

Brezis, Elise S.; Cariolle, Joel

Working Paper

The revolving door indicator: Estimating the distortionary power of the revolving door

Working Paper, No. 2014-13

Provided in Cooperation with:

Department of Economics, Bar-Ilan University

Suggested Citation: Brezis, Elise S.; Cariolle, Joel (2014) : The revolving door indicator: Estimating the distortionary power of the revolving door, Working Paper, No. 2014-13, Bar-Ilan University, Department of Economics, Ramat-Gan

This Version is available at:

<https://hdl.handle.net/10419/130524>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

**THE REVOLVING DOOR INDICATOR:
ESTIMATING THE DISTORTIONARY POWER OF THE REVOLVING DOOR**

Elise S. Brezis* and Joel Cariolle**

Abstract

The “revolving door” phenomenon has become very common in most industrialised countries, and is leading to conflicts of interest as well as economic distortions.

The purpose of this paper is to develop an indicator of the distortionary effects of the revolving door – The Revolving Door Indicator (RDI). By measuring the sectorial concentration of the revolving door, this indicator intends to proxy the distortions induced by rent-seeking firms. The RDI is a first step to size up the distortive power of the revolving door.

Keywords: revolving door, corruption, conflict of interest, regulations, distortions;

JEL classification: D7, K2, K4, L1, L2, L5.

* *Department of Economics, Bar-Ilan University, Ramat Gan, Israel; E-mail: elise.brezis@biu.ac.il.*

** *FERDI, Clermont-Ferrand, France. E-mail: cariolle.joel@gmail.com*

We wish to thank Bernard Gauthier, Bard Harstad, Elizabeth Hart, Jesper Johnson, Roberto M. Kukutschka, Frédéric Lesné, Matthew Stephenson, and Luis de Sousa, as well as participants at the U4 Proxy Challenge Workshop in Bergen, and the FERDI workshop “Reflexion sur les indicateurs de corruption”, for their helpful comments. We thank Gina Li for her excellent research assistance.

I. Introduction

In the last two decades, the ‘revolving door’ and the intertwining relations between governments and private groups have intensified. The “revolving door” is a process quite widely in use in the United States, and is defined as so when heads of state agencies, after completing their bureaucratic terms, are entering the very sector they have regulated, and vice-versa. This phenomenon is also frequent in France, where it is coined “pantouflage”, and in Japan, coined “amakudari” (descent from heaven).¹ Research conducted and data collected by the research group *Corporate Europe Observatory* strongly suggest that this process is also significant within EU institutions.²

In 2009, the OECD pointed out the role played by the revolving door in the 2008 financial crisis, and stressed the necessity to set appropriate rules and procedures to control conflicts of interest generated by this phenomenon (OECD, 2009). Over the last ten years, the multiplying connections between public regulators and private groups, especially in the US financial sector, have been widely documented.³ Figure 1 illustrates US firms’ inclination to hire large cohorts of “revolved regulators” – i.e. regulators engaging in the RD – in the defense, utilities, pharmaceutical, and media sectors.

The revolving door affects the economy through different channels.⁴ On the one hand, this movement of individuals between the public and private sectors may lead to some positive effects and can be desirable. Indeed, the revolving door allows recruiting qualified bureaucrats, and the knowledge the bureaucrat has accumulated while working in the public sector is put in use in their future position. On the other hand, the revolving door is a recruitment procedure leading to strong conflicts of interest, and inducing severe economic distortions. Moreover, it is an important vehicle for corrupt deals with negative consequences on the economy, especially in countries where explicit bribes cannot be paid safely (Transparency International-UK, 2011; and Laffont and Tirole, 1996).

¹ see Charle (1987) and OECD (2009).

² See <http://corporateeurope.org/revolvingdoorwatch>.

³ See for instance www.opensecrets.org.

⁴ See Transparency International-UK (2011) and Transparency International (2010), which lay down the negative as well as positive effects of the Revolving door.

The conflicts of interests and economic distortions can take different forms and more specifically: (i) generate unfair competition between connected and less connected firms, (ii) lower private sector productivity, and (iii) erode the tax base and shrink public good production. Hence, the revolving door leads to negative effects on the economy.

Unfortunately, regulations of the revolving door process are scarce and are often poorly enforced. Moreover, the revolving door still beneficiates from a great tolerance of the public for it – although decreasing these last years – partly due to a lack of measurement for its prevalence and impact on economies. Indeed, there have been no attempts to use objective data in order to build an actionable and internationally comparable proxy measure of the distortions created by the revolving door process.

The purpose of this paper is to present a proxy for the distortive effect of the revolving door – the Revolving Door Indicator (RDI) – in various sectors of the economy of a country. In the next section, we present the related literature. In part III, we present the revolving door indicator, and Part IV concludes.

II. The literature

The literature on the revolving door, and its effects on the economy, is quite diverse. We divide the literature in three main subjects: The firm's performance; the level of corruption in the economy; and the distortions created by the revolving door. The relationship between these different aspects is that the revolving door positively influences firms' market valuation, but this 'over'-value often results from rent-seeking (including corruption), thereby generating economic distortions in the economy.

1. Revolving door, political connections, and firms' performances

The literature on the effect of revolving door and firms' performance is part of a broader literature emphasizing the effects of political connections on firms' performances and aggregate outcomes. It focuses on the value for specific firms of different types of connections, which include campaign contributions (Classens et al. 2008), personal relationships (Amore and Bennedsen, 2013; Johnson and Mitton, 2003), political party

membership (Khwaja and Mian, 2005), and the revolving door (Faccio, 2006, Luechinger and Moser, 2012).

In emerging and industrialized economies, where relationships linked to kinship, friendship, or ethnicity have been progressively replaced by market-based relationships in economic exchanges (Rajan and Zingales 1998; Andvig 2006), the revolving door is a major source of political connections with significant positive effects on firms' value (Faccio 2006; Cingano and Pinotti 2013; Kramarz and Thesmar 2013; Luechinger and Moser 2012; Goldman et al. 2013).

The revolving door brings value to the firm through two separated types of movements of individuals between public agencies and regulated private entities. The first movement involves regulators (ministers, legislators, high-level officers, advisers) who leave the public sector to enter the private sector they have regulated. The second involves high-level executives of regulated companies entering the government, the Parliament, or key regulatory agencies. Most of the empirical literature does not analyze separately these two types of movements, while the theoretical literature separates them.

On the theoretical side, the expected effects of the revolving door on firms' value can be derived from the theoretical rent-seeking models emphasizing the allocation of talents between productive activities and unproductive rent-seeking activities (Murphy et al, 1991; Cingano and Pinotti, 2013). This literature focuses mainly on the movement from the public sector towards the private one, and this literature stresses that the revolving door may increase firm's performances via two competing channels:⁵

1. *the productive channel*: the revolving door is used to increase firm's productivity because revolved regulators may be more skilled and familiar with the regulations.
2. *the rent-seeking channel*: the revolving door is used to capture public resources, through legal and illegal means, and increase the value of the firm without increasing production or efficiency.

Under the rent-seeking hypothesis, politically-connected firms through the revolving door should benefit from preferential treatments, which are sources of economic

⁵ Brezis (2013) proposes a theoretical model stressing how revolved regulators create excessive red tape while in public office in order to cash in on it in the private sector after leaving office. In this setting, the revolving door gives a substantial political and bureaucratic power to revolving firms, while imposing extra costs to non-revolving firms and reducing overall public and private sectors' productivity.

distortions. Do empirical evidences support the prevalence of the rent-seeking channel or the productive one?

About the first channel, most empirical studies tend to invalidate the hypothesis of a “productive revolving door process”.⁶ Cingano and Pinotti (2013), using a sample of Italian firms, have shown that corporate appointments of local politicians do not increase firms’ productivity. Kramarz and Thesmar (2013), and Bertrand et al. (2006) show that French firms politically-connected through their CEOs and directors tend to overpay them, are less likely to fire them if they underperform, are associated with poorer accounting performances and excessive employment rates, and make bigger and worse acquisitions.

Moreover, Slinko et al. (2005) find that politically-powerful Russian firms adversely affect the performance of small or politically-powerless firms, by getting administrations creating excessive regulation over the latter and by diverting government spending. By contrast, they find that politically-powerless firms invest more and are more productive in regions where the concentration of firms’ political power is lower.

About the ‘rent-seeking’ channel, empirical studies suggest that the revolving door affects the economy through three mains areas: i) public procurement, ii) access to finance and iii) tax exemptions.

Regarding public procurement, the revolving door gives firms the power of diverting state resources by biasing public procurement process. Indeed, Goldman et al (2013) show that, following the 1994 House and Senate election, the presence of former politicians affiliated to the winning (losing) political party at the boards of U.S companies increases (decreases) the total value of awarded public procurement contracts.

In a similar vein, Cingano and Pinotti (2013) show that corporate appointments of local Italian politicians shift public demand toward connected firms, especially in high public expenditure and high corruption provinces, and that this shift reduces public good provision by 20%.

⁶ Except for Chen (2013) who finds that more productive Chinese firms recruit more powerful politicians, but the direction of the causality is here reversed.

About the access to finance, a great body of the literature emphasizes that firms using the revolving door are associated with a preferential access to finance (Khwaja and Mian, 2005; Boubakri et al, 2012) and are more likely to be bailed out after financial distress (Faccio et al., 2006).

The revolving door also affects benefits from government allocations. Country-level empirical studies suggest that firms engaged in the revolving door are likely to use their influence so as to benefit from tax exemption and subsidy allowance. Slinko et al. (2005) show that politically influential firms in Russia are allowed to accumulate more arrears in tax, supplier, and wage payments than their non-connected counterparts. Faccio (2010) also show that politically connected firms pay lower tax than other firms.⁷

In summary, politically connected firms through the revolving door are unlikely to be productive, are likely to shape and law and regulations and divert state resources to their own benefit, and to reduce overall productivity in the private and the public sectors.

2. Revolving door and corruption risks

Transparency International (2011) and the OECD (2009) pointed out that the revolving door may induce various schemes of conflicts of interest, during and after regulators' term in public office, thereby generating unlawful behavior. Moreover, the revolving door is also related to lawful but unethical behavior termed "legal corruption" by Kaufmann and Vicente (2011).⁸ Kauffman has referred this behavior to: "efforts by companies and individuals to shape law or policies to their advantage, often done quasi-legally, via campaign finance, lobbying or exchange of favors to politicians, regulators and other government officials. [...] In its more extreme form, legal corruption can lead to control of entire states, through the phenomenon dubbed 'state capture,' and result in enormous losses for societies."⁹

As an indication of the strong link between the revolving door process and corrupt practices, cross-country analyses (Faccio, 2006, 2010) and case studies (Cingano and

⁷ In related empirical studies, Johnson and Mitton (2003) show that Malaysian firms personally tied to the executive have preferred access to subsidies. Adikari et al (2006) find similar evidences in Indonesia.

⁸ See also Brezis (2013).

⁹ Kaufmann, D. "Rethinking the Fight Against Corruption", Brookings Opinion, 29/11/2012.

Pinotti, 2013; Slinko et al, 2005) have shown that the differential in economic returns between connected and non-connected firms increases in high corruption environments.

More specifically, connected firms through the revolving door may derive undue advantages by legally and illegally influencing the formulation, adoption, and implementation of law, regulations, and public policies in three different ways.

i) When firms are connected to (former) Members of Parliaments (MPs), they may influence law and regulations enactment in their favor. Slinko et al (2005) illustrate the legislative power of connected firms in Russia by detailing the budget law of Kamchatskaya Oblast of 2001, which provides large financial support to a single firm, Akros, among many others. In their attempt to measure the concentration of the political power of Russian firms, they show that at least 41% of firms in their sample benefit from legislation biased in their favor. Such biased legislation may offer firms various benefits, such as tax breaks, subsidized loan, and investment credits.

ii) When firms are connected to (former) ministers and their advisers, they may influence the upstream formulation and implementation of policies and regulations. For instance, in the UK, there is serious doubt of conflicts of interest when a former cabinet minister has been disgraced for having taken a job with a Defense firm with which he signed a £1.7 billion contract while he was Defense minister. The minister and his permanent secretary have also been found to have joined the defense company AgustaWestland, after having chosen it as a preferred bidder for a Ministry of defense's project, for which no other firms have been invited to bid.¹⁰

iii) When firms are connected to (former) high-level official, they may influence the downstream implementation of regulations. As an illustration, the French "Mediator Affair" involves former officials of the French and European drug agencies prosecuted for unlawful taking of interest when they unduly granted the marketing authorization of the Mediator. After their position in the public agencies, these officials, who became consultant for pharmaceutical industries, are accused to have

¹⁰ Jason Groves, "Disgraced Hoon gets top job at defence firm Westland - which landed £1.7bn contract when he was Defence Secretary" in Daily Mail the 18th May 2011, <http://bit.ly/jrSdSg>.

monetized this favor to Servier, the pharmaceutical group which commercialized the Mediator, in exchange of various lucrative contracts.¹¹

3. Powerful firms, revolving door and economic distortions

The literature on revolving door also focuses on the effects of rent seeking on economic distortions. Interestingly, the literature on state capture and political influence (Hellman and Kaufmann, 2002; Hellman et al. 2005; Slinko et al. 2005) supports that it is the concentration of political power among private firms which creates economic distortions. These studies stress that a concentrated political power results into state capture by influential firms, which not only undermines trust in public institutions and property rights, but is also associated with lower levels of tax compliance, higher levels of bribery, and higher barriers to entry for small or less influential firms.

There have been some attempts to proxy economic distortions generated by the “inequality of influence” within the private sector. Hellman and Kaufmann’s propose a survey-based measure of *crony bias* reflecting “the extent to which firm managers believe that there are other actors with more or less influence than their own collective voice on the basic rules shaping their business environment” (Hellman and Kaufmann, 2004 p.101). Slinko et al. (2005) use the regional Herfindhal index of firms’ preferential treatments incorporated into regional laws and regulations, as a proxy of the regional regulatory capture by politically powerful firms in Russia.

In conclusion, the literature has stressed that the revolving door process i) is a major source of political connections for private firms operating in industrialized and emerging economies, ii) is related to specific corruption risks during the formulation, enactment and implementation of laws and public regulations, and iii) adversely affects economic outcomes.

In consequence, the RDI, we present in this paper, intends to proxy the distortions induced by rent-seeking revolved regulators, who may use their current or former position in public office for private gains.

¹¹ “Mediator: l’enquête sur les conflits d’intérêts s’accélère” *Le Point*, February, 18, 2013, <http://www.lepoint.fr/t/1-1629071>. See also “Conflit d’intérêts: Aquilino Morelle visé par une enquête préliminaire” in *Les Echos*, April 22, 2014, <http://po.st/IKK8Sx>.

III. The Revolving Door Indicator

The indicator proposed in this paper is aimed to reflect the distortions created by the revolving door. It should be noted that an indicator merely based on the number of revolved regulators is not very informative on the distortions generated by the revolving door, because it may also reflect the positive effect of skilled worker on economic outcomes. Therefore, in line with Slinko et al. (2005) and Hellman and Kaufmann (2004), we proxy the distortions created by the revolving door by measuring the concentration of revolved regulators among firms at the sector level.¹²

1. Formula

The RDI is derived from a Hirschman-Herfindahl index formula.¹³ It measures the sector s concentration of revolved regulators r among private firms i , and is computed as follows:

$$RDI_s = \frac{\sqrt{\sum_{i=1}^K \left(\frac{r_i}{R_s}\right)^2} - \sqrt{1/K_s}}{1 - \sqrt{1/K_s}}$$

The RDI is between 0 and 1. R_s is the total number of revolved regulators and K_s is the number of firms in sector s . Note that, the higher the index in sector s , the stronger the concentration of revolved regulators, and in consequence, the greater the distortions in sector s .

2. Typology of revolved regulators

Revolved regulators considered for RDI calculation are former top-level officers in private firms who are current members of a ministry, parliament, or regulatory agency and vice-versa.

¹² Clustering firms by sector makes most sense for the RDI calculation, since firms from the same sector are expected to compete with each other. However, because an entire industry may also capture the state, this indicator can be calculated at a higher level. For instance, it is possible to compute the RDI for the entire economy, or considering together firms from various sectors of the economy, inasmuch data is available.

¹³ used by the United Nation Conference on Trade and Development for its export concentration index (UNCTAD 2013, p.212): http://unctad.org/en/PublicationsLibrary/tdstat38_en.pdf

Revolved regulators considered for RDI calculation are ranked according to i) their position in the private sector and ii) their influence and power in the public sector. Revolved regulators are sorted by the highest position they obtained while at the revolving door company: *Category I*, for CEO; *Category II*, for Board of Directors; *Category III* for all other positions. Revolved regulators are also sorted by the influence and power of their (former) public sector positions:¹⁴ *Category P* for revolved regulators who hold or have held a great deal of power, and *category NP* for those who hold or have held relatively little power. Revolved regulators of *category P* are individuals who have held top-level position in the government, in a relevant administration, or who have been members of parliament (MP). Non-powerful revolved regulators (*category NP*) are individuals with lower-level positions in the government or in a relevant administration.

Then, three types of revolving door flows are identified:

Type 1, public-to-private: Former members of a relevant ministry, administration, or legislature currently hold an executive position in a regulated company.

Type 2, private-to-public: Former executives of a regulated company are currently members of a relevant ministry, administration, or legislature.

Type 3, private-to-public-to-private (two-sided): Executives have engaged in both type 1 and type 2 movements and are therefore prone to favour firms both during and after their term in public office.¹⁵

Following this typology, it is possible to compute specific RDIs focusing on different categories of revolved regulators or different types of revolving door flows, as well an RDI for a sector or other cluster as a whole.

3. Data collection

The RDI requires collecting information on the names of company officers and matching them with the names of regulators. Name of corporate officers can be obtained

¹⁴ It is also possible to sort public sector positions according to their degree of public exposure. According to our own researches, 100% of revolved regulators hired by Citigroup Management Corp are type-III revolved regulators, and 73% hold or have held NP public sector position.

¹⁵ We consider that two-side public-to-private-to-public sector movements do not bring additional value to the firm, compared to type 2 RD.

from national registries of private companies,¹⁶ international databases,¹⁷ companies' official websites, and business websites.¹⁸ Names of public officials can be obtained from official government and public sector commission websites,¹⁹ as well as from websites focused on public actors and conflicts of interest.²⁰

Table 1 presents data for three major US financial firms: Goldman Sachs, Citigroup, and Fannie Mae.

4. Sample Application

Let us consider the US financial sector and the three firms shown in table 1: Goldman Sachs, Citigroup, and Fannie Mae. If we compute a “standard RDI” for these three firms, without differentiating between categories of revolved regulators and types of revolving door flows, we get:

$$\text{RDI}_{\text{standard}} = 0.024$$

According to this standard RDI, the revolving door concentration is low.²¹ The three financial firms have almost equal political and bureaucratic power, and none is likely to shape regulations and divert state resources to its own advantage. However, when we compute the RDI for specific categories of revolved regulators, the diagnostic may change slightly. For instance, it is possible to compute a RDI focused on “powerful revolved regulators” only:

$$\text{RDI}_{\text{Powerful}} = 0.150$$

¹⁶ Examples include the DAFSA yearbook of French firms, the Securities and Exchange Commission's EDGAR system for US firms, the Financial Services Register of the Financial Conduct Authority for UK financial firms, and RERLD and ALBA datasets for Russian firms.

¹⁷ The Reuters Worldscope and Extel databases, and LexisNexis.

¹⁸ The Bloomberg Businessweek website provides biographies of many companies' officers.

¹⁹ For example, the ACOBA in the UK provides detailed information on movements from the public sector to the private sector.

²⁰ Such as www.opensecrets.org or www.corporateeurope.org (see note 1).

²¹ Because we collected data for three major financial groups known to intensively engage in the revolving door process, it is not surprising that the concentration is low.

When we consider revolved regulators who hold or have held influential public sector positions, the concentration increases. Moreover, if one considers that private-to-public sector flows of revolved regulators are more damaging to the economy than public-to-private sector flows – because they give direct preferential access to public decision making, as suggested by Luechinger and Moser (2012) – then it is possible to compute a “type-2 RDI”:

$$\text{RDI}_{\text{Type 2}} = 0.560$$

According to this type-2 RDI, the concentration of type-2 revolving door flows is much higher. That is, Goldman Sachs should be able to derive stronger political or bureaucratic power from revolved regulators in public office than its competitors. This shows that the RDI is a flexible indicator which can be focused on specific revolving door flows and/or categories of revolved regulators, allowing a refined analysis adapted to research or policy needs.

5. Policy sensitivity

The RDI should be sensitive to various policies and regulations aimed at controlling this phenomenon. Post-employment restrictions that require a minimum “cooling off” period after an individual leaves public office should slow down public-to-private and two-sided flows, and this in turn should reduce the influence of revolved regulators over public decision-making. Their value for captor firms should therefore decrease, along with the incentives to hire them for rent-seeking purposes. As a consequence, the concentration of public-to-private revolving door flows should be reduced.

Regarding private-to-public flows, pre-employment restrictions that prevent former private sector employees from undertaking certain tasks in the public sector should help dissuade captor firms’ staff from entering government to influence regulations and divert state resources. An empowered regulatory commission of public servants, rules of transparency (such as rules on asset disclosure by parliamentarians and ministers), and regulations with clear emphasis on conflicts of interest related to specific positions in the public sector should also reduce the concentration of revolved regulators by decreasing the value of these regulators for rent-seeking firms.

IV. 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). Indeed, the media have emphasized many conflicts of interests in the financial and banking sectors during the 2008 economic crisis, and have revealed damaging connections generated by movements of individuals between the highest levels of governments and private financial groups.

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 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 the risks of conflict of interest associated with promiscuous public and private elites.

References

- Adhikari, A., Derashid, C., and H. Zhang (2006) "Public policy, political connections, and effective tax rates: Longitudinal evidence from Malaysia" *Journal of Accounting and Public Policy*, 25:574-595.
- Amore, M.D., and M. Bennedsen (2013) "The value of political connections in a low-corruption environment" *Journal of Financial Economics*, 110:387-402.
- Bertrand, M., Kramarz, F., Schoar, A., and D. Thesmar (2006) "Politicians, firms and the political business cycle: evidence from France", Working Paper, University of Chicago.
- Boubakri, N., Guedhami, O., Mishra, D., and W. Saffar (2012) "Political connections and the cost of equity capital" *Journal of Corporate Finance*, 18:541-599.
- Brezis, E.S. (2013) "Promiscuous Elites, the Revolving Door, and Economic Growth", Working Paper Series, Bar-Ilan University.
- Brezis, E.S., and A. Weiss (1997) "Conscientious regulation and post-regulatory employment restrictions" *European Journal of Political Economy*, 13:517-536.
- Brezis, E.S., Paroush, J., and A. Weiss (2002) "Red tape: Oiling the Hinges of the 'Revolving Door'", Working Paper Series, Bar-Ilan University, Israël.
- Chen, M.X. (2013) "The matching of heterogeneous firms and politicians" *Economic Inquiry*, 51(2): 1502-1522.

- Cingano, F., and P. Pinotti (2013) “Politicians at work: the private returns and social costs of political connections” *Journal of the European Economic Association*, 11(2):433-465.
- Faccio, M. (2006) “Politically connected firms” *The American Economic Review*, 96:369-386.
- Faccio, M. (2010) “Differences between Politically Connected and Nonconnected Firms: A Cross-Country Analysis” *Financial Management*, 39(3):905-927.
- Faccio, M., Masulis, M.W., and J.J. McConnell (2006) “Political Connections and Corporate Bailouts” *Journal of Finance*, 61(6):2597-2635.
- Fisman, R. (2001) “Estimating the Value of Political Connections” *The American Economic Review*, 91(4):1095-1102.
- Goldman, E., Rocholl, J., and J. So, (2013), “Politically Connected Boards of Directors and the Allocation of Procurement Contracts.” *Review of Finance*, 17(5):1617-1648.
- Hellman, Joel S., and Daniel Kaufmann (2004), “The Inequality of Influence”, in Janos Kornai and Susan Rose-Ackerman (eds.), *Building a Trustworthy State in Post-Socialist Transition*, Palgrave Macmillan, New York.
- Hellman, J., Jones, G., and D. Kaufmann (2003) “Seize the state, seize the day: state capture and influence in transition economies” *Journal of Comparative Economics*, 31:751-773.
- Johnson, S., and T. Mitton (2003) “Cronyism and capital controls: evidence from Malaysia” *Journal of Financial Economics*, 67: 351-382.
- Khwaja, A.I., and A. Mian (2005) “Do Lenders Favor Politically Connected Firms? Rent Provision in an emerging Financial Market” *The Quarterly Journal of Economics*, 120(4):1371-1411.
- Kramarz, F., and D. Thesmar (2013) “Social network in the boardroom” *Journal of the European Economic Association*, 11(4):780–807.
- Laffont, J. J. and J. Tirole (1996), *A Theory of Incentives in Procurement and Regulation*, Cambridge, MA: The MIT Press.
- Luechinger and Moser (2012) “The Value of the Revolving Door: Political Appointees and the Stock Market” Cesifo Working Paper No.3921.
- Murphy, K.M., Shleifer, A., and R.W. Vishny (1991) “The Allocation of Talent: Implication for Growth” *The Quarterly Journal of Economics*, 106(2):503-530.
- Organization for Economic Co-operation and Development (2009) “Revolving Doors, Accountability and Transparency - Emerging Regulatory Concerns and Policy Solutions in the Financial Crisis”, Public Governance Committee, Paris.
- Rajan, R., and L. Zingales. 1998. “Which capitalism? Lesson from the East Asian Crisis” *Journal of Applied Corporate Finance*, 11:40-48.

Slinko, I., Yakovlev, E., E. Zhuravskaya (2005) “Law for Sale: Evidence from Russia” *American Law and Economics Review*, 7(1):284-318.

Transparency International (2011) “Cabs for hire? Fixing the revolving door between government and business”, Transparency International UK.

United Nations Conference on Trade and Development (2013), *Handbook of Statistics*, United Nations: New York and Geneva.

Figure 1 – Top revolving door employers



Source: www.opensecret.org.

Table 1. The revolving door in three major US financial firms

Revolving door flow	Number of revolved regulators by category					
	Total	I	II	III	P	NP
Goldman Sachs (GS)						
1. Public to GS	19 (5)	0 (0)	0 (0)	19 (5)	5 (1)	14 (4)
2. GS to Public	12 (3)	1 (0)	0 (0)	11 (3)	10 (2)	2 (1)
3. GS to Public to GS	6 (1)	1 (0)	1 (0)	4 (1)	4 (0)	2 (1)
Total	37 (9)	2 (0)	1 (0)	35 (9)	19 (3)	18 (6)
Citigroup (CG)						
1. Public to CG	20 (10)	0 (0)	0 (0)	20 (10)	3 (0)	17 (10)
2. CG to Public	1 (0)	0 (0)	0 (0)	1 (0)	0 (0)	1 (0)
3. CG to Public to CG	5 (2)	0 (0)	0 (0)	5 (2)	4 (2)	1 (0)
Total	26 (12)	0 (0)	0 (0)	26 (12)	7 (2)	19 (10)
Fannie Mae (FM)						
1. Public to FM	11 (6)	1 (1)	1 (0)	9 (5)	2 (1)	9 (5)
2. FM to Public	3 (2)	1 (1)	0 (0)	3 (2)	0 (0)	3 (2)
3. FM to Public to FM	12 (4)	2 (1)	0 (0)	9 (2)	6 (3)	6 (1)
Total	25 (12)	4 (3)	1 (0)	20 (9)	8 (4)	17 (8)

Source: Data collected by the authors from official company websites, LexisNexis Academic, and OneSource (Avention), and cross-checked with data from OpenSecrets.org website and biographies provided by government agency websites (Securities and Exchange Commission and Treasury), social network websites (LinkedIn), and business websites (Businessweek, Business Insider, Bloomberg).

Note: The number of female revolved regulators is in parentheses.