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The Political Origin of Home Bias: the case of Europe

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ABSTRACT

We show that politics is at the root of the banks-sovereign nexus that exacerbated the Eurozone crisis. First, government-owned banks or banks with politicians in the board of directors display higher home bias in sovereign debt compared to privately-owned banks throughout the 2010-2013 period. Second, only government-owned banks increased the home bias during the sovereign crisis (moral suasion). We exploit the fact that equity injections (bail-outs) by domestic governments were not directly targeted to politically connected banks to show that, upon receiving such assistance, only government-owned banks purchase domestic debt. Moral suasion is stronger in countries under stress.

JEL classification: G01, G11, D72.

Keywords: Banks–sovereign nexus, Home bias, Government–owned banks, Banks’ recapitalization, Board of directors

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1. Introduction

The European sovereign debt crisis has emphasized the importance of the so-called *banks-sovereign nexus*: an adverse feedback loop between the health of the banking system and that of its sovereign. Many have argued that banks' sovereign debt holdings are the critical channel that transmitted credit risk from sovereigns under stress in Europe to the real economy, causing sizable drops in lending and investment.¹ Worthy of note, European banks' sovereign portfolios consist almost entirely of *domestic* government debt: the average (median) home exposure is 74% (86%) of the total sovereign debt exposure at the end of 2010 (Figure 1). The domestic exposure is well beyond what standard portfolio theories would predict: there is significant *home bias* (Figure 2).²

In order to understand and possibly prevent this adverse feedback loop, one has to first identify what drives home bias in sovereign debt holdings at the bank level. We show that politics is at the root of the problem. Many European banks are government-owned or have politicians sitting on the board of directors. These politicians may persuade the politically connected banks to finance national or local state borrowing by purchasing domestic government bonds.³ We show that this is the case for the sample of European banks that participated in the European Banking Authority (EBA) regulatory exercises.

First, we provide cross-sectional evidence at the bank level that politically connected banks, *i.e.* either those owned by the domestic government or with former politicians in the board of directors, hold a disproportionate amount of their own country's sovereign debt. This is true both at the onset and during the European sovereign debt crisis. Second, we show

¹See Gennaioli, Martin, and Rossi (2014), Acharya, Eisert, Eufinger, and Hirsch (2015), Popov and Van Horen (2015), De Marco (2015) and Altavilla, Pagano, and Simonelli (2015).

² The Capital Asset Pricing Model (CAPM) predicts that, in frictionless financial markets, homogenous investors would hold a share of financial asset equal to the share of the financial assets of that country in the world portfolio (see Cochrane (2005), page 155).

³ We are not able to distinguish between national and regional or municipal debt, as the EBA sovereign exposure data is the sum of the two.

that political pressure was at work during the crisis (*moral suasion* channel). We exploit the fact that government equity injections (bail-outs) were used to recapitalize distressed banks, but not politically connected banks in particular, to document that only politically connected banks use government funds to purchase more domestic debt. Not surprisingly, we find that the moral suasion channel is stronger among government-owned banks from the GIIPS countries, as weak governments presumably have greater need to use the domestic banks to finance borrowing.

Many European banks are still, at least partly, government-owned either at the regional (Germany, Spain) or national level (Portugal) or through private foundations whose directors are appointed by local or national politicians (Italy). Also, many former politicians sit on the banks' board of directors. We use these two facts to obtain two measures of political connections among European banks. In particular, the first is the total percentage of equity held by central or local governments (including banking Foundations in Italy) in the *pre-crisis* period (2006 or 2009) for our sample of EBA banks.⁴ For the second measure we look at the share of directors who were former politicians, either at the national (ministers, members of Parliament) or local (mayors, city councillors) level, excluding those who started their tenure at the bank after 2006. We use pre-crisis data precisely to avoid biases given by bank nationalizations and bail-outs that occurred in 2008–2012. If we were to measure government ownership contemporaneously with the home bias, we would both overestimate the state's presence in the banking sector and introduce additional endogeneity, in the sense that banks could commit to purchase more domestic sovereign debt in an attempt to get political influence and government support during the crisis.

Our results on the moral suasion channel are robust to alternative channels that could also contribute to greater home bias. First, banks in distressed countries may engage in *risk-shifting/risk synchronization* and load up on high-yielding domestic sovereign debt,

⁴We use government ownership either as a continuous or as a discrete variable.

putting a lot of risk in a state of nature, a domestic sovereign default, in which they would likely go bankrupt anyway (Diamond and Rajan (2011)). Such incentive may be particularly strong for undercapitalized banks that would “gamble for resurrection” with this investment strategy (Acharya and Steffen (2015)). We address this issue by controlling for Tier1 and leverage ratios. Moreover, in order to allow for the possibility that politically connected banks are systematically different from private ones, we fully interact the control variables of the panel regression with the indicator for politically connected banks. The results of the fully interacted specification are qualitatively unchanged, pointing in the direction that the *moral suasion* channel we are capturing is not a spurious result due to a systematic differential portfolio sensitivity between politically connected and private banks. In addition, we document in Table 2 that, other than having more home bias and lower total assets on average, politically connected banks are similar to private banks along the other balance sheet dimensions. Thus, politically connected banks increase the home bias after they get bailed-out by the government, not because they are less capitalized nor because their portfolio composition is more sensitive to changes in capitalization than private banks.

Second, banks may engage in *carry trades* and buy risky sovereign debt financing themselves short-term in wholesale markets (Acharya and Steffen (2015)). This would mechanically lead to higher home bias for banks domiciled in countries with high-yielding sovereign debt. We take care of such variation by controlling for country-time fixed-effects that absorb aggregate variables such as country sovereign yields.

Another frequently mentioned reason for banks to hold sovereign bonds is that, even under Basel II, government bonds are considered risk free.⁵ According to this hypothesis,

⁵ According to Basel II regulation, in order to compute Risk Weight Assets (RWA), banks can use two approaches: the Standardized Approach (SA) and the Internal-Ratings Based (IRB) approach. According to the first, government bonds receive a 0% risk weight. Under the IRB in principle the weight should be positive, because, even though the model may assign a very low probability of default (PD) to a sovereign issuer, the loss given default (LGD) is positive. In practice, PD on sovereign debt are equal 0.1% for 201 major international banks (BIS Quarterly Review, December 2013). Moreover, in the EU there is a loophole (“IRB permanent partial use”) that allows IRB banks to switch back to the SA when evaluating EU debt.

banks would boost their risk-based capital ratios by loading up with sovereigns and crowding out private lending (*capital arbitrage*). However, since the zero risk weight applies not only to domestic sovereign debt, but to all countries in the European Union, it cannot explain home bias. On the contrary, it may have been a source of contagion from GIIPS countries to non-GIIPS banks (Korte and Steffen (2015)).

One may also be concerned about reverse causality in our setup: banks could increase the home bias to signal their commitment to the domestic government and get government support in return during the crisis. We address this concern in two ways. First, our measures of political connections use *pre-crisis* data (2006 or 2009), precisely so not to bias our estimate with the current level of government support during the crisis. Second, we analyze the determinants of government support (Table 10) and we find that neither the political connections nor the level and the change in the home bias are significantly correlated with the amount of government bail-outs.⁶

The hypothesis that some European governments may have put pressure on domestic banks to purchase local sovereign debt (*moral suasion/financial repression*) during the European sovereign debt crisis is also entertained in other contemporaneous studies (Acharya, Eisert, Eufinger, and Hirsch (2015), Acharya and Steffen (2015), Becker and Ivashina (2014), Ongena, Popov, and Van Horen (2015), Horváth, Huizinga, and Ioannidou (2015)). We, like some of these papers, focus specifically on the differences between politically-connected (either government-owned or with former politicians in the board of directors) and private banks. Differently from these papers we hand-collect and emphasize the importance of measuring political connections in the pre-crisis period to avoid potential endogeneity issues. Moreover, we document for the first time a clear, *bank-specific* channel through which

⁶ This is different from the results found in other papers (Faccio, Masulis, and McConnell (2006), Faccio (2006)) who find that politically connected firms are more likely to receive bail-outs. Differently from these papers, we only focus on a set of developed countries in Europe whose levels of corruption tend to be lower than in developing nations.

political pressure works: upon receiving government help in the form of equity injections (bail-outs), only the banks that are subject to political pressure actually increase their degree of home bias in sovereign debt holdings.

The moral suasion channel is not the only explanation for the home bias in sovereign bonds, both before and during the sovereign debt crisis. In the international finance and asset pricing literature, home bias is often explained as the result of informational asymmetries ([Van Nieuwerburgh and Veldkamp \(2009\)](#)); more recently, home bias in the GIIPS countries during the sovereign debt crisis has been motivated by creditor discrimination theories ([Broner, Erce, Martin, and Ventura \(2014\)](#) and [Brutti and Sauré \(2013\)](#)). Others claim that financial repression and risk synchronization are the optimal choice of either the domestic government or the individual bank ([Chari, Dovis, and Kehoe \(2016\)](#), [Acharya and Rajan \(2013\)](#), [Crosignani \(2014\)](#), [Uhlig \(2014\)](#) and [Diamond and Rajan \(2011\)](#)). We do not challenge these hypotheses; on the contrary, we complement them by showing that also political pressure on controlled banks plays a crucial role in explaining the rise in home bias at the bank level.

Our findings also contribute to the literature on the performance of state-owned banks and the role of political connections at the corporate level worldwide ([Faccio, Masulis, and McConnell \(2006\)](#), [Faccio \(2006\)](#), and [Barth, Caprio Jr, and Levine \(2001\)](#)). [Sapienza \(2004\)](#) shows that state-owned banks in Italy extended cheaper credit to firms in areas where the affiliated party is stronger. [La Porta, Lopez-de Silanes, and Zamarripa \(2003\)](#) find evidence that in Mexico loans extended to related parties, either family members or controlled firms, have on average lower rates, lower collateral requirements and are more likely to default than unrelated ones. [Illueca, Norden, and Udell \(2013\)](#) and [Cuñat and Garicano \(2010\)](#) show that political influence among Spanish savings banks is associated with higher risk-taking and worse performance. Finally, [Englmaier and Stowasser \(2016\)](#) show that German savings banks adjust lending pro-cyclically in response to local electoral cycles, negatively

impacting their profitability and borrowers' default rates.

The paper proceeds as follows. In Section 2, we highlight some country-specific institutional details that are relevant to our analysis; Section 3 describes the data and the methodology used in the paper. Section 4 presents the results and Section 5 concludes.

2. Institutional Details

Three European countries stand out for the role of politicians and local governments in the management of banks: Italy, Germany and Spain. In what follows we provide some key features that distinguish each of these countries in terms of political presence in the banking system.

Italy

State-owned banks were common in Italy until 1990 ([Sapienza \(2004\)](#)), when a wave of liberalizations at the European level induced the Italian government to privatize the domestic banking system. However, since the government wanted to preserve the state-owned banks' statutory objectives of supporting the local economy, the banks were first sold to Foundations (non-profit organizations). These Foundations were and remain under the influence of political groups. For example, the members of the board of directors in the Foundations are often appointed by the local public officials or are politicians themselves.⁷

In this paper, we assume that ownership by a Foundation is the same as government ownership. The two may not necessarily coincide if the political party the Foundation is affiliated to is not part of the current government. We believe that this is not a concern in our case. First of all, it is important to emphasize that the EBA sovereign exposure data

⁷ See <http://www.lavoce.info/i-politici-ai-vertici-delle-fondazioni-bancarie/> (in Italian) This is also consistent with [Bortolotti and Faccio \(2009\)](#), who find that after the large privatization waves of the 1990s, many OECD governments still retained a significant control over privatized firms.

is the aggregate of national, regional and municipal debt in each country so that we can't distinguish between support to the local or national government. It could well be that a bank connected to the opposite political party purchases more local rather than national debt. Also, apart from Monte dei Paschi (MPS) which is almost entirely controlled by a center-left leaning Foundation, the two other major Italian banks in our dataset have more than one Foundation among their shareholders. Moreover, most of the times, within each Foundation there are members coming from both left and right wing parties. Finally, there could also be monetary transfers from the central to a regional government in exchange for the purchase of national sovereign debt (see the Appendix for a discussion of political parties' incentives).

Germany

The German banking system is organized in three different “pillars”: private banks, such as Deutsche Bank and Commerzbank; cooperative banks, based on a member-structure where each member has one vote and finally *public banks*. The latter are financial institutions, typically owned by the regional states (*Lander*) or by the administrative districts or cities in which they are headquartered. Among *public banks*, there are savings banks (*Sparkassen*) whose shareholders are usually local municipalities and regional banks (*Landesbanken*), that are mostly owned by the respective *Lander* through a regional savings bank association.

Thus, in the case of Germany the definition of “political banks” is clear: those that have a direct state participation among their shareholders. In the EBA dataset, the political banks will mostly be the *Landesbanken*. The percentage of equity attributable to both local and regional governments among the *Landesbanken* is essentially 100%, with the exception of HSH Nordbank which has 89.34% government shares. On the other hand, the rest of the German banks in our sample have no government equity stakes.

Spain

Savings banks (*cajas*) represent a fundamental pillar of the Spanish banking system: founded in the 18th century with the objective of channeling private savings towards the local communities, savings banks accounted for 40 percent of Spanish banks' total assets in 2010. Similar to banking Foundations in Italy, they became financial institutions that do not distribute profits, that have no formal owner, but several governing bodies representing two different classes of stakeholders: insiders and outsiders. Insiders are employees, depositors and private founders; outsiders are the regional and local governments. Although in principle all stakeholders were represented on the board, the voting power of the two groups in each bank differed, depending on the specific regional law. Most *cajas* are still vulnerable to the influence of local politicians (Illueca, Norden, and Udell (2013)).⁸ Similarly to the case of MPS in Italy discussed above, some *cajas* may belong to a regional government affiliated to a different political party than the one in power. These institutions may have an interest in destabilizing the national government rather than supporting it by buying domestic sovereign debt. We refer to the same arguments we made above. First of all, the EBA data do not allow to distinguish domestic exposure between local and national debt, so it may well be that the bank affiliated to a different party is purchasing regional, rather than national debt. Finally, the two political parties may have incentives to act like a cartel (see the Appendix for further details).

⁸ In mid 2012, the Spanish savings banks underwent a series of reforms aimed at improving the stability of the banking sector; most of the savings banks' activities have now been transferred to newly created commercial banks. However, the elimination of political interference from banking activities is still incomplete, since the same savings banks morphed into holding companies of the newly created commercial banks. For more details see IMF (March 2013).

3. Data and Methodology

3.1 Data

The dataset is the result of the merger of four different sources: detailed bank level data on the exposure to sovereign bonds and liquidity injections from the EU-wide Stress Test and Recapitalization Exercises; information on the *pre-crisis* degree of government ownership in each bank is collected from Annual Reports or Bloomberg whenever available; the political affiliation of board members is obtained from BoardEx; other balance sheet data are from Bankscope.

The key dataset contains the information on political connections. We want this measure to be dated *prior* to the sovereign debt crisis so as not to bias the degree of political connections with any bail-outs or nationalizations that occurred in 2008–2012. To this end, we rely on information of banks’ government ownership from Bloomberg or we download the 2006 Annual Reports for all banks, except Spanish ones. It is in fact difficult to find Annual Reports at earlier dates for some small Spanish savings banks, because many were recently acquired or merged with other banks. For Spanish banks we resort to IMF data, which lists for each savings bank the percentage of voting rights held by local governments prior to 2009 (IMF (June 2012)). We construct the variable *Political* as the sum of any participation held by the local or central governments (Foundations in the case of Italy) for each bank that participated in the EBA regulatory exercises.

But government ownership may not capture all the mechanisms through which politicians can control the banking system. For example, even if the French government has not been a shareholder in any French bank since 2001, some current and former politicians are part of the banks’ board of directors. These political board members can have a “hands-on” influence on the management of the bank. In Germany, the Minister President or the Minister of Finance of a *Lander* is often a board member of the local *Landesbank*. Former ministers,

members of Parliament, mayors and local councillors in other European countries, such as Italy (through Foundations), Portugal, Sweden and others are often part of the board of directors. We analyze data from BoardEx to determine whether a board member among the EBA banks in our sample has been affiliated with the government, either at the national or local level. Our sample construction starts with identifying all individuals who sit on the board of an EBA bank at any point in time between 1990 and 2006.⁹ Then we keep all those directors who were previously employed in the *domestic* government sector (297 matches). We also manually check these entries to distinguish the true politicians from the advisors/staff members that are also listed as having “government” jobs, but have no formal political experience. In total we find 80 former politicians (see Table 5 for a list of roles) that by 2006 were on the board of directors of 37 of the 57 EBA banks present on BoardEx.

Sovereign exposure data is collected by the EBA in the context of the EU-wide Stress Tests and Recapitalization Exercises. These exercises contain information on the capital composition, including government bail-outs in the form of equity support measures, credit risk exposure and sovereign debt exposure to each of the 30 members of the European Economic Area (EEA 30) for all the participating banks. The sample in March 2010, which we match to end-of-year balance sheet data in 2009, and December 2010 contain 90 banks; 61 banks in December 2011, June 2012 and December 2013 covering at least 60% of banking assets in Europe and at least 50% in each Member State. We exclude all countries with only one EBA bank (Finland, Hungary, Luxembourg, Malta, Norway, Poland) because in order to correctly identify the country-time fixed-effects we need at least two banks in one country. Finally, we match the EBA dataset with banks’ balance sheet data obtained from Bankscope and winsorize all variables at 5% and 95%.

Table 1 - Panel A contains summary statistics on the political connections of EBA banks.

⁹ We exclude those that terminated their tenure before 2000, thus eliminating those that have not been running the banks for a long time. We also exclude those that were nominated after 2006 to be consistent with our government-ownership variable that is measured in 2006.

On average, the pre-crisis (2006) ownership by the domestic government or Foundations in Europe is at 20% among the banks participating in the European Stress Test in 2010. Moreover, only 39 banks (47% of the sample) have at least some level of government ownership, but only 33% can be classified as having an above the median government ownership in each country ($\mathbb{1}(\text{Political})$). Among the 61 EBA banks present on BoardEx, former politicians represent 6% of the board of directors, but in the 37 banks that have at least one former politician as a board member the average increases to 10%. Although government ownership and the share of political board member are clearly positively correlated ($\rho = 0.5$), it is also true that the two variables have a different informational content. In fact, as Figure 4 shows, there are quite a few banks that have at least one former politician on the board of directors although they are not formally government owned. Also, 35 banks in our sample received some form of government bail-out at the end of 2010, with an average, conditional on the help being positive, of 3.6% of RWA.¹⁰ These are large numbers considering that, on average, the Tier1 over RWA ratio, gross of government equity injections, is at 11% for EBA banks. Among these, 20 (12) banks have at least some degree of government ownership (at least one director being former politician), but these politically connected institutions do not appear to receive a preferential treatment from their own government. Indeed, the amount of government help over RWA is larger for private banks than it is for politically influenced ones, as shown in the last three rows of Table 1. Similarly, government help over RWA is uncorrelated with either government ownership and what we identify as political banks ($\mathbb{1}(\text{Political}) = 1$); these unconditional correlations are 0.075 and -0.030 respectively. Other bank level characteristics are reported in 1 - Panel B.

Since our identification comes from cross-sectional differences between politically connected and private banks, it is important to analyze differences between the two groups of

¹⁰ In the EBA dataset, government help is listed as part of Core Tier 1 capital as “*Ordinary shares subscribed by government*” and “*Other existing government support measures*”

banks. Table 2 reports a set of t-tests for differences in the means of bank characteristics between politically connected and private banks. It is evident that politically connected banks hold much more domestic debt compared to private banks and are on average smaller. Politically connected banks being smaller can partly explain their higher home bias, as lower total assets is a proxy for domestic and less diversified banks (total assets will be a crucial control in our regressions). However, politically connected and private banks are not statistically different in all other characteristics, in particular they are not less capitalized nor have higher non-performing loans nor receive more government bailouts than private banks. Importantly, we are going to show that the moral suasion channel is robust to interacting all these characteristics with politically connected banks.

3.2 Empirical Methodology

Cross-Sectional Regressions. To measure the effect of political presence in a bank on its degree of home bias in sovereign bonds, we run a set of *cross-sectional* regressions for 2010Q1, 2010Q4, 2011Q4, 2012Q2, 2013Q4. In fact, the main variable of interest $Political_i$ does not vary over time, so we cannot use it in panel regressions along with bank fixed effects. For each year we employ the following specification:

$$HomeBias_i = \beta_1 Political_i + \gamma X_i + \mathbb{1}(Cooperative_i) + Country_i + \varepsilon_i \quad (1)$$

where $HomeBias$ is one of three measures: i) the ratio of domestic government bonds held by bank i over the total European debt ($\frac{Own}{TS}$).¹¹; ii) the ratio of domestic sovereign bonds and total assets ($\frac{Own}{TA}$); iii) the home bias measure in Coeurdacier and Rey (2012). The first and second measures are the most intuitive, but they ignore the nominal size of each country's

¹¹ The EBA sovereign exposure data contains only countries belonging to the European Economic Area (EEA30), a group of 30 countries which broadly coincides with the European Union. Only in December 2010 exposure to US and Japan was disclosed, but we drop these countries from our analysis as they are only available for one year.

debt in determining home bias. For example, it is reasonable for Italian and German banks to have a larger exposure to their home country’s debt than Belgian and Dutch banks because Italian and German public debts are much larger. While we can partially control for this by introducing country fixed effects, our preferred measure of home bias is one that explicitly takes the nominal size of debt into account. It is commonly defined as follows in much of the international finance literature, including [Coeurdacier and Rey \(2012\)](#):

$$HomeBias = 1 - \frac{\text{Share of Foreign Sovereigns in Bank } b \text{ Sovereign Holding}}{\text{Share of Foreign Sovereigns in the Global Portfolio}}$$

where *Global* is represented by the EEA30 countries in our data. This measure equals zero in case of perfect diversification and one for complete home bias, while anything in excess of zero indicates some level of home bias. Comparing Fig. 1 and Fig. 2 show that the difference between the two measures is not substantial: neither the country ranking nor the level of home bias is very much affected. For example, Italian and German banks have high positive values in both cases.

Political is also one of three measures. It is either the percentage of shares owned by the domestic government or other domestic political entities (Foundations in Italy, for example) divided by its standard deviation, $GovtOwn/std.dev$; or it is a dummy, $\mathbb{1}(Political)$, equal to one if the bank is above the median of the distribution of government ownership in each country; finally, it is the share of board of directors who have been former domestic politicians (ministers, MPs, mayors etc), $PolDir/TotDir$.

Other explanatory variables we use are X_i , a set of *lagged* bank balance sheet characteristics (log of Total Assets in Euros, Tier1 ratio, Leverage, Deposits over Total Funding, ROAA, Non Performing Loans over Gross Loans) and $\mathbb{1}(Cooperative)$, a dummy equal to one if bank i is a cooperative bank. We allow for a different intercept in home bias for cooperative banks because these banks are characterized by dispersed ownership among members

(one-head-one-vote) and no share directly owned by the domestic government: nonetheless, they usually exhibit a large home bias given by the very local nature of their business model. It is also possible that other, more indirect forms of political influence are at play in cooperative banks: it is often the case, in Italy for example, that cooperative firms have strong ties with political parties. Finally, $Country_i$ a country dummy where the bank is headquartered. Country dummies are important because they control for country specific factors; more specifically, they take into account both institutional characteristics at the country level. For example, we need to control for the fact that in Spain the government participation in each bank, by law, cannot exceed 50%, whereas in Germany the local government can hold any number of shares. German *Landers*, both directly and indirectly, very often hold above 90% of shares in the *Landesbanken*. Since we are interested in evaluating whether a certain political ownership is large or small in a given country, a set of country-specific intercepts in the above regression is appropriate, especially when the main regressor is the percentage of shares owned by the domestic government.

Panel Regressions. In our second specification, we exploit the time dimension of the panel to investigate how home bias varied *during* the crisis. We want to test the hypothesis that, upon receiving an equity injection from the domestic government, only political banks increase their home bias relative to other banks, especially if they are located in the periphery. This would be consistent with the moral suasion hypothesis, where the domestic government calls on politically connected banks to buy sovereign debt at a time of low demand for these securities. Therefore, we run the following *panel* regression:

$$\Delta HomeBias_{i,t} = \beta GovHelp_{i,t-1} \times \mathbb{1}(Political) + \gamma X_{i,t-1} + \eta_i + \lambda_{c,t} + \varepsilon_{i,t} \quad (2)$$

where $\Delta HomeBias_{i,t}$ represents the change in home bias of bank i at time t , $GovHelp_{i,t-1}$ is the amount of equity injection given by the domestic government to bank i at the begin-

ning of the year as a fraction of RWA. $\mathbb{1}(\text{Political})$ is a non-time varying dummy which equals one if bank i is above the median government ownership in each country or alternatively if at least one board member is a former domestic politician; these results are displayed in Table 8, columns (1) and (3) respectively. The main coefficient of interest is $\mathbb{1}(\text{Political}) \times \text{GovHelp}_{i,t-1}$ that indicates how much more domestic debt politically connected banks purchase relative to private banks, for each additional unit of government help received. Finally we control for bank fixed-effects, η_i , and country-year fixed-effects $\lambda_{c,t}$.

We also fully interact the model by including all the interactions between $\mathbb{1}(\text{Political})$ and the control variables, $X_{i,t-1}$, to show that the results are not driven by any structural difference between politically connected and private banks:

$$\Delta \text{HomeBias}_{i,t} = \mathbb{1}(\text{Political}) \times (\beta \text{GovHelp}_{i,t-1} + \gamma X_{i,t-1}) + \eta_i + \lambda_{c,t} + \varepsilon_{i,t} \quad (3)$$

Results are shown in Table 8, columns (2) and (4). Even in the fully interacted model, the coefficient of interest, namely the interaction between $\mathbb{1}(\text{Political})$ and government bail-outs, is still positive and significant, suggesting that the moral suasion channel is present and robust to alternative channels. Also, the interactions between $\mathbb{1}(\text{Political})$ and the controls are never statistically significant.

In Table 9, we build on the fully interacted model of equation 3 and additionally allow the moral suasion effect to depend on whether a politically connected bank belongs to the GIIPS, the Core – Germany, Netherlands and Austria – or other non-GIIPS countries; we do so by further interacting $\mathbb{1}(\text{Political}_i) \times \text{GovHelp}_{i,t-1}$ with $\mathbb{1}(\text{GIIPS})$, $\mathbb{1}(\text{Core})$ and $\mathbb{1}(\text{Others})$ dummies.

Omitted Variables and Reverse Causality. We find that upon receiving government support, only politically connected banks increase their home bias in sovereign debt; moreover, politically connected banks in the periphery (GIIPS) increase home bias by much more

than political banks belonging to the core countries (non-GIIPS). Importantly, these results are robust to a number of alternative channels and explanations.

First of all, we rule out a mechanical explanation: government bail-outs are not only targeting government-owned banks. On the contrary, both unconditional and conditional correlations of government support and political connection are very weak and insignificant (see Table 2 and Section 4.5). Furthermore, our results cannot be explained by alternative channels that affect sovereign debt purchases. The zero risk-weight on sovereign bonds, that under Basel II rules applies to all sovereigns from the EU, does not involve any preferential treatment for domestic sovereign debt and thus cannot explain the level or increase in home bias. The risk synchronization/risk shifting motive (Acharya and Steffen (2015)) that could potentially explain the increase in home bias for undercapitalized banks in distressed countries is accounted for in the fully interacted model: in addition to controlling for several bank characteristics, capitalization and leverage included, we also interact our measure of political connections with such controls.

One possibility is also that of reverse causality: banks could load up on domestic sovereigns in an attempt to buy political influence and receive equity injections. We argue in two steps that this concern cannot drive our results. First, our measures of political connections are constructed using 2006 data, and therefore do not include any government ownership or board members resulting from the government support that was extended to banks during the sovereign debt crisis. Second, it may still be the case that some banks that were privately-owned in 2006 would continuously increase home bias later in 2010 and 2011 in an attempt to buy political influence over bail-outs. If this were the case we would have a positive and significant effect of government help for non-political banks, which however we do not observe. Moreover, we would also see that banks that have a high level of home bias or have increased it would also be receiving more government help: none of these factors is statistically significant (see Table 10). All these observations make it very unlikely that our

results are driven by reverse causality.

4. Results

4.1 Cross-Sectional Regressions: Main Results

Table 3 reports the results for the main set of cross-sectional regressions. In the first five columns we regress the measure of home bias from Coeurdacier and Rey (2012) in 2009, 2010, 2011, 2012 and 2013 on our continuous variable for political influence, $GovtOwn/std.dev.$, and a set of controls. In the last five columns we repeat the exercise but now we use a discrete dummy variable, $\mathbb{1}(\text{Political})$, equal to one if the bank is above the median in terms of government ownership in each country. First of all, we notice that the coefficients of interest are always positive and most are significant at 5%. This implies that banks that are more politically influenced display greater home bias in sovereign bond holdings.

In column (1), at the onset of the sovereign debt crisis (2010Q1), we find that a one standard deviation increase in the level of government ownership (30 pct.points) is associated with an increase in the domestic composition of the sovereign bond holdings by 11.3%, which is about one third of a standard deviation of home bias. Alternatively, in column (6) the coefficient on $\mathbb{1}(\text{Political})$ in 2010Q1 implies that a bank that moves from the bottom 50% to the top 50% of the distribution of political influence displays on average 19% more weight to domestic sovereigns relative to the total, more than one half of a standard deviation of home bias. These are large effects. During the development of the sovereign debt crisis in 2010-2011, the coefficients appear to become smaller: 7.4% (vs. 11.3%) and around 12% (vs. 19%) for the continuous and discrete measure of political connections, respectively. Finally the effect of political connections is no longer significant 2013. These results would seem to imply that, for the average European bank, the political influence on the banking system is being reduced exactly at the time of the sovereign debt crisis (2011Q4-2012Q2)

and towards the end (2013Q4). However this interpretation of our results hides an important cross-sectional heterogeneity in the data, as we show in Section 4.3. In fact, we shall see that the coefficients on political influence are always significant for GIIPS banks, that presumably receive more pressure to purchase domestic debt during the sovereign debt crisis, and are not significant for non-GIIPS banks, which are less likely to receive such pressure.

A covariate that is always highly significant is bank size, as measured by the log of total assets. The sovereign portfolios of larger institutions are more diversified: the coefficient is a semi-elasticity and it implies that for a 1% increase in total assets, the own exposure is expected to decline by 0.1 percentage points on average across all the years. Also cooperative banks, on average and all else equal, have a home bias that is 20 percentage points higher than other banks, at least before 2011. Note that cooperative banks have no direct political or state ownership, but the significant degree of home bias may be explained by the very local nature of their business model. Or, possibly, it indicates that cooperative banks may be subject to other forms of indirect political influence, that our measure of political control cannot capture. It is often the case, at least in Italy, that cooperative savings banks have strong ties to political parties.

Next, in Table 4 we run the same regression but changing the dependent variable to domestic sovereign bonds as a fraction of total assets or as a fraction of the total amount of sovereign bonds. The main results are basically unchanged, if anything both the the significance of the coefficients is also present in 2013 using the own exposure over total assets.

4.2 Cross-Sectional Regressions: Politicians in the Board of Directors

Equity ownership may not capture all the mechanisms through which politicians can control the banking system. For example, some former politicians are often part of the banks' board of directors, even if the bank is completely privately owned (Faccio, Masulis, and McConnell (2006), Faccio (2006)). This other form of political connection can have a “hands-on” influence on the management of the bank. For example, Banco Comercial Português (Millennium BCP), the largest private bank in Portugal, had three former ministers and two members of Parliament on the board of directors between 1998 and 2006. Credit Agricole, a large French multinational bank that was fully privatized in the early 1990s, had four former local politicians (mayors, city councillors) as board members between 1999 and 2006. We analyze data on past political affiliation from BoardEx and find 80 politicians (mostly former ministers and members of parliament) that by 2006 were on the board of directors of 37 of the 57 EBA banks present on BoardEx. We then run a regression similar to before but using the share of politicians over total number of directors ($PolDir/TotDir$). The results are in Table 6.

The results imply that, between 2010 and 2013, a 1 percentage point increase in the share of political directors is associated with an increase in home exposure over total exposure of around 1%. The estimated magnitude are broadly similar to before, because they imply that for a one standard deviation increase in the degree of political influence (std.dev of $PolDir/TotDir=7\%$) the home bias would increase by around 5%, which is around one fifth of the standard deviation of Own/TS . The estimated effect again loses significance in 2013Q4. Overall the results indicate that not only government equity ownership, but also political influence on the board of directors may be important in explaining home bias. However, given the small sample size (80 politicians in around 40 banks) the results should

be interpreted with caution.

4.3 Cross-Sectional Regressions: GIIPS vs non-GIIPS banks

If our main hypothesis is correct, *i.e.* that government-owned banks have a higher home bias in sovereign bonds, we should expect that moral suasion is more severe at the height of the sovereign debt crisis for the countries under stress (GIIPS). That is, we should expect the estimated coefficient on political influence to be more significant for GIIPS banks in 2011 and 2012, because GIIPS governments faced a higher pressure to reduce their borrowing costs during the debt crisis compared to non-GIIPS countries. While we are going to address the moral suasion channel specifically in the next section, here we test the cross-sectional implications of the moral suasion hypothesis in Table 7.

In order to make the regression results comparable across time, we keep in the sample only the banks that are present in 2011Q4 and 2012Q2. The results clearly indicate that the degree of political influence is heterogeneous across countries and over time. In particular, non-GIIPS government-owned banks have a higher home bias than private banks *at the onset* of the sovereign debt crisis (2010Q1, 2010Q4), but not during the crisis in 2011 and 2012. On the other hand, GIIPS government-owned banks have a higher home bias than private ones throughout the whole period. Columns (6)–(10) show a similar pattern if we use the dummy variable $\mathbb{1}(\text{Political})$ instead of the share of government equity ownership.

These results overall indicate that GIIPS governments pressure politically connected banks to purchase home sovereign debt during times of stress by more relative to non-GIIPS governments. In the next section we explore one possible way in which GIIPS governments may be exerting pressure on domestic banks: the use of government bail-out funds to purchase domestic bonds.

4.4 Panel Regressions: Government Help and Moral Suasion

In the previous section we have shown that politically influenced banks are more likely to have a large amount of home bonds if they are headquartered in countries under stress during the sovereign debt crisis. In this section we want to test whether, upon receiving a bail-out, politically connected banks use these funds to increase their exposure to domestic sovereign bonds by more than private banks (Table 8). We expect the effect to be stronger for banks in GIIPS countries, where the respective governments have a strong incentive to encourage the purchase of government bonds so as to lower the yields (Table 9).

In the panel regressions, the dependent variable is the change in the home bias measure of [Coeurdacier and Rey \(2012\)](#). The key explanatory variable here is the amount of government bail-out which we call $GovHelp_{t-1}$. The data come from the EBA Stress Tests and Recapitalization exercises, where either purchase of ordinary bank shares by the government or other forms of government support measures count as government help in the calculation of the Tier 1 capital ratio. The amount of government help is expressed as a fraction of RWA. In Table 8, we use two alternative measures of political connections: in columns (1)–(2) $\mathbb{1}(\text{Political})$ is equal to one if the bank is above the median level of government ownership in each country, while in columns (3)–(4) we define $\mathbb{1}(\text{Political})$ to be equal to one if the bank has at least one board member who was a former domestic politician. We use both measures to show that both direct and indirect measures of political connections matter for the moral suasion channel. In columns (1) and (3) we estimate the baseline model of equation 2, while in columns (2) and (4) we estimate the fully interacted model of equation 3.

Column (1) in Table 8 suggests that receiving government help by itself does not affect the bank’s choice between buying domestic or foreign sovereigns. So if a private bank receives government support it is not pressured by the domestic government to buy domestic debt. However, the interaction with $\mathbb{1}(\text{Political})$ is significant, which indicates that a politically connected bank that receives a bail-out by the domestic government would increase its

exposure to domestic sovereigns by 11% more than a private bank.

In column (2) we interact our main measure of political connections with all other bank controls. We do so to make sure that our results are not driven by the fact that politically connected banks are inherently different from private banks: one could think that politically connected banks purchase more domestic bonds because they have a higher appetite for risk, they have lower capital or different investment opportunities. First and foremost, we notice that the interaction between government help and government ownership is still positive and significant, albeit the estimated effect is a bit smaller (around 6%). Then we notice that while most levered banks tend to increase home bias on average, they do not especially do so if they are politically connected. In fact, none of the interactions between $\mathbb{1}(\text{Political})$ and bank characteristics, other than the amount of government help, is significantly correlated with the increase in home bias. Thus, we can confidently claim that the moral suasion channel that we identify is robust to alternative, risk-based explanations.

In columns (3) and (4) of Table 8, we repeat the same exercise but we define a bank to be politically connected ($\mathbb{1}(\text{Political})=1$) if it has at least one director who was a former domestic politician. Once again we find that only politically connected banks increase the home bias during the crisis, upon receiving government support; moreover, this result cannot be explained by alternative risk-taking channels, as the result persists even in the fully interacted model.

Finally, Table 9 tests for cross-sectional heterogeneity of moral suasion, by splitting the effect of political connections between GIIPS and non-GIIPS countries. In fact, one would expect that only governments that came under pressure to refinance their own debt during the crisis (GIIPS) would exert moral suasion on the politically connected institutions, while no such pressure should be found on non-GIIPS banks. We further separate non-GIIPS banks into two groups: “core” banks (Austria, Germany and the Netherlands) and all other non-GIIPS, non-core banks (Belgium, Cyprus, Denmark, France, Sweden, Slovenia and the UK).

This distinction is useful because core countries, especially Germany, actually experienced a *decline* in the sovereign yields during the crisis due to a flight-to-safety, while other non-GIIPS countries did not. Column (1) in Table 9 shows that GIIPS politically connected banks increase the home bias by 15% more than private banks for every 1% increase in government help, while core banks do so to a much smaller extent (4%). There is no effect for politically connected banks in other countries. In column (2) we additionally interact all the controls with $\mathbb{1}(\text{Political})$ and we find that moral suasion is only present in GIIPS countries, as one would expect.^{12,13}

4.5 Determinants of Government Support: Not just for Political Banks

One could think that our previous set of results – the fact that politically connected banks buy more domestic government bonds upon receiving government bail-outs – could be explained by the fact that political banks are more likely to receive such assistance during the crisis (Faccio, Masulis, and McConnell (2006)). If this were the case it would not be surprising to see that only politically connected banks increase their exposure to domestic sovereigns. Moreover, one could think that banks may have progressively increased their domestic sovereign purchases in order to buy political influence over bail-outs. In Table 10 we show that this is not the case, *i.e.* we argue that reverse causality or other endogeneity concerns are not driving the moral suasion results presented in Tables 8 and 9. In particular, Table 10 estimates the relationship between the amount of equity, as a fraction of RWA,

¹²Due to the already limited sample size, we interact the controls with $\mathbb{1}(\text{Political})$ and not with $\mathbb{1}(\text{Political}) \times \mathbb{1}(\text{GIIPS})$, $\mathbb{1}(\text{Political}) \times \mathbb{1}(\text{Core})$ and $\mathbb{1}(\text{Political}) \times \mathbb{1}(\text{Others})$, because the latter would leave very few degrees of freedom.

¹³Also, due to the limited coverage by BoardEx, which we use to construct the share of directors with political affiliations, we have very few banks within each group once we interact politically connected banks – based on political directors – with the set of dummies for GIIPS, Core or other non-GIIPS. Therefore we do not replicate the analysis of Table 9 using the share of directors with political affiliations as a proxy for political connections.

provided by local governments and a set of regressors, including capitalization, political influence, lags and changes in domestic sovereign exposure.

We report a set of cross sectional regression using the Tobit estimator (we report the slope coefficients in all cases). The Tobit approach is more appropriate for this scenario than standard OLS regression because we should think of government help as a censored variable. It is equal to zero if the bank is solvent and the government decides not to extend support, while it takes any positive value otherwise. The right specification that takes into account both the discrete choice of whether or not to support a bank and the magnitude of the liquidity injection is the Tobit model.¹⁴ The punchline is that government bail-outs are targeting undercapitalized banks, not politically connected banks directly nor banks with high or increasing levels of home bias. In fact, government ownership does not play any additional role in attracting more support from the government, nor does having a high or increasing degree of home bias. The main factor that is negatively associated with government help is the capitalization of the bank, as measured by Tier 1 capital ratio. Importantly, the Tier 1 capital ratio in this regression is *net* of any form of government support, that otherwise would be included in both the dependent and independent variable, creating a mechanical and positive correlation between the two.

By looking at the marginal effects at the bottom panel of Table 10 we see that a decrease in Tier1 ratio (net of government help) by 1% in 2010 is associated on average with an increase in the probability of receiving positive government support by 15%. The effect is statistically significant at 1% and economically large: indeed, a 1% change in Tier1 ratio is about one-quarter of its standard deviation. The same marginal effect drops by half in 2011 and 2012. In terms of the marginal effects on the magnitude of government help, conditional on receiving support, a decrease in Tier1 ratio by 1% in 2010 is associated with an increase in government help over risk-weighted assets of 0.3%. Very similar effects are found in 2011

¹⁴ In unreported results we can show that the OLS regressions yield qualitatively identical results.

and 2012.

4.6 Cross Validation: Allocation of Credit and Political Influence

Next, we ask whether politically connected banks tend to facilitate their respective governments in more general terms, not only through purchasing more domestic sovereigns, but also by extending more loans to domestic government institutions. To this purpose we take advantage of the fact that, in 2010 only, the European Banking Authority released data on each bank's allocation of credit broken down by country of destination and by type of loan; for instance, we know the amount of credit that each bank issued to small and medium enterprises (SME) and to government institutions broken down by the country in which the borrower is located. We then call *DomSME* the share of domestic SME credit over total SME credit and *DomINST* the share of loans to public institutions given to the domestic ones.

Table 11 indeed shows that the effect of political connections of banks' behaviors is not specific to the purchase of domestic sovereign, but it is valid in more general terms: politically connected banks extend more credit to domestic public entities than other banks do. Contrary to our expectations, we do not find strong evidence that political banks systematically extend more credit to domestic small and medium enterprises; what seems to count to this regard is bank size. This suggests that small banks may proxy for regional banks which tend to lend more locally to small and medium enterprises.

5. Conclusion

We investigate why European banks suffer from a significant home bias in sovereign bond holdings. We show that certain banks hold a disproportionate amount of their own country's sovereign debt because they are coerced by domestic politicians. In order to test this, we

analyze recently collected data from Stress Tests on European banks and we find evidence supportive of this hypothesis: politically connected banks hold more domestic sovereign bonds and they increase their home bias during the sovereign debt crisis upon receiving equity injections from the domestic government. The effect is more pronounced for politically connected GIIPS banks relative to either private banks or politically connected non-GIIPS banks. Interestingly, the equity injections seem to be directed towards banks that need assistance rather than to political banks in particular.

6. Appendix

6.1 Theory of Inter-Party Support

Whereas the political influence in the case of direct state ownership (Germany) is clear, the case of Foundations' ownership (Italy) requires a more careful analysis: certain banks are affiliated with only one political party that is not necessarily in power at any given point in time. Monte Dei Paschi (MPS) in Italy is an example of such a bank: it is affiliated with the centre-left municipal government and it has a strong home bias (96%) even in 2010, when the national government is from centre-right. For these institutions, it is not clear why a political party that is not ruling the country would be interested in buying sovereign bonds and finance public spending of their opponents. It may be interested in doing quite the opposite in order to destabilize the incumbent government.

We claim that there are two main reasons that may explain that behavior. First of all, local politicians can sustain a central government of the opposite political affiliation in exchange for monetary transfers to the respective region or local municipality. There is suggestive evidence, for the case of Italy, that regional transfers are not primarily dictated by political affiliation; a more crucial determinant is the political strength of the party in the specific region, regardless of political affiliation.¹⁵

Second, a theory that supports inter-party funding is borrowed from the political science literature. [Katz and Mair \(1995\)](#) and [Katz and Mair \(2009\)](#) are the first to document that political parties in a wide range of developed countries have started to behave like a cartel. Instead of competing against each other on relevant issues, they transfer more and more competences upward to technocratic and non-partisan commissions. Perhaps more importantly, they decided to alter the structure of payoffs: they agreed on the introduction of public financial support to political parties that are guaranteed regardless of whether a

¹⁵Greco (2009) (mimeo).

party wins or loses. This last piece of regulation severely limits the incentives to compete in order to win the elections, as the monetary payoffs are not linked to the election's outcome. Hence, the concern that a bank affiliated with a leftist party would have the incentive to destabilize the governing right wing party is clearly downsized in light of the findings of Katz and Mair.

References

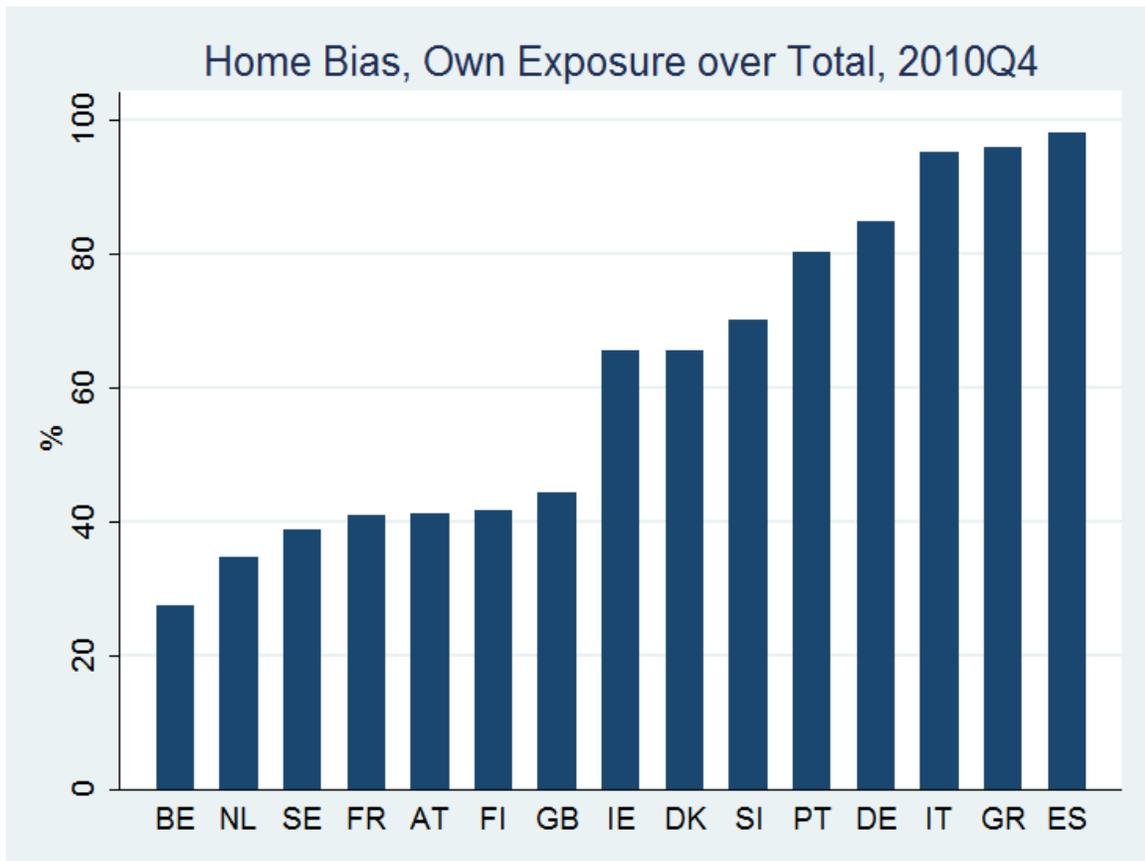
- Acharya, Viral, and Sascha Steffen, 2015, The greatest carry trade ever? understanding eurozone bank risks, *Journal of Financial Economics* 115, 215 – 236.
- Acharya, Viral V, Tim Eisert, Christian Eufinger, and Christian W Hirsch, 2015, Real effects of the sovereign debt crisis in europe: Evidence from syndicated loans, *Working Paper*.
- Acharya, Viral V, and Raghuram G Rajan, 2013, Sovereign debt, government myopia, and the financial sector, *Review of Financial Studies* 26, 1526–1560.
- Altavilla, Carlo, Marco Pagano, and Saverio Simonelli, 2015, Banks exposures and sovereign stress transmission, *Working Paper*.
- Barth, James R, Gerard Caprio Jr, and Ross Levine, 2001, Banking systems around the globe: Do regulation and ownership affect performance and stability?, in *Prudential supervision: What works and what doesn't* . pp. 31–96 (University of Chicago Press).
- Becker, Bo, and Victoria Ivashina, 2014, Financial repression in the european sovereign debt crisis, *Working Paper*.
- Bortolotti, Bernardo, and Mara Faccio, 2009, Government control of privatized firms, *Review of Financial Studies* pp. 2907–2939.
- Broner, Fernando, Aitor Erce, Alberto Martin, and Jaume Ventura, 2014, Sovereign debt markets in turbulent times: Creditor discrimination and crowding-out effects, *Journal of Monetary Economics* 61, 114–142.
- Brutti, Filippo, and Philip U Sauré, 2013, Repatriation of debt in the euro crisis: evidence for the secondary market theory, *Working Paper*.

- Chari, V. V., Alessandro Dovis, and Patrick Kehoe, 2016, On the optimality of financial repression, *Working Paper*.
- Cochrane, John Howland, 2005, *Asset pricing* . vol. 1 (Princeton University Press).
- Coeurdacier, Nicolas, and Helene Rey, 2012, Home bias in open economy financial macroeconomics, *Journal of Economic Literature*.
- Crosignani, Matteo, 2014, Why are banks not recapitalized during crises? a political economy explanation, *Working Paper*.
- Cuñat, Vicente, and Luis Garicano, 2010, Did good cajas extend bad loans? governance, human capital and loan portfolios, *Working Paper*.
- De Marco, Filippo, 2015, Bank lending and the european sovereign debt crisis, Discussion paper, Boston College Working Paper.
- Diamond, Douglas W, and Raghuram G Rajan, 2011, Fear of fire sales, illiquidity seeking, and credit freezes, *The Quarterly Journal of Economics* 126, 557–591.
- Englmaier, Floarian, and Till Stowasser, 2016, Electoral cycles in savings-bank lending, *forthcoming Journal of the European Economic Association*.
- Faccio, Mara, 2006, Politically connected firms, *American Economic Review* pp. 369–386.
- , Ronald Masulis, and John McConnell, 2006, Political connections and corporate bailouts, *Journal of Finance* pp. 2597–2635.
- Gennaioli, Nicola, Alberto Martin, and Nicola Rossi, 2014, Sovereign default, domestic banks, and financial institutions, *The Journal of Finance* 69, 819–866.
- Horváth, Bálint, Harry Huizinga, and Vasso Ioannidou, 2015, Determinants and valuation effects of the home bias in european banks sovereign debt portfolios, *Working Paper*.

- Illueca, Manuel, Lars Norden, and Gregory F Udell, 2013, Liberalization and risk-taking: Evidence from government-controlled banks, *Review of Finance* pp. 1–41.
- IMF, June 2012, Spain: The reform of spanish savings banks technical notes, *IMF Country Report No. 12/141*.
- , March 2013, Spain: Financial sector reform – second progress report, *IMF Country Report No. 13/54*.
- Katz, Richard S, and Peter Mair, 1995, Changing models of party organization and party democracy the emergence of the cartel party, *Party politics* 1, 5–28.
- , 2009, The cartel party thesis: A restatement, *Perspectives on Politics* 7, 753–766.
- Korte, Josef, and Sascha Steffen, 2015, Zero risk contagion - banks’ sovereign exposure and sovereign risk spillovers”, *Working Paper*.
- La Porta, Rafael, Florencio Lopez-de Silanes, and Guillermo Zamarripa, 2003, Related lending, *The Quarterly Journal of Economics* 118, 231–268.
- Ongena, Steven, Alexander Popov, and Neeltje Van Horen, 2015, The invisible hand of the government: Moral suasion during the european sovereign debt crisis, *Working Paper*.
- Popov, Alexander, and Neeltje Van Horen, 2015, Exporting sovereign stress: Evidence from syndicated bank lending during the euro area sovereign debt crisis, *Review of Finance* 19, 1825–1866.
- Sapienza, Paola, 2004, The effects of government ownership on bank lending, *Journal of Financial Economics* 72, 357–384.
- Uhlig, Harald, 2014, Sovereign default risk and banks in a monetary union, *German Economic Review* 15, 23–41.

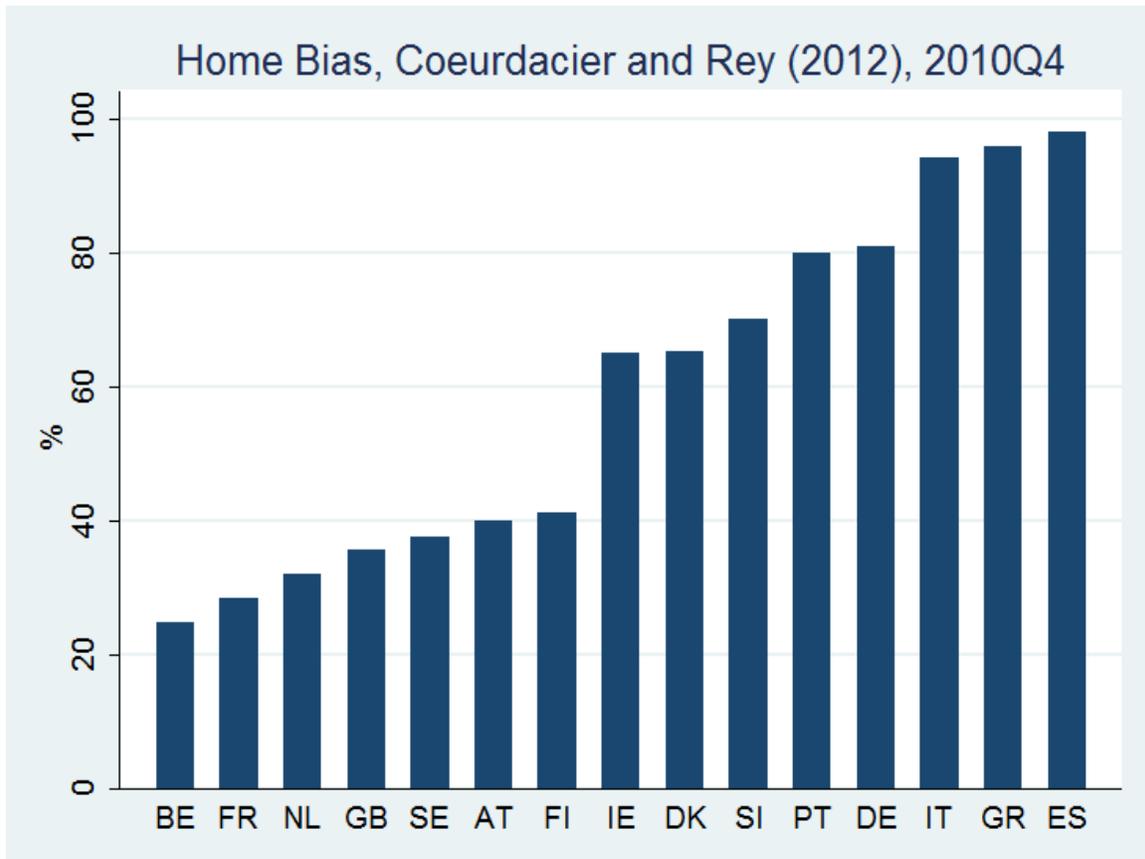
Van Nieuwerburgh, Stijn, and Laura Veldkamp, 2009, Information immobility and the home bias puzzle, *The Journal of Finance* 64, 1187–1215.

Figure 1: Median Sovereign Home Bias by country, December 2010



Source: EBA Stress Test 2011. Home Bias defined as the ratio of domestic sovereign by bank b over the total: $HomeBias = Own_b / TotalSovereign_b$. Country codes are the following: Belgium (BE), France (FR), Netherlands (NL), Great Britain (GB), Sweden (SE), Austria (AT), Finland (FI), Ireland (IE), Denmark (DK), Slovenia (SI), Portugal (PT), Germany (DE), Italy (IT), Greece (GR), Spain (ES).

Figure 2: Median Sovereign Home Bias by country, December 2010

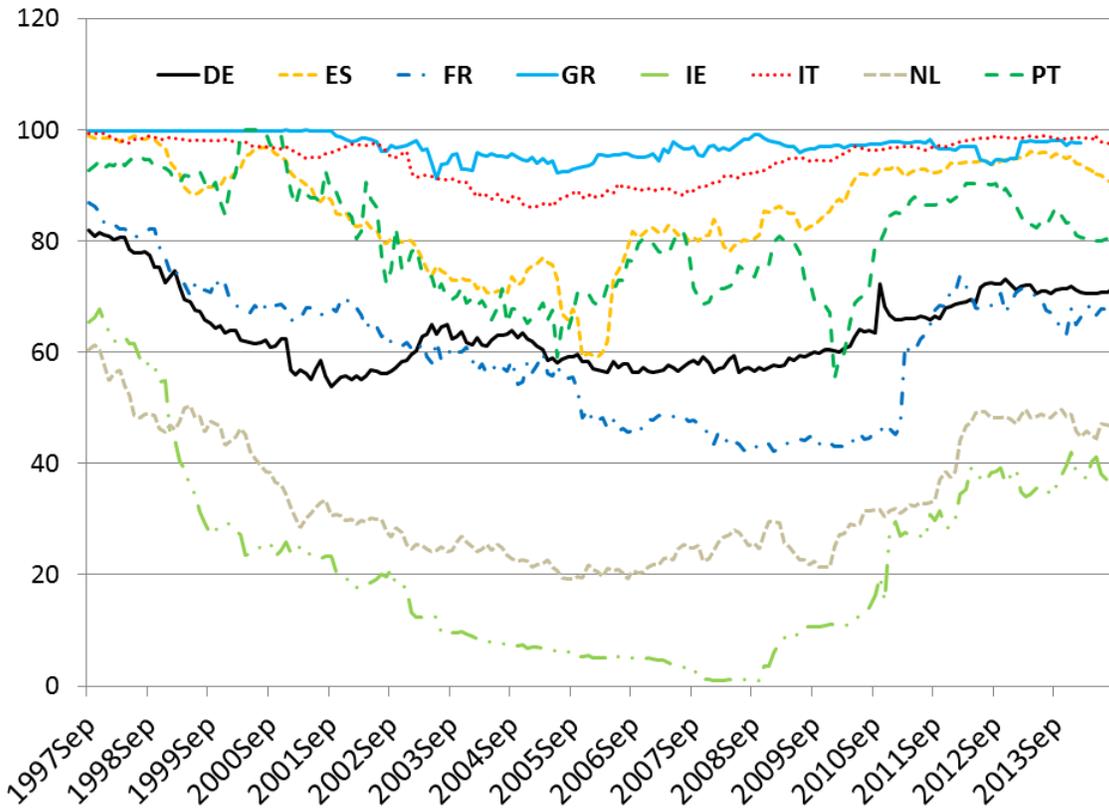


Source: EBA Stress Test 2011. Home bias measure as defined in [Coeurdacier and Rey \(2012\)](#):

$$HomeBias = 1 - \frac{\text{Share of Foreign Sovereigns in Bank } b \text{ Sovereign Holding}}{\text{Share of Foreign Sovereign Bonds in the Global Portfolio}}$$

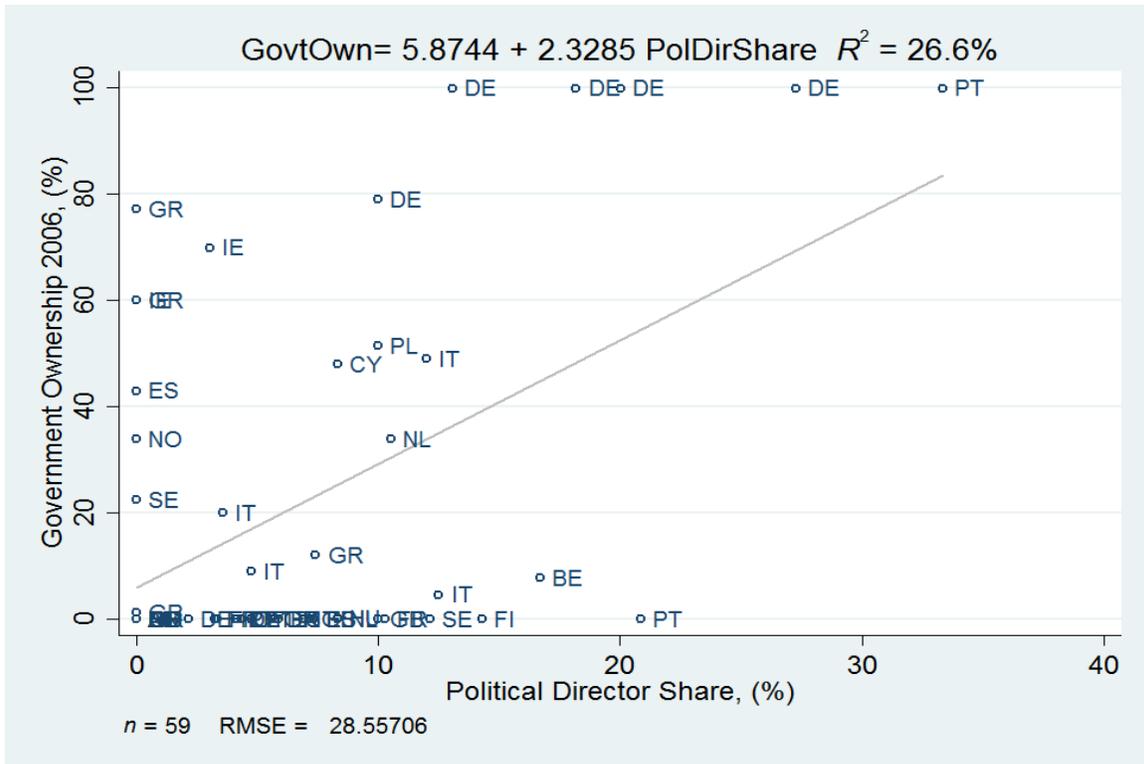
The *Global* portfolio in our case is the EEA30 portfolio, as we have the sovereign exposure data only for these countries consistently throughout the sample period. When the home bias measure is equal to zero there is perfect diversification; when it is equal to one there is perfect home bias. Anything in excess of zero indicates some level of home bias.

Figure 3: Aggregate Sovereign Home Bias by country, Sept 1997 – Sept 2014



Source: ECB Monetary Financial Institutions (MFI) aggregate statistics: ratio between Home and Total of “Securities other than shares” on the Government portfolio (MFI assets). These statistics are given at the country level for all financial institutions (excl. European Central Banks) with a changing composition (*i.e.* this is the raw data that does not take into account mergers&acquisitions and bank failures).

Figure 4: Scatter Plot Government Ownership and Share of Directors with former Political experience



Source: Hand collected data from Annual Reports (*GovtOwn*) and BoardEx (*PolDirShare*). This is the scatter plot of the percentage of shares owned by the domestic government in 2006 (*GovtOwn*) over the percentage of the board of directors comprised of former domestic politicians (*PolDirShare*). Each dot represents a bank, labeled with the country ISO code of the country where the bank is headquartered.

Table 1: Summary Statistics as of December 2010. Units are in %.

Panel A: Political Connections and Government Bailouts					
	Obs.	Mean	St.Dev.	Min	Max
Government ownership in 2006 (<i>GovtOwn</i>)	83	22.21	31.5	0	100
Government ownership in 2006 if > 0	39	30.43	29.71	1.3	100
$\mathbb{1}(\textit{Political})$ in 2006	83	0.33	0.47	0	1
Political Directors Share	57	5.95	7.38	0	33.33
Political Directors Share if > 0	34	9.97	7.16	2.12	33.33
Gov Help/RWA	84	1.4	3	0	21.85
Gov Help/RWA if > 0	35	3.6	4	.32	21.85
Gov Help/RWA if > 0 and <i>GovtOwn</i> > 0	16	3.32	2.65	.88	9.3
Gov Help/RWA if > 0 and <i>PolDirShare</i> > 0	12	3.31	2.83	.51	8.66
Panel B: Bank Characteristics					
Home Bias (Coeurdacier and Rey (2012))	82	71.6	29.14	0	100
Home Bias (Dom/TotSov)	84	74.36	26.5	9.85	100
Home Bias (Dom/TotAssets)	84	6.93	5.59	0.42	32.07
Log(TotAssets)	89	11.69	1.63	5.86	14.86
Dep/TotFund	87	52.33	15.31	16.89	87.10
Tier1/RWA	87	10.82	2.51	7.16	16.66
Leverage (TotAssets/Equity)	89	27.5	17.9	9.9	82.03
ROAA	89	0.24	0.32	-0.54	0.8
NPL/GL	87	6.10	3.37	1.68	13.84

Table 2: Summary Statistics by government-owned ($\mathbb{1}(Political)=1$) and private ($\mathbb{1}(Political)=0$) banks at December 2010.

	Obs.	Mean	Obs.	Mean	Difference	t-stat
	$\mathbb{1}(Political)=0$		$\mathbb{1}(Political)=1$			
Home Bias	53	61.9	25	88.93	27.02***	4.16
Home Bias (Dom/TotSov)	54	65.56	26	89.88	24.2***	4.18
Home Bias (Dom/TotAssets)	54	5.38	26	9.06	3.67***	3.29
Log(TotAssets)	55	12.24	28	10.98	-1.25***	-3.61
Dep/TotFund	54	51.45	27	51.47	-0.023	-0.006
Tier1/RWA	55	11.3	27	10.28	-1.02	-1.13
Leverage (TotAssets/Equity)	55	32.60	28	29.04	-3.55	- 0.46
ROAA	55	0.21	28	-0.06	-0.27	-1.044
NPL/GL	53	5.70	28	7.11	1.39	1.55
GovHelp/RWA	54	1.56	26	1.37	-0.19	-0.24

Table 3: Home Bias (Coeurdacier and Rey (2012)) and Government Ownership

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	2010Q1	2010Q4	2011Q4	2012Q2	2013Q4	2010Q1	2010Q4	2011Q4	2012Q2	2013Q4
<i>GovtOwn</i>	11.29***	7.418***	5.330**	6.936***	9.321					
<i>/std.dev</i>	(4.21)	(2.98)	(2.40)	(2.99)	(1.62)					
$\mathbb{1}(\text{Political})$						18.70***	11.95**	12.27*	17.61**	14.37
						(2.70)	(2.31)	(1.73)	(2.52)	(1.16)
$\log(\text{TotAss})_{t-1}$	-8.648**	-9.283***	-15.34***	-16.41***	-14.57**	-9.899***	-9.105***	-15.50***	-16.10***	-14.98***
	(-2.67)	(-2.94)	(-5.40)	(-4.67)	(-2.59)	(-3.41)	(-3.06)	(-5.26)	(-4.68)	(-2.83)
Leverage $_{t-1}$	2.744	2.414	7.961***	2.821	2.270	1.667	2.248	7.124**	3.438	2.937
	(0.98)	(1.17)	(2.99)	(0.97)	(1.19)	(0.60)	(1.02)	(2.37)	(1.47)	(1.36)
$(\text{Tier1}/\text{RWA})_{t-1}$	0.885	-2.951*	-3.042*	-1.536	-1.836	0.827	-2.391	-3.260**	-1.853	-3.034
	(0.34)	(-1.97)	(-1.91)	(-0.69)	(-0.43)	(0.38)	(-1.39)	(-2.12)	(-0.85)	(-0.69)
$(\text{Dep}/\text{TF})_{t-1}$	-0.606**	-0.326	-0.412	-0.420	-0.151	-0.613**	-0.310	-0.412	-0.457	-0.251
	(-2.25)	(-1.51)	(-1.36)	(-1.18)	(-0.39)	(-2.10)	(-1.36)	(-1.38)	(-1.38)	(-0.68)
<i>ROAA</i> $_{t-1}$	9.827	0.788	6.361	-10.56*	-0.720	14.34	-1.614	4.934	-9.290*	0.216
	(1.04)	(0.09)	(0.62)	(-1.79)	(-0.13)	(1.43)	(-0.19)	(0.49)	(-1.79)	(0.04)
$(\text{NPL}/\text{GL})_{t-1}$	3.752*	-1.037	0.195	-1.612	-0.817	4.145*	-0.767	0.437	-1.111	-0.712
	(1.74)	(-0.87)	(0.21)	(-1.34)	(-0.85)	(1.74)	(-0.61)	(0.51)	(-0.97)	(-0.72)
$\mathbb{1}(\text{Cooperative}_i)$	21.40***	19.56***	8.715	9.081	10.81	21.78**	18.83**	9.969	10.82	8.249
	(3.00)	(2.81)	(1.17)	(1.24)	(0.84)	(2.60)	(2.62)	(1.28)	(1.52)	(0.65)
$N(=N \text{ of banks})$	64	69	53	53	53	64	69	53	53	53
Country Dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes

t statistics in parentheses; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Note: set of cross-sectional regressions of banks in 2010Q1, 2010Q4, 2011Q4, 2012Q2, 2013Q4. The dependent variable is the level of home bias in sovereign debt.

Table 4: Home Bias (Own/TotSov and Own/Total Assets) and Government Ownership

	(1)	(2)	(3)	(4)
	Own/TS	Own/TS	Own/TA	Own/TA
2009× <i>GovtOwn/std.dev.</i>	7.709***		1.465***	
	(2.83)		(3.10)	
2010× <i>GovtOwn/std.dev.</i>	6.260***		1.695**	
	(2.80)		(2.02)	
2011× <i>GovtOwn/std.dev.</i>	3.976**		1.501***	
	(2.01)		(4.81)	
2012× <i>GovtOwn/std.dev.</i>	5.573***		1.288***	
	(2.71)		(3.14)	
2013× <i>GovtOwn/std.dev.</i>	6.566*		1.589***	
	(1.80)		(2.85)	
2009× $\mathbb{1}(\text{Political})$		18.20**		3.018***
		(2.13)		(2.91)
2010× $\mathbb{1}(\text{Political})$		21.44***		3.184**
		(3.78)		(2.31)
2011× $\mathbb{1}(\text{Political})$		9.560		2.921***
		(1.44)		(3.94)
2012× $\mathbb{1}(\text{Political})$		14.63**		2.237***
		(2.21)		(2.78)
2013× $\mathbb{1}(\text{Political})$		14.87		2.270**
		(1.50)		(2.08)
Other: Log(TA)(-) ^{***} , Coop(+) ^{***} , Tier1(-), Lev(+), NPL(-), Dep(-) and ROAA(+)				

t statistics in parentheses; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Note: set of cross-sectional regressions of banks in 2009, 2010, 2011, 2012 and 2013. The dependent variable is the home bias measure as defined in [Coeurdacier and Rey \(2012\)](#) in columns (1)–(2) or the domestic government bond exposure as a fraction of total assets (*Own/TA*) in columns (3)–(4). Other bank controls defined as before.

Table 5: Political Directors: Past Government Roles

Former Government Role	N	%
Minister	34	42.5%
Member of Parliament	21	26.25%
Mayor	7	8.75%
City Councillor	5	6.25%
Other Deputy roles	13	16.25%
Total	80	100%

Table 6: Home Bias and Political Presence in the Board of Directors

	(1)	(2)	(3)	(4)	(5)
	2010Q1	2010Q4	2011Q4	2012Q2	2013Q4
<i>PolDir/TotDir</i>	0.899*	1.196***	0.928***	0.983***	0.782
	(1.81)	(2.95)	(3.18)	(2.97)	(1.04)
<i>N</i>	40	40	43	43	38
Country Dummies	yes	yes	yes	yes	yes
Log(TA)(-) ^{***} , Coop(+), Tier1(-), NPL(-), Dep(-) and ROAA(+)					

t statistics in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Note: set of cross-sectional regressions of banks in 2010Q1, 2010Q4, 2011Q4, 2012Q2, 2013Q4. The dependent variable is the ratio of domestic sovereign over total sovereign (*Own/TotSov*). Other bank controls defined as before.

Table 7: Home Bias and Political Connections: GIIPS vs non-GIIPS banks

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	2010Q1	2010Q4	2011Q4	2012Q2	2013Q4	2010Q1	2010Q4	2011Q4	2012Q2	2013Q4
<i>GovtOwn/std.dev.</i>	10.66**	8.252***	7.423***	6.222**	8.773*					
$\times GIIPS$	(2.72)	(2.82)	(2.90)	(2.48)	(1.90)					
<i>GovtOwn/std.dev.</i>	10.19*	10.35**	3.871	7.528	9.225					
$\times nonGIIPS$	(1.81)	(2.13)	(1.03)	(1.67)	(1.44)					
$\mathbb{1}(\text{Political})$						34.46***	32.85***	23.01***	30.75***	32.61**
$\times GIIPS$						(4.39)	(5.02)	(3.37)	(5.49)	(2.76)
$\mathbb{1}(\text{Political})$						17.21	26.59**	5.387	10.30	12.62
$\times nonGIIPS$						(1.14)	(2.46)	(0.61)	(1.00)	(0.92)
<i>N</i>	47	49	53	53	47	47	49	53	53	47
Country Dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Other: Log(TA)(-)***, Coop(+)***, Tier1(-), Lev(-), NPL(-), Dep(-) and ROAA(+)										

t statistics in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Note: set of cross-sectional regressions of banks in 2010Q1, 2010Q4, 2011Q4, 2012Q2. The dependent variable is the ratio of domestic sovereign over total sovereign (*Own/TotSov*).

Other bank controls defined as before.

Table 8: Moral Suasion: Panel regression

	(1)	(2)	(3)	(4)
	GovtOwn	GovtOwn	PolDir	PolDir
<i>Tier1/RWA</i> _{<i>t</i>-1}	-0.994	-1.110	-1.184*	-1.510
	(-1.61)	(-1.58)	(-1.70)	(-1.61)
Leverage _{<i>t</i>-1}	2.780**	3.552***	3.077*	2.129
	(2.47)	(2.73)	(1.98)	(1.44)
<i>log(TotAss)</i> _{<i>t</i>-1}	3.482	0.669	-9.570	-8.949
	(0.42)	(0.07)	(-1.16)	(-1.02)
<i>NPL/GL</i> _{<i>t</i>-1}	0.307	0.0424	-0.964	-1.063
	(0.60)	(0.08)	(-1.45)	(-1.50)
<i>ROAA</i> _{<i>t</i>-1}	-2.405	-3.497	-1.668	-6.508**
	(-0.90)	(-0.94)	(-0.71)	(-2.34)
<i>Dep/TF</i> _{<i>t</i>-1}	0.215	0.161	0.331	0.558**
	(0.87)	(0.62)	(1.54)	(2.10)
Gov Help _{<i>t</i>-1}	0.326	0.741	1.925*	1.050
	(0.46)	(1.08)	(2.00)	(1.10)
$\mathbb{1}(\text{Political}) \times \text{Gov Help}_{t-1}$	10.93***	6.772***	5.046**	7.263**
	(2.80)	(2.93)	(2.05)	(2.10)
$\mathbb{1}(\text{Political}) \times \text{Tier1/RWA}_{t-1}$		1.202		1.184
		(1.64)		(0.90)
$\mathbb{1}(\text{Political}) \times \text{Leverage}_{t-1}$		1.426		2.115
		(0.67)		(0.50)
$\mathbb{1}(\text{Political}) \times \log(\text{TotAss})_{t-1}$		6.142		-19.60
		(0.47)		(-1.49)
$\mathbb{1}(\text{Political}) \times \text{NPL/GL}_{t-1}$		0.900		-1.412
		(1.56)		(-0.94)
$\mathbb{1}(\text{Political}) \times \text{ROAA}_{t-1}$		1.365		5.262
		(0.41)		(1.12)
$\mathbb{1}(\text{Political}) \times \text{Dep/TF}_{t-1}$		0.359		-0.375
		(1.02)		(-0.59)
<i>N</i> × <i>T</i>	212	212	173	173
Bank + Country-Year FE	yes	yes	yes	yes

t statistics in parentheses; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Panel regressions. The dependent variable is $\Delta \text{HomeBias}_{i,t}$ defined as the change in the home bias measure between 2010Q4–2010Q1, 2011Q4–2010Q4, 2012Q2–2011Q4, 2013Q4–2012Q2. In columns (1)–(2) $\mathbb{1}(\text{Political})$ is equal to one for banks above the median level of government ownership in each country; in columns (3)–(4) it is equal to one for banks that have at least one board member that is a former politician. *GovHelp*_{*i,t*-1} is the government equity injection as a percentage of RWA given to bank *i* at the beginning of the period. Other variables are defined as before. Std.err. are clustered at the bank-year level.

Table 9: Moral Suasion: Cross-Country Heterogeneity

	GovtOwn	GovtOwn
	(1)	(2)
Gov Help _{<i>t</i>-1}	0.543	1.418
	(0.70)	(1.63)
Gov Help _{<i>t</i>-1}	15.06***	33.45***
× $\mathbb{1}(\text{Political}) \times \mathbb{1}(\text{GIIPS})$	(2.74)	(2.65)
Gov Help _{<i>t</i>-1}	4.461**	-0.626
× $\mathbb{1}(\text{Political}) \times \mathbb{1}(\text{Core})$	(2.08)	(-0.26)
Gov Help _{<i>t</i>-1}	-0.582	-0.265
× $\mathbb{1}(\text{Political}) \times \mathbb{1}(\text{Others})$	(-1.23)	(-0.32)
<i>N</i> × <i>T</i>	212	212
Bank + Country-Year FE	yes	yes
Fully Interacted Model	no	yes

t statistics in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Panel regressions. The dependent variable is $\Delta HomeBias_{i,t}$ defined as the change in the home bias between 2010Q4–2010Q1, 2011Q4–2010Q4, 2012Q2–2011Q4, 2013Q4–2012Q2. $GovHelp_{i,t-1}$ is the government equity injection as a percentage of RWA given to bank *i* at the beginning of the period. *GIIPS* is a dummy equal to one for banks in GIIPS countries; *CORE* is a dummy equal to one for banks in “core” countries (Austria, Germany and the Netherlands) while *nonGIIPS* is equal to one for all other countries (Belgium, Cyprus, Denmark, France, Sweden, Slovenia and the UK). Other variables are defined as before. Std.err. are clustered at the bank-year level.

Table 10: Determinants of Government Help

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Tobit	Tobit	Tobit	Tobit	Tobit	Tobit	Tobit	Tobit	Tobit
	2010	2011	2012	2010	2011	2012	2010	2011	2012
$\mathbb{1}(\text{Political})$	0.543 (0.72)	-2.964 (-1.03)	-2.502 (-0.95)	0.738 (0.83)	-1.858 (-0.71)	-1.420 (-0.58)	0.296 (0.35)	-2.221 (-0.91)	-2.202 (-0.78)
$(\text{Own}/\text{TS})_{t-1}$				-0.0144 (-0.83)	-0.0649 (-1.30)	-0.0679 (-1.46)			
$\Delta(\text{Own}/\text{TS})_t$							-0.0255 (-1.00)	0.191 (1.52)	0.165 (1.17)
$\text{Tier1}(\text{net})_{t-1}$	-0.873*** (-8.26)	-0.970*** (-2.78)	-0.922** (-2.40)	-0.821*** (-6.51)	-1.006*** (-3.08)	-1.003*** (-2.88)	-0.851*** (-6.85)	-1.029*** (-3.13)	-0.949** (-2.34)
ROAA_{t-1}	-1.518** (-2.22)	0.0456 (0.06)	0.293 (0.68)	-1.721* (-1.99)	0.577 (0.85)	0.388 (0.86)	-1.705* (-1.99)	0.626 (0.73)	0.298 (0.75)
$\partial \text{Pr}(\text{GovtHelp}/\text{RWA})$ $/\partial \text{Tier1}(\text{net})$	-14.85%***	-6.13%**	-7.03%*	-13.66%***	-6.35%***	-7.72%**	-14.38%***	-6.72%**	-7.21%*
$\partial \text{GovtHelp}/\text{RWA}$ $/\partial \text{Tier1}(\text{net})$	-0.27%***	-0.267%***	-0.25%**	-0.27%***	-0.309%***	-0.268%***	-0.28%***	-0.297%***	-0.29%**
N	78	57	58	72	57	58	72	57	58
Other controls: Log(TA)(+/-), Coop(-), GIIPS(-)*, NPL(+) and Dep(+/-)									

t statistics in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Note: Tier1(net) is the Tier1 ratio net of government help; it is defined as the Tier1 ratio minus government help over RWA.

Table 11: Allocation of Credit and Political Influence

	(1)	(2)	(3)	(4)
	DomSME ₂₀₁₀	DomINST ₂₀₁₀	DomSME ₂₀₁₀	DomINST ₂₀₁₀
GovtOwn/std.dev.	4.874*	5.751**		
	(1.87)	(2.06)		
1(Political)			8.687	17.17**
			(1.60)	(2.15)
1(Cooperative)	0.483	3.552	0.361	5.232
	(0.04)	(0.37)	(0.03)	(0.54)
log(Asset) _{t-1}	-5.646***	-7.592***	-5.813***	-7.346***
	(-2.90)	(-3.49)	(-2.95)	(-3.46)
(Dep/TF) _{t-1}	-0.425**	-0.363*	-0.392*	-0.332*
	(-2.10)	(-1.86)	(-1.86)	(-1.72)
Tier1 _{t-1}	0.432	-0.297	0.294	-0.482
	(0.39)	(-0.18)	(0.27)	(-0.29)
<i>N</i>	70	79	70	79

t statistics in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$