

# Integracija finančnih trgov EU

# Finančni institucije in trgi

Aleš S. Berk

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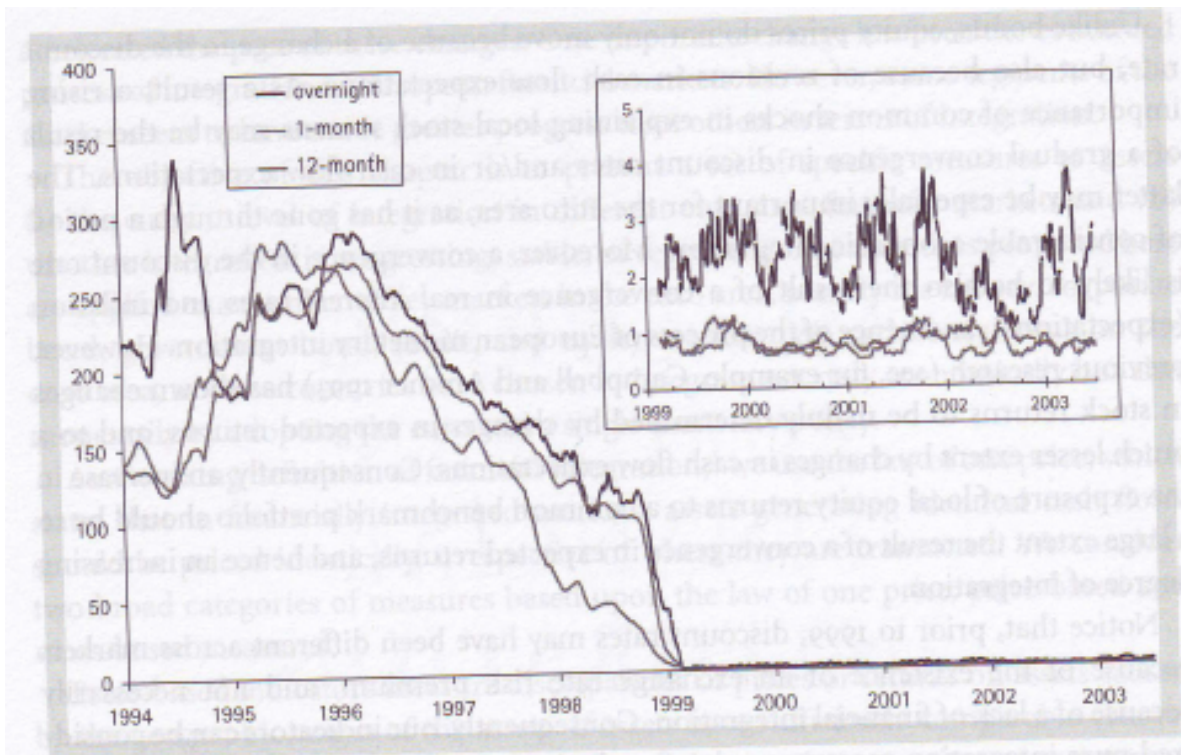
Literatura, na kateri temelji predavanje:

- Baele et al., 2008 (ch.5) v Freixas, Hartmann, Mayer (Hbk of European Fin Mkts & Inst.).

# Izhodišče

- Denarni trgi
- Trgi državnih obveznic
- Trgi podjetniških obveznic
- Bančni trgi
- Delniški trgi

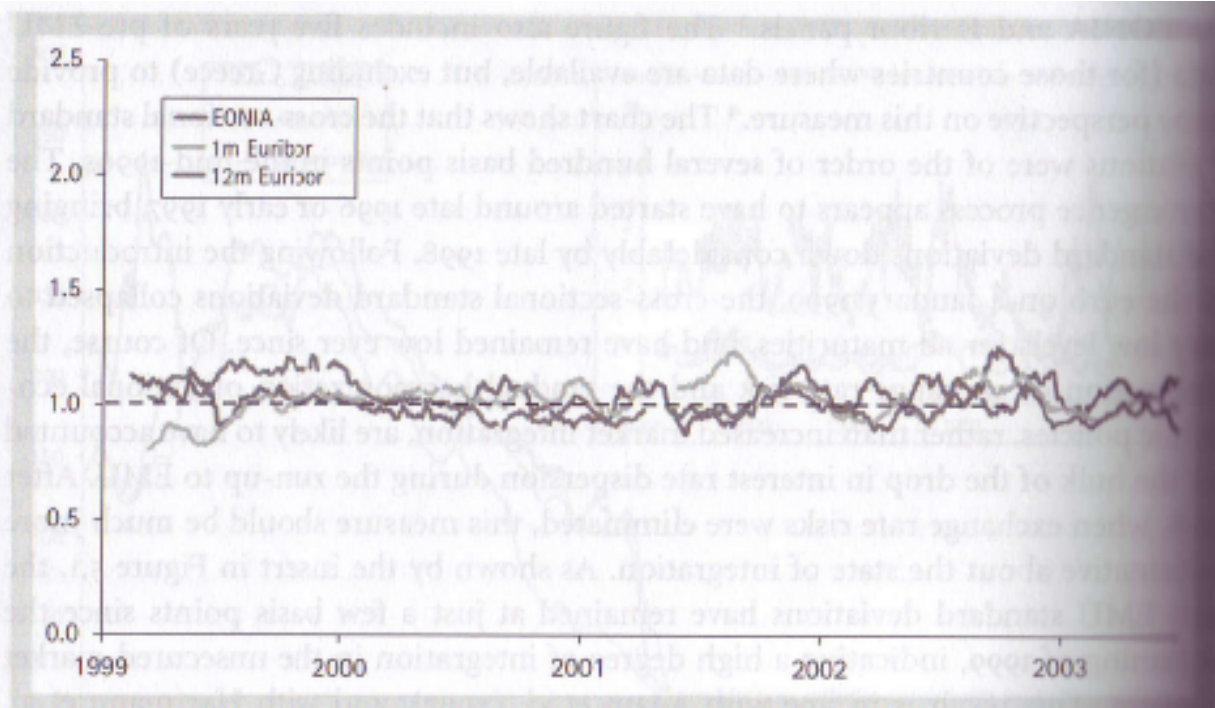
# Denarni trgi – medbančni trgi (nezavarovanih posojil)



**Fig. 5.1. Cross-sectional standard deviation of unsecured lending rates among euro area countries (thirty-day moving average, basis points)**

Source: European Banking Federation, Global Financial Data Inc, authors' calculations

# Denarni trgi – medbančni trgi (nezavarovanih posojil)



**Fig. 5.2. Ratio between average cross-country unsecured interest rate deviations and average within-country deviations (thirty-day moving average)**

Source: European Banking Federation, authors' calculations

# Denarni trgi – repo trgi

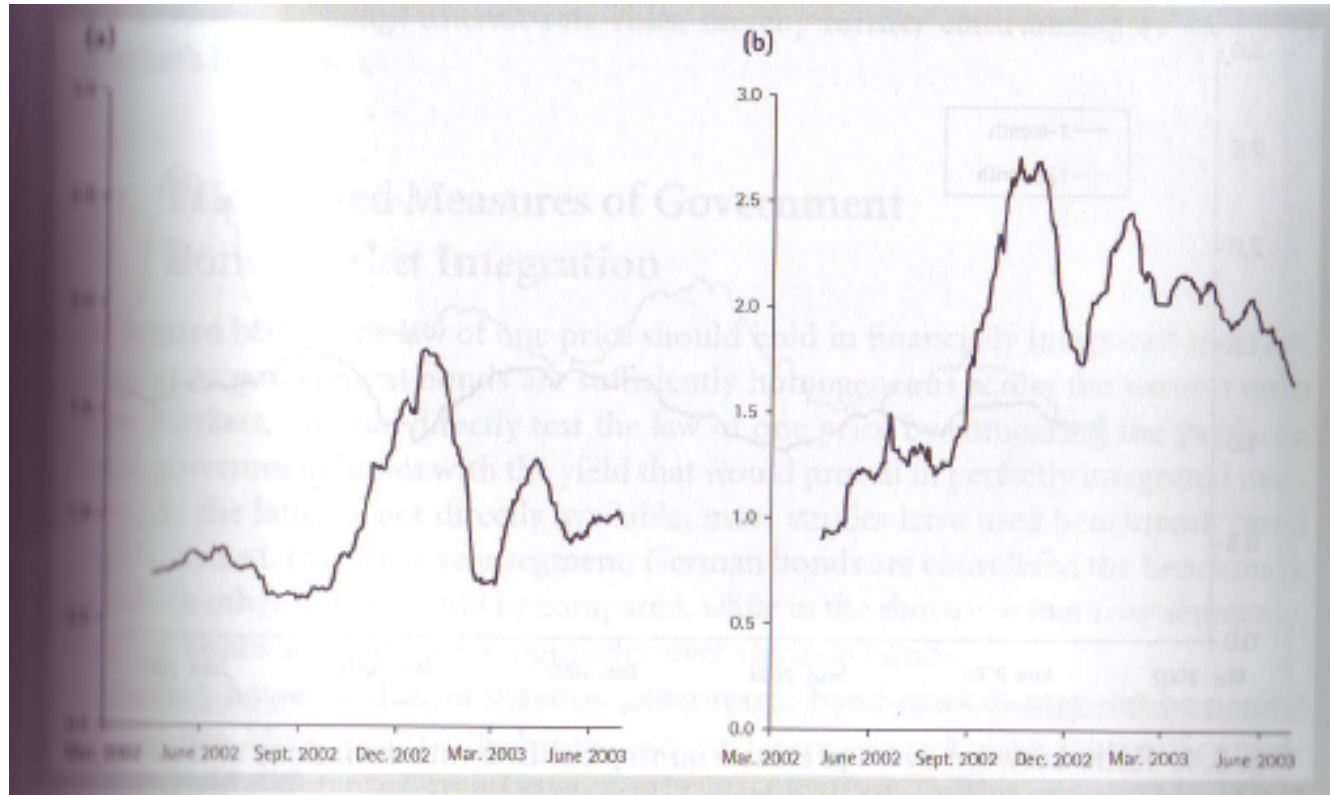


Fig. 5.3. Cross-sectional standard deviation of repo rates among euro area countries (thirty-day moving average, basis points) (a) One-month maturity (b) Twelve-month maturity

Source: European Banking Federation, authors' calculations

# Denarni trgi – repo trgi

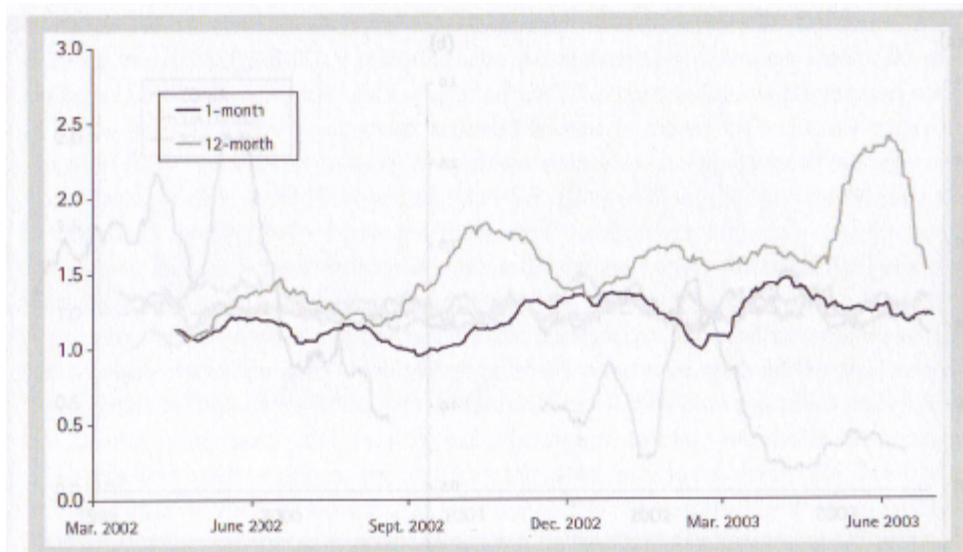


Fig. 5.4. Ratio between average cross-country EUREPO rate deviations and average within-country deviations (thirty-day moving average)

Source: European Banking Federation, authors' calculations

Denarni trgi najbolj integrirani izmed vseh trgov, še posebej trg medbančnih nezavarovanih posojil

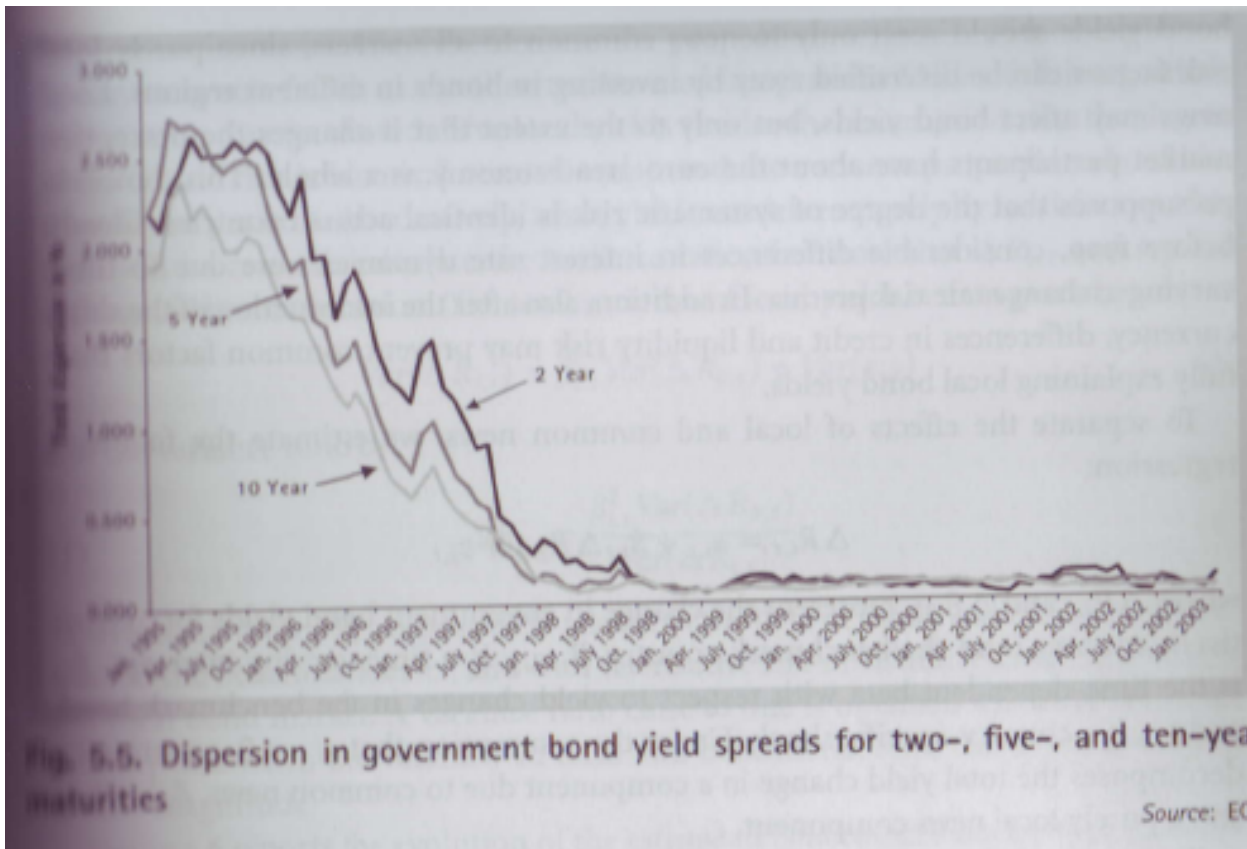
# Trgi državnih obveznic – cenovni vidik (*price-based measures*)

Table 5.1. Average yield spread for ten-year government bonds relative to Germany

	Austria Aaa	Finland Aaa	France Aaa	Ireland Aaa	The Netherlands Aaa	Belgium Aa1	Spain Aa1	Italy Aa2	Portugal Aa2	Greece Aa2
1993	18.4	230.1	25.5	119.9	-16.2	70.6	369.9	467.2	468.1	1685.7
1994	16.6	217.5	35.3	122.9	0.2	88.8	313.3	365.8	361.2	1402.7
1995	28.4	194.0	68.6	160.2	4.9	63.1	442.7	535.7	462.1	1042.6
1996	11.3	88.3	11.6	115.0	-5.9	27.8	252.2	313.1	235.5	842.0
1997	3.3	76.5	-7.1	65.1	-7.3	10.1	73.9	118.0	71.8	454.4
1998	16.3	24.6	8.5	24.5	7.0	19.1	27.8	33.7	28.6	393.3
1999	20.3	22.6	11.8	21.6	14.1	26.2	24.2	25.1	31.2	190.8
2000	29.9	20.3	13.9	25.2	15.2	33.3	27.0	33.3	35.1	82.2
2001	27.4	22.8	13.3	19.3	14.9	32.0	28.8	37.5	35.8	48.9
2002	16.8	18.2	8.4	21.6	11.1	19.8	15.2	24.2	22.6	32.3

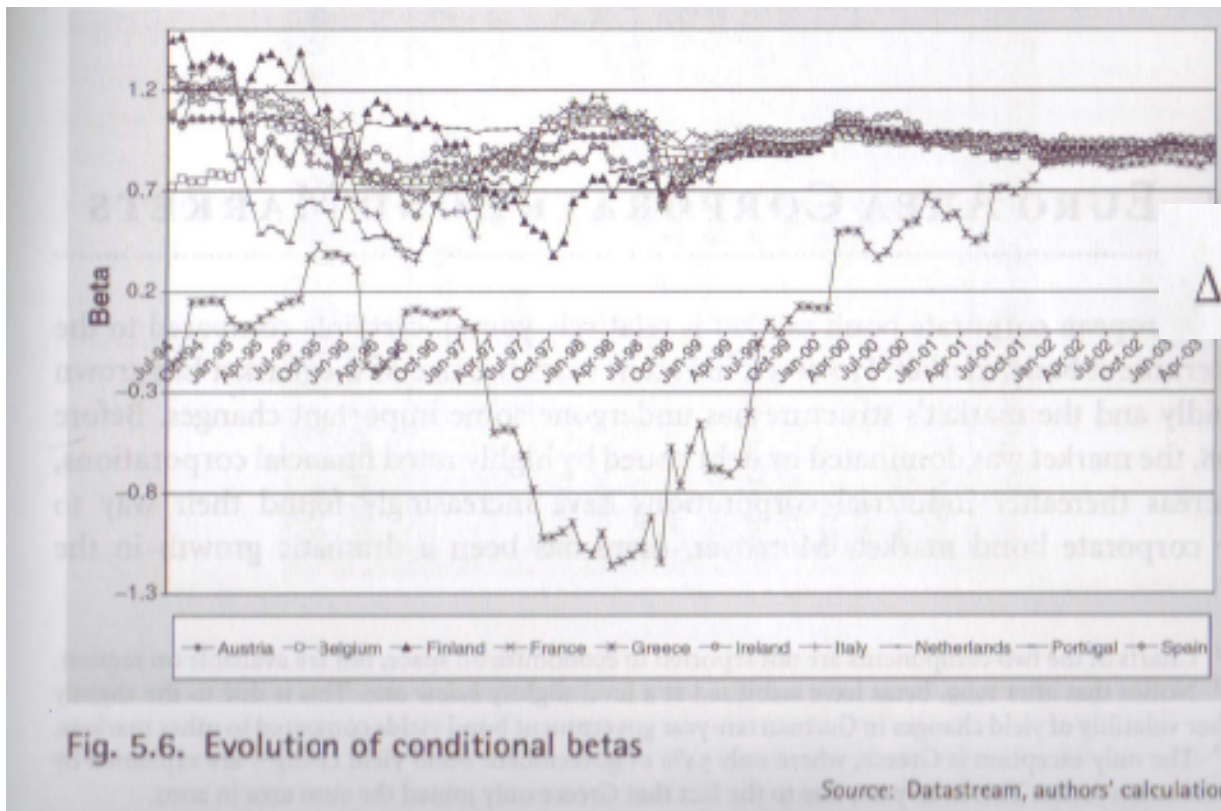
Sources: Datastream, authors' calculations. Credit ratings (end 2002) are from Moody's.

# Trgi državnih obveznic – cenovni vidik (*price-based measures*)





# Trgi državnih obveznic – informacijski vidik (*news-based measures*)



$$\Delta R_{i,t} = a_{i,t} + \beta_{i,t} \Delta R_{B,t} + \varepsilon_{i,t}$$

- Zelo visoka stopnja integracije (z obeh vidikov)
- Manjše razlike glede na državo izdaje in likvidnost

# Nestanovitnost donosnosti državnih obveznic

European Central Bank - [Statistical Data Warehouse](#) - Quick View

Print

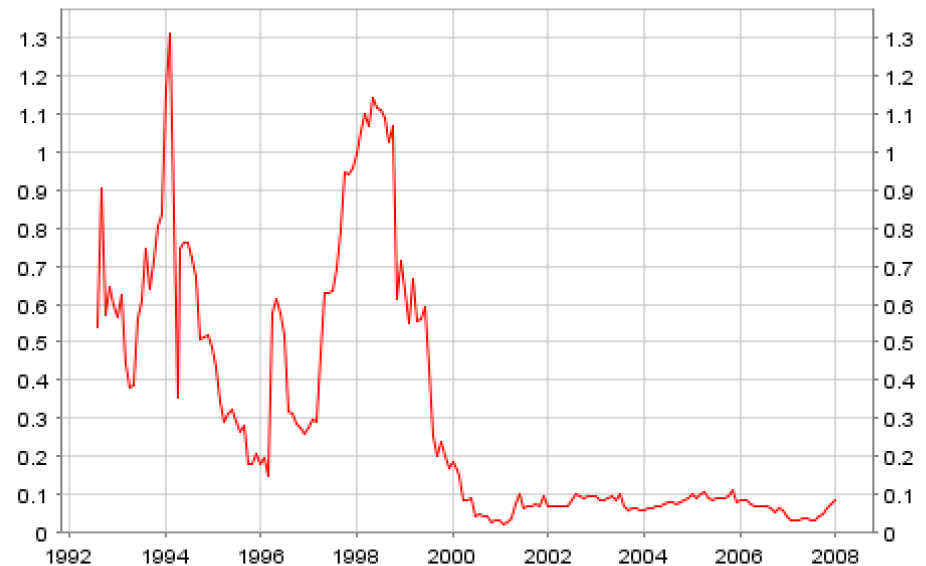
Export

## Parameters and Transformations

### Series Level Information

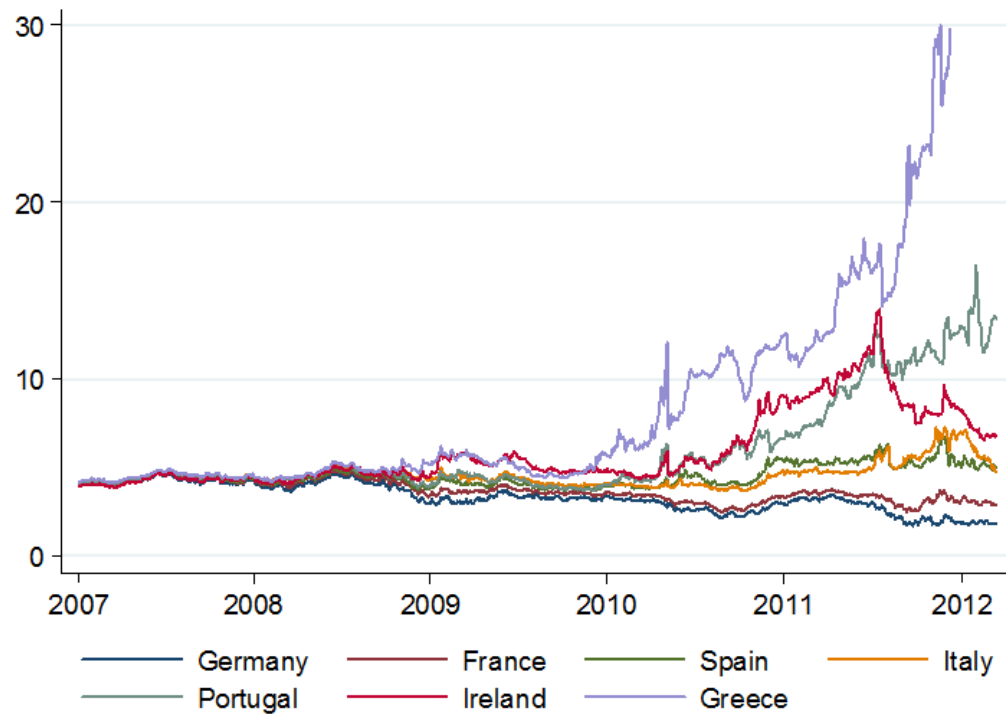
<b>Title</b>	Euro area (changing composition), Government bond - Government bond - 10 years, World not allocated (geographically) counterpart, Cross-sectional dispersion with imposed mean, denominated in Euro
<b>Series Key</b>	IFI.M.U2.BG.3D.G000.CI.Z5.EUR
<b>Last update</b>	2008-10-02 14:30:33.0
<b>Unit</b>	Points
<b>Decimals</b>	Four (4)
<b>Collection Indicator</b>	End of period (E)
<b>Frequency</b>	Monthly
<b>Dataset</b>	IFI : Indicators of Financial Integration

### Data Chart



# Konec konvergence... (vir: Kilponen, 2012)

Figure 1. Yields of the 10-year government bonds for selected euro area countries



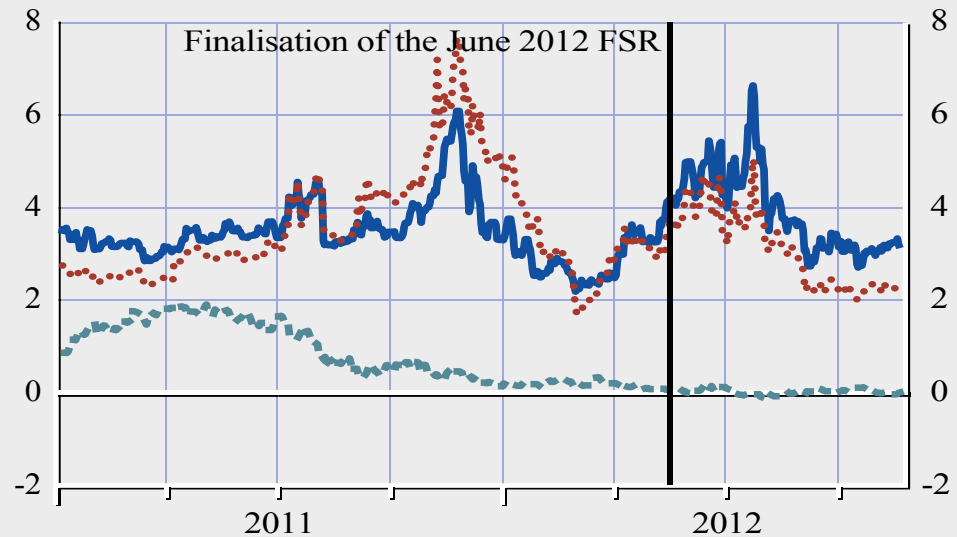
# Trg državnih obveznic v času krize

Chart 3.6 Two- and ten-year government bond yields in Germany, Italy and Spain

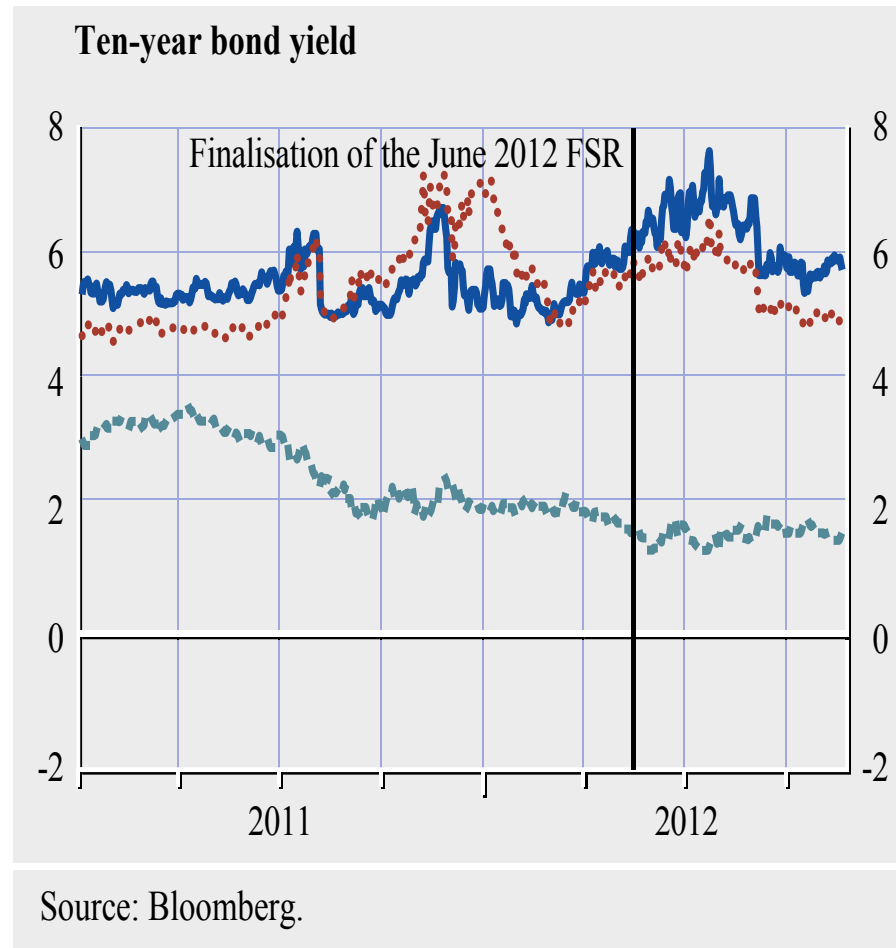
(Jan. 2011 – Nov. 2012; percentages)

- Spain
- ..... Italy
- - - Germany

## Two-year bond yield



# Trg državnih obveznic v času krize



# Trgi podjetniških obveznic – delež pojasnjene variance donosnosti

Table 5.2. Average proportion of local variance explained by benchmark for two-, five-, ten-year maturities (%)

	Rating end 2002	2-year maturity		5-year maturity		10-year maturity	
		1995-8	1999-2003	1995-8	1999-2003	1995-8	1999-2003
Austria	Aaa	60	83	61	92	90	98
Finland	Aaa	38	87	53	85	38	93
France	Aaa	benchmark	benchmark	82	98		
Germany	Aaa	55	88	72	96	benchmark	
Ireland	Aaa	n.a.	n.a.	58	83	77	95
The Netherlands	Aaa	59	93	72	91	95	99
Belgium	Aa1	61	84	70	94	86	98
Spain	Aa1	37	87	59	90	47	96
Italy	Aa2	23	81	46	91	32	94
Portugal	Aa2	44	63	62	85	40	96
Greece	A2	n.a.	n.a.	n.a.	70	7	54

Sources: Datastream, authors' calculations.

# Trgi podjetniških obveznic – cenovni vidik

Table 5.3. Average parameter estimates for cross-sectional regression (with  $p$ -values)

Rating effect			Country effect		
AAA	-33.79	0.00	Austria	2.21	0.00
AA1	-23.09	0.00	Germany	-1.54	0.06
AA2	-21.74	0.00	Spain	3.86	0.00
AA3	-14.66	0.00	France	-7.64	0.00
A1	-2.55	0.21	Ireland	5.78	0.00
A2	17.94	0.00	The Netherlands	-0.57	0.01
A3	24.10	0.00			
BBB	69.46	0.00			
Sector effect			Common effect	86.52	0.00
Financial	-0.27	0.19	Maturity effect	1.88	0.00
Non-financial	0.31	0.38	Coupon effect	4.17	0.00
			Liquidity effect	-66.19	0.00

# Trgi podjetniških obveznic – vidik sestave premoženja (*quantity-based measures*)

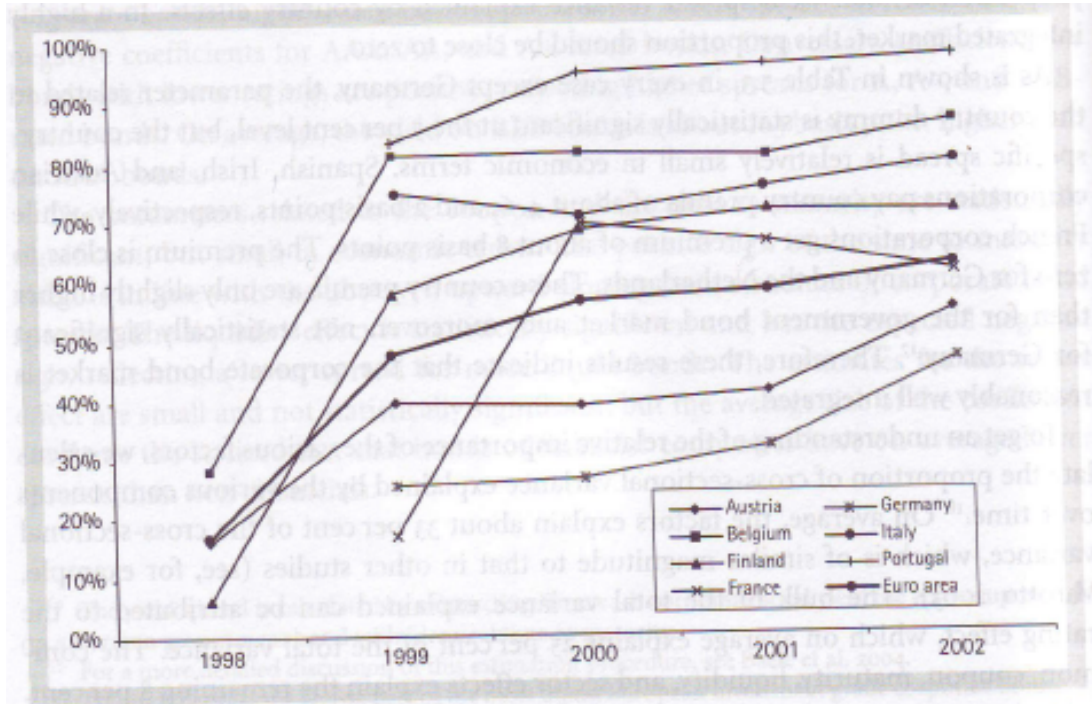


Fig. 5.7. Proportion of assets invested in bond market funds with a Europe-wide investment strategy

Source: Fédération Européenne des Fonds et Sociétés d'Investissement (FEFSI) and authors' calculations

- Dobra integriranost, država izdaje ima le malo pojanjevalne moči
- Obvezniški portfelji so čedalje bolj mednarodni



# Bančni trgi – cenovni vidik

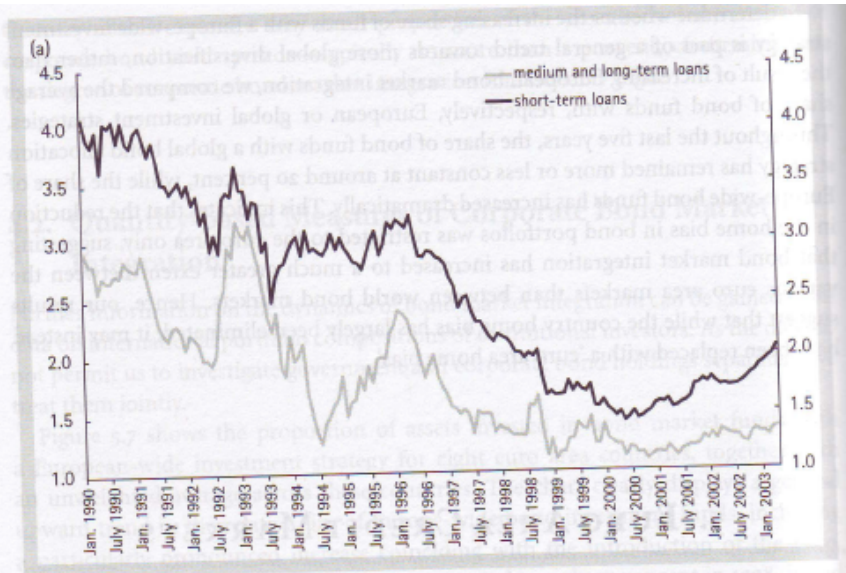


Fig. 5.8a. Cross-sectional standard deviation of interest rates on short-term and medium- and long-term loans to enterprises Part b: Cross-sectional standard deviation of interest rates on consumer and mortgage loans

Source: ECB, authors' calculations

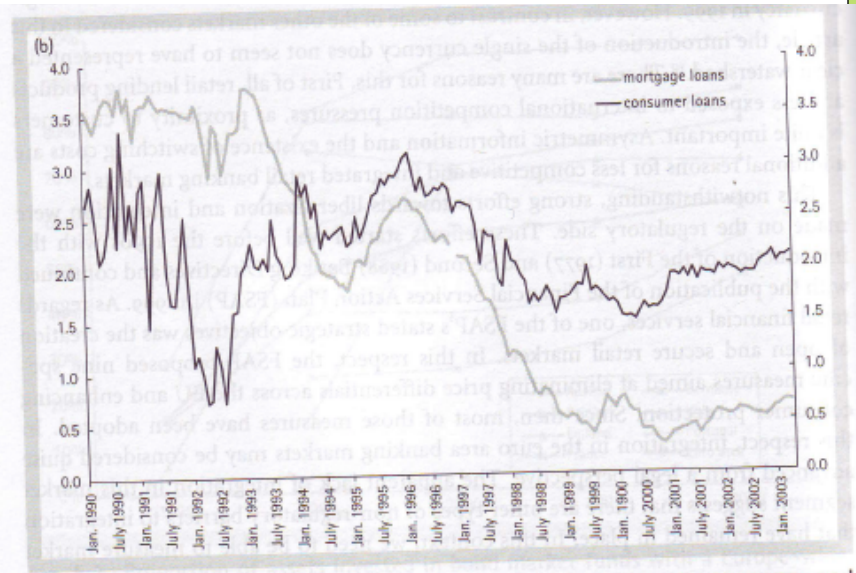


Fig. 5.8b. Cross-sectional standard deviation of interest rates on consumer and mortgage loans

Source: ECB, authors' calculations

# Bančni trgi – informacijski vidik

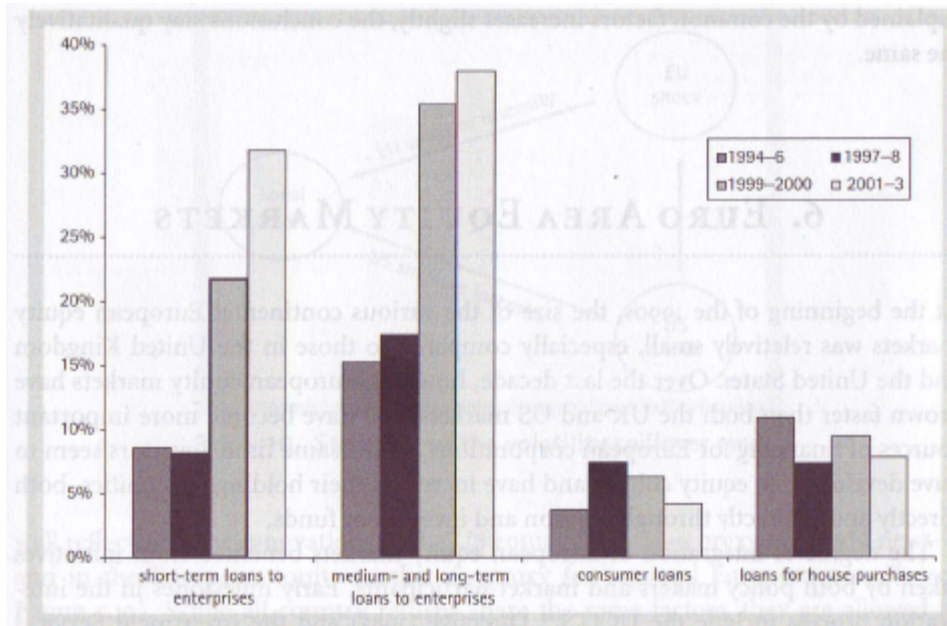
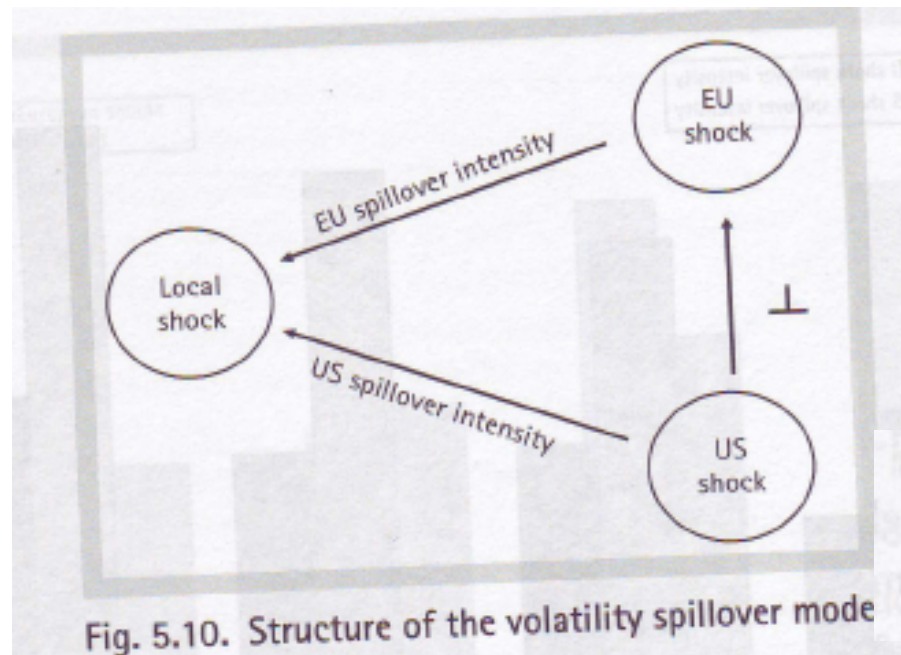


Fig. 5.9. Proportion of variance of various interest rates explained by common factors (euro area average)

Source: ECB, authors' calculations

- Odzivi na novice o relativni tveganost posamezne skupine...
- Kljub visoko poenoteni regulativi, razlike v višini obretnih mer relativno visoke; podjetniški segment bolj integriran tisti daljših ročnosti
- Potrošniška posojila – še zelo fragmentiran trg

# Delniški trgi – informacijski vidik



$$\beta_{i,t}^{EU} = \zeta_{i,0} + \zeta_{i,1}D_t^1 + \zeta_{i,2}D_t^2 + \zeta_{i,3}D_t^3$$

$$\beta_{i,t}^{US} = \psi_{i,0} + \psi_{i,1}D_t^1 + \psi_{i,2}D_t^2 + \psi_{i,3}D_t^3$$

<sup>26</sup> To separate global from European news, we orthogonalize European and US shocks, assuming that part of the EU shock is explained by return innovations in the US equity market. Moreover, to avoid spurious correlation, as a proxy for EU equity market returns, we calculate a market-weighted average of the equity returns in all countries, except the country whose stock market is being analysed.

<sup>27</sup> More detailed estimates can be found in Baele 2004 and Baele et al. 2004.

# Delniški trgi – informacijski vidik

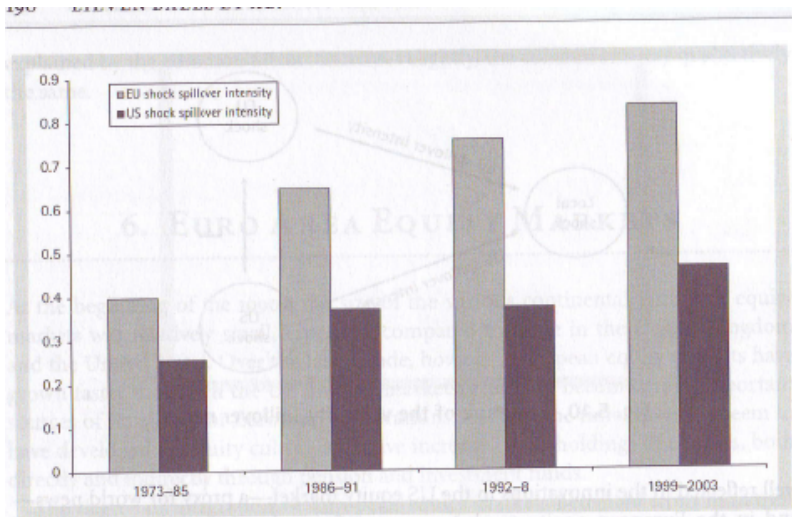


Fig. 5.11. Euro area and US shock spillover intensity

Source: Datastream and authors' calculations

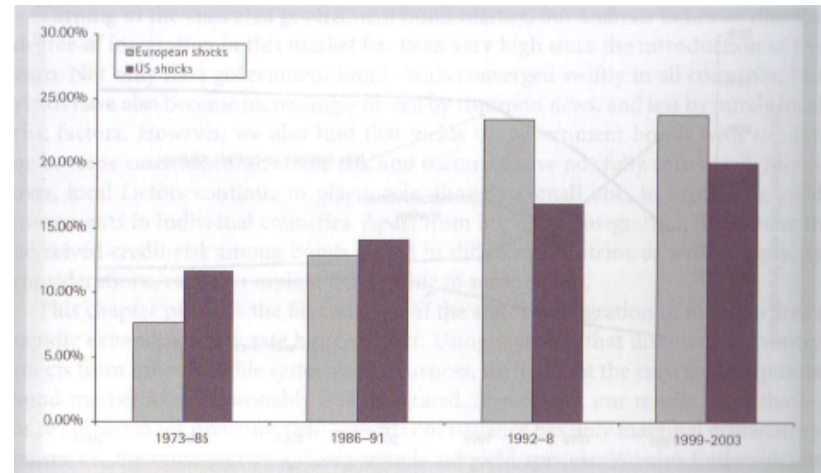


Fig. 5.12. Proportion of variance explained by European and US shocks

Source: Datastream and authors' calculations

# Delniški trgi – informacijski vidik

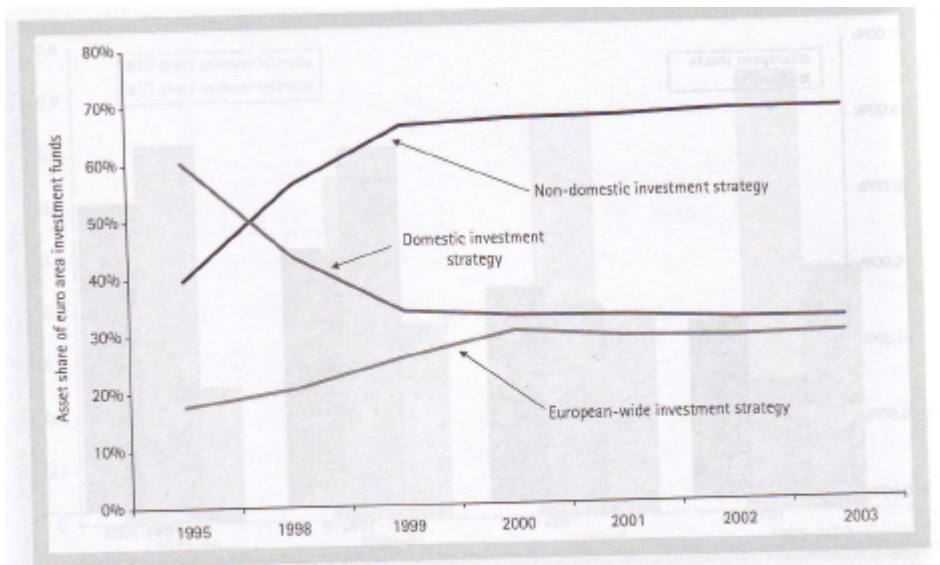


Fig. 5.13. Share of equity funds with domestic, European, and non-domestic investment strategy

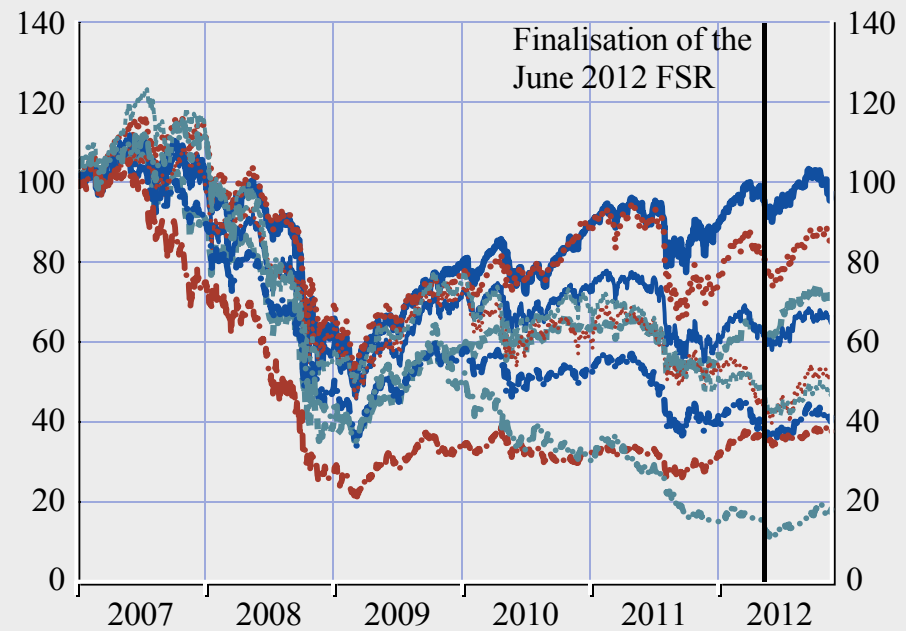
Source: Fédération Européenne des Fonds et Sociétés d'Investissement (FEFSI) and authors' calculations

- Delniški trgi znotraj EU postajajo vse bolj odzivni na “EU novice”
- Bistveno zmanjšan t.i. *home-bias* pojav

# Delniški trgi po 2007

## Chart 3.12 Equity price developments in the euro area and the United States

(Jan. 2007 – Nov. 2012; index: Jan. 2007 = 100)



Source: Thomson Reuters.

# Mera integracije v času pred in po krizi

**Table 9: Dependence Changes during the European Sovereign Debt Crisis**

This table presents cross-country averages of the dependence levels of the industrial stock index returns of the 12 Euro zone national markets with regard to their corresponding EMU industry indices excluding the examined markets, for the period of the European sovereign debt crisis. The pre-crisis and crisis sample periods are 3/01/2009–3/31/2010 and 4/01/2010–12/31/2011, respectively. Panel A reports cross-country averages, where high-risk countries are Greece, Ireland, Italy, Portugal, and Spain. Panel B reports cross-industry averages. Panel C reports averages across both countries and industries. The numbers in parenthesis are the percentage of available countries with a significantly higher (lower) dependence at the 5% level if the % change is positive (negative). ‘\*’ indicates the significance of % change at the 1% level for Greek industry indices.

	Euro Area			High-risk Countries			Greece		
	Pre-Crisis 3/01/09– 3/31/10	Crisis Period 4/01/10– 12/31/11	% Change	Pre-Crisis 3/01/09– 3/31/10	Crisis Period 4/01/10– 12/31/11	% Change	Pre-Crisis 3/01/09– 3/31/10	Crisis Period 4/01/10– 12/31/11	% Change
<b>Panel A: Results by Industry</b>									
Financials	0.834	0.821	–1.6 (33)	0.789	0.764	–3.2 (20)	0.749	0.601	–19.8*
Basic Materials	0.752	0.757	0.7 (58)	0.671	0.647	–3.6 (40)	0.687	0.581	–15.4*
Industrials	0.817	0.805	–1.5 (50)	0.822	0.794	–3.4 (60)	0.769	0.688	–10.5*
Cons. Goods	0.665	0.730	9.8 (92)	0.668	0.718	7.5 (80)	0.629	0.636	1.1
Cons. Services	0.733	0.766	4.5 (83)	0.721	0.760	5.4 (80)	0.575	0.616	7.1*
Healthcare	0.512	0.605	18.2 (90)	0.438	0.511	16.7 (75)			
Oil and Gas	0.719	0.767	6.7 (88)	0.738	0.773	4.7 (75)	0.679	0.645	–5.0*
Utilities	0.703	0.747	6.3 (63)	0.820	0.908	10.7 (100)			
Technology	0.672	0.692	3.0 (63)	0.615	0.651	5.9 (67)			
Telecom.	0.654	0.732	11.9 (86)	0.634	0.698	10.1 (75)	0.435	0.456	4.8
<b>Panel B: Results by Country</b>									
Austria	0.661	0.688	4.1 (70)						
Belgium	0.705	0.764	8.4 (80)						
Finland	0.748	0.784	4.8 (63)						
France	0.863	0.905	4.9 (89)						
Germany	0.805	0.847	5.2 (89)						
Greece	0.646	0.603	–6.7 (57)						
Ireland	0.587	0.640	9.0 (71)						
Italy	0.803	0.846	5.4 (80)						
Luxembourg	0.428	0.452	5.6 (50)						
Netherlands	0.788	0.816	3.6 (56)						
Portugal	0.581	0.578	–0.5 (38)						
Spain	0.776	0.833	7.3 (70)						
<b>Panel C: Overall Results</b>									
	0.706	0.742	5.1 (65)						