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Policy lecture on Heterogeneity in the euro area

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It is a great honor to take part in this stimulating conference, on top of that on a topic which is likely to attract renewed interest.

With its moving frontiers and institutions, Euro Area is by essence heterogeneous. But difference does not necessarily mean divergence.

With the eruption of the sovereign debt crisis though, heterogeneity in the euro area has reached an acme and was followed by divergent macroeconomic developments and an increase in financial fragmentation. **The question that naturally arises then is whether heterogeneity is a risk or an opportunity for the well-functioning of a monetary union.**

The monetary union was expected to reduce further the degree of divergence. The introduction of the internal market (European Union) should have led to real convergence through capital flows towards lower-income economies, and ultimately convergence in productivity. On top of that, the single currency should lead to a higher financial integration, involving economy of scale and better efficiency.

In practice, capital flows towards peripheral countries have indeed been observed, but they didn't target the more productive sectors. Recent research shows that beyond feeding real estate bubbles, the capital flows into Spain and Italy since the launch of the euro implied a deterioration on capital allocation efficiency within manufacturing¹. Another finding is that large capital inflows in small economies may induce shift of resources from the tradable to the non-tradable goods, leading to balance of payments crises². Today a high divergence remains between catching-up economies and the others, in terms of potential growth, unemployment and global real indicators.

¹ According to a recent paper of Gopinath et al. (2015)

² See Kalantzis (2015).

This being said, it is important to underline that similarity or homogeneity **is neither necessary nor sufficient for success**. As an illustration, the industrial structure of Canada is very heterogeneous, compared to the US and the EA³.

It is also important to contextualize this heterogeneity with respect to other federations. In terms of income, for instance, recent evolutions of China and Russia came with very deep growing interregional inequalities.⁴ If we compare differences among EA countries with differences among American states, the dispersion in terms of income is quite similar.⁵

On the long term, the economic and social cohesion of the single currency requires some real economic coordination in the ability to absorb shocks. It does not mean that it is realistic or desirable that all dimensions of heterogeneity vanish. However, recently, there have been sources of divergence which endanger the EA currency union. At the fiscal level or in terms of coordination, **the institutional framework has shown weaknesses**. The increasing financial fragmentation also has raised questions, and has been a high concern in terms of monetary policy response.

The euro area is a monetary union, but not a political union. One singularity of the euro area is that permanent fiscal transfers between countries are not foreseen in the current setting. This induces the need to rely on alternative mechanisms and procedures to address the adverse consequences of asymmetric shocks, or of heterogeneous consequences of common shocks.

³ See "The economics of currency unions", speech by Mark Carney (2014). This heterogeneity is measured according to the Krugman specialization index. Due to Krugman (1991), it is a measure of the extent to which a country's production patterns differ from those of a comparison group of countries. It runs from zero, if the country and group produce the same goods in the same proportions, to two if they produce only different goods.

⁴ See Heshmati (2007).

⁵ The ratio standard error/average of GDP per capita in the US is 0.4 and 0.5 in the EA. When looking at the ratio of the richest state (max of GDP per capita) to the poorest, disparities are slightly higher in the US: ratio = 5 in the US compared to 6 in the euro area in 2015.

In this talk, I would like to review some important features of heterogeneity (that *per se* is not an obstacle to a monetary union) and elaborate a bit on how the euro area functioning might be improved, given these heterogeneities.

1 Heterogeneity in the Euro Area: some key dimensions

Heterogeneity has many dimensions, it can relate to deep differences in economic structures, related for instance to institutions or demography, as well as country specific vulnerabilities exposing them to the so called 'asymmetric shocks'.

1.1 Let me start with fundamental types of heterogeneity.

The **variety of languages** comes obviously to mind. In fact, 23 different languages can be chosen on the ECB website. This feature strikingly contrasts with the US, but is not particularly specific. For instance, there are only two official languages of the Union Government of the Republic of India (Hindi, English) but, according to the eighth schedule of the Indian Constitution, 22 languages are eligible for recognition, and official encouragement.⁶ Similarly in China, the official national language is a variety of Mandarin, but Chinese comprises seven main dialects.

Language barrier is a significant obstacle to mobility; as a point of reference, in 2011, 31% of Spanish emigrants fled to South America rather than elsewhere in the world.⁷ This linguistic obstacle can be further reduced in the Euro Area since $\frac{3}{4}$ of working-age adults can speak at least a foreign language.

⁶ According to the Eighth Schedule of the Indian Constitution, 22 languages have been referred to as scheduled languages and given recognition, status and official encouragement.

⁷ Campanella (2012).

Demographic situations within the euro area are highly contrasted not only in size but also in evolution, in age-distribution or patterns of migrations. Germany and Ireland are good examples of these differences. The population of Germany is 16 times the population of Ireland⁸, the growth rate is +2% in Ireland vs -0.1% in Germany.⁹ These features are quite similar to the situation in the US.

On top of that, migration rate is quite high in Ireland while it is even not sufficient in Germany to offset the natural negative change.

This diversity may have contrasted repercussions on productivity, government expenditures (through pensions), consumption or savings ... As an illustration, the old age dependency ratio¹⁰ is 31.5% in Germany vs 19.3% in Ireland while current household savings rate is 12.7% in Ireland vs 16.4% in Germany.¹¹

We also observe disparities in the **legal framework on the markets of goods and services**. Legal systems display different behaviors with respect to settlements of litigations.

For instance, the indicators “Doing Business” from the World Bank, and OECD indicators, suggest sizeable discrepancies within the EA. It is not clear that these discrepancies are more important than in the US, in particular “Doing Business” indicators for the ‘enforcing contract’ score points to a difference between NY and Los Angeles larger than between France and Germany.

More generally, this question is linked to the divide common law/civil law. In countries under common law, the scope for assessment by the judge is larger than in countries under civil law. This could lead one to think that in countries under civil law, reforms are harder to implement. However, the reality is more complex and we cannot explain evolutions in France through this analysis

⁸ And almost 200 times the population of Malta.

⁹ Average 2006-2010.

¹⁰ Defined as the ratio of dependents -people older than 65 - to people aged 15-64 years.

¹¹ in 2014 (Eurostat).

grid.¹² The impact of such disparities is far from being insignificant. For example, it has been shown that the sluggishness of civil justice constitutes a severe brake for growth in Italy (World Bank indicator of Doing Business).¹³

1.2 Apart from these fundamental contrasts, there are also differences within reach of economic policy.

First, **levels of productivity and competitiveness** have not converged. Potential growth has not only declined with different orders of magnitude in all euro area Member States (except Germany)¹⁴, but losses in potential growth were higher for countries with relatively lower income.¹⁵ The degree of heterogeneity is thus magnified. This divergence is related to the disparity in external trade exposure. As an illustration, the share of exports with respect to GDP for Germany is almost twice the same value for France.¹⁶

Concerning **labor markets**, unemployment rates as well as their recent evolutions are highly contrasted, and this feature is not observed in the US. Unemployment rate has reached 24.3% in Spain in 2014, while it was 5% in Germany. Moreover, if efficiency of the labor market for matching between vacancies and labor supply has increased in Germany after the crisis, it is the opposite in France, Spain and Italy.¹⁷ Flexibility in labor market institutions has also exhibited diverging evolutions among countries of the EA. The example of Spain and Ireland is particularly relevant on this aspect. After the large decline in construction sector of 2008 in both countries, adjustment through wages in IE has led to a fall in unemployment while adjustment through jobs in ES has implied a drastic increase of unemployment.¹⁸

¹² Cf. Acemoglu et al. (2009).

¹³ Bripi (2013).

¹⁴ Over the 2007-2013 period.

¹⁵ According to the European Commission report quarterly 2014, n°2.

¹⁶ around 45.6% (2013) in Germany vs 28.3% in France, according to the European Commission Report 2014, n°2].

¹⁷ As measured thanks to the “Beveridge curve”.

¹⁸ Structural reforms have been undertaken with success since.

Countries in the EA exhibit also **huge discrepancies in financial evolutions and conditions**. As an illustration, the evolution of bank lending to firms and households has been highly contrasted. As a proxy, after the crisis the ratio of corporate debt to GDP ¹⁹ decreased in Germany, decreased as a very slow pace in Italy increased in France, and decreased drastically in Spain (after having soared in the run-up to the crisis). Everybody has in mind the fragmentation episode of 2012 affecting the cost of credit. The high dispersion of sovereign spreads has resulted in huge differences in financial conditions across countries. This dispersion has not only affected the cost of credit but also the confidence in the robustness of banks. Moreover, financial integration as measured by cross border lending has drastically decreased since the crisis.²⁰

Finally, it is worth underlining the heterogeneity in **current account and fiscal situations**. France and Germany represent a good example of sizeable differences in fiscal situation. Concerning the government deficit, France does not succeed in complying the 3% limit since 2007, while Germany is close to balance. Regarding the current account imbalances, Germany has a surplus of 7% while France experiences a slight deficit.

2 Policy considerations

With this picture in mind, it is time now to address policy considerations.

¹⁹ Computed as the indebtedness of non-financial corporations (debt securities, loans, general government liabilities deposits) in percentage of GDP.

²⁰ Except for Spain, all the Eurozone banks have reduced their activities abroad (both inside and outside the EA). See Bologna and Caccavaio (2014), de Sola Perea and Van Nieuwenhuyze (2014). In particular, financial integration is a measure based on the consolidated exposures of the national banking system published by the BIS.

Sharing monetary policy and exchange rate deprives economies of adjustment tools both in the face of asymmetric shocks and in the face of common shocks that have different repercussions due to national structural differences.

In a monetary union, other sources of adjustment are then to be fostered. I will consider two necessary conditions supporting a quick and ordered recovery:

The first condition is that countries are individually flexible enough for rebounding rapidly from downturns.

The second condition is the existence of risk sharing mechanisms that contain the magnitude/length of downturns. Risk sharing is here to be understood in a broad way, as any form of transfers, be them private financial flows or public stabilization policies. I'll come to that later.

2.1. Regarding the first condition: how to support resilient and flexible economies?

Overcoming asymmetric shocks necessitates flexibility for the relative prices to adjust quickly and boost competitiveness. In that context, structural reforms are key as they improve the ability of countries to rapidly adjust when hit by an adverse shock. Mario Draghi has eloquently developed this point in Sintra. Let me focus on 2 issues having to do with labor.

wage and labor flexibility

Part of the internal adjustments must go through price flexibility and adjustment of wages. This is important for minimizing adjustments through unemployment [that is particularly costly since human capital depreciates rapidly when workers are unemployed].

The question of the appropriate level and design of minimum wage can be raised. On one hand, downward wage rigidities might have considerable short-

term employment costs in a depressed economy. On the other hand, recent research shows that *flexible* and appropriate minimum wages have only a small adverse effect on employment. And they could reduce the cost of economic adjustment that, otherwise, disproportionately weighs down on low-paid workers.²¹

Beside wages, labor market segmentation is another source of rigidity that might slow down the adjustment. The segmentation between permanent workers (insiders) and the non-regular workers (outsiders) [who do not benefit from the same degree of protection against contract termination], might limit the ability of firms to adjust labor cost in downswings.

As an example, the OECD²² provides evidence that the wages of new hires tend to be much more responsive to the cycle than those of incumbent workers.

Along the same line, the heterogeneity across labor courts [i.e. heterogeneity in terms of the court ruling and the length of the legal procedure] produces uncertainty regarding the cost of contract termination. Firms are constrained on their ability to adjust labor force in bad times. In good times, uncertainty restrains employers in hiring new workers.

To wrap-up, labor market reforms are crucial to create a flexible environment necessary to strengthen countries' resilience to shocks.

Improving factor (especially labor) reallocation

Factor mobility is another useful source of adjustment. The role of migration as an adjustment tool in response to local specific labor demand shocks used to be much larger in the US compared to the EA.

²¹ OECD (2014). *Employment Outlook* report.

²² OECD (2014). *Employment Outlook* report.

As an example the percentage of persons who lived a year ago in a different state, accounted for almost 3% of the total population in the United States in 2005/2006 while it was only about 0.17% within the European Union.²³

Recent studies have highlighted since 2007 both a fall in interstate migration in the US and a rise in inter-country migration in Europe.²⁴ As a result, the gap in labor mobility between the US and the European Union has been partly reduced. Still the ratio remains of one tenth in 2011 (2.7% in the US versus 0.2% in the EU).

In fact **labor mobility in Europe is mainly driven by flows from non-euro area members** (in particular from new EU member states, entered in 2004²⁵ and 2007²⁶, who often do not belong to the euro area).

Moreover, a significant part of the mobility within the euro area comes from immigrants from third countries (either non euro area citizens, or immigrants who have taken on the citizenship of their Eurozone host country).

Thus greater cross-country mobility should be encouraged in the euro area in order to optimally reallocate resources toward firms, sectors and countries where there are the more efficiently used. The question is then: How?

The report of Enderlein and Pisani (2014) is of special interest in the context of this conference as it precisely focuses on France and Germany. Their proposals are primarily addressed to France and Germany, but could be extended to the euro area as a whole.

For instance: achieving perfect cross-border equivalences in skills and diploma, as well as a higher portability of social advantages as health

²³ From Jauer et al. (2014)

²⁴ Cf. Jauer et al. (2014) or Beyer and Smets (2015).

²⁵ Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia, and Slovenia

²⁶ Bulgaria and Romania

insurance, pension contribution, grants, or professional training ... These are very concrete policy actions that would facilitate cross border movements.

On top of that, I have stressed before the problem of language barrier in the EA. Language skills of European workers should obviously be improved.

So far I have focused on measures –structural reforms- facilitating a quick rebound in the aftermath of an adverse shock. Let me now turn to a complementary dimension: how to dampen/absorb the cost of the adjustment and reduce the risk of a protracted recession through risk sharing?

2.2. How to make risk sharing more effective? And first why are risk sharing mechanisms needed?

Why? Because, absent the exchange rate tool, internal adjustments are generally slower - since relative prices cannot adjust instantly. The slower the adjustment, the more costly a negative shock in terms of domestic consumption and the higher the probability of protracted recession. Risk sharing mechanisms (either public or private) are crucial for absorbing temporary shocks and achieving consumption smoothing. They can significantly contain adverse hysteresis effects.

Private risk sharing

Regarding private risk sharing, the idea is simply to spread risk across regions/sectors/agents.

- 1) In theory, more diversified financial portfolios (i.e. when domestic residents do hold more foreign assets) make their consumption less volatile and less sensitive to shocks affecting domestic income.²⁷

²⁷ Jappelli and Pagano (2008), Schoenmaker and Wagner(2013).

Private risk-sharing has been shown to significantly attenuate impacts of local shocks in the US. But it has proven lower efficiency in the euro area (see *Furceri and Zdzienicka, 2013*²⁸).

Greater diversification is critical for absorbing income shocks.

- 2) A second aspect of risk sharing regards agents' ability to smooth consumption [for a given income shock].

In theory, when a shock hits one region in a monetary union, agents (firms and households) whose income is falling would like to borrow from countries that are less distressed. Smoothing the negative income shock should in turn moderate the drop in demand and reduce the probability of a downward self-fulfilling spiral.

In practice, cross-country risk sharing has been limited in the euro area because of **credit market fragmentation**. Fragmentation materializes when the access to credit does not any longer depend on *who* you are (i.e. the actual creditworthiness of a SME/ household/bank) but from *where* you are.

Borrowing from a bank or a non-bank domiciled in another member state has proven too difficult in the euro area. This is inefficient.

- 3) Fragmentation has also to do with the banks' access to financing. It comes from the difficulty for the market to properly evaluate the financial soundness of very heterogeneous banks. During the crisis, we have observed that the market assessment of individual issuers, be they banks or non-financial corporations, largely depended on the confidence toward the associated sovereign. Fragmentation, that we can approximate by cross-borders differences in the cost of finance of issuers that have similar risk characteristics, has reached very high

²⁸ "Risk sharing mechanisms in the euro area are not able to provide a level of insurance against normal business cycle fluctuations comparable to the one in the United States".

levels at the heights of the euro area sovereign crisis in 2011 and 2012. This is unfortunate because such deviation from the law of one price for financing conditions within the euro area constitutes a diverging force across euro area member states. Fortunately, and in part in response to the OMT that Mario Draghi launched in September 2012, financial fragmentation has nearly disappeared in the euro area, as shown by recent Eurosystem research.

- 4) Limited risk-sharing also comes from the relatively incomplete capital markets. This is especially true for equity markets in the euro area. Note that less than 45% of equity issued in the euro area is held by other euro area residents.²⁹

Thus, progressing on Capital Market Union in Europe should be an objective, even though I am aware that addressing barriers to capital market integration is a long and difficult task.

The Eurosystem has taken decisive steps to address the problem of fragmentation. Banking Union has already been effective in reducing uncertainty about the health of the sector.

The Single Supervisory Mechanism also allows for decoupling the situation of banks from the fiscal conditions of their sovereigns. A centralized/harmonized quality certification will support market confidence.

One difficulty related to private risk sharing is that it might prove limited efficiency during a severe downturn (it exhibits a typical pro-cyclical pattern since credit markets usually collapse during financial crises). Even if financial mechanisms for banking crisis prevention and resolution may reinforce the role of credit in providing risk sharing in times of financial stress, other risk-sharing channels are required: let's consider the case of public risk sharing.

²⁹ Cf. ECB (2015).

Public risk sharing

What about public risk sharing?

The Euro Area differs from federations (like the US) in that there is no significant centralized fiscal budget. I'll discuss *first* the important role of **national fiscal stabilizers** [I will turn to the question of **supra-national risk sharing** later on].

Public risk sharing at the national level

At the national level, public risk sharing basically involves ensuring sound national fiscal policies that can effectively play a counter-cyclical stabilizing role when needed.

Two conditions have to be fulfilled for national fiscal stabilizers to be effective:

(1) The first one simply entails building fiscal buffer.

This means improving fiscal balance sufficiently in good times to have leeway for counter-cyclical action in bad times.

Historical counterfactuals that are conducted by Martin and Philippon (2014) (in a paper that will be presented at this conference) are a good illustration. They show the gain for peripheral countries to follow more forward-looking fiscal policies, in particular in terms of employment.

Obviously, the situations in France and in Germany are highly different in that respect. France (with government balance to GDP ratio of -4.0% in 2014) has still to deliver on fiscal consolidation to rebuild adjustment buffer.

(2) The second condition is credibility.

Credible fiscal governance is required so that stabilization might happen in downturn without disrupting confidence. As soon as fiscal policies start being perceived as unsustainable, confidence loss triggers an adverse feedback loop.

Borrowing costs rise and governments' market access becomes constrained at the very moment they should implement contra-cyclical policy.

To sum up, if not credible enough, fiscal policy exposes to becoming pro-cyclical at the moment counter-cyclical buffers are the most needed.

Public risk sharing at a supra national level?

Are sound national public stabilization policies a sufficient condition for countries that belong to a monetary union? Or do we need more supra-national public risk sharing? In that case, what is "more"? Deeper coordination or actual cross-country risk sharing?

As countries/regions are by construction deeply interconnected in a monetary union, **coordination on the stance of different national budgets certainly helps** stabilizing the economy undergoing a downswing.

But the recent European experience has shown that in case of an exceptional large shock, domestic fiscal policies might reach a limit and cannot fully offset output shocks.

In addition, counter-cyclical expansionary measures, if they occur on an already high level of debt, may jeopardize the public debt sustainability³⁰. This would potentially threaten the stability of the entire monetary union.

In that context, the question of moving toward closer Fiscal Union might be raised. What does Fiscal Union exactly mean and to what extent could it help?

³⁰ Furceri and Zdzienicka, 2013

A first form of fiscal union has been recently discussed among institutional circles (IMF was an early proponent). It consists in mutualizing the automatic stabilizers at a supra-national level. A concrete example could be a European unemployment insurance.³¹ The underlying idea is the following: temporary cross-border transfers would alleviate the burden for the country experiencing a severe downturn and reduce the probability of adverse hysteresis effects. Ultimately, this would be beneficial for the monetary union as a whole.

However, **such a fiscal union, aiming at accommodating asymmetric shocks, would work only under very specific conditions:**

- 1) The risk of moral hazard would have to be overcome. Cross-country risk sharing should not substitute or postpone the necessary structural reforms that are *sine qua non* conditions for economic prosperity.
- 2) For transfers to be temporary and not permanent, countries would have to be structurally homogeneous, so that the beneficiaries of federal transfers are uniformly spread.

If those conditions are not met, there exists a risk of polarization that goes in the opposite direction to the initial goal.

The answer to whether those conditions might be fulfilled in a near future is beyond the scope of this speech. At least, we would need to see closer convergence in euro area members' economic situations which requires achieving structural reforms in countries that still exhibit rigidities.

³¹ See for instance the proposal from the IMF of a common unemployment insurance (IMF, 2013). See also the proposal by Lellouch et al. (2014) or the CAE (2013) note.

Last, a deeper form of fiscal union involves permanent/systematic cross-region transfers (as in a federations), but it is fair to say that this perspective, be it desirable or not, is not at the euro area agenda for today.

Conclusion Let me briefly conclude.

1. First, heterogeneity is compatible with a monetary union. The degree of heterogeneity within the euro area does not make it unique in that respect.

2. Under the pressure of the crisis, the Euro system has taken decisive steps toward improving the functioning of the euro area.

- The crisis has “forced” countries to speed up the reform process and this move (even if it occurs under pressure) should contribute to greater convergence within the euro area. This process unavoidably takes a long time.
- Euro system has also taken measures in order to reduce fragmentation and recover a well-functioning transmission of the monetary policy. The financial situation in the euro area has improved dramatically.
 - Spreads on government bonds have fallen.
 - Interest rates on corporate and bank bonds have also converged substantially.

3. The euro area has gone through a terrible crisis and it has proven effective in reacting promptly to new circumstances. The current encouraging improvements in euro area economic perspectives [March 2015 ECB forecast GDP growth of 1.5% in 2015, 1.9% in 2016] are a good sign.

But weaknesses still remain.

- I am thinking in particular of the unemployment rates that remain at intolerable levels in too many countries.

- Also, the recovery is mainly supported by cyclical factors (as lower oil prices, relatively strong external demand –partly due to the euro’s depreciation)...

So my message is: efforts should be pursued. The reforms I have just talked about are necessary for paving the way to long-term solid and sustainable growth.

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