

# (In)dependent Central Banks

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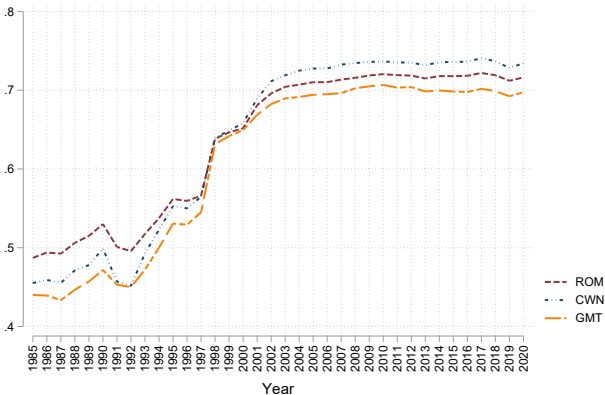
NBER SI, July 10 2024

## Central bank independence (CBI)

- In the 1980s, CBI emerged as an **institutional solution** to:
  - Political business cycles (Alesina and Roubini, 1992).
  - Abuse of the central bank's money-printing powers to finance government spending (Ricardo, 1824).
  - The time-inconsistency problem generating inflation bias (Kydland and Prescott, 1977; Barro and Gordon, 1983).
  - Political convenience (Lohmann, 1997; Bernhard, 1998; Farvaque, 2002; Hallerberg, 2002).

# The rise of de jure CBI

- The ↑ of *de jure* CBI has been quantified & documented.



- ROM: Romelli (2022); CWN: Cuckierman et al. (1992); GMT: Grilli et al. (1991).

## But...

### De jure CBI $\neq$ De facto CBI

- Laws are incomplete.
- Actual practice may deviate.
- Reforms may give rise to a 'seesaw effect' (Acemoglu et al., 2008).

## De facto CBI

- Political processes have a 'status quo bias'.
  - Fernandez and Rodrik (1991)
- One way politicians may try to **retain control** is by getting their **own people** into the top jobs.
  - Leaders matter (Jones and Olken, 2005; Funke et al., 2023).
  - Managers matter (Bertrand and Schoar, 2003).
  - Preferences and career concerns (Chang, 2006; Adolph, 2013).
- Anecdotal evidence is plentiful. [▶ The Economist](#)

## This paper

- Have central bank governor appointments become more, or less political, following reforms enhancing *de jure* CBI?
  - **Narrative #1:** + correlation
  - **Narrative #2:** no (or -) correlation
- **Politically-motivated appointments:** skewed towards candidates loyal to the appointing executive over the CB mandate.

## This paper

- Have central bank governor appointments become more, or less political, following reforms enhancing *de jure* CBI?
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### Research questions

- 1 Which of these two narratives better describes the data?
- 2 Are political appointees less independent while in office?
- 3 Are they associated with worse policy outcomes?

## What we DO

- Hand-collected **systematic information** on 316 CB governor appointments in 57 countries between 1985 and 2020.
- To determine whether an appointment was politically motivated, we combine **3 complementary** sources:
  - Bio, Press, Experts
- We compile the 3 sources into an **index** (0-1).
- We “**validate**” the index using governor turnover— a common proxy of *de facto* CBI (starting with Cukierman et al., 1992).



## Biographical information

### 1 Executive ties

- Employment ties (e.g., Minister of Finance)
- Ideological ties (e.g., party membership)
- Personal ties (e.g., family, friendship)

### 2 Succession

- Natural successor
- Predecessor forced to resign
- Eligible predecessor not reappointed

### 3 Education

- PhD or postgraduate degree in relevant discipline

### 4 Experience

- At least two top-level professional positions

## International press

- **Factiva search**

- All major English-speaking newspapers.
- 3 months around appointment.
- Article must contain words pertaining to appointment.

- **Human reading**

- Check if article about appointment.
- Identification of passages suggesting political interference during appointment.

- **Human judgement**

- Overall content & tone of the press.
- Score (Yes/No).

▶ Examples

## Independent experts

- **Survey to independent academic experts**
- **Experts**
  - Specialization in Macro or Finance.
  - Affiliation with a university, national research and policy institution (not a central bank).
  - With >2 decades of experience.
  - With or without Anglo-Saxon training.
  - RePEc database & lists of NBER and CEPR affiliates.
- **Survey**
  - Sent to 587 academics (on average 10 per country).
  - Via email on February 7, 2020 (3 reminders).
  - Confidential agreement.
  - 289 responses received (b/w 3-8 per country).

## Independent experts

- Each academic received a survey specific of their country of origin.
- Same 2 questions for each governor:
  - In your opinion, at the **time of the appointment**, was [...] a politically independent central bank governor?
  - In your opinion, **with the benefit of hindsight**, was [...] a politically independent central bank governor?
- **Answers:** “Yes”, “No”, or “I do not know” (+ comment).
- Construction of balance statistic  $[-1,1]$  to determine political interference (Pesaran and Weale, 2006).

## Governor independence (GI) index

The six criteria are combined as:

$$GI_{it} = \frac{1}{n} \sum_{j=1}^n C_{it}^j,$$

$C_{it}^j$  equals 1 if appointment  $i$  at  $t$  is independent according to criterion  $j$  (out of  $n$ ) and 0 otherwise.

Higher values → higher independence.

	N	Mean	SD
<b>Criteria</b>			
Executive ties	292	0.442	0.497
Succession	296	0.132	0.339
Education	307	0.450	0.498
Experience	297	0.778	0.416
International press	316	0.630	0.480
Independent experts	293	0.611	0.488
<b>Index</b>			
GI	257	0.499	0.252

▶ Correlations

▶ Validation

▶ Gap

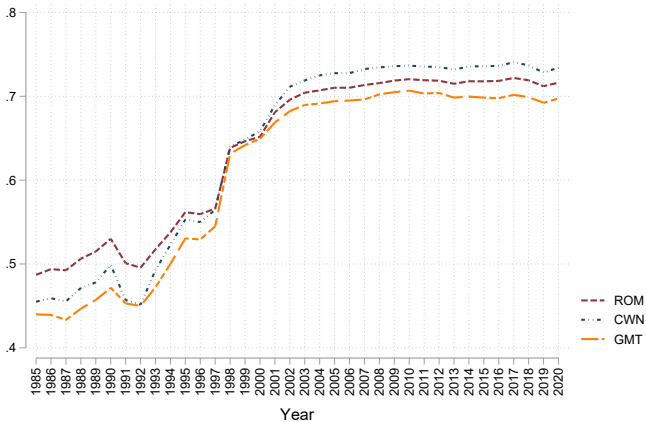
Alternative GI = 1 if executive ties, succession, press, and experts **all** = 1 (Bade and Parkin, 1988; Adrian, Khan, and Menand, 2024, for de jure).

## Results road map

- 1 Have governor appointments become less political as *de jure* CBI ↑?
- 2 Are political appointees less independent while in office?
- 3 Are political appointees associated with worse policy outcomes?

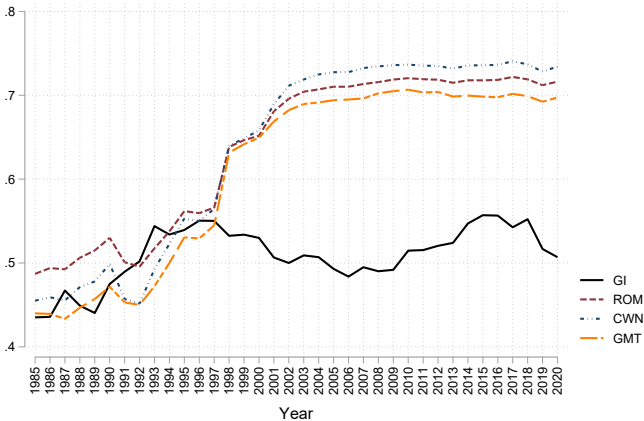
# De jure CBI & GI: Visual illustration

## ● De jure CBI ↑



# De jure CBI & GI: Unconditional

- De jure CBI ↑, but GI does not follow, if anything ↓ until GFC





## De jure CBI & GI: Conditional

- No significant relation between *de jure* CBI & the governor independence index, GI, or any of its components

Dependent variable:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	GI				Executive ties	Succession	Education	Experience	Press	Experts
<b>De jure CBI</b>	<b>-0.031</b> [-0.291]	<b>-0.046</b> [-0.505]	<b>0.097</b> [0.746]	<b>0.126</b> [0.900]	<b>0.330</b> [1.016]	<b>0.115</b> [0.579]	<b>0.070</b> [0.196]	<b>-0.095</b> [-0.382]	<b>0.033</b> [0.104]	<b>0.307</b> [1.008]
Democratic accountability		0.052** [2.559]	0.006 [0.335]	0.007 [0.369]	0.089* [1.742]	-0.036 [-0.924]	0.038 [0.825]	0.005 [0.084]	0.002 [0.039]	-0.056 [-1.219]
Law and order		0.018 [1.009]	0.027 [1.342]	0.028 [1.206]	0.018 [0.264]	-0.021 [-0.424]	0.121** [2.088]	0.026 [0.491]	0.044 [0.839]	-0.021 [-0.484]
Government stability		-0.003 [-0.259]	-0.001 [-0.123]	0.001 [0.091]	-0.019 [-0.793]	-0.006 [-0.346]	0.003 [0.126]	0.022 [1.020]	0.014 [0.497]	-0.007 [-0.460]
Country FE			YES	YES	YES	YES	YES	YES	YES	YES
Decade FE				YES	YES	YES	YES	YES	YES	YES
Observations	239	224	223	223	223	223	223	223	223	223
R-squared	0.001	0.0870	0.415	0.416	0.343	0.468	0.359	0.259	0.389	0.534

▶ Robustness tests

▶ Regional Diffusion IV

## Components of de jure CBI: Personal independence

- **No relation** with *de jure* component aimed precisely at **personal independence** (i.e., insulating appointment, tenure, and dismissal of governors from political interference).

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Dependent variable:				<b>GI</b>			
<b>De jure CBI governance</b>	<b>0.002</b> <b>[0.018]</b>						<b>-0.024</b> <b>[-0.149]</b>
De jure CBI policy		0.220 [1.607]					0.239 [1.101]
De jure CBI objectives			0.118 [1.440]				0.075 [0.502]
De jure CBI lending				0.053 [0.567]			0.121 [0.792]
De jure CBI finances					-0.120 [-0.634]		-0.294 [-1.308]
De jure CBI accountability						0.027 [0.219]	-0.210 [-1.077]
Other country characteristics	YES	YES	YES	YES	YES	YES	YES
Country FE	YES	YES	YES	YES	YES	YES	YES
Decade FE	YES	YES	YES	YES	YES	YES	YES
Observations	223	223	223	223	223	223	223
R-squared	0.414	0.420	0.421	0.415	0.415	0.414	0.429

## A “Seesaw effect”

- Incentives to “undo” independence with political appointees ↑ as CBs & decision-making agents insulated from political pressure.

Dependent variable:	(1) GI	(2) Executive ties	(3) Succession	(4) Education	(5) Experience	(6) Press	(7) Experts
De jure CBI governance	0.051 [0.395]	0.444 [1.594]	0.075 [0.508]	0.247 [0.824]	-0.019 [-0.095]	-0.077 [-0.265]	0.197 [0.717]
<b>De jure CBI governance × Main policy reform</b>	<b>-1.074*** [-15.589]</b>	<b>-0.974*** [-5.941]</b>	0.883*** [8.228]	<b>-3.056*** [-11.339]</b>	<b>-1.518*** [-6.704]</b>	-0.058 [-0.250]	<b>-2.084* [-1.886]</b>
Main policy reform	0.636*** [10.674]	0.046 [0.303]	-0.482*** [-4.236]	2.034*** [9.161]	0.986*** [5.111]	0.180 [1.091]	0.890 [1.083]
Other country characteristics	YES	YES	YES	YES	YES	YES	YES
Country FE	YES	YES	YES	YES	YES	YES	YES
Decade FE	YES	YES	YES	YES	YES	YES	YES
Observations	223	250	255	265	260	270	248
R-squared	0.421	0.353	0.467	0.313	0.275	0.381	0.511

▶ External constraints

## Results road map

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# Experts opinions: Tenure in office

- Survey: “In your opinion, with the **benefit of hindsight**, was [...] a politically independent central bank governor?”

Dependent variable:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	<b>Experts (hindsight)</b>									
GI	<b>0.782***</b> [10.703]	<b>0.747***</b> [11.211]	<b>0.617***</b> [8.199]	<b>0.618***</b> [7.977]						
Executive ties					<b>0.171***</b> [4.853]					
Succession						0.033 [0.782]				
Education							<b>0.130**</b> [2.606]			
Experience								<b>0.115**</b> [2.398]		
Press									<b>0.139***</b> [3.406]	
Experts										<b>0.457***</b> [12.255]
ther country characteristics			YES	YES	YES	YES	YES	YES	YES	YES
Country FE			YES	YES	YES	YES	YES	YES	YES	YES
Decade FE				YES	YES	YES	YES	YES	YES	YES
Observations	258	242	240	240	248	252	262	256	269	269
R-squared	0.366	0.411	0.682	0.690	0.599	0.552	0.528	0.521	0.527	0.742

- Appointees viewed as more independent at appointment, they are also thought to have behaved more independently while in office.

## Results road map

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## Inflation during tenure

- More independent appointees attain lower inflation rates during their tenure and lower deviations from stated inflation targets.
- *De jure* CBI loses significance with country controls.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Dependent variable:	Mean inflation (log)					Inflation gap			
Sample:						Excl. EZ			
De jure CBI	<b>-1.353***</b> [-2.756]		<b>-1.282**</b> [-2.265]	-0.300 [-0.690]	0.286 [0.512]	-0.100 [-0.077]		0.215 [0.163]	-0.971 [-0.723]
GI		<b>-1.720***</b> [-3.893]	<b>-1.682***</b> [-3.525]	<b>-0.843**</b> [-2.470]	<b>-0.768**</b> [-2.014]		<b>-2.502**</b> [-2.333]	<b>-2.409**</b> [-2.160]	<b>-2.715**</b> [-2.218]
Democratic accountability				-0.282** [-2.396]	-0.267** [-2.247]				-1.080 [-1.365]
Law and order				-0.537*** [-6.545]	-0.504*** [-6.008]				0.010 [0.049]
Government stability				-0.148** [-2.452]	-0.171*** [-2.718]				0.231 [1.331]
Decade FE				YES	YES				YES
Observations	307	268	246	219	188	59	57	54	50
R-squared	0.024	0.0607	0.081	0.478	0.439	0.000	0.092	0.083	0.268

- Graphs: [▸ inflation](#) [▸ inflation gap](#)

## Crises during tenure

- No systematic relation between *de jure* CBI and crises.
- More independent governors are less likely to experience a sovereign debt or a currency crisis during their tenure.
- No systematic relation with banking crises.

Dependent variable:	(1)	(2)	(3)	(4)	(5)	(6)
Sample:	Sovereign debt	Currency	Banking	Sovereign debt	Currency Excl. EZ	Banking
De jure CBI	0.032 [0.533]	-0.008 [-0.090]	0.197 [1.460]	0.015 [0.234]	0.083 [0.739]	0.060 [0.407]
GI	<b>-0.141***</b> [-3.078]	<b>-0.194**</b> [-2.057]	-0.011 [-0.113]	<b>-0.124***</b> [-2.711]	<b>-0.238**</b> [-2.353]	-0.018 [-0.175]
Democratic accountability	-0.003 [-0.273]	-0.005 [-0.260]	0.001 [0.050]	-0.007 [-0.655]	0.000 [0.023]	-0.005 [-0.179]
Law and order	-0.029** [-2.482]	-0.036** [-2.187]	0.028 [1.403]	-0.029** [-2.318]	-0.032* [-1.737]	0.034 [1.629]
Government stability	-0.003 [-0.468]	-0.020* [-1.774]	-0.003 [-0.187]	-0.001 [-0.107]	-0.022* [-1.796]	-0.008 [-0.516]
Decade FE	YES	YES	YES	YES	YES	YES
Observations	227	227	227	192	192	192
R-squared	0.119	0.076	0.108	0.137	0.071	0.063



## Conclusion

- CBs **expanding powers** and global rise in **populism** likely to bring CB independence into question.
- More important than ever to understand **how far** do institutional reforms **insulate** CBs & their agents from political interference.
- Our results indicate that incentives to **undo** CBI through **political appointments** increase as *de jure* CBI increases.

# De jure CBI indices

Criteria	GMT	CWN	ROM
<b>Governor and Central Bank Board</b>			
Who appoints the governor	*	*	*
Term of office of governor	*	*	*
Reappointment option for governor			*
Dismissal of governor		*	*
Governor allowed to hold another office in government		*	*
Qualification requirements for governor			*
Who appoints the board members	*		*
Term of office of board members	*		*
Reappointment option for board members			*
Dismissal of board members			*
Board Members allowed to hold another office in government			*
Qualification requirements for board members			*
Staggering term of office for board members			*
Government representatives in the board	*		*
<b>Monetary Policy and Conflicts Resolution</b>			
Who formulates monetary policy	*	*	*
Central bank responsible to fix key policy rates	*		*
Banking sector supervision	*		*
Central bank role in government's budget and/or debt	*		*
Final authority in monetary policy	*	*	*
<b>Objectives</b>			
Central bank's statutory goals	*	*	*

## De jure CBI indices (cont'd)

Criteria	GMT	CWN	ROM
<b>Lending to the Government</b>			
Direct credit: not automatic	*	*	*
Direct credit: market of lending		*	*
Who decides financing conditions to government		*	*
Beneficiaries of central bank lending		*	*
Direct credit: type of limit	*	*	*
Direct credit: maturity of loans	*	*	*
Direct credit: interest rates	*	*	*
Prohibition from buying government securities in primary market	*	*	*
<b>Financial Independence</b>			
Payment of the initial capital of the central bank			*
Authorized capital of the central bank			*
Central bank financial autonomy			*
Arrangements for automatic recapitalization			*
Transfers of money from the treasury			*
Central bank approves its annual budget			*
Central bank adopt its annual balance sheet			*
Auditing agency			*
Allocation of the net profits			*
Allocation of profits to the general reserve fund			*
Partial payments of dividends before the end of the fiscal year			*
Unrealized profits included in the calculation of distributable profits			*
<b>Central Bank Reporting and Accountability</b>			
Central bank reporting			*
Central bank financial statements			*

## Anecdotal evidence is plentiful



*“President Donald Trump has demanded that interest rates should be slashed, speculated about firing the boss of the Federal Reserve... India’s government has replaced a capable central-bank chief with a **pliant insider** who has cut rates ahead of an election... Rather than **win by force** of argument, they are seeking an edge by getting their **own people** into the top jobs.”* — The Economist (Apr. 2019)

## Biographical information

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	N	Mean	S.D.
<b>Executive ties</b>			
Employment ties	297	0.269	0.444
Ideological ties	294	<b>0.446</b>	0.498
Family ties	299	0.030	0.171
<b>Succession</b>			
Natural successor	298	0.295	0.457
Predecessor forced resignation	297	<b>0.370</b>	0.484
No reappointment	297	0.599	0.491
<b>Education</b>			
PhD in Economics or Finance	307	<b>0.453</b>	0.499
Postgraduate degree in a related discipline	307	0.691	0.463
<b>Experience</b>			
Central bank (deputy or member of the board)	306	0.461	0.499
International organization	297	0.215	0.412
Branches of the government	299	0.575	0.495
Academic institution	299	0.455	0.499
Independent body in charge of economic affairs	297	0.111	0.315
Private financial sector	297	0.293	0.456
Central bank (other than deputy or member of the board)	297	0.303	0.460

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# Validation

## 1 Turnover Rates

- High turnover rates and departures prior to end of term have long been regarded as indicators of low *de facto* independence.
  - E.g., Cukierman et al., 1992, Cukierman and Webb, 1995, Dreher, 2006, Crowe and Meade, 2007.
- We examine whether GI correlates **negatively** with prob of early departures using a Cox (1972) hazard model. [▶ Cox](#)

## 2 Market reactions

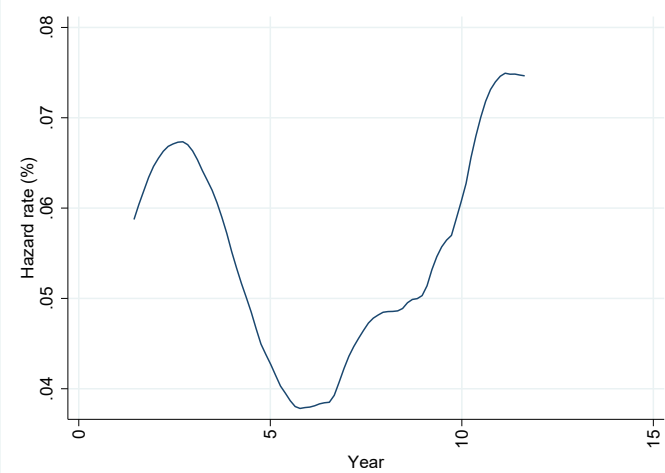
- Stocks & Bonds (to do)

# Validation

- We find that more independent appointments are associated with a lower hazard rate, indicative of higher de facto CBI.
  - ↑ 1-std dev (0.252) → 39.1% ↓ in hazard rate.

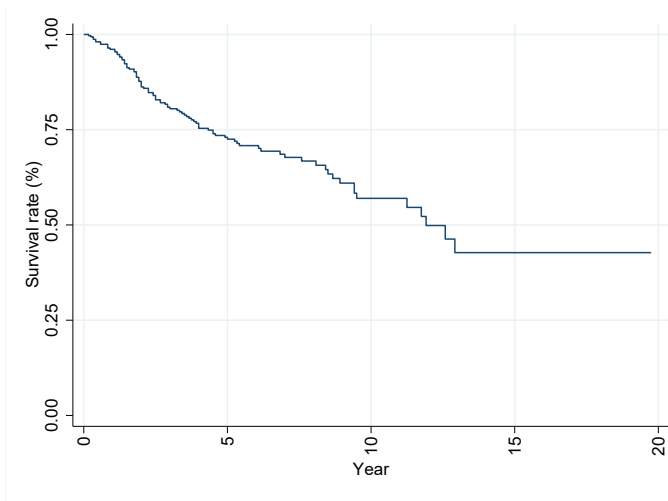
Dependent variable:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	$h_h(t)$							
GI	<b>-1.311***</b> [-3.022]							
Executive ties		-0.275 [-1.095]						
Succession			-0.751** [-2.004]					
Education				0.093 [0.333]				
Experience					-0.460** [-2.088]			
Press						-0.567** [-2.395]		
Experts							-0.682** [-2.496]	
Experts (hindsight)								<b>-1.297***</b> [-3.108]
Democratic accountability	-0.236** [-2.029]	-0.349*** [-3.202]	-0.355*** [-3.344]	-0.272** [-2.212]	-0.253** [-2.040]	-0.252** [-2.135]	-0.205 [-1.634]	-0.119 [-0.857]
Law and order	-0.214* [-1.873]	-0.141 [-1.321]	-0.135 [-1.301]	-0.173* [-1.707]	-0.181* [-1.765]	-0.155 [-1.570]	-0.190* [-1.815]	-0.223** [-2.152]
Government stability	-0.210** [-2.384]	-0.222*** [-2.653]	-0.191** [-2.214]	-0.153** [-2.257]	-0.145** [-2.143]	-0.162** [-2.303]	-0.172** [-2.527]	-0.148** [-2.203]
Country FE	YES	YES	YES	YES	YES	YES	YES	YES
Decade FE	YES	YES	YES	YES	YES	YES	YES	YES
Observations	241	270	275	284	278	291	269	269
Early departures	64	78	80	82	78	86	78	78

# Hazard rates





# Kaplan-Meier survival curve



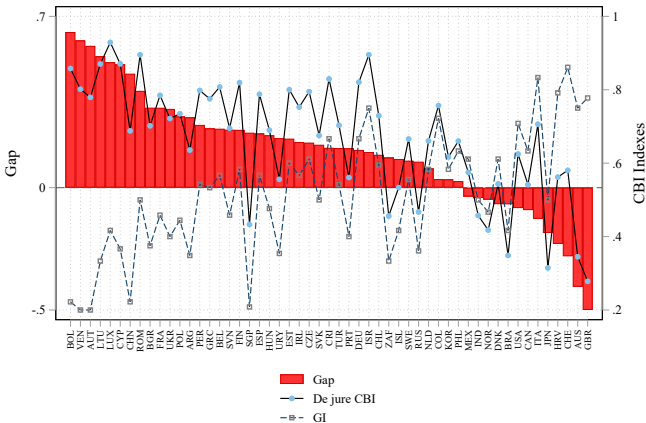
# Correlation matrix

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
(1) GI	1.000										
(2) Executive ties	0.661***	1.000									
(3) Succession	0.376***	0.180***	1.000								
(4) Education	0.532***	0.132**	-0.134**	1.000							
(5) Experience	0.459***	0.067	0.102*	0.228***	1.000						
(6) Press	0.578***	0.355***	0.145**	0.020	-0.003	1.000					
(7) Experts	0.641***	0.271***	0.129**	0.286***	0.101*	0.181***	1.000				
(8) De jure CBI	-0.024	-0.026	-0.013	0.066	0.053	-0.089	-0.085	1.000			
(9) Democratic accountability	0.275***	0.102*	0.107*	0.074	0.112*	0.120**	0.153**	0.215***	1.000		
(10) Law and order	0.231***	0.120*	0.170***	0.103*	0.082	0.064	0.132**	0.016	0.578***	1.000	
(11) Government stability	0.039	-0.010	0.085	0.045	0.060	0.009	-0.009	0.058	0.265***	0.333***	1.000

[← Back](#)

# De jure CBI $\neq$ GI

- Positive gaps (red bars above zero) signify countries where the *de jure* index suggests a higher degree of CB independence than GI.



# Miguel Angel Fernández Ordóñez (aka MAFO)



◀ Back

	Answer	Coding
<b>Executive ties</b>		
Employment tie	YES	0
Ideological tie	YES	0
Family tie	YES	0
<b>Succession</b>		
Natural successor	NO	0
Forced resignation/No reappointment	NO	1
<b>Education</b>		
PhD in Economics or Finance	NO	0
Postgraduate degree in a related discipline	NO	0
<b>Experience</b>		
Central bank	YES	1
Branches of the government	YES	1
Other key positions	NO	0
<b>International press</b>		
# articles <small>4 Coverage</small>	31	0
<b>Independent experts</b>		
# responses (balance statistic)	-0.6	0

$$GI_{MAFO2006} = \frac{0 + 0 + 0 + 1 + 0 + 0}{6} = 0.17$$

# Robustness analysis

Dependent variable:	(1)	(2)	(3)	(4)	(5)	(6)
Sample:	GI Developed	GI Developing	GI Excl. EZ CBs	Princ.Comp. All	Excl. Edu&Exp All	Alt. GI All
De jure CBI	<b>0.280</b> <b>[1.272]</b>	<b>-0.051</b> <b>[-0.296]</b>	<b>0.145</b> <b>[0.818]</b>	<b>0.0161</b> <b>[0.962]</b>	<b>0.218</b> <b>[1.120]</b>	<b>0.310</b> <b>[0.921]</b>
Democratic accountability	-0.019 [-0.426]	0.006 [0.211]	0.005 [0.240]	0.000 [0.002]	-0.008 [-0.343]	-0.046 [-0.890]
Law and order	0.011 [0.245]	0.022 [0.823]	0.034 [1.288]	0.018 [0.688]	0.008 [0.265]	0.056 [0.946]
Government stability	0.003 [0.152]	0.003 [0.161]	0.003 [0.232]	0.002 [0.187]	-0.005 [-0.357]	-0.012 [-0.447]
Country FE	YES	YES	YES	YES	YES	YES
Decade FE	YES	YES	YES	YES	YES	YES
Observations	120	103	181	226	223	229
R-squared	0.404	0.412	0.451	0.376	0.417	0.277

## IV estimates

- Same results if instrument *de jure* CBI using regional diffusion (Abiad and Mody, 2005; Acemoglu et al., 2019).

Panel A: 2SLS estimates

Dependent variable:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	GI				Executive ties	Succession	Education	Experience	Press	Experts
De jure CBI	0.174 [0.901]	-0.041 [-0.213]	-0.033 [-0.151]	-0.087 [-0.188]	0.453 [0.462]	-0.527 [-0.860]	-0.679 [-0.496]	0.278 [0.330]	-0.556 [-0.572]	0.506 [0.567]
Democratic accountability		0.052** [2.568]	0.013 [0.658]	0.009 [0.470]	0.088* [1.755]	-0.030 [-0.695]	0.045 [0.906]	0.001 [0.018]	0.008 [0.141]	-0.058 [-1.302]
Law and order		0.018 [1.054]	0.019 [0.851]	0.024 [1.040]	0.020 [0.313]	-0.032 [-0.667]	0.108 [1.604]	0.033 [0.628]	0.034 [0.603]	-0.018 [-0.422]
Government stability		-0.003 [-0.265]	-0.000 [-0.037]	0.002 [0.196]	-0.020 [-0.804]	-0.002 [-0.115]	0.008 [0.283]	0.020 [0.804]	0.018 [0.576]	-0.008 [-0.505]
Country FE			YES	YES	YES	YES	YES	YES	YES	YES
Decade FE				YES	YES	YES	YES	YES	YES	YES
Observations	239	224	223	223	223	223	223	223	223	223

Panel B: First-stage estimates

2-11 Dependent variable:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	De jure CBI				De jure CBI					
Regional CBI diffusion	0.622*** [5.42]	0.662*** [5.69]	0.649*** [6.78]	0.432*** [4.36]	0.432*** [4.36]	0.432*** [4.36]	0.432*** [4.36]	0.432*** [4.36]	0.432*** [4.36]	0.432*** [4.36]
Partial R-squared	0.148	0.158	0.302	0.099	0.099	0.099	0.099	0.099	0.099	0.099
Excluded instruments (F-statistic)	29.418	32.355	45.944	19.043	19.043	19.043	19.043	19.043	19.043	19.043

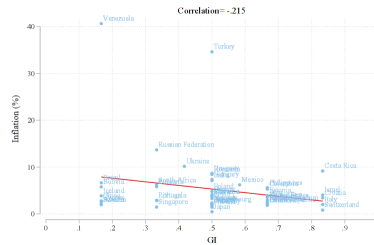
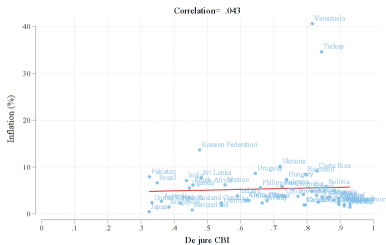
## External constraints: EU & IMF

- *De jure* CBI correlates **positively** with more independent governor appointments when countries are subject to **external constraints**.

Dependent variable:	(1)	(2)
		GI
De jure CBI	0.090 [0.570]	0.164 [1.195]
EU accession	-0.366 [-1.353]	
<b>De jure CBI × EU accession</b>	<b>0.736*</b> <b>[1.891]</b>	
IMF program		-0.288 [-1.460]
<b>De jure CBI × IMF program</b>		<b>0.785***</b> <b>[3.126]</b>
Other country characteristics	YES	YES
Country FE	YES	YES
Decade FE	YES	YES
Observations	223	218
R-squared	0.431	0.432

# De jure CBI & inflation: Unconditional

- GI correlates **more strongly** with inflation than de jure CBI.

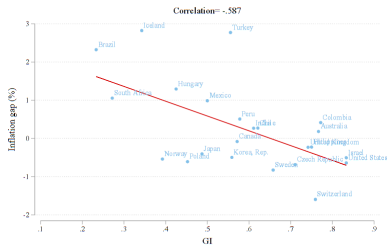
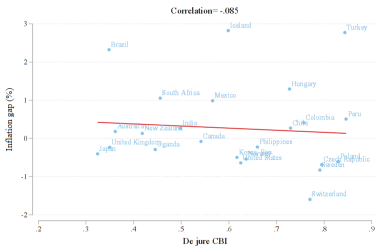


← Back



# De jure CBI & inflation gap: Unconditional

- Same result for **inflation gap** (inflation - target) for countries with an explicit inflation target.



## Press Examples

- Example 1: “President ... has decided to appoint ... However, ... is not very popular with politicians. One of the reasons is that he has not ruled out interest rate hikes, the central bank’s chief instrument in checking inflation.”

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- Example 1: “President ... has decided to appoint ... However, ... is not very popular with politicians. One of the reasons is that he has not ruled out interest rate hikes, the central bank’s chief instrument in checking inflation.”
- Example 2: Parliament was due to vote on the central bank governor appointment ..., but postponed ... on the grounds that ... was nominated for political reasons ... his clean public image, his compromising manner and good relations with the IMF and the World Bank made his re-election almost a formality until his recent fall out of favour with the ruling party. His unwillingness to unblock the government reserves held by the central bank has been rumoured to be the real reason why the ruling coalition refused to support him for another six-year mandate and nominated ... as his replacement.