# Sustainable Globalisation: Lessons from Europe

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Ladies and Gentlemen,

Let me first thank the organisers for inviting me to this impressive Jean Monnet workshop, which is taking place at a critical point in time.

25 years after Maastricht, you might expect me to reflect upon the implications of the Maastricht Treaty, which brought about the biggest transfer of sovereignty in Europe since the Treaty of Rome. And indeed today 500 million people benefit from the Single Market and 19 countries enjoy stable prices thanks to the euro. You might also be expecting me to talk about the advantages of Europe's new Single Supervisory Mechanism. Or about the challenges we face in completing Economic and Monetary Union.

Well, these are indeed important issues, but I'd like to approach them today from a slightly different angle, namely from the perspective of economic and financial globalisation. Over the past 25 years, global trade relative to GDP almost doubled, financial openness quadrupled and global value chains emerged as a worldwide phenomenon.[1]

These figures suggest that a too inward-looking appraisal of the European project 25 years after Maastricht would fail to draw the full lessons from the project. European integration and "globalisation" are at least partly based on the same principles. So it's no surprise that the acute concerns expressed about globalisation today coincide with equally acute doubts over European integration.

As we know, the push for European integration was initially a political one.[2]

It was built in the post-war period on the promise of lasting peace and security and democracy on our continent. Over time, enlargement extended this promise to the new democracies in southern and eastern Europe. As the continent experienced an unprecedented era of political stability, economic integration was no longer presented just as a means to that end: it was at the centre of a promise of economic prosperity and protection for European workers in times of technological change and increased global competition.

But many today feel that Europe has not kept this promise. Moreover, the conflicts that have ravaged our continent are a fading memory. As a result, the European project is now being judged more from an economic than from a political perspective. European policymakers should not shy away from the political discussion, but they also need to enter into the fundamental economic debates about free markets, free trade and free capital flows, and spell out how the European project has helped reap the benefits while addressing the costs.

The concerns expressed about globalisation are also coinciding with recent signs of economic deglobalisation: trade and financial flows appear to have taken a pause after the global financial crisis, partly because global banks had to deleverage and change their business models.[3]

Deglobalisation is most visible in the re-emerging correlation between domestic saving and domestic investment, known as the Feldstein-Horioka puzzle. This correlation, which declined among OECD countries from almost 80% from 1980 to 2000 to less than 50% between 2000 and 2006, went back up to almost 70% in 2016.[4]

In 2017, according to the Institute of International Finance, foreign direct investment flows to emerging markets are expected to fall to their lowest level since the financial crisis[5]

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It is less clear, however, whether deglobalisation patterns can be identified when using other metrics of financial integration.[6]

And it is not obvious how to judge such developments from a normative perspective. While most economists still make the case for free trade, the costs and benefits of financial globalisation are being reassessed in academic and policy circles.[7]

These discussions have already led to the IMF holding a more benign view on the usefulness of temporary capital controls.

In my remarks today I will take a look at common concerns related to political and economic integration and argue that some of them are based on fallacies.

I will argue that the European project can be regarded as the most elaborate attempt ever to mitigate the inevitable political trade-offs arising in a globalised world, and that it has been largely successful. I will review the case for free trade and capital flows. Concerns in this area are legitimate, but they should be addressed with policies which are targeted at specific market failures rather than with outright protectionism. Building on specific ideas I recently spelled out for a better version of financial globalisation, I will issue a more general call for "sustainable globalisation" which should be efficient, enduring and equitable.[8]

These elements have important implications for the European project, both in its internal and external dimensions, as I will make clear in my conclusion.

Political fallacies about globalisation

It's often said that globalisation undermines national sovereignty and democracy. A more sophisticated version of this popular claim appears in academic discussions about the "political trilemma of the world economy". According to this concept, devised by Dani Rodrik in 2007, we cannot simultaneously pursue democracy, national sovereignty and economic globalisation at the same time.[9]

As a corollary, we can find ourselves only in situations where we either (i) stick to democracy and national determination while compromising on economic globalisation, as under the Bretton Woods system, (ii) maintain the nation state, but make it responsive only to the needs of the international economy at the expense of domestic objectives, or (iii) establish a form of "global federalism", where we, to quote Rodrik, "align the scope of democratic politics with the scope of global markets".

This analysis suggests that we are confronted with difficult trade-offs when attempting to make globalisation compatible with democracy and the nation state. But the European experience shows that these trade-offs are manageable. A variant of globalisation could be based on a parsimonious framework of international rules which leaves room for manoeuvre for national governments. In fact, the principle of subsidiarity which is firmly anchored in the Treaty on European Union can be interpreted as a regional attempt to solve Rodrik's "political trilemma". It aims to ensure that decisions are taken as closely as possible to the citizen and that action at European level is only taken if the objectives cannot be properly achieved at national, regional or local level.

If you put an economist, a political scientist and a legal scholar in the same room, they will define subsidiarity in different ways.[10]

Nevertheless, subsidiarity guides the relationship between different political levels and strikes the right balance between centralisation and decentralisation. And in fact integration in some areas does not exclude decentralisation in other areas. Since the 1980s, European integration has been accompanied in several countries by transfers of competences from the state to the regions.

Convergence processes may also play a role in allowing for an efficient centralisation of policies. While harmonisation of policies can be harmful if economies diverge too much, citizens or governments may agree on a convergence process ensuring that the benefits of a common policy outweigh its costs.[11]

Without such convergence processes, neither the European Union nor Economic and Monetary Union (EMU) would have been possible. And the euro area's travails are largely due to lack of effective convergence, both before the financial crisis and since then.

An example of the subsidiarity principle is the Stability and Growth Pact, which spells out common rules for the fiscal deficit and debt levels in order to avoid fiscal dominance within the currency union. At the same time, the Stability and Growth Pact leaves space for Member States to determine both the composition of government expenditures and revenues and their size relative to the economy and thus to choose from a variety of social models based on democratic deliberation.

This point has recently been made also in the debate on globalisation: the power to levy taxes and determine the size and composition of government expenditures has remained in the hands of national governments, despite economic and financial globalisation. Whether or not they have been successful is debatable, but this has little to do with globalisation.[12]

Another common political fallacy about globalisation is the view that international markets flourish if the state is weak. In fact, the opposite appears to be true: international trade has thrived because of the existence of strong states which helped markets to overcome specific risks stemming from cross-border trade, including security risks, transaction costs and the enforcement of property rights[13]

, and also because of multilateral institutions and fora created by these states. Likewise, the experiences from the emerging market crises of the late 1990s and the global financial crisis suggest that well-functioning international capital markets require strong financial regulation, both domestically and across borders.

In addition to this traditional role of the state, governments also need to ensure that the gains from trade are shared within societies. And in fact, countries with higher trade openness tend to have larger, not smaller, public sectors.[14]

Governments have acted to mitigate the distributional consequences of globalisation, although they now face issues to which I will turn later.

Before turning to the economic fallacies about globalisation I would therefore conclude that global markets need to be underpinned by strong states and firm governance. Although opinions do differ on the scope of competence of institutions and administrations, carefully crafted structures and networks of national and international bodies and rules can ease the political trilemma.

Economic fallacies about globalisation

It is useful to re-state the case for free trade from its early origins, which date back to a time even before the seminal work of David Ricardo. In fact, it was recognised back in 1701 that the benefits from trade are very similar to those from technology.[15]

The concept of comparative advantage makes the argument even stronger and suggests that free trade is not a zero-sum game because differences in comparative, and not absolute, costs matter.[16]

But like technological progress, free trade has distributional effects. In fact, unskilled workers will inevitably suffer long-term losses in income from free trade, as the Stolper-Samuelson theorem shows. Empirically, it is also well documented that globalisation was associated with a rise in inequality within the developing and the developed countries, although establishing a causal link is more challenging.[17]

While economists disagree on the size of the distributional effects of international trade relative to its efficiency gains[18]

, it is important to keep in mind that free trade works through a number of channels which are absent in simple trade models and which are difficult to pin down in an equilibrium framework.[19]

In addition we should remember that simple trade models do not take non-tariff barriers to trade into account. In fact, it is a fallacy per se to believe that globalisation is concerned only with the removal of tariffs. This stems from the fact that trade is often hindered by more subtle forms of protectionism, including national regulation aimed at protecting domestic industries and state aid provided for similar reasons. The removal of these barriers, as in the European case to which I will turn later, might lead to large efficiency gains. As a matter of fact, modern free trade agreements cover non-tariff barriers to trade as much as traditional tariffs.

Other channels through which free trade can raise overall efficiency include: increased economies of scale due to larger markets, aggregate productivity gains due a reallocation towards more productive firms and, at the firm level, productivity gains from higher-quality imports. In addition, it appears that import competition interacts with deregulation (in the sense of removing red tape) via which it tends to boost productivity growth.[20]

When it comes to generating new knowledge, which is crucial for generating future growth, the mobility of students, researchers and high-skilled labour is also essential.[21]

All of these considerations suggest that gains from trade are likely to be quite large, in particular if a wide-ranging set of transmission channels and a broad definition of free trade is accounted for.

But the case for free trade can also be challenged due to the presence of externalities and information asymmetries which can negatively affect social welfare. For example, importers may find it difficult to find out under which conditions or standards the imported goods or services have been produced. Externalities, including eventual social costs of free trade, are one reason why we also regulate technological progress, e.g. if new technologies have adverse side effects on public health, safety or the environment.

Overall, the economic case for free trade thus remains strong on efficiency grounds, like the case for using more productive technologies. But the political case for free trade depends on whether its distributional, social and environmental consequences can be adequately managed.

A similar reasoning applies to the free flow of capital.[22]

In principle, free capital flows allow for risk sharing and a better allocation of resources across economies. They also help economies to catch up in terms of technology and financial market development through the transfer of knowledge. But recent academic analysis and policy experience, both globally and at euro area level, have revealed that capital flows can pose risks. They can be volatile and pro-cyclical, fuelling economic and financial cycles, and eventually asset price bubbles. In this context, the composition of flows has important implications for the likelihood of sudden stops and reversals.[23]

Finally, countries participating in financial globalisation should have reached a certain level of institutional development in order to avoid costly boom-and-bust cycles.[24]

Overall, these considerations lead me to conclude that the case for real and financial integration is still strong but should be qualified. At the same time, I believe that reducing real and financial integration via harsh protectionism is tantamount to destroying machines, as the Luddites did during the industrial revolution. In fact, outright protectionist measures have adverse side effects that reduce economies' growth potential. Over time, these side effects may reduce welfare by more than the problems they seek to address. And there are better ways of dealing with the side effects, as I will argue below.

Towards sustainable globalisation

Globalisation can be made more sustainable if we make it more efficient, enduring and equitable. To that end, let me expand on some ideas I have put forward on financial globalisation.

More efficient globalisation should be on the agenda of even mainstream economists because it would mainly address common market failures, which are well known from the domestic context. For trade flows, it would imply reducing information asymmetries, rents from monopoly power, and dealing with externalities, e.g. by giving better information to importers. It could also resort to Pigouvian taxes, e.g. in the case of transportation externalities which damage the environment.

For financial flows, efficiency requires channelling capital flows into productive uses, rather than fuelling inefficient consumption-led boom-and-bust cycles. This should be achieved largely by improving overall institutional quality and supervisory frameworks and, as a last resort, by resorting to capital flow management measures.[25]

Harmonisation of international tax codes can help avoid large but inefficient gross flows into and out of financial centres which are purely tax-driven.

Making globalisation more enduring means to me making it politically sustainable. As recent political outcomes have shown, this is an area which has been underappreciated, in particular by economists. In practice, it means that we have to enhance the legitimacy of international economic rules, allow for different economic and social models to the extent that fair competition and macroeconomic stability is not impaired, and explain the case for globalisation in more nuanced ways.

Enduring globalisation also implies raising the "quality" of trade and financial flows. For trade flows, this could include "global standards" (e.g. on labour conditions or product safety) to the extent that externalities cannot be dealt with through market-based solutions. Such standards have become important ingredients in free trade agreements and contribute considerably to the political legitimacy of globalisation.

For financial flows, "high quality" would imply e.g. the tilting of the composition of flows towards less volatile types including equity, thereby reducing the likelihood of sudden stops. This can be achieved, for example, through better corporate governance and better protection of shareholder rights globally. Enduring globalisation also includes environmental sustainability. The Financial Stability Board has started important work in this area via its task force on climate-related disclosure. In line with the notion that markets can only allocate resources efficiently if risks are adequately priced, this initiative aims to reduce information asymmetries stemming from financial exposures related to climate change.

Finally, globalisation cannot be enduring if it does not become more equitable. A more equitable globalisation would pay more attention to the distributive impact of globalisation than in the past. As in the case of new technology and competition, economic efficiency gains stemming from free trade often have distributional consequences. As we learn at university, free trade is Pareto-improving only if it comes with lump-sum transfers or other redistributive tools.[26]

But lump-sum transfers are enforceable only if governments keep control of their tax and benefit systems, which financial globalisation has called into question. In particular, it has become more difficult to tax multinational companies. In order to compensate the losers from globalisation under a more equitable form of globalisation, we would need to reduce tax base erosion and profit shifting along the lines proposed by the OECD and endorsed by the G20.[27]

Broader and more stable tax bases should enable governments to ensure, through smart government expenditures backed by stable tax revenues, that income losses from globalisation do not become permanent. Recent research suggests that the most efficient instruments in this area include active labour market policies, such as retraining programmes and relocation subsidies, which compensate for the switching costs and facilitate the migration of workers away from depressed regions.[28]

Let me also stress that policymakers also need to consider links between the three elements for sustainable globalisation. For example, a financial transaction tax is not an efficient tool to curb risk-taking in the financial sector, but given that it is easy to understand and intuitive to many citizens, it could increase the political legitimacy of financial globalisation, thus making it more enduring and, to some extent, more equitable. This assumes, of course, that it can be designed in a way that minimises losses in efficiency.

Sustainable European integration

Let me now sketch out how the European project can help make globalisation sustainable both inside Europe and worldwide.

In respect of efficiency, recent evidence suggests that EU membership has increased it considerably since the 1980s: according to one recent estimate, GDP per capita in the EU is around 12% higher relative to a counterfactual scenario excluding Union membership.[29]

This positive effect of EU membership not only comes from free trade since Europe's Single Market is the best example of a free trade area whose benefits go well beyond the removal of tariffs and non-tariff barriers: it has also established a stable legal framework that protects investors and consumers, and stimulates competition by ensuring a level playing field – which is to say, the Single Market is not only about removing trade barriers, or even just a customs union, but about common governance and having common rule of law under the jurisdiction of the European Court of Justice. In addition, the EU has also acted in particular in emerging Europe as an anchor for an institutional environment which is conducive to well-functioning markets.

The efficiency track record of financial flows within the euro area and the rest of the EU is more mixed, to say the least. Such flows certainly contributed for a long time to desirable catching-up growth, in particular in some eastern European Member States. [30]

But the European sovereign debt crisis has demonstrated that the original design of EMU was incomplete and did not prevent inefficient boom-and-bust cycles within the euro area. In fact, cross-border financial flows were excessively biased towards interbank lending at the expense of bond and equity investment and there was no common system of banking oversight to monitor the former, which allowed competitiveness losses in some countries to be masked by unsustainable finance-driven growth in low-productivity industries. During the European sovereign debt crisis, these imbalances led to a sudden reversal in capital flows and thus a growing fragmentation of the euro area.[31]

Since 2012 these adverse developments have receded, partly in response to policy measures taken at European and at national level.[32]

Additional important steps which should address these issues have been taken, namely towards a banking union, of which the Single Supervisory Mechanism is one component. It should lead to more prudent bank lending.

Enduring European integration is achieved to some extent through a common regulatory framework enforced by the European Court of Justice, including common product standards to ensure a high quality of trade flows. While, as I mentioned earlier, the quality of financial flows has been so far deficient, the capital markets union has the potential to bring about a more resilient form of financial integration based on more cross-border equity holdings rather than short-term debt.[33]

But more can be done with regard to making European integration more equitable.

Let me point out that Europe has established the first continent-wide redistribution system – the structural and investment funds. They support economic development and in particular help redress regional inequalities. While some may feel that these funds improve their lives still too little, such schemes – along with the EU Charter of Fundamental Rights protecting in particular the most vulnerable – constitute an important element in making European integration more equitable compared with a purely market-based outcome. Moreover, such schemes are complemented by progressive tax systems, social safety nets and regional equalisation arrangements at national level.

This means that the European model caters for what I mentioned before: although Member States need to respect common rules, sovereigns keep control of their tax and benefit systems, reflecting different conceptions of, and preferences for, social protection and the size of the welfare state. The European Commission has also adopted decisions that sanction unfair tax benefits and has only recently re-launched the Common Consolidated Corporate Tax Base (CCCTB), which will strengthen the Single Market by making it easier and cheaper for companies to operate cross-border in the EU. Reducing harmful tax practices is therefore a vital element of the European approach towards integration.

Conclusion

Let me address at the end of my remarks the last challenge when heading for sustainable globalisation in Europe, namely that the European voice is heard in international bodies which shape international economic rules. The Single Market and Economic and Monetary Union clearly enhance Europe’s global influence in four ways. First, a common trade policy gives Europe more weight in global negotiations, both in bilateral trade negotiations and when setting multilateral rules in the World Trade Organization. Second, a large single market with a single competition authority has significant leverage over multinational firms, allowing Europe to protect what it deems important. Third, a single currency and single supervisory mechanism allow 19 countries to speak with one voice on monetary policy and exchange rates and increase their leverage over global regulatory and supervisory standards. Finally, a Europe which speaks with one voice is carefully listened to by organisations such as the IMF, the G20 and the BIS, whose European members already, to some extent, seek to coordinate their views.

These bodies play a key role in shaping economic and financial globalisation since they aim for a global consensus on the international economic order.

Given the criticisms of globalisation, international cooperation and European integration we are confronted with, the time has come to make the case for globalisation to be made more efficient, enduring and equitable. Europe has become a blueprint for sustainable globalisation and it bears lessons for the rest of the world. Provided that we make further strides towards sustainable integration, Europe will be strong enough to promote a better global economic order.

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I would like to thank Roland Beck for his assistance in preparing this speech. All views expressed herein remain mine.

[1]The figures on trade and financial openness refer to a sample of 27 countries for which coherent data is available since 1992. Trade openness is computed as the sum of exports and imports over GDP; financial openness is measured as total foreign assets over GDP.

[2]See Cœuré, B. (2016), “Addressing Europe's economic and political challenges”, Introductory Remarks at TUM Speakers Series/HEC Débats organised by the Technical University of Munich, Munich, 21 November.

[3]See e.g. Cœuré, B. (2013), “Global liquidity and international risk-sharing in the post-crisis environment”, speech at the Bank of Korea International Conference 2013 “Assessing Global Liquidity in a Global Framework”, Seoul, 3 June.

[4]These figures refer to a sample of OECD countries for which a correlation between gross national savings and investments in percent of GDP is computed for annual data since 1980.

[5]See Institute of International Finance (2017), □February 2017 Capital Flows to Emerging Markets, 8 February.

[6]Price-based measures of global financial integration, for example, present a different picture: international equity market co-movements, for example, remain strong. By some estimates, they remain as high as ever in more than a century.

[7]For an overview of this debate, see e.g. Cœuré, B. (2016), “The Case for Rethinking International Capital Flows”, Dinner Speech, SUERF/PSE/CEPII Conference on “Rethinking Capital Controls and Capital Flows”, Paris, 15 September 2016.

[8]Ibid.

[9]See Rodrik, D. (2011), “The Globalization Paradox: Democracy and the Future of the World Economy”, New York and London: W.W. Norton.

[10]The economic literature on fiscal federalism emphasises the trade-off between the benefits of centralisation arising from internalising externalities across jurisdictions on the one hand and, on the other hand, the cost of a common policy in the presence of heterogeneity of preferences and economic characteristics. Some applications of this framework to the European Union suggest that EU involvement may be overextended in some areas and too limited in others. See Alesina, A., I. Angeloni and L. Schuknecht, (2005) “What Does the European Union Do?”, Public Choice, Vol. 123, No. 3, pp. 275–319; Cœuré, B. and J. Pisani-Ferry, (2007), “The governance of the EU’s

international relation: how many voices?”, in A. Sapir (ed.), Fragmented Power: Europe and the Global Economy, Bruegel.

[11]See Jamet, J.-F. (2011), “The Optimal Assignment of Prerogatives to Different Levels of Government in the EU”, Journal of Common Market Studies, 49, pp. 563–584.

[12]See Tilford, S. (2017), “Crisis of capitalism? Perhaps, but don't blame it on globalisation”, Insight, 10 February 2017, Centre for European Reform.

[13]This observation was nicely recalled by Rodrik using the example of chartered trading companies in the 17th century.

[14]Rodrik, D. (1998), “Why Do More Open Economies Have Bigger Governments?”, Journal of Political Economy 106, no. 5: 997-1032.

[15]See Martyn (1701) as cited in Rodrik (2011).

[16]Ricardo, D. (1817) as cited in Rodrik (2011).

[17]See e.g. Goldberg, P.K. and N. Pavcnik (2007), “Distributional Effects of Globalisation in Developing Countries”, Journal of Economic Literature, 45(1): 39-82; Ebenstein, A., A. Harrison, M. McMillan, and S. Phillips. (2014), “Estimating the Impact of Trade and Offshoring on American Workers using the Current Population Surveys”, Review of Economics and Statistics, 96(3): 581-595.

[18]One point which is particularly concerning and which has been emphasised by serious globalisation sceptics is that in standard models of international trade the distributional effects can be large relative to the efficiency gains, in particular when tariffs are already low. Unlike technology, free trade in the form of tariff reductions encounters diminishing returns. See Rodrik, D. (2011, pp. 57) and Rodrik, D. (1994). The large “redistribution-to-efficiency gains ratio” might tempt protectionists to argue that with a small increase in tariffs a large redistribution would be achieved at the cost of only small efficiency losses. This seems a plausible argument, provided that the redistribution is politically desirable. But the argument is misleading because more recent research has also shown that gains from trade are large once their causal effects are derived from quasi-natural experiments. General equilibrium estimates tend to be somewhat lower. See Feyrer, J. (2009), “Distance, Trade, and Income – The 1967 to 1975 Closing of the Suez Canal as a Natural Experiment,” NBER Working Papers 15557.

[19]See Hornok, C., and M. Koren (2016), “Winners and Losers of Globalisation: Sixteen Challenges for Measurement and Theory,” Chapter 6 in Blundell et al. eds, Economics without Borders, Economic Research for European Policy Challenges, and the references provided there. For additional channels, see Melitz, M. J. (2003), “The Impact of Trade on Intra-Industry

Reallocations and Aggregate Industry Productivity", Econometrica, 71(6): 1695-1725; Hornok, C., and M. Koren (2016), Ibid; Ben Yahmed, S. and S. Dougherty (2017), "Domestic Regulation, Import Penetration and Firm-Level Productivity Growth", Journal of International Trade & Economic Development; Coelli, F., Moxnes, A., Ulltveit-Moe, K., (2016), "Better, Faster, Stronger: Global Innovation and Trade Liberalization", London, Centre for Economic Policy Research.

[20]There is also very recent evidence from firm-level patent data, suggesting that trade policy during the Great Liberalisation of the 1990s had a significant positive effect on innovation. What is even more striking is that this increase in patenting reflects innovation, rather than simply more protection of existing knowledge. See Coelli F., A. Moxnes, K. H. Ulltveit-Moe (2016).

[21]See e.g. Kaiser, U., Kongsted, H.-C., Rønde, T. (2015), "Does the mobility of R&D labor increase innovation?", Journal of Economic Behavior & Organization, Volume 110, pp. 91-105.

[22]See Cœuré, B. (2016, op. cit.) for an extended discussion of these issues and the references given there.

[23]In particular, financial globalisation in assets with longer maturity and state-contingent payoffs – such as equity and foreign direct investment (FDI) – has been shown to be less volatile than one based on short-term bank or portfolio flows. FDI is also more desirable as it is much less sensitive to global push factors, such as global risk aversion or monetary policy in major economies. The evidence for positive growth effects of FDI in the literature is much more robust than for portfolio flows.

[24]See Cœuré, B. (2016, op. cit.) and the references given there.

[25]See IMF (2012), "The Liberalization and Management of Capital Flows: An Institutional View.", International Monetary Fund; Ostry, J., Ghosh, A., Habermeier, K., Laeven, L., Chamon, M., Qureshi, M., and Kokenyne, A. (2011), "Managing Capital Inflows: What Tools to Use?", IMF Staff Discussion Note, April 5, SDN/11/06.

[26]Taxes and subsidies on goods and services can be alternatives to transfers, see Dixit, A., and V. Norman, (1986), "Gains from trade without lump-sum compensation", Journal of International Economics, Vol. 21, pp. 111-122.

[27]See http://www.oecd.org/ctp/beps-explanatory-statement-2015.pdf

[28]See Hornok, C., and M. Koren (2016), Ibid and the reference provided there.

[29]See Campos, N., F. Coricelli, and L. Moretti, (2014), "Economic Growth and Political Integration: Synthetic Counterfactuals Evidence from Europe", IZA Discussion Paper, No 8162, April.

[30]See the ECB's Convergence Reports for a review of progress made by non-euro area Member States towards meeting the criteria for euro area membership.

[31]See Beck, R., G. Georgiadis and J. Gräb (2016), "The geography of the great rebalancing in euro area bond markets during the sovereign debt crisis", Journal of Empirical Finance, Elsevier, vol. 38(PA), pages 449-460.

[32]See "Financial integration in Europe", an annual publication of the European Central Bank.

[33]See "Building a Capital Markets Union – Eurosystem contribution to the European Commission's Green Paper", 21 May, 2015.