Constraints on the executive and tax revenues in the long run

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This paper...

- Studies the relationship between constraints on the executive and tax revenues.
- Panel time series evidence, 31 advanced and emerging economies, 1820-2012 period.
- Executive constraints and tax revenues are cointegrated: there is a long-run relationship between the two.
- Evidence of cointegration is strongest for revenues from direct taxes, suggesting that the existence and nature of a long run relationship may be related to the emergence of broad-based taxation.

Context and motivation

- Effective states as a determinant of long-run economic development (e.g., Besley and Persson 2011; Acemoglu and Robinson 2019) and taxation is a fundamental condition for effective statehood.
- Policy relevance: SDG 17.1, on mobilising internal resources to finance development goals.
- Gap in empirical research on how countries learn to tax; little analysis on the relationship between political institutions limiting the executive power and the amount and composition of government revenues.

On executive constraints and taxation

- How do countries learn to tax? Centrality of constraints on the executive (Besley and Persson 2011): provide a stronger incentive for incumbent groups to invest in tax systems.
  - "constraints on the executive will diminish the concern that the government is run in the interests of a narrow group" (Bardhan 2016, p. 871).
  - a precondition for effective statehood is the presence of "an institutional player within the national government that has the formal political authority to regularly monitor state finances" Dincecco (2017, pp. 21–22).

On executive constraints and taxation (2)

- Role of parliament
  - In parliamentary democracies, an effective parliament can "regularly oversee the state's budget, including authority over taxation, the right to audit previous government spending, and the right to veto new expenditures" (Dincecco 2017, p. 22).
- (Thin) empirical literature supports the hypothesis that executive constraints have long-run positive impact on fiscal capacity.

On executive constraints and taxation (3)

- Need for more analysis on the dynamic relationship between executive constraints and taxation
  - "States that raise significant revenues will find themselves facing strong demands for accountability and representation, creating a two-way relationship between political development and the growth of the tax system. Little is yet known about this relationship. But it seems far from coincidental that states that are able to appropriate nearly half of national income in the form of taxation have also evolved strong political institutions, particularly those that constrain the use of such resources" (Besley and Persson 2013, p. 106).

On executive constraints and taxation (4)

- There may be a long run relationship between executive constraints and tax revenues such that they are cointegrated.
  - Central to how tax systems arise is also the bargaining process between the state and the citizenry, where citizens enter a *fiscal contract* with the state (Ross 2004; Levi 1988; Bräutigam et al. 2008; Prichard 2015; Moore 2007). It involves an exchange of tax revenues for good and services as they have more control over its action.
  - This implies that there is a feedback effect from tax revenues to political institutions placing limits on the executive power.

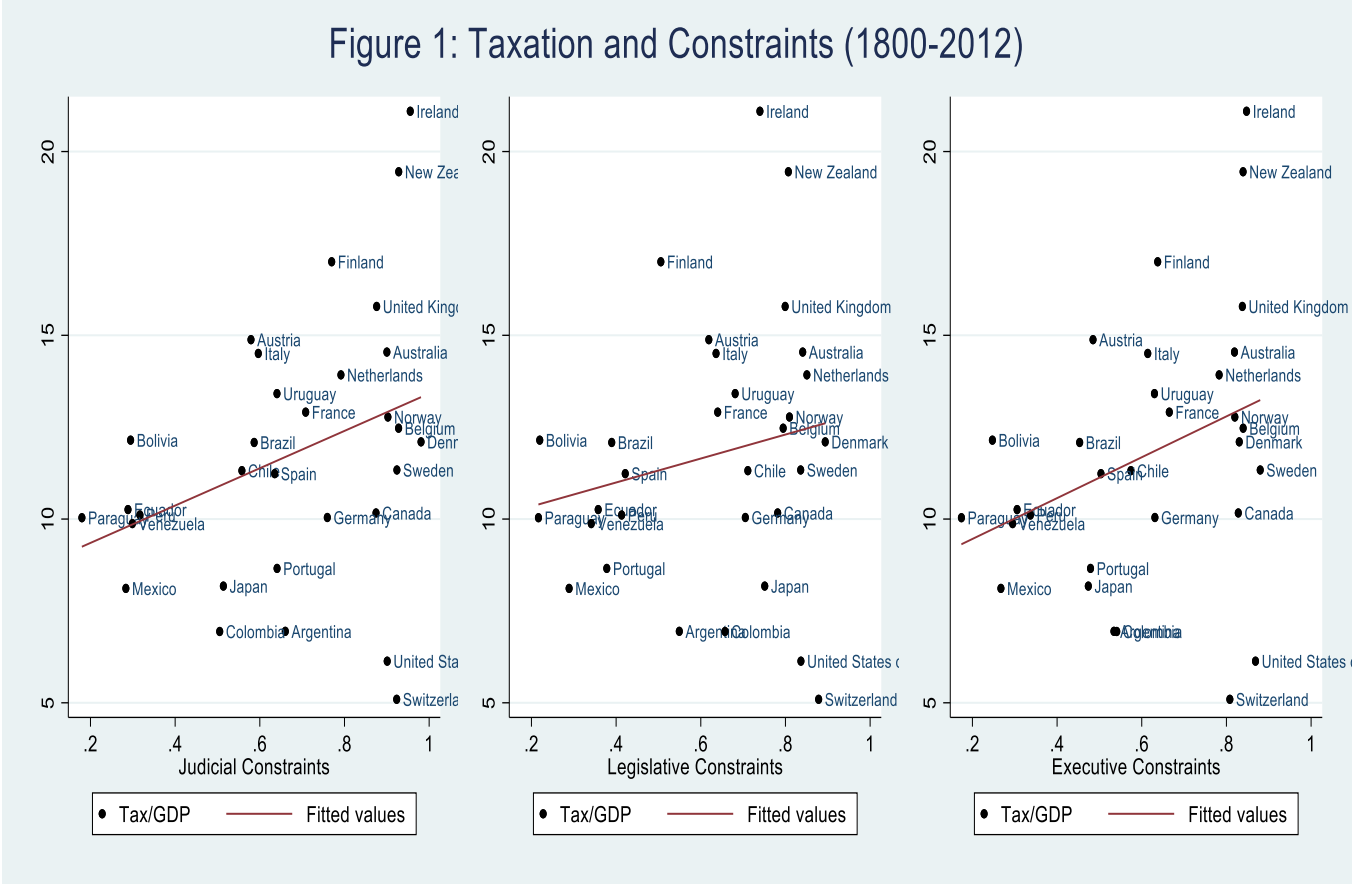
On executive constraints and taxation (5)

- The existence and nature of a long run relationship may be different for different taxes.
  - Fiscal capacity → transition from sources requiring low organisational effort to broad-based taxation.
  - Effect on the composition of revenues, i.e., an increase in revenues from direct taxes, which require broad fiscal bases, and a decrease in trade revenues and natural resources taxes.
  - Besley and Persson (2013): Tax bases historically shift from trade taxes and excises toward labor income and other broad bases.
  - Broad based taxes tend to be *consensual*, require a *fiscal bargain* with citizenry → more likely a feedback effect into executive constraints
- A long run relationship may be more likely to exist for broad-base taxes.

Data

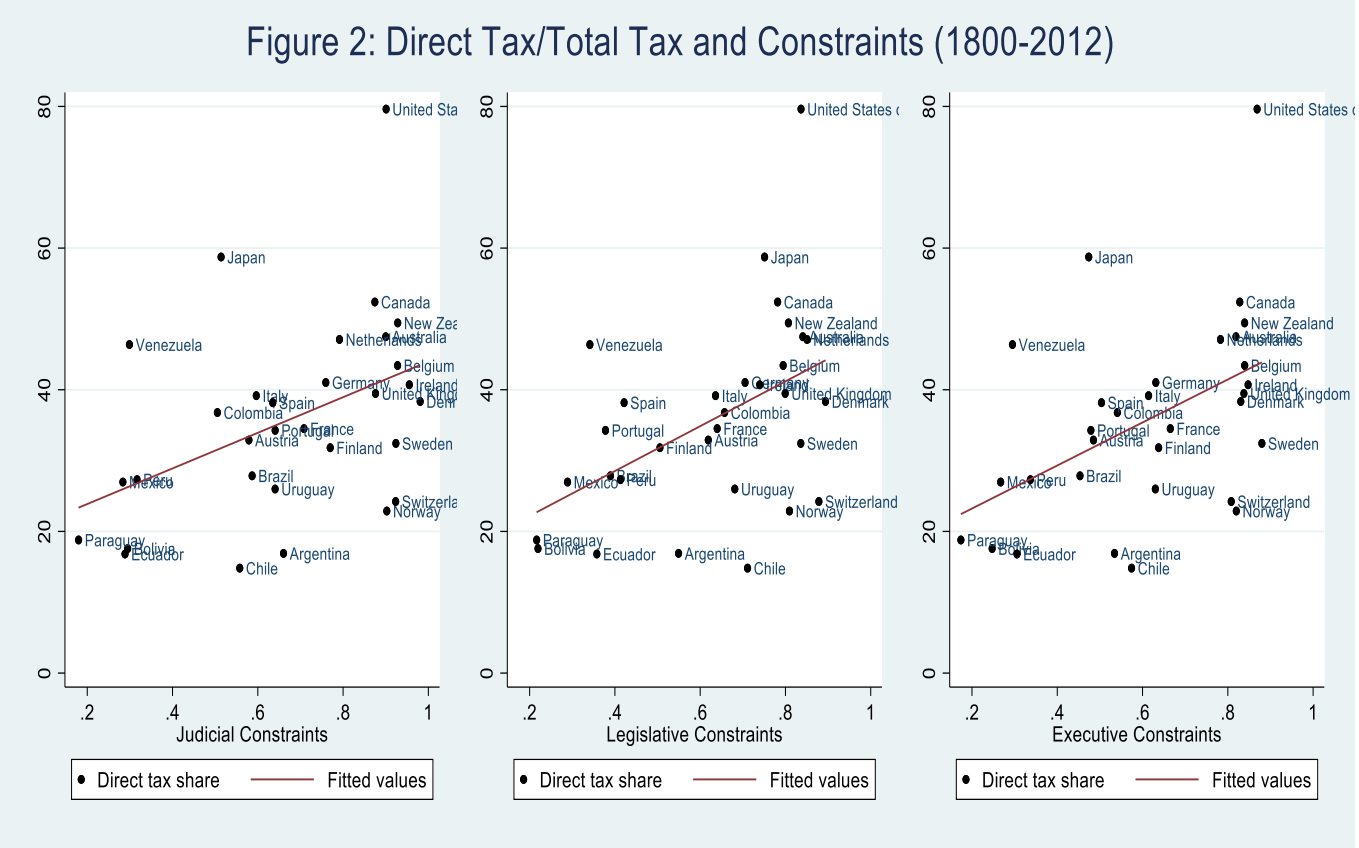
- Documenting long-run phenomena, focus on measures that have substantial time series variation
- Taxation. *Financing the State: Government Tax Revenue* dataset (Andersson and Brambor, 2019)
  - 31 countries (South America, North America and Western European countries with a population of more than one million, plus Australia, Japan, Mexico and New Zealand), 1800-2012
- Executive constraints. *V-Dem Project* (Coppedge et al. 2020), capturing *judicial* and *legislative constraints*

Total taxes/GDP and executive constraints



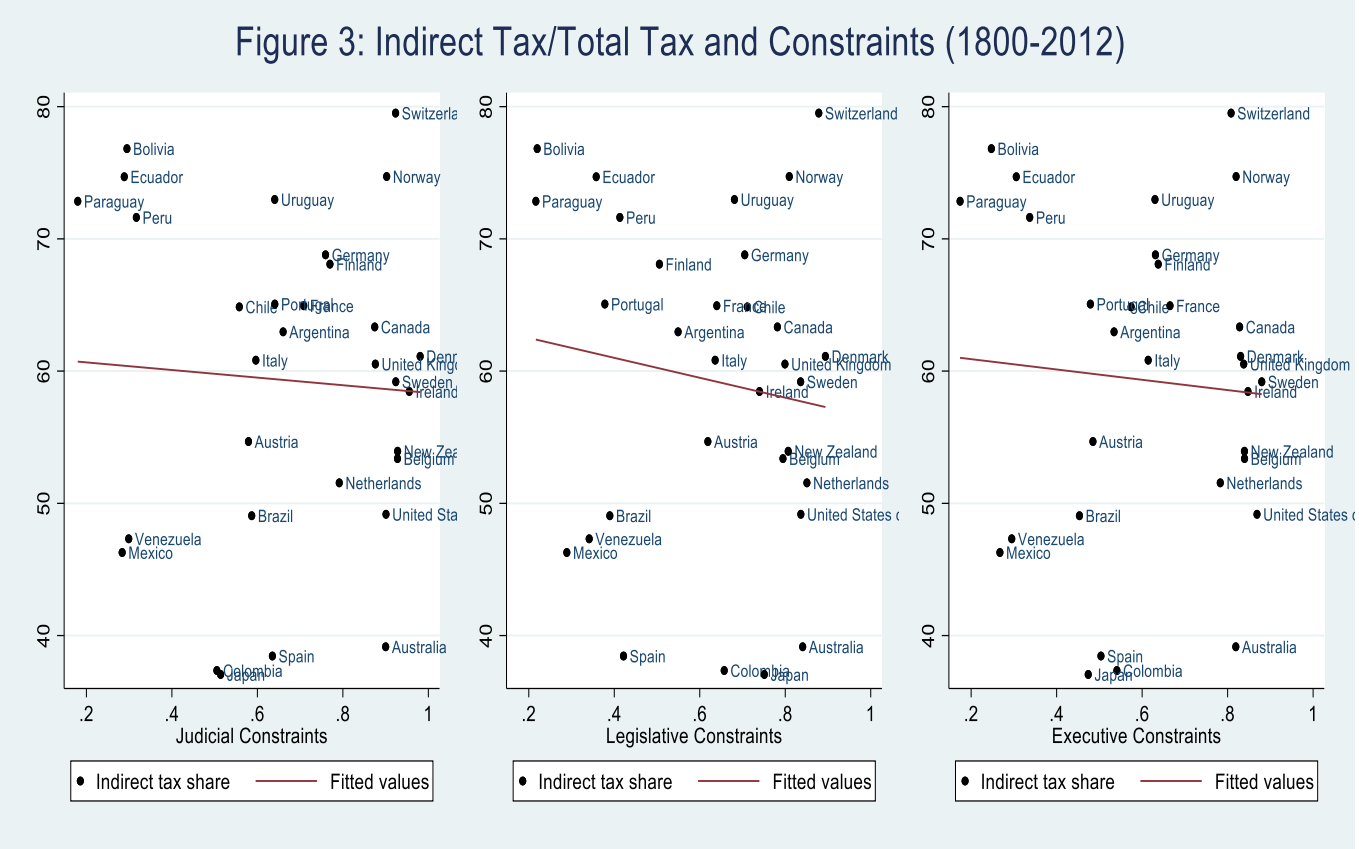
Notes: the Y-axis variable is the *Total central government tax revenues as a share of GDP* (see Andersson and Brambor 2019).

Direct taxes and executive constraints



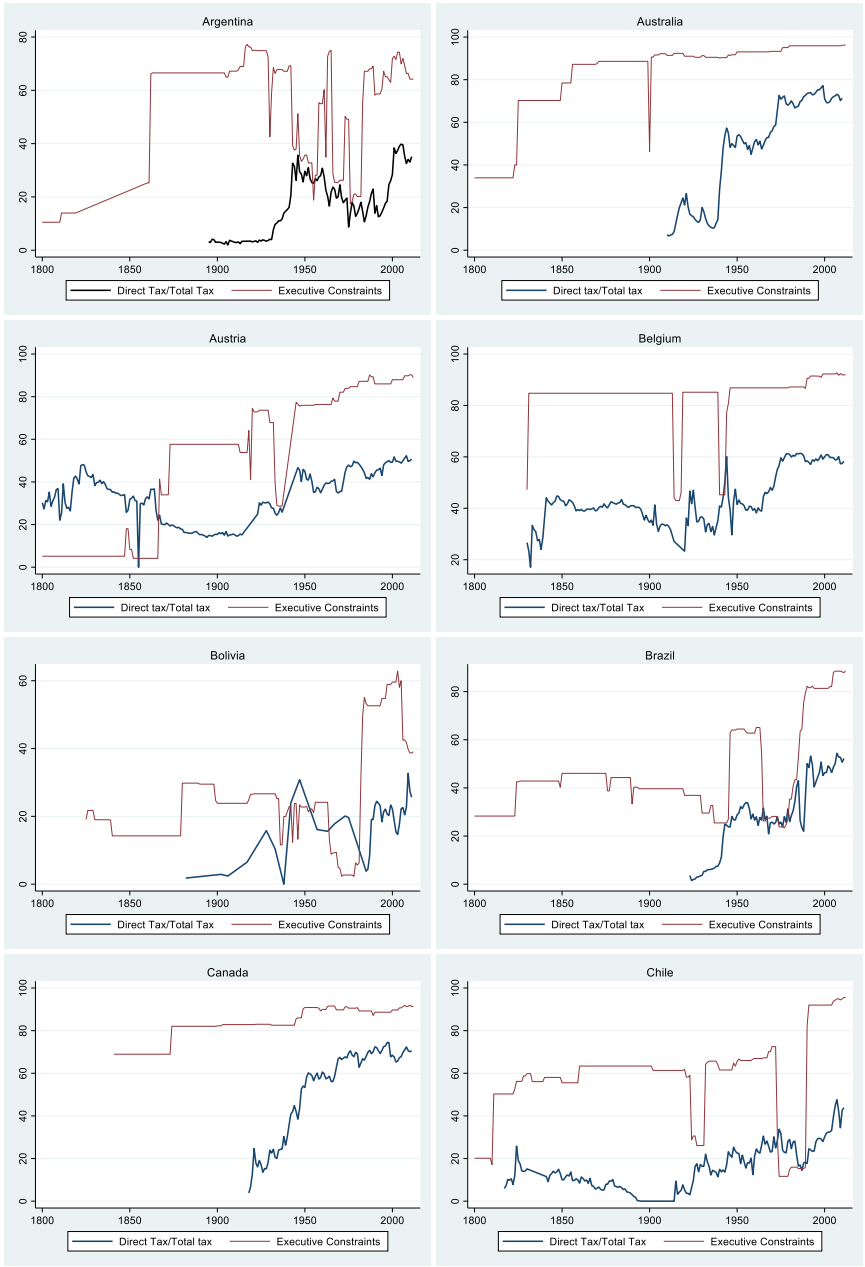
Notes: the Y-axis variable is the *Share of total central government tax revenue from direct taxes*. A direct tax is imposed directly upon an individual person (legal or natural) or property. Direct taxes include taxes on income, property, and other direct taxes (see Andersson and Brambor 2019).

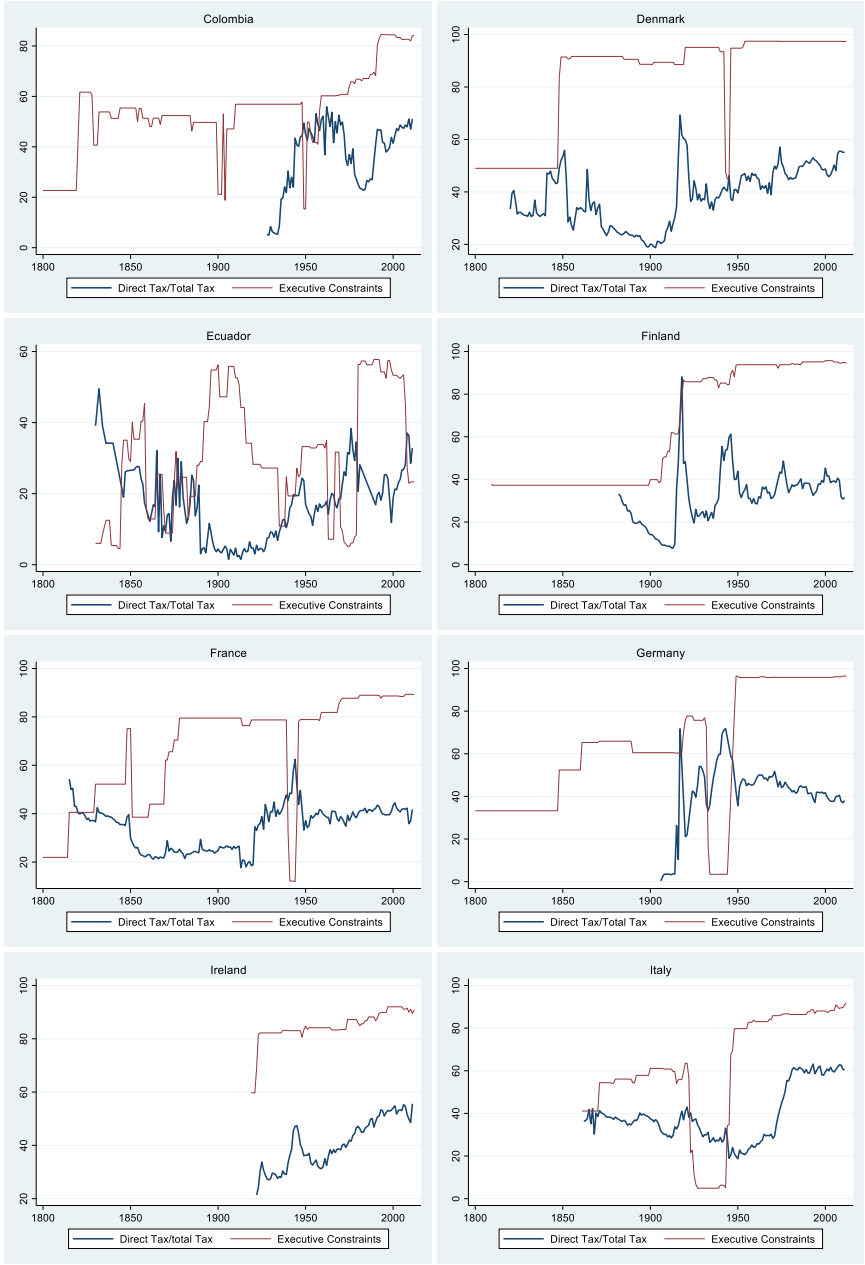
Indirect taxes and executive constraints



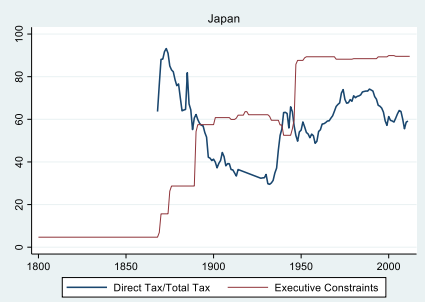
Notes: the Y-axis variable is the *Share of total tax revenue from indirect taxes*. An indirect tax is a tax on type of transaction, for example sales or importing goods. Indirect taxes include excises, customs, consumption taxes, and other indirect taxes (see Andersson and Brambor 2019).

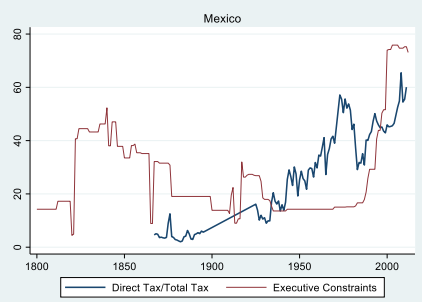
Direct taxes and executive constraints, 1800-2012

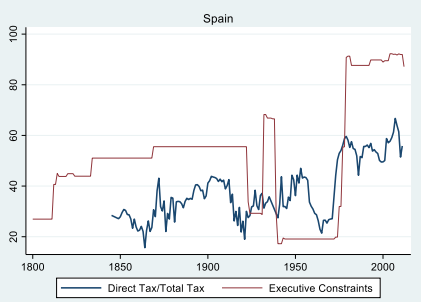


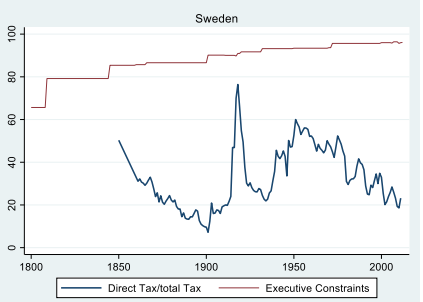


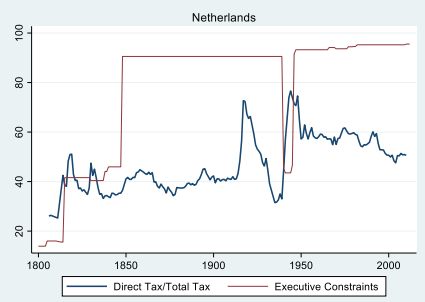
Direct taxes and executive constraints, 1800-2012

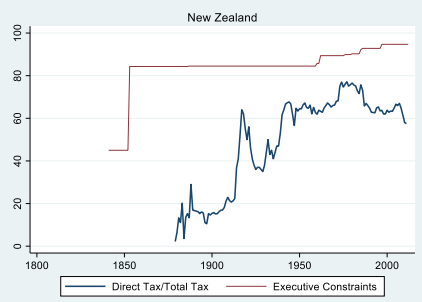


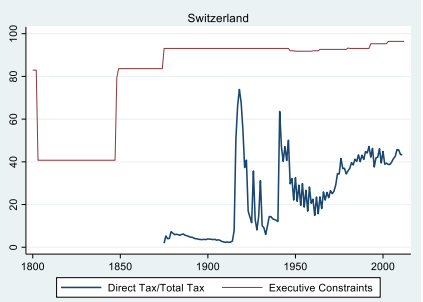


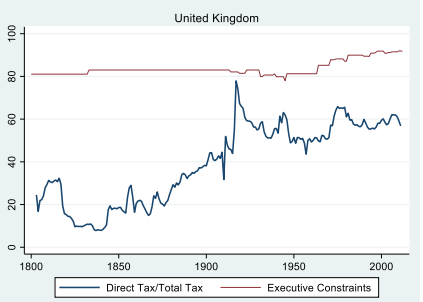


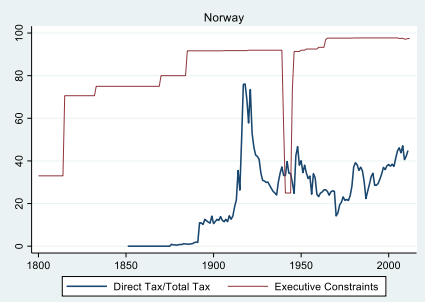


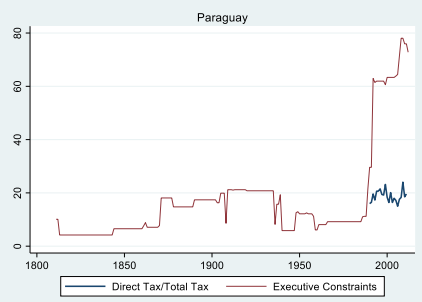


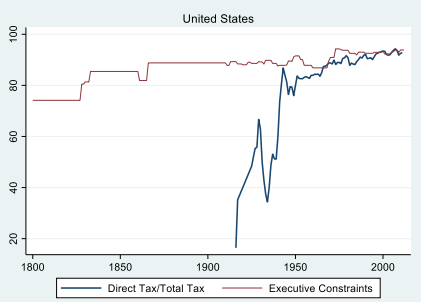


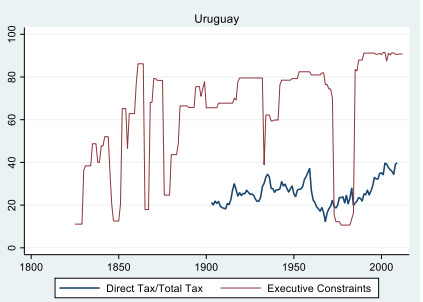


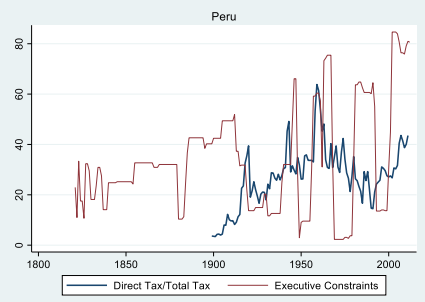


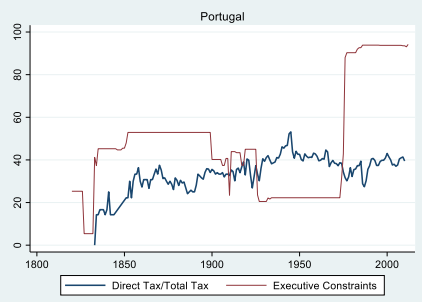


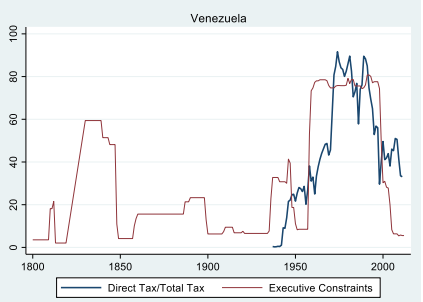












Empirical strategy

- Modelling the bivariate long-run relationship between taxation and measures of constraints on the executive adopting a common factor framework:

$$tax_{it} = \beta_i' CV_{it} + u_{it} \qquad u_{it} = \alpha_i + \lambda_i' f_t + \varepsilon_{it} \qquad (1)$$

- (1) allows for: the vector of parameter coefficients (β'_i) to differ across countries; unobserved heterogeneity, fixed effects (a_i); and unobserved common factors (f_t) with factor loadings that can differ across countries (λ_i).

Empirical strategy (2)

$$\Delta tax_{it} = \alpha_i + \rho_i\left(tax_{it-1} - \beta_i^{CV} CV_{it-1} - \lambda_i f_{t-1}\right) + \gamma_i^{CV} \Delta CV_{it} + \gamma_i^{F} \Delta f_t + \mu_{it} \qquad (3)$$

- β_i^{CV} in equation (3) represents the long-run equilibrium relationship between taxation and executive constraints in the model, γ_i^{CV} represents the short-run relationship and ρ_i indicates the speed of convergence of the economy to its long-run equilibrium.
- The expression in parentheses represents the potential cointegrating relationship we seek to investigate. Unobserved common factors are included in the long-run relation, which implies we will investigate an equilibrium relationship between tax shares, constraints and the unobservables (Banerjee and Carríon-i-Silvestre, 2017; Eberhardt and Teal, 2013; Eberhardt and Presbitero, 2015).
- Common Correlated Effects Mean Group (CCEMG) estimator: uses (weighted) cross-section averages of the dependent and independent variables to filter out unobserved common factors $\boldsymbol{f}$ and omitted elements of the cointegrating relationship.

Cross-section dependence

Table A1: Cross-section dependence tests

Panel A	**Variables in Levels**							
	Direct Tax	Indirect Tax	Consumption Tax	Trade Tax	Tax/GDP	Judicial Constraints	Legislative Constraints	Executive Constraints
CD	138.72	105.27	129.66	60.32	178.74	133.49	142.34	159.17
p-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Panel B	**Variables in First Differences**							
CD	9.18	15.25	0.24	17.61	4.69	5.36	2.07	8.58
p-value	0.000	0.000	0.813	0.000	0.000	0.000	0.039	0.000

Notes: (i) We use the stata routine 'xtcd2' developed by Jan Ditzen. CD is the Pesaran (2015) test for cross-section dependence distributed $N(0,1)$ under the null of cross-section independence. Panels A and B test for cross-section dependence in the variable series for levels and first differences, respectively. Direct tax share, indirect tax share, consumption tax share, trade tax share, tax/GDP ratio, judicial constraints, legislative constraints and executive constraints all in logs.

Cointegration, executive constraints

Table 1: Gengenbach, Urbain and Westerlund (2009) Cointegration Test: taxation and executive constraints

	Test Statistic, $\bar{\tau}^*$	10%	5%	1%
Panel A – Executive Constraints				
		Tax/GDP and executive constraints		
Model 1	-2.987***	-1.995	-2.065	-2.190
Model 2	-3.198***	-2.458	-2.517	-2.611
Model 3	-3.203**	-2.875	-2.925	-3.010
		Direct tax share and executive constraints		
Model 1	-2.954***	-1.995	-2.065	-2.190
Model 2	-3.174***	-2.458	-2.517	-2.611
Model 3	-3.420**	-2.875	-2.925	-3.010
		Indirect tax share and executive constraints		
Model 1	-2.364***	-1.995	-2.065	-2.190
Model 2	-2.539**	-2.458	-2.517	-2.611
Model 3	-2.864	-2.875	-2.925	-3.010

Note: ***, **, * indicate significance at 1 percent, 5 percent and 10 percent, respectively. Significance will indicate rejection of the null hypothesis. H_0: no error correction, hence, no cointegration, H_1: error correction, hence cointegration. Model 1 – 3 refers to an ECM without any deterministic terms, with intercept and with intercept and trend, respectively.

Cointegration, judicial constraints

Table 1: Gengenbach, Urbain and Westerlund (2009) Cointegration Test: taxation and executive constraints

	Test Statistic, $\bar{\tau}^*$	10%	5%	1%
Panel B – Judicial Constraints				
		Tax/GDP and judicial constraints		
Model 1	-2.684***	-1.995	-2.065	-2.190
Model 2	-2.790***	-2.458	-2.517	-2.611
Model 3	-2.870	-2.875	-2.925	-3.010
		Direct tax share and judicial constraints		
Model 1	-2.989***	-1.995	-2.065	-2.190
Model 2	-3.230***	-2.458	-2.517	-2.611
Model 3	-3.476***	-2.875	-2.925	-3.010
		Indirect tax share and judicial constraints		
Model 1	-2.404***	-1.995	-2.065	-2.190
Model 2	-2.505*	-2.458	-2.517	-2.611
Model 3	-2.842*	-2.875	-2.925	-3.010

Note: ***, **, * indicate significance at 1 percent, 5 percent and 10 percent, respectively. Significance will indicate rejection of the null hypothesis. H_0: no error correction, hence, no cointegration, H_1: error correction, hence cointegration. Model 1 – 3 refers to an ECM without any deterministic terms, with intercept and with intercept and trend, respectively.

Cointegration, legislative constraints

Table 1: Gengenbach, Urbain and Westerlund (2009) Cointegration Test: taxation and executive constraints

	Test Statistic, $\bar{\tau}^*$	10%	5%	1%
Panel C – Legislative Constraints				
	Tax/GDP and legislative constraints			
Model 1	-3.000***	-1.995	-2.065	-2.190
Model 2	-3.338***	-2.458	-2.517	-2.611
Model 3	-3.261***	-2.875	-2.925	-3.010
	Direct tax share and legislative constraints			
Model 1	-2.842***	-1.995	-2.065	-2.190
Model 2	-3.129***	-2.458	-2.517	-2.611
Model 3	-3.306***	-2.875	-2.925	-3.010
	Indirect tax share and legislative constraints			
Model 1	-2.458***	-1.995	-2.065	-2.190
Model 2	-2.367**	-2.458	-2.517	-2.611
Model 3	-2.899*	-2.875	-2.925	-3.010

Note: ***, **, * indicate significance at 1 percent, 5 percent and 10 percent, respectively. Significance will indicate rejection of the null hypothesis. H_0: no error correction, hence, no cointegration, H_1: error correction, hence cointegration. Model 1 – 3 refers to an ECM without any deterministic terms, with intercept and with intercept and trend, respectively.

ECM estimates

Table 2: ECM estimates: total taxes, shares of direct and indirect taxes

Panel A: Total Taxes/GDP and Executive Constraints			
	Judicial	***Legislative***	***Exec. Constraints***
Long-Run			
Executive Constraints	0.100	0.104	0.023
	[0.095]	[0.089]	[0.092]]
Short-Run			
Executive Constraints	-0.074	-0.051	0.0002
	[0.067]	[0.067]	[0.054]
EC Coefficient			
y_{it-1}	**-0.152*** **	**-0.169*** **	**-0.154*** **
	[0.016]	**[0.019]**	**[0.016]**
t-statistic	-9.74	-8.99	-9.68
CD test	-3.138	-1.986	-2.663
(p-value)	(0.000)	(0.047)	(0.008)
Observations (N)	4454 (31)	4175 (31)	4454 (31)
Panel B: Share of Direct Taxes and Executive Constraints			
	Judicial	***Legislative***	***Exec. Constraints***
Long-Run			
Executive Constraints	0.088	0.207*	0.099
	[0.232]	[0.124]	[0.114]
Short-Run			
Executive Constraints	0.026	0.021	-0.008
	[0.040]	[0.061]	[0.033]
EC Coefficient			
y_{it-1}	-0.184***	-0.200***	-0.182***
	[0.022]	[0.025]	[0.022]
t-statistic	-8.27	-7.86	-8.13
CD test	-1.708	-1.199	-1.908
(p-value)	(0.088)	(0.230)	(0.056)
Observations (N)	3907 (31)	3574 (31)	3907 (31)
Panel C: Share of Indirect Taxes and Executive Constraints			
	Judicial	***Legislative***	***Exec. Constraints***
Long-Run			
Executive Constraints	-0.060	-0.184	0.051
	[0.292]	[0.019]	[0.106]
Short-Run			
Executive Constraints	0.003	-0.008	0.020
	[0.049]	[0.037]	[0.027]
EC Coefficient			
y_{it-1}	-0.100***	-0.112***	-0.105***
	[0.013]	[0.017]	[0.014]
t-statistic	-7.86	-6.78	-7.46
CD test	-3.859	-3.116	-4.001
(p-value)	(0.000)	(0.002)	(0.000)
Observations (N)	4304 (31)	3992 (31)	4304 (31)

Notes: Results are based on an ECM for all 31 countries in the sample. The long-run and short-run averages are reported, with standard errors reported in parentheses below. CD test is the Pesaran (2015) test distributed $N(0,1)$ under the null of weak cross-section independence (p-value in parentheses below). *, **, *** indicate significance at 10%, 5% and 1% respectively.

Direction of long-run causality

Table 3: Weak exogeneity tests

	GM	*p*-value	Mean $\widehat{\theta}_i$	*t*-stat
Total taxes/GDP				
Judicial constraints to tax/GDP	-2.151**	0.031	-0.125***	-7.579
Tax/GDP to judicial constraints	*0.268*	*0.789*	*0.008***	*2.476*
Legislative constraints to tax/GDP	-2.220**	0.026	-0.149***	-7.478
Tax/GDP to Legislative constraints	*0.357*	*0.721*	*0.006*	*1.167*
Executive constraints to tax/GDP	-2.240**	0.025	-0.143***	-7.798
Tax/GDP to executive constraints	*0.265*	*0.791*	*0.012*	*1.249*
Direct taxation				
Judicial constraints to direct taxes	-2.422**	0.015	-0.132***	-8.635
Direct taxes to judicial constraints	*0.228*	*0.819*	*0.000*	*0.022*
Legislative constraints to direct taxes	-2.313**	0.021	-0.147***	-8.202
Direct taxes to legislative constraints	*-0.066*	*0.947*	*0.001*	*0.230*
Executive constraints to direct taxes	*-2.451***	*0.014*	*-0.132****	*-8.961*
Direct taxes to executive constraints	0.247	0.805	0.004	*0.721*
Income tax				
Judicial constraints to income taxes	-2.378**	0.017	-0.140***	-7.036
Income taxes to judicial constraints	*-0.107*	*0.915*	*-0.002*	*-1.119*
Legislative constraints to income taxes	-2.147**	0.032	-0.146***	-6.725
Legislative constraints to income taxes	*0.008*	*0.993*	*0.001*	*0.443*
Executive constraints to income taxes	-2.362**	0.018	-0.132***	-7.225
Income taxes to executive constraints	*0.210*	*0.834*	*0.013***	*2.010*
Indirect taxation				
Judicial constraints to indirect taxes	-1.930*	0.054	-0.089***	-6.365
Indirect taxes to judicial constraints	*-0.038*	*0.969*	*0.004*	*0.717*
Legislative constraints to indirect taxes	-1.743*	0.082	-0.100***	-5.738
Indirect taxes to legislative constraints	*-0.183*	*0.855*	*0.003*	*0.319*
Executive constraints to indirect taxes	-1.875*	0.061	-0.096***	-7.157
Indirect taxes to executive constraints	*0.060*	*0.952*	*0.002*	*0.121*
Consumption taxes				
Judicial constraints to consumption taxes	-1.457	0.145	-0.123***	-4.478
Consumption taxes to judicial constraints	*-0.138*	*0.890*	*-0.013*	*-1.402*
Legislative constraints to consumption taxes	-1.321	0.186	-0.163***	-5.148
Consumption taxes to legislative constraints	*-0.344*	*0.731*	*0.001*	*0.137*
Executive constraints to consumption taxes	-1.381	0.167	-0.155***	-4.636
Consumption taxes to executive constraints	*-0.137*	*0.891*	*0.005*	*0.244*
Trade taxes				
Judicial constraints to trade taxes	-1.435	0.151	-0.076***	-4.484
Trade taxes to judicial constraints	*0.185*	*0.853*	*0.001*	*0.589*
Legislative constraints to trade taxes	-1.540	0.123	-0.086***	-4.818
Trade taxes to legislative constraints	*-0.367*	*0.714*	*-0.002*	*-1.672*
Executive constraints to trade taxes	-1.595	0.111	-0.083***	-5.206
Trade taxes to executive constraints	*0.025*	*0.980*	*0.002*	*0.509*

Notes: The rows in italics are for 'reverse causality': where causality runs from taxation to constraints variables.

Final remarks

- Evidence that executive constraints and tax revenues are cointegrated
  - Evidence of cointegration is strongest for variables capturing the share of revenues from direct taxes, such as the income tax, much weaker for indirect tax revenues, and absent for trade taxes.
- A technical fix alone may not be enough for domestic resources mobilisation (SDG 17.1), if political institutions keeping state leadership accountable are missing.
- Synergy between targets SDG 16.6 and SDG 17.1

Results: unit roots tests

Table 2a: Panel Unit Roots Test: taxation

Levels: CIPS test with intercept only										
Variable	Tax/GDP		Direct Tax		Indirect Tax		Consumption Tax		Trade Tax	
Lags	Ztbar	p	Ztbar	p	Ztbar	p	Ztbar	p	Ztbar	p
0	-9.53	0.00	-10.13	0.00	-6.54	0.00	-7.05	0.00	-0.19	0.43
1	-6.81	0.00	-7.65	0.00	-4.76	0.00	-4.25	0.05	-1.08	0.14
2	-4.45	0.00	-5.82	0.00	-2.68	0.02	-0.55	0.29	0.31	0.62
3	-4.42	0.00	-3.74	0.02	0.80	0.79	0.07	0.53	1.77	0.96
4	-3.20	0.00	-4.03	0.00	0.77	0.78	1.15	0.88	0.61	0.73
5	-2.42	0.01	-4.78	0.00	1.54	0.94	2.27	0.99	2.27	0.99
6	-2.32	0.01	-1.40	0.08	2.33	0.99	4.88	1.00	2.98	0.999
Levels: CIPS test with intercept & trend										
Variable	Tax/GDP		Direct Tax		Indirect Tax		Consumption Tax		Trade Tax	
Lags	Ztbar	p	Ztbar	p	Ztbar	p	Ztbar	p	Ztbar	p
0	-8.14	0.00	-9.97	0.00	-5.15	0.00	-4.33	0.00	1.58	0.94
1	-4.84	0.00	-7.21	0.01	-2.91	0.00	-1.76	0.04	0.49	0.69
2	-2.60	0.00	-4.64	0.00	-1.06	0.14	1.44	0.92	2.44	0.99
3	-2.04	0.02	-2.50	0.01	2.47	0.97	2.11	0.98	3.95	1.00
4	-0.99	0.16	-2.59	0.01	2.48	0.98	3.89	1.00	2.91	0.998
5	0.21	0.59	-3.54	0.00	2.89	0.998	4.75	1.00	5.00	1.00
6	0.53	0.70	0.06	0.52	4.03	1.00	7.64	1.00	4.91	1.00
Differences: CIPS test with drift										
Variable	Tax/GDP		Direct Tax		Indirect Tax		Consumption Tax		Trade Tax	
Lags	Ztbar	p	Ztbar	p	Ztbar	p	Ztbar	p	Ztbar	p
0	-26.86	0.00	-25.98	0.00	-26.09	0.00	-23.73	0.00	-26.79	0.00
1	-26.49	0.00	-25.16	0.00	-26.01	0.00	-20.30	0.00	-25.78	0.00
2	-25.15	0.00	-23.38	0.00	-25.49	0.00	-16.67	0.00	-24.15	0.00
3	-24.11	0.00	-21.32	0.00	-23.48	0.00	-12.27	0.00	-21.66	0.00
4	-22.02	0.00	-16.46	0.00	-21.20	0.00	-9.08	0.00	-20.59	0.00
5	-20.00	0.00	-14.15	0.00	-18.26	0.00	-7.19	0.00	-17.12	0.00
6	-17.58	0.00	-12.27	0.00	-14.69	0.00	-6.06	0.00	-13.63	0.00

Notes: Tax/GDP = central tax-to-GDP ratio, Direct Tax = Direct Tax/Total Central Tax, Indirect Tax = Indirect Tax/Total Central Tax, Consumption Tax = Consumption Tax/Total Central Tax, Trade Tax = Trade Tax/Total Central Tax.

Source: Authors' calculations based on the Andersson and Brambor (2019) Dataset.

Results: unit roots tests (2)

Table 2b: Panel Unit Roots Test: constraints on the executive

Levels: CIPS test with intercept only						
Variables	Judicial Constraints		Legislative Constraints		Executive Constraints	
Lags	$Ztbar$	p	$Ztbar$	p	$Ztbar$	p
0	-3.24	0.00	-3.54	0.00	6.62	1.00
1	-4.39	0.00	-2.82	0.00	7.03	1.00
2	-3.86	0.00	-3.10	0.00	7.17	1.00
3	-4.06	0.00	-2.13	0.02	7.38	1.00
4	-2.89	0.00	-1.25	0.11	7.15	1.00
5	-2.76	0.00	-1.39	0.08	6.76	1.00
6	-2.29	0.01	-1.48	0.07	7.16	1.00
Levels: CIPS test with intercept & trend						
Variables	Judicial Constraints		Legislative Constraints		Executive Constraints	
Lags	$Ztbar$	p	$Ztbar$	p	$Ztbar$	p
0	-0.48	0.32	-1.88	0.03	8.31	1.00
1	-1.86	0.03	-1.51	0.07	8.63	1.00
2	-1.13	0.13	-2.21	0.01	8.43	1.00
3	-1.16	0.12	-0.75	0.23	8.41	1.00
4	-0.29	0.39	0.05	0.52	8.00	1.00
5	-0.24	0.41	-0.21	0.42	7.50	1.00
6	0.19	0.57	-0.33	0.37	7.75	1.00
Differences: CIPS test with drift						
Variables	Judicial Constraints		Legislative Constraints		Executive Constraints	
Lags	$Ztbar$	p	$Ztbar$	p	$Ztbar$	p
0	-26.91	0.00	-26.91	0.00	-11.28	0.00
1	-26.91	0.00	-26.72	0.00	-11.28	0.00
2	-26.78	0.00	-25.83	0.00	-11.00	0.00
3	-26.46	0.00	-24.20	0.00	-10.35	0.00
4	-25.01	0.00	-21.38	0.00	-8.49	0.00
5	-23.22	0.00	-18.48	0.00	-7.25	0.00
6	-21.45	0.00	-16.29	0.00	-5.42	0.00

Notes: Data on Judicial and Legislative Constraints are obtained from the V-Dem Dataset while data on executive constraints are obtained from the Polity IV Dataset.

Source: Authors' calculations based on V-Dem Data (version 10) and Polity IV Data.

Executive constraints ≠ "democracy"

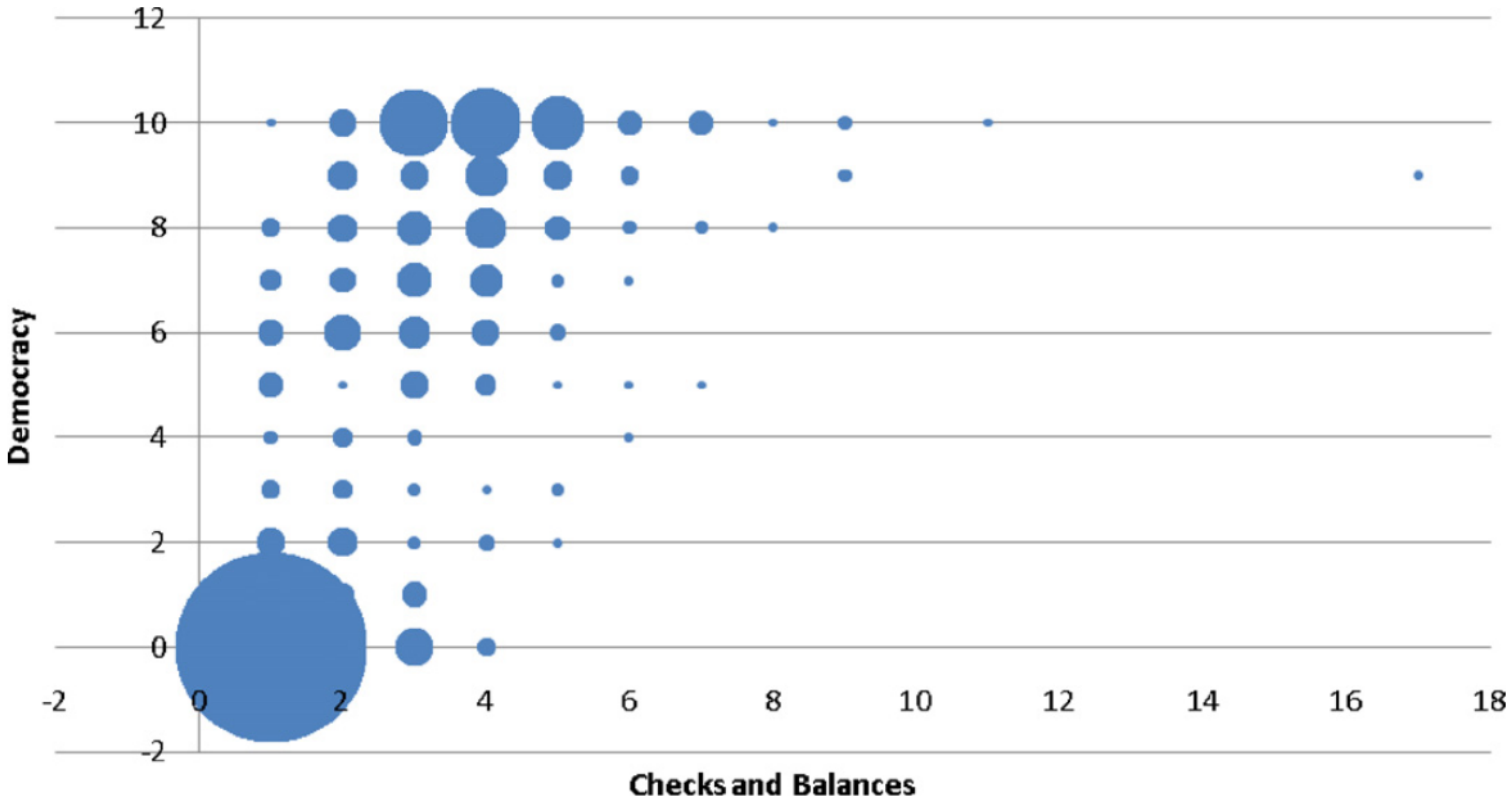
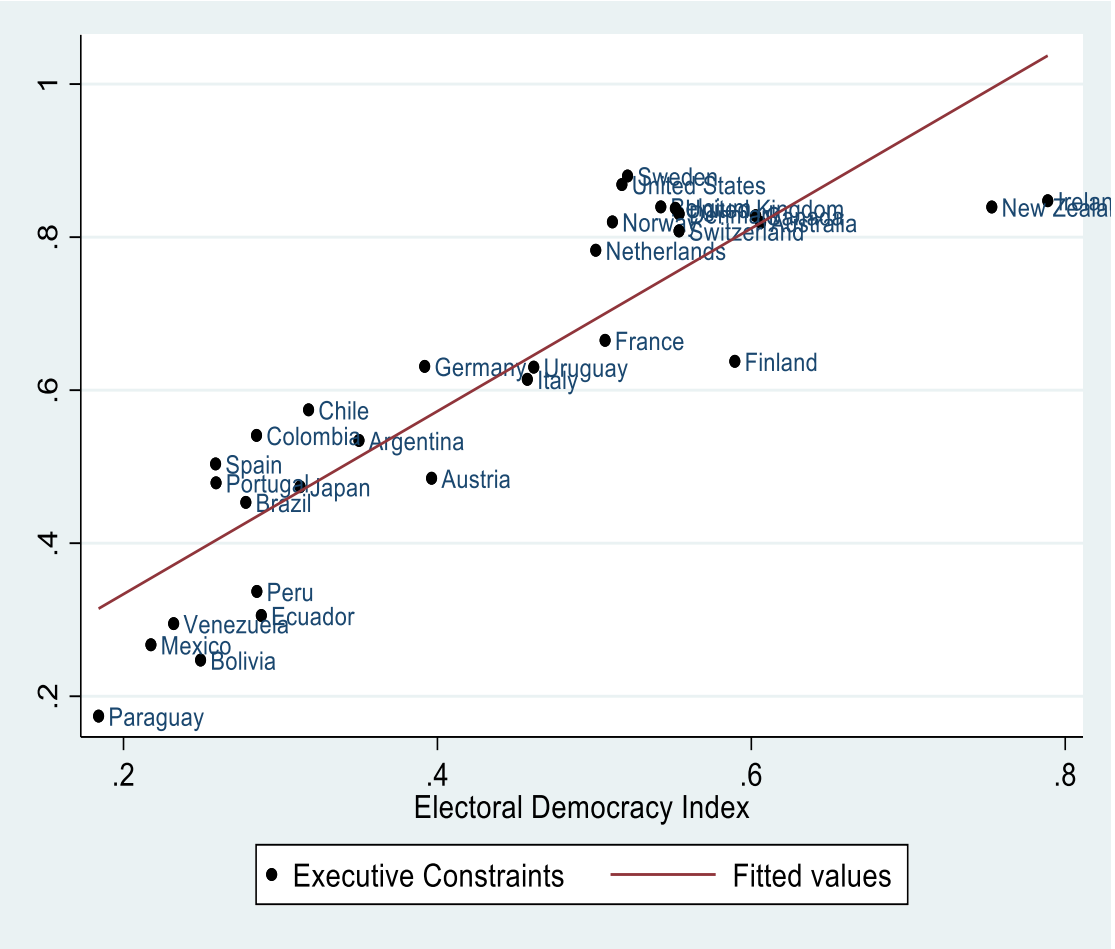


Fig. 1. Checks and balances and democracy.

From: Paul Collier, Anke Hoeffler, "Testing the neocon agenda: Democracy in resource-rich societies", *European Economic Review*, Volume 53, Issue 3, 2009, Pages 293-308.

Executive constraints ≠ "democracy"

Executive constraints and V-Dem Electoral Democracy index, 1800-2012



Notes: the vertical axis variable is Executive Constraints (arithmetic mean of judicial and legislative constraints). The horizontal axis variable is V-Dem's Electoral Democracy index, *v2x_polyarchy,* (Coppedge et al. 2020). They are averages of the available values for the 1800-2012 period.

Judicial constraints on the executive index

2.2.10 Judicial constraints on the executive index (D) (v2x_jucon)

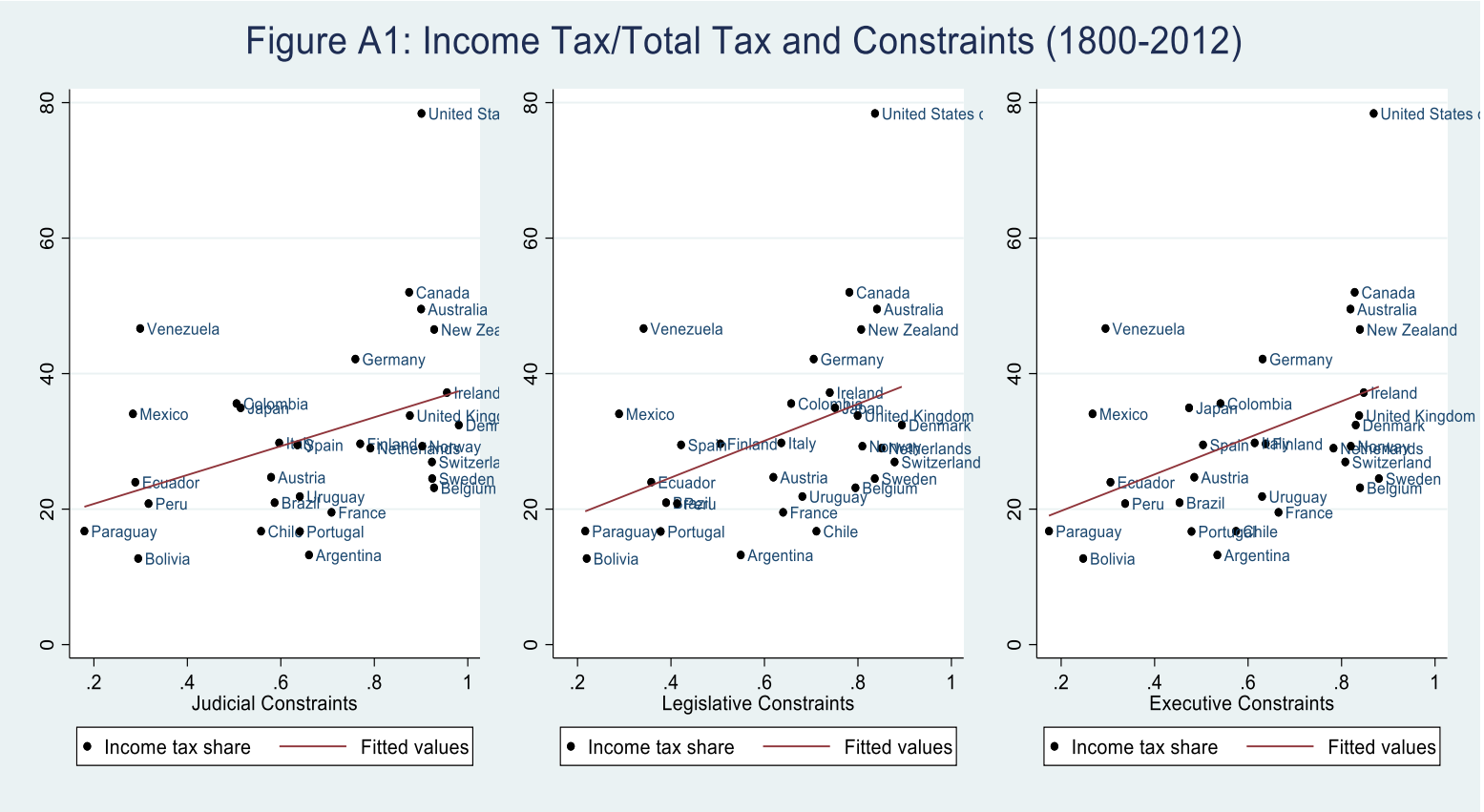
- Project Manager(s): Jan Teorell
- Question: To what extent does the executive respect the constitution and comply with court rulings, and to what extent is the judiciary able to act in an independent fashion?
- Scale: Interval, from low to high (0-1).
- Source(s): v2exrescon, v2jucomp, v2juhccomp, v2juhcind, v2juncind.
- Data release: 1-8.
- Aggregation: The index is formed by taking the point estimates from a Bayesian factor analysis model of the indicators for executive respects constitution v2exrescon, compliance with judiciary v2jucomp, compliance with high court v2juhccomp, high court independence v2juhcind, and lower court independence v2juncind.
- Citation: Coppedge, Michael, John Gerring, Carl Henrik Knutsen, Staffan I. Lindberg, Jan Teorell, David Altman, Michael Bernhard, M. Steven Fish, Adam Glynn, Allen Hicken, Anna Lührmann, Kyle L. Marquardt, Kelly McMann, Pamela Paxton, Daniel Pemstein, Brigitte Seim, Rachel Sigman, Svend-Erik Skaaning, Jeffrey Staton, Agnes Cornell, Lisa Gastaldi, Haakon Gjerløw, Valeriya Mechkova, Johannes von Römer, Aksel Sundtröm, Eitan Tzelgov, Luca Uberti, Yi-ting Wang, Tore Wig, and Daniel Ziblatt. 2019. "V-Dem Codebook v10" Varieties of Democracy (V-Dem) Project.

Legislative constraints on the executive index

2.2.11 Legislative constraints on the executive index (D) (v2xlg_legcon)

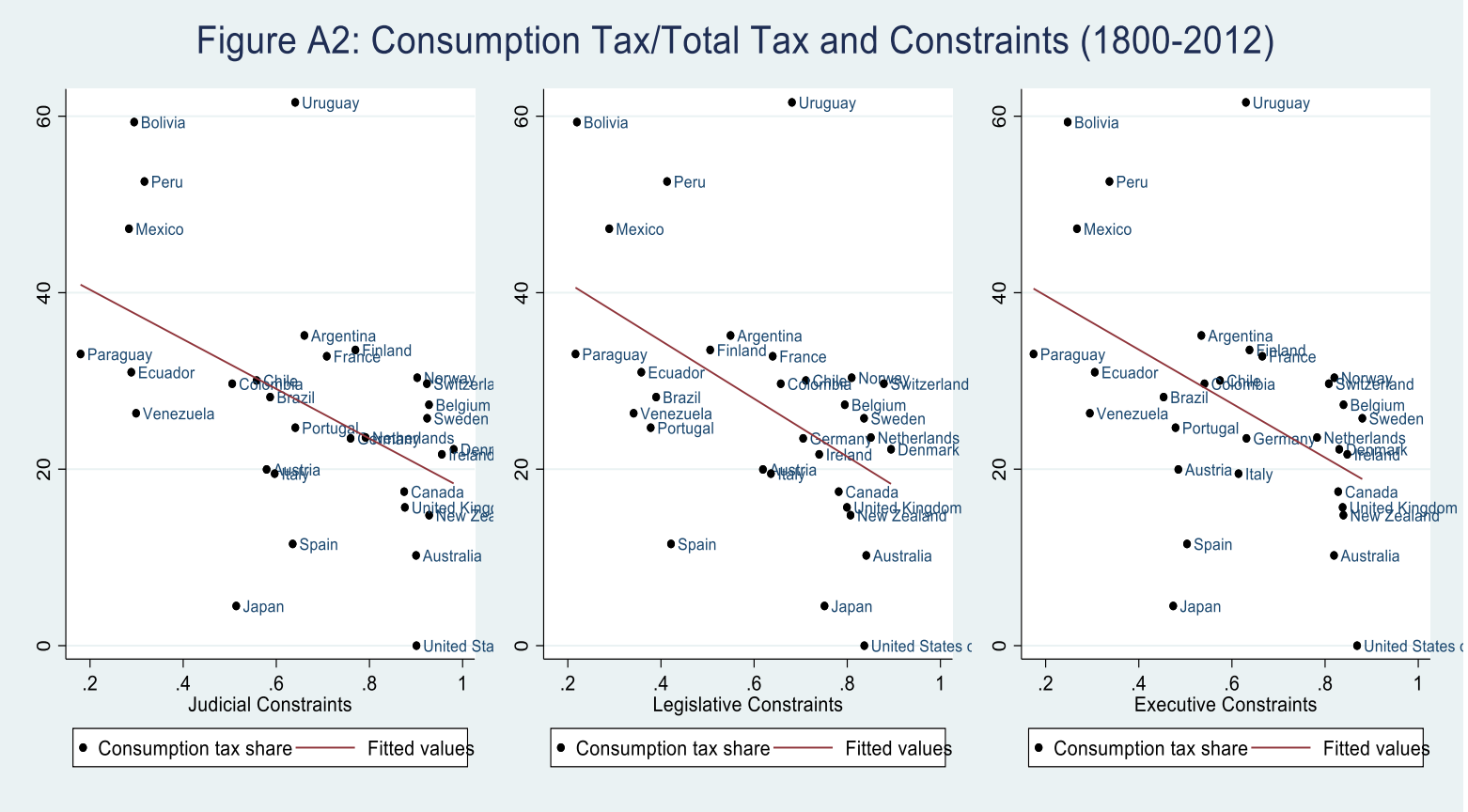
- Project Manager(s): Jan Teorell
- Question: To what extent are the legislature and government agencies e.g., comptroller general, general prosecutor, or ombudsman capable of questioning, investigating, and exercising oversight over the executive?
- Scale: Interval, from low to high (0-1).
- Source(s): v2lgqstexp, v2lgotovst, v2lginvstp, v2lgoppart.
- Data release: 1-8.
- Aggregation: The index is formed by taking the point estimates from a Bayesian factor analysis model of the indicators for legislature questions officials in practice v2lgqstexp, executive oversight v2lgotovst, legislature investigates in practice v2lginvstp, and legislature oppositionparties v2lgoppart.
- Citation: Citation: Coppedge, Michael, et al. 2019. "V-Dem Codebook v10" Varieties of Democracy (V-Dem) Project.

Income taxation and executive constraints



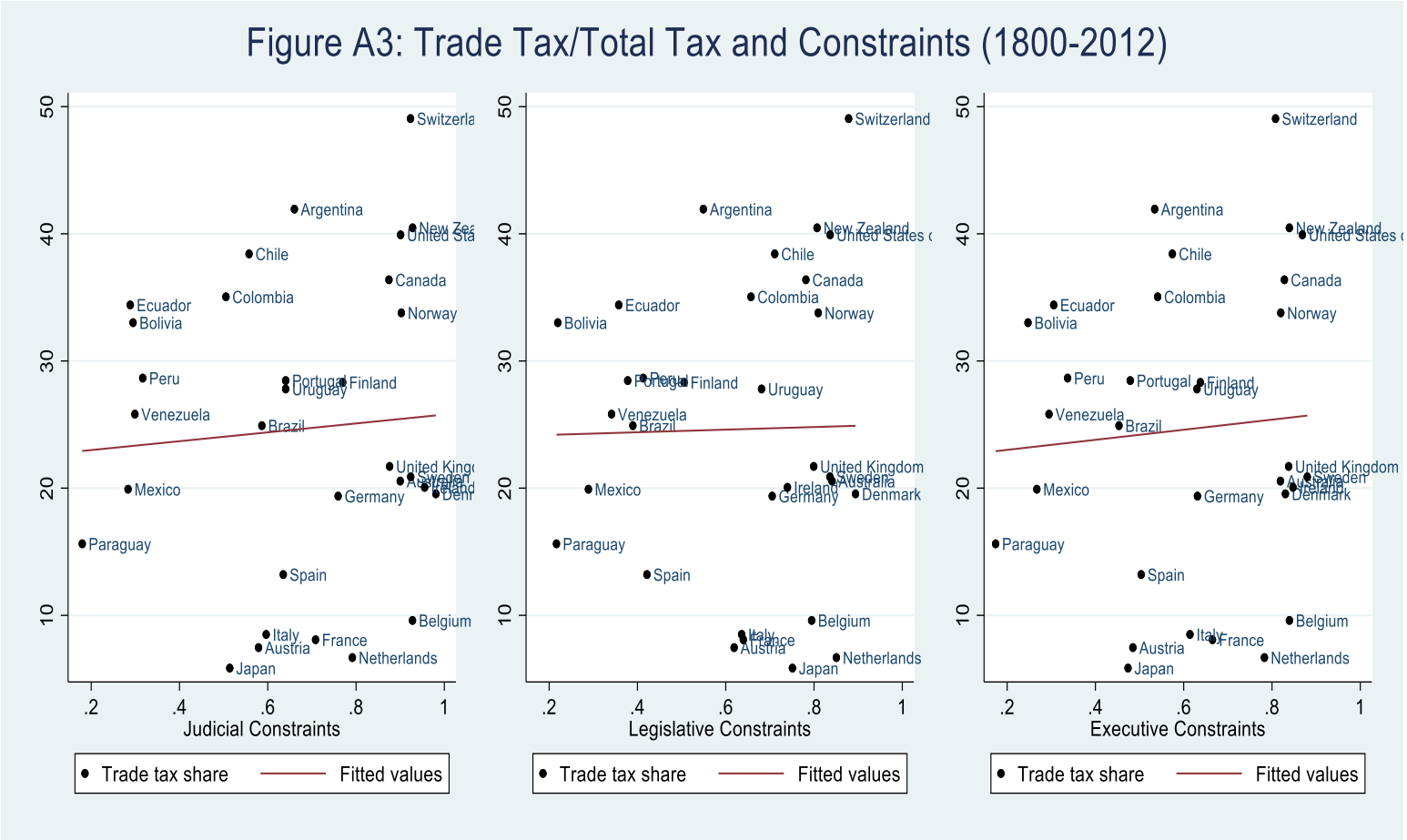
Notes: the Y-axis variable is the *Share of total central government tax revenue from income taxes*. These include taxes on (i) income, profits, and capital gains by individuals, (ii) income, profits, and capital gains by corporations and other enterprises, and (iii) taxes on payroll and workforce (see Andersson and Brambor 2019).

Consumption taxation and executive constraints



Notes: the Y-axis variable is the *Share of total tax revenue from consumption taxes*. This category includes levies on value-added taxes, sales taxes, and turnover and other general taxes on goods and services (see Andersson and Brambor 2019).

Trade taxation and executive constraints



Notes: the Y-axis variable is the *Share of total tax revenue from customs and taxes on international trade*. Customs are the international pendant to excises in that they tax the flow of goods across a country's borders. The measure of customs includes (i) customs and other import duties, (ii) taxes on exports, (iii) taxes on profits of export or import monopolies, (iv) exchange profits, (v) exchange taxes, and (vi) other taxes on international trade and transactions (see Andersson and Brambor 2019).