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WORKING PAPER

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State Owned Banks: Acquirers in M&A deals

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Abstract

Between 2003 and 2013, according to Zephyr (BvD) data, 22% of M&A deals between banks have involved state-owned banks, either as targets (12%) or as acquirers (10%). The behavior of state-owned banks in the market control is, however, under-researched. The standard Inefficient Management Hypothesis suggests that more efficient managerial teams target less performing firms. The IMH, however, has never been tested for deals involving state-owned banks, nor the pre-deal operating characteristics of state-owned banks involved as acquirers in M&A deals. We build up a unique dataset of 3,682 deals between banks that allows us to classify M&As into four categories, depending on the ownership of the acquirer and the target: 1) public re-organization (deals between two state-owned banks), 2) publicization (a state-owned bank acquiring a private bank), 3) privatization and 4) private re-organization (deals between two private banks). Our findings confirms for the first time the IMH also for state-owned banks. We also find that state-owned banks active as acquirers in the market for corporate control have a better pre-deal performance compared to the private benchmark; this evidence is stronger for development banks.

Keywords: Inefficient Management Hypothesis, Mergers & Acquisitions, State-owned banks, Ownership.

JEL-codes: G32, G34, L32

4

1.   Introduction

The market for corporate control is the arena where alternative teams compete for the right to manage corporate resources (Jensen and Ruback, 1983). When a bidding firm acquires a target firm, the control rights are transferred to the board of directors of the acquiring firm and a new team acquires the rights to manage the resources of the target firm. As many years ago it was stated by Manne (1965) in a seminal paper, one of the most relevant feature of the market for corporate control (MCC) is that it pursues competitive efficiency among corporate managers. Given that competition can be used to remove inefficient and underperforming managers and to replace them with better performing managers, this framework is often referred to as the Inefficient Management Hypothesis (IMH). Competition for the control of companies plays a disciplinary function that motivates managers to perform towards shareholder value maximization (Grossman and Hart, 1981). The replacement of the incumbent management may be a source of gains associated with profitability and operational efficiency improvements. Therefore, indicators of financial and accounting performance should contain explanatory power on the likelihood of being acquired (Pilloff, 1996), i.e. the pre deal performance of acquirers is expected to be superior to that of target firms.

This established theory on the MCC has never been tested for state-owned banks. The interest of extending the analysis of the MCC to state-owned banks emerges by considering that, according to our data, in the last ten years, 22% of M&A deals have involved state-owned banks, both as targets (12%) and as acquirers (10%) (see Section 3). Moreover, state ownership in the financial sector is still far from insignificant despite the waves of privatizations observed over the last decades. State-owned banks account for 25% of the total asset of the banking system around the world; in the European Union the share rises up to 30%, and is even higher in the BRIC countries, i.e. Brazil Russia India and China (OECD, 2012). In turn, financial companies account for 24% of the assets of all SOEs, and they represent the second largest industry, after the network industries, where government holdings are concentrated (OECD, 2014).

According to traditional broad views about the rationales of government's participation in financial markets, state-owned banks are not wealth maximizers, as they may have alternative goals, such as social (Gerschenkron, 1962; Atkinson and Stiglitz, 1980; Altman, 1993; Laffont and Tirole, 1993; Stiglitz, 1993) or political purposes (Kornai, 1979; Shleifer and Vishny, 1994; Shleifer and Vishny, 1997; Frydman et al., 1999; La Porta and Lopez-de-Silanes, 1999; La Porta et al., 2002; Carvalho, 2014). However, in the last decade, state-owned banks have been reorganized, converted into limited liability corporations and shareholder companies, subjected to the same accounting principles, corporate governance practices and regulatory frameworks as private-owned banks (OECD, 2012).

In such a changing environment, it seems interesting to ask whether those state-owned banks that are active in the market for corporate control have characteristics and behaviors similar or different to private banks active in the same market. Such evidence would indirectly signal convergence of managerial models.

To explore this issue we analyze M&A deals involving banks – both as targets and as acquirers – during the last decade. In particular, we investigate the pre-deal operating performance and firm-specific characteristics of state-owned banks that compete as acquirers in the market for corporate control and highlight differences and similarities with deals performed by private banks. Are the performance of state-owned banks relative to their targets in the market for corporate control at variance with the IMH? Is there any difference in the pre-deal performance of state-owned banks acting as acquirers in the market for corporate control compared to their private benchmark? Which are the specificities – if any – related to the various type of deal the acquirer is involved in? If the answer is such that the IMH is rejected for state-owned, but not for private banks, or the pre-deal performance of state-owned acquirers is worse than that of private acquirers, the finding would contribute to the view that state-owned banks, either because of their intrinsic inefficiency, or because of their social objectives, are less performing and not contributing to the disciplinary mechanism of the market for corporate control. Vice versa, if the IMH is valid also for contemporary state-owned banks, and their performance is in line with their private benchmark, this evidence may suggest an improvement in the operational mechanisms of this more dynamic segment of the industry, involved in M&A deals.

In investigating the pre-deal performance of the acquirers, we also account for the different nature of state-owned banks. Indeed, state-owned banks are made up of two main types of institutions: commercial banks and development banks, which may be quite different in terms of mission, business model, type of activity, targeted market segment. In fact, state-owned commercial banks offer a wide variety of banking and financial services targeted to retail as well as corporate customers, and covering deposits and accounts, credit cards, loans, stock-market services, insurance, asset management etc.[1] They behave similarly to private commercial banks and are in some way direct competitors. After 2008, the number of state-owned commercial banks has increased because of the nationalization of some large groups, severely affected by the global financial crisis. In Europe, between 2008 and 2013 Member States have granted an overall amount of 448 billion Euro in recapitalization measures. UK, Germany,

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[1] For example, VTB Bank is one of the largest universal bank in Russia, and global provider of financial services, active both in the mass market retail business and in the corporate-investment banking business, and offering a complete range of financial services; CIMB Bank is a large universal Malesyan bank, mainly operating in the Asia-Pacific area, in the business of consumer banking and wholesale banking, with the ASEAN's largest retail network.

Ireland and Spain are the countries that mostly supported their banks, respectively with 100.14 billion, 64.17 billion, 62.78, 61.85. Some examples of receiving banks from those countries are the Royal Bank of Scotland, Northen Rock, Lloyds Banking Group, Barclays Bank (UK), Hypo Real Estate Bank, Commerzbank, Sparkasse KolnBonn, Nordbank (Germany), Allied Irish Bank, Anglo Irish Bank (Ireland), Bankia (Spain)[2].

Development banks are something different. They have an explicit mandate to promote socio-economic goals in a region, sector or specific market segment, and their core activity is to carry out lending operations either directly to end-customers (so-called first-tier development banks) or to other private financial institutions that in turn lend to end-customers (second-tiers development banks) (World Bank, 2013). Development financial institutions are established both in emerging countries, and in advanced economies: e.g. the Business Development Bank of Canada, Finnvera (Finland), Kreditanstalt fuer Wiederaufbau KfW (Germany), KBN Kommunalbanken Norway (Norway), Bank Gospodarstwa Krajowego BGK (Poland), European Bank for Reconstruction and Development EBDR (European Union), European Investment Bank EIB (European Union), Japan Development Bank (Japan), and the recently established Green Investment Bank (UK). In the last few years, development banks have been receiving growing attention given the countercyclical role they played during the recent global financial crisis by increasing their supply of credit to the private sector while private banks experienced temporary difficulties (OECD, 2012; World Bank, 2011 and 2013).

State-owned banks are often considered a unique entity: in analyzing M&A deals we find interesting differences in the pre-deal characteristics of these two types of banks.

To pursue our aim, a great effort has been done in collecting data for each deal performed between 2003 and 2013. We combine information from two database managed by Bureau Van Dijk: Zephir, on M&A deals, and Bankscope, on banks' financial statements. This enables us to classify M&As into four categories, depending on the ownership of the acquirer and the target: 1) *private re-organization*: when a private bank acquires another private bank; 2) *privatization*, i.e. when the target only is a state-owned bank; 3) *publicization*: when a state-owned bank acquires a private-owned bank; 4) *public sector re-organization*: when both the acquirer and target banks are state-owned. The combination of the two datasets allows to collect accounting and financial features of both the acquirer and the target banks. The overall sample includes 3,682 deals occurred during the period 2003-2013. Among state-owned acquirers, we also identify deals performed by development banks and by state-owned commercial banks, by looking at the nature of each state-owned bank in the dataset.

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[2] For detailed information about aids in the context of the economic and financial crises see State Aid Scoreboards (2014).

We first estimate a set of linear regression models in order to highlight how the ex-ante performances of the acquiring banks are connected to their ownership. We then explore by another set of models the relationship between the type of deals and financial characteristics of the dealers. Finally, with a linear regression model we test the IMH for state-owned banks.

We find that, in the last decade, M&A deals are consistent with the Inefficient Management Hypothesis and the idea that better performing and efficient managers replace inefficient and underperforming managers; this evidence is confirmed both for private acquirers and – interestingly – for state-owned banks. As far as the pre-deal characteristics of the acquirers and the role of ownership, we find that state-owned banks that are active in the market for corporate control are more efficient then their private benchmarks, even controlling for other bank-specific and deal-specific variables; results are stronger for development banks. A battery of robustness tests confirm our results.

The remainder of the paper is organized as follows. Section 2 discusses the motivation of our research and presents an overview of early literature on banks M&As and state-owned banks performance. Section 3 describes our dataset. Section 4 highlights the research methodology while the main results are presented in Section 5. In Section 6 we finally provide some policy implications and conclude.

2.   Motivation

The IMH in the banking industry has been confirmed by a large body of empirical literature analyzing stock market reactions, accounting measures of performance, and other bank-specific characteristics of private-owned banks active on the market for corporate control as acquirers or targets. The evidence highlights that more profitable and efficient banks tend to buy less profitable and inefficient banks, supporting the hypothesis that acquisitions mainly transfer assets from poorer to better management (Hernando et al., 2009; Evanoff and Ors, 2008; Cornett et al., 2006; Hannan and Pilloff, 2006; Beccalli and Frantz, 2009; Campa and Hernando, 2006; Diaz et al., 2004; Altunbas and Marques, 2008; Hagendorff and Klasey, 2009; Beitel et al., 2004; Lanine and Vander Vennet, 2007).

Up to the end of the last century, empirical research fails to find consistent evidence regarding the relationship between gains in performance, efficiency and shareholder wealth, and merger activity (Berger et al., 1999 for a literature review). For example, Hannan and Rhoades (1987), probably the first empirical paper testing the IMH on the banking sector, uses a sample of 1,046 Texas banks in existence in 1970, of which 201 acquired during the period from 1971 to 1982, and tests the hypothesis that acquisitions serve to drive out bad management by examining the relationship between firm performance, measured by return on assets (ROA) and return on equity (ROE), and the likelihood that the firm will be acquired. Their results provide no support for the

notion that poorly managed firms are more likely acquisition targets than other firms. Rhoades (1993) finds similar results using a sample of 898 bank mergers from 1981 to 1986 involved in M&As; Linder and Crane (1992) study the pre- and post-performance of all bank mergers in the New England states between 1982 and 1987 and find that merging in banks did not achieve significant improvements in operating profits relative to other banks. Conversely, Cornett and Tehranian (1992), focusing on the pre-merger and post-merger operating performance and abnormal stock returns of thirty financial institutions between 1982 and 1987, find that cash flow returns improve following mergers compared to a peer group of banks that did not merge during that period. Similarly, Pilloff (1999) examines 48 mergers occurring from 1982 to 1991 in the U.S. market. The author analyzes both changes in the premerger and postmerger profitability, efficiency balance sheet measures, as well as abnormal returns at the time of the merger announcement, and find some results consistent with the notion that mergers increase efficiency. The reason of such mixed findings in earlier literature is likely attributable to the time period being studied, since M&As data were mainly from the mid-1980s through the mid-1990s, still an early stage in the industry consolidation process (De Young et al. 2009).

Within the M&A literature, the majority of studies compare pre- and post-merger financial and accounting performance. Only few studies focus on pre-deal characteristics of targets and acquirers with the aim to shed light on firm-specific features of acquirers and on the hazard of being acquired. Among them, Hannan and Pilloff (2006) and Hernando et al. (2009) are the most relevant. Hannan and Pilloff (2006) investigate the determinants of interstate and intrastate acquisitions using a competing-risk proportional hazard model, where the type of acquirer, classified according to location and size, defines the competing risks. Their sample consists of 8,117 banks observed over the period 1996-2005 and 1,741 acquisitions divided in i) small and in-market, ii) small and out-of-market, iii) large and in-market, iv) large and out-of-market. Profitability is measured by ROA and inefficiency is measured by noninterest expenses divided by the sum of noninterest income and net interest income. They find results consistent with the IMH framework: less profitable and more inefficient banks are more likely to be acquired. Hernando et al. (2009) estimate through a multinomial logit model the differences between the banks that were targets versus those that were not acquired in the EU-25 over the period 1997-2004. Their sample contains of 1,342 private banks and 157 deals, of which 39 were cross-border. They use three proxies for the target's operating performance: the return on average ratio, the cost to income ratio and the net interest margin, and find that poorly managed EU-25 banks are more likely to be acquired by other banks, broadly in line with the academic literature.

The above mentioned literature on the market for corporate control focuses only on deals performed by private banks. To the best of our knowledge, no previous papers have focused on deals performed by state-owned banks, nor on

the pre-deals characteristics of state-owned acquirers and on whether the IMH is violated by state-owned banks because of their specific objectives. Our paper aims to fill this gap by analyzing state-owned banks as acquirers in the market for corporate control.

Traditionally, state-owned banks are said to be less efficient and profitable than privately owned banks, either because they pursue social objectives or because they are run by political bureaucrats.

According to the *social view* – also referred to as *development view* and *benign view* – government-owned banks contribute to economic development and improve general welfare. This view underline the role of the public sector in compensating for market imperfections that leave socially valuable investments underfinanced. Indeed, public banks are considered necessary for substituting private intermediation in projects with positive social returns but negative private returns, as well as to direct savings toward strategic long-term projects (Atkinson and Stiglitz, 1980; Gerschenkron, 1962). This role of state-ownership in banks is similar to the role of public ownership in other industries, but the reasons for such ownership are sharper for financial intermediation, where the social margin costs for the economy of systemic risks and bank failures are considered to be more relevant than the failure of other types of business firms (Altman, 1993; Laffont and Tirole, 1993; Stiglitz, 1993). Conversely, according to the more skeptical *political view*, state-owned banks are inefficient since they are mechanisms for pursuing the individual goals of politicians, such as provide employment, financing favored enterprises, or transferring resources to their supporters and political allies. Indeed, politicians create and maintain state-owned banks in order to maximize their personal objectives rather than channeling funds to socially efficient uses (Kornai, 1979; Shleifer and Vishny, 1994; Shleifer and Vishny, 1997; Frydman et al., 1999; La Porta and Lopez-de-Silanes, 1999; La Porta et al., 2002; Carvalho, 2014).

In the last decade, empirical evidence from the strand of literature that analyze the issue of the relationship between government ownership and bank performance is mixed. A body of evidence are in line with traditional findings and highlights that state-owned banks are inherently less efficient than private ones. Berger et al. (2005), using data from Argentina in the 1990s, find that state-owned banks tend to have poorer performance relative to domestically-owned banks and very high nonperforming loan ratios. Similar findings in Iannotta et al. (2007); using a sample of 181 large banks from 15 European countries over the 1999-2004 period the authors find that government banks have lower profitability loan quality and higher insolvency risk compared to private banks. Chen and Liu (2013) also report that government-owned financial institutions in Taiwan have a return on assets lower than that of the average private institutions. Jiang et al. (2013), examining the static effect of ownership and the dynamic effect of privatization on bank performances in China over the period 1995-2010, find that ownership structure matters to bank performance

and state-owned banks are associated with lower efficiency. Another body of evidence, however, find different results. Cornett et al. (2009) use a pooled cross-sectional and time-series regressions to investigate the effect of state-ownership on bank accounting performance in 16 Far East countries from 1989 to 2004. They find that the performance of state-owned banks is inferior to that of privately-owned banks; however, differences reduce over time, probably because of increasing globalization of financial services competition that may have the salutary effect of disciplining inefficient regulators and improving the performance of state-owned banks. Micco et al. (2004) analyze the relationship between bank ownership and performance for a sample of banks that ranges from 5,465 in 1995 and 6,677 in 2002, for 179 countries across the world, using standard indicators of bank profitability and efficiency. They find that state-owned banks located in developing countries have much lower returns on assets than their private counterparts; however, those located in industrialized countries are not significantly different from their private counterparts. These results are in line with Altunbas et al. (2001); the authors, focusing on the German banking system, find little evidence that privately-owned banks are more efficient than public banks, while the latter have slightly cost and profit advantages. Little difference in state-owned and privately-owned banks performance is also find by Figuera et al. (2011) using cross-sectional data over 20 countries.

In fact in recent years there has been a widespread tendency by governments to strengthen the performance of state-owned banks by improving their governance. Poor governance of state-owned banks – due to the presence of weak board of directors subject to political pressures and to managers lacking professional skills and experience – is considered to be one of the most relevant explanation for their historical poor performance (OECD, 2012). A number of countries, although far from being the totality, have undertaken important reforms to empower state-owned banks boards, to shield them from political intervention and increase their autonomy, to enhance their competence through skill based nomination processes (OECD, 2005, 2011). Those global changes potentially work in the direction to align the operational mechanisms of state- and private-owned banks, facing similar issues and challenges.

The aim of our analysis, however, is more circumscribed. We do not want to add another piece of evidence to a wide traditional literature on the general question of state-owned versus private-owned bank performance. We focus on a specific type of government-owned banks: those who are active as acquirers in the M&A arena, with both domestic and cross-border deals.

3.   The dataset

3.1.   Deals and ownership

Our sample consists of 3,682 M&A deals performed worldwide by banks over the period 2003-2013. The dataset is obtained combining two sources of

information, Zephyr and Bankscope[3], both from Bureau Van Dijk. We first collected the identification numbers of all the banks available in Bankscope from 2003 to 2013 and we then matched these data with Zephyr. We obtained an initial large dataset of M&A deals involving banks over the period 2003-2013; for each acquirer, vendor and target involved in each deal, we then recorded, when available, information about type, year, country, sectors (NACE Rev.2 code), and ownership (Global Ultimate Owner, GUO).[4]

The identification of the ownership of the bank was a crucial step in setting our database. This needed to build up a logic algorithm. Since information about the firm's GUO provided by Zephyr refers only to the latest available year, rather than to the year when the deal occurred, when defining the ownership type of any banks involved in the deal there is the possibility to wrongly consider as state-owned (private-) a bank which is state-owned (private-) nowadays but that was not state-owned (private-) at the time of the deal. This misreading may happen both on the acquirer or the target side. To avoid this potential error we restricted our sample to those observations where the ultimate owner of both the acquirer and the vendor has not changed since the time of the deal[5]. To this aim, we have developed an algorithm to extract only those observations where both the vendor and acquiring companies involved in a deal (at time t) do not figure as target companies in a subsequent deal (at any time t+j).

The result of this selection procedure is sample of 3,682 observations (deals). At this stage, we were able use the information on the bank's current ultimate owner. After identifying the ownership, we finally matched these data with Bankscope to obtain – for each deal – accounting information for the acquirer and for the target involved in each deal.

According to the ownership of the acquirer and the target, we identify four types of deals in decreasing order of frequency in our sample

1) *Private re-organization*, when a private acquirer deals with a private target;
2) *Privatization*, when a private acquirer deals with a state-owned target;
3) *Publicization*, when a state-owned acquirer deals with a private target;
4) *Public re-organization*, when a state-owned acquirer deals with a state-owned target.

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[3] https://www.bvdinfo.com. Zephyr is a dataset that contains information about deals, while Bankscope is a database of bank's financial statements. Given our research question we matched both datasets.

[4] We consider as state-owned any bank whose ultimate owner, defined as the independent shareholder with the highest direct or total percentage of ownership, is a central or local public entity, including public authorities, governments, municipalities and local entities. Further, we consider this independent shareholder to be an ultimate owner (UO) of a bank if it holds more than 25% of shares.

[5] In order to ascertain the pre-deal ownership nature of the target, we look at the ownership type of the vendor, while we look at the acquirer's ownership to infer its post-deal ownership. In the rest of the paper we thus report information on the ownership of target and acquirers.

Table 1 shows that 22% of the deals in our sample involve state-owned banks, either as acquirer or target. As it happens, this share in terms of number of deals is not far from the share of public banks in the industry (in terms of assets) as estimated by the OECD (2012).

Tables 2-4 provide information on the number of deals and banks involved by year, by type of ownership, and by geographical distribution. Table 3 compares the data between the pre-global crisis years (2013-2008) and the more recent period 2009-2013. M&As are split into the four above mentioned categories according to the ownership of the acquirer and the target involved in the deal. Deals are also split into domestic deals, when both the acquirer and the target are from the same macro-geographic area, and cross-border deals, when the macro-geographic area of the acquirer differs from that of the target. The main relevant trends are: a) the number of deals increases after the 2008 crises (but in part this may reflect increased coverage by the Zephyr database); b) over 60% of the deals overall are recorded in Europe (West and East), but in recent years Eastern Europe and Central Asia record a stronger dynamism compared to Western Europe; c) the large majority of deals are domestic, but a non-negligible 18% of the deals are cross-border. As for our main research focus, the sample includes overall 441 privatizations, and 367 deals where a state-owned bank is the acquirer (both of private or state-owned banks).

3.2. *Characteristics of the banks and the IMH*

As in Hannan and Pilloff (2006) and Hernando et al. (2009) we use two accounting measures of operating performance[6]: a measure of efficiency and a measure of profitability. Efficiency is measured with cost-to-income ratio, defined as operating costs divided by operating income: as known, the higher the ratio, the lower the level of cost efficiency. Profitability is measured with the return on asset (ROA), that is the ratio of profit before-tax to total assets[7]: the highest the ratio, the highest the bank's overall returns given its size. As previously discussed, the rationale is that banks with higher profitability and efficiency may act as acquirers in the market for corporate control in order to remove inefficient corporate managers.

In Table 5 we report sample means of banks characteristics across the different kinds of deal. The descriptive statistics provide some preliminary evidence broadly in line with the literature on the market for corporate control:

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[6] Our setting is similar to Hannan and Pilloff (2006) and Hernando (2009), since we focus on pre-deals banks' characteristics and on accounting measures of performance. However, in the multivariate analysis we use a different econometric specification since our research questions relate to banks involved in M&A deals, rather than banks' probability of being involved in a deal.

[7] We use the return on assets (ROA), instead of the return on equity (ROE), since our sample is worldwide and ROA is better-equipped in a cross-country analysis of banks with different levels of capitalization and leverage (Rivard and Thomas, 1997; Athanasoglou et al., 2005; Kosmidou, 2008).

on average both performance measures are consistent with the IMH, and the idea that better performing and efficient managers replace inefficient and underperforming managers.

As shown in Table 5, the ROA of the acquirers (1.14%) is on average higher than the ROA of the targets (1.01%), either highlighting that acquirers are better managed and/or that acquirers can achieve some sort of synergy by combining the assets of their bank with those of the target. Evidences are even stronger for the cost-to-income measure of efficiency: on average, the acquirer's cost-to-income ratio is lower than that of the target (64.11% and 73.71%, respectively), consistent with the idea that acquirers prefer target banks with opportunities for cost saving. Acquirers have also a higher level of capitalization, as well as a better performing loan portfolio. The size of the acquiring banks is always much higher than that of the target.

Moving to the four types of deals, we have some first insights on different characteristics depending on ownership: the above mentioned evidences are confirmed both for private acquirers and – interestingly – for state-owned banks, although caution is needed as these descriptive statistics do not control for potential covariates (see below).

The cost-to-income measure of performance supports the view that less efficient banks are acquired by more efficient banks in all the four types of deal. There are however meaningful differences suggesting that ownership does matter. Indeed, the value of the ratio is significantly lower for state-owner acquirers compared to their private benchmarks; moreover, state-owned banks acquire targets that are less efficient (in line with the IMH) but, at the same time, healthier than targets acquired by private-owned banks.

The IMH is supported also when looking at the profitability measure. Indeed, the ROA of the acquirer is higher than the ROA of the target both when the acquirer is a private-owned bank and when the acquirer is a state-owned bank. However, while the ROA of the acquirer is similar for state-owned and private banks, data highlight that the ROA of the targets involved in public re-organization deals is higher compared to targets of private acquirers. This evidence is interesting since it highlights that state-owned banks involved in public re-organization deals are well performing.

Furthermore, in the next section, dedicated to the empirical analysis, we propose a test for IMH based on a linear regression model where the dependent variable, the difference in the performance of target and acquirer, is modeled as a function of a set of controls and a dummy variable discriminating between state-owned or private acquirers. The results, discussed in more details in the next section, substantially confirm what found in the descriptive analysis, that the IMH holds and is even stronger for state-owned acquirers[8].

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[8] Data are available from the authors upon request.

Summarizing, our sample has features in line with some standard findings of previous literature on the pre-deal company characteristics in the market for corporate control. These findings are consistent with the Inefficient Management Hypothesis, and hold as well for state-owned banks engaged in M&A deals.

3.3. *Development versus commercial state-owned banks*

In this descriptive section, we also investigate (Table 6) the different accounting profile of development and commercial state-owned banks acting as acquirers in the market for corporate control, given that, as highlighted in the Introduction, these two groups of state-owned banks may have different missions and business models, they may serve different target of customers and offer different type of products and services. This focus may be helpful in understanding the results of the empirical models. To the best of our knowledge, in traditional empirical analyses state-owned banks are always treated as a unique entity, and no previous literature there exists accounting for the different financial profile of those two groups of banks.

Within our sample, data highlight relevant differences between the two groups of state-owned banks. Development banks are more efficient and more profitable than commercial state-owned banks; their performance is also better than that of private banks. Specifically, the ROA of development banks (2.05%) is four times the ROA of state-owned commercial banks (0.54%), and it is almost double than that of private banks (1.14%). A similar relation holds for the efficiency measure: the cost income ratio of development banks is lower compared to the others; within commercial banks, state-owned banks highlight better efficiency than private banks. Interestingly, data also display a better loan portfolio quality for development banks: the impaired loans to gross loans ratio is 3.58% for development banks, while it is 5.20% for private banks and 9.16% for commercial state-owned banks. This is in line with evidences from the World Bank (2013) that highlight that on average the non-performing loan ratio of development banks is below the national average[9]. As far as commercial state-owned banks, it is likely that the low quality of their loan portfolios is burdened by non-performing loans of private banks rescued during the crisis.

Another interesting evidence is related to the level of the retail deposit to total funding ratio. This ratio is a proxy of the retail activity of the bank on the liability side: the higher the ratio, the higher the amount of funding raised by means of current account, saving deposits, and other types of financial instruments typically offered by banks to retail customers. In our sample, the relative weight of retail funding on the overall funding activity is similar for commercial state-owned and private banks (respectively 74.4% and 69.6%),

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[9] Specifically, in 2009, 39% of development banks had a non-performing loan ratio higher than their national average, while 64% of development banks was below the national average; the percentage of development banks with a better ratio was rising comparing to previous years.

while it is much lower for development banks (43.8%). Indeed, while commercial banks fund their business activity with a mix of different sources, among which taking savings and deposits from the public, development banks mainly raise funds by borrowing from other financial institutions or issuing debt (World Bank, 2013). Development banks have also a solvency ratio, measured by the equity to total asset ratio, that is more than two times that of commercial state-owned banks and higher than that of private banks.

On the overall, while commercial banks, both state-owned and private, have similar ratios, development banks display different levels, thus highlighting the different nature of this type of government bank.

Within such a context, we now move away from the descriptive statistics and the IMH and focus on the characteristics of banks acting as acquirer in the market for corporate control.

4.   Research methodology

The empirical analysis aims at testing for any systematic difference in bank operating performance that might be explained by differences in the ownership structure of banks involved as acquirers in M&A deals. We first estimate a regression model to examine whether profitability and cost efficiency vary across state-owned and private-owned banks acting as acquirer on the market for corporate control. A second regression model will be also estimated in order to focus whether such performance indicators are connected to the specific type of deal the acquirer is involved in. We finally test the IMH with a linear regression model.

4.1.   Acquirer's performance and ownership

The linear regression model we use is the following:

$$P_i = \alpha + \beta_{\text{own}} \; own_i + \beta_{\text{bs}}' \; bs_i + \beta_{\text{ds}}' \; ds_i + \varepsilon_i \qquad (1)$$

where P_i is a measure of the performance of the acquirer i, own_i is a dummy variable related to the ownership of the acquirer, while bs_i and ds_i are vectors of control variables referring to bank and deal characteristics, respectively. The term ε_i is the usual error term. Although not explicitly indicated for simplifying the notation, all explanatory variables refer to the year before the date of the deal, in order to avoid endogeneity problems, and because we are interested in the firms' characteristics before they merge.

The performance of the acquirer is captured, alternatively, by the measure of efficiency (*cost-to-income$_i$*) and the measure of profitability (*ROA$_i$*) described in Section 3.2, as commonly discussed in the literature. Our ownership structure is a dummy that equals to 1 if the bank is state-owned, and zero otherwise (*own$_i$*). We have already described in the detail the identification process of ownership. The expected sign and magnitude of the coefficient related to the ownership

variable represent the main object of the investigation. Traditionally, state-owned banks are said to be less profitable and efficient than private-owned banks. If this were true also for those state-owned banks that engage in deals, the coefficient sign should be therefore negative - as far as ROA - and positive - as far as the cost-to-income ratio. If this is not the case, one may argue that state-owned banks involved in M&A deals as acquirer are at least as performing and efficient as their private benchmarks.

As control variables we use bank-specific variables for size, capitalization, type of activity, asset quality. The log of total assets is the proxy of the bank's size ($TotAssets_i$). Generally, the effect of an increase in the size of the bank has been proved to be positive on profitability, due to better diversification opportunities and lower cost of funding of larger banks compared to smaller banks (Molyneux and Thorton, 1992; Bikker and Hu, 2002; Goddard et al., 2004; Demirgug-Kunt and Huizinga, 2000). However, other studies suggest that the positive effect of increased bank size on profitability may be positive up to a certain limit, while beyond this point marginal cost savings can be achieved by greater size (Athanasoglou et al., 2007). In any case, introducing a control for size is necessary to represent a crucial characteristic of the dealers.

Capitalization is measured by the equity-to-liabilities ratio ($EqLiab_i$), which reflects the level of bank's protection against asset malfunctions. Bank leverage and capitalization have been analysed in depth in previous literature, but empirical results vary significantly. The effect of bank capitalization on profitability is generally found to be positive. An increase in capital reduces the expected costs of bankruptcy; the lower likelihood of financial distress results in a lower cost of funding, leading to a positive impact on bank profitability. Moreover, banks with relatively low capital respond to moral hazard incentives by increasing the riskiness of their loan portfolio, resulting in higher nonperforming loans on average in the future (Molyneux and Thorton, 1992; Dermiguc-Kunt and Huizinga, 2000; Goddard et al., 2004). However, there are also findings of a negative relationship between profits and equity. A relatively high capital-assets ratio could explain that a bank is operating over-cautiously, ignoring potentially profitable diversification or other opportunities and using more equity, which is more expensive than debt (Goddard et al., 2004; Angbazo, 1997).

The type of banking activity is measured by the ratio of retail deposits to total funding ($DepTotFund_i$). This ratio captures the relative importance of traditional intermediation activity. We also consider the ratio of net loans to retail funding ($LoansRetFund_i$), an indicator that captures the degree of liquidity of the bank. Asset quality is proxied by the non-performing loans to gross loans ratio; the higher the ratio the poorer the quality of the loan portfolio ($NPLoan_i$). The effect of credit risk on profitability is usually negative; the greater the exposure to high-risk loans, the higher the accumulation of loan losses, as well as higher

costs on loan monitoring does imply a reduction in profitability (Miller and Noulas, 1997).

Moreover, as discussed in details in Section 3.3, there is a substantial difference between development and commercial state-owned banks acting as acquirers in the market for corporate control. In order to control for the difference nature of these two groups of banks, we include a further dummy variable assuming value 1 for development banks acting as acquirers and 0 otherwise (*Development$_i$*).

Finally, in order to control for country specific and time specific effects we include, as further regressors collected in *ds$_i$*, dummy variables for the macro area of the acquirer and for the year of the deal.

4.2. *Acquirer's performance and type of deal*

In the second empirical analysis we want to examine whether operating performances vary according to the four types of deal involving the acquirer bank, namely *Public re-organization*, *Publicization*, *Privatization*, *Private re-organization*. The model, thus, can be written as:

$$P_i = \alpha + \beta_{PR}\, PubReorg_i + \beta_{Pu}\, Publ_i + \beta_{Pr}\, Priv_i + \beta_{bs}{}'\, bs_i + \beta_{ds}{}'\, ds_i + \varepsilon_i. \qquad (2)$$

As before, *Pi* represents the performance of the acquirer (either ROA or cost-to-income ratio), while the three dummies *PubReorg$_i$*, *Publ$_i$* and *Priv$_i$* indicate *Public re-organization*, *Publicization*, and *Privatization*, respectively. Being the most represented in our sample, *Private re-organization* is chosen as the reference group. Moreover, in deals between private banks on both sides of the transaction, there is no need to assume deviation from the objective of wealth maximization by the managers. This offers a natural benchmark to read the estimated coefficients in terms of deviation from an efficient behavior. The related coefficients β_{PR}, β_{Pu} and β_{Pr} indicate to what extent the type of deal explains the performances of the acquirer. Likewise the previous model, a set of bank specific (*bs$_i$*) and deal specific (*ds$_i$*) variables are included in the regression model; again, to account for the different nature of state-owned banks we also add a dummy that equals 1 if the acquirer is a development bank, and zero otherwise.

4.3. *Bank performance, ownership and IMH*

As already discussed in Section 3.2, we also provide a test for the Inefficient Management Hypothesis (IMH). Based on a restricted sample, for which a sufficiently complete dataset is available for both acquirer and target banks, we perform a linear regression model in which the dependent variable is represented by the difference in the performance between the two actors of the deal. In particular, we calculate the two indicators *ARoa-TRoa* and *ACostIncome-TCostIncome* and perform a set of regressions for these two variables. The aim is to test whether the difference between acquirer and target banks in terms of

efficiency and profitability can be explained by banks characteristics and, more important, by the ownership nature of the acquirer, measured by the own_i dummy variable previously discussed.

The specification of the model, thus, can be expressed as

$$PA_i - PT_i = \alpha + \beta_{own} \; own_i + \beta_{bsA}' \; bsA_i + \beta_{bsT}' \; bsT_i + \varepsilon_i \tag{3}$$

where $PA_i - PT_i$ represents the difference between acquirers and targets in terms of efficiency and profitability, own_i is the dummy variable assuming value 1 for state-owned acquirers, while bsA_i and bsT_i collect the bank-specific variables for the acquirers and the targets.

Without any control variable, a natural test for the IMH would be to check for a positive and significant value for the constant term α. However, as we will see in the results discussed in the next section, given the important impact of bank-specific variables in explaining the difference in the performances between acquirers and targets, the model cannot ignore such further explanatory variables and the constant term loses its structural interpretation. However, focusing on the β_{own} coefficient, it is possible to test whether such difference is higher, and in which direction, when the acquirer is a state-owned bank. In particular, if we focus on the profitability of the banks (*ARoa-TRoa* as dependent variable) and such coefficient is positive, it indicates that the performance of the acquirer is better than the target when the acquirer is state-owned rather than private. An opposite interpretation, instead, arises when the focus is on the efficiency of the banks (*ACostIncome-TCostIncome* as dependent variable).

5.   Results

In this section we report a set of results obtained by estimating the linear regression models presented in Section 4. We distinguish according to the different models designed for explaining a) the relationship between the performance of the acquirer and its ownership; b) the acquirer's performances and the kind of deal; c) the empirical evidence about the Inefficient Management Hypothesis (IMH).

5.1.   *Acquirer's performance and ownership*

Table 7a and 7b report the results of the estimated regression model presented in Eq. (1). Our null hypothesis is that the ownership of the acquirer bank plays no role, implying that state-owned banks active on the market for corporate control have the same characteristics as their private benchmarks in terms of efficiency and profitability. In Eq. (1), testing for this null hypothesis corresponds to check for the significance of the coefficient β_{own}. Moreover, in the case of a rejection, it becomes interesting to evaluate the sign and magnitude of the coefficient, in order to shed light on the different characteristics of the acquiring banks in terms of efficiency and profitability.

Table 7a presents the results of the estimated model when the cost-to-income ratio is the dependent variable. In all the specifications, the coefficient of the ownership variable is negative and always statistically significant at 1%. This finding suggests that state-owned banks that are active in the market for corporate control are more efficient then private-owned banks active on the same arena, even controlling for other bank-specific and deal-specific variables. The coefficient is still significant when we distinguish between development and commercial state-owned banks, and is stronger for development banks, whom indeed display higher levels of efficiency.

These results may look surprising given the wide literature on the poorer performance of public banks. However, this paper focuses on a sub-sample of state-owned banks, those who are active in the market for corporate control. Indeed, it is likely that there is a self-selection of those banks, that are more efficient and thus willing to compete as acquirers on the M&A arena. This result can be read in the light that state-owned banks represent an heterogeneous world in which those involved in M&A deals are the most dynamic in competing for the right to control resources.

The signs of the control variables that are statistically significant is coherent with the existing empirical and theoretical literature; in particular, the size negatively affect inefficiency given the positive role of economies of scales.[10]

Table 7b reports the estimated coefficients when the dependent variable is the ROA. In all the specifications but for the first, the coefficient of the ownership variable is not statistically significant, meaning that state-owned banks do not have a ROA significantly different from private banks. The sign of the control variables are in line with expectations; in particular, the impaired loans-to-gross loans ratio negatively affects bank performances, while the level of capitalization has a positive impact.

Interestingly, the sign of the development dummy variable is negative and statistically significant, indicating that being a development bank has a negative impact on profitability measured by ROA, even though the coefficient is very small. This result, that seems in contradiction with the previous finding on the cost to income measure of performance, needs a further explanation, which lies in the denominator of the ROA ratio, the total asset. In fact, although in the literature these two accounting measures are commonly used as proxy of the bank operating performance and no specific explanations are reported when the two results differ, they can be influenced by the type of activity performed by the bank. The fact that we have distinguished between development banks and commercial banks, and the deep look inside the dataset we use, help us to interpret these results in a more robust way. Specifically, as highlighted in Section 1, because of their mission, the core business of development banks is

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[10] Interestingly, but not reported here to save space, the crucial year of the Great Recession has a sign positive and statistically significant for all the acquirers. Details can be provided by the authors upon request.

the supply of loans. This activity is on-balance sheet and, thus, is entirely captured by the level of the total asset. Conversely, over the last decade the traditional business of issuing loans by raising deposits has progressively declined in favour of a significant growth in activities that are not captured on banks' balance sheet, such as asset management, brokerage, advisory and fiduciary services. These activities, loosely classified as off-balance sheet, by definition are not included in the amount of the "Total asset"[11]. This implies that for commercial banks, both state-owned and private, the ROA ratio compares income to a level of total assets that is far below the real size of the bank activity and this, everything being equal, reasonably explain why the more efficient development banks may have a level of ROA below their less efficient benchmark.[12]

5.2. Acquirer's performance and type of deal

Tables 8a and 8b report results designed to address the question of whether the characteristics (in term of performances) of the acquirers are different according to the four types of deal they are involved in. As far as the efficiency of the banks (Table 8a), captured by the cost-to-income measure of performance, both types of deal performed by state-owned banks as acquirers have statistically significant coefficients. Such negative and significant coefficients indicate that state-owned banks acting in the arena are more efficient than private ones, and more specifically, the most efficient ones seem to be those involved in public reorganization. All these results are robust to all specifications and are stronger for development banks.

Moving to the profitability, measured by the ROA (Table 8b), the only type of deal that is statistically significant is Public-reorganization: state-owned banks acquiring state-owned targets have a higher ROA than all the other acquirers involved in M&A deals. This result, however, weakens when controlling for the time effect, in which it emerges a positive and significant coefficient for the first year of the global financial crisis when, probably, only the most profitable banks (both private and state-owned) remain active on the M&A arena.[13]

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[11] A recent strand of literature focuses on the impact of off-balance sheet activities on banks returns and efficiency. See Calmés and Théoret, 2010; Lozano-Vivas and Pasiouras, 2014; Casu and Girardone, 2005.

[12] The misalignment between the efficiency and the profitability measures of performance can also be driven by the different specification of the denominator of the cost to income ratio (operating income) and numerator of the Roa ratio (profit before taxes): the second accounts for depreciation and provision for loan losses. However, in our sample this is not the case: indeed, as highlighted in Section 3.2, according to literature (World Bank, 2013) on average the quality of the loan portfolio of development banks is above the national average, and descriptive statistics of our sample are in line with this finding.

[13] Details on the estimated time effects can be given by the authors upon request.

5.3. *Bank performance, ownership and IMH*

In Section 4.3 we discussed about a test for the Inefficient Management Hypothesis (IMH) based on a simple linear regression model when the difference between acquirer and target performances are regressed on a constant term and some other control variable, as well as the dummy indicator for state-owned banks. The results for both the efficiency and profitability indicators are reported in Table 9, for a sample in which data for acquirer and target banks are available.

In regressions (1) and (5), the significance of the constant term is a direct test on the substantial higher performances for either the acquirer or target banks, depending on the sign. For both indicators of performance, it emerges that on average the acquirers significantly perform better than the targets. This effect is even stronger, although not significant, for state-owned acquirer banks. However, when some other control variables are included, the constant term loses its structural interpretation and becomes no more significant.

6.   Robustness checks

6.1.   *Non-linear relations between performances and their determinants*

In modelling bank performances, it is not unlikely that nonlinearity does emerge among the variables involved in the analysis. In all regressions we searched for such potential non-linearities, mainly considering interactions and/or polynomial relations. In all tables presented in the paper, we report the unique form of non-linearity that significantly enters the results, i.e. the quadratic effect of the dimension of the acquirer bank. In all cases, both the linear and quadratic effects are significantly different from zero and of expected sign. In Tables 7a and 8a, focusing on the efficiency of the acquirer, the linear coefficient is always negative, indicating that larger banks are more likely to reduce the cost-to-income indicator, but when introducing the quadratic term it emerges that such relation is not linear and the benefits of being large reduce as the dimension increases. Similar results are obtained in Tables 7b and 8b, for the performance of the acquirers, measured by the ROA before taxes.

6.2.   *Country cluster heterogeneity*

In this second robustness exercise we ask whether the main results we found in terms of the relations between bank performances, ownership and type of deal change when we restrict the analysis to some homogeneous (for their nature) group of countries[14]. In particular we focus on 1) Western EU countries, 2) OECD countries, 3) BRICST countries[15], 4) developing countries and

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[14] Details on the composition of this clusters con be obtained from the IMF or the World Bank web sites.
[15] Brazil, Russia, India, China, South Africa and Turkey.

5) graduated developing countries[16]. For each of these groups we repeated our regression analysis and compared the results.

In Tables 10a and 10b we show the estimated results for all clusters of countries when the dependent variables are the cost-to-income indicator or the ROA indicator, respectively. Such results should be compared to the corresponding estimates reported in Tables 7a and 7b, when all countries were involved in the analysis.

In particular, focusing on the efficiency of the acquirer banks (Table 10a), it clearly emerges that the main results are confirmed when restricting the analysis to Western EU countries, OECD countries and BRICST countries, for which the coefficient of the state-own dummy variable is negative and strongly significant. This results can be justified by the fact that in all these countries institutions are much better compared to developing or graduated developing countries. Furthermore, for these three groups of countries, the best efficiency has to be ascribed to state-owned developing banks, being the coefficient of the associated dummy variable negative and strongly significant.

In terms of the profitability of the acquirer banks (Table 10b), the results broadly confirm the overall results reported in Table 7b, indicating that state-owned banks do not have a ROA significantly different from private banks. Moreover, when restricting to Western EU and OECD countries, the coefficient enters negatively the regression, indicating that private acquirers have a higher profitability than state-owned ones. Such significant relations, however, disappear when we introduce the distinction between development and commercial banks, confirming that the differences may lie on the amount of activity that is captured by the denominator of the ROA ratio.

6.3.   *Performances, type of deal and development vs commercial banks*

In many regressions we have obtained a clear different behavior between commercial and development state-owned banks. In this section we go deeper and investigate the performances of acquirer commercial or development state-owned banks involved in publicization or public reorganization, when compared to similar private acquirers. The results, reported in Table 11, confirm that, when observing the profitability, state-owned commercial banks involved in public re-organization are characterized by higher performances compared to all others. Looking at the efficiency, instead, development state-owned banks, involved in both public re-organization and publicization have the best performances, although all state-owned banks perform better than private ones.

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[16] According to the IMF and the World Bank: Hong Kong, Israel, Singapore, South Korea, Taiwan, Qatar, Cyprus, Slovenia, Malta, Czech Republic, Slovakia, Estonia, San Marino, Croatia, Latvia, Lithuania.

6.4. Performances of acquirers involved in domestic or cross-border acquisitions

In a recent contribution, although in a slightly different context, Hernando et al. (2009) distinguish between domestic and cross-border acquisitions. In our framework, we estimate a set of regressions restricting the sample to either the domestic or cross-border deals. The results, not reported here to save space, do not show any substantial difference across the two groups of deals and confirm the overall results discussed in the previous sections. Further details can be obtained from the authors upon request.

7. Policy implications and concluding remarks

In this paper we have analyzed M&A deals involving banks during the last decade with the aim to investigate the pre-deal operating performance and firm-specific characteristics of state-owned banks that compete as acquirers in the market for corporate control and to highlight differences and similarities with their private benchmarks.

To this end we have constructed a novel dataset matching information from two databases managed by Bureau van Dijk: Zephir, that collects data on deals, Bankscope, that collects data on banks' financial statements. We ended up with a sample of 3,682 M&A deals performed during the period 2003-2013. Among state-owned acquirers we have also identify deals performed by development banks and by commercial state-owned banks, given that the two groups of state-owned banks may be quite different in terms of mission, business model, type of activity, targeted market segment.

The theoretical framework is the market for corporate control and the Inefficient Management Hypothesis, according to which alternative managerial teams compete for the rights to manage corporate resources, removing inefficient and underperforming managers and replacing them with efficient better performing managers.

This theory has never been applied to state-owned banks, although they are increasingly active in the M&A arena. One likely reason is that while private-owned banks are profit maximizing and likely enter M&As that corroborate the IMH, state-owned banks are traditionally said to be less efficient and profitable than private banks, either because they pursue social objectives or because they are run by political bureaucrats. However, in the last decade empirical evidences are mixed, suggesting that - at least - some state-owned banks are not inherently less efficient and profitable than private ones. This can be due, among others, to reforms and changes that are going through state-owned banks' governance, regulation, and organization, which are aimed at strengthen their performance (OECD, 2012). Those global changes may have aligned the operational mechanisms of state- and private-owned banks, now facing similar issues and challenges.

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Our first results is that the IMH is confirmed when the acquirer is a state-owned bank. This is in itself an interesting finding given that the IMH has never been applied to state-owned banks. Also interesting is the finding that state-owned banks acquire targets – both state-owned and private – that are healthier than those acquired by private-owned banks.

Estimating a linear regression model for the performances of the acquiring banks highlights that state-owned banks that are active in the market for corporate control are significantly outperforming compared to their private benchmark in terms of efficiency, even controlling for other bank-specific and deal-specific variables. The result holds when we distinguish between development and commercial state-owned banks, and is stronger for development banks. A battery of robustness tests confirm our findings.

This paper contributes to keep alive the debate on state-owned banks from a new perspective: looking to those banks which are active in the market for corporate control. Indeed, while state-owned banks are traditionally considered a unique entity characterized by poor performance, our results point out that a sub-sample of state-owned banks, those who are active in the market for corporate control, are at least as efficient and profitable than their private benchmark, and that differences there exists between development and commercial banks, highlighting that state-owned banks is an heterogeneous world that surely deserves further research to understand features and evolution.

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Tables

Table 1 – Deals by ownership of acquirer and target

		Target		
		State-owned	Private	Total
Acquirer	**State-owned**	111 (3%)	256 (7%)	**367 (10%)**
	Private	441 (12%)	2,874 (78%)	**3,315 (90%)**
	Total	**552 (15%)**	**3,130 (85%)**	**3,682 (100%)**

Source: Zephir and Bankscope Bureau van Dijk.

Table 2 – Number of deals by year and type of ownership

Year	Nr of deals				
	Public Re-organization	**Publicization**	**Privatization**	**Private Re-organization**	*Total*
2003	1	3	3	30	*37*
2004	1	4	9	52	*66*
2005	-	9	7	36	*52*
2006	3	4	16	59	*82*
2007	6	13	27	90	*136*
2008	5	9	23	135	*172*
2009	10	28	50	338	*426*
2010	20	30	63	412	*525*
2011	28	49	84	531	*692*
2012	17	56	101	683	*857*
2013	20	51	58	508	*637*
Total	*111*	*256*	*441*	*2,874*	***3,682***

Source: Zephir and Bankscope Bureau van Dijk.

Table 3 – Number of deals by macro-geographic area and type of ownership

Macroarea	Public re-organization		Publicization		Privatization		Private re-organization		*Total*
	2003-2008	2009-2013	2003-2008	2009-2013	2003-2008	2009-2013	2003-2008	2009-2013	
Africa	1	10	-	8	1	13	4	47	*84*
Eastern Europe	2	22	6	41	12	86	30	390	*589*
Far East & Central Asia	2	13	2	39	9	34	27	327	*453*
Middle East	-	3	1	9	-	7	5	41	*66*
North America	-	2	1	5	3	57	82	394	*544*
Oceania	-	-	-	-	-	2	1	31	*34*
South & Central America	-	1	1	7	4	11	11	94	*129*
Western Europe	6	41	19	87	56	141	231	1,074	*1,655*
Total (*)	*11*	*92*	*30*	*196*	*85*	*351*	*391*	*2,398*	*3,554*

Source: Zephir and Bankscope Bureau van Dijk. (*) Totals are different since not all the data have information about country variable.

Table 4 – Number of domestic and cross-border deals (acquirers)

Macroarea	Number of deals	
	Domestic	*Cross-border*
Africa	66	18
Eastern Europe	574	15
Far East & Central Asia	418	35
Middle East	43	23
North America	354	190
Oceania	17	17
South & Central America	102	27
Western Europe	1,328	327
Total (*)	2,902	652
Breakdown by year of the deal		
2003	22	15
2004	50	16
2005	41	11
2006	66	16
2007	103	33
2008	134	38
2009	354	72
2010	435	90
2011	556	136
2012	663	194
2013	508	129
Total (*)	2,932	750

Sources: Zephyr (BvD) and Bankscope (BvD); (*) Totals are different since not all the data have information about country variable.

Table 5 – Summary statistics of acquirers and targets (mean values)

	Public re-organization	Publicization	Privatization	Private re-organization	Total
Roa (A)	1.41	1.25	1.46	1.10	1.14
Roa (T)	1.28	1.10	0.81	1.02	1.01
Cost to income ratio (A)	44.76	51.59	61.71	67.66	64.11
Cost to income ratio (T)	60.87	63.21	70.51	76.00	73.71
Impaired loans / Gross loans (A)	8.51	5.21	4.63	5.29	5.45
Impaired loans / Gross loans (T)	6.73	7.33	6.51	6.27	6.39
Retail deposit / Total funding (A)	69.79	55.54	75.59	68.63	67.91
Retail deposit / Total funding (T)	77.76	78.03	81.38	72.25	74.20
Net loans / Retail funding (A)	107.05	118.70	72.85	89.32	91.80
Net loans / Retail funding (T)	121.48	89.48	88.99	107.99	104.45
Equity / Total asset (A)	13.27	19.30	14.17	14.70	15.12
Equity / Total asset (T)	14.33	14.49	13.13	14.16	14.04
Total Asset (A)	80,913,837	143,718,644	156,525,655	153,297,489	149,014,145
Total Asset (T)	29,343,817	59,286,393	26,343,277	18,643,490	23,318,067
Nr obs	*109*	*250*	*441*	*2,874*	*3,674*

Source: Zephir and Bankscope Bureau van Dijk.

Table 6 – Summary statistics of acquirers development banks, commercial state-owned banks, private banks (mean values)

	Development banks	Commercial state-owned banks	Private banks	Total
Roa	2.05	0.54	1.14	1.17
Cost to income ratio	40.15	59.19	66.88	64.09
Impaired loans / Gross loans	3.58	9.16	5.20	5.38
Retail deposit / Total funding	43.78	74.40	69.55	67.81
Net loans / Retail funding	149.62	80.68	87.03	91.97
Equity / Total asset	23.96	11.11	14.63	15.10
Total Asset	104,196,265	151,479,376	153,722,340	149,515,249
Nr obs	*90*	*89*	*889*	*1,068*

Source: Zephir and Bankscope Bureau van Dijk.

Table 7a – OLS regression for performance and ownership (Dependent Variable – Cost to Income ratio)

VARIABLES	(1) OLS	(2) OLS	(3) OLS	(4) OLS	(5) OLS	(6) OLS	(7) OLS
Own (=1 state owned)	-19.26***	-17.98***	-18.36***	-17.23***	-15.86***	-13.75***	-6.13**
	(2.32)	(2.31)	(2.27)	(2.30)	(2.28)	(2.18)	(2.93)
Development							-15.45***
							(4.02)
TotAssets	-1.88***	-2.56***	-3.44***	-3.15***	-3.41***	-41.88***	-39.90***
	(0.40)	(0.43)	(0.44)	(0.45)	(0.45)	(4.44)	(4.43)
TotAssets2						1.15***	1.09***
						(0.13)	(0.13)
DepTotFund	-0.04	-0.10**	-0.30***	-0.31***	-0.32***	-0.22***	-0.27***
	(0.04)	(0.04)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)
NPLoans	0.17	0.14	0.12	0.17	0.09	0.15	0.07
	(0.14)	(0.13)	(0.13)	(0.14)	(0.14)	(0.14)	(0.14)
AEq_TotLiab		-0.15***	-0.12***	-0.11***	-0.11**	-0.08*	-0.05
		(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)
LoansRetFund			-0.07***	-0.07***	-0.07***	-0.05***	-0.05***
			(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Macroarea Effects				Yes	Yes	Yes	Yes
Time Effects					Yes	Yes	Yes
Constant	98.50***	116.88***	153.27***	148.05***	145.52***	451.55***	439.48***
	(8.45)	(9.52)	(10.74)	(10.72)	(13.45)	(37.41)	(37.16)
Observations	702	702	694	690	690	690	690
R-squared	0.128	0.148	0.186	0.238	0.276	0.350	0.364

*Note: Standard errors in parentheses - *** p<0.01, ** p<0.05, * p<0.1*

Table 7b – OLS regression for performance and ownership
(Dependent Variable – ROA before taxes)

VARIABLES	(1) OLS	(2) OLS	(3) OLS	(4) OLS	(5) OLS	(6) OLS	(7) OLS
Own (=1 state owned)	0.48**	0.13	0.14	0.07	-0.01	0.03	0.43
	(0.23)	(0.21)	(0.21)	(0.21)	(0.21)	(0.21)	(0.28)
Development							-0.81**
							(0.38)
TotEquity	-0.03	0.07	0.09**	0.13***	0.12***	1.88***	1.88***
	(0.05)	(0.04)	(0.04)	(0.04)	(0.05)	(0.45)	(0.45)
TotEquity2						-0.06***	-0.06***
						(0.02)	(0.02)
DepTotFund	-0.00	0.01**	0.01***	0.01	0.01	0.00	0.00
	(0.00)	(0.00)	(0.00)	(0.01)	(0.01)	(0.01)	(0.01)
NPLoans	-0.11***	-0.10***	-0.10***	-0.11***	-0.10***	-0.10***	-0.11***
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
AEq_TotLiab		0.04***	0.04***	0.04***	0.04***	0.04***	0.04***
		(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
LoansRetFund			0.00**	0.00*	0.00	0.00	0.00
			(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Macroarea Effects				Yes	Yes	Yes	Yes
Time Effects					Yes	Yes	Yes
Constant	2.21**	-0.78	-1.71*	-1.98**	-1.54	-13.30***	-13.07***
	(0.86)	(0.82)	(0.93)	(0.92)	(1.11)	(3.16)	(3.15)
Observations	718	718	712	708	708	708	708
R-squared	0.093	0.252	0.256	0.310	0.356	0.371	0.375

*Note: Standard errors in parentheses - *** p<0.01, ** p<0.05, * p<0.1*

Table 8a – OLS regression for performance and type of deal
(Dependent Variable – Cost to Income ratio)

VARIABLES	(1) OLS	(2) OLS	(3) OLS	(4) OLS	(5) OLS	(6) OLS	(7) OLS
Privatization (dummy)	-1.02	-0.45	-1.11	-2.50	-2.53	-1.62	-1.62
	(2.76)	(2.73)	(2.65)	(2.62)	(2.59)	(2.46)	(2.44)
Publicization (dummy)	-17.80***	-16.19***	-16.99***	-15.74***	-14.31***	-12.71***	-5.02
	(2.73)	(2.73)	(2.69)	(2.70)	(2.67)	(2.55)	(3.21)
Public re-organization (dummy)	-22.77***	-21.92***	-21.60***	-21.28***	-20.06***	-16.60***	-9.07**
	(3.80)	(3.77)	(3.66)	(3.64)	(3.60)	(3.44)	(3.92)
Development							-15.50***
							(4.02)
TotAssets	-1.86***	-2.55***	-3.42***	-3.11***	-3.35***	-41.48***	-39.48***
	(0.40)	(0.43)	(0.44)	(0.45)	(0.46)	(4.46)	(4.44)
TotAssets2						1.14***	1.08***
						(0.13)	(0.13)
DepTotFund	-0.03	-0.09**	-0.30***	-0.30***	-0.31***	-0.22***	-0.26***
	(0.04)	(0.04)	(0.05)	(0.06)	(0.06)	(0.05)	(0.05)
NPLoans	0.19	0.15	0.13	0.18	0.10	0.16	0.08
	(0.14)	(0.13)	(0.13)	(0.14)	(0.14)	(0.14)	(0.14)
AEq_TotLiab		-0.15***	-0.12***	-0.11***	-0.11**	-0.08*	-0.05
		(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
LoansRetFund			-0.07***	-0.07***	-0.07***	-0.05***	-0.05***
			(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Macroarea Effects				Yes	Yes	Yes	Yes
Time Effects					Yes	Yes	Yes
Constant	97.76***	116.18***	152.44***	146.80***	144.08***	447.68***	435.46***
	(8.49)	(9.53)	(10.78)	(10.75)	(13.47)	(37.57)	(37.32)
Observations	702	702	694	690	690	690	690
R-squared	0.130	0.150	0.188	0.241	0.279	0.351	0.365

*Note: Standard errors in parentheses - *** p<0.01, ** p<0.05, * p<0.1*

Table 8b – OLS regression for performance and type of deal
(Dependent Variable – ROA before taxes)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
VARIABLES	OLS	OLS	OLS	OLS	OLS	OLS	OLS
Privatization (dummy)	0.41	0.26	0.27	0.18	0.26	0.21	0.21
	(0.27)	(0.25)	(0.25)	(0.25)	(0.24)	(0.24)	(0.24)
Publicization (dummy)	0.30	-0.10	-0.08	-0.15	-0.20	-0.12	0.27
	(0.27)	(0.24)	(0.25)	(0.25)	(0.24)	(0.24)	(0.30)
Public re-organization (dummy)	1.05***	0.79**	0.77**	0.63*	0.53	0.47	0.87**
	(0.38)	(0.35)	(0.35)	(0.35)	(0.34)	(0.33)	(0.38)
Development							-0.82**
							(0.38)
TotEquity	-0.03	0.07	0.09*	0.12***	0.11**	1.79***	1.79***
	(0.05)	(0.04)	(0.04)	(0.04)	(0.05)	(0.45)	(0.45)
TotEquity2						-0.06***	-0.06***
						(0.02)	(0.02)
DepTotFund	-0.01	0.01*	0.01***	0.01	0.01	0.00	-0.00
	(0.00)	(0.00)	(0.00)	(0.01)	(0.01)	(0.01)	(0.01)
NPLoans	-0.11***	-0.10***	-0.10***	-0.11***	-0.10***	-0.10***	-0.11***
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
AEq_TotLiab		0.04***	0.04***	0.04***	0.04***	0.04***	0.04***
		(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
LoansRetFund			0.00*	0.00	0.00	0.00	0.00
			(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Macroarea Effects				Yes	Yes	Yes	Yes
Time Effects					Yes	Yes	Yes
Constant	2.30***	-0.67	-1.56*	-1.82**	-1.28	-12.50***	-12.28***
	(0.86)	(0.82)	(0.93)	(0.92)	(1.11)	(3.19)	(3.18)
Observations	718	718	712	708	708	708	708
R-squared	0.100	0.259	0.262	0.315	0.361	0.374	0.378

*Note: Standard errors in parentheses - *** p<0.01, ** p<0.05, * p<0.1*

Table 9 – OLS regression for Inefficient Management Hypothesis (balanced sample; Dependent Variable – AROA-TROA and Acost_income-Tcost_income)

VARIABLES	Aroa – Troa				Acost_income - Tcost_income			
	(1) OLS	(2) OLS	(3) OLS	(4) OLS	(5) OLS	(6) OLS	(7) OLS	(8) OLS
Own (=1 state owned)		0.51	0.69	0.60		-5.49	-4.90	-2.09
		(-0.52)	(0.72)	(0.76)		(5.63)	(5.74)	(5.98)
A_equity			0.04	0.13			-0.13	-0.76
			(0.18)	(0.18)			(1.46)	(1.45)
T_equity			0.11	0.10			0.25	1.50
			(0.15)	(0.16)			(1.23)	(1.27)
A_DepTotFund			-0.00	0.00			0.16	0.00
			(0.02)	(0.02)			(0.14)	(0.16)
T_DepTotFund			0.00	0.03			-0.10	0.30
			(0.01)	(0.03)			(0.12)	(0.20)
A_NPLoans			-0.18***	-0.15***			0.89**	0.76*
			(0.05)	(0.05)			(0.41)	(0.41)
T_NPLoans			0.10***	0.10***			-0.70**	-0.80***
			(0.03)	(0.03)			(0.28)	(0.27)
A_EqLiab				0.05				-0.28
				(0.04)				(0.30)
T_EqLiab				-0.09**				0.75**
				(0.04)				(0.33)
A_LoansRetFund				0.01				-0.08
				(0.01)				(0.09)
T_LoansRetFund				0.02				0.25**
				(0.01)				(0.10)
Constant	0.34*	0.24	-1.54	-7.50	-9.81**	-8.81***	-12.19	-60.58
	(0.20)	(-0.22)	(3.17)	(4.62)	(2.18)	(2.41)	(25.97)	(37.31)
Observations	253	253	159	157	235	235	151	150
R-squared	0.000	0.004	0.128	0.176	0.000	0.004	0.085	0.175

*Note: Standard errors in parentheses - *** p<0.01, ** p<0.05, * p<0.1*

Table 10a – Robustness: OLS regression for performance and ownership for different groups of countries
(Dependent Variable – Cost to Income ratio)

	Western EU countries			OECD countries			BRICST countries			Developing countries			Graduated Developing countries		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Own (=1 state owned)	-8.19**	-7.14**	4.48	-15.18***	-14.07***	-0.51	-10.88	-18.12**	-3.35	-2.86	-8.88	1.28	2.83	-3.61	-6.53
	(3.34)	(3.36)	(4.58)	(2.78)	(2.72)	(4.15)	(8.86)	(8.20)	(10.81)	(5.84)	(6.89)	(9.75)	(7.52)	(6.22)	(6.64)
Development			-22.37***			-21.69***			-25.85**			-18.54			28.29
			(6.13)			(5.08)			(12.81)			(12.72)			(22.97)
TotAssets	-2.67***	-19.41**	-12.34	-2.81***	-30.58***	-27.97***	-7.91***	-70.57***	-57.59***	-4.37***	-26.26*	-10.86	-6.01**	-125.10***	-126.29***
	(0.75)	(8.41)	(8.46)	(0.53)	(5.43)	(5.37)	(2.02)	(17.16)	(17.86)	(1.06)	(13.85)	(17.29)	(2.44)	(19.73)	(19.68)
TotAssets2		0.49**	0.28		0.82***	0.74***		2.00***	1.59***		0.68	0.20		3.76***	3.81***
		(0.24)	(0.24)		(0.16)	(0.16)		(0.54)	(0.57)		(0.43)	(0.53)		(0.62)	(0.62)
DepTotFund	-0.31***	-0.27***	-0.36***	-0.32***	-0.27***	-0.32***	0.04	0.06	-0.03	-0.14	-0.20	-0.22	0.03	0.07	0.10
	(0.08)	(0.08)	(0.08)	(0.06)	(0.06)	(0.06)	(0.34)	(0.30)	(0.30)	(0.16)	(0.17)	(0.16)	(0.27)	(0.22)	(0.22)
NPLoans	0.29	0.29	0.13	0.14	0.17	-0.02	2.66**	3.49***	3.25***	-1.25***	-0.97***	-1.20***	0.18	0.34	0.35
	(0.20)	(0.20)	(0.20)	(0.19)	(0.18)	(0.19)	(1.10)	(1.02)	(0.99)	(0.30)	(0.34)	(0.37)	(0.43)	(0.35)	(0.35)
AEq_TotLiab	-0.49***	-0.48***	-0.36***	-0.20***	-0.16***	-0.14***	-0.17	-0.14	-0.06	0.06	0.05	0.10	0.22	-0.15	-0.13
	(0.10)	(0.10)	(0.10)	(0.05)	(0.05)	(0.05)	(0.14)	(0.12)	(0.12)	(0.05)	(0.05)	(0.06)	(0.20)	(0.18)	(0.18)
LoansRetFund	-0.10***	-0.09***	-0.10***	-0.07***	-0.06***	-0.06***	-0.02	-0.02	-0.04	-0.05*	-0.05*	-0.06**	-0.17	-0.01	-0.02
	(0.02)	(0.02)	(0.02)	(0.01)	(0.01)	(0.01)	(0.07)	(0.06)	(0.06)	(0.03)	(0.03)	(0.03)	(0.11)	(0.10)	(0.10)
Macroarea Effects				Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	136.40***	273.38***	221.73***	134.82***	361.66***	345.17***	201.69***	692.40***	595.71***	163.15***	344.65***	218.64	131.65**	1,030.59***	1,035.15***
	(20.17)	(71.39)	(71.33)	(14.88)	(46.50)	(45.85)	(47.89)	(140.35)	(144.47)	(30.07)	(118.31)	(145.36)	(49.97)	(153.69)	(153.17)
Observations	306	306	306	504	504	504	69	69	69	63	63	63	90	90	90
R-squared	0.349	0.358	0.387	0.257	0.296	0.322	0.543	0.638	0.666	0.641	0.660	0.675	0.498	0.671	0.678

*Note: Standard errors in parentheses - *** p<0.01, ** p<0.05, * p<0.1*

Table 10b – Robustness: OLS regression for performance and ownership for different groups of countries
(Dependent Variable – ROA before taxes)

	Western EU countries			OECD countries			BRICST countries			Developing countries			Graduated Developing countries		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Own (=1 state owned)	-0.80***	-0.82***	-0.58	-0.64***	-0.61***	-0.45	-0.90	-0.30	0.43	-0.46	-0.05	-1.05	0.87	1.04	1.19
	(0.31)	(0.31)	(0.41)	(0.20)	(0.20)	(0.30)	(0.70)	(0.68)	(0.88)	(0.79)	(0.92)	(1.21)	(0.85)	(0.87)	(0.93)
Development			-0.48			-0.25			-1.34			2.05			-1.55
			(0.56)			(0.37)			(1.03)			(1.63)			(3.27)
TotEquity	0.01	-1.29	-1.27	0.10**	1.03**	1.03**	0.40**	4.81***	5.23***	0.11	2.01	0.46	0.33	3.51	3.60
	(0.07)	(0.88)	(0.88)	(0.04)	(0.40)	(0.40)	(0.16)	(1.47)	(1.50)	(0.16)	(2.17)	(2.48)	(0.29)	(2.96)	(2.98)
TotEquity2		0.04	0.04		-0.03**	-0.03**		-0.16***	-0.18***		-0.07	-0.01		-0.12	-0.12
		(0.03)	(0.03)		(0.01)	(0.01)		(0.05)	(0.05)		(0.08)	(0.09)		(0.11)	(0.11)
DepTotFund	-0.01	-0.01	-0.01	0.01	0.00	0.00	-0.01	-0.02	-0.03	0.05**	0.05**	0.06**	0.05	0.05	0.05
	(0.01)	(0.01)	(0.01)	(0.00)	(0.00)	(0.00)	(0.03)	(0.03)	(0.03)	(0.02)	(0.02)	(0.02)	(0.03)	(0.03)	(0.03)
NPLoans	-0.07***	-0.07***	-0.07***	-0.06***	-0.06***	-0.06***	-0.19**	-0.26***	-0.27***	0.01	-0.01	0.01	-0.21***	-0.22***	-0.22***
	(0.02)	(0.02)	(0.02)	(0.01)	(0.01)	(0.01)	(0.09)	(0.08)	(0.08)	(0.04)	(0.05)	(0.05)	(0.04)	(0.04)	(0.04)
AEq_TotLiab	0.06***	0.06***	0.06***	0.06***	0.06***	0.06***	0.01	0.01	0.02*	0.00	0.01	-0.00	0.05**	0.05**	0.05**
	(0.01)	(0.01)	(0.01)	(0.00)	(0.00)	(0.00)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.02)	(0.02)	(0.02)
LoansRetFund	0.00	0.00	0.00	0.00	0.00	0.00	-0.00	-0.00	-0.00	0.01**	0.01**	0.01***	-0.00	-0.00	-0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.01)	(0.00)	(0.01)	(0.00)	(0.00)	(0.00)	(0.01)	(0.01)	(0.01)
Macroarea Effects				Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	0.79	10.02	9.90	-0.85	-7.28**	-7.25**	0.29	-29.33***	-31.95***	-5.69	-19.66	-9.69	-10.82**	-30.50	-30.80
	(1.94)	(6.48)	(6.48)	(1.02)	(2.93)	(2.93)	(3.51)	(10.34)	(10.47)	(4.14)	(16.40)	(18.25)	(5.16)	(18.91)	(19.03)
Observations	321	321	321	519	519	519	69	69	69	63	63	63	93	93	93
R-squared	0.362	0.367	0.369	0.550	0.555	0.555	0.573	0.638	0.650	0.299	0.311	0.335	0.562	0.569	0.571

*Note: Standard errors in parentheses - *** p<0.01, ** p<0.05, * p<0.1*

Table 11 – Robustness: OLS regression for performance,
type of deal and commercial vs development banks
(Dependent Variable – ROA before taxes and Cost to Income ratio)

	ROA before taxes				Cost to income			
	(3)	(4)	(5)	(6)	(3)	(4)	(5)	(6)
VARIABLES	OLS	OLS	OLS	OLS	OLS	OLS	OLS	OLS
Privatization	0.28	0.18	0.26	0.21	-0.99	-2.37	-2.48	-1.64
	(0.25)	(0.25)	(0.24)	(0.24)	(2.62)	(2.57)	(2.55)	(2.44)
Publicization-Commercial	0.02	0.05	0.15	0.25	-6.71*	-2.33	-2.53	-3.84
	(0.34)	(0.34)	(0.33)	(0.33)	(3.68)	(3.70)	(3.65)	(3.49)
Publicization-Development	-0.22	-0.37	-0.57*	-0.53	-27.19***	-28.18***	-25.73***	-21.56***
	(0.34)	(0.33)	(0.33)	(0.33)	(3.62)	(3.55)	(3.57)	(3.45)
PubReorg-Commercial	1.18**	1.11**	1.03**	0.92*	-16.48***	-15.02***	-14.35***	-11.40**
	(0.48)	(0.48)	(0.47)	(0.47)	(5.03)	(5.01)	(4.96)	(4.75)
PubReorg-Development	0.33	0.15	0.01	0.00	-27.09***	-27.60***	-25.98***	-22.36***
	(0.49)	(0.48)	(0.47)	(0.46)	(5.10)	(4.96)	(4.92)	(4.72)
ln_Aequity	0.09*	0.12***	0.11**	1.79***	-3.58***	-3.27***	-3.43***	-39.19***
	(0.04)	(0.04)	(0.05)	(0.45)	(0.44)	(0.44)	(0.45)	(4.46)
ln_Aequity2				-0.06***				1.07***
				(0.02)				(0.13)
A_stdep_totliq	0.01**	0.00	0.00	-0.00	-0.36***	-0.36***	-0.37***	-0.27***
	(0.00)	(0.01)	(0.01)	(0.01)	(0.05)	(0.06)	(0.06)	(0.05)
A_Il_Gloan	-0.11***	-0.11***	-0.11***	-0.11***	0.05	0.07	0.01	0.08
	(0.01)	(0.01)	(0.01)	(0.01)	(0.13)	(0.14)	(0.14)	(0.14)
AEq_TotLiab	0.04***	0.04***	0.04***	0.04***	-0.10**	-0.08*	-0.07*	-0.05
	(0.00)	(0.00)	(0.00)	(0.00)	(0.04)	(0.04)	(0.04)	(0.04)
A_NL_DepStFund	0.00*	0.00	0.00	0.00	-0.08***	-0.08***	-0.07***	-0.05***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.01)	(0.01)	(0.01)	(0.01)
		Yes	Yes	Yes		Yes	Yes	Yes
			Yes	Yes			Yes	Yes
Constant	-1.47	-1.71*	-1.08	-12.26***	160.60***	155.57***	149.74***	433.40***
	(0.94)	(0.93)	(1.12)	(3.19)	(10.82)	(10.66)	(13.30)	(37.40)
Observations	712	708	708	708	694	690	690	690
R-squared	0.264	0.317	0.365	0.378	0.209	0.272	0.304	0.366

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