

“ **One currency must have one interest rate term structure. Observing different government interest rates in the eurozone bond markets is like registering different prices for the same underlying asset** ”

Marcello Minenna

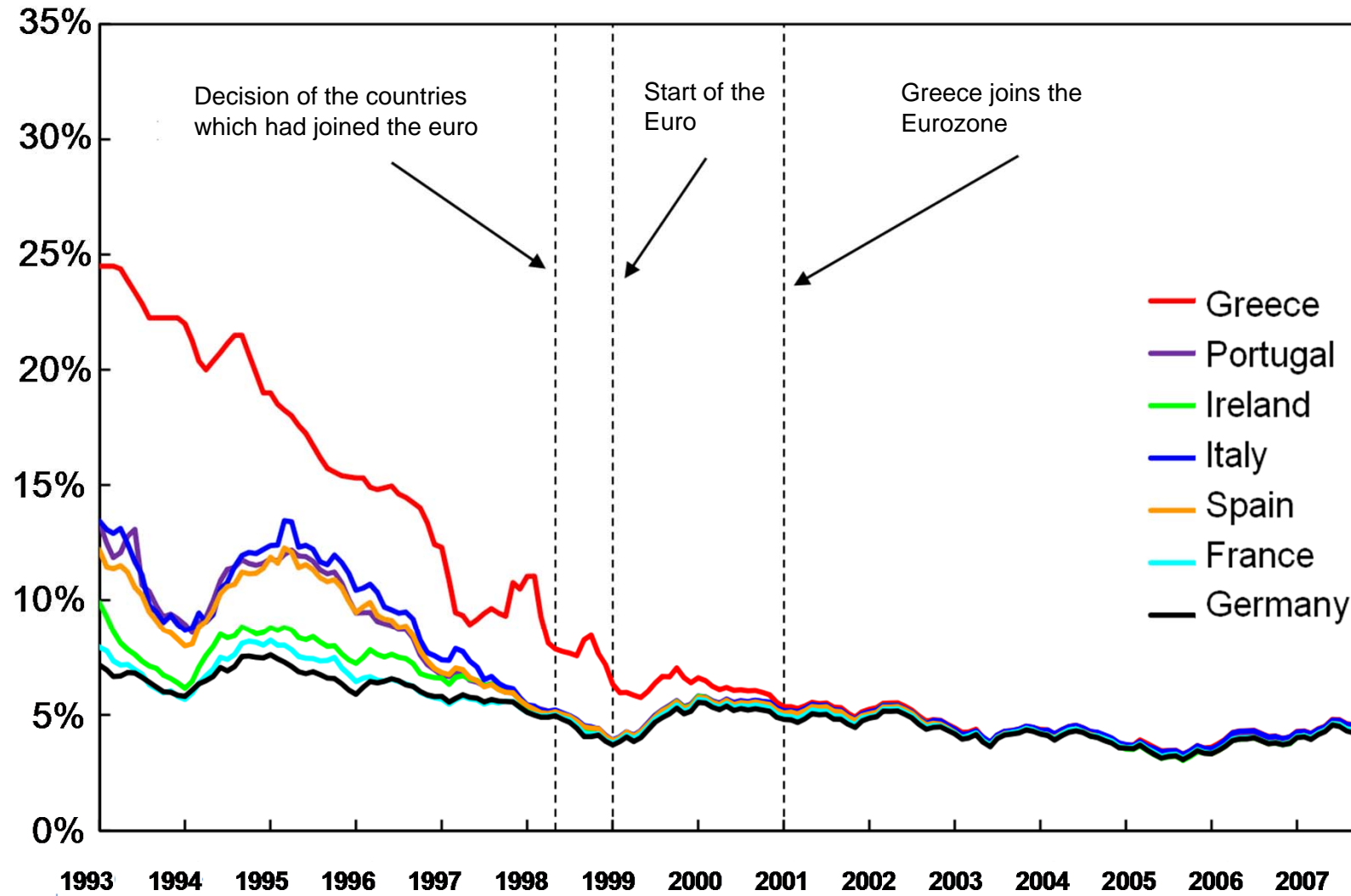
Contract professor of Financial Mathematics  
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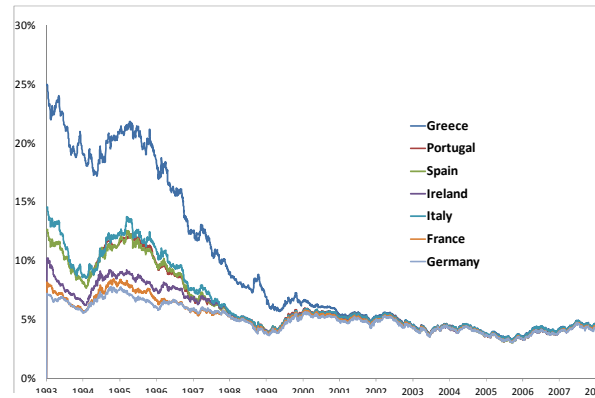
# FINANCIAL CONVERGENCE OF EURO ZONE COUNTRIES

10-Years government bond rate






# FINANCIAL CONVERGENCE OF EURO ZONE COUNTRIES


## CONVERGENCE TRADE STRATEGY



January 1996



-  The Italian government issues 2 years BTP, yield 8% - issue price 100 €
-  The German government issues 2 years BUND, yield 2,5% - issue price 100 €


Buy BTP Forward 2 Years - Yield 8% 


Sell BUND Forward 2 Years - Yield 2,5% 


Net Cash Inflows = 0


January 1998

-  The Italian government issues 2 years BTP, yield 5% - issue price 100 €
-  The German government issues 2 years BUND, yield 2,7% - issue price 100 €

Receive BTP 2 Years - Yield 8% 

Sell BTP 2 Years - Yield 8% (+106 €) 

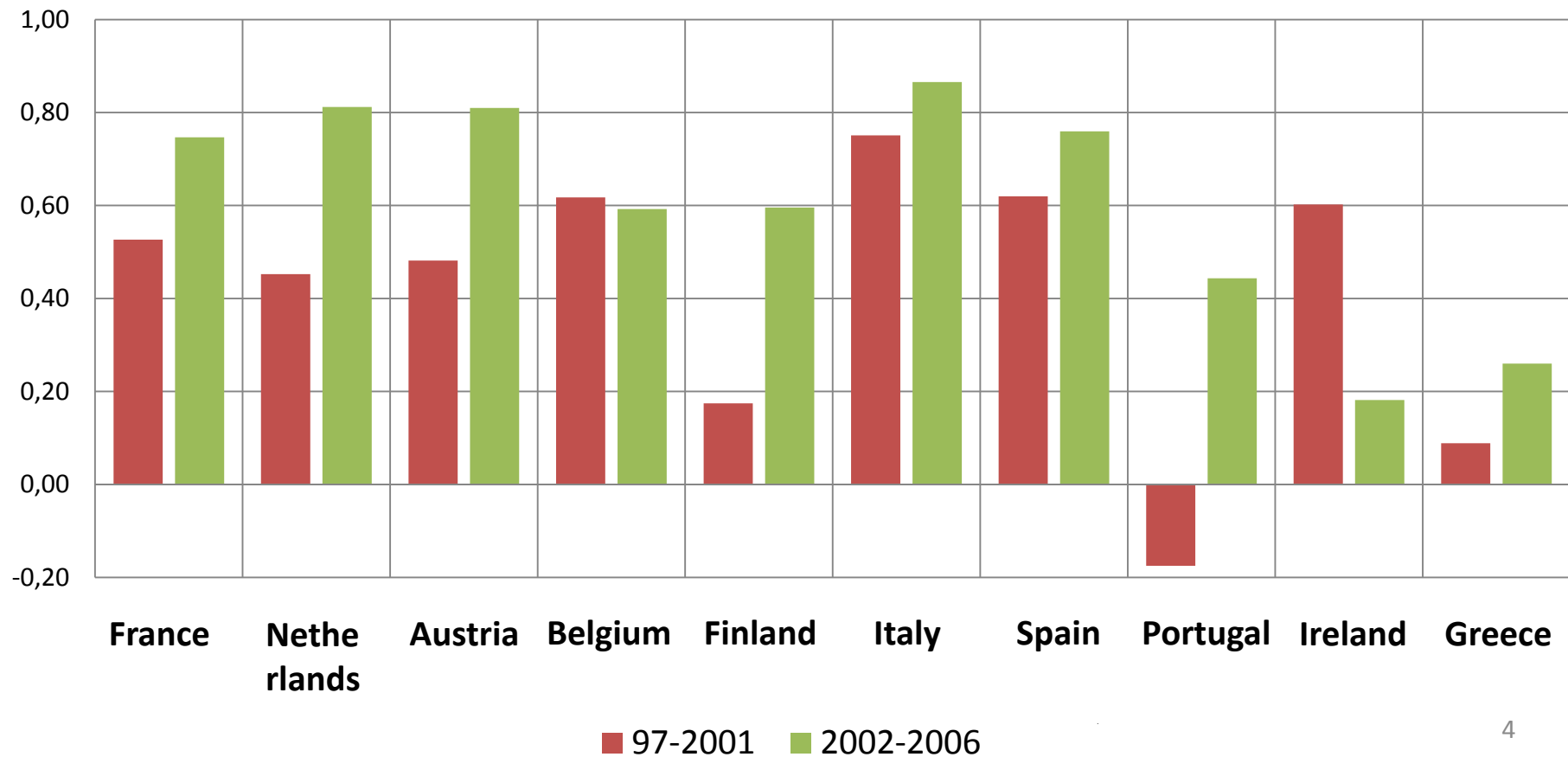
Buy BUND 2 Years - Yield 2,5% (-99 €) 

Delivery BUND 2 Years - Yield 2,5% 

Net Cash Inflows = + 7 €

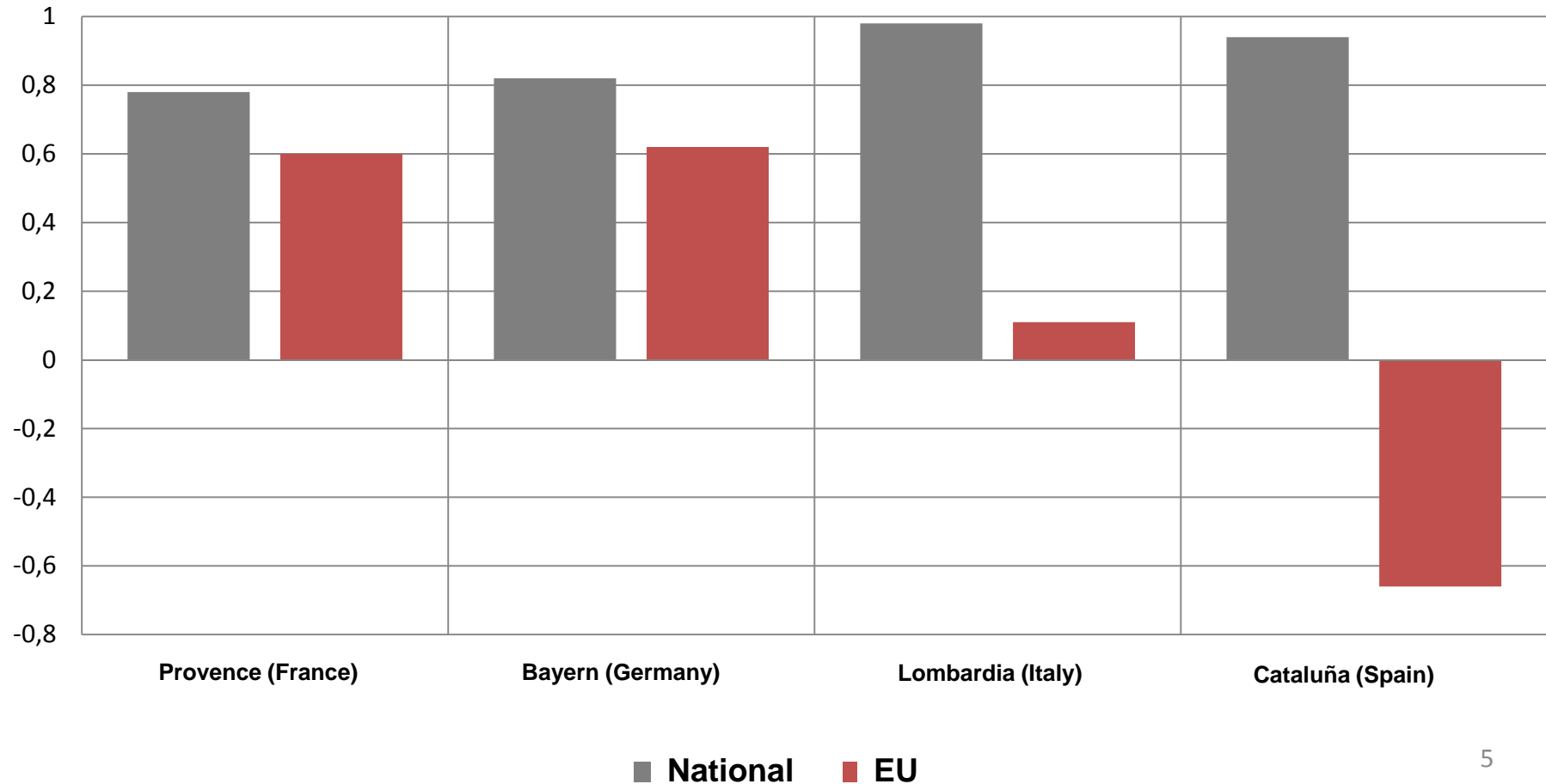
# CONVERGENCE BETWEEN ECONOMIC CYCLES OF EU COUNTRIES

## Correlation between the economic cycles of various Euro Zone countries and Germany (1997-2006)



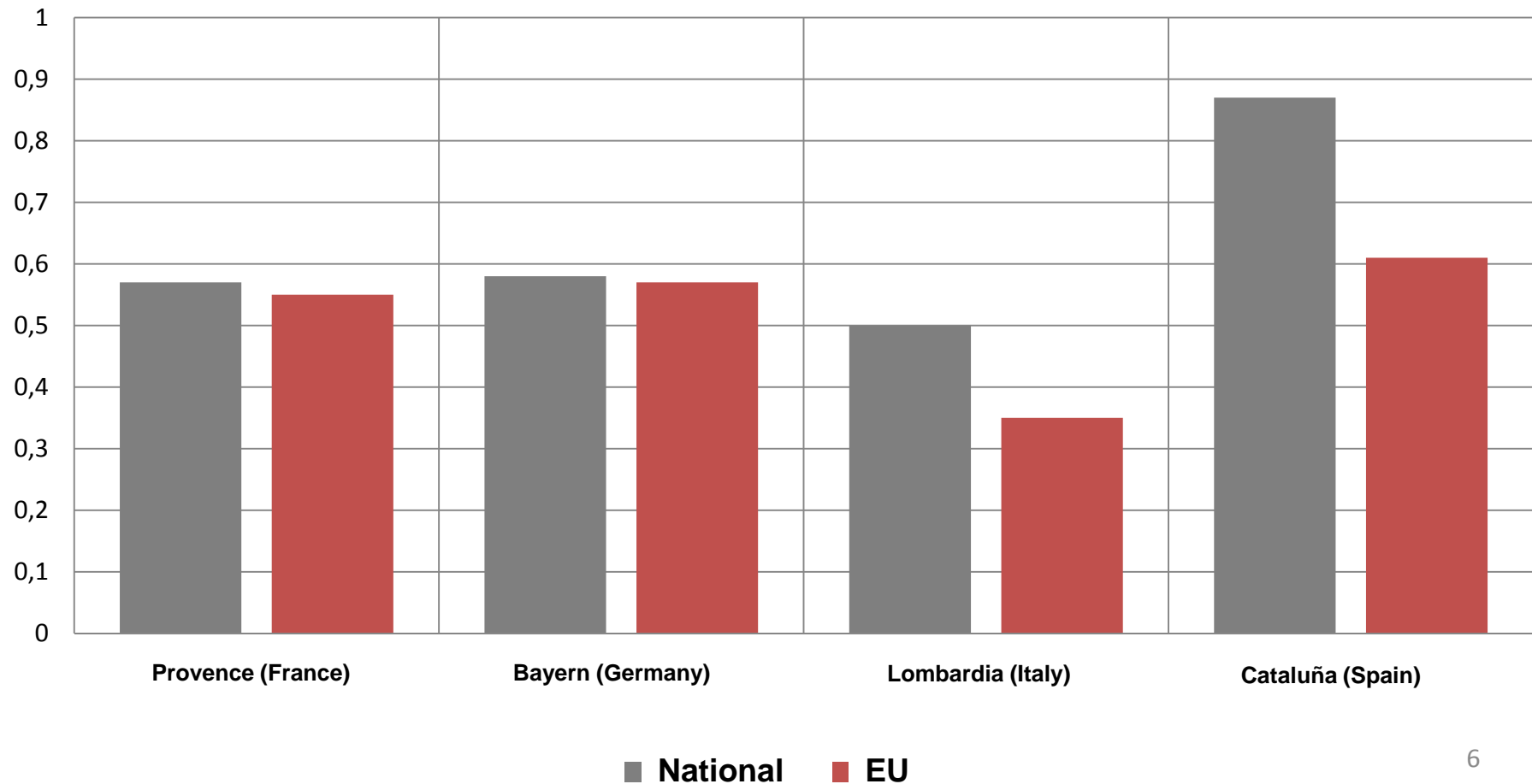
# CONVERGENCE BETWEEN ECONOMIC CYCLES OF EU COUNTRIES

Correlation coefficient between growth of regional and aggregate employment (national and EU) 1996-2000



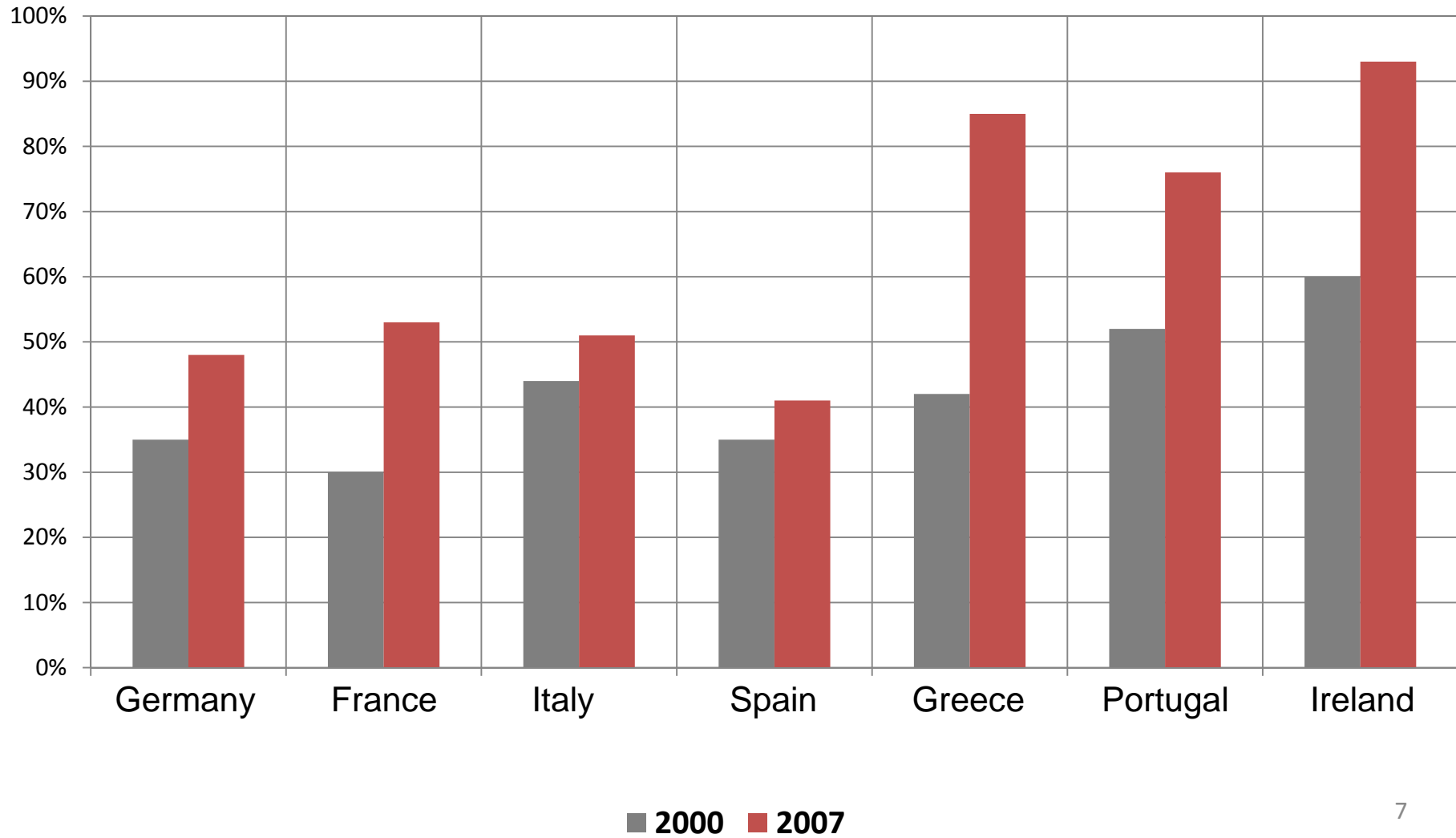
# CONVERGENCE BETWEEN ECONOMIC CYCLES OF EU COUNTRIES

Correlation coefficient between growth of regional and aggregate employment (national and EU) 2001-2006

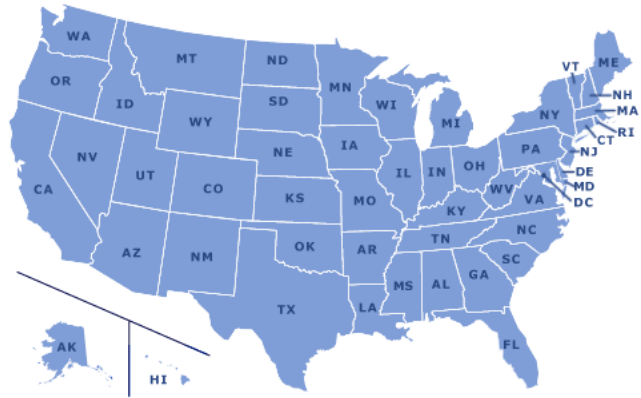


# PUBLIC DEBT EUROPEANIZATION

## Eurozone - % Government Debt held by Foreign Investors



# INTERNATIONAL FINANCIAL CRISIS



**2007:** *subprime crisis*

**2008:** Lehman brothers default



# INTERNATIONAL FINANCIAL CRISIS - TRANSMISSION IN EUROPE

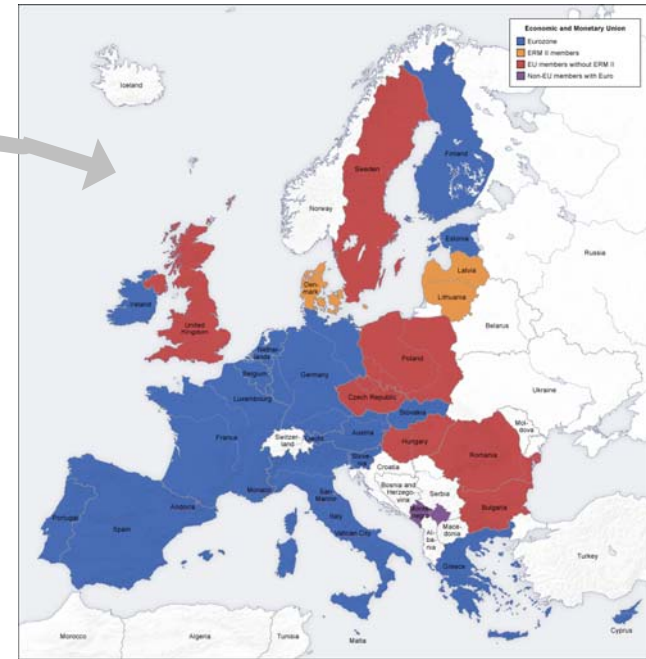
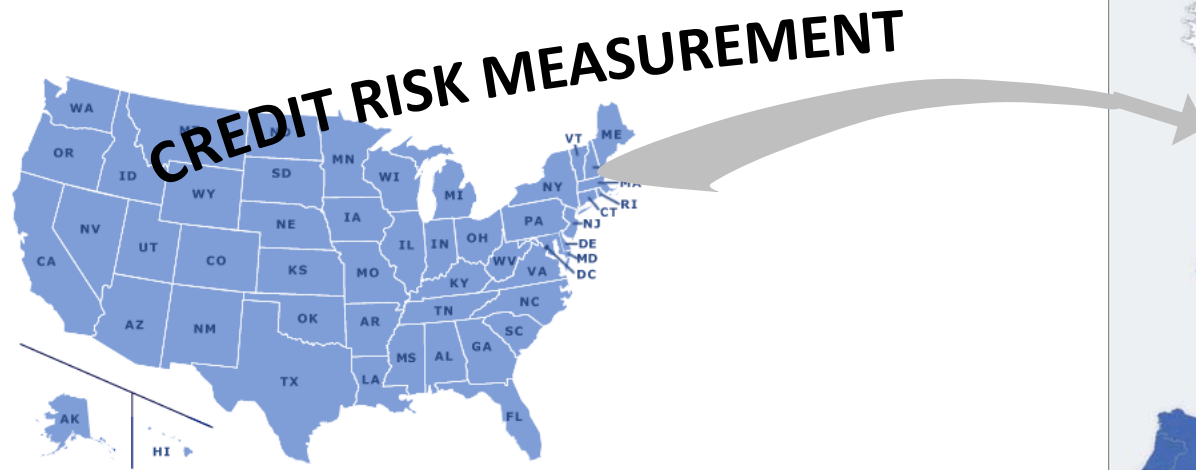
## CREDIT RISK MEASUREMENT



**2007:** *subprime crisis*

**2008:** Lehman brothers default

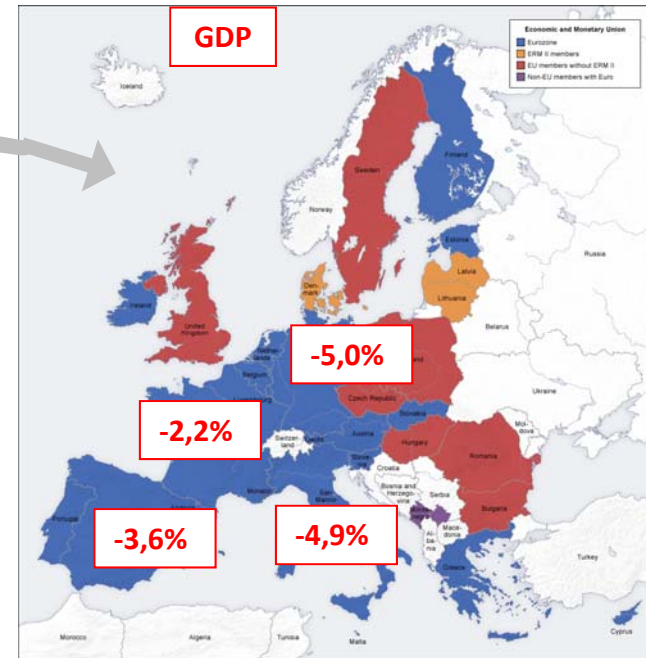
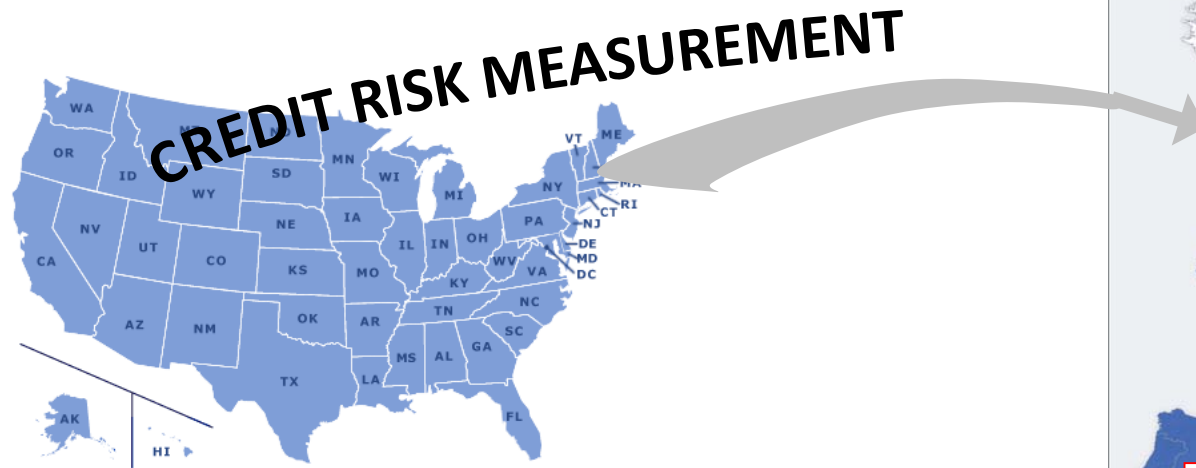
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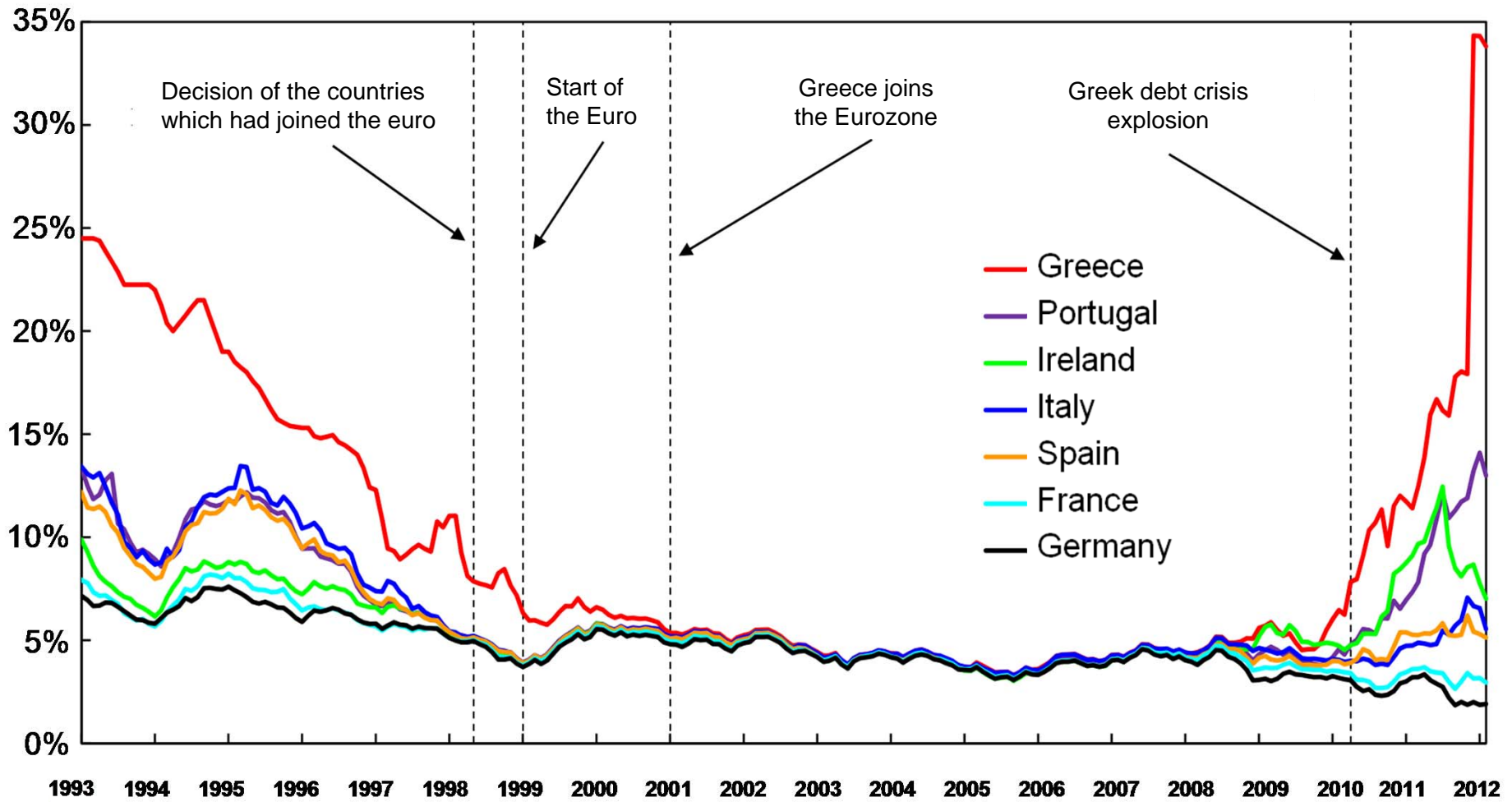
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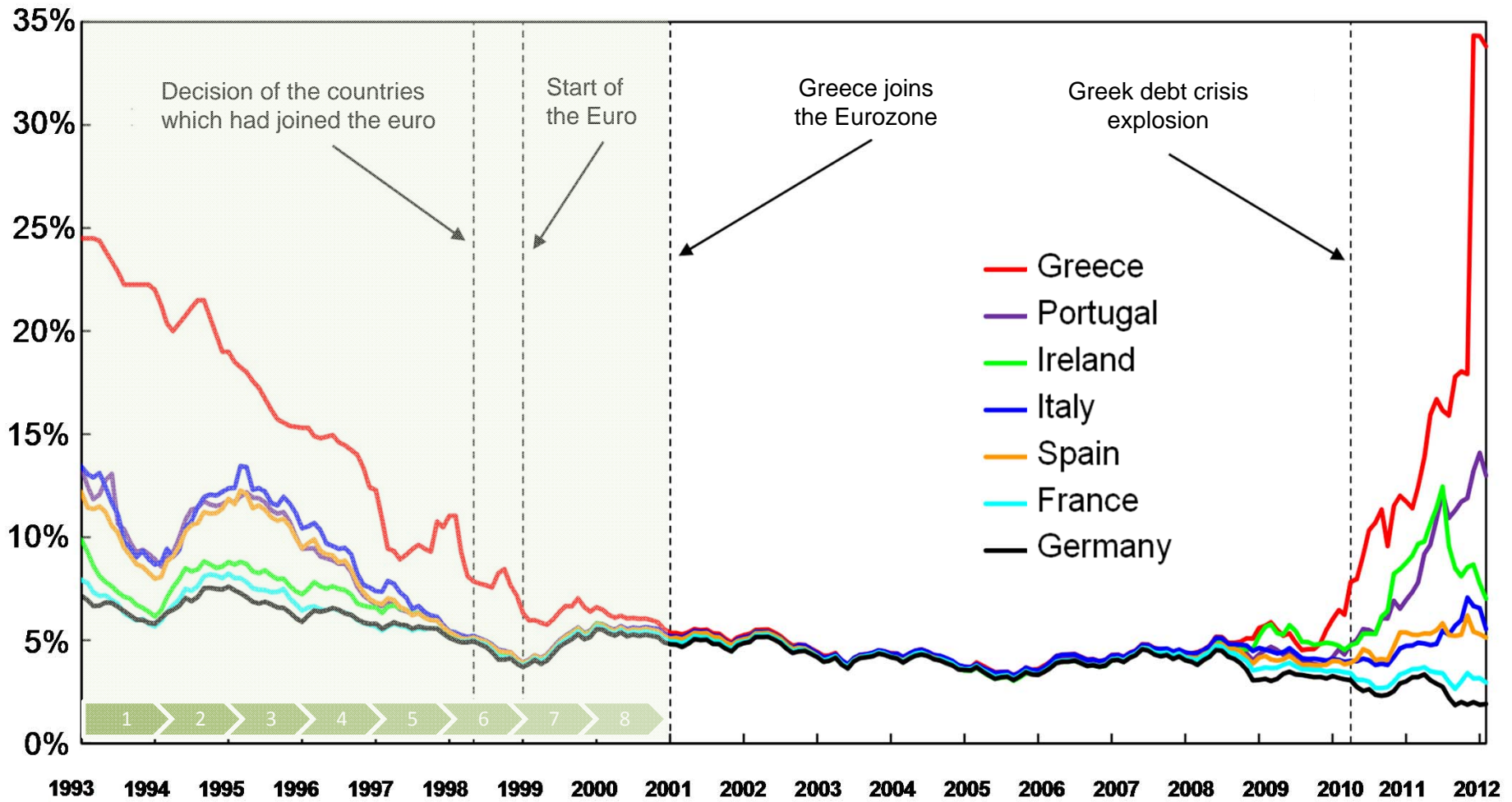
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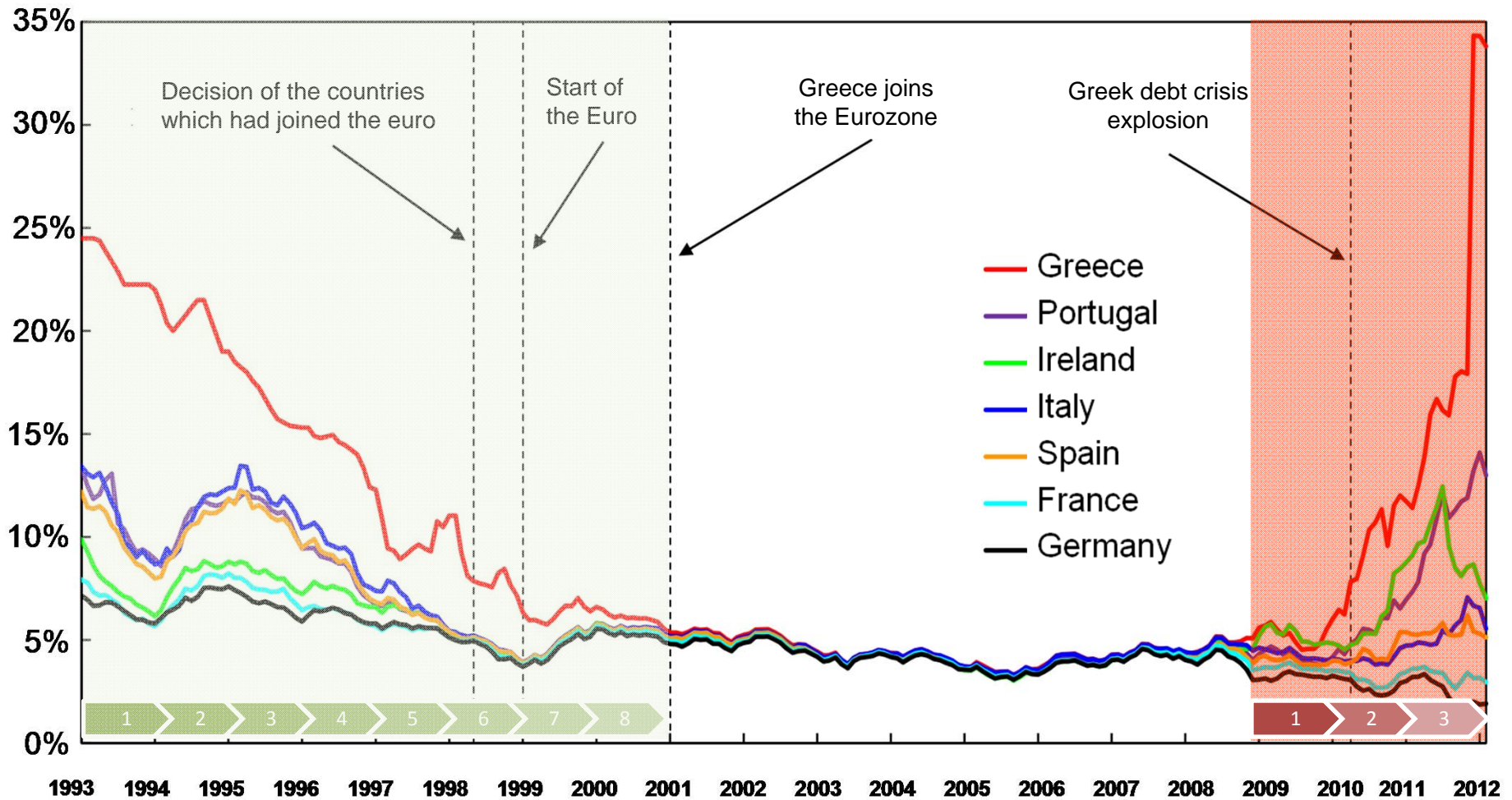
# THE BREAKUP OF THE UNIQUE INTEREST RATES CURVE



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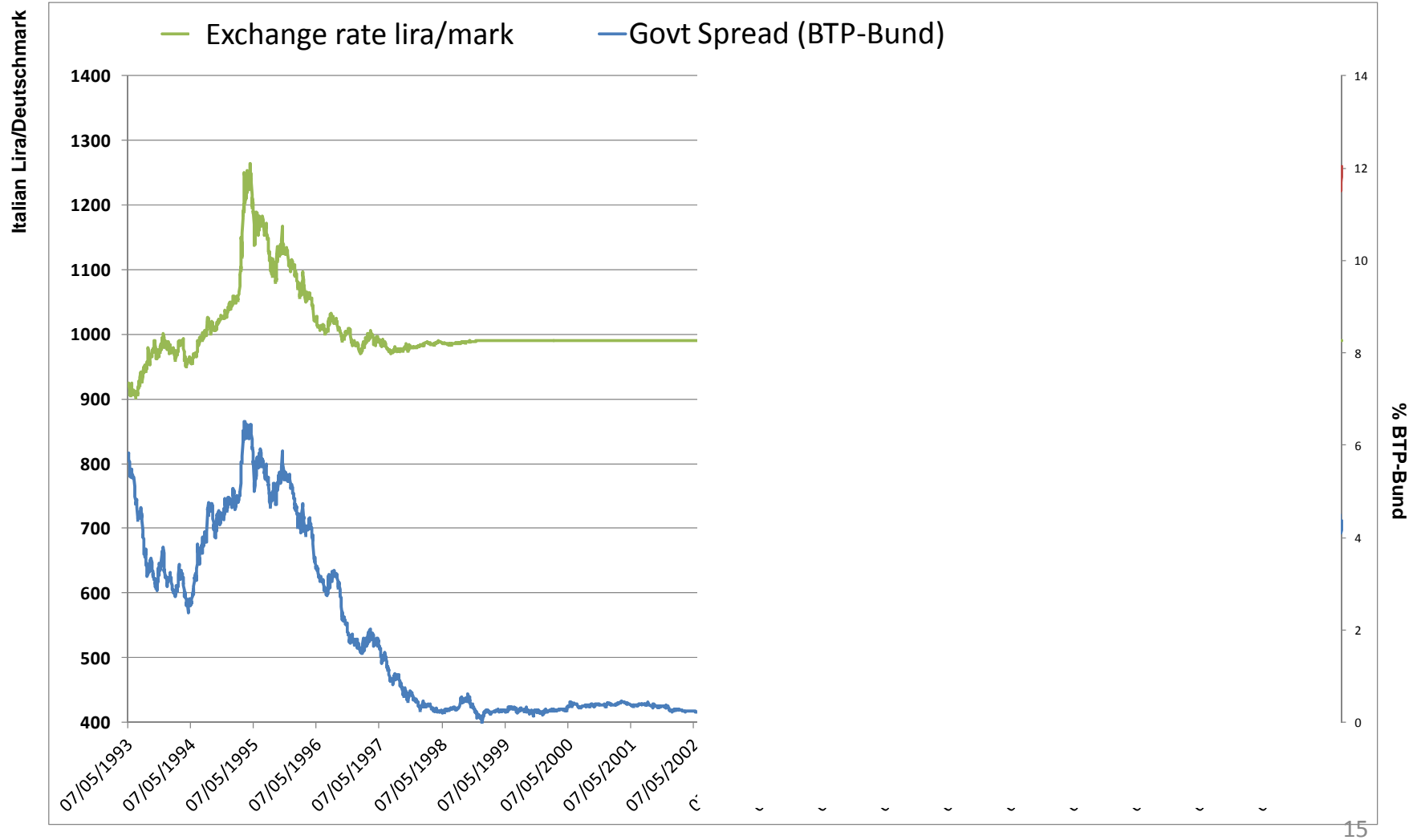


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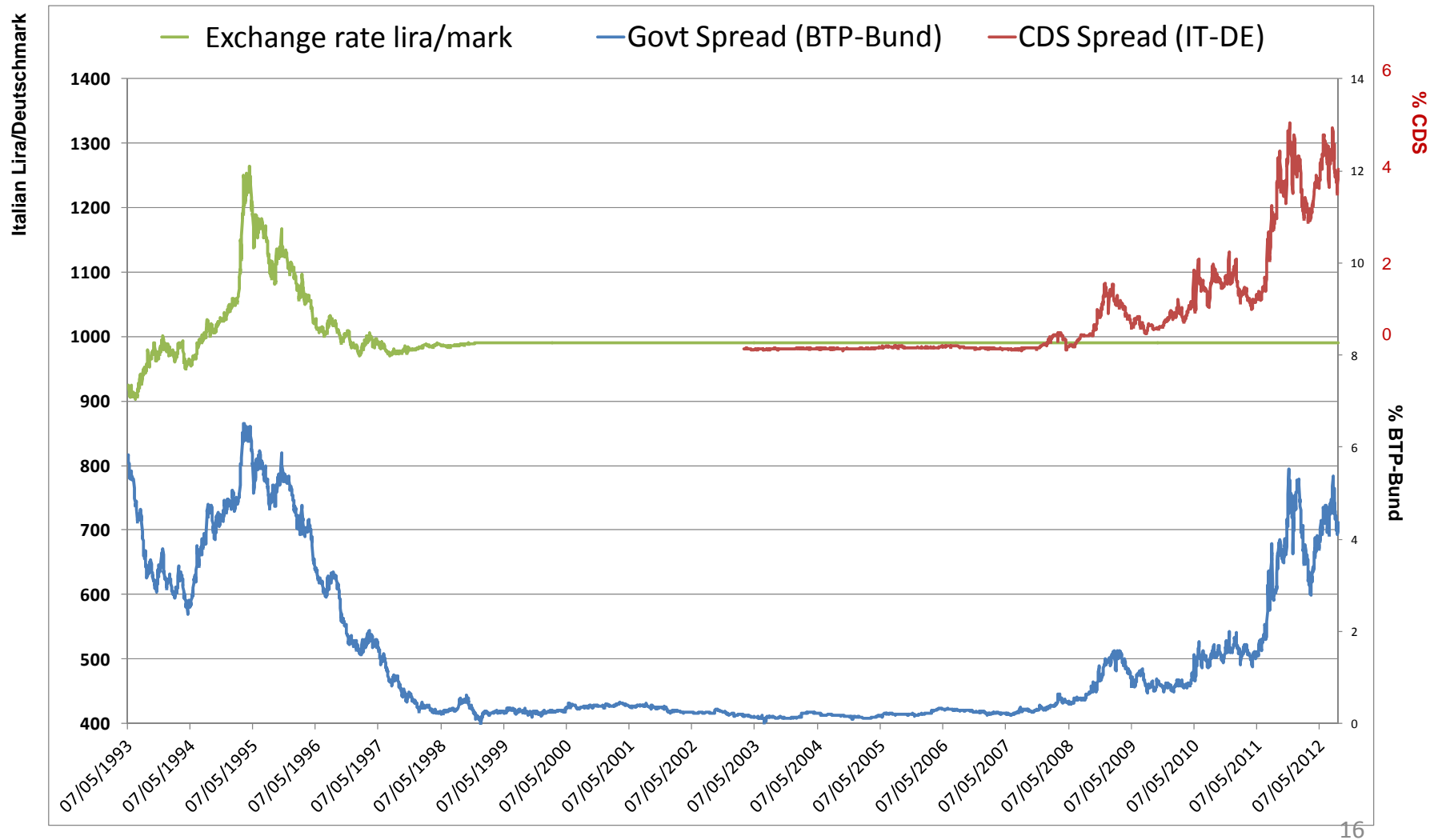
# SHADOW CURRENCIES/EXCHANGE RATE

Interest Rate Parity Theory:  
a full pictures of German/Italian economics



# SHADOW CURRENCIES/EXCHANGE RATE

Interest Rate Parity Theory fails:  
only credit risk





# SHADOW CURRENCIES/EXCHANGE RATE

Large Financialization of the Economy

## Financial Assets/GDP

