



# 2018 OECD GLOBAL **ANTI-CORRUPTION & INTEGRITY FORUM**

## **The Revolving Door for Political Elites:**

### An Empirical Analysis of the Linkages between Government Officials' Professional Background and Financial Regulation

**Elisa Maria Wirsching**

Office of the Chief Economist, EBRD, London, UK

wirschie@ebrd.com

---

#### **Abstract**

Regulatory capture of public policy by financial entities, especially via the revolving door between government and financial services, has increasingly become a subject of intense public scrutiny. This paper empirically analyses the relation between public-private career crossovers of high-ranking government officials and financial policy. Using information based on curriculum vitae of more than 400 central bank governors and finance ministers from 32 OECD countries between 1973-2005, a new dataset was compiled including details on officials' professional careers before as well as after their tenure and data on financial regulation. Time-series cross-sectional analyses show that central bank governors with past experience in the financial sector deregulate significantly more than governors without a background in finance (career socialisation hypothesis). Using linear probability regressions, the results also indicate that finance ministers, especially from left-wing parties, are more likely to be hired by financial entities in the future if they please their future employers through deregulatory policies during their time in office (career concerns hypothesis). Thus, although the revolving door effects differ between government officials, this study shows that career paths and career concerns of policy-makers matter. This has wider implications both for academic research on and legislative measures against the revolving door.

**Keywords:** *Revolving door, Financial regulation, Professional background, Government officials.*

---

The opinions expressed and arguments employed herein are solely those of the authors and do not necessarily reflect the official views of the OECD or of its member countries.

This document and any map included herein are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

This paper was submitted as part of a competitive call for papers on integrity, anti-corruption and inclusive growth in the context of the 2018 OECD Global Anti-Corruption & Integrity Forum.

# 1 Introduction

Regulatory capture of public policy by financial institutions has increasingly become a critical issue in many industrial economies (Baker 2010; Johnson and Kwak 2010). From Matt Taibbi's blistering attack on Goldman Sachs, the 'great vampire squid wrapped around the face of humanity' (Taibbi 2010, para.1), to the assertion of Paul Ryan, vice-president at the watchdog group Common Cause, that ex-bankers take on jobs in government with the primary intention to repeal Dodd-Frank's strict regulations on the financial sector (Sultan 2017), denunciation of the political involvement of the financial industry has gained new highs. Especially following the Great Recession, critics claimed that politicians, bureaucrats and regulators around the globe had ceased to serve the wider public interest and systematically favoured those special interests they were supposed to regulate (OECD 2009).

The revolving door – the flow of personnel from government offices to financial entities and vice versa – is often perceived as a major driving force behind such regulatory capture. Well-known examples of influential policy-makers with experience in private finance, such as Alan Greenspan, Tim Geithner or Robert Rubin, seem to support the assumption that earlier and prospective employment in the financial sector influences high-ranking government officials in shaping financial regulation (Johnson and Kwak 2010; Gadinis 2013). Yet, systematic evidence for the relation between such public-private career linkages and public policy remains scarce – a surprising fact given the policy relevance of and the public interest in this topic. Are financial sector veterans in senior government posts in fact more likely to deregulate the financial industry? And are policy-makers rewarded with lucrative future industry employment if they embark on deregulatory reforms during their time in office?

To answer these questions, this study focuses on the effects of career paths and career concerns of central bank governors and finance ministers on financial regulation. While many actors and institutions shape policy outcomes in democratic systems, these senior officials often dominate the political agenda and play a pivotal role in decisions about economic policy, especially in times of wide-ranging reforms (Johnson and Kwak 2010; Mishra and Reshef 2017). Gathering and analysing data on financial regulation and backgrounds of more than 400 central bank governors and finance ministers from 32 OECD countries between 1973-2005, I show that characteristics of policy-makers in fact matter for policy outcomes in the area of financial policy, albeit the effects seem to differ between governors and ministers. In particular, governors with past experience in finance are more inclined to deregulate the financial industry than central bankers without such background while this effect cannot be demonstrated for finance ministers. Yet, ministers, especially from left-leaning parties, are more likely to be hired by financial entities following their tenure if they pursue liberalizing reforms during their time in office. In the case of central bankers, in contrast, pushing for

deregulatory policy is not found to improve governors' chances of gaining prestigious jobs in the industry.

The remainder of this study is structured as follows. Section 2 outlines the theoretical concept and derives the two main hypotheses by presenting existing research and illustrating case examples of the revolving door phenomenon in finance. Section 3 then describes the data used in the empirical part of the paper and elaborates on the employed methodology. Section 4 presents the results of the analysis. Finally, section 5 concludes with a discussion of the limitations and the wider implications of these findings.

## **2 Theoretical Framework**

### **2.1 Regulatory Capture and the Revolving Door in Finance**

The literature on financial regulation has long flagged the financial sector's strong incentives and its different ways to affect regulatory policy (Pagliari 2012; Gadinis 2013). Besides the direct influence through lobbying expenditures and contributions to political campaigns, the revolving door has often been found to be a major way of influence for the financial industry (Baker 2010; Johnson and Kwak 2010; Adolph 2013; Gadinis 2013). Public employees moving from industry to government are said to be friendly to the industry because they have come to share its views and aspirations. Additionally, outgoing 'revolvers' moving from government to industry may have incentives to signal their attractiveness to prospective financial employers by being lenient towards them (Dal Bó 2006; Agrell and Gautier 2012).

Related empirical studies mainly concentrate on the implementation of financial policies at US regulatory agencies (Grace and Phillips 2008; Agarwal et al. 2014; deHaan et al. 2015; Shive and Forster 2016), although the extensive movement from the top of the bureaucracy and public offices into big business matters in several countries besides the US (Schneider 1993; Adolph 2013). More importantly, little is known about the revolving door effect for influential economic *policy-makers*, namely central bank governors and finance ministers, in the context of financial regulation<sup>1</sup>. Especially during the creation of reform policies, these political leaders are likely to exert a great influence, given that it requires inventive guidance rather than operational routine (Dreher et al. 2009). Furthermore, besides finance ministers, central bank governors are also often instrumental in shaping the legal regulatory environment – even in cases where financial regulation is not the central

---

<sup>1</sup> While related studies document effects of political leaders' careers and backgrounds on economic growth (Jones and Olken 2005; Besley et al. 2011), market-liberalizing reforms (Dreher et al. 2009) and budgetary performance (Jochimsen and Thomasius 2014; Moessinger 2014; Hayo and Neumeier 2016), scholars paid hardly any attention to the impact of policy-makers' characteristics on financial regulation. The only exception is Mishra and Reshef's (2017) treatment of the issue, which, however, focuses on central bank governors only.

bank's sole responsibility (Mishra and Reshef 2017). One may, for instance, think of Fed-Chairman Alan Greenspan, a major driver behind financial deregulation in the US (Johnson and Kwak 2010), or Raghuram Rajan, who pushed for a regulatory reform agenda as the head of the Bank of India (Mishra and Reshef 2017). This study therefore applies the revolving door hypotheses to these high-level public officials.

## 2.2 Career Socialisation: Cultural Capture of Government Officials

My first argument rests on the idea that high-level officials with a professional background in the financial industry are socially conditioned to push for financial deregulation whilst in office (Baker 2010; Gadinis 2013).

At least two mechanisms could produce such socialised pre-existing preferences of political officials for pro-industry policy. Firstly, political elites may show greater sensitivity to the financial sector's concerns due to social connections with the industry. The revolving door between government and industry links actors on both sides of the door in a common policy network, giving the financial sector a direct and privileged access to key policy-makers (Johnson and Kwak 2010). As officials are presumably more likely to take a phone call from someone they know than from a stranger (Acemoglu et al. 2016) and may feel empathy for their former colleagues (Hill and Painter 2011), they are likely to push for deregulatory policies that benefit their career-based peer groups.

In a second and stronger version of the career socialisation argument, central bankers and ministers with prior industry employment may possess attitudes favourable to the sector because they have come to share its worldviews. Summed up in the phrase '[w]here you stand depends on where you sit' (Miles 1978, p.399), organization theorists and public administration scholars have long argued that every profession has its own rules and fundamental values, which leave a cultural imprint in an agent's behaviour over time (Meier and Nigro 1976; van Maanen and Schein 1979, cited in Adolph 2013). Similarly, students of political elites have stressed the importance of professional socialisation of policy-makers, asserting that '[v]alue-socialisation is not parental, or even based on early political experience, but apparently takes place from working in a given field or institutional setting' (Barton 1973, p.242; also see Putnam 1976). There is little reason to assume that private banking is an exception, as the financial service industry has long been identified as an intense working environment that forms employees' beliefs and economic ideas (Ho 2009; Adolph 2013).

Some studies indeed show that professional experience in the financial sector pervasively impacts the behaviour of policy-makers, with significant effects on a country's monetary policy (Havrilesky and Gildea 1991; Göhlmann and Vaubel 2007; Adolph 2013) and financial regulation (Igan and Mishra 2014; Mishra and Reshef 2017). Apart from this cross-sectional evidence, illustrative case studies

highlight the importance of career socialisation for government officials' stance on financial regulation. It was not before Miguel Mancera Aguayo became governor of *Banco de Mexico* that the country saw a major turn towards far-reaching financial deregulation. Mancera had worked for Mexico's largest bank *Banco de Comercio* for several years before starting his career within the central bank and had strong links to prominent figures of the country's financial circuit, such as Pablo Aveleira, Director of the Research Department at *Banamex* (Santín Quiroz 2001). The former banker not only strongly opposed the imposition of capital controls in the face of the widespread capital flight in the early 1980s, but also openly criticised controls on the domestic banking sector as they would hamper competition and innovation and hence increase market inefficiencies (Santín Quiroz 2001). While his predecessor Carlos Tello, a Keynesian economist with an extensive professional experience in the public sector, was known as the 'architect of the nationalization plan' during Portillo's administration (Babb 2005, p.252), Mancera's appointment as governor of the central bank in 1982 marked a major reversal in Mexico's financial regulation policy, resulting in the wide-ranging reprivatisation of commercial banks and state-run enterprises (Santín Quiroz 2001; Babb 2005). Building on this theoretical and empirical background, I therefore expect the following:

**Hypothesis 1a/b:** *Central bank governors/finance ministers with past occupational experience in the financial sector pursue stronger deregulatory reforms whilst in office than governors/ministers without such experience.*

One issue with the socialisation mechanism that immediately comes to mind is the self-selection problem of political elites. Some officials might opt for deregulatory policy not because they are socialised by their experience in finance but because they have latent, pre-existing conservative preferences that induce them to both work for the financial industry and deregulate the market while in office. However, research on political elites tends to confirm that political leaders' views are less influenced by their childhood experiences and early socialisation than by their adult roles and affiliations (Putnam 1976). Furthermore, financial sector regulation is likely to be a subject few spare any thought for before adulthood and spending years or decades in an industry strongly affected by regulatory policy might even overwrite preferences stemming from fundamental beliefs (Adolph 2013). Nevertheless, as I cannot completely rule out the possibility of self-selection, I will not claim that my results are causally interpretable.

### 2.3 Career Concerns: Exchanging Future Careers for Policy Influence

Besides the career socialisation effect, the revolving door in finance is often said to encourage public officials to accommodate the strong interests of the industry in order to gain lucrative future careers in the sector (Stigler 1971; Cohen 1986; Dal Bó 2006; Baker 2010). To the extent that governors and finance ministers are influenced by future career advancements in the private sector, they are likely to

create lenient financial rules in order to attract attention from the industry and signal their congruence with the sector's views (Agrell and Gautier 2012; Adolph 2013). Such prospects of future career rewards render the financial sector a 'shadow principal' (Adolph 2013, p.17), that despite lacking a formal role in policy-making can exert effective influence on regulatory policy through informal means. Political elites may try to curry favour with the regulated industry given the uncertainty about the concrete end of their mandate. Finance ministers and central bankers in my sample, for instance, only have average tenures of about three and six years, respectively. In order to retain lucrative outside options in the medium run, these officials may therefore have an incentive to stay on good terms with their prospective future employers (Johnson and Kwak 2010). Firms in the financial industry, in turn, have an interest in hiring former government officials who have displayed a favourable stance towards the industry. Those former political appointees are especially valuable because they are likely to openly share their institutional and market-related insights and use their connections and clout to continue to influence regulatory policy in accordance with the industry's concerns. In that way, the regulatory process turns into a *quid pro quo* where lenient regulation is rewarded with lucrative future job opportunities in the industry (Dal Bó 2006).

Several pieces of empirical evidence of the revolving door tend to confirm those theoretical predictions, for example with respect to insurance regulators' decisions on prices (Grace and Phillips 2008) and central bankers' inflation preferences (Adolph 2013). Case examples further bolster the idea that finance ministers and central bankers rely on deregulatory policies to increase their prospects for a lucrative future position in the financial sector. The closest we can get to a smoking gun is the career of Robert Rubin, US Secretary of Treasury from 1995-1999. Rubin's reign was mainly characterised by ample deregulation in the banking sector paired with the rapid development of new financial products, such as collateralized debt obligations and mortgage-backed securities – policies that are widely known as 'Rubinomics' (Johnson and Kwak 2010, p.100; Hill and Painter 2011). One of his most important achievements was the repeal of the Glass-Steagall Act, a Depression-era legislation which separated commercial and investment banking in the US. This law and its 25% revenue limit from underwriting and dealing in securities posed a significant barrier for banks seeking to expand into investment banking territories. More importantly, when Travelers, a major commercial bank, and Citicorp, a major insurance company that owned a leading investment bank, merged in 1998, Glass-Steagall forced the newly created Citigroup to split up within two years (Johnson and Kwak 2010). Ever since his appointment, Rubin pressured President Clinton to back an abolition of the law (Roberts 2014). Rubin finally succeeded in 1999 when Congress passed the Gramm-Leach-Bliley Act, giving retrospective clearance to the merger of Citigroup. Less than a week after the Clinton Administration and Congress had agreed on the bill, Rubin became board member and later chairman at Citigroup (Kahn 1999).

Although the evidence hints towards considerable career concerns of government officials in the realm of financial regulation, empirically examining the concept is inherently difficult as this would require information about political elites' career motivations during their time in office. Most officials, however, are likely to deny such incentives and insist on a high-minded interest for the public good (Adolph 2013). Nevertheless, if finance ministers and central bankers really are able to engage in effective job-for-policy exchanges with the financial sector, career concerns should lead to more post-government jobs in the industry when the shadow principal receives its preferred policy. I therefore expect the following:

**Hypothesis 2a/b:** *The more central bank governors/finance ministers deregulate the financial market during their time in office, the more likely they are to gain employment in the industry after their tenure.*

### 3 Research Design

#### 3.1 Data on Financial Regulation and Elites' Revolving Door

To test these hypotheses, a new dataset was compiled that covers detailed information on the professional background of 150 central bankers and 309 finance ministers as well as on domestic financial regulation in 32 OECD countries between 1973-2005<sup>2</sup>.

Data for the annual degree of financial deregulation in these 32 countries over time is taken from Giuliano et al. (2013). Their variable is a graded index that summarises securities markets regulation and banking regulation. It is normalized between 0 and 1 where higher values indicate stronger deregulation. Following related literature (Dreher et al. 2009; Giuliano et al. 2013; Mishra and Reshef 2017) the financial reform variable is then defined as the annual change in the aggregated deregulation index for a given country.

Turning towards elites' occupational background, information on officials' names, dates of duty and their prior work experience is taken from Hallerberg and Wehner (2016). Their dummy variable on private banking indicates whether the professional experience of a country's finance minister or central bank governor prior to occupying office includes working in a commercial bank or the financial services industry more broadly. Hence, besides retail banks, this includes credit unions,

---

<sup>2</sup> I follow related work (Hallerberg and Wehner 2016) and only incorporate democratic periods that are denoted by a positive Polity IV score in order to ensure a better comparability of the background of regulatory reforms and the revolving door concept. Additionally, given that the financial reforms variable only varies at the country-year level, testing the revolving door mechanisms requires that annual reforms are closely matched to the economic policy-makers responsible for them. However, in some years more than one central bank governor and finance minister hold office. I rely on the year's longest serving governor and finance minister in these cases. If an official is replaced in the beginning of a year, this strategy makes sure that her successor, who is responsible for the country's financial policy for most of the year, is retained (Moessinger 2014).

consumer finance and capital markets firms, investment funds, credit card companies as well as insurance companies, stock brokerages and some government-sponsored enterprises. Additionally, I hand-collected data on the officials' professional careers in finance following their tenure in government. This information is taken from the biographical databases BoardEx, Munzinger and World Who's Who Online and is further supplemented by and cross-checked with data from several other encyclopaedias and online sources. The respective dummy variable then indicates whether a central bank governor or finance minister became president, chairman or member of the board of directors, including supervisory boards, of a financial services entity directly after her office<sup>3</sup>.

### 3.2 Methodology and Further Variables

#### 3.2.1 Testing Career Socialisation: A Time-Series Cross-Sectional Approach

Building on related research (Giuliano et al. 2013; Mishra and Reshef 2017), I use the following conditional change model (CCM) with country-year units of analysis to test the career socialisation mechanism:

$$\begin{aligned} Reform_{c,t} &= Index_{c,t} - Index_{c,t-1} \\ &= \alpha + \beta_1 Financeprior_{i,c,t} + \beta_2 Index_{c,t-1} + \sum \beta_k X_{k,c,t} + \gamma_c + \delta_t + \varepsilon_{c,t} \end{aligned}$$

where  $Reform_{c,t}$  is the annual financial reform of country  $c$  at time  $t$ <sup>4</sup>. The variable of interest is the dummy  $Financeprior_{i,c,t}$  indicating whether a country's economic policy-maker  $i$  has prior experience in finance. According to the socialisation hypotheses *H1a/b* we expect  $\beta_1$  to yield a positive coefficient for both central bank governors and ministers.  $\sum X_{k,c,t}$  is a vector of country-specific and time-varying confounders, including a policy-makers' education, the partisanship of government as well as the existence of banking crises, reforms in neighbouring countries and IMF programs.  $\gamma_c$  and  $\delta_t$  represent country and year fixed effects, respectively. I present results with

---

<sup>3</sup> To ensure a good comparability with the data on elites' prior professions, I adopt Hallerberg and Wehner's (2016) broad definition of the financial services industry, except for government-controlled entities. While state-run financial enterprises are likely to have the same potential to socialise their employees according to the sector's values, they induce a very different incentive structure than privately owned and operated firms as presidents and board members are normally appointed by the government (Adolph 2013). Hence, public officials gaining employment in these enterprises may be rewarded for accommodating the government's preferences for financial policy rather than those of the financial sector. I therefore only consider privately owned financial firms in the indicator for post-government industry employment. Supervisory board members are included because they are chosen by the stockholders and employees of a company to advance their interests and they often not only supervise executive directors but also hire them (Agrawal and Knoeber 2001). However, I exclude advisors that were completely external to management.

<sup>4</sup> Note that this is a simple transformation of a dynamic panel model with  $Index_{c,t}$  as the dependent variable given that the model could also be written as  $Index_{c,t} = \alpha + \beta_1 priorfinanceCB_{i,c,t} + \beta_2 priorfinanceFM_{i,c,t} + (\beta_3 + 1)Index_{c,t-1} + \sum \beta_k X_{k,c,t} + \gamma_c + \delta_t + \varepsilon_{c,t}$ . Indeed, fitting this model yields the same estimates for all coefficients, except for  $Index_{c,t-1}$ . See Finkel (1995) for a discussion of the close relationship of these models and their interpretation.

standard errors clustered by country in order to account for serial correlation and within-panel heteroskedasticity (Wooldridge 2013)<sup>5</sup>.

### 3.2.2 Testing Career Concerns: A Linear Probability Model

To test the career concerns mechanism (*H2a/b*), I use the following linear probability model (LPM) in which the propensity that a government official  $i$  in country  $c$  at time  $t$  gains lucrative employment in the industry is a function of her policy during office:

$$Financeafter_{i,c,t} = \alpha + \beta_1 Deregulation_{i,c,t} + \sum \beta_k X_{i,c,t} + \gamma_c + \delta_d + \varepsilon_{i,c,t}$$

The measure of deregulatory reforms,  $Deregulation_{i,c,t}$ , is calculated as the sum of the annual reforms undertaken by a central bank governor and finance minister over her tenure, respectively. According to the predictions of the career concerns hypotheses we expect  $\beta_1$  to be positive. I include country fixed effects to absorb country-specific time-invariant confounders and decade fixed effects when the official leaves office to account for common trends to financial sector employment and financial deregulation. I further condition on a vector of official-specific controls  $\sum X_{i,c,t}$  to capture factors that may both affect an individual's tendency to deregulate and her future employment prospects. Specifically, I condition on a person's full years in office when leaving her position in government as well as a policy-maker's prior professional, educational and – for finance ministers – partisan background<sup>6</sup>. The results are estimated using robust standard errors given that LPMs necessarily lead to heteroskedastic errors (Wooldridge 2013).

## 4 Results

Tables 1 and 2 report the results of the CCM and the LPM, respectively. Given that data on some of the control variables is not always available, I introduce controls subsequently to show the robustness of the results across models. Model 1-3 report results for central bank governors and Model 4-6 show estimates for finance ministers in both tables. In Model 7 of Table 1, I include the characteristics of both central bankers and ministers.

### 4.1 Career Socialisation

---

<sup>5</sup> Given the model's close relationship to a dynamic panel model (Finkel 1995) and as I include country fixed effects, one might further be concerned about Nickell bias (Nickell 1981). However, this is less of an issue given that the average number of time periods per country is at least twenty in all models (Beck and Katz 2011).

<sup>6</sup> While one may further want to include a measure for financial markets' performance during policy-makers' final years in office (Grace and Phillips 2008), these variables are specifically excluded given that they may also result from deregulatory reforms, leading to potential post-treatment bias (Angrist and Pischke 2009).

The results in Table 1 show that the effect of prior experience in the financial sector on financial regulation is positive for central bankers (*H1a*) as expected. The estimated effect is significant in all models for governors (at least on a 10% confidence interval), while it is more imprecisely measured in the very demanding model 7 ( $p=.151$ ). The estimates predict that, on average, annual deregulatory reform is between 0.011 and 0.013 points greater when a governor with finance background holds office than when a country's governor has been socialised in a different work environment.

For finance ministers, in contrast, I do not find any evidence for the hypothesis that prior experience in finance conditions ministers to deregulate the financial market more during their time in office (*H1b*). The coefficient of Model 4 is very small and statistically insignificant, irrespective of the covariates included.

Table 1: Regression Models for Career Socialisation, Main Results  
Conditional Change Model

	H1a: Governors			H1b: Finance ministers			H1a, H1b
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Finance before office CB	0.012* (0.006)	0.013* (0.006)	0.012* (0.007)				0.011 (0.007)
Finance before office FM				0.005 (0.004)	0.003 (0.006)	0.002 (0.006)	-0.000 (0.008)
Reform index (lag)	-0.133*** (0.021)	-0.133*** (0.019)	-0.122*** (0.018)	-0.130*** (0.023)	-0.110*** (0.020)	-0.111*** (0.022)	-0.126*** (0.022)
Econ degree CB		0.008 (0.005)	0.008 (0.006)				0.007 (0.005)
Ivy league CB		0.026* (0.013)	0.027** (0.012)				0.028** (0.012)
Econ degree FM					-0.000 (0.005)	-0.001 (0.005)	-0.001 (0.004)
Ivy league FM					0.005 (0.012)	0.009 (0.011)	0.008 (0.012)
Left-right party FM					-0.000 (0.012)	0.015 (0.010)	0.016 (0.011)
Banking crisis (lag)			-0.016 (0.009)			-0.016 (0.011)	-0.014 (0.010)
Left-right party PM			0.001 (0.012)			-0.021* (0.011)	-0.011 (0.013)
Reform in geogr. neighbours			-0.253 (0.157)			-0.290* (0.169)	-0.286* (0.156)
IMF programme			-0.008 (0.009)			-0.008 (0.009)	-0.014 (0.009)
<i>N</i>	838	755	659	836	701	661	596
<i>Number of countries</i>	32	32	30	32	30	30	29
<i>R</i> <sup>2</sup> ( <i>within</i> )	0.20	0.20	0.21	0.19	0.19	0.20	0.22

Notes: Time-series cross-sectional OLS regression with country and year fixed effects (not reported); all models include a constant. Dependent variable:  $Reform_{c,t}$  ( $\Delta Index_c$ ). Clustered standard errors by country in parentheses. \*  $p < 0.1$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$

These findings raise the question as to why career socialisation effects seem to be non-existent for finance ministers while there is evidence for the claim that ex-financiers are more prone to deregulate the financial services industry in the case of central bank governors. One possible explanation is that most finance ministers pass a substantial career in the public sector before their appointment, while heads of central banks are often directly recruited from the private sector. After his position as investment manager at NM Rotschild & Sons, Norman Lamont, for instance, spent more than 10 years working for several public institutions, such as the Department of Energy and the Ministry of Defence, before becoming UK Chancellor of Exchequer in 1990 (BoardEx 2017). In such cases, earlier professional socialisation in the financial sector and its effects on ministers' preference for deregulation might be dampened by subsequent experiences in the public sector.

#### 4.2 Career Concerns

While the evidence points towards career socialisation effects for central bank governors, the data does not support the hypothesis that governors can increase their job prospects in the financial sector through deregulatory policy (*H2a*). The estimated coefficients of the deregulation variable in Table 2 clearly fail to demonstrate statistical significance and appear to be unstable across models. These results are in line with existing research which similarly does not find a relationship between financial sector reform and governors' future experience in the financial industry (Mishra and Reshef 2017).

Table 2: Regression Models for Career Concerns, Main Results  
Linear Probability Model

	H2a: Governors			H2b: Finance Ministers		
	(1)	(2)	(3)	(4)	(5)	(6)
Deregulation ( $\Sigma$ reform)	-0.089 (0.327)	-0.145 (0.385)	0.122 (0.391)	0.692** (0.280)	0.594** (0.299)	0.823*** (0.294)
Years in office		0.004 (0.010)	-0.001 (0.011)		0.010 (0.010)	0.003 (0.009)
Finance before office			0.049 (0.103)			0.103 (0.073)
Econ degree			0.104 (0.113)			-0.022 (0.050)
Ivy league			0.077 (0.196)			0.026 (0.105)
Left-right party FM						0.136 (0.115)
<i>N</i>	133	133	121	304	304	249
<i>R</i> <sup>2</sup>	0.41	0.41	0.47	0.25	0.25	0.28

Notes: Linear probability OLS regressions with country and decade fixed effects (not reported); all models include a constant. Dependent variable:  $Financeafter_{i,c,t}$ . Robust standard errors in parentheses. \*  $p < 0.1$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$

In the case of finance ministers, in contrast, the evidence lends clear support to *H2b*, indicating that ministers seem to engage in effective *quid pro quo* exchanges with the financial sector. Using the results from Model 6, a one-standard deviation increase in deregulatory measures over their term in office ( $SD=0.09$ ) increases finance ministers' probability of post-government employment in the financial services industry by about 7.4%.

One potential explanation could be that most central bankers might be *perceived* to be generally more conservative in their policy preferences than finance ministers whose political background and constituencies vary substantially. After Rogoff's (1985) endorsement of a credibly conservative and independent central banker as a solution to the inflationary bias of monetary policy (Kydland and Prescott 1977; Barro and Gordon 1983), central bank independence and monetary conservatism soon became the conventional wisdom of central banking around the globe (McNamara 1998). Indeed, leading central bankers between the 1980s and mid-2000s, such as Paul Volcker or Alan Greenspan, had a strong image of anti-inflationary conservatism, while their predecessors were widely known for their liberal economic beliefs (Romer and Romer 2004). In the context of this general perception, the signalling effect of deregulatory policy might be smaller in the case of central bankers as preferences between governors and financial entities appear to be already closely aligned. Hence, during most of the sample period, financial markets might not have relied on policy decisions of central bankers to assess their suitability for future leadership positions. The following additional analysis tries to shade some more light on this idea of differences in the credibility of policy signals.

#### 4.3 Further Analysis: Costly Signals and Post-Government Employment

If the explanation for the ineffectiveness of governors' policy signals towards financial markets indeed points in the right direction, we should also expect to find that the credibility of deregulatory policy signals by finance ministers depends on their pre-disposed ideological preferences. While a strong liberalization of financial markets by a right-leaning minister may simply be perceived as partisan, measures such as the abolishment of interest rate ceilings coming from leftist ministers are likely to signal strong commitment to pro-market policies. By enacting policies that are costly and stand in contrast to the direct interest of their constituents, left-wing finance ministers may provide more credible information to financial markets about their intentions and career motivations (Cukierman and Tommasi 1998; Tavares 2004). Hence, the linkage between deregulatory reforms and post-government employment in the financial sector should be stronger for ministers from left-leaning parties than for conservative policy-makers.

To test this, I repeated the analysis of the linear probability model above, adding an interaction term between the deregulation variable and the measure of a ministers' partisanship. The results are reported in Table 3.

Table 3: Further Analysis, Career Concerns and Partisanship  
Linear Probability Model

	(1)	(2)	(3)
Deregulation ( $\Sigma$ reform)	1.349 (0.834)	1.282 (0.834)	1.617* (0.825)
Left-right party FM	0.203 (0.129)	0.202 (0.130)	0.222* (0.131)
Deregulation x Left-right party FM	-1.161 (1.498)	-1.159 (1.491)	-1.565 (1.413)
Years in office		0.006 (0.010)	0.003 (0.009)
Finance before office			0.096 (0.071)
Econ degree			-0.026 (0.050)
Ivy league			0.041 (0.102)
<i>N</i>	267	267	249
<i>Adjusted R</i> <sup>2</sup>	0.27	0.27	0.29

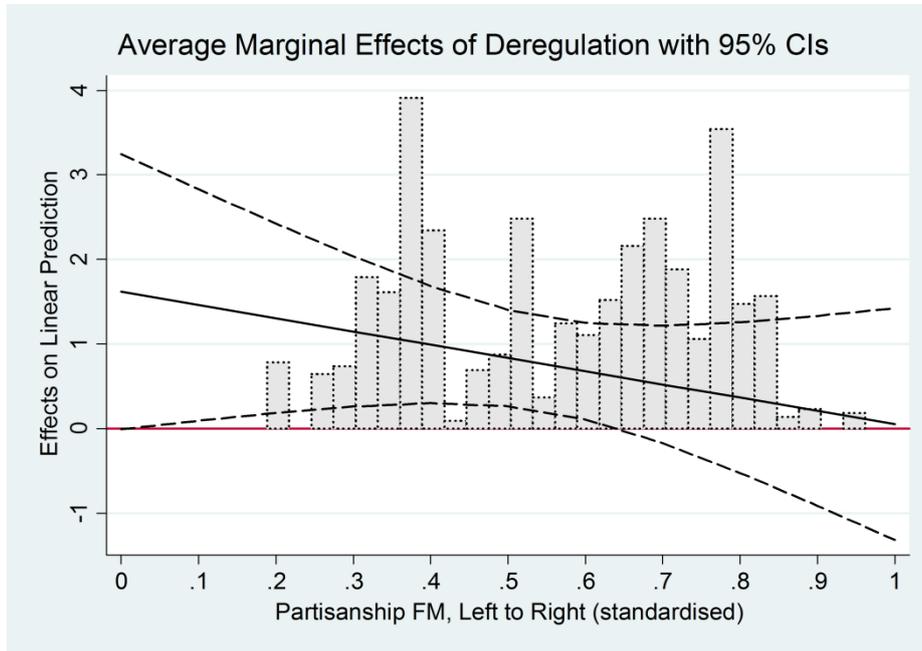
Notes: Linear probability OLS regressions with country and decade fixed effects (not reported); all models include a constant. Dependent variable:  $Financeafter_{i,c,t}$ . Robust standard errors in parentheses.

\*  $p < 0.1$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$

While the interaction effect is indeed negative as expected, it does not reach significance. Nevertheless, plotting the marginal effect of *Deregulation* conditional on finance ministers' partisanship from the model in column 3 yields some interesting patterns (see Figure 1). While the effect of deregulation remains ambiguous for right-wing parties, it is clearly positive and significant for ministers from a leftist spectrum. This suggests that the signalling effect of deregulatory reforms for all finance ministers – reported in Table 3 – is mainly driven by left-leaning policy-makers whose parties have a historical aversion against such policies<sup>7</sup>. Hence, this provides some tentative evidence for the idea that the credibility of policy signals is conditional on a policy-maker's predisposed preferences.

<sup>7</sup> Similarly, when the sample is split between left-wing and right-wing finance ministers and the LPM including all controls is fitted to both of these subsamples separately, the effect of deregulation on post-government employment in the financial sector is estimated as 1.101 ( $p=0.032$ ;  $N=98$ ) for leftist ministers and 0.202 ( $p=.602$ ;  $N=151$ ) for right-leaning individuals.

Figure 1: Marginal Effects Plot of *Deregulation* Conditional on Partisanship



Notes: Depicted are marginal effects of deregulatory reforms for finance ministers conditional on their partisanship together with the density histogram, computed from Model 3 of Table 3.

## 5 Conclusion and Discussion

President Trump’s nomination of Randal Quarles, a Wall Street veteran and former Treasury official, for Federal Reserve Vice Chair of Regulation spurred strong criticism among Democrats and progressives in Washington, with Senator Elizabeth Warren leading the way. In a hearing following the nomination, she openly attacked Quarles: ‘[T]he number one thing we need from the Fed’s vice chair for supervision is a demonstrated willingness to stand up to the interests of the big banks that threaten the financial institutions. But when I look at your 30 year career spinning through the revolving door in the private sector Mr. Quarles, I just don’t see it.’ (Elizabeth Warren, cited in Nicolaci da Costa 2017, para.5)

This thesis empirically addressed this revolving door between government officials and financial business interests and explored whether career paths and career concerns of senior government insiders indeed affect financial market policy. Deregulatory reforms are found to be significantly higher when central bank governors have a professional background in the financial services industry (*H1a*). In contrast, the results do not show that prior financial sector experience of finance ministers is associated with countries’ reforms in financial regulation (*H1b*). Yet, while governors’ financial policy is not demonstrated to have an impact on their post-government employability in the financial sector (*H2a*), the results suggest that finance ministers are much more likely to gain lucrative positions in the industry if they are known for strong deregulatory reforms during their tenure (*H2b*).

The latter effect is mostly sustained by left-leaning ministers whose partisan preferences are perceived to stand in contrast to such policies. Hence, whereas the revolving door from private banking towards government offices seems to have a stronger impact for central bank governors, the ‘outbound’ version of the phenomenon appears to be more important for finance ministers.

The wider implications of these findings are worth stressing. Firstly, this study shows that revolving door mechanisms are relevant for policy-makers and public policy – above and beyond their impact on employees of regulatory agencies (Cohen 1986; Grace and Phillips 2008; Cornaggia et al. 2016). Additionally, the results contribute to existing studies showing that political leaders have a considerable impact on countries’ economic policies and performance (Dreher et al. 2009; Besley et al. 2011; Adolph 2013; Moessinger 2014; Hayo and Neumeier 2016; Mishra and Reshef 2017). To be sure, political institutions and interests of other political actors, especially in developed countries, certainly matter for policy outcomes in the area of financial regulation. Yet, any muting impact of other actors in the political system on regulatory reforms should make it more difficult to find my results. On the contrary, the analysis suggests that simply ‘deducing officials’ preferences from the attributes of their agencies, without considering how preferences develop informally and over time’ (Schneider 1993, p.333) bears the risk of neglecting the power of shadow principals, such as the financial sector, to shape political agents’ ideas and incentives. In that way, this study highlights the benefits of legislative measures that reduce adverse effects of officials’ public-private career crossovers and hence promote accountability and diligence in financial policy-making. Such measures involve dispersing decision-making power to decrease the influence of individual well-connected policy-makers, enhancing policy transparency by strengthening parliamentary oversight and enacting stricter standards of conduct for government employees, including cooling-off periods between employment in the financial industry and government (Baker 2010; Hill and Painter 2011; Cornaggia et al. 2016).

Yet, several limitations of the analysis deserve some closer attention. Due to data restrictions concerning policy-makers’ motivations and preferences, this study could only examine indirect implications of the revolving door concept, especially for the career concerns mechanism. This not only impedes causal interpretation of the results but also gives rise to potential problems of simultaneity bias. The theoretical framework indeed suggests that policy-makers shape regulatory policy with their next career step in mind. Hence, the prospects of being rewarded for lenient policy by the financial sector may induce policy-makers to deregulate in the first place. Nevertheless, the concern might be somewhat dampened by the fact that reverse causality in the LPM would imply that policy-makers can perfectly anticipate their employment by the sector in several years’ time. Yet, while the results of this study should be interpreted with these caveats in mind, future research might aim at further teasing out the direct intent of policy-makers. Additionally, the analysis was restricted

to periods before the Great Recession. Based on the results of this study, it might be of interest to investigate whether distinct ‘types’ of politicians reacted differently to the shock of the financial crisis and how their professional backgrounds shaped the controversial policy responses in its aftermath, such as bank bailouts and reinforcements of financial regulation. I leave these questions for future research.

## 6 References

- Acemoglu, Daron, Simon Johnson, Amir Kermani, James Kwak, and Todd Mitton. 2016. “The value of connections in turbulent times: Evidence from the United States.” *Journal of Financial Economics* 121 (2): 368–91.
- Adolph, Christopher. 2013. *Bankers, Bureaucrats, and Central Bank Politics: The Myth of Neutrality*. New York: Cambridge University Press.
- Agarwal, Sumit, David Lucca, Amit Seru, and Francesco Trebbi. 2014. “Inconsistent Regulators: Evidence from Banking.” *The Quarterly Journal of Economics* 129 (2): 889–938.
- Agrawal, Anup, and Charles R. Knoeber. 2001. “Do Some Outside Directors Play a Political Role?” *The Journal of Law and Economics* 44 (1): 179–98.
- Agrell, Per J., and Axel Gautier. 2012. “Rethinking Regulatory Capture.” In *Recent Advances in the Analysis of Competition Policy and Regulation*, eds. Joseph E. Harrington and Yannis Katsoulacos. Cheltenham: Edward Elgar, 286–302.
- Angrist, Joshua D., and Jörn-Steffen Pischke. 2009. *Mostly Harmless Econometrics: An Empiricist's Companion* Princeton: Princeton Univ. Press.
- Babb, Sarah. 2005. “The Rise of the New Money Doctors in Mexico.” In *Financialization and the World Economy*, ed. Gerald A. Epstein. Cheltenham: Edward Elgar Publishing, 243–59.
- Baker, Andrew. 2010. “Restraining regulatory capture?: Anglo-America, crisis politics and trajectories of change in global financial governance.” *International Affairs* 86 (3): 647–63.
- Barro, Robert J., and David B. Gordon. 1983. “Rules, discretion and reputation in a model of monetary policy.” *Journal of Monetary Economics* 12 (1): 101–21.
- Barton, Allen H. 1973. “Determinants of Leadership Attitudes in a Socialist Society.” In *Opinion Making Elites in Yugoslavia.*, eds. Allen H. Barton, Charles Kadushin and Bogdan Denitch. New York, Washington, London: Praeger, 220–62.
- Beck, Nathaniel, and Jonathan N. Katz. 2011. “Modeling Dynamics in Time-Series–Cross-Section Political Economy Data.” *Annual Review of Political Science* 14 (1): 331–52.
- Besley, Timothy, Jose G. Montalvo, and Marta Reynal-Querol. 2011. “Do Educated Leaders Matter?” *The Economic Journal* 121 (554): F205–227.
- BoardEx, 2017. *The Rt. Hon. Lord Norman Stewart Lamont of Lerwick. Profile*. BoardEx Databank, Business Development, available at [https://www.boardex.com/director/profile/default.aspx?menuCat=1&pCategory=6&dir\\_id=340058](https://www.boardex.com/director/profile/default.aspx?menuCat=1&pCategory=6&dir_id=340058) (access: August 2017).
- Chappell, Henry W., Thomas M. Havrilesky, and Rob R. McGregor. 1995. “Policymakers, Institutions, and Central Bank Decisions.” *Central Banking at a Crossroads* 47 (2): 113–36.
- Cohen, Jeffrey E. 1986. “The Dynamics of the “Revolving Door” on the FCC.” *American Journal of Political Science* 30 (4): 689–708.
- Cornaggia, Jess, Kimberly J. Cornaggia, and Han Xia. 2016. “Revolving doors on Wall Street.” *Journal of Financial Economics* 120 (2): 400–419.
- Cukierman, Alex, and Mariano Tommasi. 1998. “When Does It Take a Nixon to Go to China?” *The American Economic Review* 88 (1): 180–97.
- Dal Bó, Ernesto. 2006. “Regulatory Capture: A Review.” *Oxford Review of Economic Policy* 22 (2): 203–25.

- deHaan, Ed, Simi Kedia, Kevin Koh, and Shivaram Rajgopal. 2015. "The revolving door and the SEC's enforcement outcomes: Initial evidence from civil litigation." *Journal of Accounting and Economics* 60 (2-3): 65–96.
- Dreher, Axel, Michael J. Lamla, Sarah M. Lein-Rupprecht, and Frank Somogyi. 2009. "The impact of political leaders' profession and education on reforms." *Journal of Comparative Economics* 37 (1): 169–93.
- Finkel, Steven. 1995. *Causal Analysis with Panel Data*. Thousand Oaks: SAGE.
- Gadinis, Stavros. 2013. "From Independence to Politics in Financial Regulation." *California Law Review* 101 (327): 327–406.
- Giuliano, Paola, Prachi Mishra, and Antonio Spilimbergo. 2013. "Democracy and Reforms: Evidence from a New Dataset." *American Economic Journal: Macroeconomics* 5 (4): 179–204.
- Göhlmann, Silja, and Roland Vaubel. 2007. "The educational and occupational background of central bankers and its effect on inflation: An empirical analysis." *European Economic Review* 51 (4): 925–41.
- Grace, Martin F., and Richard D. Phillips. 2008. "Regulator performance, regulatory environment and outcomes: An examination of insurance regulator career incentives on state insurance markets." *Journal of Banking & Finance* 32 (1): 116–33.
- Hallerberg, Mark, and Joachim Wehner. 2016. "When Do You Get Economists as Policy-Makers?" *Working Paper*, forthcoming in *British Journal of Political Science*.
- Havrilesky, Thomas, and John A. Gildea. 1991. "The Policy Preferences of FOMC Members as Revealed by Dissenting Votes: Comment." *Journal of Money, Credit and Banking* 23 (1): 130.
- Hayo, Bernd, and Florian Neumeier. 2016. "Political Leaders' Socioeconomic Background and Public Budget Deficits: Evidence from OECD Countries." *Economics & Politics* 28 (1): 55–78.
- Hill, Claire, and Richard Painter. 2011. "Compromised Fiduciaries: Conflicts of Interest in Government and Business." *Minnesota Law Review* 95 (5): 1637–1691.
- Ho, Karen Z. 2009. *Liquidated: An Ethnography of Wall Street*. Durham: Duke University Press.
- Igan, Deniz, and Prachi Mishra. 2014. "Wall Street, Capitol Hill, and K Street: Political Influence and Financial Regulation." *The Journal of Law and Economics* 57 (4): 1063–84.
- Jochimsen, Beate, and Sebastian Thomasius. 2014. "The perfect finance minister: Whom to appoint as finance minister to balance the budget." *European Journal of Political Economy* 34: 390–408.
- Johnson, Simon, and James Kwak. 2010. *13 Bankers: The Wall Street Takeover and the Next Financial Meltdown*. New York: Random House.
- Jones, B. F., and B. A. Olken. 2005. "Do Leaders Matter?: National Leadership and Growth Since World War II." *The Quarterly Journal of Economics* 120 (3): 835–64.
- Kahn, Joseph. 1999. "Former Treasury Secretary Joins Leadership Triangle at Citigroup." *NY Times* 27/10/1999, available at <http://www.nytimes.com/1999/10/27/business/former-treasury-secretary-joins-leadership-triangle-at-citigroup.html> (access: August 2017).
- Kydland, Finn E., and Edward C. Prescott. 1977. "Rules Rather than Discretion: The Inconsistency of Optimal Plans." *Journal of Political Economy* 85 (3): 473–91.
- McNamara, Kathleen R. 1998. *The Currency of Ideas: Monetary Politics in the European Union*. Ithaca, NY: Cornell Univ. Press.
- Meier, Kenneth J., and Lloyd G. Nigro. 1976. "Representative Bureaucracy and Policy Preferences: A Study in the Attitudes of Federal Executives." *Public Administration Review* 36 (4): 458–69.
- Miles, Rufus E. 1978. "The Origin and Meaning of Miles' Law." *Public Administration Review* 38 (5): 399–403.
- Mishra, Prachi, and Arriel Reshef. 2017. "How Do Central Bank Governors Matter? Regulation and the Financial Sector." *Working Paper*.
- Moessinger, Marc-Daniel. 2014. "Do the personal characteristics of finance ministers affect changes in public debt?" *Public Choice* 161 (1): 183–207.
- Nickell, Stephen. 1981. "Biases in dynamic models with fixed effects." *Econometrica* 49 (6): 1417–26.

- Nicolaci da Costa, Pedro. 2017. "Elizabeth Warren unloads on Trump's pick to lead Fed bank regulation." *Business Insider UK* 27/07/2017, available at <http://uk.businessinsider.com/senator-warren-says-trump-fed-nominee-quarles-is-a-revolving-door-bank-lawyer-2017-7?r=US&IR=T> (access: August 2017).
- OECD, 2009. *Revolving Doors, Accountability and Transparency - Emerging Regulatory Concerns and Policy Solutions in the Financial Crisis*. Expert Group on Conflict of Interest. GOV/PGC/ETH(2009)2. Paris: OECD Public Governance and Territorial Development Directorate.
- Pagliari, Stefano. 2012. "How Can We Mitigate Capture in Financial Regulation?" In *Making Good Financial Regulation: Towards a Policy Response to Regulatory Capture*, ed. Stefano Pagliari. Guildford, Surrey: Grosvenor House Publishing Limited, 1–49.
- Putnam, Robert D. 1976. *The Comparative Study of Political Elites*. Englewood Cliffs, NJ: Prentice-Hall.
- Roberts, Dan. 2014. "Wall Street deregulation pushed by Clinton advisers, documents reveal." *The Guardian* 19/04/2014, available at <https://www.theguardian.com/world/2014/apr/19/wall-street-deregulation-clinton-advisers-obama> (access: August 2017).
- Rogoff, Kenneth. 1985. "The Optimal Degree of Commitment to an Intermediate Monetary Target." *The Quarterly Journal of Economics* 100 (4): 1169–89.
- Romer, Christina D., and David H. Romer. 2004. "Choosing the Federal Reserve Chair: Lessons from History." *Journal of Economic Perspectives* 18 (1): 129–62.
- Santín Quiroz, Osvaldo. 2001. *The Political Economy of Mexico's Financial Reform*. Aldershot, Hampshire: Ashgate.
- Schneider, Ben R. 1993. "The Career Connection: A Comparative Analysis of Bureaucratic Preferences and Insulation." *Comparative Politics* 25 (3): 331–50.
- Shive, Sophie A., and Margaret M. Forster. 2016. "The Revolving Door for Financial Regulators." *Review of Finance*: 1–40.
- Stigler, George J. 1971. "The Theory of Economic Regulation." *The Bell Journal of Economics and Management Science* 2 (1): 3–21.
- Sultan, Niv. 2017. "The revolving door always spins for Goldman Sachs — by design." *OpenSecrets Blog* 23/03/2017, available at <https://www.opensecrets.org/news/2017/03/revolving-door-goldman-sachs/> (access: August 2017).
- Tavares, José. 2004. "Does right or left matter?: Cabinets, credibility and fiscal adjustments." *Journal of Public Economics* 88 (12): 2447–68.
- Taibbi, Matt. 2010. "The Great American Bubble Machine." *Rolling Stone* 05/04/2010, available at <http://www.rollingstone.com/politics/news/the-great-american-bubble-machine-20100405> (access: August 2017).
- Wooldridge, Jeffrey M. 2013. *Introductory Econometrics: A Modern Approach*. 5<sup>th</sup> ed. Mason, Ohio: South-Western Cengage Learning.