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The GIIPS Countries in the Great Recession: Was it a Failure of the Monetary Union?

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Abstract

Drawing from the debate between the “German” and the “Keynesian” views about the reason for the Euro Area slow recovery after the 2008 financial shock, I discuss different claims about why and if this is a consequence of the Monetary Union institutional failures, and investigate some key factors that are considered to be good predictors of the prolonged and deep recession involving peripheral Europe.

Introduction

Thirteen years from the beginning of the great recession, the US and the Euro Area (EA) economies look different. The US GDP in 2020 is 24% above the 2007 value, whereas the average GDP across the EA is only 11% larger. There are many potential explanations for the disappointing performance of the EA: long run structural problems, regulatory failures and lack of appropriate fiscal and monetary policies. Most commentators and scholars highlight the last two as the main culprits¹.

Whatever the explanation, we should keep in mind that the financial crisis that started in 2007 in the US with the Lehman Brothers' collapse (the first financial shock) was followed in 2011 by a second financial shock, the sovereign debt crisis, from which the US was immune. Hence, one may say that the EA's recovery is still behind the US for the simple reason that the EA underwent two recessions in a row (the “double dip recession”). To be sure, the EA sovereign debt crisis was not an exogenous phenomenon, but, quite likely, a consequence of the incomplete institutional framework underpinning the European Monetary Union² (EMU). However, identifying specific failures is not an easy task. Is it the lack of fiscal integration? Or the segmentation of financial markets (e.g., banks' limited opportunities for diversifying assets across borders)? Or the inability of national governments to produce enough precautionary (national) savings? Or the “absence of credible and timely policies to backstop financial intermediaries and sovereign debt markets” (Corsetti et al. (2019), p. 1)?

In this paper I will not try to solve these dilemmas, or advance a well-defined answer to these questions, but, more modestly, shed some doubt on the idea that a “policy failure” is the main reason for the EA's slow recovery. Here I use the term “policy failure” to define a situation in which the available instruments, such as monetary and fiscal policies, are not used at full potential. In particular, the ECB may have failed in responding in a timely and effective way right after the financial and banking crisis initiated in 2008, or the European Institutions may have forced the countries that were hit the hardest by the financial shock to enact strongly pro-cyclical fiscal consolidations that could have been avoided in the absence of the Stability and Growth Pact (SGP). By downplaying the role of policy failures I am not saying that the sovereign debt crisis was exogenous or unescapable. I would rather suggest that it could be hardly addressed using traditional (fiscal and monetary) policy tools, given existing political constraints and the absence of a centralized political authority. For instance, scrapping the Stability and Growth Pact (SGP) in 2010 may have exacerbated the speculative attacks on the peripheral Europe sovereign debts and magnify the credit

¹ According to Corsetti et al. (2019), “the incomplete development of the euro area constrained the ability of the ECB and other European institutions to do” what has been done in the US by the Federal Reserve and the Federal Government.

² For instance, according to Bénassy-Quéré (2015), “the crisis in the Eurozone since 2010 is not a mere side effect of the 2008 Global Crisis. It results from a flawed construction that dates back to the Maastricht treaty. It took some time for unprepared Europeans to understand that, to a large extent, the crisis was endogenous to the monetary union” (p. 72).

crunch, or providing Greece with more fiscal space in 2011 may have entailed significant fiscal transfers from EA countries in precarious financial conditions. Clear enough, I am not even ruling out the possibility that fiscal and monetary policies could have been more accommodative in the aftermath of the second financial shock. For instance, with the benefit of hindsight, one can argue that the Italian government should have diluted the fiscal policies enacted in 2011 to respond to the speculative attack on sovereign debts (“decreto Salva Italia”) and the European Central Bank (ECB) should not have raised the policy rate by 25 basis points in the same year. These measures were probably guided by an under-appreciation of the depth of the second recession³. However, the importance of these “mistakes” appears to be minor on a medium-long term perspective, and in light of the following policy adjustments.

Then, the term “institutional limits” is a better way to understand why some part of the EA was hit by a second recession that the US was able to escape, and the absence of central institution for financial assistance and risk sharing before the crisis is part of the problem. The creation of the ESM in 2012 and the evolution of the ECB monetary policies prove that these institutional limits can be overcome to some extent, and that some degree of public mutualization across the EA can be achieved. But the institutional limits of the EA cannot be totally eliminated because they arise from the limited political authority and legitimacy of the European institutions and the limited devolution of powers from member states to a central authority. Many economists have proposed new mechanisms to increase risk mutualization across the EA, but these proposals are all failing to address the rule enforcement problems. In particular, almost all proposals of an EA centralized public insurance mechanism require member countries to adopt a counter-cyclical fiscal policy, i.e., that they raise revenues in good times, and political economy models suggest that this objective is hard to achieve under limited enforcement. Given these constraints, the ability of the EA to avoid a financial meltdown during the sovereign debt crisis should be characterized as a “success” more than a “failure”.

Impact of the Crisis

In what sense the performance of the Euro Area (EA) has been worse than the US? I take the latter as a natural benchmark for the EA, since the US is endowed with the institutions and policy instruments that are lacking in the EA, such as a centralized fiscal capacity, a central bank with a clear mandate to stabilize output and a fully integrated financial system and regulation mechanism. As I said earlier, there is no doubt

³ Hartmann and Smets (2018) justify the ECB move by pointing out that the “euro area economy had grown at a quarterly rate of 0.8% in the first quarter of 2011, and the economic analysis revealed some upside risks to price stability. In fact, inflation had risen to 2.6% in March 2011 (and actually reached 3% toward the end of 2011, way above the medium term objective below but closed to 2%)” (p. 29).

that the EA is unique in having experienced a double deep recession triggered by the sovereign debt crisis, whereas the US has been recovering ever since the outbreak of the 2008 financial crisis. Ten years after that episode, the overall financial condition of the Euro Area (EA) appears to be stabilized, and, with some exceptions, characterized by a sharp reduction of interest rate spreads across sovereign bonds, although financial markets remain substantially fragmented across EA countries and the consequences of the double deep recession are still lingering.

To evaluate how the Eurozone has fared in terms of GDP growth compared to the US, it may be useful to look at figures \ref{fig1} and \ref{fig11}. The former shows the values of the GDP quarterly growth rates for the US and the EA (19 countries) in the interval 2006-2014 and the latter reports the gap between the US and, respectively, the EA average (17 countries) and the GIIPS (Greece, Ireland, Italy, Portugal and Spain) GDP growth rates in three different time intervals: the ten years preceding the big recession, the crisis and the post crisis periods.

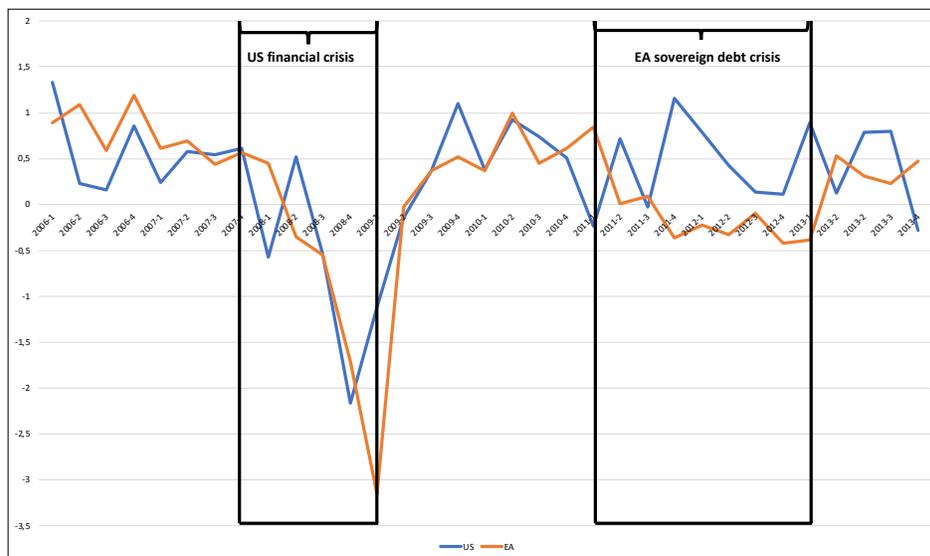


Fig1: GDP quarterly growth rates (OECD).

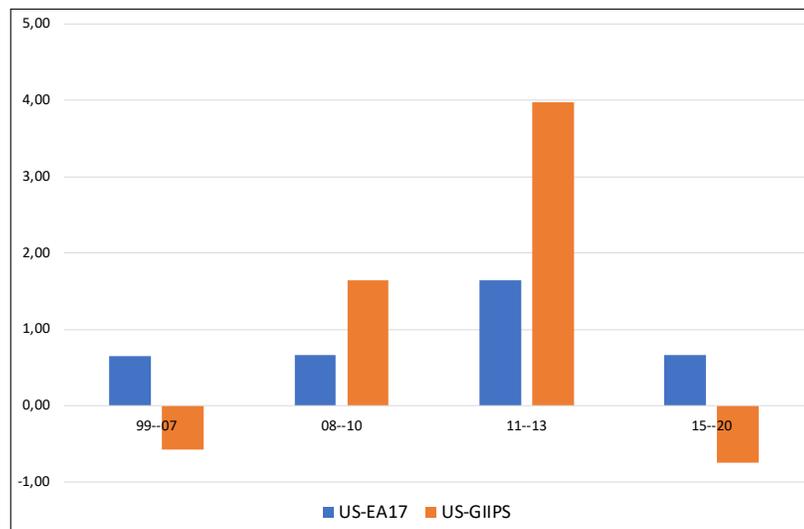


Fig. 2: Gap between the US and the EA17 GDP and between US and GIIPS annual growth rates (averages) in different intervals (OECD).

Figures 1 and 2 suggest that there is a “long-run” persistent gap between the US and the EA GDP growth rate at around 0.6 percentage points and that this gap widened during the second financial shock only. In other words, the behavior of the GDP growth rates in the US and the EA in the recovery phase appears to reflect long-run trends, a part from the fact that the EA's GDP fell more than the US's right after Lehman and that the US GDP was not affected by the EA sovereign debt crisis. Figure 2 also shows the average GDP growth gap between the US and the GIIPS countries. Based on these numbers, we learn that the GIIPS have grown faster than the US (close to a half percentage points) both before and after the double deep recessions (1998-2007 and 2015-2020), but the gap became positive and particularly large in the two financial crisis, especially in the second.

These numbers suggest that the relevant comparison between the US and the EA should be based on the degree of risk sharing across the states and countries belonging to the two federations, not so much on the aggregate performance. In other words, the real issue, when evaluating the fragility of the EA, is that there has been a substantial decoupling between the performance of the countries belonging to core Europe (i.e., central and Northern Europe) and peripheral Europe. I should note that this evaluation is not shared by Corsetti et al. (2019), where it is claimed that the US “recovery commenced earlier, already in 2009, and .. it was sustained more successfully” (p. 2). As I said earlier, this judgement is based on the idea that the

sovereign debt crisis could be avoided by a more active monetary policy or a coordinated fiscal expansion⁴. However, a realistic assessment about the ability of super-national monetary and fiscal policies to contain the effects of a “sudden stop” of capital flows to some member countries within a federation, should take into account the specific economic, institutional and political features of that federation. In particular, the US and the EMU are very different entities, particularly because, in the EMU, national governments' fiscal policies are subject to limited restrictions. I will return to this issue in a later section.

Two Views about the EMU crisis

Before analyzing the main factors explaining the performance of the GIIPS countries, it is useful to summarize the leading interpretations of the 2010-2013 sovereign debt crisis. Experts and policymakers have two opposing views about the latter and the appropriate preventive policies that could avoid a repetition. I will label them the **German view** (GV) and the **Keynesian view** (KV). According to the former, the sovereign debt crisis was the consequence of the real imbalances across the EMU countries prior to the crisis (fiscal and external), the loss of competitiveness of the peripheral countries (unit labor costs), the implicit public guarantees (lack of credibility of the no bail out rules) that fuelled private investors' overconfidence and the lack of (cross countries) asset diversification by national banks and their excessive exposure to domestic risks. This diagnosis leads to the following policy objectives:

1. implement structural reforms, fiscal consolidations and internal price adjustments in peripheral countries to address excessive imbalances;
2. induce more mergers and acquisitions in the banking sector and force banks to reduce their exposure to domestic risks (including sovereign debts) to deepen financial markets integration and go forward on the road to a safe banking union.

The basic idea underlying the GV is that moral hazard and weak institutions are the main problem in the EMU and that countries that were mostly in trouble in the 2011-2013 crisis were victims of their own mistakes. The latter are, in fact, a replica of the same policy failures that were at origin of the repeated devaluations and confidence crisis in the 80s and 90s. In fact, as highlighted in De Grauwe and Ji (2018), “the countries whose currencies experienced devaluation risks in the 1990s were also the countries that experienced sovereign debt crisis” (p. 2). As a corollary of the above arguments, the GV states that

⁴ Corsetti et al. (2019) also base their claims on the consideration that the US approached full employment already in 2017, whereas the unemployment rate in the EA remained high for a long period. However, unemployment also reflects different institutional frameworks in the two areas.

enhancing policies for greater risk sharing within the EMU is a second order objective and, in some cases, non-advisable, as it may encourage moral hazard and reduce incentives for fiscal discipline.

What are the main counter arguments to the GV? I will try to summarize various statements put forward by a number of distinguished economists that more or less belong to the Keynesian tradition (among them are De Grauwe (2018) and Corsetti et al. (2019)) and attribute them to the KV. The basic idea is that the 2010-2013 sovereign debt crisis was the consequence of a “boom-bust” episode produced by a swift reduction in real interest rates in peripheral Europe and excessive leverage and capital inflows due to financial exuberance (a failure of capital markets). Speculative attacks and panics like these ones are mostly self-fulfilling episodes that can be largely contained through lender of last resort type of policies and a stronger mutual insurance across the EMU. In fact, some of the advocates of the KV start their analysis from some facts that are supposedly contradicting the GV. The facts are the following.

- There is little evidence of fiscal irresponsibility in the run-up to the crisis in peripheral Europe, implying that the crisis was not a consequence of fiscal profligacy or institutional failures.
- Absent a common central fiscal authority with sufficient fiscal capacity, the limited mandate of the ECB and the inability to depreciate the currencies, the financial shock that has triggered the crisis produced large country-specific fiscal imbalances and a long lasting balance sheet recession.

More specifically, boom-bust financial cycles are particularly harmful in the context of an irrevocable fixed exchange rate regime, a regulatory framework that leaves very little space for central banks interventions, lack of fiscal and financial integration and limited borrowing capacity. After the sudden repatriation of capital flows in core Europe, banks and sovereigns in peripheral Europe were left on their own, fiscal policies were given the multiple tasks of rescuing the banks, making space for rising interest payments and unemployment subsidies, and limiting the size of fiscal deficits to fend off speculative attacks.

Some of the above facts are certainly indisputable, although it cannot be denied that other facts provide ammunition to the GV. In particular, some countries in peripheral Europe (especially Greece and Italy) did experience imprudent fiscal policies (at least relative to the level of debt and public spending inherited from the past), all peripheral countries (in different degrees) lost ground in terms of unit labor costs and real exchange rates relative to core Europe and, with some delay, European institutions did offer a range of instruments to limit the fiscal burden on peripheral Europe's governments and the banks' liquidity needs. Whether the size of these intervention was appropriate is clearly an important question to which I will return in a moment.

GIIPS Countries: Not a Single Story

To evaluate the pros and cons of the GV and the KV, it is important to remark that the GIIPS countries suffered from the great recession in different degrees. Table 1 provides the percentage points by which each of the GIIPS countries' real GDP was below the level achieved at the beginning of 2007 up to the beginning of 2013 (short horizon) and 2020 (long horizon). With the notable exception of Greece (and, less notably, of Ireland), the output loss at short horizon is relatively homogeneous, but the one at long horizon and the average growth rates for the last 18 years offer a very different picture, with two countries, Greece and Italy, being down in terms of real GDP after more than a decade from the beginning of the recession, one country, Portugal, slightly above, and the remaining two countries, Ireland and Spain, being, by different degrees, substantially above the 2007 GDP level. What explains these different patterns?

Recall that, according to the GV, the GIIPS countries were hit by the sovereign debt crisis because of fiscal profligacy and loss of competitiveness, whereas, according to the KV, they were victims of a “speculative” sudden stop in financial flows that generated banking crisis and fiscal deterioration caused by a surge in interest rate spreads. However, the numbers that I am about to show suggest that neither of these two stories is truly convincing. To shed some light on these questions, I consider four possible explanatory variables for the output losses at long horizon. All of these variables pertain to the performance of the GIIPS countries in the “boom” period 2000-2007, i.e., the nine years before the crisis during which interest rate spreads narrowed and capital flowed to peripheral Europe.

Country	% Real GDP loss (-) or gain (+)		Aver. Yearly real GDP growth
	'07-'13	'07-'20	'08-'20
Greece	-26.4	-20.7	-1.34
Ireland	-2.3	+73.9	4.62
Italy	-8.6	-3.8	-0.15
Portugal	-7.6	+4.9	0.54
Spain	-7.9	+11.0	0.93
GIIPS Average	-10.6	+12.7	0.92
EA 17	-1.5	+11	0.97

The first variable is called **primary surplus shortfall**, and it is equal to the average difference between the **primary surplus necessary for debt stabilization** and the effective cyclically adjusted primary surplus. In turn, the primary surplus for debt stabilization at period t is

$$s_t = 1.34 \times d_t$$

where 1.34 is a “long run” estimate, taken from Spinelli and Turner (2012), of the difference between the long term rate on government debt and the nominal GDP growth for the EMU economies and d_t is the debt-GDP ratio. Note that the eighteen year averages ('00-'18) across the GIIPS countries of the long term interest rate and the real GDP growth rate are about 4.8 and 1.5, respectively. Hence, with inflation slightly below 2% and considering that the current period is characterized by very low real rates, the 1.34 value is not far from the average of the last twenty years. The second variable is banks' leverage as a percent of net value added, the third is external borrowing (i.e., minus the net international investment position) as a share of GDP and the fourth is the annual growth rate of the unit labor cost.

Tables 2 shows the country-specific indexes as well as the GIIPS averages from 2000 to 2007 and table 3 the correlation coefficients between each of the listed variables and the output losses at long and short horizons. From table 2 we derive that Greece and Portugal had the highest fiscal imbalances and Ireland and Italy the least. Note that the fiscal situation of Italy is somewhat ambiguous. According to my measure of fiscal imbalances, Italy has been relatively prudent because the effective cyclically adjusted government surpluses did not fall short of the levels that would be required to stabilize public debt under the selected scenario. However, due to the high level of debt, Italian governments' deficits have been consistently higher than most GIIPS countries and the government surpluses not sufficient to bring down public debt towards the 60% level established by the Maastricht treaty and the fiscal compact. Internal financial fragility measured as banks leverage was highest in Ireland, Portugal and Spain, but relatively low in Greece and Italy. External financial fragility measured by foreign net liabilities was mostly a problem for Greece and Portugal (and to a lesser extent for Spain), but not for Ireland and Italy. Finally, the countries that experienced the highest rise in unit labor costs were Ireland, Greece and Spain, but this measure of lost competitiveness is the only one that is relatively homogeneous across the GIIPS. In general, this set of data produce a largely heterogeneous account of the pre-crisis trends for the GIIPS countries. For instance, Greece experienced fiscal and external imbalances but very little internal financial fragility, whereas Ireland had the opposite experience.

	Greece	Ireland	Italy	Portugal	Spain	GIIPS Av.
Primary Surplus shortfall	3.51	-1.06	-0.27	3.13	0.14	1.09
Banks Leverage (% of net VA)	5.90	13.12	5.21	10.25	9.03	8.52
External Borrowing (%GDP)	8.95	1.38	0.60	8.08	5.18	4.84
ULC (% growth)	3.62	3.77	2.61	2.56	3.21	3.15

	Primary Surplus Shortfall	Banks Leverage	External Borrowing	ULC Growth Rate
Short Horizon ('07-'13)	0.72	-0.66	0.65	0.24
Long Horizon ('07-'20)	0.67	-0.87	0.55	-0.44

Table 3 shows simple pairwise correlations of the four indexes with output losses at short ('07-'13) and long ('07-'20) horizon. The number of observations is too small to be able to make rigorous statements. However, it is interesting that average banks' leverage in the boom period ('00-'07) appears to be negatively correlated with the size of output losses at short and long horizons and this correlation is particularly strong in the case of long horizon. The other relatively large correlation relates the output loss with the primary surplus shortfall. In this case the correlation is positive.

To summarize, the boom-bust cycle interpretation of the sovereign debt crisis does not fit the GIIPS countries homogeneously, and, even if we view high banks leverage and external borrowing as key determinants of the sovereign debt crisis, these factors play a very limited role in the post-crisis downturn at medium-long horizon. I must admit that, given the limited number of observations, these results have limited value for our understanding of the general nature of sovereign debt crisis more generally. However, I take them as suggesting that taking averages across GIIPS countries may not be a good idea.

Fiscal Consolidation and Internal Devaluation

One of the central claims of the KV is that the depth and duration of the recession in the GIIPS (especially Greece, Italy and, to a lesser extent, Portugal) has been a consequence of the excessive fiscal consolidation and internal devaluation. There is no doubt that the fiscal consolidations after the second financial shock had strong negative effects on output. According to most estimates, the output loss hovers around 5-7% compared to a scenario in which consolidation did not take place at all. Figure 3 shows that the patterns of

the government deficits for the US and the GIIPS (average) in 2000-2017 are very similar. Given that the US did not experience a second financial shock in 2010, this similarity implies that the GIIPS countries fiscal policies were excessively pro-cyclical in 2010-2013.

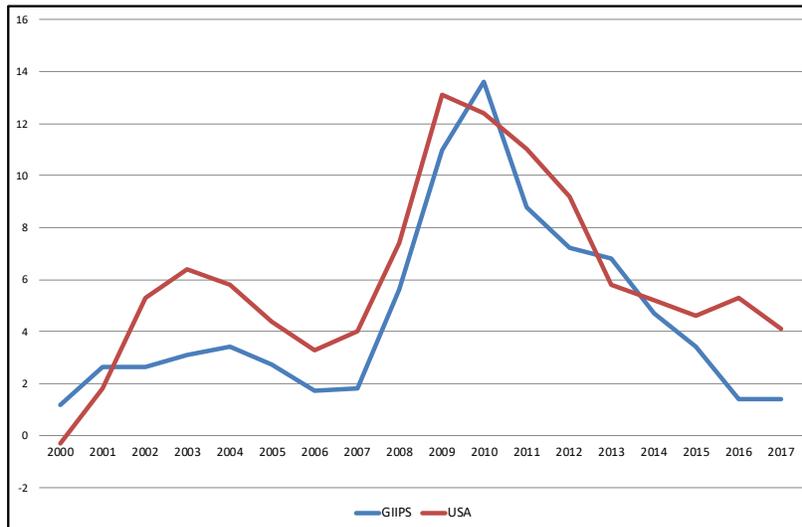


Fig. 3: Governments deficits, USA and GIIPS, 2000-2017

Table 4 reports a measure of the intensity of fiscal consolidation (measured as a change in budget balance and discretionary fiscal measures) and of internal devaluation (measured as the negative growth of compensations for employees) in 2011-2013 for each of the GIIPS countries⁵. The intensity of fiscal consolidation is positively correlated with the output loss at long horizon (correlation equal to 0.73) and the intensity of internal devaluation moderately and positively correlated with the output loss at long horizon (correlation equal to 0.61). However, both correlations almost vanish when Greece is excluded. Furthermore, the case of Italy stands out as a factor that contradicts, to some extent, the KV. Namely, despite the exceptional length and depth of the crisis, Italy experienced a relatively mild fiscal consolidation and internal devaluation.

⁵ Both data are taken from the European Commission. The fiscal measure is a simple average of three distinct values reported in \cite{heimberger} and taken from the European Commission. The values are the 2011-2013 changes of the structural budget balance (in % of potential output), the primary structural budget balance (in % of potential output), and of the discretionary fiscal measures (in % of nominal GDP).

Tab. 4: Adjustments.					
(Data for consolidation are from Heimberger (2016). Data for internal devaluation are from OECD).					
	Greece	Ireland	Italy	Portugal	Spain
Fiscal Consolid.	14.24	4.94	3.69	8.59	6.17
Internal Deval.	3.5	-0.05	-1.3	-0.22	-0.6

A more careful analysis reveals that fiscal policy was significantly counter-cyclical between the first and the second financial shock (2007-2009) and it became pro-cyclical (i.e., excessively restrictive) right after the second financial shock (2010-2013). This follows from considering the correlation between the output gap (OG) and the cyclically adjusted primary budget balance (CAPBB) of the GIIPS countries and the US. The correlations are shown in table 5 for the intervals '07-'13 and the two sub-intervals '07-'09, '10-'13. A positive correlation implies that fiscal policy has been counter-cyclical and the correlations can be defined as measures of the degree of **counter** or **pro** cyclicity of discretionary fiscal policies.

Tab. 5: Correlations between OG and CAPBB (IMF)			
	2007-2013	2007-2009	2010-2013
Greece	-0.89	0.96	-0.98
Ireland	0.12	0.81	0.10
Italy	-0.37	0.95	-0.90
Portugal	-0.53	0.99	-0.96
Spain	-0.25	0.86	-0.99
GIIPS av.	-0.53	0.92	-0.99
USA	0.80	0.98	0.98

The table shows that, while the GIIPS countries and the US have followed countercyclical discretionary fiscal policies to a similar degree right after the first financial shock, they followed different types of policies after the second shock. Namely, the GIIPS countries reverted to pro-cyclical policies in 2010-2013 whereas the US fiscal policies remained counter-cyclical. Since the Monetary Union is not a political federation with a (large enough) centralized budget and a federal public debt, the 2011-2013 consolidation was basically unavoidable, as the GIIPS governments were losing market access or paying excessive interest rates on their debt.

We should add two **caveats** to the above observations. The first is that a comparison between the CAPBB of the EA and the US should take into account the fact that automatic stabilizers in the EA are much more important than they are in the US. This implies that discretionary fiscal measures play a more important

role in the US than in the EA. Furthermore, all GIIPS governments, with the exception of Italy, were provided with large amounts of public funding from the ESFM and ESM. In table 6, I report the amounts of these public funding (the IMF being excluded) between 2010 and 2018 both in euro and in percentage of the countries' GDP in 2012. Note that, to have an estimate of the full support from the European public institutions one should also consider the various programs enacted by the ECB, such as the LTRO and the SMP. Note, also, that the public funds reported in table 6 were provided at below market rates, so that these amounts are, to some extent, net transfers. The main message here is that the fiscal consolidation carried out in the GIIPS countries would have been much more severe if the European institutions did not provide financial support.

	Greece	Ireland	Portugal	Spain
Total (bill. Euro)	203.7	17.7	26.0	41.3
% GDP (in 2010)	90.5%	10.3%	14.52%	3.83%

As I mentioned earlier, the KV holds that the EMU sovereign debt crisis was largely a consequence of the fiscal consequences of a banking crisis triggered by excessive lending which, in turn, followed from the exceptional drop in real interest rates before the crisis. This combination of events is an example of the doom loop between banks and sovereigns that has been highlighted by many scholars and policy makers. However, in this case again, not all GIIPS countries experienced the same sequence of events. Table 8 provides data on the fiscal cost of financial sector support.

	Greece	Ireland	Italy	Portugal	Spain
Total Net Fiscal costs	22.1	31.1	-0.1	11.3	5.0
Debt Impact	22.2	22.6	0.1	11.0	5

A first comment is that the fiscal cost of financial sector support and its impact on debt is extremely large for Greece, Ireland and Portugal, but almost nil for Italy and rather small for Spain. Based on the fact that Ireland was the best performer and Italy the second worst performer in terms of output losses in the post-crisis period, we derive that the correlation between the net fiscal cost of financial sector support and the output losses at long horizon turns out to be negative (with very low $\$R\&2\$$). Remember, from table 7, that the financial support from international institutions to the countries whose banking sector was particularly

hit by the boom-bust cycle was substantial. On the other hand, in the case of Italy, the large size of non-performing loans have not affected the fiscal balance of the government yet.

Comparing the EA to the US

The EA differs from the US in terms of the extent of policy measures and the tools they have access to. In particular, the EA lacks a super-national political authority, a significant fiscal budget that can be used to make cross countries fiscal transfers for risk sharing purposes and the ability to issue centralized public liabilities. The other important difference is that US states, with the exception of Vermont, have constitutions imposing some form of balanced budget rule (in 38 states no deficit can be carried forward from one fiscal period to the next, and in 44 states the governor's proposed budget must be balanced). Follet and Lutz (2010) have shown that states spending has been generally pro-cyclical (in contrast to the federal government policy) most likely because of the inability to run fiscal deficits. According to the 2009 data provided by Ang and Longstaff (2013), the average debt-to-GDP ratio for US states is 7.1%, versus 87% for Eurozone countries. To have a sense of the different institutional settings in the US and the Eurozone, recall that, over the period 1998-2015, the deficits of the Eurozone countries have exceeded the 3 percent ceiling in more than three-quarters of total country-year observations (see Eyraud et al. (2017)). On the other hand, transfers within the EMU provide almost no risk sharing because of very limited centralized budget for insurance purposes. Finally, and importantly, the risk of doom loop episodes (i.e., negative spill-overs from banks to governments and *vice versa*) is essentially zero in the US because of the limited state level liabilities and because banks have diversified assets and are supervised and regulated by a central authority.

Against this background it is no surprise that the EA experienced a sovereign debt crisis. The main problem is that, quite naturally, the latter occurred at a time in which the countries most affected by the 2008 recession were running large fiscal deficits, so that these countries lacked the fiscal space to smooth the effects of the surge in interest rate spreads and the credit crunch. Since the sovereign debt crisis generated a search for safety and a repatriation of financial flows from periphery to core Europe, capital markets amplified the initial impact, and this second financial shock can be characterized as more idiosyncratic than aggregate. Given the above mentioned characteristics of the sovereign debt crisis, it is not obvious that a larger fiscal stimulus would have helped much. The question is that a fiscal stimulus is only effective if public spending does not crowd out private spending through a rise in interest rates. For crowding out to be contained, governments must be facing enough fiscal space, and the latter was clearly very limited in the case of the GIIPS countries. With reference to monetary policy, it is clear that the rise of interest rates spreads triggered by the sovereign debt crisis and the re-denomination risks, seriously hampered the

transmission of the ECB's policy stance to the real economy. A problem that was not faced by the Federal Reserve in 2008.

On the basis of the above observations, it is quite remarkable that there has been no drop in the degree of risk sharing⁶ within the EA. In fact, according to recent studies (Milano (2017), Cimadoro et al. (2018) the degree of risk sharing increased after the sovereign debt crisis, a result that has been achieved mainly through the activation of the EFSF-ESM loans to peripheral Europe. Furthermore, despite the fiscal consolidation enacted in the same period, there is no evidence of discretionary fiscal pro-cyclicality in the EA. More specifically, the cyclically adjusted primary balance appears to be mildly and negatively affected by the output gap in good times (pro-cyclicality) and not significantly affected after the crisis (a-cyclicality) (see Attinasi et al. (2019)).

Conclusion

Most of the arguments put forward in this paper are based on the following three main observations.

- First, the average gap between the US and the EA's GDP growth rates after 2014 (i.e., after the EA recovery from the second financial shock) is no different from the average gap in the 2000-2007 interval (i.e., before the first financial shock), meaning that the reason why today the EA's GDP is so much behind the US's must be attributed to the 2010-2014 recession that followed the second financial shock, not so much by the speed of the recovery.
- Second, the degree of financial fragility and distress (banks' excessive leverage and troubled assets) in the run up to the first financial shock is not a good predictor of the depth and length of the stagnation experienced by peripheral Europe over the medium term (2007-2014). It seems that each of the countries of peripheral Europe have a different story to tell about their post-crisis experience.
- Third, a pro-cyclical fiscal consolidation in peripheral Europe only occurred after the second financial shock (as a consequence of investors' loss of confidence in sovereign debt) and it was much limited by large financial flows available from the ECB non-conventional policies, the EFSM and the ESM. Hence, whereas the contribution to consumption smoothing of national savings right after the first financial shock in the US and the EA appears quite similar, peripheral countries were

⁶ Risk sharing is measured as the percentage of idiosyncratic country-specific GDP shocks that are not smoothed (i.e., they do not translate into consumption shocks) via the available instruments, such as capital income, public transfers, national savings.

forced to consolidate their public balances in the aftermath of the sovereign debt crisis because of investors' loss of confidence in governments' liabilities.

All of the above points should be used to amend or improve the most common interpretations of the EA's slow recovery, and the degree to which this disappointing performance is a consequence of the insufficient fiscal integration in the EA, i.e., fiscal constraints and lack of fiscal transfers across the EA. Although it is true that the inability to use national monetary policies (and exchange rate devaluations) limited the degree of risk sharing across the EMU, the idea that the weaker performance of the EA relative to the US is entirely a consequence of policy failures is far from obvious.

If we abstract from long-run structural phenomena and we agree that the different economic performances of the EA and the US from 2008 up to now is due to the sovereign debt crisis, we need to explain why this crisis did occur in the EA and not in the US. One reason (as put forward, for example, in Corsetti et al. (2019) and De Grauwe and Ji (2018) is that the US fiscal and monetary policies are “unrestricted”. I would suggest, instead, that US main advantage compared to the EMU is political integration. The latter has allowed for strong financial market integration (i.e., banks' and consumers' risk sharing) and the absence of redenomination risks. Financial integration, together with a relatively large federal fiscal capacity, are a substitute for the lack of flexibility of the state-level fiscal policies. In fact, US states voluntarily comply to an almost balanced budget rule, so that state and municipal bonds are immune from speculative attacks. Having experienced large fiscal deficits as a consequence of the first 2008 financial shock, EA's peripheral countries could hardly avoid a consolidation of their public finances during the EA's sovereign debt crisis. Lack of fiscal consolidation could produce self-fulfilling runs or it would have required an amount of transfers across countries (i.e., from core to peripheral Europe) that would be politically difficult, if not unfeasible, in any federation⁷.

The sovereign debt crisis suffered by the EMU in 2010-2013 was a major blow on the recovery that had started in 2009 after the Lehman collapse in the EA. This crisis generated a deep recession in the GIIPS countries and forced them to consolidate their fiscal position in the wrong moment. However, the European institutions reacted (with some delay) by enacting significant counter measures, both in terms of monetary policies and by providing public funds through the ESFM and ESM to the countries that were most affected by the financial crisis. Over the medium run (i.e., the last ten years) the performance of the GIIPS countries appears diversified, with Greece and Italy displaying a prolonged stagnation and Ireland and Spain a more solid recovery. This heterogeneity shows that banks excessive leverage and external borrowing, i.e., the main symptoms of a boom-bust financial cycle, are uncorrelated with the GIIPS countries' performance

⁷ By “federation” I mean a super-national political authority ruling over a collection of partially self-governing member states or regions.

over the medium run. In some sense, the EMU has been relatively successful in addressing the economic problems generated by excessive leverage and over-speculation and less successful in addressing the problems related to the long-run stabilization of public debt (experienced by Greece and Italy).

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