Dynamics and Determinants of Compliance with Fiscal Rules

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# Focus on compliance with fiscal rules

- Most of the literature so far focused on the introduction or strength of fiscal rules, not compliance with them

- This presentation focuses on...
  - Compliance rates across countries and rules
  - Determinants of (non-)compliance
  - Evolution of compliance over time

Data & Statistics

Presentation is based on two datasets/ papers

– EU (Reuter, 2019)
- EC and IMF datasets, legal documents
- 1995-2014, 20 countries of EU28
- Budget balance rules (49%), Debt rules (22%), Expenditure rules (29%)

– Global (Lledo and Reuter, 2018)
- IMF Fiscal Rules Dataset
- 1995-2016, 49 countries
- Only budget balance rules
- Supranational and national rules

Number of Budget Balance Rules (Global)
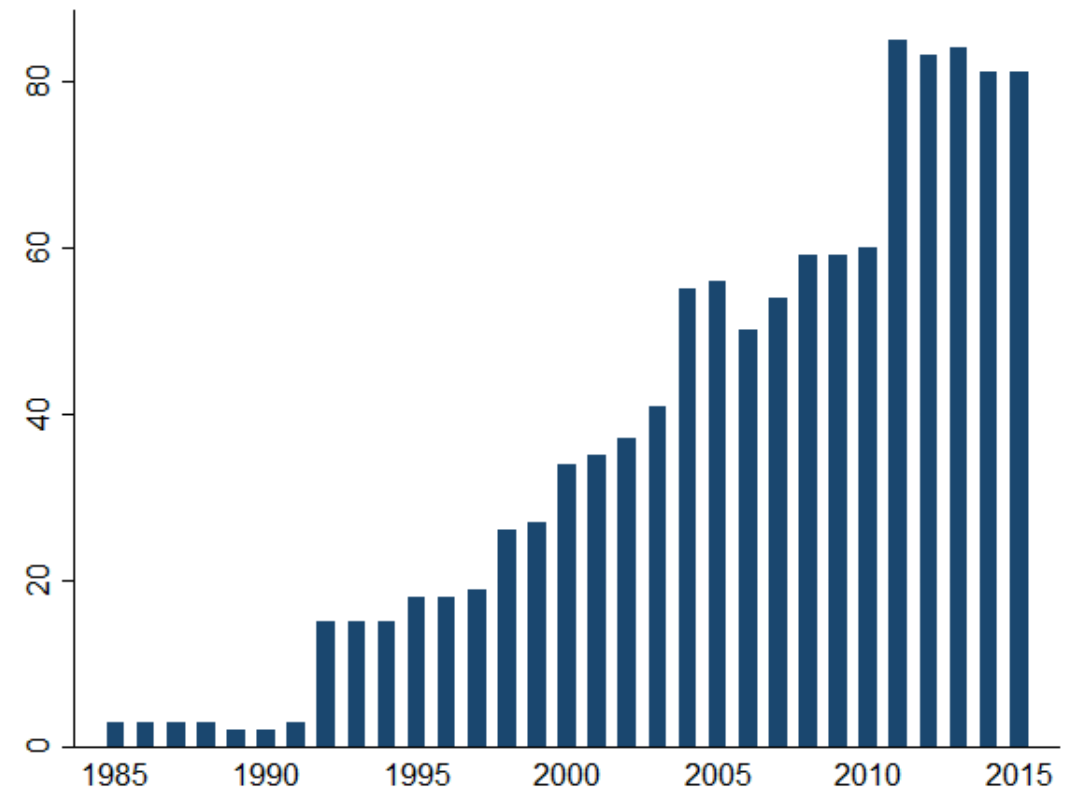
Source: Lledo and Reuter (2018)

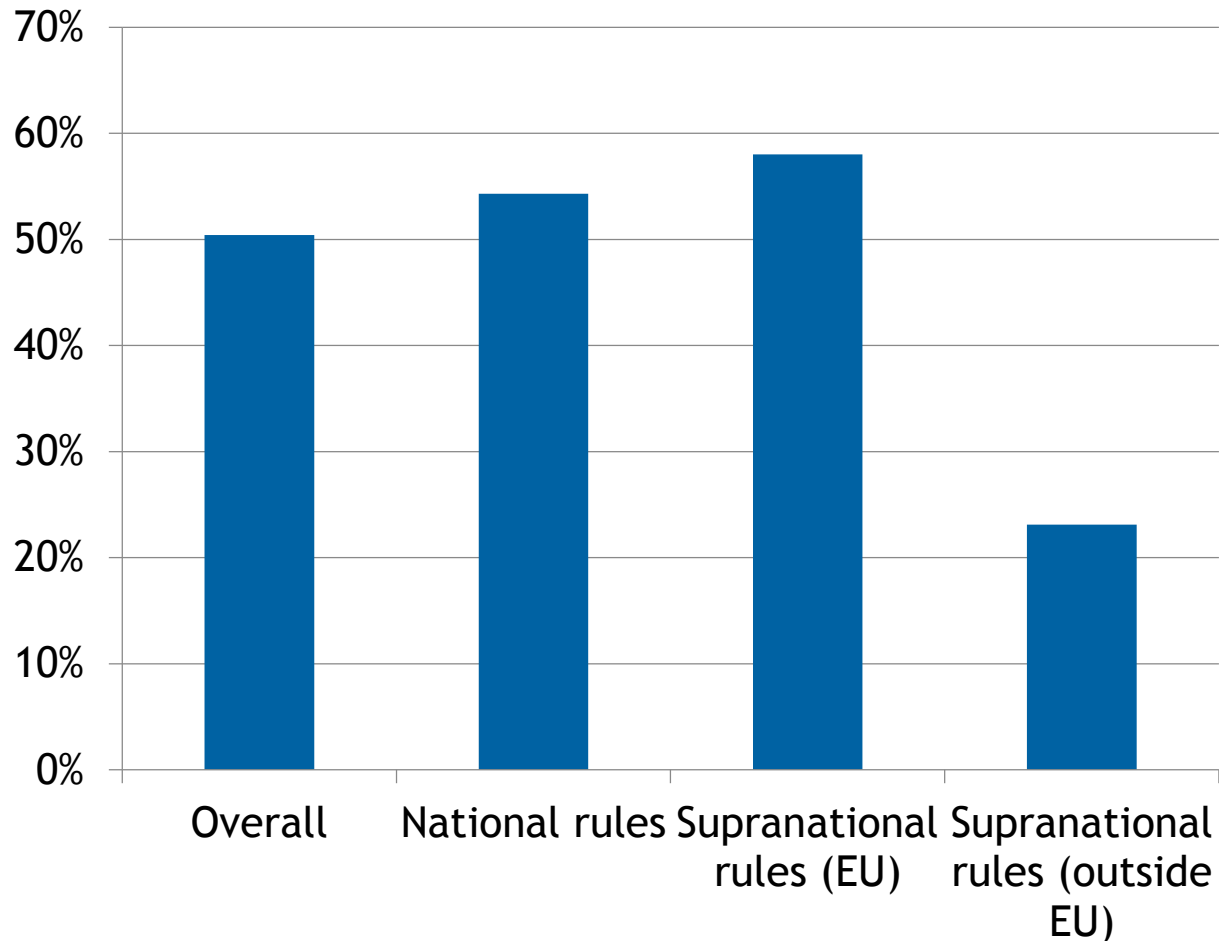# Average compliance over all rules and countries is around 50%

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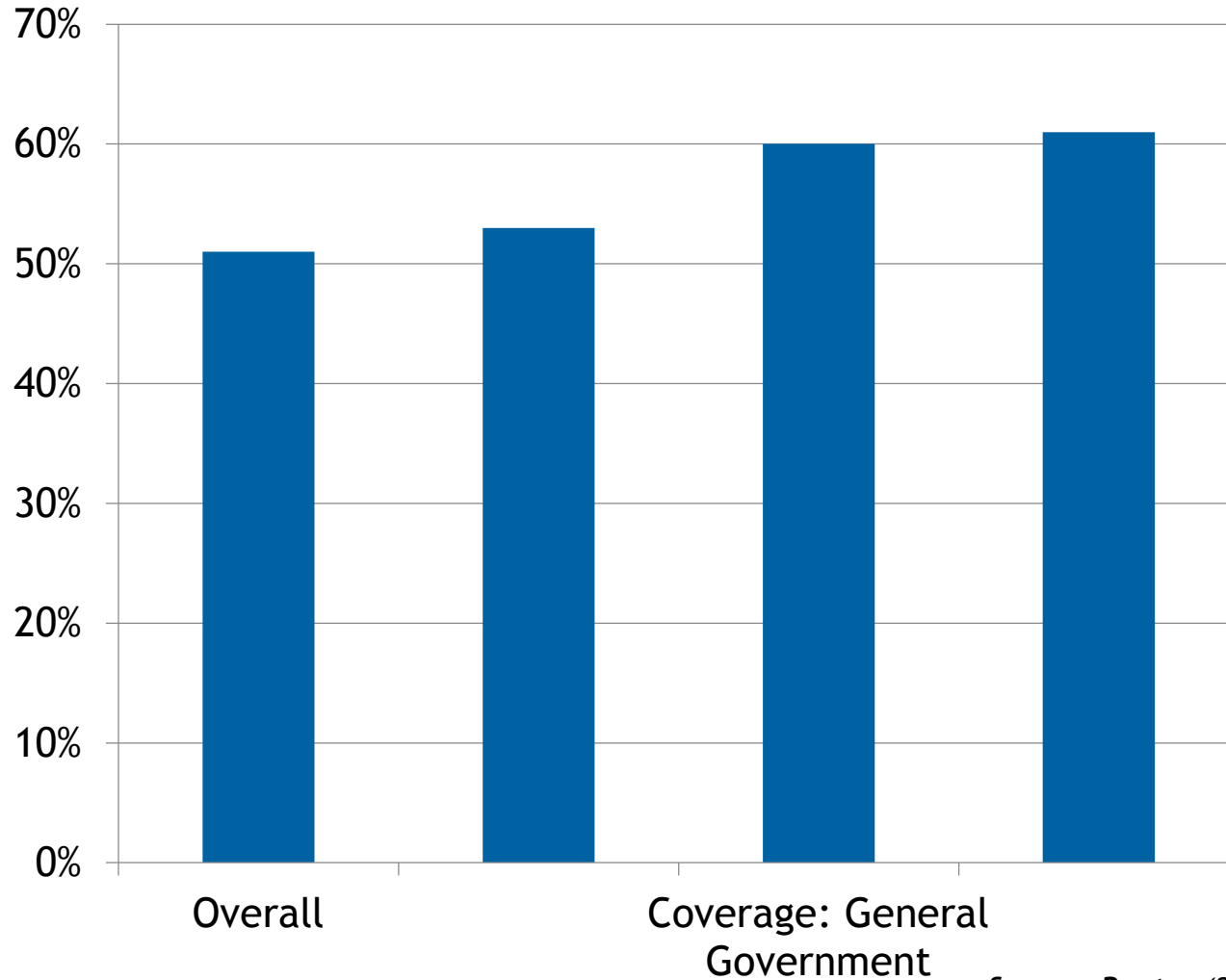
— **EU dataset**
  – All rule types
  – Only national rules
  – Taking legal provisions from original texts into account

Source: Reuter (2017)

Average compliance over all rules and countries is around 50%

- Global dataset
  - Only Budget balance rules
  - Including supranational rules:
    - European Union (EU)
    - Eastern Caribbean Currency Union (ECCU)
    - West Afrian Economic Union (WAEMU)
    - Central African Economic and Monetary Community (CEAMC)
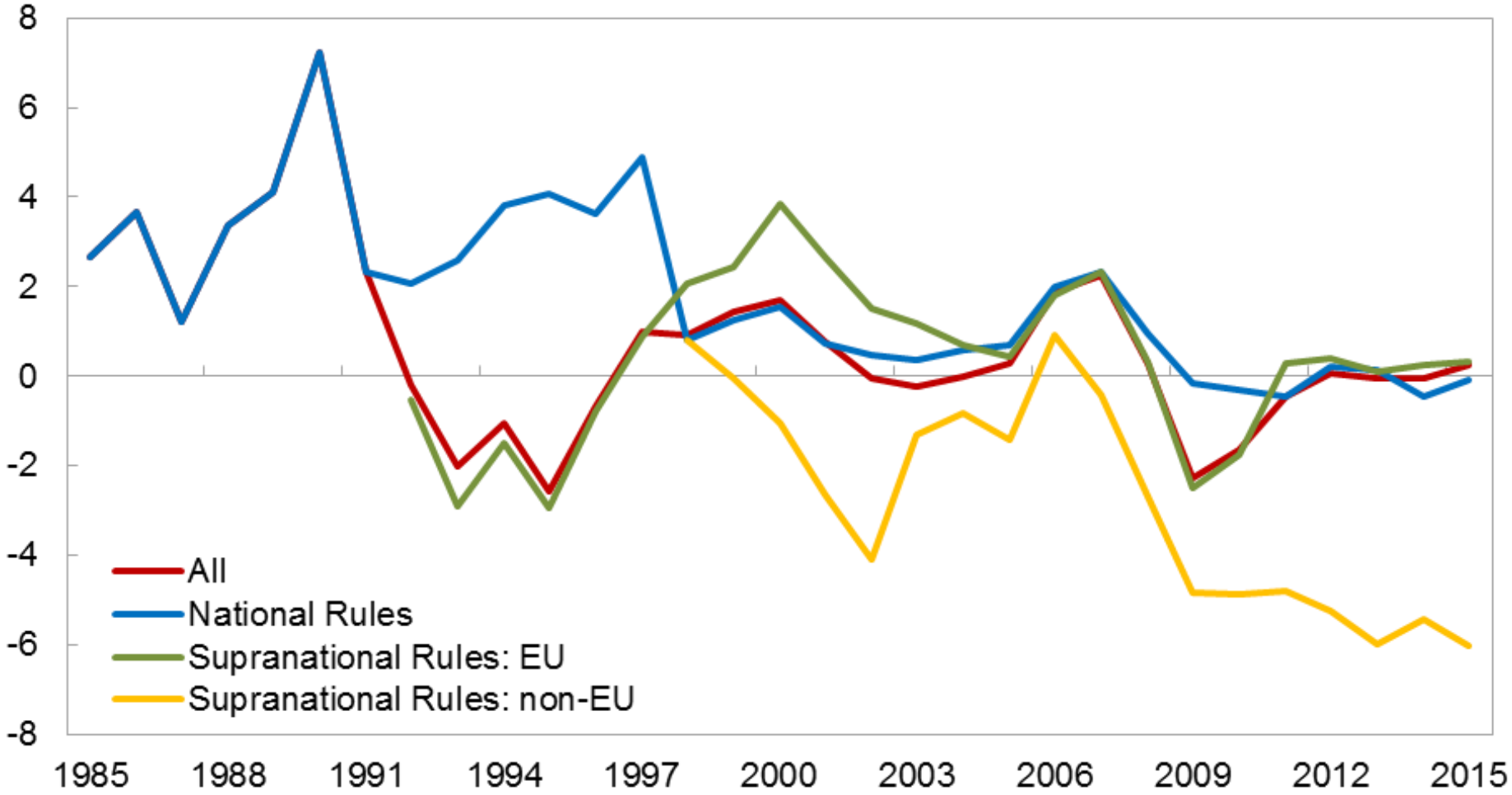
Source: Lledo and Reuter (2018)

CEMAC & WAEMU are extreme outliers

— **Median compliance margin**
  – Accross countries and rules in Percent of GDP
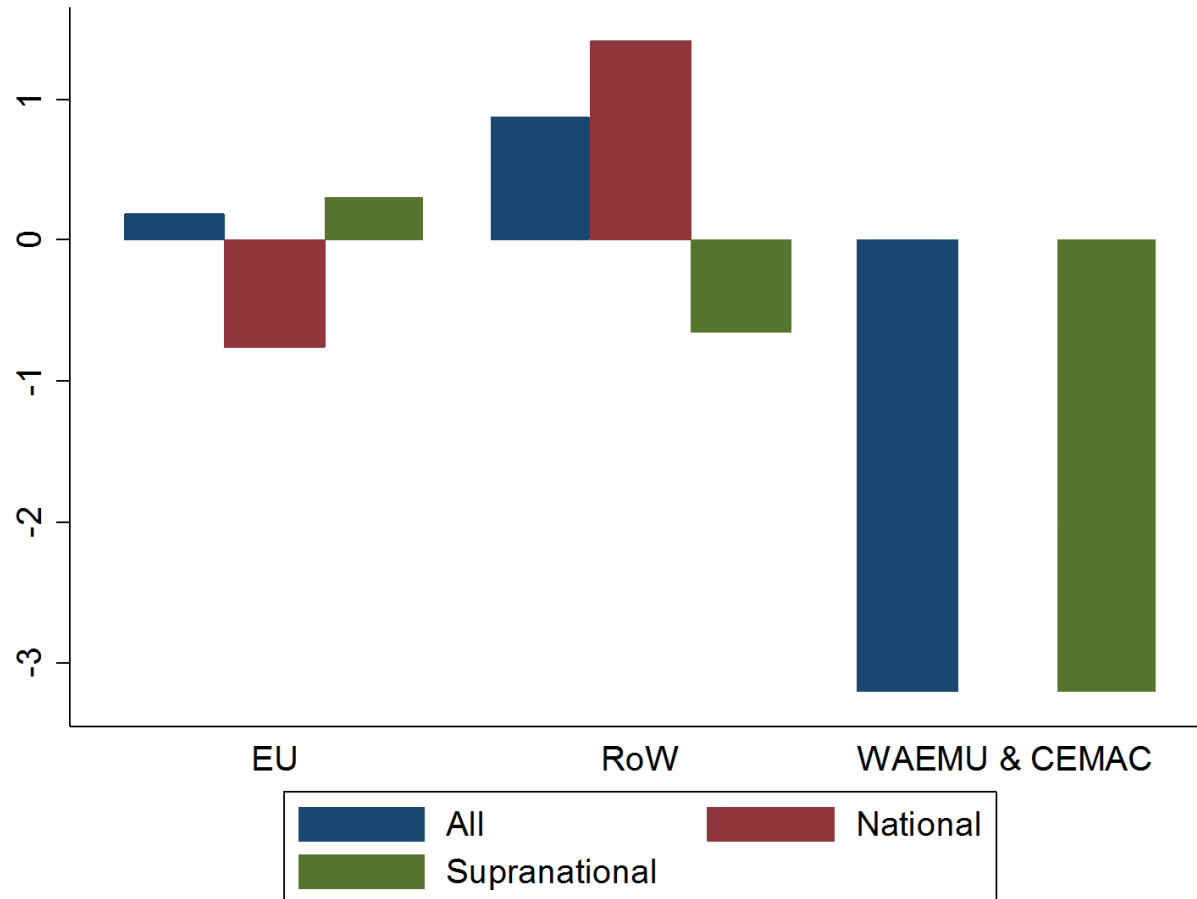
Source: Lledo and Reuter (2018)

Evolution of Compliance Margin Over Time

Share of Rules in Compliance Over Time
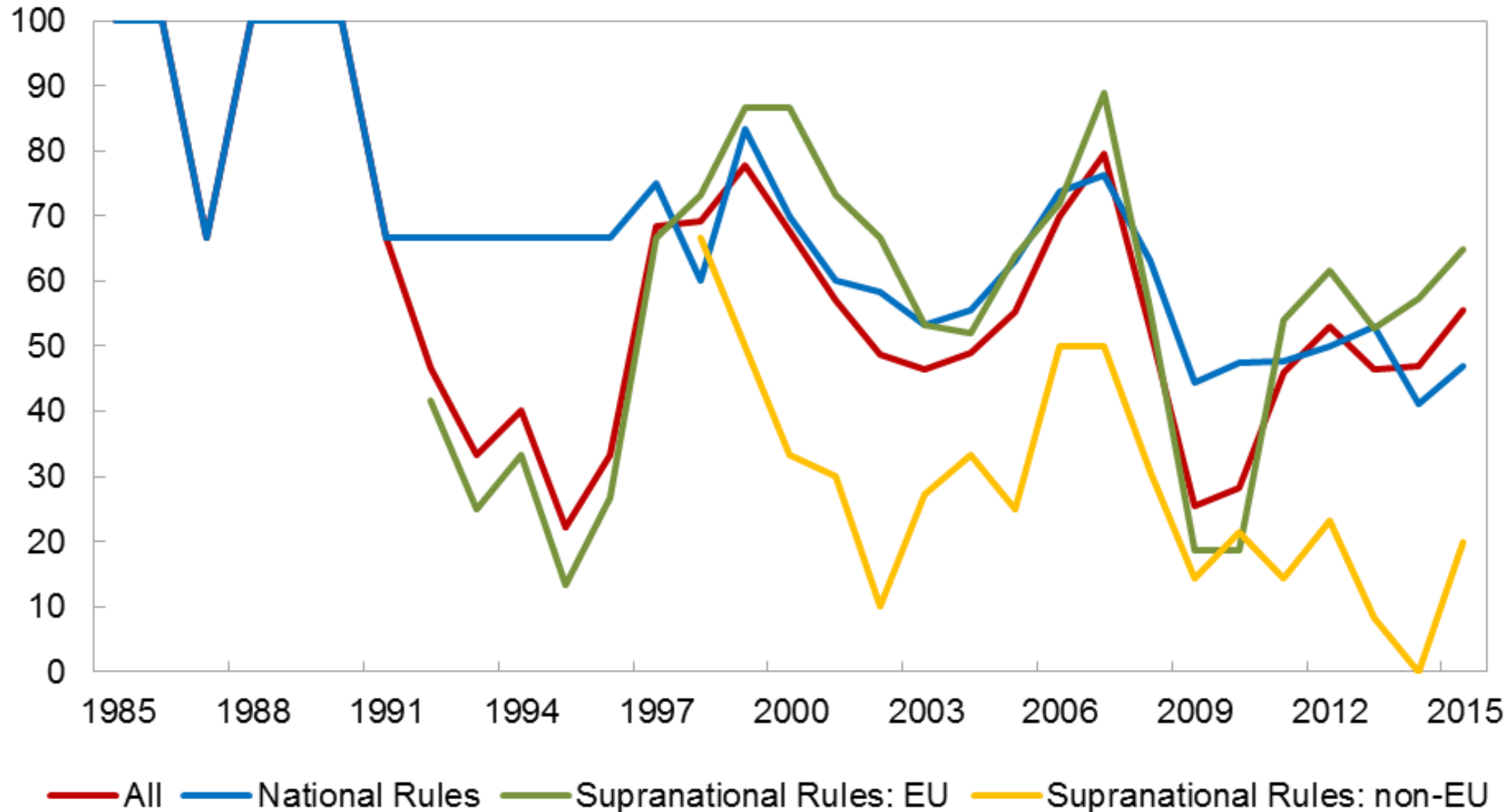
Determinants of Compliance

Why do countries comply with rules and why not?

– Rule characteristics (Rule design and framework)

  e.g. Rule type, Monitoring body, Rule coverage, Non-compliance actions

– (Socio-)Economy, Business Cycle

  e.g. Debt level, Population, Output gap, Decentralization

– Political system, Voter Preferences

  e.g. Ideology of government , Election years, Government size, Fragmentation of government

– Institutional framework

  e.g. (Reformed) Stability and Growth Pact, EMU membership, IMF programme

Why do countries comply with rules and why not?

- EU dataset, 1995-2015
- Panel logistic regression

$$\mathcal{B}_{i,j,t} = \alpha + \beta V_{i,j,t} + \gamma C_{i,t} + \theta S_{i,t} + \varepsilon_{i,j,t}$$

- Dependent variable (Dummy) is one if country complied with its fiscal rule in respective year
- Vectors of rule-specific, country-specific and supranational variables as controls

Higher compliance probability with stronger independent monitoring and enforcement

Variable	Coefficient
Constraining stock (rather than flow) variable	0.69***
	(0.12)
Coverage (%) of general government finances	0.61***
	(0.20)
Statutory base	-0.26***
	(0.07)
Monitoring body	0.17**
	(0.08)
Alert mechanism	0.29***
	(0.09)
Enforcement body	0.47***

Variable	Coefficient
Government fragmentation	-1.42**
	(0.52)
Decentralization	-1.08***
	(0.34)
Election Year	-0.09**
	(0.04)

Source: Reuter (2017)

Source: Reuter (2017)

Also interesting which factors are overall not significant

- (Socio-)Economic, Business Cycle variables

- Supranational framework
  - Only membership in EMU has significant, but negative effect

- History of rules
  - Not significant how many or how long rules are in force
  - Not significant who introduced rules

- Combinations of rules

- Forecast errors

Evolution of Compliance Over Time

How compliance and noncompliance evolve over time?

- Global dataset, 1985-2016, 49 countries

- Compliance in economic rather than in legal terms

- Estimated model:

$$dev_{i,j,t} = \beta dev_{i,j,t-1} + Z'_{i,t}\delta + u_{i,j,t}$$

  - Control variables (Z): Debt ratio, Output gap, Forecast errors of Growth and Gov. Revenues, Government fragmentation, Government stability, Election Years

- Sample selection problem: Heckman selection model

Deviations are persistent but not permanent

in t:	< -5%	-5% - -2%	-2% - 0	0 - 2%	2% - 5%	> 5%
in t-1:						
< -5%	67.6%	18.9%	8.1%	1.8%	0.9%	0.9%
-5% - -2%	11.0%	40.6%	35.5%	6.5%	0.0%	1.9%
-2% - 0	6.2%	12.8%	43.6%	30.5%	3.3%	0.0%
0 - 2%	0.4%	5.4%	21.1%	50.9%	19.0%	1.1%
2% - 5%	0.0%	4.0%	6.3%	22.7%	53.4%	8.5%
> 5%	0.0%	3.7%	2.5%	6.2%	19.8%	66.7%

Source: Oledo and Reuter (2016)

Over time deviations from the rule thresholds tend to diminish

Dep. Var: Compliance margin	(1)	(2)
Lagged Compliance margin	0.72***	
	(0.07)	
Lagged Compliance margin (Positive)		0.91***
		(0.06)
Lagged Compliance margin (Negative)		0.61***
		(0.11)
Controls	Yes	Yes
Country fixed effects	Yes	Yes
N (1st stage)	2,436	2,436
N (2nd stage)	761	761

Source: Lledo and Reuter (2018)

– Rules act as a pulling force towards the threshold

– „Magnet effect" from both sides, i.e. in compliance and non-compliance
  – Stronger for countries in non-compliance

– Rules do not need to be strictly complied with to influence deficits

Intensity of "magnet effect" depends on the size and recurrence of compliance

- Years in non-compliance: For larger deviations from thresholds the effect is stronger

- The more frequent rules are not complied with, the weaker is the effect
  - Probably small and repeated deviations can be more easily accommodated without triggering corrective action

- Comparison with countries without rules:
  - In compliance: Convergence without rules is faster
  - In non-compliance: Convergence without rules is slower

Conclusions

Rule design, calibration and framework are key

- Average compliance over all rules and countries is around 50% (slightly higher for supranational EU rules)

- Higher probability of compliance can be observed with stronger independent monitoring and enforcement bodies (issuing real-time alerts)
  - Non-compliance more likely with more fragmented governments, in decentralized countries and in election years
  - Combinations of rules and supranational framework did not increase probability of compliance

- Evolution over time: Evidence of "Magnet effect", i.e. thresholds of rules act as targets rather than ceilings
  - Reinforces the need to calibrate rules with safety margins
  - For rules to act as an anchor they need to be simple and easy to communicate