

# Central Bank Transparency and Financial Stability: Measurement, Determinants and Its Effects

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- Motivation
- Central Bank Transparency Index on Financial Stability Issues
- Regression Results
  - What Drives Central Bank Transparency?
  - Does Transparency Have an Effect on Financial Stress?
- Conclusions

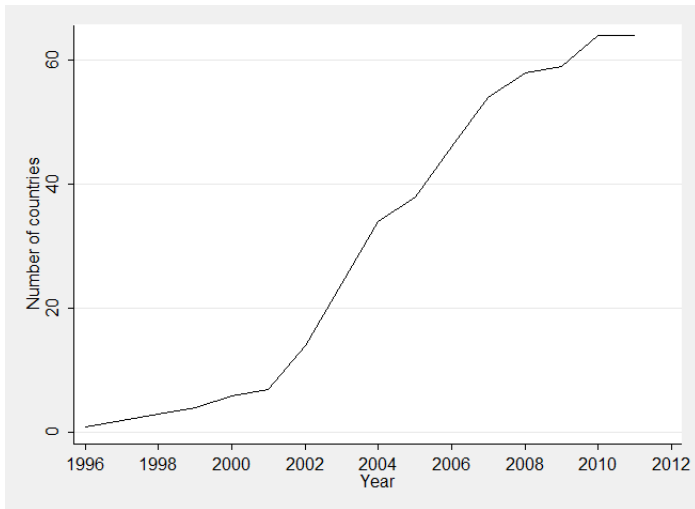
- Theoretical literature skeptical about the benefits of central bank transparency (Morris and Shin ,2002, James and Lawler, 2011)
- The predictions of these theoretical models in sharp contrast with actual data
- The central banks increased transparency, reversals extremely rare
- Transparency increased both in monetary policy conduct and in the policy framework to promote financial stability

# What This Paper Does ....

- Develops a index of how transparent central banks are about their policy framework to promote financial stability for 110 countries in 2000-2011
- Updates the monetary policy transparency index of Dincer and Eichengreen for 110 countries up to 2011
- Examines the determinants of central bank transparency on financial stability issues
- Investigates whether greater central bank transparency is beneficial

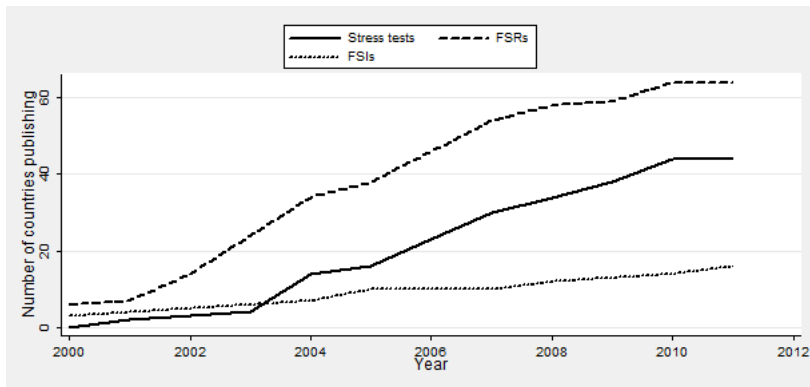
# Financial Stability Reports

Main communication channel, published more and more frequently by central banks



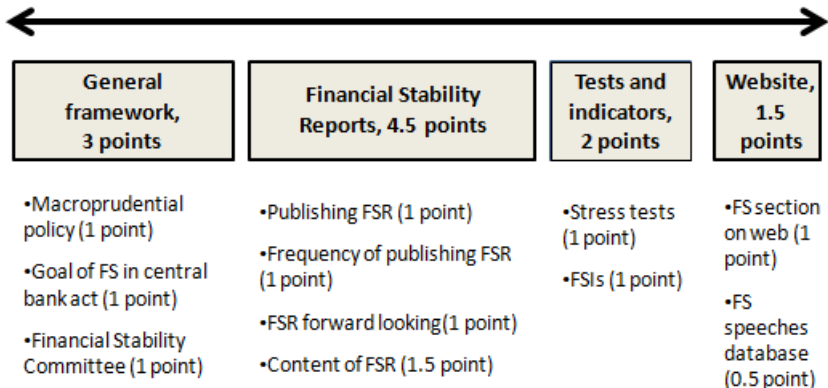
# Not Only Financial Stability Reports

Stress tests and financial stability indicators published more often, too



# Developing Transparency Index on Financial Stability Issues

**FST index - max. 11 points**



<b>General framework, 3 points</b>	<b>Financial Stability Reports, 4.5 points</b>	<b>Tests and indicators, 2 points</b>	<b>Website, 1.5 points</b>
<ul style="list-style-type: none"><li>•Macroprudential policy (1 point)</li><li>•Goal of FS in central bank act (1 point)</li><li>•Financial Stability Committee (1 point)</li></ul>	<ul style="list-style-type: none"><li>•Publishing FSR (1 point)</li><li>•Frequency of publishing FSR (1 point)</li><li>•FSR forward looking (1 point)</li><li>•Content of FSR (1.5 point)</li></ul>	<ul style="list-style-type: none"><li>•Stress tests (1 point)</li><li>•FSIs (1 point)</li></ul>	<ul style="list-style-type: none"><li>•FS section on web (1 point)</li><li>•FS speeches database (0.5 point)</li></ul>

# Developing Transparency Index on Financial Stability Issues (II)

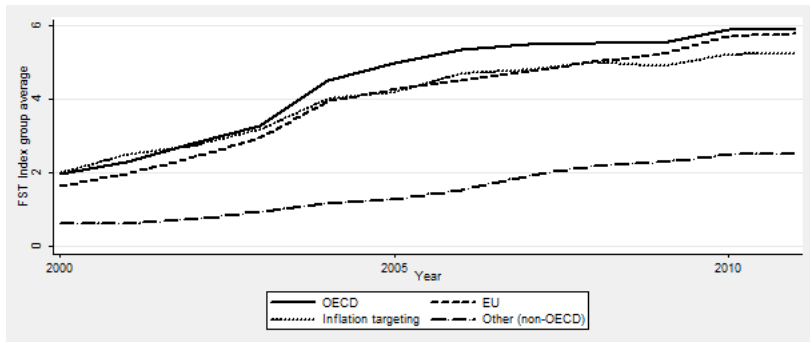
- ① The publication of FSR (0 - not published, 1 - published)
- ② The publication of FSR - the frequency (0 - not published, 1/2 - published annually, 1 - published semi-annually or more often)
- ③ FSR forward looking (0 - not forward looking, 1 - includes outlooks and forecasts of risks)
- ④ The coverage of FSR (in total max. 1.5 points)
  - ① Macroeconomic environment and its risks (1/2 if included)
  - ② Deposit takers information and its risks (1/2 if included)
  - ③ Other subjects or markets information and risks (1/2 if included)
- ⑤ The goal of financial stability is explicitly stated in central bank act (0 - not stated, 1 - explicitly stated)



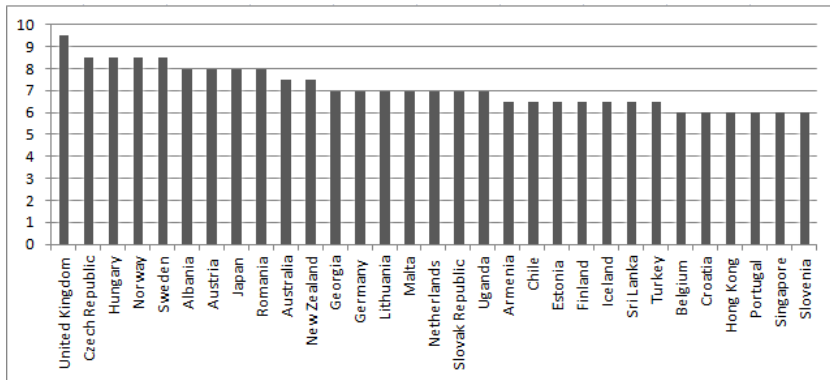
# Developing Transparency Index on Financial Stability Issues (III)

- ① The publication of stress test (0 - stress test not published, 1/2 published annually, 1 - published more often)
- ② The publication of FSIs (0 - not published, 1/2 - core set of FSIs published, 1 - both core and encouraged set published)
- ③ Macroprudential policy transparency (0 - not described, 1/2 - general strategy and co-operation described, 1 - detailed policy and crisis management described)
- ④ Financial Stability (Policy) Committee (0 - no committee, 1 - committee with regular meetings and clear strategy)
- ⑤ The separate section on financial stability on the central bank's website (0 - no separate page (section) on web, 1 - separate page on the web)
- ⑥ The separate section (database) of speeches about financial stability on the central bank's website (0 - no separate section, 1/2 separate section)

# Financial Stability Transparency Index - Results

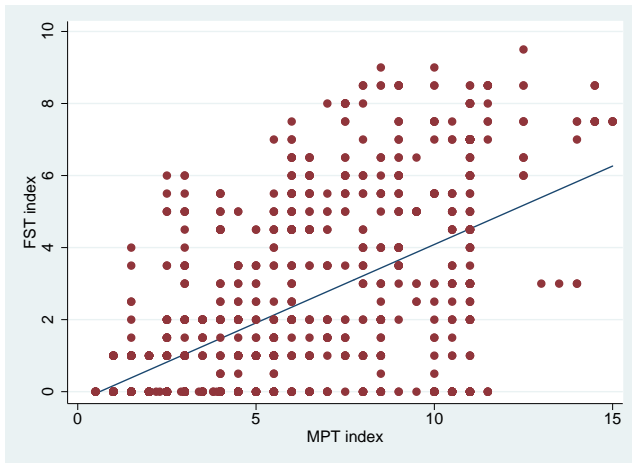


# Financial Stability Transparency Index - Results (II)



# Financial Stability Transparency vs. Monetary Policy Transparency

Do central banks with more transparent monetary policy become more transparent on financial stability issues?



# What Drives Central Bank Transparency on Financial Stability Issues?

Empirical model

$$FSTindex_{i,t} = X_{i,t-j}\beta + \alpha_{i,t} + e_{i,t}$$

- $FSTindex_{i,t}$  – Financial stability transparency index for country  $i$  in time  $t$
- $X_{i,t-j}$  – Explanatory variables lagged by one period
  - Monetary policy transparency index, GDP per capita, market capitalization, inflation targeting, GDP growth
- Fixed effects estimation
- Full sample and restricted sample (the countries with non-negative FST index)

FST index	(I)	(II)	(III)	(IV)	(V)	(VI)
	Full sample			Restricted sample		
MP transparency	0.43*** (7.28)	0.47*** (7.34)	0.46*** (7.00)	0.50*** (7.41)	0.49*** (7.08)	0.45*** (6.26)
GDP p.c.	0.072*** (6.77)	0.072*** (6.73)	0.07*** (6.09)	0.07*** (6.31)	0.07*** (6.30)	0.06*** (5.22)
Financial stress	-0.06* (-1.89)	-0.06** (-2.05)	-0.06** (-1.98)	-0.06* (1.86)	-0.06* (1.84)	-0.07** (2.13)
IT dummy		-0.65 (-1.60)	-0.63 (-1.53)		0.05 (0.10)	0.11 (0.23)
GDP growth			0.0002 (1.05)			0.001** (2.72)
Market capital.			9.90E-05 (0.04)			-0.002 (-0.63)
No. of obs.	387	387	387	320	320	320
R-sqr. adj.	0.21	0.19	0.15	0.29	0.29	0.26

# What Drives Central Bank Transparency on Financial Stability Issues?

## Results summary

- More transparent monetary policy important driver of greater central bank transparency on financial stability issues
- More developed countries more transparent
- The episodes of high financial stress with negative effect on the transparency

# What Drives Central Bank Transparency on Financial Stability Issues?

## Robustness Checks

- ① The determinants of publication of financial stability report (alternative measure of FST)
- ② The financial stress index available only for about a half of countries, regressions without this index
- ③ Explanatory variables lagged by three years instead of one year
- ④ The cross-sectional regression estimated to examine the effect of (time-invariant) legal origin
- ⑤ Two-step Heckman estimation to address that transparency depends on whether financial stability is included as a goal in the central bank act



# Is Transparency on Financial Stability Issues Beneficial?

$$Finstress_{i,t} = FSTindex_{i,t-j}\beta_0 + X_{i,t-j}\beta_1 + \alpha_{i,t} + e_{i,t}$$

- $Finstress_{i,t}$  – financial instability for country  $i$  in time  $t$ : the share of non-performing loans and the IMF financial stress index
- Explanatory variables lagged by one period
  - $FSTindex_{i,t-j}$ , GDP per capita, market capitalization, inflation, inflation targeting
- Fixed effects estimation
- Normal times vs. turbulent times (the dependent variable greater than its 90th percentile)

	(I)	(II)	(III)	(IV)	(V)	(VI)
	Non-perform. loans			Financial stress index		
Fin. stab. transp.	-0.35** (-2.50)	-0.35** (-2.43)	-0.26* (-1.82)	-0.24** (-2.61)	-0.22** (-2.34)	-0.20** (-2.20)
GDP p.c.	0.06* (1.93)	0.06* (1.83)	0.06* (1.88)	0.20*** (9.24)	0.20*** (9.22)	0.20*** (9.32)
Market capital.	-0.04*** (-6.44)	-0.04*** (-6.43)	-0.04*** (-6.35)	-0.02*** (-4.21)	-0.02*** (-4.27)	-0.02*** (-4.40)
Inflation		0.01 (0.42)	-0.001 (-0.05)		0.06** (2.25)	0.05* (1.82)
IT dummy			-3.11*** (-2.52)			-1.25* (-1.80)
No. of obs.	667	667	667	354	354	354
R-sqr. adj.	0.07	0.07	0.08	0.04	0.05	0.05

	(I)	(II)	(III)	(IV)	(V)	(VI)
	Non-perform. loans			Financial stress index		
Fin. stab. trans.	19.56*** (6.46)	19.34*** (4.54)	19.34*** (4.47)	1.93** (2.95)	1.14* (1.73)	1.08 (1.51)
GDP p.c.	-1.60 (-0.82)	-1.41 (-1.09)	-1.36 (-1.04)	-0.41 (-2.47)	-0.16 (-0.87)	-0.14 (-0.70)
Market capital.		-0.04 (-0.05)	-0.04 (-0.05)		0.02** (2.19)	0.03** (2.10)
Inflation			-0.01 (-0.07)			0.08 (0.38)
No. of obs.	68	56	56	36	36	36
R-sqr. adj.	0.04	0.04	0.04	0.01	0.01	0.01

# Is Transparency on Financial Stability Issues Beneficial?

Robustness checks and summary of results

- Full sample and restricted sample (the countries with non-negative FST index)
- Greater central bank transparency on financial stability issues is beneficial in normal times
- Greater transparency increases the financial stress, when financial system under severe distress

- 1 Index on how transparent central banks are about their policy framework to support financial stability for 110 countries in 2000-2011
- 2 Updates Dincer and Eichengreen (2009) monetary policy transparency index for 110 countries in 2007-2011
- 3 Transparency increases in the 2000s but it still varies greatly across central banks
- 4 Transparency on financial stability issues driven by previous experience about monetary policy transparency
- 5 Transparency beneficial in normal times but not during severe distress

**Thank you for your attention!**

**Děkuji Vám za pozornost!**

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