Fiscal Policy in Europe: Lessons from the Crisis and Options for the Future

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Policy reflections on the future of the Eurozone
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01

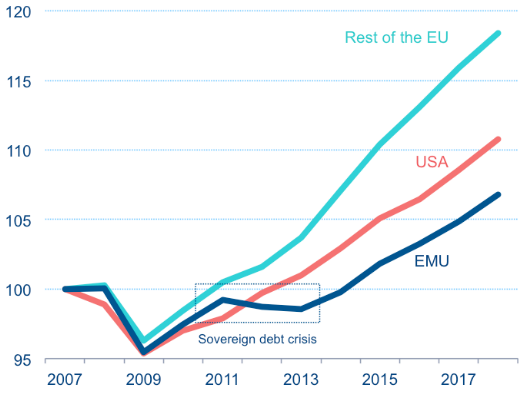
Introduction

Introduction

- We analyse fiscal policy in the Eurozone during the last crisis in order to obtain the main lessons for the current debate on how to strength the European Monetary Union
- We show that the interaction between uncertainties on national policies of countries with macroeconomic imbalances and an incomplete monetary union
  - reduced the fiscal space in some of its members,
  - could not avoid a sovereign debt crisis,
  - and generated a double-dip recession, prolonging the crisis during four additional years
- Recent proposals made by the Five Presidents' Report (2015) or by the reflection paper on the deepening of the economic and monetary union (European Commission, 2017) should ensure that the new architecture of EMU avoid future sovereign debt crisis without constraining the fiscal space

Introduction: A double-dip crisis

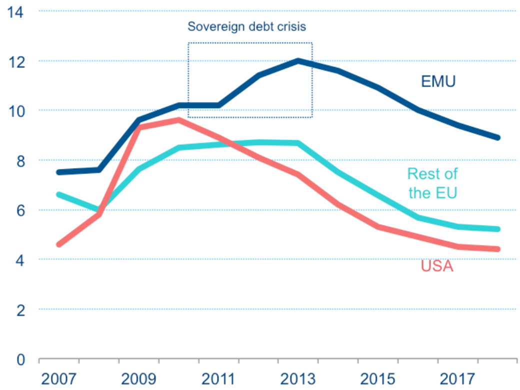
GDP per working age population, 2007-2018 (2007=100)
Source: own elaboration from AMECO and European Commission Forecasts, May 2017.



Introduction: A double-dip crisis

Unemployment rates, 2007-2018

Source: own elaboration from AMECO and European Commission Forecasts, May 2017. Weighted averages.



Introduction

- What explains the sovereign debt crisis? We analyse the deterioration of the fiscal space for EMU and non-EMU countries
- UK vs Spain: some non-EMU countries with similar or greater deterioration of the fiscal space do not suffer a sovereign debt crisis
- Better national policies in countries with macroeconomic imbalances and an earlier intervention by the ECB to reduce fiscal austerity and segmentation would have alleviated the sovereign debt crisis (see Martin and Philippon, 2017)
- Some lessons for the future:
    - At the national level: avoid macroeconomic imbalances with macroprudential policies and good institutions and governance, rapid diagnosis, timely, temporary and targeted policies, structural reforms when needed and an unambiguous euro membership
    - At the Eurozone level: a genuine monetary, fiscal, banking and economic union, and a non-constrained interaction between monetary and fiscal policies, in which the ECB is an effective lender of last resort. Can current proposals avoid a future sovereign debt crisis?

Structure of the presentation

- Introduction
- The fiscal space during the crisis
- The sovereign debt crisis: interaction between national policies and an incomplete EMU
- Lessons at the national level
- Challenges for the new architecture of EMU
- Conclusions

02

The fiscal space during the crisis

The fiscal space during the crisis

- Our analysis of the fiscal space during the crisis is based on Blanchard (1984)
- Budget balance evolves according to:

$$\Delta d_t = \frac{r-\gamma}{1+\gamma} d_{t-1} - t_t + g_t \qquad (1)$$

- We define t_{max} as the maximum level of revenues and g_{min} as the minimum level of public spending that are acceptable to society
- The maximum level of sustainable debt is then determined by:

$$d_{max} = \frac{1+\gamma}{r-\gamma} \left(t_{max} - g_{min}\right) \qquad (2)$$

The fiscal space during the crisis

- This maximum debt level is closely related to the fiscal limit (see Andrés, 2016, Bi, 2012, or Leeper and Walker, 2011)
- Beyond this level, governments do not have enough political capital to increase taxes or cut spending in order to stabilise the value of public debt
- This is a stochastic limit that varies over time and across countries depending on their economic and institutional characteristics
- It may also take into account future expenditure commitments (for example, those associated with ageing) and depends on the tax burden that society is willing to bear

The fiscal space during the crisis

- Fiscal rule: the primary budget balance converges to its maximum level according to:

$$\Delta(t_t - g_t) \leq \alpha\left[(t_{max} - g_{min}) - (t_{t-1} - g_{t-1})\right] \quad (3)$$

- α is the speed of convergence towards the maximum level of the primary budget balance
- Equations (1) and (3) determine the dynamics of the public debt and the budget balance.
- The phase diagram is shown in Figure 1.
- The convergence path to the steady state in which the primary budget balance and public debt reach their maximum sustainable level is given by the line *AA*':

$$pb_t = t_t - g_t = \left(\frac{r-\gamma}{1+\gamma} + \alpha\right)(d_t - d_{max}) + (t_{max} - g_{min}) \quad (4)$$

The fiscal space during the crisis

Calibration of the debt limit:

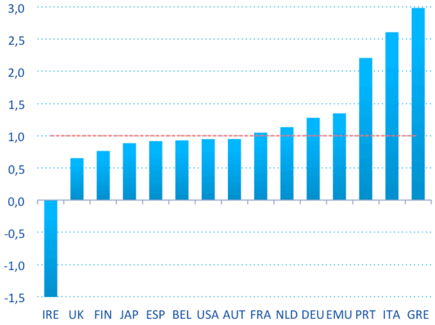
- Ghosh et al (2013) projected debt limits between 149.7% of GDP (for Ireland) and 249.2% (for Norway)
- These authors find that the response of the primary balance to lagged debt starts to decline at debt levels of around 90–100% of GDP and become negative as debt approaches to 150% of GDP
- Greece's experience is a good example of fiscal fatigue and unsustainability when debt approaches to 150% of GDP
- Nerlich and Reuter (2016) estimate that the average debt limit for the EU27 from 1990 to 2014 was 134% of GDP, with a maximun value of 183%
- Polito and Wickens (2015) estimate a higher debt limit for the EU14 from 1995 to 2012 (201% of GDP)
- For comparisons, we assume that $d_{max} = 150\%$ of GDP

The fiscal space during the crisis

Calibration of the interest rate/growth spread:

- We assume that $(r - \gamma)/(1 + \gamma)$ is equal to 1% in line with the international evidence during the last business cycle, from 2002 to 2015

Average interest rate of public debt minus GDP growth, 2002-2015
Source: own elaboration from AMECO, May 2017.



The fiscal space during the crisis

Calibration of α:

- We assume that $\alpha = 0.1$, in line with the average estimates of Afonso (2008), Bohn (2008) and Checherita-Westphal and Žďárek (2015 and 2017), smaller than the value assumed by Blanchard (1984), but greater than the response of primary balance at moderate debt levels estimated by Ghosh et al (2013)

Calibration of $t_{max} - g_{min}$:

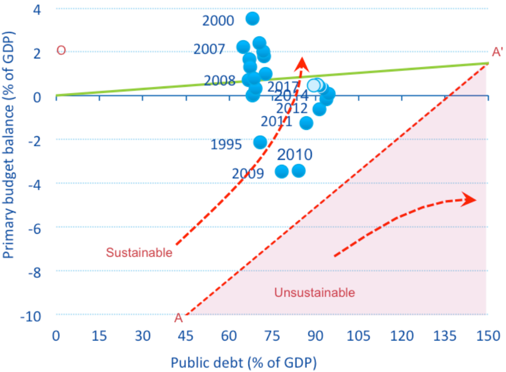
- Assuming that $d_{\max} = 150\%$ and $r - \gamma = 1\%$ we have that:

$$t_{max} - g_{min} = \left(\frac{r - \gamma}{1 + \gamma}\right) d_{\max} \simeq 1.5\% \tag{5}$$

The fiscal space during the crisis

Result 1: Public debt was clearly sustainable at the EMU level

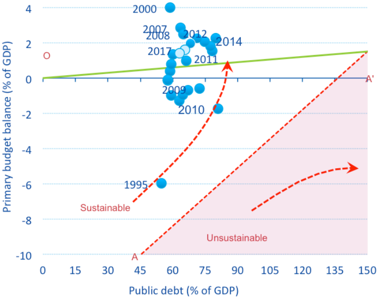
Public debt and primary budget balance over GDP. EMU, 1995-2018
Source: own elaboration from AMECO, May, 2017.



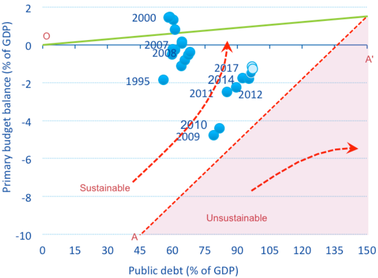
The fiscal space during the crisis

Result 2: There has been a lot of heterogeneity across countries. Some EMU countries were clearly sustainable, ...

Public debt and primary budget balance over GDP. Germany, 1995-2018
Source: own elaboration from AMECO, May, 2017.



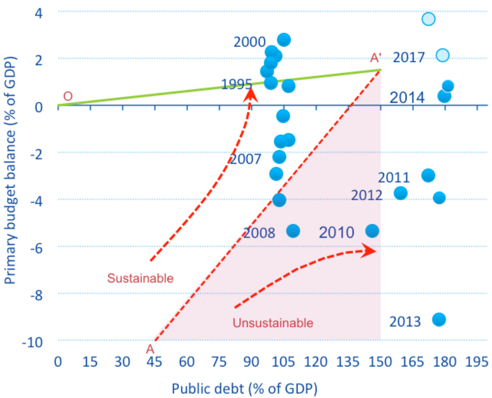
Public debt and primary budget balance over GDP. France, 1995-2018
Source: own elaboration from AMECO, May, 2017.



The fiscal space during the crisis

Result 2: ... Greece clearly entered in the default area, ...

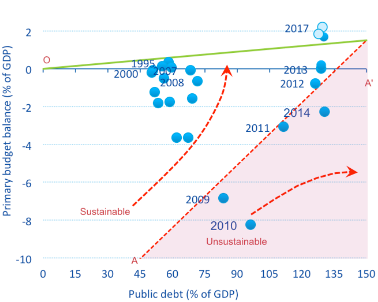
Public debt and primary budget balance over GDP. Grece, 1995-2018
Source: own elaboration from AMECO, May, 2017.



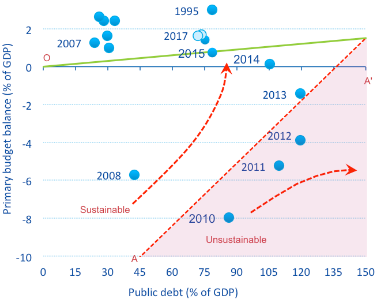
The fiscal space during the crisis

Result 2: ... Portugal and Ireland'´s governments lost and regained market access ...

Public debt and primary budget balance over GDP. Portugal, 1995-2018
Source: own elaboration from AMECO, May, 2017.



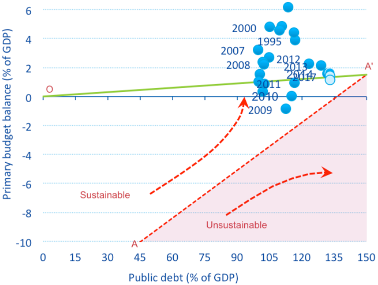
Public debt and primary budget balance over GDP. Ireland, 1995-2018
Source: own elaboration from AMECO, May, 2017.



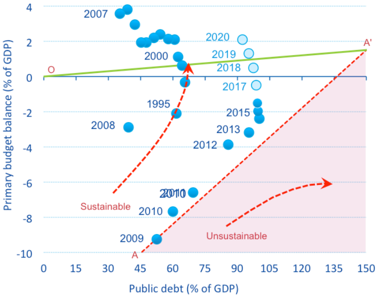
The fiscal space during the crisis

Result 2: ... and Italy and Spain faced significant financial market tensions ...

Public debt and primary budget balance over GDP. Italy, 1995-2018
Source: own elaboration from AMECO, May, 2017.



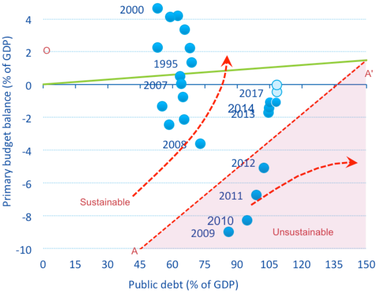
Public debt and primary budget balance over GDP. Spain, 1995-2018
Source: own elaboration from AMECO, May, 2017.



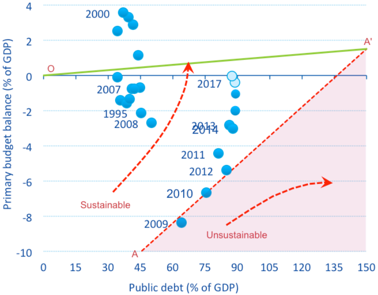
The fiscal space during the crisis

Result 3: Spain had a fiscal situation similar to that of the UK ...

Public debt and primary budget balance over GDP. USA, 1995-2018
Source: own elaboration from AMECO, May, 2017.



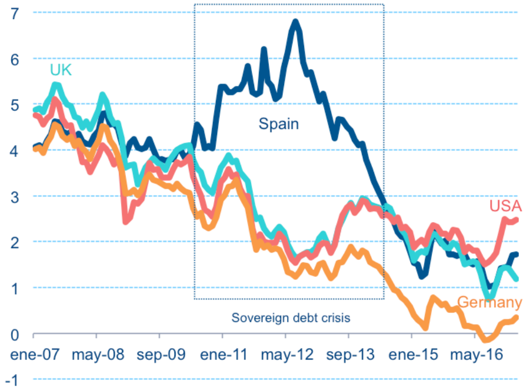
Public debt and primary budget balance over GDP. UK, 1995-2018
Source: own elaboration from AMECO, May, 2017.



The fiscal space during the crisis

Result 3: ... but Spain experienced a sovereign debt crisis and faced very high financial tensions compared to the UK, with financial fragmentation in EMU

10-year government bond yields, Spain, UK and USA, 2007-2017
Source: own elaboration from FRED, June, 2017.



The fiscal space during the crisis: a summary

- A simple model with just two equations (budget balance law of motion + fiscal reaction function) and a reasonable calibration provide useful insights about the fiscal space and the dynamics of fiscal policy during the crisis
- At the aggregate level, EMU had a larger fiscal space than the US, but the absence of a genuine fiscal and banking union was a clear limitation
- It was needed an aggregate perspective of fiscal policy in the euro area, but financial markets just could implement national sustainability analysis
- Some EMU countries (like Spain) had a fiscal space similar to that of the UK and the USA but experienced a sovereign debt crisis and faced much higher interest rates
- If fiscal spaces were similar, what explained the sovereign debt crisis?
- Understanding the factors that may explain the divergence of interest rates despite similar fiscal spaces can provide useful lessons to both national economic policies and the design of a new architecture to strengthen the economic and monetary union

03

The sovereign debt crisis: interaction between national policies and an incomplete EMU

The sovereign debt crisis: national determinants

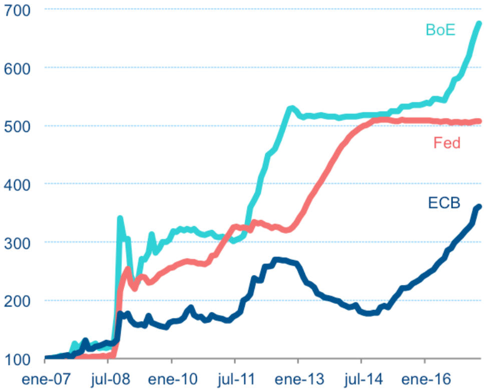
More favourable conditions in the UK and the USA:

- The UK and the USA addressed the recapitalization of their banking sectors in 2008 and 2009 when the fiscal space was still large. Banking finance was less important than in continental Europe
- The Fed and the Bank of England implemented quantitative expansions, purchasing huge amounts of public debt: US and UK treasuries enjoyed a liquidity backstop from their central bank
- Flexible labour markets: wage flexibility avoided larger and persistent unemployment rates, contributing to a more rapid recovery
- The interest rate−growth differentials were relatively favourable to the sustainability of debt (De Grauwe, 2014)
- Real growth and inflation contributed to the deleveraging process of the private sector (Arslanalp, De Bock and Jones, 2015)
- Both the dollar and the pound depreciated against the euro
- The UK and the USA did not suffer shortage of funding to finance its current accounts deficits (fly to quality and composition also matters)

The sovereign debt crisis: national determinants

More favourable conditions in the UK and the USA

Relative central banks' balance sheets, 2007-2017
Source: own elaboration from ECB, BoE and Fed. January 2017=100.



The sovereign debt crisis: national determinants

Less favourable conditions in Spain:

- Macroeconomic imbalances: the boom turned into a bust (Baldwin and Giavazzi (2015) and Martin and Philippon, 2017)
- Spain did not address the recapitalization of the saving banks until 2012 when the fiscal space was non-existent. Banking finance was crucial for lending. Vicious feedback between banking and sovereign risks
- Discretionary fiscal policies that implied a significant deterioration of the cyclically-adjusted budget balance but with doubtful effects on output
- Rigid labour market (Doménech et al, 2016): the wage push increased the unemployment rate and financial tensions hampered deflation
- The interest rate−growth differential was not favourable to the sustainability of debt (De Grauwe, 2014): self-fulfilling prophecy
- Low growth and low inflation made harder the deleveraging process of the private sector (Arslanalp, De Bock and Jones, 2015)
- A sudden stop in foreign lending to finance large current accounts deficits
- Redenomination risks and doubts about the social support of the EMU integration, structural reforms and fiscal consolidation (fiscal fatigue)

The sovereign debt crisis: EMU determinants

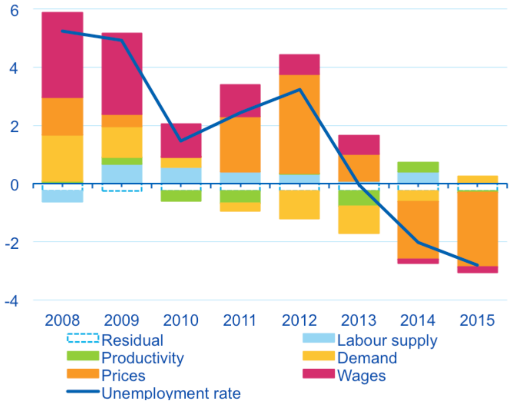
Less favourable conditions in Spain:

- EMU rules did not prevent macroeconomic imbalances: the European Commission (2007) estimated that the Spanish output gap was close to zero and the cyclically-adjusted budget balance close to 2% of GDP
- There was not a banking union with a single supervision mechanism in order to prevent the large exposition of the banking sector to the housing bubble
- The ECB was not a credible lender of last-resort until August 2012
- The euro appreciated against the dollar and the pound, making harder the deflationary process and the adjustment through the external sector
- The lack of a fiscal union could not avoid the sovereign debt crisis
- Contagion from other peripheral countries

Effects of the sovereign debt crisis

The wage push and financial tensions, which hampered deflation, increased the unemployment rate

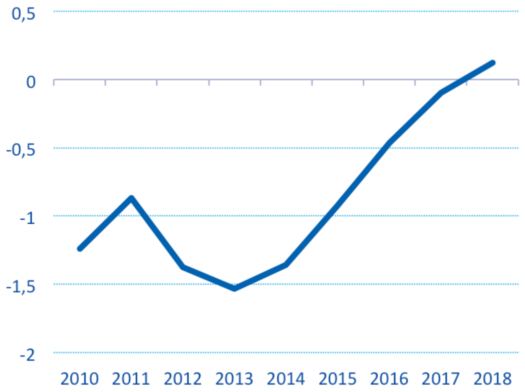
Historical decomposition of annual changes in the unemployment rate
Source: Doménech, García and Ulloa, November, 2016.



Effects of the sovereign debt crisis

Financial tensions caused a significant fall of GDP during the sovereign debt crisis, even under the expectations of reversion to the initial risk premium

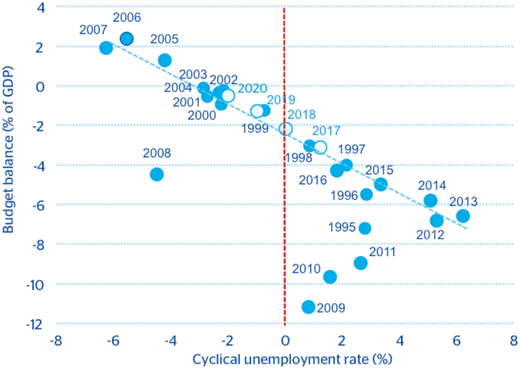
Response of Spanish GDP to the the temporary increase in risk premium
Source: own elaboration using REMS. Deviations from the baseline.



Effects of the sovereign debt crisis

Procyclical fiscal policies in the middle of the sovereign debt crisis

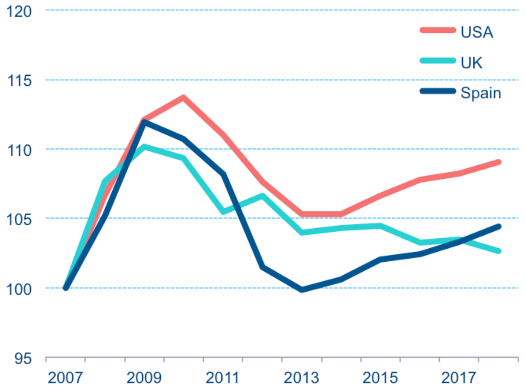
Cyclical unemployment rate and the budget balance to GDP ratio, Spain 1995-2020
Source: own elaboration from INE, IGAE and MINHAFP, Stability Programme 2017-2020.



Effects of the sovereign debt crisis

The adjustment of government expenditures concentrated in public investment

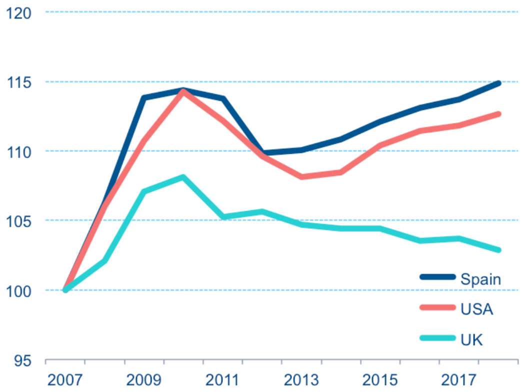
Total public expenditure per capita, excluding interests, 2007-2018
Source: own elaboration from AMECO. 2007=100 and in real terms.



Effects of the sovereign debt crisis

After excluding investment and interests, current expenditure has been more expansionary than in the US and the UK, with the exception of 2012, in part explained by automatic stabilizers and unemployment benefits

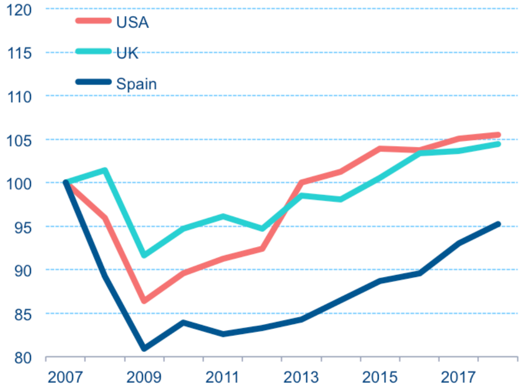
Total public current expenditure per capita, excluding interests, 2007-2018
Source: own elaboration from AMECO. 2007=100 and in real terms.



Effects of the sovereign debt crisis

The increase in taxes in 2012 just compensated the negative effects of financial tensions on output and public revenues.

Total public revenues per capita, 2007-2018
Source: own elaboration from AMECO. 2007=100 and in real terms.



Effects of the sovereign debt crisis

The legacy of the sovereign debt crisis in terms of higher public debt has a cost in activity

Effects of a permanent increase in public debt from 36% to 100% of GDP

	All taxes (1)	*Indirect taxes* (2)	*Labour income tax* (3)	*Social contributions* (4)	*Capital income tax* (5)
GDP	-5.5	-2.4	-3.6	-6.6	-14.2
Private consumption	-4.8	-2.9	-4.1	-8.3	-6.2
Investment	-6.7	-1.4	-2.0	-3.3	-35.8
Employment	-3.1	-2.3	-3.6	-6.3	1.4
Public revenues	4.8	6.3	5.6	4.3	1.2

Source: Doménech and González-Páramo (2017)

04

Lessons at the national level

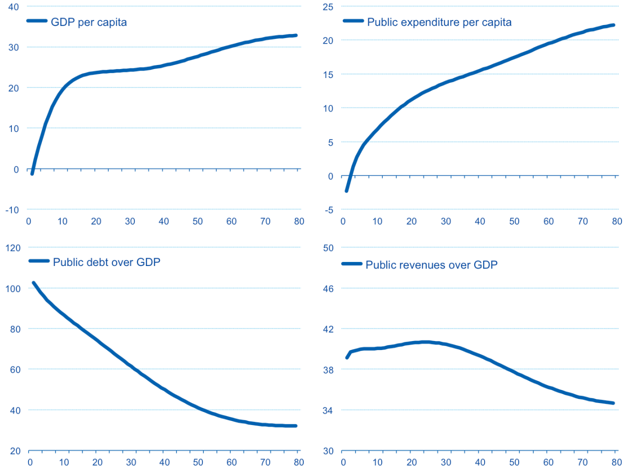
Lessons from Spain for national policies

- Avoid macroeconomic imbalances
- The composition of external capital flows matters: good for increasing productivity in tradable sectors but bad if they increase liabilities when they flow to non-tradable sectors (see Bénassy-Quéré, 2015)
- Rapid solutions to banking crisis
- Prudent fiscal policies
- An unbreakable and reinforced commitment to EMU (e.g., look at current uncertainties about Italy)
- Structural reforms: more efficient labour and product markets and higher productivity contribute to sustainable growth and the deleveraging process (see Andrés and Doménech, 2015, and Doménech and González-Páramo, 2017)

Lessons from Spain for national policies

Effects of a reduction in the Spanish structural unemployment rate from 15.5% to 7.5%

Source: Doménech and González-Páramo, 2017. The horizontal axis represents quarters.



Lessons at the national level

This example show that:

- There is an increase in GDP per working-age population, due the fall in unemployment and to the lower tax rates needed to sustain a lower level of the public debt to GDP ratio
- As a result of the reduced level of public debt in the long term and the drop in unemployment benefits, tax revenues over GDP may fall to 35%
- As a result of the reduction of structural unemployment and greater GDP, per capita public spending increases by 22.6% in the long term
- Structural reforms allow for smart fiscal consolidations with smaller tax burden and higher public spending in the long run

05

Challenges for the new architecture of EMU

Challenges for the new architecture of EMU

The objective should be to avoid future sovereign debt crisis and to allow EMU members to have, at least, the same margin of manoeuvre in their fiscal policies than other non-EMU countries (see BBVA Research, 2017)

	Fiscal union	Financial union	Economic union
European responsibility	A truly fiscal union: Eurozone Treasury, with a common budget, taxes, debt and the European Monetary Fund SBBS and European Safe Asset (Eurobonds)	A truly banking union, with a fiscal backstop for the SRF European Deposit Insurance Scheme Capital Markets Union	Macroeconomic imbalances procedure Social and investment funds for structural reforms Instruments to face asymmetric shocks
National responsibility	Compliance with the Stability and Growth Pact and the Fiscal compact Fiscal rules	Macroprudential regulation Indirect supervision	Structural reforms Reinforced commitment to EMU
Crisis management	Financial support in case of sovereign insolvency (SDRM) Conditional liquidity support ECB: lender of last resort	Financial support in banking restructuring	Technical assistance

Challenges for the new architecture of EMU

Some additional issues

- Some risk sharing, not only risk reduction
- The role of the ECB as a lender of last resort in secondary markets for the debt issued by the Eurozone Treasury (e.g., Eurobonds) is crucial
- The conditional support of national sovereign debts should be made by the Eurozone Treasury. Some room for a sovereign debt restructuring mechanism (market discipline) in case of insolvency
- The European Monetary Fund could be integrated in the European Treasury
- Any instrument to face asymmetric shocks (e.g., common unemployment insurance scheme) will require common rules and regulations of markets
- Even the current steps to the banking union (e.g., BRRD) will need further adjustments and fine tuning
- The push of correct national policies will also serve to eliminate the doubts and mistrust of some countries to advance to a more genuine and integrated EMU

06
Conclusions

Conclusions

- In spite of the many advantages of EMU (and its clearly positive balance for Spain), the interaction between **uncertainties on national policies of countries with macroeconomic imbalances and an incomplete union**
  - reduced the fiscal space in some members,
  - could not avoid a sovereign debt crisis and financial fragmentation
  - and generated a double-dip recession despite the fiscal space at the EA level
- Better national policies and an earlier intervention by the ECB to reduce fiscal austerity and segmentation would have alleviated the sovereign debt crisis
- The new architecture of EMU should **avoid future sovereign debt crisis** and allow EMU members to have, at least, the **same margin of manoeuvre in their fiscal polices than non-EMU countries**
- Lessons at the **national level**: avoid macroeconomic imbalances with macroprudential policies and good institutions and governance, rapid diagnosis, timely, temporary and targeted policies, structural reforms and an reinforced commitment to EMU
- Lessons for the **Eurozone**: a **genuine monetary, fiscal, banking and economic union**, and a non-constrained interaction between monetary and fiscal policies, in which the **ECB is an effective lender of last resort**