

**JUMP-STARTING THE EURO
AREA RECOVERY: WOULD A
RISE IN CORE FISCAL SPENDING
HELP THE PERIPHERY?**

BLANCHARD, ERCEG, AND LINDÉ

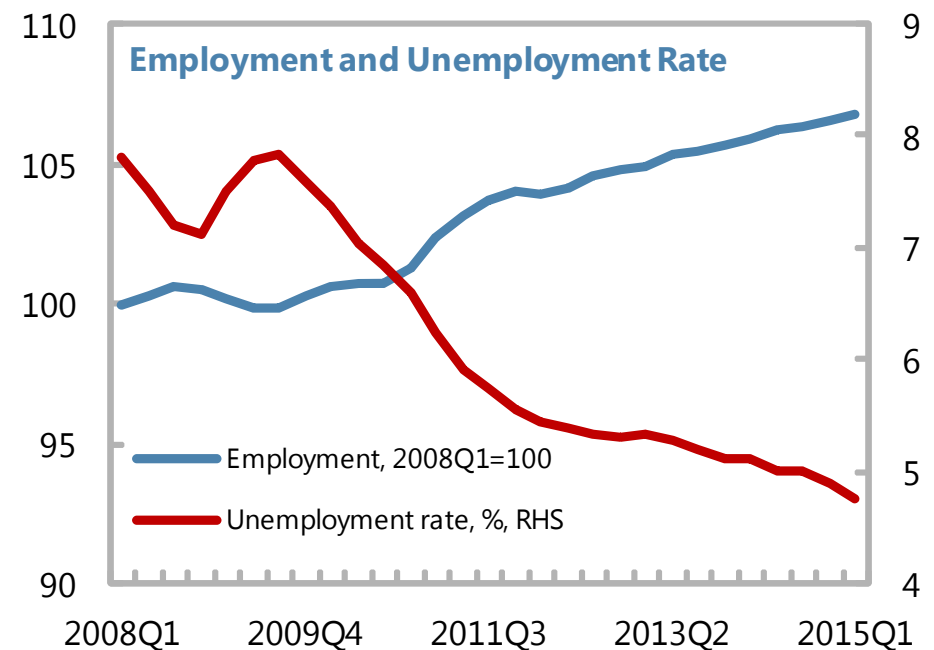
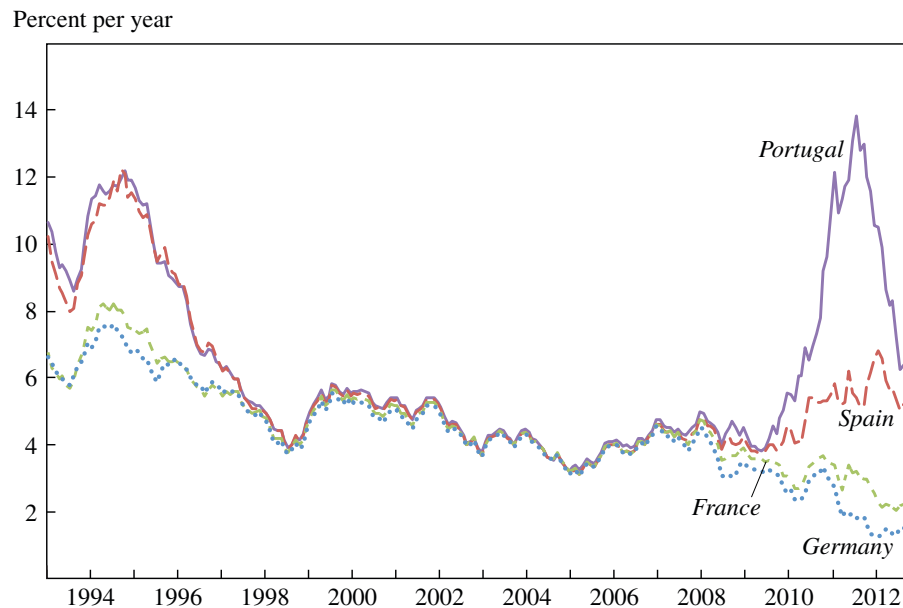
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THE CASE FOR EZ FISCAL SPENDING

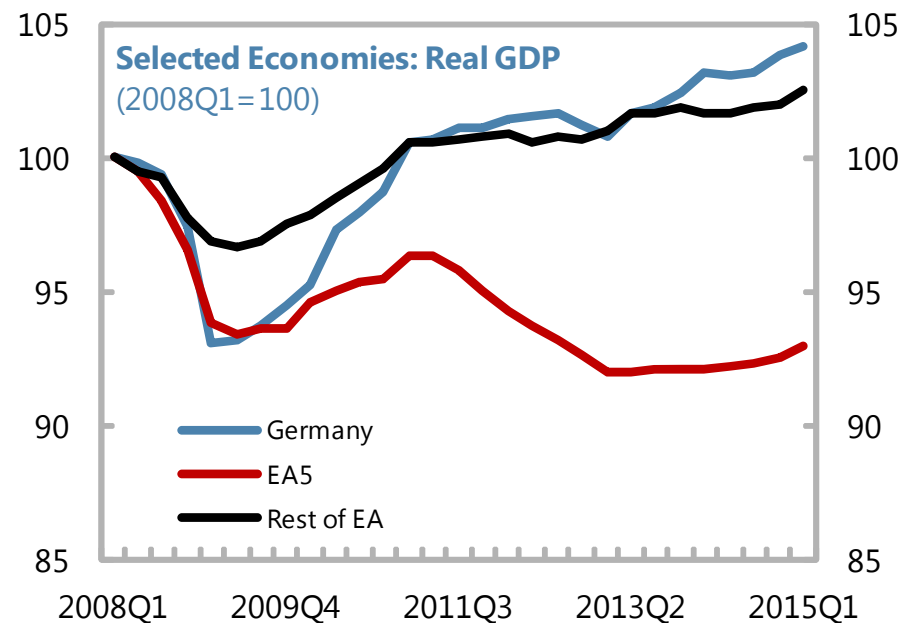
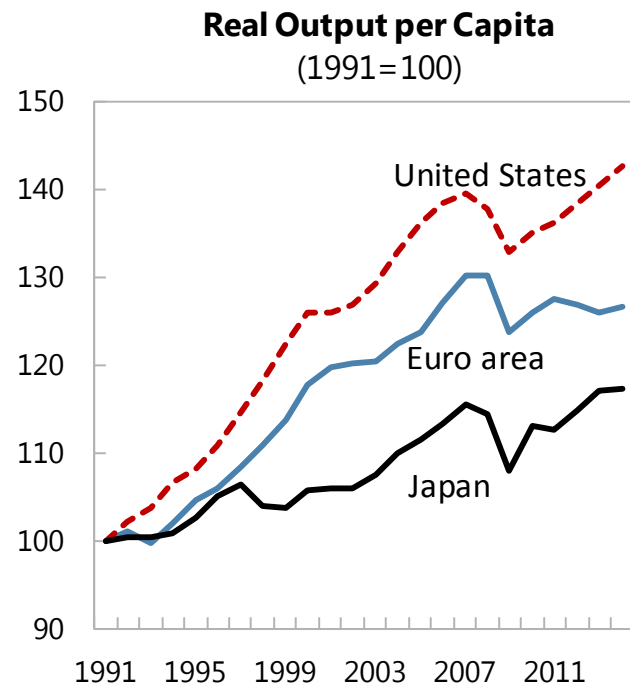
- The situation in 2010-12:
 - Eurozone as a closed economy
 - Application to GIIPS and others
 - Application to Germany

Figure 4. Ten-Year Interest Rates on Government Bonds in Portugal and Its Main Trading Partners, 1993–2013



THE CASE FOR EZ FISCAL SPENDING

- The situation in 2016
 - Euro area expected to grow by 1.7%
 - Germany expected to grow by 1.7%
 - Some growth in G already from refugee crisis



THIS PAPER: SPILLOVERS

- Take as given that Germany is in a ZLB stagnation. Would periphery benefit as well?
- BE&L simple model:

$$y_{Dt} - y_{Dt}^* = g_y(1 - \omega_g - \omega_g^*)(g_t - g_t^*) + \epsilon\tau_t + c_y(1 - \omega_c - \omega_c^*)(c_t - c_t^*).$$

$$r_{Lt} - r_{Lt}^* = \mathbf{E}_t \sum_{j=0}^{\infty} (r_{t+j} - r_{t+j}^*) = -\mathbf{E}_t \sum_{j=1}^{\infty} (\pi_{Dt+j} - \pi_{Dt+j}^*),$$

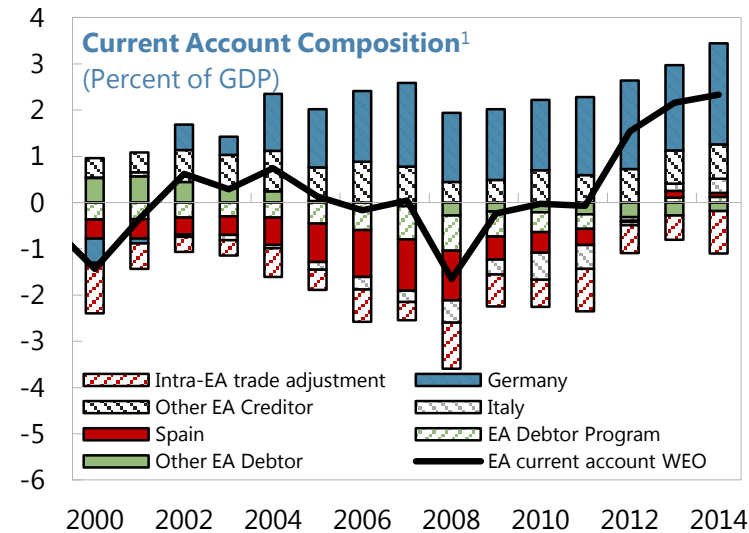
- 3 effects: imported g, depreciation, inflation.

FACTORS IT DEPENDS ON

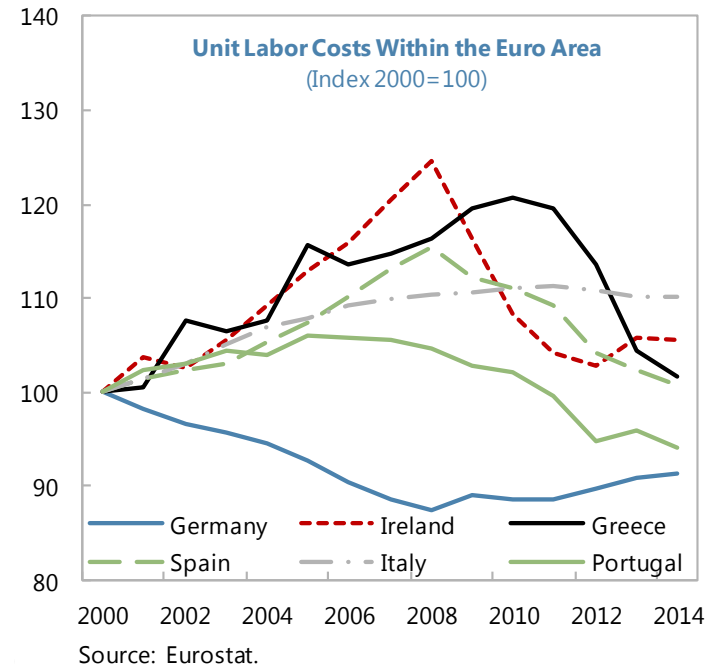
1. Expected duration of liquidity trap
 - In the liquidity trap for 3 years.
 - Hike in government spending for 2.5 years.
2. Responsiveness of inflation to stimulus, or slope of Philips curve
 - Flat in their case, price stickiness: 3.5 years.
3. Import content of government spending in core
 - Import/GDP share, and trade price elasticity 1.1.
4. Potentially large welfare benefits for periphery
 - If in output, rather than consumption.

FACTORS THEY LEAVE OUT

- Trade with a third party, outside the Euro area



- Nominal wage rigidity



Source: IMF, 2016

Source: Eurostat.

What do fiscal expansions and multipliers stand for?

$$\Delta Y = \Delta G \left(\frac{\partial Y}{\partial G} \right) \Big|_{(B, \vec{\tau}, T, x, \dots)_{t, t+1, t+2, \dots}, I_t, I_{t+1}, I_{t+2}}$$

HOW SPENDING IS FINANCED

- Deficits, slowly paid by lump-sum taxes (simple model) or labor income taxes (larger model).
- Consumption taxes, capital income taxes, labor income taxes all have different distortions.
- Time profile of taxes, before and after the ZLB.
- Uncertainty on future taxes.

AUTOMATIC STABILIZERS

1. Complementarities between private and public consumption in core and periphery.
 - Effect on marginal utility of consumption is key in a ZLB scenario.
2. Countervailing effect of expansion based on purchases on spending in other social programs.
 - Redistribution and targeting matters.

SPENDING IS NOT PURCHASES

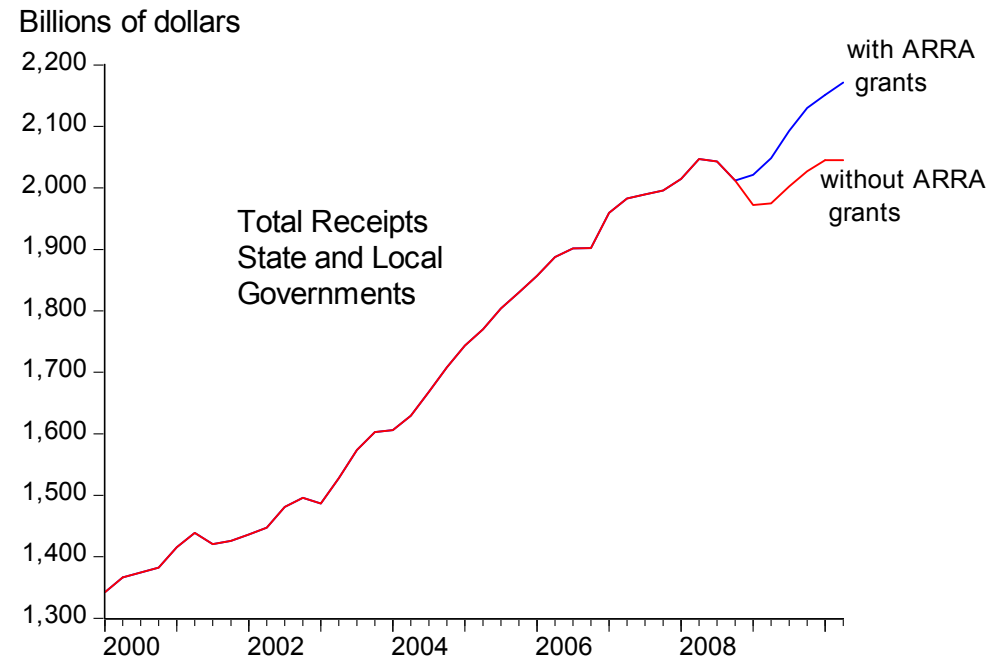
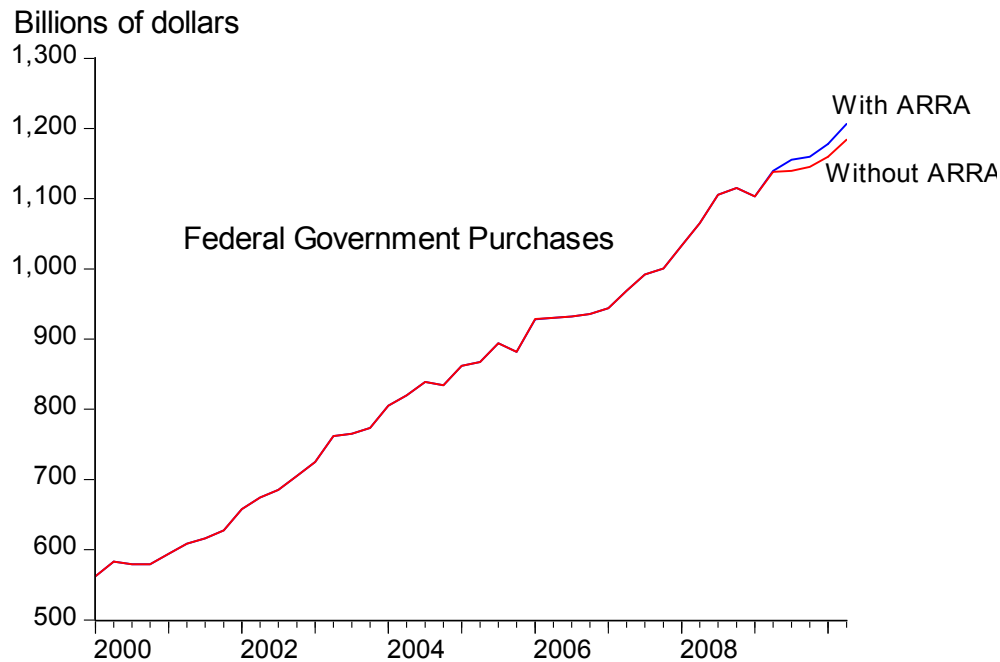
I. Most of 2007-09 fiscal expansion was transfers

Country	Percentage change in total spending	Fraction of increased spending due to transfers	Fraction of increased spending due to consumption plus investment	Growth in transfers in excess of GDP and trend spending growth
United States	14.2%	75%	27%	25.4%
Ireland	2.5%	232%	-206%	37.9%
Italy	1.0%	147%	32%	6.9%
Luxembourg	4.3%	145%	-60%	12.6%
Portugal	7.4%	101%	4%	12.8%
Japan	5.3%	86%	9%	-9.3%
Sweden	6.5%	69%	52%	20.0%
Greece	17.2%	75%	22%	24.2%
France	6.0%	74%	46%	9.5%
Slovakia	20.7%	64%	34%	37.6%
Netherlands	15.9%	63%	41%	23.9%
Belgium	13.3%	60%	42%	15.4%
Germany	9.2%	59%	44%	11.2%
UK	17.3%	52%	47%	24.4%
Spain	11.1%	47%	50%	17.1%
Finland	11%	43%	56%	25.6%
Poland	30.2%	40%	52%	21.9%
Denmark	14.2%	36%	56%	19.7%
Austria	5.4%	35%	65%	6.8%
Czech Republic	10.3%	34%	68%	3.7%
Canada	11.1%	31%	76%	4.2%
(Hungary)	-4.3%	78%	44%	-9.9%

Source: Oh and Reis, 2012

SPENDING IS NOT PURCHASES

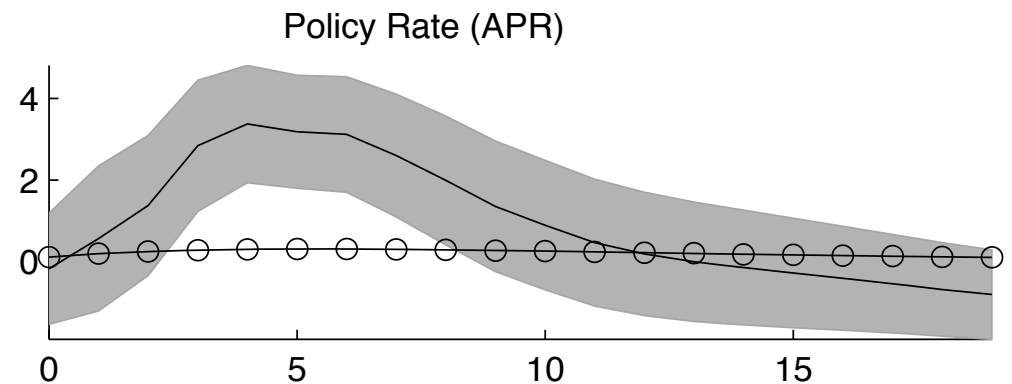
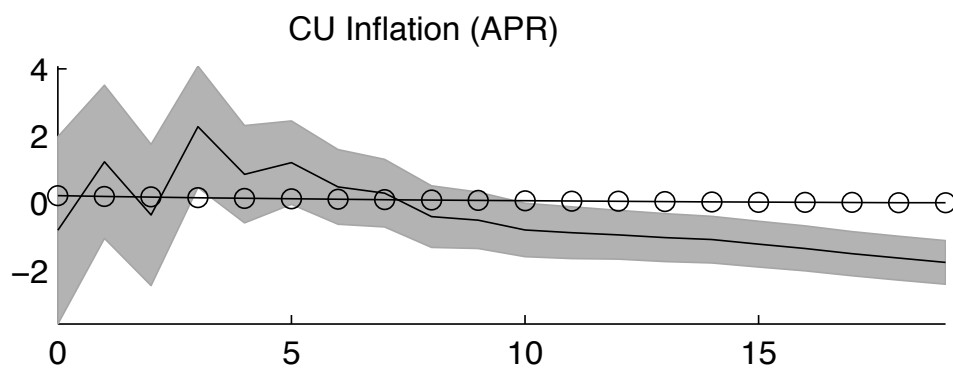
2. In the United States ARRA, most of extra spending was given to states, only some spent it.



Source: Cogan and Taylor, 2010

INFLATION AND THE ECB

1. New Keynesian effect works through inflation and real interest rates. Using the author's VAR:



INFLATION AND THE ECB

2. New Keynesian effect works through expected inflation. Using the authors' shocks as regressors:

<hr/> <hr/>						
<i>Dependent variable: $\mathbb{E}_t\pi_{t+1}$</i>						
	(1)	(2)	(3)			
<hr/>						
$\mathbb{E}_{t-1}\pi_t$	0.806*** (0.094)	0.889*** (0.126)	0.889*** (0.138)			
e_t^{gov}	0.049 (0.048)	0.035 (0.053)	0.029 (0.054)			
e_{t-1}^{gov}		0.003 (0.056)	-0.003 (0.058)			
e_{t-2}^{gov}		0.029 (0.052)	0.042 (0.055)			
e_{t-3}^{gov}			0.043 (0.053)	Observations	38	37
				R ²	0.716	0.722
						36
						0.718

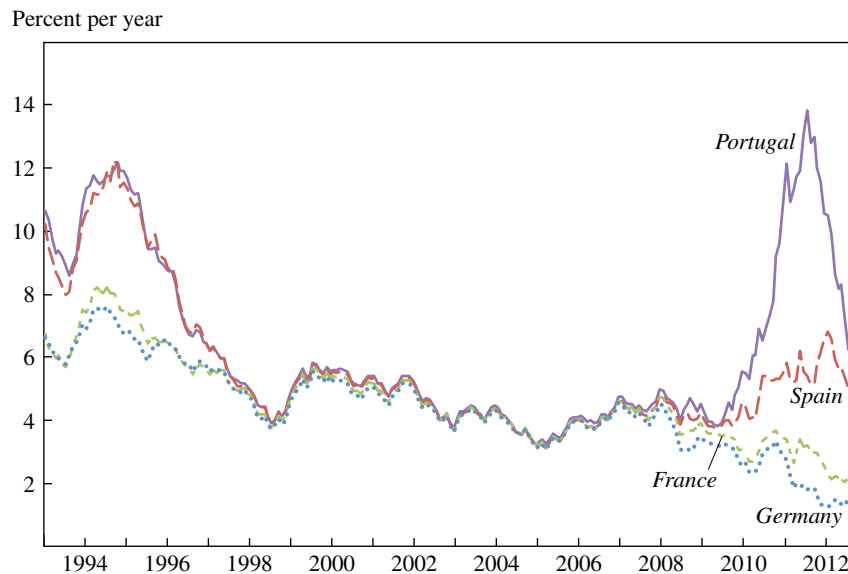
Bringing in modern views of the crisis



INTEREST RATE SPREADS

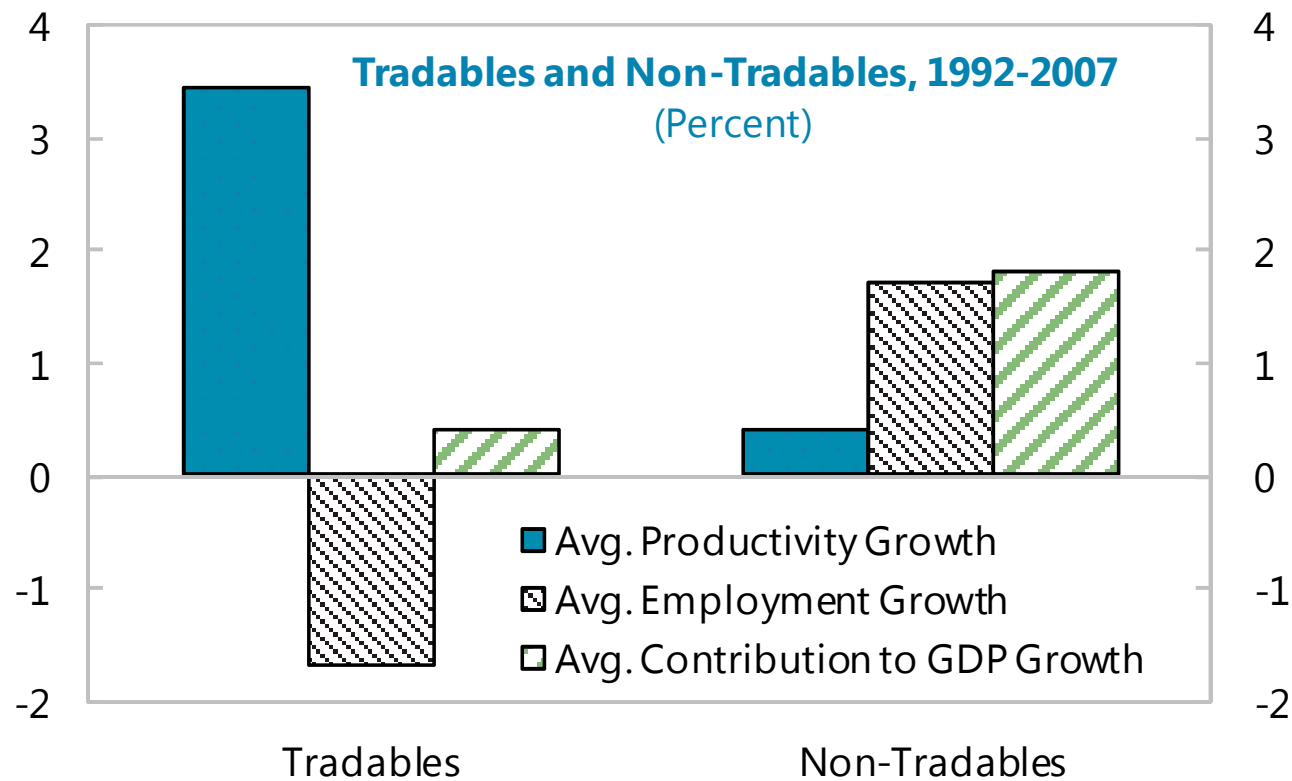
- What does increase in core government spending do to risk premia in periphery government bonds?
 1. Fall in foreign risk-free rate.
 2. Boost exports.
 3. Incentives to repay.

Figure 4. Ten-Year Interest Rates on Government Bonds in Portugal and Its Main Trading Partners, 1993–2013



MISALLOCATION

Two features of slump pre crisis are the growth of non-tradable and fall in average productivity.



Fonte: FMI (2013)

MISALLOCATION

Two features of slump pre crisis are the growth of non-tradable and fall in average productivity.

Table 4. Changes in Sector Composition in Portugal and Its Trading Partners, 2000–06

<i>Indicator and sector</i>	<i>Portugal, 2006</i>	<i>Change, 2000–06 (percentage points)</i>		
		<i>Portugal</i>	<i>Euro area^a</i>	<i>Main trading partners^a</i>
Share in employment				
Manufacturing	17.74	–2.72	–1.94	–2.14
Construction	10.22	–1.33	0.16	0.53
Real estate	6.38	0.96	1.40	1.39
Community and other services	24.06	1.12	1.07	0.94
Wholesale and retail trade	17.42	1.95	–0.14	–0.28

Source: Reis, 2014

MISALLOCATION

Two features of slump pre crisis are the growth of non-tradable and fall in average productivity.

Table 5. Changes in Productivity and in Markups in Portugal and Its Trading Partners, by Sector

<i>Indicator and sector</i>	<i>Portugal</i>	<i>Euro area^a</i>	<i>Main trading partners^a</i>
Total factor productivity	<i>Annualized growth rate, 2000–05 (percent)</i>		
All industries	-1.85	0.07	-0.21
Manufacturing	-0.81	0.92	0.63
Construction	-2.46	-0.60	-0.74
Real estate	-4.44	-0.76	-0.92
Community and other services	-1.77	-0.19	-0.48
Wholesale and retail trade	-2.96	0.34	-0.16
Markups ^b	<i>Average annual change, 2000–06 (percentage points)</i>		
All industries	0.00	0.39	0.84
Manufacturing	-0.58	0.31	0.35
Construction	-0.93	1.16	1.42
Real estate	-0.49	-1.02	0.10
Community and other services	0.58	0.11	0.29
Wholesale and retail trade	-1.42	0.01	0.13

Sources: See appendix A.

a. In the top panel, “euro area” includes only Austria, Belgium, Spain, Finland, France, Germany, Italy, and the Netherlands. In the bottom panel, “euro area” refers to the same 12 countries as in table 1.

b. The markup for each sector is defined as the negative of the log of the labor share.

Source: Reis, 2014

MISALLOCATION

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Figure 4: Dispersion of TFPR within four digit NACE for Spain

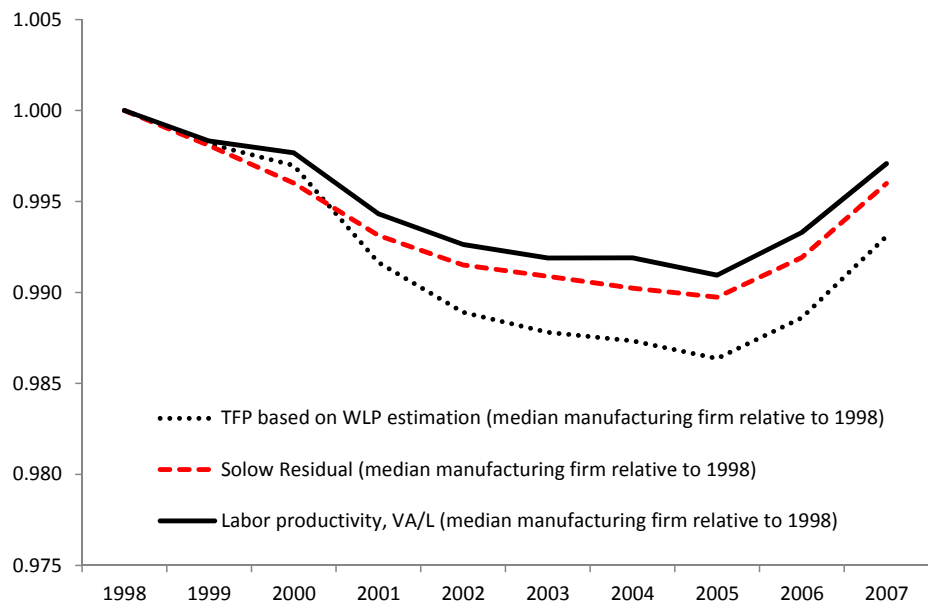
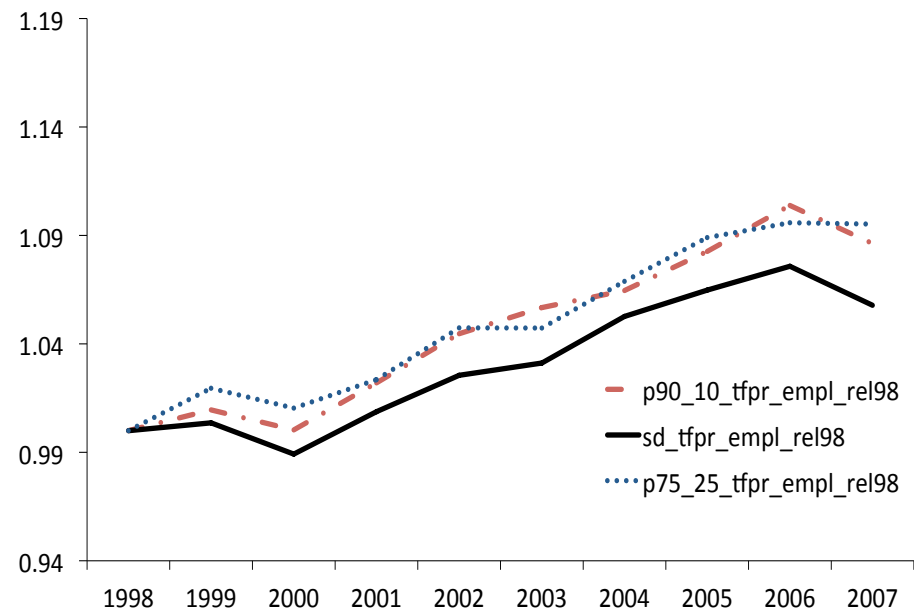


Figure 3: Median Firm Productivity in Spain: 1998-2007

Source: Gopinath, Kalemli-Ozcan, Karabarbounis, Villegas-Sanchez (2013)



(a) TFPR (L)

Source: Gopinath, Kalemli-Ozcan, Karabarbounis, Villegas-Sanchez (2013)

BANKS AND SAFE ASSETS

1. Scarcity of safe assets
 - Create more government bonds in the core.
 - More safe assets for banks to hold?

2. Bonds held by households, not banks.
 - Higher bond supply affects credit

CONCLUSION

- The paper contributes:
 - Relevant and important question today.
 - Isolate three first-order things that matter.
 - All countries may be better off.
- I added:
 - There are more first-order factors to take into account
 - Where does extra spending go, how it is financed?
 - What happens to interest rates, misallocation, banks?
- On welfare and conflicts: left for another day