warranted.

Fiscal Multipliers: Theory and Empirics

The estimation of fiscal multipliers has relied on structural identification approaches within a vector autoregressive framework (see, for example, Mertens and Ravn, 2013). Given the widespread use of empirical approaches within this literature, further research into the efficacy of these approaches is warranted. For example, Moura (forthcoming) investigate the value of structural vector autoregression (SVAR) approaches to fiscal multiplier evaluation.

Numerous authors use these empirical approaches to investigate varying aspects of fiscal multipliers. Bermperoglou, Pappa and Vella (2013) document how the size of the fiscal multiplier depends on the specific component of expenditure.

From a theoretical perspective, Fève and Sahuc (2015) consider the specification of preferences for government spending multipliers.

Social Insurance and Labour Market Policies

Social insurance and labour market policies offer potential automatic stabilisation – or destabilisation – mechanisms for the union. Ravn and Sterk (2014) research the impact of uninsurable employment risk on savings decisions and stabilisation policy to mitigate it. Within their framework, a negative shock to the economy can stimulate precautionary savings, decreasing the natural rate of interest to possibly negative levels. In the face of the zero lower bound, monetary policy may not be able stabilise the economy. Nevertheless, Ravn and Sterk highlight a role for social insurance policy in mitigating this risk. Moreover, if these shocks affect the unions as a whole, social insurance policy needs to be union wide.

Other relevant research includes: Dolado, Ortiguera and Stucchi (2013) who consider labour market risks in dual labour markets with high and low employment protection, highlighting the benefits of a 'single contract' with increasing severance pay; and ongoing work by Christian Bayer, Thomas Hintermaier and Moritz Schularick (all from University of Bonn) who investigate to portfolio consumption of private wealth.

Time-Consistent Fiscal Policy in a Debt Crisis – Morten Ravn (University College London)

In ongoing joint work, Balke and Ravn (2015) investigate the optimality of fiscal policies in a debt crisis. During deep recessions, outcomes can depend on inequality and the extent to which markets provide insurance. In a debt crisis, there are two competing arguments for fiscal policy:

- The need for economic stimulus
- The need for austerity to reduce debt

Balke and Ravn (2015) consider the trade-off between the two by focusing on optimal policy in a world where fiscal policymakers have many policy instruments – spending, taxes, social insurance and debt – but lack the ability to commit to any of them due to the presence of ex-ante and ex-post trade-offs between policy variables and outcomes. Within the model, three observations can be made:

1. The lack of commitment only becomes an issue in a debt crisis. Countries will never default when they have net assets.
2. It may be optimal to default.
3. Austerity will be optimal prior to default. That is, it is optimal to hike taxes and cut spending prior to default.

At the conclusion of the presentation, Xavier Mateos-Planas (Queen Mary University) asked Professor Ravn about the labour market structure in the model, which differs from some of the existing literature. In particular, Dr Mateos-Planas was interested in hearing whether the Balke and Ravn (2015) results would stand with a more standard labour supply choice. Professor Ravn noted that the labour market structure in Balke and Ravn (2015) was chosen to introduce a concern for unemployment to foster Euro Area relevance. However, Professor Ravn noted that there is a mechanism missing from the existing model, namely the possibility of long-term unemployment, which over time reduces the demand from unemployed workers.

Is the Macroeconomy Locally Unstable and Why Should We Care? – Franck Portier (Toulouse School of Economics)

When initiating stabilisation policy, policymakers must take a stand on what moves the economy and what the costs and benefits of each potential stabilisation policy are. Within existing macroeconomic models, there is a common structure used to answer these questions involving: a unique steady state for variables (or at least one relevant steady state) such that the economy has stable dynamics. That is, without shocks, the economy will be at the steady state. Business cycle dynamics reflect shocks that perturb the system. This view is supported by data which is shown to exhibit autoregressive (or autoregressive-moving average) dynamics.

However, Beaudry, Galizia and Portier (2014, 2015) offer an alternative view of economic dynamics with important implications for efficient stabilisation policy, namely: limit cycles. Within this framework, the steady state of the economy is locally unstable, but globally stable. The economy can exhibit endogenous cycles. Thus, stabilisation policy in this world may look very different.

As evidence for the limit cycles view, Beaudry et al. (2014, 2015) look at the data from a non-structural time series perspective, focusing on univariate models as a starting point. They empirically evidence the existence of limit cycles for many cyclical U.S. data series. Moreover, out to longer horizons, the limit cycle models better forecast outcomes than traditional stable autoregressive systems.

In light of this research, the following questions are of interest:

- Do these results remain valid in a multivariate setting?
- How can existing business cycle models be re-cast to exhibit limit cycles?
- What does the optimal stabilisation policy with limit cycles look like?

Following the presentation, John Hassler (Stockholm University and Swedish Fiscal Policy Council) asked Professor Portier about the theoretical and policy implications of his analysis. Theoretically, it sounds like the presence of an externality that leads to complementarities is necessary to generate a limit cycle. Professor Portier noted that, although work in this area is preliminary, there exists some literature emphasising that limit cycles pose a problem for optimal policy. For example, if limit cycles are generated by an externality that can be solved by the government, then there is an important trade-off to consider for policymakers, as certain policies may affect both the shape of the response to shocks and the shape of the limit cycle. That is, a policy that mitigates the effect of the shock may destabilise the cycle.

A Model of the Twin Ds: Optimal Default and Devaluation – Martín Uribe (Columbia University)

Historically, there is strong empirical evidence linking sovereign default crises with large devaluations (Reinhart, 2002) – the Twin Ds. However, the European debt crisis occurred without devaluation. Na, Schmitt-Grohé, Uribe and Yue (2015) ask: How common is it to have a debt crisis without devaluation? What cost is Europe paying for not devaluing?

The authors conclude that, around default, the median country devalues by around 35%. Devaluation around default is more akin to a change in the level of the nominal exchange rate that a switch to a high rate of depreciation – ruling out first generation models of currency crises. Na et al. (2014) conclude that in Europe, a 40% devaluation was missing during the debt crisis, which generated an increase in involuntary unemployment of up to 20%.

To develop a model of the Twin Ds, Na et al. (2015) note that devaluation occurs around default because, when default occurs, relative prices are out of equilibrium. For example, in Argentina 2001-2, there was a devaluation after default. In the interim period, nominal and real wages did not adjust. Yet upon devaluation, almost instantaneously, nominal and real wages were able to adjust. The model has two main elements: (i) imperfect enforcement of debt contracts (à la Eaton and Gerovitz, 1981); and (ii) downward nominal wage rigidity.

Within the model, the twin Ds are optimal because, under the optimal policy, default occurs during large recessions. A contracting demand for labour puts downward pressure on real wages. With downwardly rigid nominal wages, a large devaluation is able to reduce the real value of wages, preventing an increase in unemployment.

In the context of Europe, the cost of not devaluing could have been very large. The lack of devaluation generated unemployment as a result of sub-optimal price adjustment.

At the conclusion of the presentation, Ramon Marimon (European University Institute) asked Professor Uribe whether, in view of his results, monetary union or sovereign debt is a bad idea. Professor Uribe noted that, in the neoclassical world, debt is an important instrument for intertemporal smoothing. Yet, the real world is far removed from the neoclassical paradigm. However the model in Na et al. (2015) highlights only two departures from the neoclassical world – downwardly rigid nominal wages and imperfect enforcement of debt contracts – so is unable to completely answer the question. Nevertheless, Professor Uribe noted that the European crisis has illustrated an underlying benefit of the Euro Area. The fact counties with high unemployment remain in union suggests that there must be an economic or, more likely, political benefit to union which is yet to be captured within our models. The key insight from Na et al (2015) relates to the coincidences of debt crises and devaluation. For policy, the analysis suggests a need to seriously consider fiscal union to address labour market inefficiencies in the absence of devaluation. In the rush to form the union, perhaps the lack of fiscal coordination was not fully thought out. It took a crisis of this proportion to realise the value of fiscal coordination as a mechanism for adjustment.

Philip Lane (Trinity College Dublin) questioned the degree and relevance of downward nominal wage rigidity in the model, highlighting the wage cuts experiences by non-tradable sectors since the crisis. Professor Uribe notes that in a forthcoming paper with Schmitt-Grohé he shows that downward nominal wage rigidity is ubiquitous in the private sector. Since 2008, European unemployment has grown while private sector nominal wages, on average, grew and, at worst, remained constant. From this data, the model's nominal wage rigidity – the current figure allows for a 16% fall in nominal wages – is both empirically motivated and conservative in comparison to 2008-11 data. Thus their finding that the lack of devaluation created a 20% increase in involuntary unemployment is on the conservative end.

Work Package 3 – Macroeconomic and Financial Imbalances and Spillovers

Radim Boháček (CERGE-EI) introduced the research agenda of the third work package which focuses on macroeconomic and financial interdependencies that are of relevance to the institutional governance of the Euro Area. Attention is placed on two specific categories: international spillovers, particularly those associated with fiscal policy; and macroeconomic and financial imbalances. The specific objectives of the work package include:

1. To provide new evidence on the cross-border spillover effects of fiscal and financial shocks in the Euro Area, to understand exactly how these shocks propagate from one country to another, and to explore the implications of this for the conduct of fiscal policy in EU countries.
2. To assess the role of macroeconomic and financial imbalances in the recent crisis, to analyse the existing institutional mechanisms for controlling such imbalances – in particular the Stability and Growth Pact (SGP), Macroeconomic Imbalances Procedure (MIP) and the Excessive Imbalance Procedure (EIP) – and to consider strategies for their effective improvement, including reform of the European banking sector.

Dr. Boháček began by identifying financial stability, resilience to shocks and the containment of systemic risk as primary policy goals, and supervision, regulation, stress tests and communication as policy instruments.

He noted, however, that macroprudential policy is complicated by the linkages between the financial sector and the real economy which create trade-offs between stability and efficiency as well as potential distributional effects. He also suggested that enforceability issues and questions as to which types of institutions come under the scope of regulation may lead to further difficulties.

Finally, he highlighted time inconsistency problems and coordination problems amongst institutions as potential challenges to the Tucker definition, which calls for dynamically adjusting regulatory parameters, and emphasized the importance of policy-oriented research in order to improve our understanding of these issues.

Incentives, Dynamics and Policy with Financial Market Imperfections – Christian Hellwig (Toulouse School of Economics)

Christian Hellwig presented an overview of his recent research on financial market behaviour under noisy information aggregation in Albagli, Hellwig and Tsyvinski (2013, 2014a, 2014b) and his ongoing work on its application to sovereign debt crises in Hellwig, de Soyres and Pancrazi (2015).

The key friction in these studies is heterogeneous information among financial market participants. Under this information friction, noisy trading arises as an exogenous source of price fluctuations and noisy information aggregation leads to amplification of both fundamental and noise trading shocks. In equilibrium, this does not only lead to excess asset price volatility but also drives agents to place excess weight on tail risks. As a result, asymmetries in asset payoffs have systematic effects on ex-ante returns. Particularly, assets with upside risks are overvalued while those with downside risks are under-valued.

Albagli et al. (2014a) shows that incumbent shareholders have a rent-shifting motive under this setting, resulting in inefficient investments and excess leverage by firms. In Albagli et al. (2014b), the same framework is used to explain the corporate credit spread puzzle. The excessive weight placed on default risk under noisy information aggregation leads to a persistent undervaluation of corporate bonds, thus creating a sizable excess return.

Finally, Hellwig et al. (2015) apply this framework in the context of sovereign bond markets. They show that noisy information aggregation leads to a higher bond spread compared to frictionless models, which is in line with the data. Moreover, they find that that noise trading shocks disconnect spreads from country fundamentals, thus undermining market discipline.

Bank Opacity and Financial Crises – Joachim Jungherr (IAE and Barcelona GSE)

Joachim Jungherr presented his ongoing work on bank opacity and financial crises. In his theoretical model, banks' investment opportunities are proprietary information, giving banks an incentive to keep their balance sheets opaque in order to gain a competitive advantage. Without the ability to observe investments, however, investors cannot distinguish between safe and risky banks, which undermines market discipline and gives banks an incentive to take excessive risk. Jungherr shows that the privately optimal level of opacity for banks is excessive from a social viewpoint, leading to an excessively high probability of bank-runs in a laissez-faire equilibrium.

Two notable findings from Jungherr's study pertain to the effects of bank competition and stress testing. First, increased bank competition reduces the extent of opacity as banks behave less strategically. Second, stress testing ex-ante restores market discipline and thus improves risk-taking behaviour, but ex-post has distributional effects on banks as it reveals which bank is solvent.

Macro-Financial Stability under EMU – Philip Lane (Trinity College Dublin)

The final presentation of work package 3 was from Philip Lane, who described his empirical study on the implications of EMU membership for macro-financial stability. He pointed out that the consequences of EMU membership are not immediately clear due to the presence of opposing effects. On the one hand, there are negative effects stemming from the loss of monetary policy independence and exchange rate adjustments in the face of asymmetric shocks and macroeconomic imbalances. On the other hand, there are positive effects associated with the elimination of noise from exchange rate markets (see Devereux and Engle, 2002 for an analysis of the exchange rate disconnect puzzle), the provision of a liquidity buffer by the Euro system and institutional improvements which stem from the adoption of Euro Area institutions.

In order to determine the prevailing effect, Lane (2015) compares the cyclical behaviour of macro-financial variables in Euro Area members and non-members over the time period 1984-2013. He finds that EMU membership strengthened the covariation pattern between the output cycle and the financial cycle during the boom period of 2003-2007 when macro-prudential policies were insufficiently counter-cyclical. Next, he investigates whether Euro system liquidity buffers were helpful during the crisis period of 2009-2013 by conducting a comparison between EMU members and the group of countries which had exchange rate pegs with the Euro but were not officially in the EMU (which includes Bulgaria, Latvia, Estonia and Lithuania). He finds that this is indeed the case as the latter group had a tougher adjustment than EMU members.

During the discussions, Giancarlo Corsetti (University of Cambridge) noted that the exchange rate disconnect result from Devereux and Engle (2002) has since been corrected and could not be a potential argument in favour of fixed exchange rates. Instead, he suggested that there may be other macro-financial channels associated with EMU membership.

Work Package 4 – Policy Implementation

Work Package 4, introduced by David Levine (European University Institute) and Thomas Beukers (European University Institute), is focused on the assessment of practical hurdles to the implementation of institutional reforms for the better management of policy within the EU. The work package places a particular focus on the legal, political and behavioural constraints that the current European Monetary Union (EMU) institutional structure – and, in particular, the alternative ADEMU proposals – may face.

The specific objectives of the work package include:

1. To identify the legal and constitutional challenges posed at both a European and national level by recent institutional innovations, including the Fiscal Compact, European Stability Mechanism (ESM) Treaty and Single Supervisory Mechanism (SSM). To identify similar challenges and potential loopholes associated with the proposals made as part of the ADEMU project.

2. To explore relevant political economy concerns associated with the fiscal and financial governance of EMU.
3. To examine experimentally the viability of specific theoretical models and policy proposals considered under the ADEMU project.

David Levine introduced the work package agenda from an economic perspective, focusing on the political economy of EMU, emphasising the need to consider political interactions on a number of fronts. In particular, Professor Levine identified the political economy aspects of post-crisis reforms. For example, although the shift of banking supervision and deposit insurance to the union-level is well-founded economically and may reduce the links between national politicians and local banks, it does not address a central problem of why the banking lobby is so effective.

Central to Professor Levine's discussion was the following observation: The voters and politicians of every member state view EMU as a series of options, that each would like to be free to select from. Yet, EMU as a 'menu of options' does not work. In Professor Levine's view, these political economy interactions render the current EMU unstable. Future research should add to our understanding of collusion, social disruption and voting. Ultimately, research should aid our understanding of how a system works with multiple sources of political power.

Thomas Beukers (European University Institute) lauded the ADEMU project for fostering an interaction between economists and lawyers, but emphasised the need for both to speak in a common language to develop implementable policy recommendations. Moreover, for the more radical policy proposals to be enacted, it is also necessary for them to have public support – a difficult task. Given these challenges, Dr. Beukers, introduced four research themes to the work package:

1. Constitutional Change and National Constitutional Constraints: What is their nature? How should they be overcome?
2. Economic Governance: What legal risks exist? How can they be enforced? What credibility do they have? Is there a trade-off between complexity and transparency?
3. Risk Sharing Mechanisms: Whatever the instruments, they will have to confront some of the main aspects of the current EMU design (e.g., the no bail-out clause).
4. Banking Union: What are the legal risks to the Banking Union? How should power be delegated? How should national diversity be accounted for?

The OMT Judgment: Lessons on the Limits of Economic Policy under the Current Treaty Framework – Giorgio Monti (European University Institute)

Professor Monti presented an analysis of recent challenges to EMU policy, focusing on challenges to the ECB through the European Courts. In general, it is very difficult to challenge the ECB, as to do so, it is necessary to attribute ECB action to economic loss or harm. Nevertheless, such challenges have been made.

Professor Monti identified examples of such challenges to the ECB. For instance, following the Cypriot bail-in, Cypriot bank account holders accused the ECB of breaching their rights, arguing that a euro group statement directly identified the economic loss of the policy. However, this challenge was unsuccessful, with the court judging that this statement could not be imputed to the ECB. Similarly, Italian bondholders who bought Greek bonds and suffered a hair-cut argued that the ECB was responsible for the loss. Again, the court did not agree.

Moreover, Professor Monti discussed indirect challenges to European institutions, such as the German challenge to outright monetary transactions (OMT). The ruling did set out limitations to OMT to make it fit the German constitutions – for example, only admitting secondary market purchases of sovereign bonds and placing an upper bound on the amount of each asset-type purchase. Nevertheless, OMT was judged to be within the scope of the ECB's powers.

Given these challenges, Professor Monti identified some important questions for consideration:

- What is the role of the ECB?
- How present should it be in Troika discussions? As the ECB is also charged with monetary policymaking, perhaps it should be distant from the Troika?

Democracy versus Markets: The Future of Eurozone Governance – Chris Bickerton (University of Cambridge)

Chris Bickerton presented a discussion of future Eurozone governance by focusing on to aspects of European politics:

1. European Integration as a Process of State Transformation: From nation state to member state – where a member state is defined to be a state where political power is exercised through external frameworks, such as the EU.
2. The Crisis of European National Democracy: Shifts in the political spectrum from left versus right to populism versus technocracy – for example the struggle between the Greek government and the Troika.

The Euro, contrary to expectations, has not created economic convergence. Instead, it has, unexpectedly, formalised heterogeneity across member economies. To manage this heterogeneity, national governments need more tools. Yet this highlights a notable tension: a one-size-fits-all approach is not effective. Moreover, the one-size-fits-all approach is perceived by many to be a product of German dominance. However, placing an emphasis on German dominance misses an important point: Fiscal consolidation is in the DNA of the Eurozone. There is continuity between fiscal consolidation of the 1990s and the response to the recent crisis within EMU.

In the design of new Eurozone institutions, it is important to balance discretion and rules. Existing EMU institutions demonstrate a strong preference for a rule-based system within Europe. At its core, the Eurozone has been concerned with tying the hands of politicians; the rationale for monetary union has focused on formalising rules as a constraint on policymakers. Moreover, policy recommendations since the crisis have not challenged this philosophy; they have taken it further. Should future policy also favour rules over discretion?

Moreover, the Eurozone crisis has coincided with a deeper, more persistent trend: the crisis of European national democracy. Within the Eurozone, there is a separation of policy and politics; one is independent of the other. The Varoufakis-saga encapsulated this. At first, there was a lot of sympathy for a compromise between the Eurozone and Syriza. However, within a few months, goodwill disappeared to the point where the continuation of negotiations appeared to be conditional on the removal of Varoufakis from the table. Varoufakis violated the political etiquette of the Euro group, exposing their policy without politics by making demands public.

In light of these examples, Dr Bickerton outlined an important challenge for future EMU politics and policy:

- How to accommodate growing divergences between national economies within the Eurozone?

The most obvious proposal is to build a centralised body to carry out transfers and enable risk sharing. Yet, politically this is unrealistic and unlikely to be realised.

At the other extreme, the dismantling of the Eurozone is a radical position to take.

Given these extremes, what can future policy do and what should it consider?

First, *divergence*, not *convergence*, should be the baseline for future policy. Assuming that convergence will endogenously occur has not worked to date, and is unlikely to do so in the future.

Second, there is neither a public nor a political appetite for supra-national integration. If one ignores this lack of appetite, then the Eurozone will have a zero-sum relationship with national democracy.

Third, the mantra of rule, rather than discretion, which has characterised the evolution of the Eurozone crisis, has fuelled an important debate between populism and technocracy. It is important the future policy strike an appropriate balance between rules and discretion.

Following Dr Bickerton's presentation, Ramon Marimon (European University Institute) made two observations. He first expressed agreement with the observation that future Eurozone policy should consider divergence, not convergence, stating that it was a central theme of the ADEMU project. Second, Professor Marimon noted that Dr Bickerton's distinction between politics and policy, and its relation to rule versus discretion and populism versus technocracy, was particularly interesting – economists tend to design policy with little concern about political feasibility. Yet, Professor Marimon also noted that despite the surge in populism, populist parties rarely gain power, and when they do, they tend to have a predilection for rules over discretion. Professor Marimon asked to hear Dr Bickerton's views on this.

Dr Bickerton stated that he was most interested in the interaction between policy and politics. Political life, and what we understand politics to be, is a balance between the policies people have formulated – often without direct consultation with the public – and politics. A good policy defined independently of political life makes little sense.

Dr Bickerton also expressed concern at the growing divide between politics and policy in Europe. A political life with no policy interaction with policy is a façade. The growing chasm between politics and policy is a central problem for EMU. People get the feeling that decisions are made elsewhere and that power has drifted away from democratic process.

Dr Bickerton agreed that populist parties do have a predilection for rules. However, he emphasised that the tussle between populism and technocracy does not make them substitutes; quite the opposite. In his view, populism and technocracy are complementary in their opposition to party-based democracy. Given this, it is unsurprising that populists favour rules over discretion.

Independent Fiscal Councils in Europe – Kenneth Armstrong (University of Cambridge)

Kenneth Armstrong outlined ongoing research into the role of independent fiscal institutions (IFIs) in Europe. There has been a proliferation of IFIs in EU member states, and their role in future economic policymaking, both union-wide and at a national level, is an important one to consider. Professor Armstrong's research seeks to answer the following questions:

- What has driven the design and function of IFIs?
- What are, and should be, the tasks of IFIs?
- What explanations do we have for the existing allocation of tasks to IFIs?
- What mandate should national IFIs have within the union?

Within EMU, the accountability of IFIs is particularly relevant: the actions of one IFI are relevant for outcomes in the jurisdiction of other IFIs. In particular, national IFIs within EMU must be accountable on three levels:

1. Accountability to Europe: To what extent do national IFIs enhance outcomes at the European level?
2. Accountability through Europe: To what extent are changes occurring within the domestic landscape, making national EMU governments more accountable in their fiscal policy making?
3. Accountability of IFIs: How credible are their forecasts?

Moreover, alongside the accountability of IFIs, how transparent should they be?

In this vein, the legal architecture of IFIs offers an important opportunity to transfer economic expertise to a legal framework.

Following the presentation, Brigid Laffan (European University Institute) asked Professor Armstrong his opinions on the EU's reliance on extra instruments during the crisis. Professor Armstrong noted that the question relates to an import trend within EMU: There is a demand for longer run solutions, but unwillingness to provide the EU with the requisite legal institutions. Consequently, the EU has been forced to appeal to rules-based instruments, as opposed to institutions. Professor Armstrong conjectured that, paradoxically, the result may be that EU states will eventually look to existing EU institutions to achieve what they want, as they may be viewed as more flexible and facilitative.

Round Table: What Type of Fiscal Union?

This panel featured a debate on the type of fiscal union that is necessary for a sustainable and prosperous monetary union, and how such a union may be achieved within the confines of existing political and legal constraints in the context of the Euro Area. It also focused on a number of related questions from the "Five Presidents' Report" (June 2015). Specifically, these questions include:

- How can we ensure sound fiscal and economic positions in all Euro Area member states?
- Is the current governance framework – if fully implemented – sufficient to make the Euro Area shock-resilient and prosperous in the long run?
- What instruments are needed in situations in which national policies continue – despite surveillance under the governance framework – to go harmfully astray?
- How could private risk-sharing through financial markets in the Euro Area be enhanced to ensure a better absorption of asymmetric shocks?
- Is further risk-sharing in the fiscal realm desirable? What would be the preconditions?
- Should the Euro Area have an Unemployment Insurance Mechanism? If so, how should it be implemented?

The round table took place with the participation of Sir Charles Bean (London School of Economics), Jordi Caballé (Universitat Autònoma de Barcelona, MOVE and Barcelona GSE), Eilis Ferran (University of Cambridge), John Hassler (Stockholm University and Swedish Fiscal Policy Council) and Coen Teulings (University of Cambridge).

Sir Charles Bean (London School of Economics)

As the first to speak, Sir Charles Bean commented on three topics; the prevention of an unsustainable public debt spiral, risk-sharing across the monetary union and the aggregate fiscal stance from a stabilisation perspective.

With regard to the first topic, he noted that there is some truth to the narrative which lays the blame for the European sovereign debt crisis on fiscal profligacy and thus values attempts to strengthen fiscal discipline. Indeed, the first incarnation of the Stability and Growth Pact was breached 34 times, and lax fiscal policies were a major cause of the crisis in Greece and perhaps even Portugal. However, he suggested that it is not so clear that this narrative fits Ireland and Spain which had large fiscal surpluses when they were hit by the crisis. Instead, the source of the problems in these countries was the private sector which then affected the public balances through the slump on tax revenues.

He noted his support for the reform of the Stability and Growth Pact, but suggested that it is not clear whether it is addressing all vulnerabilities given how quickly fiscal positions may deteriorate during financial crises. He suggested it would also be more effective to incentivize fiscal surpluses when times are good rather than requesting austerity during a recession. One of the ways to achieve this would be to implement a fiscal stress testing scheme which analyses how quickly fiscal situations may deteriorate.

On the topic of risk-sharing, Sir Charles Bean noted that turning the Euro Area into a monetary union like the United States with debt mutualisation and automatic transfers is not on the table as creditor countries could not be expected to participate in a union which entails making large net transfers. He also pointed out that lack of risk-sharing can provide fiscal discipline but the recent crisis has made it clear that this is not sufficient to eliminate moral hazard on behalf of governments and also makes them vulnerable to self-fulfilling debt crises.

In the financial context, these problems are dealt with by a lender of last resort (LOLR) which lends against collateral but only at a premium in order to prevent moral hazard. In his view, the European Stability Mechanism (ESM) has been a step forward in providing a LOLR for the Euro Area, although there remain issues with its effectiveness and breadth. He noted, however, that the ESM remains only as a crisis management mechanism and research into a facility which allows member states to issue contingent bonds (such as Ramon Marimon and Arpad Abraham's presentation) is particularly valuable at the moment.

His comments on the aggregate fiscal stance started with the observation that the recovery has been relatively slow in the Eurozone with core inflation remaining consistently below target, which is a sign that macroeconomic policy has been too tight. He noted that this is because the necessary fiscal consolidation in the periphery countries has not been offset by looser policy in the creditor countries, which reflects the fact that the burden of adjustment is on the debtors.

He noted that this asymmetry is likely to persist, and suggested that a centralized fiscal instrument may be a good second-best policy to get the aggregate stance right. However, he voiced scepticism about the effectiveness of the public investment proposals in the Five Presidents' Report as a stabilization tool. He suggested that a policy measure with smaller implementation lags, such as changes in the VAT rates, would be more effective. He also noted that the ECB's slow policy reaction to inflation remaining below target has contributed to the problem, and this likely resulted from concerns about asset purchases in some member states.

Finally, with regard to the conference, he recommended that academics should focus not only on finding optimal policy solutions, but also on their implementation in political circles and the constraints imposed by this. In this respect, he commended Jesus Fernandez-Villaverde's presentation for its focus on the political economy and suggested this is an important direction for policy-oriented research.

John Hassler (Stockholm University and Swedish Fiscal Policy Council)

Prof. John Hassler voiced his agreement with Sir Charlie Bean on the political infeasibility of a fiscal union which provides redistribution or insurance between different states. He also argued that concerns regarding the aggregate policy stance do not provide a good enough motive for formal fiscal coordination, since it is often unclear what the correct fiscal stance is, and when it is, informal coordination could prove to be sufficient.

He suggested that a third motivation for a fiscal union could be moral hazard, and in this respect the crisis could be a good window of opportunity for reform since it is an eye opener which makes structural issues come into view. However, key to this is to have a common view about the causes and nature of the crisis and the appropriate policy reaction, which is missing in the case of the Euro crisis.

Coen Teulings (University of Cambridge)

Prof. Coen Teulings suggested that the current fiscal compact still lacks credibility as it has imposed clearly unachievable debt reduction requirements on countries such as Italy. He pointed out that it may have also exacerbated problems with the aggregate stance, citing the example of Netherlands, which, as a creditor country, had to enact austerity measures in order to follow fiscal rules even though this was inappropriate for both the domestic and Euro Area fiscal stance.

In the second part of his speech, Prof. Teulings focused on the impact of recent demographic changes. As a result of the decline in fertility after 1970s, the largest cohorts born recently are now approaching retirement. With Japan and China also experiencing similar demographic changes, excess savings driven by demography could be a key reason behind low real interest rates and asset bubbles. From this perspective, a rise in sovereign debt may actually be desirable, and given the problems highlighted by Ramon Marimon and Martin Uribe’s work concerning national sovereign debt in a monetary union, the solution could be ‘federal debt’ issued by a European authority. He suggested that this could be implemented by letting every Euro Area member transfer a fixed part of their debt to a European authority.

Jordi Caballé (Universitat Autònoma de Barcelona, MOVE and Barcelona GSE)

Prof. Jordi Caballé focused on the design of independent fiscal institutions (IFI) in the monetary union. He suggested that these institutions, which are responsible for overseeing the sustainability of public finances, played an important role in determining which countries did well.

In the case of Spain, the IFI was created in 2008 and followed the European approach of making independent macroeconomic forecasts and ensuring that the government is following policies that are consistent with its fiscal rules. The main enforcement instrument of the Spanish IFI is its ability to send a report to the central or local authorities, which in turn have to either adopt the report’s recommendations or explain their refusal to do so. This principle of ‘adopt or explain’ improves transparency and accountability. Prof. Caballé also noted that the advantage of the rule-based approach is that it is simple to follow and politically more acceptable than individually evaluating countries in the context of the Euro Area.

With regard to the proposal in the Five Presidents' report to create an advisory European Fiscal Board, which would coordinate existing national IFIs and help create new ones in member states which lack them, he noted that national IFIs have already created a voluntary network for coordination but further coordination under a formal framework would be desirable. However, he stressed that the independence of national IFIs must be preserved as national IFIs provide country-specific knowledge and proximity which allows them to communicate better with the societies and governments in the member states.

Eilis Ferran (University of Cambridge)

Prof. Eilis Ferran began her speech by emphasizing that policy-oriented research should focus not only on the optimality of policies, but also their feasibility from legal and political perspectives.

She noted that the process of further developing the monetary union's institutions will be a process of 'deepening by doing' whereby existing treaties are used but also altered as our knowledge of how these institutions work improves. This was the principle used in the creation of the European Banking Union and has the advantages of moving very quickly and providing significant room for innovation.

As examples of innovation, she listed the use of a close cooperation concept to extend the Single Supervisory Mechanism to member states which do not use the Euro and the fact that ECB has been given the power to make decisions based on national legislation. She suggested that there is lots of potential to borrow these ideas for the fiscal union, and lots of work has already been done trying to develop a European unemployment insurance framework. However, she also voiced concern with the recent use of inter-governmental agreements, which step outside the EU's rules and checks and create a reliance on institutions outside the EU framework, leading to a loss of accountability and credibility.

Finally, she noted that the courts' support for measures such as the OMT shows that they have a clear sighted view on recent developments and their economic consequences but also emphasized concerns that courts have been drawn into areas where it is difficult to avoid political influence.

Discussions

In the discussions, Philip Lane (Trinity College Dublin) questioned the independence of appointees to national IFIs, and also suggested that it is hard for a European fiscal board to understand the situation of each member country. Jordi Caballé agreed that the appointment process is important, but suggested that institutional independence can be vital for individuals to gain independence in their decisions following their appointment. He also pointed out that the European Fiscal board could play an important role in setting standards and unifying methodologies in the appointment process.

Evi Pappa (European University Institute) voiced additional concerns regarding the public investment plan in the Five Presidents' report by noting that in many countries it is a very blunt instrument riddled with rent-seeking and organisational problems. She suggested that it may be more efficient to subsidise private investment or provide tax credits for this purpose. Sir Charlie Bean agreed with her that there are potential issues with public investment, and suggested that measures which increase incentives for private investment or VAT tax cuts could be more desirable. He noted, however, that private investment is complicated by the fact that firms have a lot of cash and yet do not use it to investment at the moment. John Hassler pointed out that there could be low hanging fruits in prioritizing high return infrastructure projects. He noted that in Sweden, he could find no correlation between the return of the infrastructure projects and their implementation, and also emphasized a recent IMF report which provides information on how far each sector is from the global frontier.

Juan Francisco Jimeno (Bank of Spain) argued that the increase in public debt proposed by Coen Teulings may actually lead to a rise in savings due to Ricardian concerns and suggested that policy should instead aim to increase expected future income. One way to do this could be a private debt restructuring. Coen Teulings responded that debt reduction does not solve the saving glut problem as we cannot all save more and get more future income. He suggested that raising the retirement age could be an effective policy measure from this perspective. Sir Charles Bean noted that the large cohorts that are creating the saving glut problem will soon move into retirement and begin to dissave. He argued that this would imply that the saving rates have just peaked and shall decline rapidly over the next twenty years. The problem may thus solve itself.

Sascha Buetzer (Deutsche Bundesbank) noted that the pass-through of ECB's Quantitative Easing to CPI inflation has been rather low and then asked Sir Charlie Bean for his view on the viability of fiscal-monetary coordination in the form of the government promising to finance spending by central bank funds rather than future revenues, thus gaining a boost from the absence of Ricardian concerns. Sir Charlie Bean noted that explicit coordination is not needed even under the zero lower bound as a commitment to the inflation target by the central bank is equivalent to committing to growth at its potential rate. The problem in the case of the Euro Area was instead the ECB's initial reluctance to undertake asset purchases, and the appearance of a low pass through is due to the presence of long lags in the monetary policy mechanism, which works through asset prices and the exchange rate.

Round Table: Strengthening the EMU in the Aftermath of the Greek Crisis

This panel discussed ways of strengthening the EMU in the aftermath of the Greek crisis as well as focusing on the related questions of the "Five Presidents' Report" (June 2015), which can be listed as follows:

- How could a better implementation and enforcement of the economic and fiscal governance framework be ensured?
- Has the fiscal-financial nexus been sufficiently dealt with in order to prevent the repetition of negative feedback loops between banks and sovereign debt?

- To what extent can the framework of EMU mainly rely on strong rules and to what extent are strong common institutions also required?
- Under what conditions and in which form could a stronger common governance over structural reforms be envisaged? How could it foster real convergence?
- How can accountability and legitimacy be best achieved in a multi-level setup such as EMU?
- How can policies and institutions promote trust and solidarity in a heterogeneous EMU?

The panel comprised of Thomas Cooley (New York University – Stern Business School), Frank Smets (European Central Bank), René Smits (University of Amsterdam) and Zdeněk Tůma (KPMG and former Governor of the Czech National Bank). Richard Portes (London Business School, EUI and CEPR) chaired the panel.

Thomas Cooley (New York University – Stern Business School)

Professor Cooley discussed three goals for the future of EMU stated in the Five Presidents' report in turn: Banking Union; Economic Union; and Fiscal Union.

Regarding the Banking Union, Professor Cooley emphasised that the banking union is the most critical missing element for ensuring the stability of the Union and progress towards it has, thus far, been a mixed success. Although the establishment of a single resolution and supervisory mechanism is a clear achievement, which shall help tackle asymmetries across the union, it is hampered by the use of national rules. Nevertheless, Professor Cooley stated that the ECB is likely to be a successful banking supervisor, notwithstanding the many legal complications it has faced and may still face.

The single resolution mechanism lays out the decision making process for resolving an insolvent bank, but the mechanism is complex and a victim of the confused relationship between union-wide and national sovereignty. In Professor Cooley's view, the mechanism sends too much sovereignty to nation states and too little to the union as a whole.

Moreover, the existing steps towards banking union have yet to initiate a single deposit insurance scheme. Professor Cooley stated that it is a necessary precursor for a successful banking union that there exists a well-functioning single deposit insurance scheme.

Finally, the notion of bank capital adequacy has come to the fore in Europe, embraced to a greater degree than elsewhere. For example, there has been a focus on total loss absorbing capital – where banks have an extra layer of capital that will allow banking holding companies to continue to operate in the event of a large loss. However, to Professor Cooley, total loss absorbing capital ignores an important problem: who will be willing to hold it?

With respect to the Economic Union, Professor Cooley believes that it must overcome the problem of divergence. The future of the union must be considered within the context of divergence, not convergence. However, what it the point of this if not to ensure some degree of harmonisation?

Finally, about the Fiscal Union, Professor Cooley stated that the distinction between rules and discretion is, in many senses, a false dichotomy. The Union and its Treaties have a lot of rules written into them, but these rules can be, and have been, flaunted. Future policy considerations must thus be evaluated in terms of institutional designs that constrain fiscal policies.

René Smits (University of Amsterdam)

Professor Smits argued that debate around the future of EMU offers a number of legal themes that deserve consideration by economists. Specifically, he noted that economic governance is complex and contentious, and future research should focus on *joint* economic policymaking. He also suggested that two areas that require further attention are the integration of intergovernmental legal agreements and single representation of the Eurozone in international institutions, such as the International Monetary Fund (IMF).

Professor Smits also listed four areas of urgent action necessary to strengthen the EMU. First, there must be some joint partial financing of integrated unemployment insurance. Second, there must be agreement on the joint issue of 'Eurobonds'. Third, state bankruptcy must be considered, as part of a wider effort to establish a Euro Area sovereign debt restructuring mechanism, which is direly needed. Last but not least, he noted that steps must be taken towards joint Euro Area decision making, which directly tackles the question of "who should make decisions?".

Moreover, Professor Smits stated that it is important to rethink conditionality and the 'conventional' approach. He suggested that Europe would be in a better state today if there was more emphasis placed on structural reform earlier on. Researchers should thus be willing to attack 'conventional' approaches. Finally, Professor Smits noted that he would welcome research on the cultural aspects of European integration.

Zdeněk Tůma (KPMG and former Governor of the Czech National Bank)

To strengthen union, Dr. Tůma believes that progress must be made on at least three fronts: monetary policy; fiscal policy; and convergence issues.

With regard to monetary policy, Dr. Tůma emphasised that researchers should be willing to ask fundamental questions, for example: is inflation still the correct nominal anchor? Moreover, researchers should note that the greatest progress in monetary policy spheres over the 20 years prior to the crisis was in predictability and transparency. Although financial stability policy has correctly been given to central banks, it is important to distinguish monetary and financial policy mandates to handle to potential trade-off between the two. Dr. Tůma stated that he feels monetary and financial policy decisions must be both technically and practically separate to improve policy and mitigate trade-offs.

For fiscal policy, Dr. Tůma deemed institutional improvements to be appropriate. However, Dr. Tůma stated that it is important to simultaneously ensure that any institution has a positive public perception. Unlike monetary policy, it is more difficult to impose technical discipline on fiscal policymakers. Nevertheless, Dr. Tůma welcomed any action to improve the predictability and transparency of fiscal policy – such as fiscal stress testing – as well as stricter fiscal rules.

Despite this, Dr. Tůma does not believe fiscal union is necessary. To Dr. Tůma there exists an alternative disciplinary tool: financial markets. Prior to the crisis, Dr. Tůma argued that financial markets did not accurately perceive risks, however, having realised these problems, they should be able to exert discipline and foster stability within EMU. Financial markets should be viewed as a substitute for fiscal union.

Finally, although convergence/divergence issues challenge the very core of the EU, Dr. Tůma emphasised that there was evidence of convergence prior to the crisis.

Frank Smets (European Central Bank)[2]

The Five Presidents' report highlights interactions between the various unions – monetary, economic, fiscal, banking and political. Dr. Smets argued that these interactions should be an important question for future research.

In explaining why a fiscal union is a necessary element of a monetary union, Dr. Smets suggested that fiscal union can help ensure sustainable public finances. In a monetary union, higher debt has inflationary externalities that are not internalised. With common monetary policy, Dr. Smets emphasised that larger fiscal buffers may help to account for the asymmetric effects of monetary policy. Moreover, Dr. Smets noted that fiscal union offers the ability to share risk across the union when common monetary policy is independent. Moreover, a fiscal union ensures that the aggregate stance is appropriate to the business cycle, which in turn eases the pressure on monetary policy.

However, Dr. Smets emphasised that we need to accept some realities which place a limit on the form of a fiscal union that is politically feasible. As there is no appetite for fiscal transfers or a loss of fiscal sovereignty, national fiscal and economic policies will remain dominant for the foreseeable future. This does not change the fact, however, that a sustainable monetary union requires a greater degree of coordination and discipline on national fiscal policies, especially in an environment where alternative adjustment mechanisms, such as migration, are not particularly strong in the Euro Area.

According to Dr. Smets, a central problem for future policy is that three corner solutions do not work. First, national fiscal policies with market discipline were the dominant regime prior to the crisis. However, market discipline did not work and fiscal policy was procyclical. Second, centrally controlled national fiscal policy is politically infeasible as national governments are unlikely to give in to the demands from the centre. Third, a US-style fiscal policy framework with a mixture of automatic transfers and federal fiscal policy is also infeasible as there is no public support for a stronger union. Dr. Smets noted that the question of how we mix these three corner solutions is a vital question for the future of the monetary

[2] The views expressed are those of Frank Smets and do not necessarily represent those of the European Central Bank.

union. Given that the dominant part of fiscal policy will remain within the national realm, how must we design Eurozone-wide policy to improve outcomes?

In his view, the complementarities between a fiscal and financial union are also a complicating factor that raise the stakes involved in developing a successful fiscal union. Specifically, more financial risk sharing implies less fiscal risk sharing is necessary. As fiscal risk sharing is politically unattractive, this helps to explain the initial political focus on financial union after the crisis. On the other hand, a financial union requires strong fiscal back-up to be successful and there is a need for a union-wide safe asset is profound, especially if the financial union requires banks hold safe assets.

To conclude, Dr. Smets suggested that a number of important topics that should be addressed by future research are the questions of how to enhance market discipline, the extent to which banks should be exposed to sovereigns, and how the fiscal capacity of a country can be assessed.

Conclusions

In response to the European sovereign debt crisis and the associated economic turmoil, a number of important steps have recently been taken towards reforming the institutional architecture of EMU, based on the roadmap outlined in the Van Rompuy Report (2012). However, these institutional innovations (specifically the fiscal compact, the ESM, the SSM and the SRM) retain relatively weak theoretical foundations. In particular, there is a noticeable gap between policy-oriented analyses of the pre-crisis EU challenges and the major developments in dynamic macroeconomic theory of the past three decades.

ADEMU has brought together eight research groups from leading European institutions with the aim of bridging this gap. It studies the overall monetary and fiscal structure of the EU and the Euro Area, and the mechanisms of fiscal policy coordination among member states, with specific focus on:

1. ensuring the long-term sustainability of EMU, addressing issues such as debt overhang, fiscal consolidation, public debt management, risk-sharing within the union, and crisis management mechanisms;
2. building resilience to economic shocks, with special emphasis on the coordination of fiscal policies, fiscal multipliers and labour market risks; and
3. managing interdependence in the Euro Area, analysing both fiscal and financial spillovers and the effects of macroeconomic imbalances on financial and money markets, and, to confront these issues, new forms of banking regulation and monetary policy.

ADEMU is at the frontier of dynamic macroeconomic research, and the project will generate new knowledge that will be used to provide a rigorous assessment of the current institutional framework, and detailed proposals for improving it. It will also be a focal point in debates among academics, policymakers and other stakeholders regarding the implementation of new policies. The scope of the project will include a full consideration of political economy and legal dimensions to alternative institutional reforms.

The kick-off conference, held in Cambridge on October 8-9, 2015, served to reinforce this message, highlighting some key lessons and insights for policy and future research:

- Policy-oriented research should not just be confined to optimal policy analysis, but also focus on coming up with policy proposals which are feasible within the political and legal framework of the Euro Area, and its current economic realities such as the large degree of heterogeneity in both the current performance and stocks of debt of member economies.
- Although a US-style fiscal union is not politically feasible in the near-term, we can conclude with experience from the last decade that financial markets are not capable of achieving risk-sharing and in many cases also rely on fiscal backing. A more manageable, second-best, policy could focus on a centralised institution which aims to achieve the appropriate aggregate fiscal stance in the union, as proposed in the Five Presidents' report. Nevertheless, public investment may not be the best policy instrument for stabilisation policy, given the presence of large implementation lags. An alternative is to implement a VAT adjuster controlled by a centralized institution with EU funding.
- Another key insight is that crisis prevention is at least as important as crisis management, lending significant value to reforms on macroprudential regulation and fiscal and financial risk-sharing, as well as research oriented towards this direction.
- With regard to the political economy, a key lesson is that policy interventions and institutional reforms should not only be politically feasible, but policymakers should also be mindful of the political economy implications of the proposed interventions, reforms and the EMU as a whole. That is, the policy framework and institutions of a sustainable monetary union should also lead to political-economic interactions that are consistent with its sustainability. We further learned that cooperation across European institutions and member states in the face of crises is vital from this perspective, and there are lessons we can learn from both the current crisis and the previous EMU crisis.

References

Ábrahàm, Á., E. Carceles-Poveda, Y. Liu, and R. Marimon, (2015), "On the Optimal Design of a Financial Stability Fund," mimeo.

Albagli, E., C. Hellwig & A. Tsyvinski, (2013), "A Theory of Asset Prices based on Heterogeneous Information," *CEPR Discussion Papers 9291*, C.E.P.R. Discussion Papers.

Albagli, E., C. Hellwig & A. Tsyvinski, (2014), "Dynamic Dispersed Information and the Credit Spread Puzzle," *NBER Working Papers 19788*, National Bureau of Economic Research, Inc.

Albagli, E., C. Hellwig & A. Tsyvinski, (2014), "Risk-taking, Rent-seeking, and Investment when Financial Markets are Noisy," mimeo.

Balke, N. and M. O. Ravn (2015), “Time-Consistent Fiscal Policy in a Debt Crisis,” *Working Paper*, www.economicdynamics.org/meetpapers/2015/paper_613.pdf.

Beaudry, P., D. Galizia and F. Portier (2014), “Reconciling Hayek’s and Keynes’ Views of Recessions,” *CEPR Discussion Papers 9966*.

Beaudry, P., D. Galizia and F. Portier (2015), “Reviving the Limit Cycle View of Macroeconomic Fluctuations,” *CEPR Discussion Papers 10645*.

Bermperoglou, D., E. Pappa, and E. Vella (2013), “Spending Cuts and their Effects on Output, Unemployment and the Deficit”, *mimeo*. apps.eui.eu/Personal/Pappa/Papers/DimEugEvi_17DEC13.pdf.

Buiter, W., G. Corsetti & P. Pesenti, (1998), “Interpreting the ERM Crisis: Country-Specific and Systemic Issues,” *Princeton Studies in International Finance No. 84*, February 1998, published by Princeton Studies in International Finance , Princeton University.

Chari, V. V., A. Dovis, and P. J. Kehoe (2015), “Rethinking Optimal Currency Areas,” *Federal Reserve Bank of Minneapolis Research Department Staff Report*, March, economics.stanford.edu/sites/default/files/optimalcurrencyareas.pdf.

Devereux, M. B., and C. Engel, (2002), “Exchange rate pass-through, exchange rate volatility, and exchange rate disconnect,” *Journal of Monetary Economics*, vol. 49(5), 913-940.

Dolado, J. J., S. Ortigueira and R. Stucchi (2013), “Does Dual Employment Protection affect TFP? Evidence from Spanish Manufacturing Firms,” mimeo, www.eco.uc3m.es/temp/dolado2/Dolado-Ortigueira-Stucchi%20_FV%20JUNE20.pdf.

Eaton, J. and M. Gersovitz (1981), “Debt With Potential Repudiation: Theoretical and Empirical Analysis,” *Review of Economic Studies*, 48, April, 289-309.

Fernández-Villaverde, J., L. Garicano & T. Santos, (2013), “Political Credit Cycles: The Case of the Eurozone,” *Journal of Economic Perspectives*, 27(3), 145-66.

Fève, P. and J.-G. Sahuc (2015), “On the Size of the Government Spending Multiplier in the Euro Area,” *Oxford Economic Papers*, 67(3), 531-552.

Hellwig, C., C. de Soyres & R. Pancrazi, (2015), “Sovereign Default and Information Frictions,” mimeo.

Jungherr, J., (2015), “Bank Opacity and Endogenous Uncertainty,” mimeo.

Lane, P. R., (2015), “Macro-Financial Stability under EMU,” *Trinity Economics Papers tep0615*, Trinity College Dublin, Department of Economics.

Mertens, K. and M. O. Ravn (2013), “”The Dynamic Effects of Personal and Corporate Income Tax Changes in the United States,” *American Economic Review*, 103(4), 1212-1247.

Moura A. (fortcoming), “The Effects of Government Spending Endogeneity on Estimated Multipliers in the U.S.”, *Annals of Economics and Statistics*.

Mundell, R. A. (1961), “A Theory of Optimal Currency Areas.” *American Economic Review*, 51(4), 657-665.

Na S., S. Schmitt-Grohé, M. Uribe, and V. Z. Yue (2015), “A Model of the Twin Ds: Optimal Default and Devaluation,” *FRB Atlanta CQER Working Paper*, No. 2015-1, Federal Reserve Bank of Atlanta.

Ravn, M. O. and V. Sterk (2014), “Job Uncertainty and Deep Recessions”, *Centre for Macroeconomics Discussion Paper No. 1501*.

Reinhart, C. M. (2002), “Default, Currency Crises, and Sovereign Credit Ratings,” *The World Bank Economic Review*, 16, 151-170.

Schmitt-Grohé, S. and M. Uribe (forthcoming), “Downward Nominal Wage Rigidity, Currency Pegs, and Involuntary Unemployment,” *Journal of Political Economy*.