

The Market for Bureaucratic Capital and State Capture: Insights from the concentration of the revolving door process among US commercial banks

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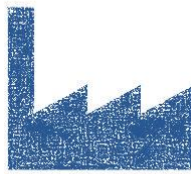
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and ifo Institute for Economic Research Dresden.



Introduction

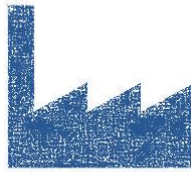


“Monetary bribes are feasible although not common due to their illegality. More pervasive are the hope for future employment for regulators with the regulated firms.”

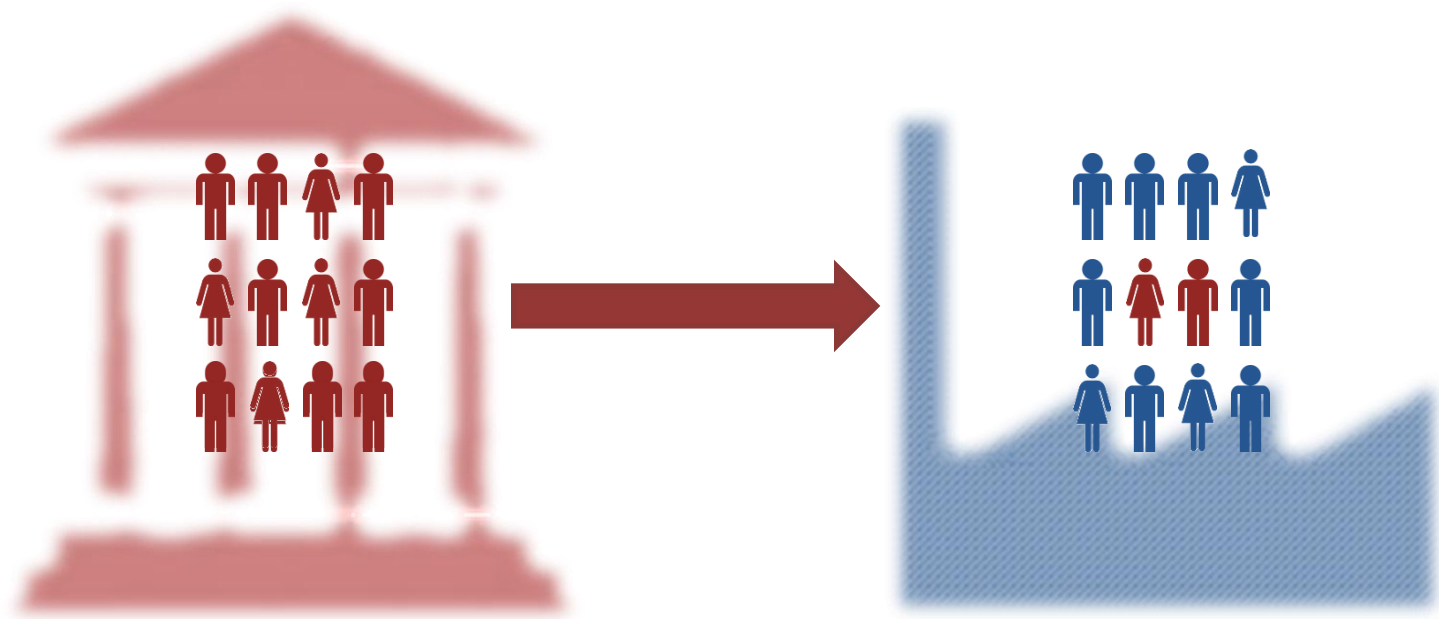
Laffont, J. J. et J. Tirole dans *A Theory of Incentives in Procurement and Regulation*, Cambridge, MA: The MIT Press, 1996.



Introduction



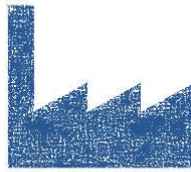
What is the revolving door?



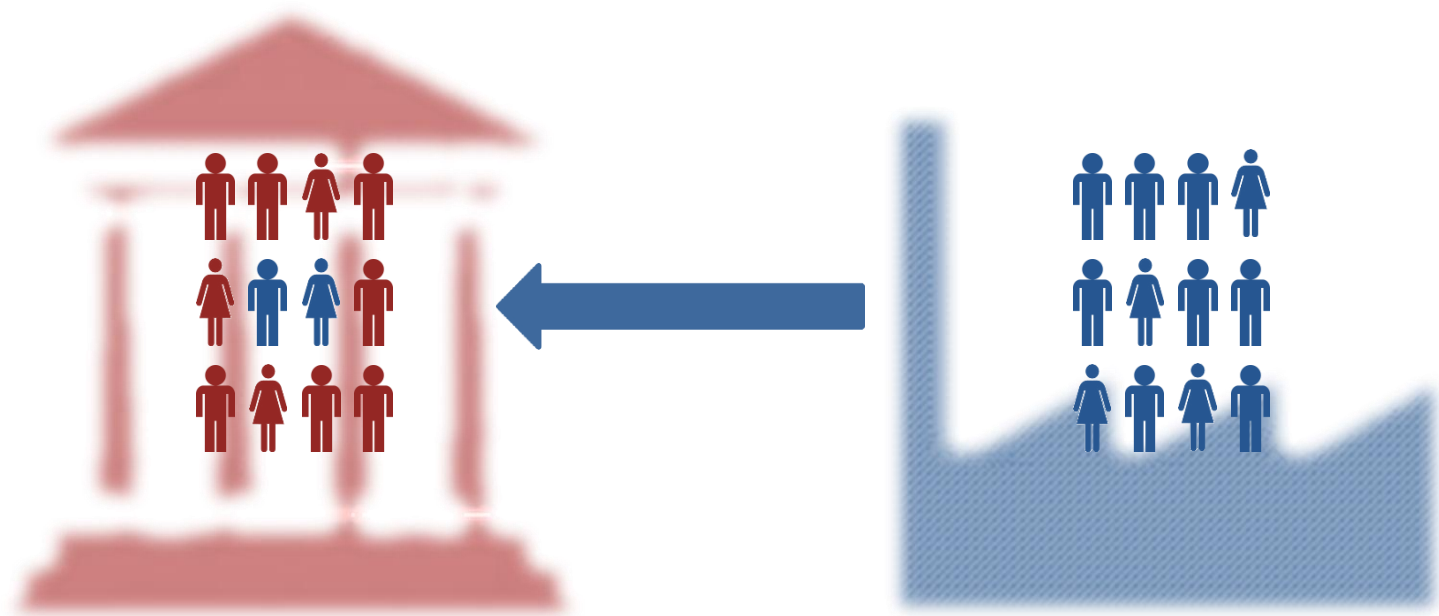
After completing their bureaucratic terms, staff of public agencies are entering the very sector they have formerly regulated.



Introduction



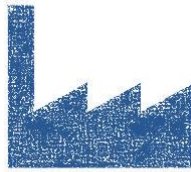
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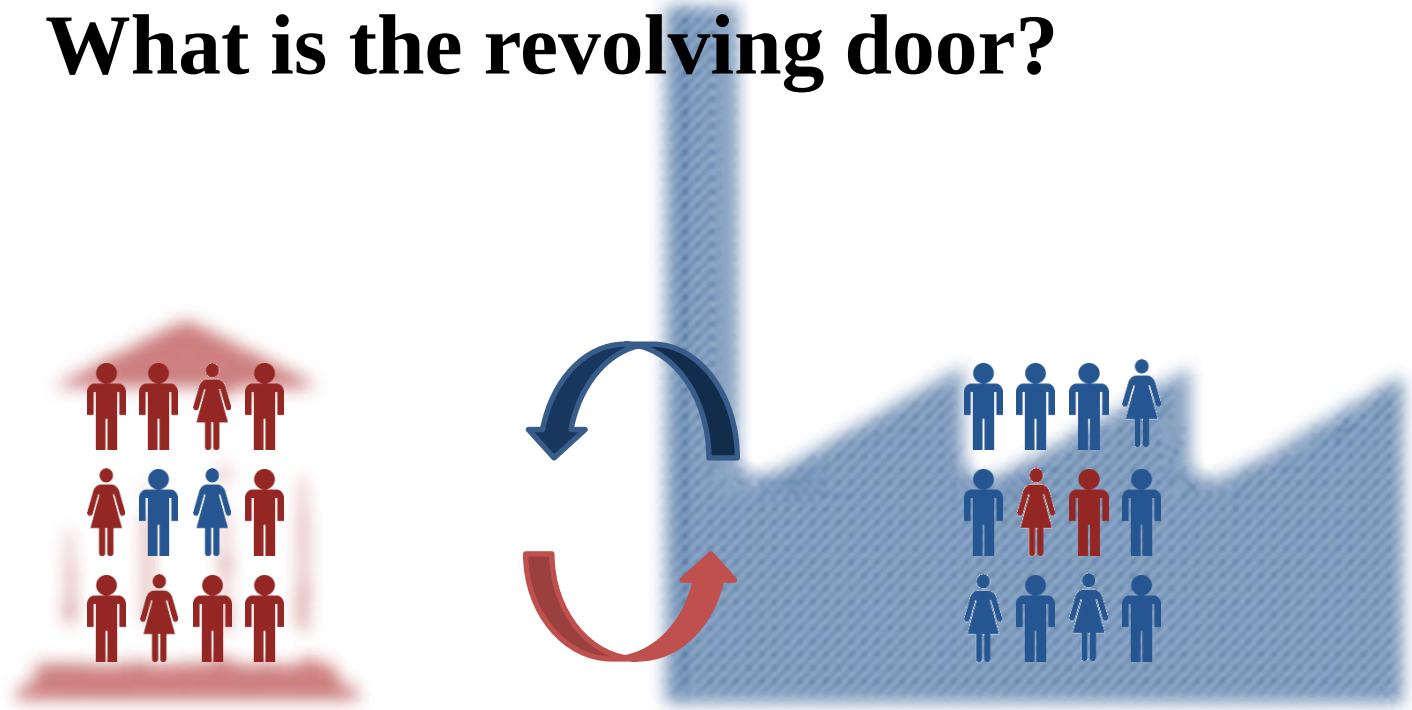
Conversely, it is also common to see private sector employees joining public sector agencies and exerting regulatory responsibilities over their former employers.



Introduction



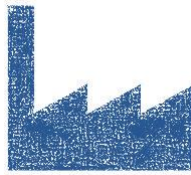
What is the revolving door?



In both cases, the revolving door (RD) may lead to **conflicts of interest** and **state capture**, i.e. a risk that public responsibilities held by regulators be undermined by concomitant private interests (as emphasized by the Council of Europe and OECD).



Introduction



The RD has been denounced by the press worldwide

***Washington Post* (US):** “To Restore Trust in Government, Slow Wall Street's Revolving Door”

H. Clinton, S.T. Baldwin, The Huff, August 8, 2015.

***The Telegraph* (UK):** “Whitehall's revolving door speeds up: ex-ministers and civil servants seeking jobs in private sector doubles”

C. Hope, December 14, 2013

***Le monde* (FR):** “Un pied dans la porte”

S. Lauer, June 23, 2015

What about academics?

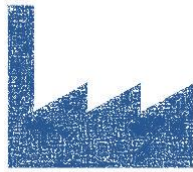


Literature review





Literature review

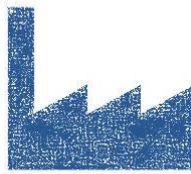


Considering the RD as a problem of talent allocation (Murphy et al., 1991), it leads to a tradeoff between:

1. **increased economic efficiency**, by attracting talented/experienced individuals and enhancing public and private sectors' productivity;
- and
2. **increased distortions** by fostering rent-seeking and corrupt behaviors from politically-connected firms.



Literature review

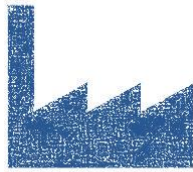


Empirically, the RD is found to:

- ✓ to **increase firms' market value** (Faccio 2006; Luechinger and Moser 2014),
- ✓ **not by increasing productivity** (Cingano and Pinotti, 2013; Kramarz and Thesmar, 2013, Bertrand et al., 2006),
- ✓ **but by fostering rent-seeking and corruption** in law enactment (Slinko et al, 2005), public procurement (Cingano and Pinotti, 2013), external funding (Boubakri et al, 2012), tax exemption and subsidy allowance (Faccio, 2010).

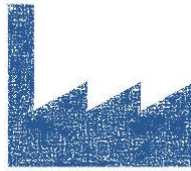


Literature review



- Interestingly, the literature on state capture and political influence (Hellman and Kaufmann, 2004; Hellman et al. 2003; Slinko et al. 2005) supports that it is the **concentration of political power in few private firms' hands** which creates the conditions for such distortions.

Does the theory support a relationship between the **concentration of the RD among few firms** and economic distortions?

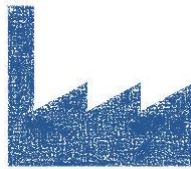


A model of bureaucratic capital allocation in the financial sector





The model



The supply side of the market for bureaucratic capital

- A regulator (“revolvers”) creates **bureaucratic capital (H)** in public office – networking (lawful), knowledge of regulations (lawful), creating unnecessary complex or biased regulation (unlawful), influencing public resources allocations (unlawful), etc. - a concave function of **bureaucrat’s efforts (E)**:

$$H_l(E_l) = T[(1 + \gamma)E_l]^{1/(1+\gamma)} \quad \gamma > 0 \quad (1)$$

- After leaving her job as regulator, the bureaucrat works for a period of length τ in the financial industry. She receives in top of her “regular” income, Ω , a rent related to her bureaucratic capital, sold at price q for a number of years τ in the regulated industry:

$$V_l = \Omega - TE_l + \tau q H_l(E_l) \quad (2)$$

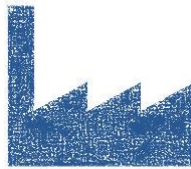
- From eq (1), the bureaucrat maximizes:
$$V_l = \Omega - \frac{H_l^{1+\gamma}}{(1 + \gamma)T^\gamma} + \tau q H_l \quad (3)$$

- Which gives the **supply function of bureaucratic capital**:

$$\hat{H}_l = T(\tau q)^{1/\gamma} \quad (4)$$



The model



The demand side of the market for bureaucratic capital

- 2 types of firms producing intermediate-goods (financial services) in a monopolistic competition (Claessens, 2009): N_1 firms j with no liquidity constraint, N_2 firms i with liquidity constraint, producing intermediate goods x_j and x_i respectively.
- While the intermediate-goods sector consists of monopolistic firms, the final good is produced in a perfect competitive environment:

$$Y = L_y^{1-\alpha} \int_0^{n_1} x_j^\alpha dj \int_0^{n_2} x_i^\alpha di \quad (5)$$

- The firms involved in the production sector Y are maximizing profits:

$$\text{Max } L_y^{1-\alpha} \int_0^{n_1} x_j^\alpha dj \int_0^{n_2} x_i^\alpha di - w_y L_y - \int_0^{n_1} p_j x_j dj - \int_0^{n_2} p_i x_i di \quad (6)$$

- From the profit maximization in the production sector, we get:

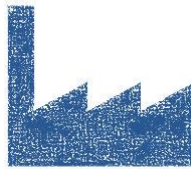
$$w_y = (1-\alpha) \frac{Y}{L_y} \quad (7)$$

$$\text{and} \quad p_j = \alpha L_y^{1-\alpha} x_j^{\alpha-1} \quad (8)$$

$$p_i = \alpha L_y^{1-\alpha} x_i^{\alpha-1} \quad (9)$$



The model



The demand side of the market for bureaucratic capital

- Building on a standard Romer model, the output $x_{i,j}$ is a function of productive capital, $k_{i,j}$, and a second factor of production, $H_{i,j}$, the level of bureaucratic capital: $x = f(k, H)$.
- **what matters is the relative level of bureaucratic capital**, which in equilibrium has no long-run effects on production.

- If we start with the **unconstrained firm j** :
$$x_j = k_j \left(\frac{H_j}{\bar{H}_j} \right)^\phi \quad \phi > 0 \quad (10)$$

- If $H_j = \bar{H}_j$, then the output is just $x_j = k_j$.

- The maximization from the unconstrained firm j
$$\text{Max } \pi_j = p_j(x_j)x_j - rx_j \left(\frac{H_j}{\bar{H}_j} \right)^{-\phi} - qH_j \quad (12)$$

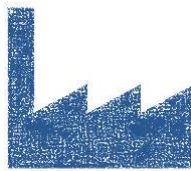
where r is the cost of real capital, k_j ; and q the cost of the bureaucratic capital H_j , that is, the rent extracted by the bureaucrats by selling H_j to the firm.

- From equation (8), in a symmetric equilibrium where all H_j are the same, we get the **demand from unconstrained firms**:

$$H_j = \bar{H}_j = \frac{\phi r x}{q} = D_u \quad (16)$$



The model



The demand side of the market for bureaucratic capital

- Now we turn to **constrained firms i** :
$$\text{Max } \pi_i = p_i(x_i)x_i - rx_i\left(\frac{H_i}{\bar{H}_i}\right)^{-\phi} - qH_i \quad (18)$$
$$\text{s.t. } qH_i \leq C$$

- The two first-order conditions for maximizing profits of the Lagrangian are:

$$p'_i(x_i)x_i + p_i(x_i) - r\left(\frac{H_i}{\bar{H}_i}\right)^{-\phi} = 0 \quad (19)$$

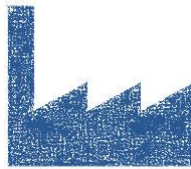
$$-q\bar{H}_i + \phi rx_i\left(\frac{H_i}{\bar{H}_i}\right)^{-\phi-1} = \lambda H_i^{-\phi-1} \quad (20)$$

- And the **demand function from constrained firms i** is thus:
$$H_i = \bar{H}_i = \frac{\phi rx}{(1+\lambda)q} = D_c \quad (22)$$
- We therefore have a low-equilibrium and a high-equilibrium of bureaucratic capital, respectively given by the two demand functions:

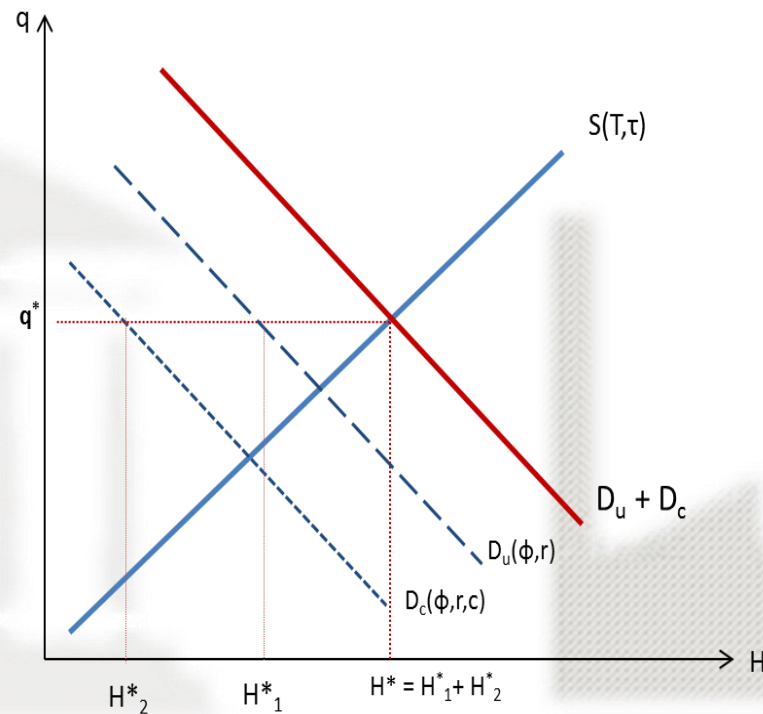
$$D_c = \frac{\phi rx}{(1+\lambda)q} \quad D_u = \frac{\phi rx}{q}$$



The model

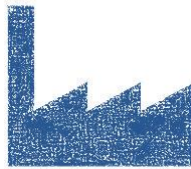


Equilibria on the market for bureaucratic capital





The model

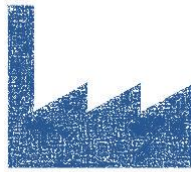


Formula

- The RDI is an (adjusted) Herfindhal index measuring the sector concentration of revolvers/RD movements among private firms:

$$RDI_s = \frac{\sqrt{\sum_{j=1}^{n1} \sum_{i=1}^{n2} \left(\frac{b_{i,j}}{B_s} \right)^2} - \sqrt{1/N_s}}{1 - \sqrt{1/N_s}}$$

- The RDI is between 0 and 1. B_s is the total number of revolvers/RD movements in sector s , $b_{i,j}$ is the number of revolvers (or RD movements) in firms i and j , and N_s is the total number of firms (n_1+n_2) in sector s .
- The higher the index in sector s , the stronger the concentration of revolvers, and in consequence, the more likely the distortions in sector s .

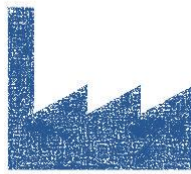


The data





The Data

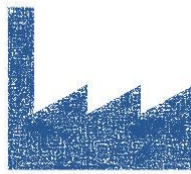


Typology of revolvers

- Raw info has been collected over the career paths of 292 revolvers who have worked in at least one of the 20 biggest US commercial banks.
- Revolved regulators have been ranked according to their **influence in the public sector**:
 - ✓ *Influential individuals (weight = 1)* are individuals who hold or have held top-level position in the government/parliament, or in a relevant administration.
 - ✓ *Less influential individuals (weight = 0.5)* are individuals who hold or have held unexposed positions in the government or in a relevant administration
- We also ranked them according to their **position in the private sector**... but problems of consistency of the internal hierarchy across banks



The Data



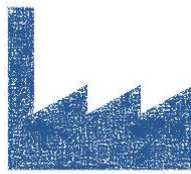
Typology of RD movements

Then, **three types of revolving door movements** are identified:

- ✓ **Type 1, public-to-private = 1 mvt.** Former members of a relevant ministry, administration, or legislature currently hold responsibilities in a regulated company.
- ✓ **Type 2, private-to-public = 1 mvt.** Former workers of a regulated company are currently members of a relevant ministry, administration, or legislature.
- ✓ **Type 3, symmetric or two-sided = 3 mvts.** Movements from a private firm to a public agency and back to the same private firm, or from a public agency to a private firm and back to the same public agency, are expected to yield additional value to the firm.



The Data

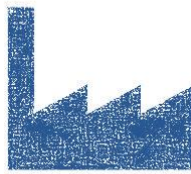


Data sources

- The RDI requires matching information on **company officers** with information on **public regulators**.
- **Data primary sources** are [opensecret.org](https://www.opensecret.org) and [Litllesis.org](https://www.litllesis.org).
- **Secondary sources** are used to check, complement or correct primary information: companies' official websites, business-focused websites, official government and public sector commission websites, LinkedIn, and newspapers.

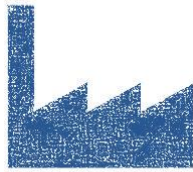


The Data



Raw Data

Bank	Employee	Pu2Pr	Pr2Pu	2-sided	Σ RD mvts	1st term public sector		2nd term public sector		private sector term(s)		T	Highest influence	τ	Time out of office	
						entry	exit	entry	exit	entry	exit				Pu2Pri	Pri2Pu
GS	Paulson, Henry	1	1	0	2	1970	1973	2006	2009	1975	2005	7	1.0	31	3	2
Citigroup	Dimon, Jamie	0	1	0	1	2008	2015			1998	1998	8	0.5	0	.	11
GS	Dalton, John	0	1	0	1	1977	1981			1969	1977	5	0.5	9	.	1
Capitale 1 Financial	West Catherine	1	1	1	3	2011	2012			2000-2013	2006-2015	2	0.5	9	0	5

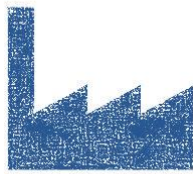


Statistical analysis





Statistical analysis

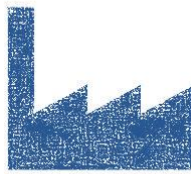


Main findings

- 17 banks over 20 biggest Us commercial banks have benefitted from 292 revolvers, and 350 RD movements.
- The **top-5 “too big to fail” banks** – Goldman Sachs, JPMorgan, Citigroup, Wells Fargo (in a much lesser extent) and Bank of America (BofA) – **concentrate 80% of revolvers and revolving door movements, and 84% of total time passed by revolvers in public offices.**
- We find a **65-70% correlation** between different measures of firm’s size and their stock of revolvers and revolving door movements accumulated through time.
- **Goldman Sachs** appears as the prime beneficiary of bureaucratic capital accumulation, by concentrating almost 30% of total revolvers and revolving door movements, thereby **accumulating more than 600 years of influence in public office.**

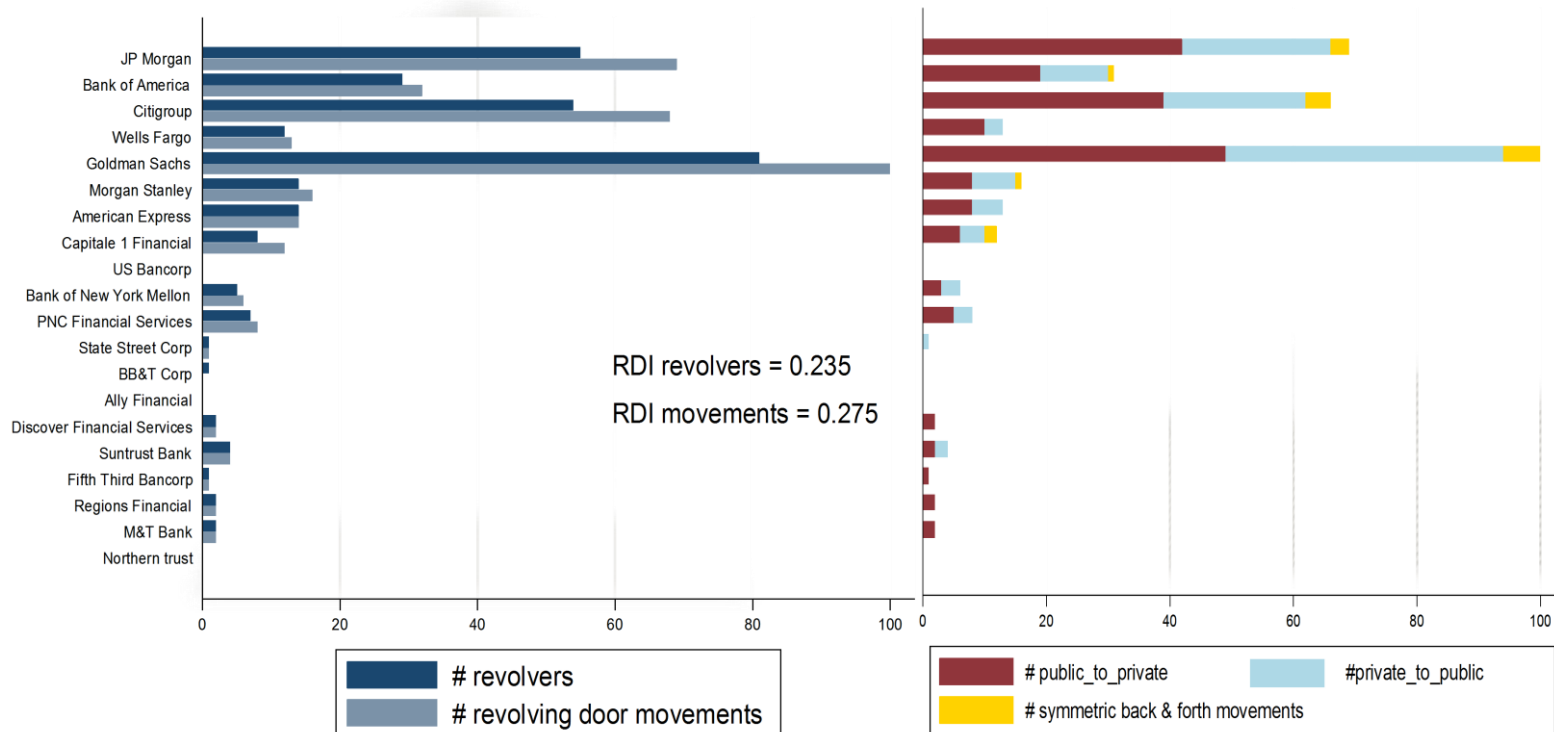


Statistical analysis



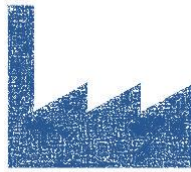
Bank size and the concentration of revolvers and revolving door movements

Figure 3. Number of revolvers and revolving door movements among commercial banks, ranked by decreasing order of total revenue



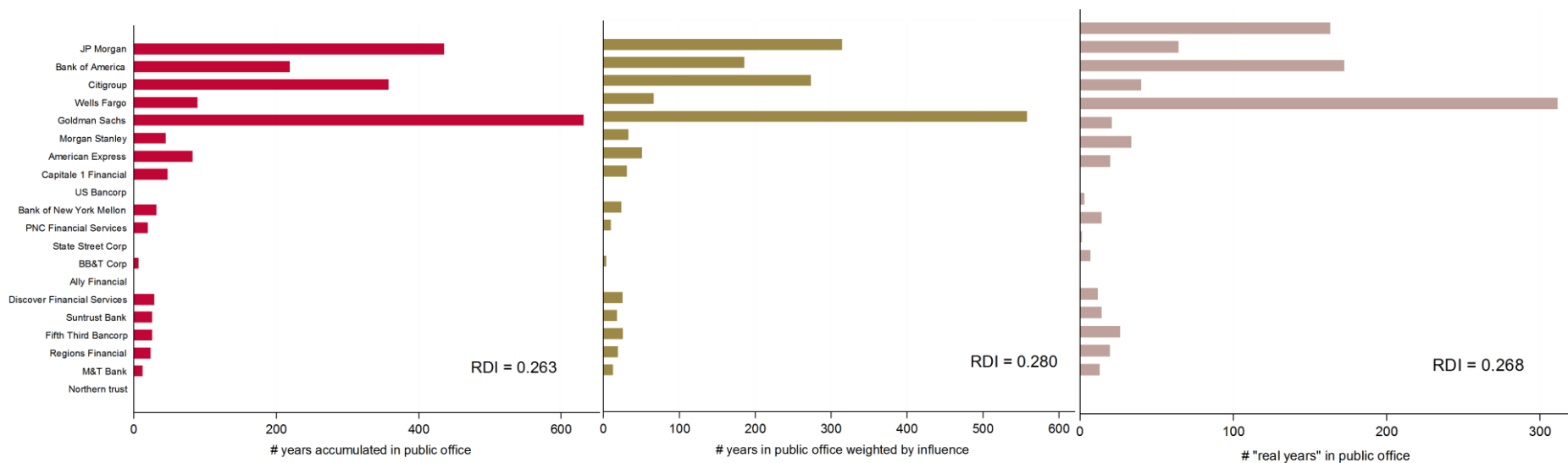


Statistical analysis



Bank size and the stock of bureaucratic capital (T)

Figure 5. Distributions of the stock of time in public office, unweighted, weighted by influence, by time out-of-offices, respectively.

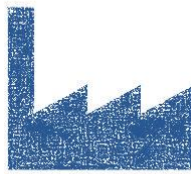


Bureaucratic $K = T$

Bureaucratic $K = T \times \text{influence}$

Bureaucratic $K = T / \text{time gap}$

RDI scores emphasize the oligopsonistic nature of the market for bureaucratic capital, which in turn stems from the predominance of these “too big to fail” firms over the banking sector.

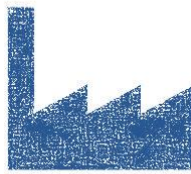


Bureaucratic capital and pre/post-employment restrictions

- **Pre or post public office cooling-off periods** should increase bureaucratic capital depreciation, and therefore to reduce “real year” in public office stocked by private firms.
- The concentration of the revolving door will decrease only if the accumulated time out of public and private offices is shorter for big firms than for small firms.
- We simulate 3-years and 10-years pre and post cooling-off period by replacing values of the time gap variable inferior to 3 and 10 years by 3 and 10, respectively, and divide the stock of years in public office by these two new restricted time-gap variables.
- And we get this...

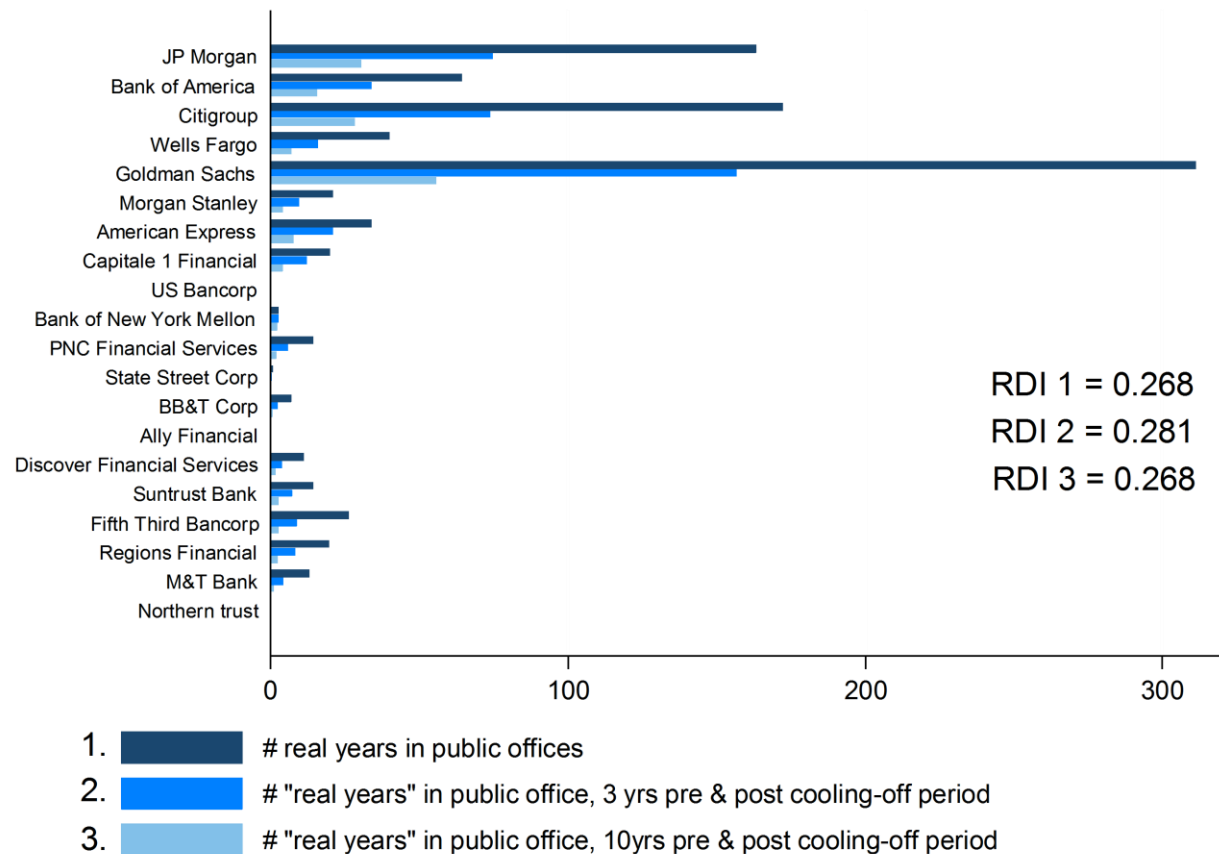


Statistical analysis



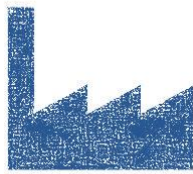
Bureaucratic capital and pre/post-employment restrictions

Figure 6. Bureaucratic capital depreciation according to a 5-year and 10-year pre and post-employment cooling-off periods.





Statistical analysis



Discussion

- While these restrictions reduce the overall level of bureaucratic capital, they do not reduce economic distortions induced by the revolving door,
- Bureaucratic capital is found to be even more concentrated in a context of 3-year pre and post cooling-off period.
- If influence is positively related to the total time out of office (which is very likely and could be tested easily), and if big firms invest in influential revolvers, then such restrictions may erode small firms' bureaucratic capital but reinforce big firms' bureaucratic capital.
- Policies should rather be aimed at making the liquidity constraint binding for big firms, and should be focused on preventing banks from hiring influential regulators (e.g. Chairman of the Fed, Secretary of Treasury, etc.)

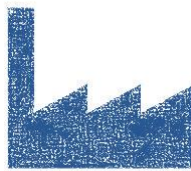


Conclusion





Conclusion



- The revolving door has been pinpointed lately as having bad effects on the economy, and even as being **one major cause of the 2008 crisis** (OECD, 2009).
- Therefore, there is a strong need to identify institutional configurations under which the revolving door damages the economy, and to set appropriate and effective rules to control it.
- By focusing on the liquidity constraint faced firms, our model explains well the pattern of high revolving door concentration among the biggest US financial firms, often referred as “too-big-to-fail” banks.
- By measuring the sectorial concentration of the revolving door, the RDI is a first step to size up the distortive power of the revolving door,
- and to compare progresses made by countries in implementing safeguards against conflicts of interest generated by promiscuous public and private elites.



Thank you for your attention.

