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Abstract

Purpose

This paper looks at state-owned enteprises (SOEs) from the angle of the Market for Corporate Control (MCC) and analyzes in detail the reported rationales of a sample of 355 M&A deals performed by SOEs as acquirers over the period 2002–2012. The aim, after having created a taxonomy of deal motivations, is to empirically test two alternative hypotheses: *Deviation* versus *Convergence* of M&A deal rationales between state-owned and private enterprises.

Design/methodology/approach

The data set is obtained by combining firm-level information from two sources, Zephyr and Orbis (Bureau Van Dijk). A recursive algorithm is developed to infer the ownership nature of the enterprises at the time the deal took place and then we double-check the identity of the global ultimate owner by visual inspection of all the available information. Motivations are analyzed through a case-by-case analysis and classified into several categories, thereby providing a taxonomy of rationales behind SOE M&As and discussing their differences and similarities relative to private firms.

Findings

More than 60% of the deals performed by SOEs as acquirers are driven by "shareholder-value maximization" motives, similarly to private enterprise acquirers. The other 40% of deals are almost equally spread among three rationales that specifically relate to the role of modern state capitalism in the economy. "Financial distress" motivation, which is the only one clearly deviating from the objectives of profit maximization typical of private ownership, is far less important than the others.

Originality

Existing literature has mainly focused on private corporate M&A deals or has just disregarded the ownership status of the acquiring firm. This paper focuses on the motivations for SOE deals in order to elaborate a taxonomy of SOE deal rationales and to identify differences and similarities between private corporate firms.

Research limitations

The paper does not analyze in detail the case studies. Neither does it correlate the evidence with the quality of corporate governance or the quality of institutions in the country. This

would be interesting in order to discover whether the alignment of objectives between public and private enterprises is enhanced by certain features of public sector management, as suggested by the OECD (2015) Guidelines.

Policy implications

The paper suggests some policy implications in terms of reforms of the corporate governance of the SOEs and accountability of their management against clearly stated public missions.

It also calls for the need for citizens to be informed in a transparent way about the rationales of major M&A deals when a SOE is on the acquirer side, and the consistency of such rationales with the mission assigned by governments to the enterprises they own. Finally, it underlines that regulatory concerns raised in many countries by the rise of cross-border SOE M&As are in most of the cases unfounded.

JEL Codes: L32, L33, G34

Keywords: state-owned enterprises, M&As, nationalization, privatization, shareholder-value maximization

1. Introduction

In recent years there has been an increase in the number of academic publications on contemporary state-owned enteprises (SOEs)[1] and their differences from, and similarities to, private firms. The growing attention is motivated not only by the expanding size of SOEs[2], but also by significant changing dynamics that have shaped their contemporary features and role. In fact, contemporary SOEs have been strongly reorganized in terms of governance rules, regulatory framework, business re-engineering, accountability and transparency standards, and they have become more mixed enterprises, with enhanced competitive capabilities and facing similar issues and challenges to those faced by private enterprises (Cuervo-Cazurra et al. 2014; Florio 2014; Bruton et al. 2015; Lebedev et al. 2015; Musacchio et al. 2015; He et al. 2016; Peng et al. 2016). In addition, contemporary SOEs more and more frequently play a relevant function in promoting research and innovation, in fostering long-term and/or high-risk capital-intensive projects (Millward 2011; De Olloqui 2013; Eslava and Freixas 2016), and in channeling funds to long-term societal challenges (Mazzuccato and Penna 2016).

Among recent publications, an increasing number of papers are focusing on M&A (Chen and Young 2010; Wu and Xie 2010; Lebedev et al. 2015; Reddy et al. 2016; Bacchiocchi et al. 2017; Clò et al. 2017; Del Bo et al. 2017; Karolyi and Liao 2017; Xie et al. 2017). The reason for such a specific interest in this one important aspect of the new activisim of SOEs is the role they are playing in the Market for Corporate Control (MCC), where they are acquirers in a significant number of deals – both domestic and cross-border – and for a significant amount of assets. In the last decade the cumulative value of the target assets purchased by SOEs was reported to be no less than 690 billion euros, which is 30% of the total assets of the targets traded in the M&A arena (Clò et al. 2015). In the same period, in the financial industry, more than 10% of M&A deals involved state-owned banks as acquirers (Bacchiocchi et al. 2017). Governments also acquire assets in the MCC through Sovereign Wealth Funds, which are the fastest growing class of asset owners since 2000, with a reported size of around 5 trillion dollars, and which regularly invest in listed and unlisted targets in developed and emerging markets (Bortolotti et al. 2015).

The goal of our paper is to contribute to this recent field of finance literature with a detailed analysis of the main reported rationales behind a sample of SOE-led M&As over the last decade. Specifically, we analyze the extent to which recent changes that are reshaping the overall activity of contemporary SOEs are also affecting their strategic investment choices and behaviors in the MCC, and whether acquirer motivations are more aligned with the rationales traditionally identified in the empirical literature for private firms. Why is a firm that is ultimately owned by a government willing to acquire another state-owned or private-owned enterprise? Is there any similarity to the rationales underlying private-owned enterprise deals? Or are they motivated by the need to reach strategic social or welfare goals, particularly after the Great Recession?

Our sample includes a detailed study of 355 worldwide M&A deals performed by SOEs as acquirers over the period 2002–2012. The deals' rationales are reported by Zephyr (Bureau Van Dyck) based on a variety of sources. Additionally, Zephyr provides information on the global ultimate owner (GUO) for each acquirer, vendor and target involved in each deal. Given that the GUO provided by Zephyr refers only to the latest available year, rather than the year in which the deal occurred, we first had to resolve ownership identification issues to avoid potential sampling errors due to wrongly considering as government-owned (private-owned) a firm that is currently government-owned (private-owned) but was not at the time of the deal. We therefore developed an ad hoc algorithm to correctly infer the ownership nature of the enterprises at the time the deal took place. Furthermore, we double-checked the identity of the GUO of the remaining 355 deals by visual inspection. We then analyzed motivations through a case-by-case analysis and classified them into several categories, thereby providing a taxonomy of rationales behind SOE M&As and speculating on their differences and similarities compared to private firms. Within our sample, around 80% of the deals are represented by majority acquisitions, with 143 of these being total acquisitions. A considerable proportion of deals are cross-border (43%), and the concentration of deals is higher in the finance, electricity and mining industries.

Our main finding is that the most common motivation behind acquisitions performed by SOEs is shareholder-value maximization, by means of expected efficiency gains, an increase in market power and risk diversification. This rationale is not different from that of a private firm, in line with recent findings that suggest that modern SOEs are more finance- and market-oriented than in the last century and that they offer public services in a more businesslike manner (Bozec and Breton 2003; Levesque 2003; Aivazian et al. 2005; Cuervo-Cazurra et al. 2014; Florio 2014; Bruton et al. 2015; Clò et al. 2015; Grossi et al. 2015; Lebedev et al. 2015; Musacchio et al. 2015; He et al. 2016). Moreover, we detect a group of deals that are driven by motivations that specifically relate to the role of modern state capitalism in the economy, such as the development of innovative sectors (e.g. renewable and environment-friendly energy), and the pursuit of national strategic goals by means of rent extraction and accumulation of resources. M&As for the purpose of bailing out distressed firms deviate from the principle of value maximization, but we find that this is far from being the main rationale of SOE M&As.

The remainder of the paper is organized as follows. Section 2 presents an overview of the theoretical framework and a taxonomy of corporate M&A rationales. Section 3 describes our data set of deals performed by SOEs as acquirers. Section 4 focuses on the rationale of SOE deals, and Section 5 discusses the main findings. Section 6 concludes.

2. M&A rationales in the corporate firm literature

Since Manne's seminal paper (1965), a substantial academic literature on M&A activity has developed. This extensive literature collects contributions from different academic fields – including finance, management, industrial organization and business administration – and analyzes the phenomenon from multifarious viewpoints, such as stock market reactions and pre- and post-merger accounting performance (Agrawal and Jaffe 1995; Andrade and Stafford 2004; Rhodes-Kropf and Viswanathan 2004; Breinlich 2008; De Young et al. 2009), differences between domestic and cross-border deals (Rossi and Volpin 2004; Bris et al. 2008; Coeurdacier et al. 2009; Ferreira et al. 2010; Erel et al. 2012; Karolyi and Liao 2017), waves clustered by industries (Mitchell and Mulherin 1996; Andrade and Stafford 2004; Harford 2005; Hackbarth and Miao 2012), and impact on competition, economic growth and innovation (Piscitello 2004; Cassiman et al. 2005; Carow et al. 2006; Craig and Hardee 2007; Wand and Wong 2009). All these different analyses have contributed to the elucidation of a crucial underlying relevant question: Why do firms enter into M&A deals?

From a corporate finance perspective, the rationales behind M&A deals can be distinguished into two broad categories: shareholder-value maximization and utility maximization of other stakeholders, including firms' managers. In the first case, firms enter M&A deals to increase the shareholder value of the merged firms by means of efficiency gains (Weston et al. 1990; Houston et al. 2001), risk reduction in terms of product and geographical diversification (Amihud and Baruch 1981; Denis et al. 2002), and increase in market power through entering a new market or reducing competition (Martin and McConnell 1991; Gugler et al. 2003; Lanine and Vennet 2007). The utility maximization motive refers, conversely, to the maximization of managers' or other stakeholders' utility rather than the enterprise value for shareholders. For example, according to principal-agent theory, managers may indeed have an incentive to make a merger in order to maximize their own compensation (or their *ego*), or build a personal empire, or live a "quiet life" rather than to maximize the shareholder/enterprise value (Jensen 1986; Matsusaka 1993). Managers of politically connected firms (Faccio 2006) may also consider the utility of other stakeholders, such as politicians (Luo and Tung 2007).

Within the M&A literature, little attention has been devoted to acquisitions undertaken by SOEs (Lebedev et al. 2015). Only recently has there been a rising interest in M&A deals performed by government-owned acquirers specifically. For example, Karolyi and Liao (2017) focus on 127,786 cross-border M&A deals over the period 1990–2008 with the aim of analyzing differences and similarities compared to equivalent private sector activities. They find that government-owned acquirers and corporate acquirers are similar in their behavior on the MCC, particularly in pursuing smaller targets, in related industries, with fewer growth opportunities. Clò et al. (2017) analyze a sample of 24,726 deals worldwide, 10% of which involve a government-owned acquirer, and find that on average SOEs take over underperforming targets, similarly to private firms; results are stronger when the government owns more than 50% of shares. Likewise, Bacchiocchi et al. (2017) focus on the financial industry and analyze 3,682 deals involving banks during the last decade. They find that state-owned financial institutions that are active in the MCC are at least as efficient and profitable as their private benchmarks, and this finding is clearly stronger for development banks than for commercial state-owned banks. Focusing on cross-border M&As by Chinese companies, Wu and Xie (2010) find, for the acquirer, a positive relationship between state ownership and performance. The opposite result is found in Chen and Young (2010) for Chinese firms and in Bertrand and Betschinger (2012) for the Russian market: Both showed a negative relationship between state ownership and acquirer's performance. See also Del Bo et al. (2017) who focus on the pre-deal characteristics of acquirers in deals involving SOEs (including privatization).

All these papers have analyzed differences and similarities in the performance of SOEs' M&A deals compared to private enterprises, and have only focused indirectly on the motivation behind deals. Conversely, the novelty of our paper is that we focus directly on the rationales for SOE deals, as reported by managers before the deal occurred and from other sources, with the aim of identifying differences and similarities between the above-mentioned motivations. The working hypotheses we want to study in our paper are as follows:

Deviation Hypothesis

H_0: M&A-reported rationales of deals with a SOE as acquirer differ from the rationales of private firms because SOEs' objectives deviate from shareholder value-maximization and are bounded by political objectives, consistent with previous traditional literature on SOEs.

However, recent evidence suggests an alternative working hypothesis.

Convergence Hypothesis

H_1: following the recent literature trends on SOEs, we expect there not to be relevant differences in rationales since the goals between private and contemporary public enterprises are aligned.

Our research question is simple: Which one of the two alternative hypotheses is supported by the evidence?

It is worth underlining that our research question, and in particular the Convergence Hypothesis, falls within a field of research, developed in the business and management discipline, that highlights how the dynamics of SOEs in the new century and their importance on the global scene call for a reconsideration of the theories of the firm, which are, conversely, traditionally mainly based on private firms' evidence. Within this literature a relevant paper is Peng et al. (2016), which emphasizes the need to address the uniqueness of SOEs and identify new propositions and testable hypotheses that extend existing theories of the firm to explicitly incorporate SOEs' organizational form. Among the theories analyzed by the authors – namely the property right theory, the transformation costs theory, the agency theory and the research-based theory – a special focus is dedicated to the latter, and specifically to the competitive advantage that may arise for SOEs from the combination of market-based resources (e.g. production, technological, financial, organizational resources) and nonmarket-based resources, such as political capabilities. Although the role of market-based capabilities is crucial to compete effectively in product markets (see also Lebedev et al. 2015; Mutlu et al. 2015), nonmarket-based resources are likely to be a source of differentiation and competitive advantage for SOEs in the global field, given their stronger political ties and their embedded value, especially in utilities and transportation industries where the influence of the state is stronger (Peng 2012). Li et al. (2013), in analyzing the role of political resources and capabilities in emerging economies, develop the concept of "ambidexterity" to highlight the need for enterprises to manage influences from both markets and government simultaneously, which is especially relevant in economies undergoing institutional transitions (Peng 2003), where rules are changing faster (Li et al. 2012, Sun et al. 2011). Okhmatovskiy (2010) focuses on business–government relationships and highlights that benefits may come both from influencing government policies and gaining access to state-controlled resources.

The issue underlying this field of research is fueled by the evidence that the gap between private firms and state-owned firms, as portrayed until recently, has narrowed over the years, due to the changes that have reshaped SOEs of the new century. Many authors from the international business and strategic management discipline have focused on these recent dynamics, in particular on the role of SOEs as acquirer on the international scene after the 2008 crisis and with a special focus on Chinese SOEs. Among them, Ma et al. (2014), using a sample of Chinese firms, focus on the consequences of internationalization on the firm value of emerging market firms after the global economic crisis. Increasing cross-border business activities conducted by emerging market firms enables them to benefit from strategic flexibility and enhanced opportunities in terms of foreign sales intensity, and the realization of such benefits is influenced by the levels of ownership held by different types of ownership groups. The growing presence and power of SOEs in global markets is highlighted by Bass and Chakrabarty et al. (2014). The authors focus on the activities of SOEs in competing in strategic industries related to natural resources in order to pursue both business and political goals by building economic value outside the country and securing future access to resources, while Meyer et al. (2014) focus on Chinese multinational enterprises and highlight how SOEs adapt their entries to institutional pressures abroad to increase their legitimacy. Finally, Xie et al. 2016, based on 257 firms listed on the Chinese market, used the resource-based theory and the behavioural theory to investigate how firms' knowledge-based resources (technological and marketing) and performance compared to aspirations affect their rapid internationalization expansion, while Peng (2012), focusing on the international expansion of Chinese multinational enterprises, analyzes the so far ignored role of home country government as an institutional force that may use policy tools, such as low-interest financing, favorable exchange rates, and reduced taxation to facilitate outward foreign direct investments.

3. The data set

Our data set was obtained by combining firm-level information from two sources: Zephyr and Orbis (Bureau Van Dijk)[3]. Zephyr contains information about the type, year and reported rationales of M&A deals. Additionally, for each acquirer, vendor and target involved in each deal, Zephyr provides information on the country, the NACE sector, and the global ultimate owner [4]. However, since the GUO provided by Zephyr refers only to the latest available year, rather than the year when the deal occurred, we needed to develop an algorithm to extract only those observations for which *neither* the vendor nor the acquiring company involved in a deal (at time *t*) figure as *target* companies in a subsequent deal (at any time *t+j*)[5]. We have been able to identify 3,550 deals performed by SOE acquirers from the evidence available for the time span 2002–2012. We then matched Zephyr data with financial statement information provided by Orbis in order to have accounting data on the acquirers, and finally dropped deals without adequate accounting data or a description of the rationale.

The result of this strict selection procedure is a worldwide sample of 355 M&A deals, for which we are sure that the acquirer is a SOE, for which accounting data are available and, critically for our research questions, for which the rationales for the deals are reported. Interestingly, almost 75% of the deals (260 deals) are "public–private," that is an M&A where state-owned enterprises acquired a target company owned by a private vendor enterprise, while 25% of the deals (95 deals) are "public–public," that is state-owned enterprises acquiring a company from a state-owned vendor[6]. One hundred and eight state-owned enterprises were involved as acquirers in the 355 deals. By comparison, the sample considered in Del Bo et al. (2017) includes 887 public–private deals, around 3% of the total (31,479) and around 54% of the deals with a public acquirer (1,638 public–public and public–private). In Clò et al. (2017) the public–private sample includes 1,034 deals, around 8% of the full sample (13,475) and around 60% of the deals are with a public acquirer (1,724 deals). In our sample, which is restricted by the availability of reported evidences on the rationales, around 73% of the total (355) are public–private deals.

Figure 1 and Tables 1 and 2 provide information on the number of M&As performed by SOEs, broken down by geographical and sector distribution in our sample. The most significant features in our data are the high number of deals performed in Western Europe and the Far East and Asia, in line with larger waves of nationalizations that occurred in the last two decades (Voszka 2017), and the considerable share of cross-border deals. In fact, although the number of domestic deals is higher than the number of cross-border deals (204 and 151, respectively), the significant share of cross-border deals underlines the sizable participation of SOEs in the market for cross-border acquisitions, in line with recent empirical evidences (Karolyi and Liao, 2017). This holds especially for China, where, from 2015, there has been a growth in the outbound SOE M&A activity of up to 45% by volume and 141% by value of the deals (PwC 2017). This surge – mainly motivated by a favorable regulatory and financing environment – is focused not only on energy and resources enterprises, but also on targets operating in advanced technologies, knowledge production, consumer-related and entertainment sectors, consistent with the ongoing transformation of the Chinese economy. In line with this shift, the targets of China's outbound M&As are now more frequently located in developed countries. We further discuss later the Chinese case.

In our sample, deals are concentrated in three main industries: finance, electricity and mining. One third of the deals has been performed in the same NACE sector (4 digits).

As far as the distribution of deals by sector of the acquirer, the highest shares belong to finance (105 deals), electricity (44 deals) and mining (43 deals). Diversification strategies are mainly performed by financial acquirers, while for other industries acquisitions are mainly within the same sector or closely related sectors (i.e. mining SOEs invest in oil & gas; oil & gas SOEs invest in transport). Not surprisingly, public–public deals are all domestic: they are mainly a reorganization of public entities within national boundaries. State-owned enterprises in the finance, mining, telecommunication and transportation industries acquire cross-border targets almost as frequently as domestic companies, while in the other industries acquisitions are mainly in-border.

<Figure 1>

<Table 1>

<Table 2>

Regarding the distribution of deals over time, 116 deals were performed in the years prior to the 2008 crisis, and almost 239 after it. Among them, a significant number of deals were rescue operations motivated by the financial distress of the target and performed by SOEs in line with the countercyclical role they played after the crisis. A not negligible number of deals (6%) have a value greater than one billion euros, while the median is much lower. Firms involved in the highest value deals are Saudi Industries Corporation, the Argentinean Government, Gazprom, Swisscom AG, China Huaneng Group, ABN AMRO Holding NV and Belgacom SA. Around 40% of the deals is represented by total acquisitions, another 40% by "majority acquisitions" (greater than 50% of stakes), and the remainder by acquisitions of minority shares (Table 3).

<Table 3>

4. Reported rationale for M&As performed by SOEs: Selected examples

In this section we focus on deal motivation, our main research interest in this paper. For each deal in our sample, Zephyr reports the motivation using several sources, among others declarations by the management of the firm involved in the agreement. We analyzed on a case-by-case basis all the rationales of our sample, and we classified them into several categories with the aim of identifying differences and similarities compared to private firms [7].

Our main finding is that the majority of SOE rationales for M&A deals are similar to those identified in the empirical literature for corporate firms. Indeed, the most frequently reported rationale is shareholder-value maximization, in the form of:

- efficiency gains (technical, synergic);
- increase in market power;
- diversification.

However, a not negligible number of deals are driven by different motivations, which specifically relate to the role of modern state capitalism in the economy. As has been highlighted in recent literature on SOEs, these rationales are not necessarily inconsistent with shareholder-value maximization [8].

A first group of deal rationales identifies the governments' strategic policy to play an active role in:

- the development of innovative projects, for example in the field of climate finance, renewable and environmentally friendly energy;
- the development of competitive physical and technological infrastructure, through the acquisition of strategic enterprises or by means of strategic alliance.

These deals are aimed at increasing capitalization in strategic and innovative sectors that require investments that are typically large-scale and risky, calling for patient capital and synergies in terms of know-how and R&D. We call this rationale "innovation."

A second group of deals identifies the governments' political strategy to strengthen its competitive position in domestic and cross-border markets in order to extract rents or accumulate resources from subsoil, oil, gas or mining, as well as to guarantee energy products and raw materials to serve the collective good of the country. Deals are typically performed by firms that belong to specific industries (mainly mining and oil and gas) and have a central role in the global economy, such as the oil giants Gazprom and Petroleo Brasileiro. We call this rationale "rent-extraction."

A third group of M&A rationales relate to debt restructuring and the bail-out of financially distressed firms arising because of severe market failures, such as the 2008 crisis. We call this rationale "financial distress."

To offer some immediate intuition, Table 4 reports several examples of motivations for the four types of deals, which are explained in detail in the next sections .

<Table 4>

4.1 Shareholder's value maximization

The shareholder-value maximization rationale is spread across sectors and geographical areas and is the most prevalent motivation for SOE M&A deals. Similarly to private firms, government-owned enterprises also pursue this goal by means of higher levels of efficiency, diversification and risk reduction, increase in market power and entry into new markets. We report below some illustrative examples of motivations specifically relating to technical and strategic efficiency, diversification and increase in market power.

Technical and strategic efficiency

The French Areva targeted a firm engaged in the provision of technological solutions for carbon dioxide-free nuclear power generation from the British Urenco with a purpose "to share knowledge of efficient, economic and environmentally friendly technology." Increase in net income by means of economies of scale and scope is also the driver of the M&A deal performed by the Suisse Rual, which acquired 100% of Oerlikon Space in order to combine "businesses under one umbrella as a competitive aerospace supplier out of the three countries Switzerland, Sweden and Austria strengthening RUAG's position and to opening up new attractive opportunities for our customers and partners as well as our staff".

The Chinese manufacturing group Shanghai Electric acquired the North-American Goss International Corporation, which was engaged in the wholesale distribution of printing trade machinery and equipment with an aim to "bring additional strength and financial resources to the business and further enhance the ability to innovate, execute and deliver value to customers through a unique, worldwide manufacturing and support platform that includes operations in Asia, Europe and the United States." Similarly, the Suisse Sicap acquired the French Swapcom, engaged in computer programming activities, with an aim to "enable operators to drive new revenue opportunities, offer lower operating costs and increase customer satisfaction and loyalty."

Market power

The Malaysian Th Plantation, a company principally involved in the cultivation of oil palm, acquired 100% of Ladang Bukit Belian, which was engaged in the business of growing cereals and oil seeds "in order to strengthen the company's business in Malaysia (…) with the aim to create the world's largest oil palm plantation group with core business in motor vehicle, heavy equipment, property and energy utilities." In a different sector, the financial company Abn Amro acquired a participation in the Belgian Bank Corluy Effectenbankiers "to strengthen our Belgian market position and the quality and expertise of our local services," and the Norwegian Itella Information, which engaged in activities auxiliary to financial services, acquired 100% stake in the German Newsource GmbH, which was involved in the provision of business process outsourcing (BPO) solutions, with the aim of becoming the European market leader in financial transaction processing services.

Deals aimed at increasing market power are also found in the manufacturing sector as well as in the telecom sector. For example, the purchase of a 50% share in Gibtelecom (GI) by Telekom Slovenje (SI) was motivated by the goal of implementing an expansion strategy on developed European markets. The deal done by Saudi Telecom to buy Oger Telecom Ltd (AE) highlights the goal "to become the undisputed leader in the region." Other transactions are operations of expansion or strategic initiatives in order to offer more landline broadband, based on fiber technology. For instance, Emirates Telecommunications purchased Tigo PVT, Belgacom bought Tele2 Luxemburg, and Telenor purchased Vimpelcom.

Diversification

Diversification is a rationale for many M&A deals performed by financial companies acquiring firms operating in other industries. For example, Abn Amro acquired a participation in Baarsma Wine Group Holding with the following declared motivation:

> "Baarsma Wine Group is a young, dynamic and fast-growing company that has a clear vision. It has distinguished itself by its continuous efforts to develop 'winning strategies in wine' for its various operating companies. We have known the company since 2002, and see good opportunities for accelerating its ambition to become the European market leader in this segment."

Similarly, a Canadian company, the British Columbia Investment Management Corporation, which is engaged in fund management activities, acquired a stake in Delta Hotels Ltd and the comments of the managements were:

> "As Canada's leading first-class hotel brand, Delta is an ideal fit with bcIMC's investment strategy to expand our diversified real estate portfolio to include hospitality. Delta's brand recognition, experienced management and dedicated employees will be a strong complement to our diversified portfolio of assets."

Diversification is also the goal of M&A deals performed by SOEs active in other industries. The Malaysian Kencana, which is engaged in the provision of offshore and onshore engineering, acquired Torsco Sdn which specialized in heavy steel fabrication, erection and piping installation, with the aim to "diversify its activities in the oil & gas-related business and in the oil & gas fabrication industry in terms of size and capabilities," while the Canada Pension Plan Investment board acquired 100% of the Chilean Sociedad Concesionaria Costanera Norte to expand its infrastructure portfolio in a developing market with a strong growth rate.

4.2 Innovation

The innovation rationale drives a number of deals in the electricity sector; they are aimed at fostering innovations with impacts on the environment and climate, creating synergies and consolidation of enterprises with different technologies, and investing in infrastructure projects.

For instance, the acquisition by Gazprom of a French company, Energie du Porcien, seemed to have the aim of developing alternative energy and green projects in Russia, since "it could be regarded as a learning experience of green projects in Europe where the market has been actively developing during the last 20 years." Other examples of such deals are the acquisition of Eoliennes de la Haute by GDF, in line with Gaz de France's strategy to invest in wind generation companies, the purchase of Generadores Hydroeletricos sa Hidronorte by the Colombian enterprise Empresas Publicas de Medelin Esp., and the acquisition of Nuon International China BV by China Resource Power Holdings. Moreover, Enel's entry into the US geothermal market AMP Resource LLC, investing in North America, confirms the commitment toward environmentally friendly technologies to fight climate change. The

Swedish company Vattenfall acquired 100% of the British Amec Wind Energy and the comment of the Chief Executive Officer of the Vattenfall Group was:

> "AMEC is one of the most respected and experienced engineering services companies in the utility sector, whose skills and resources in wind energy are complementary to our own. Vattenfall has ambitious plans within the renewable energy sector and we are delighted that AMEC's UK Wind Developments business will be a part of our growing portfolio."

The innovation rationale is also related to the development of physical and technological infrastructures. For example, Terna Spa acquired the multi-utility Acea Spa and AEM Trasporto Energia Spa with the aim of starting a process of unification of the Italian grid and to upgrade one of the technological infrastructures essential to the country's development, thus improving energy system safety and increasing the competitiveness of the Italian economic system. Rail Cargo Austria acquired the total shares of MAV Cargo Zrt to expand the railway transport in Central and Eastern Europe, while CFL Cargo purchased the Midcargo Ab to "extend their rail freight activities towards the north and add another Scandinavian country to their geographic range, which is an important factor when providing customized door-to-door services to our international customers." In the local transport sector, we can also mention the acquisition of Tramtrack Croydon by Transport Trading Ltd for improving the quality of services for citizens:

> "Bringing Tramlink into the control of TfL is excellent news for Londoners. This will mean we can plan how to make the improvements that are required to cater for ever increasing numbers of passengers and provide them with the very best possible services."

4.3 Extraction of rent

Gazprom, Qazmunaigaz, and Petroleo Brasileiro are acquirers who are mainly involved in these types of deals, which are aimed at strengthening the governments' position in strategic sectors like mining, oil and gas. From 2005 to 2010 Gazprom performed several horizontal deals searching for strategic economic alliances. In particular, Gazprom (re)invested in domestic firms, such as in Sakhalin Energy Investment Company Ltd, with a strategy of entering in the liquefied natural gas market (LNG) and developing an Asian market: "With the entry of Gazprom as Sakhalin Energy's major shareholder, we are confident that in cooperation with the Russian government, we can bring this first Russian frontier LNG project to completion, as scheduled, for delivery of LNG to our customers in Japan, Korea and the United States." Gazprom also invested in Finnish companies in order to "start the realization of the project to build the North European pipeline," and in Belarus companies "with both the objective global trends in hydrocarbon markets and the level of relationships in the gas industry taken into account."

The six deals performed by the Kazakhstani company Qazmunaigaz Barlau Ondiru AQ all involve extraction of oil and the manufacture of refined petroleum products. It is clear that this expansion affords it control of the new merged enterprises in order to increase its market position in the extraction of oil, hence this approach accords with a strategic policy to expand and reinforce the extraction market in Europe too, where most of the deals have been made with Nederland Enterprises. The targets of Qazmunaigaz were the Valsera Holdings and Rompetrol companies, which, in turn, were owned by other foreign vendors. The aim of the managers was to return a very large asset to the country.

The Brazilian company Petroleo Brasiliero is involved in the acquisition of cross-country targets. The aim seems to be to expand and increase its ownership in the refined petroleum products sector across different geographical areas, such as Japan, the US, Poland and Uruguay. Here are some comments:

> "Petrobras will take control of the natural gas market in Uruguay. The acquisition fits in with Petrobras's overall strategy of consolidating its position as a Latin American market leader" (after the acquisition of Gaseba Spa);
>
> "The acquisition allows Petrobras to continue its plans to expand into the US market," after the acquisition of Pasadena Refining System Inc.;
>
> "The conclusion of this operation is in line with the objectives established in the Strategic Plan for the consolidation of Petrobras as an integrated energy company with a strong international presence and leadership in Latin America. Such markets represent excellent potential for growth as well as synergies with existing assets held by the company throughout the region" (after the acquisition of Shell Uruguay SA).

4.4 Financial distress

The majority of deals driven by the motivation 'financial distress' took place after the 2008 financial crisis. They were mainly realized by government agencies or financial state-owned acquirers and were aimed at rescuing firms from financial distress. For example, in 2011 the

Dubai government purchased all of the shares in Dubai Bank to help the bank pay off some debts. Societe Federale de Participations et d'Investissement acquired Dexia Bank Belgium to pay off the loans granted by Dexia Bank Belgium to Dexia SA and Dexia Credit Local. Other similar operations have been carried out by Temasek, a holding owned by the government of Singapore, which acquired Banco the Bajío from Banco de Sabadel because "the divesture of Banco del Bajío by Banco de Sabadell is part of the firm's objectives of shoring up its capital levels following a difficult few years for the banks in Spain," while GMAC Commercial Finance LLC acquired 100% of Betts Global Ltd with the following declared motivation: "Betts went into administration on 16/04/09, and has since been purchased by the banking consortium."

In other examples, in 2007 the Dutch municipality of Amsterdam acquired the total shares of Beurs van Berlage Stichting, a company of creative arts and entertainment activities that had a deficit of 7 million euros, from the urban district of Stadsdeel Amsterdam-Centrum. The Arizona government also made a total acquisition of PMI Mortgage Insurance, a non-life insurance company hit by the housing downturn; similarly, the Irish Government acquired 100% of the distressed insurance company Irish Life.

A smaller number of deals that belong to this category is also represented by M&As aimed at restructuring the vendor's debt and financial structure, that is deals where the sale of a company is performed to reorganize the public debt and to transfer the ownership to another state-owned company with a private organization. In this case, Zephyr reports the vendor's, rather than the acquirer's rationale. For instance, Cassa Depositi e Prestiti, the holding owned by the Italian government, purchased Simest Spa from the Minister of Economy and Finance in order to "reduce the Italian debt." This type of operation of reorganization of the public debt has also been conducted by Empresa de Energia de Bogotá when it acquired Empresa Colombiana de Gas from the Colombian government to use the proceeds to buy back the foreign debt. Similarly, in 2009 the Tasmanian government sold the total ownership of Tamar Valley Power Station in order to use the proceeds to repay the debt: "The sale of Tamar represents a significant de-risking for the BBP business, which is a key step towards the stabilization of BBP's capital structure".

Table 5 summarizes the most recurring keywords in the reported rationales in the Zephyr data set.

<Table 5>

5. Empirical analysis

In this section we analyze the evidence that we have collected. First of all, Table 6 highlights the distribution in the sample of the different groups of rationales according to our taxonomy.

<Table 6>

Almost 64% of the deals performed by SOEs as acquirers are driven by shareholder-value maximization motives, such as the deals of Areva, Belgacom, and Caisse de Depots et de Consignations. As for rationales that accord with the role of modern state capitalism in the economy, "innovation" and "rent extraction" each drive nearly 13% of all deals, while financial distress accounts for 10% of the deals.

The rationale "shareholder-value maximization" is spread across all sectors (Table 7); conversely the others are more focused on specific sectors. Indeed, rescue from financial distress is more typical for finance and public administration acquirers (with a peak in the aftermath of the 2008 crisis – Table 8), "innovation" is more relevant in the electricity industry, such as the acquisition of the French Energie du Porcien by Gazprom or the acquisition of Nuon International China by China Resource Power Holding, and in developed countries, while "rent extractions" mainly belong to the mining and oil & gas sector, with a higher incidence in South and Central America and Eastern countries, such as the prominent deals of Gazprom and Petroleo Brasileiro.

Domestic deals are more common than cross-border deals in all the groups of rationales, apart from the rent-extraction motivation, where the number of cross-border deals is higher, in line with the underlying need of this rationale to increase market power (Table 9).

In terms of share of acquisition, around 80% of deals are represented by majority acquisitions (greater than 50% stake). Among them, 143 deals are total acquisitions, with no relevant differences between the four types of deals. Regarding the distribution by type of vendor (Table 10), public–public deals – that is target acquired from a state-owned vendor – are mainly concentrated in the rent-extraction rationale, which typically involves a government-owned industry. The other public–public deals are equally spread among the remaining rationale types. Western Europe has the highest share of deals driven by the shareholder-value maximization and innovation rationales, in line with the focus of contemporary state capitalism in supporting the development of new industries, processes and products

(Musacchio and Lazzarini 2014), while rent-extraction M&As are more concentrated in Eastern Europe, and financial distress in Asia, Oceania and the Far East.

<Table 7>
<Table 8>
<Table 9>
<Table 10>

The Chinese case is particularly relevant in our dataset. Indeed, among the 38 deals performed by Chinese SOEs as acquirers, almost 90% are motivated by shareholder-value maximization goals, by means of efficiency gains, risk diversification, and increase in market power. Deals are mainly acquisitions of majority stakes (88%), and targets are spread among several industries, such as manufacturing (9 deals), transport (6 deals), construction (5 deals), finance, electricity and telecom (4 deals each). Among cross-border deals, two-third of Chinese acquisitions have a target in a developed country, such as the acquisition of Intergen (NL) by China Huaneng Group, the acquisition of Manassen Foods Australia (AU) by the Shanghai Tangjiu Group, the acquisition of the Goss international Corporation (US) by the Shangai Electric Group, the acquisition of Qenos (AU) by China National Chemical Corporation. These findings - which highlight that almost all Chinese deals in our sample have a shareholder-value maximization motivation - are in line with Karolyi and Liao (2017) who suggest that the majority of SOEs deals are no differently motivated than those of private firms. In addition, the internationalization of Chinese SOEs by means of acquisitions in developed countries is also in line with Xie et al. (2016), who find that performance relative to aspirations is a relevant driver behind their rapid growth, as well as with the tendency for centrally located firms in China to acquire alliance partners by means of more aggressive policy of cross-border M&As deals (Peng 2012).

Back to the whole sample, interesting information can also be obtained by looking at the economic and financial characteristics of the acquirers and targets involved in each deal. Specifically, we analyze measures of size (total assets, turnover), performance (EBIT margin, return on asset – ROA), and a financial soundness ratio the year prior to the deal, in order to analyze the characteristics of deals that belong to the "shareholder-value maximization" rationale and to test differences in the groups of deals motivation.

Table 11 reports the median value, by rationale group, of the considered variables for both acquirer and target involved in each deal, while Table 12 reports the results of the Wilcoxon–

Mann–Whitney test (Wilcoxon 1945; Mann and Whitney 1947), which highlights whether the median value of the differences, computed for each deal, is statistically significant.

<Table 11>
<Table 12>

Regarding "shareholder-value maximization" motives, the results indicate that acquirers are larger than their targets along several dimensions, such as total assets and turnover, as confirmed by the p-value test of the median value of the differences between acquirers and targets. Acquirers also have slightly higher performance indicators in terms of EBIT and ROA, as well as stronger solvency situations. According to previous studies (see, in particular, Clò et al. 2015, pp.571–575), these deals reveal economic and financial characteristics similar, in size and magnitude, to deals performed by private acquirers, strengthening our finding that the majority of deals performed by SOEs are similar to M&As performed by private companies.

Interestingly, comparable results can be detected in all the other groups of rationales, with significant differences in magnitude, however. In particular, the differences in firms' characteristics between acquirer and target are greater compared to shareholder-value maximization, in terms of total asset, turnover and EBIT margin, especially for innovation and rent-extraction rationales.

We further analyze the acquirers' characteristics in relation to the three rationale groups that specifically belong to government-led M&A rationales. To do so we use the "Shareholder-Value Maximization" group as our benchmark, i.e. we compare acquirer firms' characteristics in each of the other three groups ("Innovation", "Rent Extraction", "Financial Distress") with those of the "Shareholder-Value Maximization" group. In Table 13 we report the results of the Mann–Whitney test on the differences in the median, for rationale groups (acquirers only) [9]. This table is a subset of Table 8, where we have all the median values (both for acquirer and target)for each rationale.

<Table 13>

The results highlight that, compared to the benchmark group, active SOEs engaged in deals that are driven by a mission to strengthen the governments competitive position in domestic and cross-border markets – to extract rent from mining, subsoil, oil and gas – are national giants and global players that are relatively big in size, as measured by total assets and turnover. They also seem well performing in terms of EBIT margin and ROA (although we do not investigate the reasons for such performances) as well as strongly capitalized.

SOEs that are entering deals in order to play an active role in the development of innovation projects and/or competitive physical and technological infrastructures are also large in size, but with relatively lower levels of turnover, given their total assets. This result may be read in the light of the specificity of their activities, which are less capital-intensive and require more long-term investment and returns. While the EBIT margin is statistically higher than the benchmark, the ROA is slightly lower (although the p-value is not significant); this is likely due to the disproportionately high value of the total asset.

Finally, with deals performed for debt restructuring or bail-out motivations, the SOEs involved have similar total assets but a lower turnover compared to the benchmark. Their ROA is lower, not surprisingly, and probably due to a higher debt burden, related to their levered financial structure.

6. Concluding remarks

The recent literature on SOEs tends to contradict earlier widely held assumptions about their role in the economy in terms of objectives and performance. The traditional literature tended to look at SOEs as captured by politicians and overall underperforming in comparison to private firms. Some authors, however, most notably for example Musacchio and Lazzarini (2014), point to the emergence of a new form of state capitalism, where SOEs compete with private firms with similar strategies and objectives. This paper contributes to this debate through a novel perspective. We look at SOEs from the angle of the MCC and we analyze in detail the reported rationales of a sample of 355 M&A deals performed by SOEs as acquirers over the period 2002–2012; our aim, after having creating a taxonomy of deal rationales, is to empirically test two alternative hypotheses: *Deviation* versus *Convergence* of M&A deal rationales between public and private enterprises.

We find that more than 60% of the deals performed by SOEs as acquirers are driven by "shareholder-value maximization" motives, similarly to private enterprise acquirers. The other 40% of deals are almost equally spread among three rationales that specifically relate to the role of modern state capitalism in the economy: the development of innovative projects and competitive infrastructures ("innovation"), the strengthening of competitive positions to extract rents or accumulate resources ("rent-extraction"), and the bail-out of financially distressed firms ("financial distress"). The most important finding is that the last rationale, which is the only one clearly deviating from the objectives of profit maximization typical of private ownership, is by far less important than the others. Given that the recent wave of cross-border SOE M&As, especially from Chinese enterprises, has raised regulatory concerns in many countries (e.g. the institution of the US Foreign Investment and National Security for scrutiny of potential SOE foreign acquirers), our findings, in line with Karolyi and Liao (2017), suggest the majority of SOE deals are no differently motivated than those of private firms, and may not deserve a specific regulatory scrutiny.

Moreover, we have analyzed the deals in terms of such rationales, highlighting different features according to macro-sector and macro-area variables, and economic and financial ratios. Specifically, we find that the rationale "shareholder-value maximization" is spread across all sectors and more concentrated in Western countries, while "rent extraction" mainly belongs to the mining, and oil & gas sectors, with a higher incidence in South and Central America and Eastern countries. The "innovation" rationale is more relevant in the electricity industry and in developed countries. Finally, the "rescue from financial distress" rationale is typical for acquirers that are not the typical contemporary SOEs, but financial entities and other organizations in the public sector, or directly governments.

As far as accounting indicators are concerned, "shareholder-value maximization" deals reveal economic and financial characteristics that are similar, in size and magnitude, to deals performed by private acquirers, strengthening our finding that the majority of deals performed by SOEs are similar to M&As performed by private companies. Compared to this group of deals, "rent-extraction" M&As are performed by SOEs that are relatively big in size, and well performing in terms of EBIT margin and ROA. Similarly, "innovation" deals are performed by companies that are large in size, but with relatively lower levels of turnover, and exhibit an EBIT margin that is statistically higher than the benchmark. SOEs engaged in deals performed for debt restructuring or bail-out motivations display a lower ROA.

Overall, these findings suggest that the rescue of firms in financial distress, in spite of the Great Recession, is a relatively less frequent deal rationale when SOEs are the acquirers compared with shareholder-value maximization and long-term strategic goals.

While our empirical analysis is based on new evidence, it has some limitations that suggest the need for further research. First, it is always difficult to precisely ascertain the motivation of managers when they are involved in M&A operations. To the best of our knowledge there are no better sources of comparable international evidence than the ones we use (the combined Zephyr and Orbis databases), but it would be interesting to study in detail some cases to double-check whether the reported rationales are good descriptions of the actual motivations of a deal. This should be left to future research as it possibly would imply fieldwork and the collection of evidence from a variety of sources (with some risk in terms of consistency and comparability). Second, it would be interesting to correlate the evidence to the quality of corporate governance and to the quality of institutions, along the lines, for example, of Faccio (2006) or Borghi et al. (2016), in order to discover whether the alignment of objectives between public and private enterprises is enhanced by certain features of the public sector management, as suggested by the OECD (2015) Guidelines. The last issue may also suggest some policy implications, in terms of reforms of the corporate governance of the SOEs and accountability of their management against clearly stated public missions. It would be important for citizens to be informed in a transparent way about the rationales of major M&A deals when a SOE is on the acquirer side, and the consistency of such rationales with the mission assigned by governments to the enterprises they own. Our study also contributes to the public debate on the nature of SOE M&As and the regulatory issues raised in many countries around the world by the rise of cross-border SOE M&As and the fear they may be opaque or driven by unknown motivations (e.g. the institution of the US Foreign Investment and National Security Act for the scrutiny of potential SOE foreign acquirers) (Kowalski et al. 2013). Evidences presented in the paper, in line with Karolyi and Liao (2017), suggest that these concerns may be in most of the cases unfounded: the majority of SOE deals – even in the Chinese case - appears no differently motivated than private-led deals, and therefore may not deserve a specific regulatory scrutiny.

Notes

[1] "A state-owned enterprise is: ultimately owned or co-owned by the national or local government; internalizing a public mission among their objectives; enjoying full or partial budgetary autonomy; exhibiting a certain extent of managerial discretion; operating mainly in a market environment, and for which (full) privatization would in principle or de facto be possible, but for some reasons, it is not a policy option" Florio (2014, p.201).

[2] SOEs are growing globally: over the last decade, the world's 2,000 largest SOEs have combined more than 6 million employees, operating revenues equal to 19% of global cross-border sales, aggregate sales for 6% of the world GNI, and nowadays they represent approximately 10% of global gross domestic product (Bruton et al. 2015; Kowalski et al. 2013).

[3] https://www.bvdinfo.com

[4] We consider as state-owned any enterprise whose ultimate owner, defined as the independent shareholder with the highest direct or total percentage of ownership, is a central or local government entity, public agency, authority or other public sector body. Furthermore, we consider the independent shareholder to be the ultimate owner (UO) of an enterprise if it holds more than 25 percent of shares (usually regarded as granting control or at least a large influence in decision-making, see Christiansen and Kim, 2014).

[5] Indeed, when defining the ownership type of any enterprise involved in the deal, there is the possibility to wrongly consider as state-owned a firm that is state-owned nowadays, but was not state-owned at the time of the deal. This misreading may happen both on the acquirer and on the target side. To avoid this potential error, we restricted our sample to those observations for which the ultimate owner of both the acquirer and the vendor has not changed since the time of the deal.

[6] We use the term "state-owned" instead of "public" to indicate a state-owned enterprise because this term can be confused with the "publicly listed but privately owned firms."

[7] We are aware that any classification may simplify the complexity underlying deal rationales, since different motivations may not be exclusive to each other. For example, synergy gains may motivate mergers in search of strengthening market power, while technical efficiency may be pursued through product and diversification strategies. We are also aware that non-profit maximization motives, clearly identified in the empirical analysis, are unlikely to be explicitly declared as the rationale of the deal.

[8] See Musacchio et al. (2014) for an analysis of strategic and governance implications of new varieties of state capitalism.

[9]The Mann & Whitney test (1947) is a nonparametric rank sum test for significance of the change in median values. Since the distribution of the financial variables for the acquirers are quite different, we use the Mann–Whitney test to validate the median values, Indeed, the test shows whether the distributions are independent.

References

Agrawal, A. and Jaffe, J. (1995), “Does section 16b deter insider trading by target managers?”, *Journal of Financial Economics*, Vol. 39 No. 2, pp. 295-319.

Aivazian, V.A., Ge, Y. and Qiu, J. (2005), “Can corporatization improve the performance of state-owned enterprises even without privatization?”, *Journal of Corporate Finance*, Vol. 11 No. 5, pp. 791-808.

Amihud, Y. and Baruch, L. (1981) “Risk reduction as a managerial motive for conglomerate mergers”, *Bell Journal of Economics*, Vol. 12, pp. 605-617.

Andrade, G. and Stafford, E. (2004), “Investigating the economic role of mergers”, *Journal of Corporate Finance*, Vol. 10, pp.1-36.

Bacchiocchi, E., Ferraris, M., Florio, M. and Vandone, D. (2017), “State-owned banks in the market for corporate control”, *Journal of Economic Policy Reforms* (in press).

Bass, A.E. and Chakrabarty, S. (2014), “Resource security: competition for global resources, strategic intent, and governments as owners”, *Journal of International Business Studies*, Vol. 45, pp. 961-979.

Bertrand, O. and Betschinger, M.A. (2012), “Performance of domestic and cross-border acquisitions: Empirical evidence from Russian acquirers”, *Journal of Comparative Economics*, Vol. 40, pp. 413-437.

Borghi, E., Del Bo, C. and Florio, M. (2016), “Institutions and firms’ productivity: Evidence from electricity distribution in the EU”, *Oxford Bulletin of Economics and Statistics*, Vol. 78 No. 2, pp. 170-196.

Bortolotti, B., Fotak, V. and Megginson, W.L. (2015), “The sovereign wealth fund discount: Evidence from public equity investments”, *Review of Financial Studies*, Vol. 28 No. 11, pp. 2993-3035.

Bozec, R. and Breton, G. (2003), “The impact of the corporatization process on the financial performance of Canadian state-owned enterprises”, *International Journal of Public Sector Management*, Vol. 16 No. 1, pp. 27-47.

Breinlich, H. (2008) “Trade liberalization and industrial restructuring through mergers and acquisitions”, *Journal of International Economics*, Vol.76 No.2, pp. 254-266.

Bris, A., Brisley, N. and Cabolis, C. (2008), “Adopting better corporate governance: Evidence from cross-border mergers”, *Journal of Corporate Finance*, Vol. 14 No.3, pp. 224-240.

Bruton, G., Peng, M., Ahlstrom, D., Stan, C. and Xu K. (2015), “State-owned enterprises around the world as hybrid organizations”, *Academy of Management Perspectives*, Vol. 29 No.1, pp. 92-114.

Carow, K.A., Kane, E.J. and Narayanan, R.P. (2006), “How have borrowers fared in banking mega-mergers?”, *Journal of Money, Credit and Banking*, Vol.38, pp.821–836.

Cassiman, B., Colombo, M., Garrone, P. and Veugelers, R. (2005), “The impact of M&A on the R&D process: An empirical analysis of the role of technological- and market-relatedness", *Research Policy*, Vol. 34 No. 2, pp. 195–220.

Chen, Y.Y. and Young, M.N. (2010), "Cross-border mergers and acquisitions by Chinese listed companies A principal–principal perspective", *Asia Pacific Journal Management*, Vol. 27, No. 3, pp. 523-539.

Christiansen, H. and Kim, Y. (2014), "State-Invested Enterprises in the Global Marketplace: Implications for a Level Playing Field", OECD Corporate Governance Working Papers, No. 14, Paris: OECD Publishing.

Clò, S., Del Bo, C. F., Ferraris, M., Florio, M., Vandone, D. and Fiorio, C. (2015), "Public enterprises in the market for corporate control: recent worldwide evidence", *Annals of Public and Cooperative Economics*, Vol. 86, No. 4, pp. 559-583.

Clò, S., Fiorio C.V. and Florio, M. (2017), "The targets of state capitalism: Evidence from M&A deals", *European Journal of Political Economy*, Vol. 47, pp. 61-74.

Coeurdacier, N., De Santis R. and Aviat, A. (2009), "Cross-border mergers and acquisitions and European integration", *Economic Policy*, Vol. 57, pp. 57-89.

Craig, S.G. and Hardee, P. (2007), "The impact of bank consolidation on small business credit availability", *Journal of Banking and Finance*, Vol. 31 No. 4, pp.1237-1263.

Cuervo-Cazurra, A., Inkpen, A., Musacchio, A. and Ramaswamy, K. (2014), "Governments as owners: State-owned multinational compagnie", *Journal of International Business Studies*, Vol. 45 No. 8, pp. 919-942.

Del Bo, C., Ferraris, M. and Florio, M. (2017), "Governments in the market for corporate control: Evidence from M&A deals involving state-owned enterprises", *Journal of Comparative Eeconomics*, Vol. 54 No. 1, pp. 89-109.

Denis, D.J., Denis, D.K. and Yost, K. (2002), "Global diversification, industrial diversification, and firm value", *Journal of Finance*, Vol. 57 No. 5, pp. 1951-1979.

De Olloqui, F. (2013), "Public development banks: Towards a new paradigm?", *Inter-American Development Bank*, Washington, D.C.

De Young, R., Evanoff, D. and Molyneux, P. (2009), "Mergers and acquisitions of financial institutions:A review of the post-2000 literature", *Journal of Financial Services Research*, Vol. 36 No. 2, pp. 87-110.

Erel, I., Liao, R. and Weisbach. M. (2012), "Determinants of cross-border mergers and acquisitions", *Journal of Finance*, Vol. 67 No. 3, pp. 1045-1082.

Eslava, M. and Freixas, W. (2016), "Public Development Banks and Credit Market Imperfections", CEPR Discussion Paper.

Faccio, M. (2006), "Politically connected firms", *The American Economic Review*, Vol. 96 No.1, pp. 369-386.

Ferreira, M. A., Massa, M. and Matos, P. (2010), “Shareholders at the gate? Institutional investors and cross-border mergers and acquisitions”, *Review of Financial Studies*, Vol. 23 No.2, pp. 601-644.

Florio, M. (2014), “Contemporary public enterprises: Innovation, accountability, governante”, *Journal of Economic Policy Reform*, Vol. 17 No. 3, pp. 201-208.

Grossi, G., Papenfuss, E. and Tremblay, M. (2015), “Corporate governance and acocuntability of state-owned enterprises: Relevance for science and society and interdisciplinary research perspectives”, *International Journal of Public Sector Management*, Vol.28 No.4/5, pp. 274-285.

Gugler, K., Mueller, D., Yurtolgu, B. and Zulehner, C. (2003), “The effects of mergers: An international comparison”, *International Journal of Industrial Organization*, Vol. 21, pp. 625-653.

Hackbarth, D. and Miao, J. (2012), “The dynamics of mergers and acquisitions in oligopolistic industries,” *Journal of Economic Dynamics and Control*, Vol. 36 No. 4, pp. 585-609.

Harford J. (2005), “What drives merger waves?” *Journal of Financial Economics*, Vol. 77 No. 3, pp. 529-560.

He X., Eden L. and Hitt M. A. (2016), “The renaissance of state-owned multinationals”, *Thunderbird International Business Review*, Vol. 58 No. 2, pp. 117-129.

Houston, J.F., James, C.M. and Ryngaert, M.D. (2001), “Where do merger gains come from? Bank mergers from the perspective of insiders and outsiders”, *Journal of Financial Economics*, Vol. 60, pp. 285-331.

Jensen, M.C. (1986), “Agency cost of free cash flow, corporate finance, and takeovers”, *American Economic Review*, Vol. 76, pp. 323-329.

Karolyi, A.G. and Liao, R.C. (2017), “State capitalism's global reach: Evidence from foreign acquisitions by state-owned compagnie”, *Journal of Corporate Finance*, Vol. 47, pp. 367-391.

Kowalski, P., Buge, M., Sztajerowska, M. and Egeland, M. (2013), “State-owned enterprises. Trade effects and policy implications”, *OECD Trade Policy Papers*, No.147.

Lanine, G. and Vennet, R.V. (2007), “Microeconomic determinants of acquisitions of Eastern European banks by Western European banks”, *Economics of Transition*, Vol. 15 No. 2, pp. 285-308.

Lebedev, S., Peng, M.W., Xie, E. and Stevens, C.E. (2015), “Mergers and acquisitions in and out of emerging economies”, *Journal of World Business*, Vol.50 No.4, pp. 651-662.

Levesque, B. (2003), “Fonction de base et nouveau role del puvoirs publics: Vers un nouveau paradigme de l’Etat”, *Annals of Public Cooperative Economics*, Vol.47, pp.489-513.

Li, W., He, A., Lan, H. and Yiu, D (2012), “Political connections and corporate diversification in emerging economies: Evidence from China”, *Asia Pacific Journal of Management*, Vol. 29 No. 3, pp. 799-818.

Li, Y., Peng, M.W. and Macaulay, C. (2013), “Market-political ambidexterity during institutional transitions”, *Strategic Organization*. Vol. 11 No. 2, pp. 205-213.

Luo, Y. and Tung, R.L. (2007), “International expansion of emerging market enterprises: A springboard perspective”, *Journal of International Business Studies*, Vol. 38, pp.481-498.

Ma, X., Yiu, D.W. and Zhou, N. (2014), “Facing global economic crisis: Foreign sales, ownership groups, and corporate value”, *Journal of World Business*, Vol. 49, pp. 87-100.

Mann, H. B. and Whitney. D.R. (1947), “On a test of whether one of two random variables is stochastically larger than the other”, *Annals of Mathematical Statistics*, Vol. 18, pp. 50-60.

Manne, H. (1965), “Mergers and the market for corporate control”, *The Journal of Political Economy*, Vol. 73 No. 2, pp. 110-120.

Martin, K.J. and McConnell, J.J. (1991), “Corporate performance, corporate takeovers, and management turnover”, *Journal of Finance*, Vol. 46, pp.671-687.

Matsusaka, J.G. (1993), “Takeover motives during the conglomerate merger wave”, *RAND Journal of Economics*, Vol. 24, pp.357-379.

Mazzuccato, M. and Penna, C.R. (2016), “Beyond market failures. The market creating and shaping roles of state investment banks”, *Journal of Economic Policy Reform,* Vol. 19 No. 4, pp. 305-326.

Meyer, K.E., Ding, Y., Li, J. and Zhang H. (2014), “Overcoming distrust: How SOEs adapt their foreign market entries to institutional pressures”, *Journal of International Business Studies*, Vol. 45, pp. 1005-1028.

Millward, R. (2011), “Public enterprises in the modern western world, an historical analysis”, *Annals of Public and Cooperative Economics*, Vol. 82, 375-398.

Mitchell, M. and Mulherin, J. (1996), “The impact of industry shocks on takeover and restructuring activity”, *Journal of Financial Economics*, Vol. 41, pp. 193-229.

Musacchio, A. and Lazzarini, S.B. (2014), “Reinventing State Capitalism. Leviathan in Business, Brazil and Beyond”. Harvard University Press, Cambridge (Mass.), London.

Musacchio, A., Lazzarini, S. and Aguilera, R. (2015), “New varieties of state-capitalism: Strategic and governance implications”, *Academy of Management Perspectives*, Vol. 29 No. 1, pp. 115-131.

Mutlu, C., Wu, Z., Peng, M.W. and Lin, Z. (2015), “Competing in (and out of) transition economies”, *Asia Pacific Journal of Management*, Vol. 32 No. 3, pp. 571-596.

OECD (2015), Guidelines on Corporate Governance of State-Owned Enterprises, Paris.

Okhmatovskiy, O. (2010). “Performance implications of ties to the government and SOEs: A political embeddedness perspective”, *Journal of Management Studies*, Vol. 47, pp. 1021-1047.

Peng, M.W. (2003). “Institutional transitions and strategic choices”, *Academy of Management Review*, Vol. 28, pp. 275-296.

Peng, M.W. (2012). “The global strategy of emerging multinationals from China”, *Global Strategy Journal*, Vol. 2, pp. 97-107.

Peng, M.W., Bruton, G.D, Stan, C.V. and Huang, Y. (2016), “Theories of the (state-owned) firm”, *Asia Pacific Journal of Management*, Vol. 33, pp. 293-317.

Piscitello, L. (2004), “Corporate diversification, coherence and economic performance”, *Industrial and Corporate Change*, Vol. 13 No. 5, pp. 757-787.

PwC (2017), “M&A 2016 Review and 2017 Outlook”, Report.

Reddy, K.S, Xie, E. and Huang, Y. (2016), “Cross-border acquisitions by state-owned and private enterprises. A perspective from emergin economies”, *Journal of Policy Modelling*, Vol. 38 No. 6, pp. 1147-1170.

Rhodes-Kropf, M. and Viswanathan, S. (2004), “Market valuation and merger waves”, *Journal of Finance*, Vol. 59 No. 6, pp. 2685-2718.

Rossi, S. and Volpin, P. (2004), “Cross-country determinants of mergers and acquisitions”, *Journal of Financial Economics*, Vol. 74 No. 2, pp. 277-304.

Sun, P., Mellahi, K. and Liu, G.S. (2011), “Corporate governance failure and contingent political resources in transition economies: A longitudinal case study”, *Asia Pacific Journal of Management*, Vol. 28, pp. 853-879.

Voszka E. (2017), “Nationalization or privatization? The fragmentation of the mainstream”, *Annals of Public and Cooperative Economics*, Vol. 88 No. 1, pp. 91-120.

Wand, M. and Wong, S. (2009), “What drives economic growth? The case of cross-border M&A and Greenfield FDI activities”, *Kyklos*, Vol. 62 No. 2, pp. 316-330.

Weston, J.F, Chung, K.S. and Hoag, S.E. (1990), “Mergers, Restructuring and Corporate Control”, Prentice Hall.

Wilcoxon, F. (1945), “Individual comparisons by ranking methods”, *Biometrics Bulletin*, Vol. 1, No. 6, pp. 80-83.

Wu, C. and Xie, E. (2010), “Determinants of cross-border merger and acquisition performance of Chinese enterprises”, *Procedia –Social and Behavioral Sciences*, Vol. 2, pp. 6896-6905.

Xie, E., Huang Y., Peng, M.W. and Zhuang, G. (2016), “Resources, aspirations, and emerging multinationals”, *Journal of Leadership & Organizational Studies*, Vol. 23 No. 2, 144-161.

Xie, E., Reddy, K.S. and Liang, J. (2017), “Country-specific determinants of cross-border mergers and acquisitions: A comprehensive review and future research directions”, *Journal of World Business*, Vol. 52 No. 2, pp. 127-183.

Table 1. Number of deals by sectors.

Nace sectors	Total deals	Deals in same sector	Domestic deals	Cross-border deals
Agriculture	4	2	4	-
Construction	16	6	14	2
Electricity	44	32	44	23
Finance	105	46	55	50
Manufacturing	33	19	19	14
Mining	43	15	21	22
Oil & Gas	5	0	2	3
Other	18	10	15	3
Public	25	0	24	1
Telecom	25	21	11	14
Transport	31	27	16	15
Waste & Water	6	2	2	4
Total	355	180	204	151

Sources: Our elaboration from Zephyr and Orbis (BvD)

Table 2. Number of deals by country (acquirer and target)

Macroarea	Country	No. of Deals of Acquirer	No. of Deals of Target
Africa & Middle East	AE	16	2
	BH	2	2
	SA	4	
Asia - Oceania - FarEast	AU	5	7
	CN	38	33
	HK	7	3
	ID	3	3
	IN	3	6
	JP	4	4
	KR	4	3
	KZ	7	3
	MY	24	23
	SG	7	
	NZ		2
	PH		2
	PK		3
	SG		2
Eastern Europe	BG		4
	BY		4
	CZ	5	3
	EE	3	
	HU		3
	LT	2	3
	PL	4	4
	RO		2
	RU	28	19
	SI	4	
	UA	2	5
North America	CA	7	8

	US	17	20
South & Central America	BM		2
	BR	4	2
	CO	7	3
	EC	2	2
	JM		2
	KY		4
	MX		2
	PA		2
	TT	2	
	UY		2
	VE	2	2
Western Europe	AT	9	6
	BE	7	8
	CH	6	6
	DE	7	11
	DK	4	4
	ES	5	7
	FI	10	7
	FR	21	17
	GB	8	20
	IE	3	4
	II	3	
	IS	2	
	IT	11	10
	LU	2	3
	NL	18	20
	NO	6	6
	SE	8	4
	TR		3

Sources: Our elaboration from Zephyr and Orbis (BvD). In this table we do not consider the countries with only one deal

Table 3. Top-10 SOE M&A by deal value

Acquirer name	Vendor name	Target name	Deal type	Deal value (th Euro)
Saudi Basic Industries Co.	General Electric Company	Ge Plastics	Acquisition 100%	8.464.056
Argentinean Government	Repsol-Ypf Sa	Ypf Sa	Acquisition 51%	7.604.405
Gazprom	Mitsui & Co., Ltd Mitsubishi Corporation Royal Dutch Shell Plc	Sakhalin Energy Investment Company Ltd	Acquisition 50% plus one share	5.499.590
Areva Sa	Urenco Ltd	Enrichment Technology Company Ltd	Acquisition 50%	3.000.000
Swisscom Ag	Vodafone Group Plc	Swisscom Mobile Ag	Acquisition increased from 75% to 100%	2.680.462
China Huaneng Group	Gmr Infrastructure Ltd	Intergen Nv	Acquisition 50%	2.216.631
Abn Amro Holding Nv	Banca Popolare Italiana Scarl	Banca Antoniana Popolare Veneta Spa	Acquisition increased from 25.89% to 55.8%	2.100.000
Belgacom Sa	Vodafone Group Plc	Belgacom Mobile Nv	Acquisition increased from 75% to 100%	2.000.000

Caisse Des Depots Et Consignations Institutional Investors	Sacyr Vallehermoso Sa	Eiffage Sa	Minority stake 33.237%	1.920.235
Qazmunaigaz Ulttyq Kompaniasy Aq	Rompetrol Holding Srl	Rompetrol Group Nv, The	Acquisition 75%	1.833.583

Sources: Our elaboration from Zephyr and Orbis (BvD).

Table 4. Deals belonging to the different types of rationales

Deal Year	Deal Type	Acquirer	Target	Country Acquirer	Country Target
SHAREHOLDERS VALUE MAXIMISATION					
Technical and strategical efficiency					
2006	Acquisition 50%	Areva Sa	Enrichment Technology Company Ltd	FR	GB
2009	Capital Increase	Shanghai Electric Group Co., Ltd	Goss International Corporation	CN	US
2009	Acquisition 100%	Ruag Holding Ag	Oerlikon Space Ag	CH	CH
2006	Acquisition 100%	Sicap Ag	Swapcom	CH	FR
Market Power					
2008	Acquisition 100%	Th Plantations Bhd	Ladang Bukit Belian Sdn Bhd	MY	MY
2012	Acquisition 100%	Th Plantations Bhd	Th Ladang (Sabah & Sarawak) Sdn Bhd	MY	MY
2005	Acquisition 100%	Abn Amro Holding Nv	Bank Corluy Effectenbankiers	NL	BE
2011	Acquisition 100%	Itella Information As	Newsource Gmbh	NO	DE
2007	Acquisition 50%	Telekom Slovenije Dd	Gibtelecom Ltd	SI	GI
2008	Minority stake 35%	Saudi Telecom Company	Oger Telecom Ltd	SA	AE
2009	Acquisition 100%	Emirates Telecommunications Corporation	Tigo Pvt Ltd	AE	LK
Diversification					
2007	Institutional buy-out	Abn Amro Participaties Bv	Baarsma Wine Group Holding Bv	NL	NL
2007	Institutional buy-out 100%	British Columbia Investment Management Corporation	Delta Hotels Ltd	CA	CA
2007	Acquisition 100%	Kencana Hl Sdn Bhd	Torsco Sdn Bhd	MY	MY
2012	Minority stake 49.99%	Canada Pension Plan Investment Board	Sociedad Concesionaria Costanera Norte Sa	CA	CL
INNOVATION					
2012	Minority stake 21.74%	Gazprom Oao	Energie Du Porcien Sas	RU	FR
2007	Acquisition 100%	Gaz De France Sa	Eoliennes De La Haute Lys Sa	FR	FR
2010	Acquisition	Empresas Publicas De Medellin Esp	Generadores Hidroelƒctricos Sa Hidronorte Sa	CO	GT
2007	Acquisition 100%	Enel North America Inc.	Amp Resources Llc	US	US

2012	Acquisition 100%	Eni Spa	Nuon Belgium Nv	IT	BE
2005	Acquisition 100%	Terna - Rete Elettrica Nazionale Spa	Acea Trasmissione Spa	IT	IT
2007	Acquisition	Terna - Rete Elettrica Nazionale Spa	Aem Trasporto Energia Srl Electrical Substation In Moncalieri	IT	IT
2008	Acquisition 100%	Rail Cargo Austria Ag	Mav Cargo Zrt	AT	HU
2012	Acquisition 51%	Cfl Cargo Sa	Midcargo Ab	LU	SE
2008	Acquisition 100%	Transport Trading Ltd	Tramtrack Croydon Ltd	GB	GB
Extraction Of Rent					
2007	Acquisition 50% plus one share	Gazprom Oao	Sakhalin Energy Investment Company Ltd	RU	RU
2007	Acquisition 50%	Qazmunaigaz Barlau Ondiru Aq	Kazgermunai Llp	KZ	KZ
2005	Minority stake 8.33%	Qazmunaigaz Ulttyq Kompaniasy Aq	Agip Kazakhstan North Caspian Operating Company Nv	KZ	NL
2006	Acquisition 50%	Qazmunaigaz Ulttyq Kompaniasy Aq	Valsera Holdings Bv	KZ	NL
2007	Acquisition 75%	Qazmunaigaz Ulttyq Kompaniasy Aq	Rompetrol Group Nv, The	KZ	NL
2009	Acquisition increased from 75% to 100%	Qazmunaigaz Ulttyq Kompaniasy Aq	Rompetrol Group Nv, The	KZ	NL
2010	Acquisition increased from 87.5% to 100%	Petrobras International Braspetro Bv	Nansei Sekiyu Kk	NL	JP
2006	Acquisition 51%	Petroleo Brasileiro Sa	Gaseba Sa	BR	UY
2006	Acquisition 50%	Petroleo Brasileiro Sa	Pasadena Refining System Inc.	BR	US
2006	Acquisition 100%	Petroleo Brasileiro Sa	Shell Uruguay Sa	BR	UY
Financial Distress					
2011	Acquisition 100%	Dubai Government	Dubai Bank Pjsc	AE	AE
2011	Acquisition 100%	Federale Participatie- En Investeringsmaatschappij / Societe Federale De Participations Et D'investissement	Dexia Bank Belgium	BE	BE
2012	Minority stake 20%	Temasek Holdings Pte Ltd Shareholders	Banco Del Bajêo Sa	SG	MX
2009	Acquisition 100%	Gmac Commercial Finance Llc Nedbank Capital Cit Group Inc. Glitnir Corporate Finance	Betts Global Ltd	US	GB
2007	Acquisition 100%	Gemeente Amsterdam	Beurs Van Berlage Stichting	NL	NL
2011	Acquisition 100%	Arizona Government	Pmi Mortgage Insurance Company	US	US
2012	Acquisition	Cassa Depositi E Prestiti Spa	Simest Spa Fintecna Spa Sace Spa	IT	IT
2007	Acquisition 100%	Empresa De Energia De Bogota Sa Esp	Empresa Colombiana De Gas Esp	CO	CO
2008	Acquisition 100%	Tasmanian State Government	Tamar Valley Power Station	AU	AU

Sources: Our elaboration from Zephyr and Orbis (BvD).

Table 5. Keywords by deal type

Shareholder-value maximization	Innovation	Rent-extraction	Financial distress
Economies of scale and scope; sinergies; financial efficiency; risk reduction by means of product and geographic diversification; increase in market power.	Green projects; climate change; energy system safety; fostering innovation; development of physical infrastructures; acquiring skills and know-how.	Strategic sectors; government position; strategic economic alliances; market position; strategic plan; leadership; new market entry.	Financial crisis; rescuing firms; restructuring the vendor's debt; reorganization; stabilisation; lowering the cost of capital.

Sources: Our elaboration from Zephyr and Orbis (BvD)

Table 6. Number of deals by rationales.

Motivation	Number of deals %
Shareholders-value maximization	227 (63.9%)
Innovation	45 (12.9%)
Rent extraction	47 (13.2%)
Financial distress	36 (10.14%)
Total	335 (100%)

Sources: Our elaboration from Zephyr and Orbis (BvD)

Table 7. Number of deals by rationales and sectors.

Sector	Shareholder-value maximization	Innovation	Rent-extraction	Financial distress
Construction	13 (6%)	2 (4%)	- (0%)	1 (3%)
Electricity	15 (7%)	20 (44%)	7 (15%)	2 (6%)
Finance	80 (35%)	5 (11%)	4 (9%)	16 (44%)
Manufacturing, agriculture	33 (15%)	- (0%)	2 (4%)	2 (6%)
Mining, Oil & gas	13 (6%)	4 (9%)	30 (64%)	1 (3%)
Other	20 (9%)	1 (2%)	1 (2%)	2 (6%)
Public Administration	14 (6%)	2 (4%)	2 (4%)	7 (19%)
Telecom	18 (8%)	5 (11%)	0 (0%)	2 (6%)
Transport	21 (9%)	6 (13%)	1 (2%)	3 (8%)
Total	227 (100%)	45 (100%)	47 (100%)	36 (100%)

Sources: Our elaboration from Zephyr and Orbis (BvD)

Table 8. Number of deals by rationale and period of time.

Sector	Shareholder-	Innovation	Rent-extraction	Financial distress (4)	Total

	value maximization (1)	(2)	(3)		
Pre 2008	81 (36%)	12 (27%)	18 (38%)	5 (14%)	116 (33%)
After 2008	146 (64%)	33 (73%)	29 (62%)	31 (86%)	239 (67%)
Total	227 (100%)	45 (100%)	47 (100%)	36 (100%)	355 (100%)

Sources: Our elaboration from Zephyr and Orbis (BvD)

Table 9. Cross-border deals by rationales.

Type of Rationale	Shareholder value maximization	Innovation	Rent-extraction	Financial distress	Total
Domestic deals	130 (57%)	26 (58%)	19 (40%)	29 (81%)	204 (57%)
Cross-border deals	97 (43%)	19 (42%)	28 (60%)	7 (19%)	151 (43%)
Total	227 (100%)	45 (100%)	47 (100%)	36 (100%)	355 (100%)

Sources: our elaboration from Zephyr and Orbis (BvD)

Table 10. Number of deals by rationales and type of vendor.

Sector	Shareholder-value maximization (1)	Innovation (2)	Rent-extraction (3)	Financial distress (4)	Total
Public-public	54 (24%)	11 (24%)	22 (47%)	8 (22%)	95 (27%)
Public-private	173 (76%)	34 (76%)	25 (53%)	28 (78%)	260 (73%)
Total	227 (100%)	45 (100%)	47 (100%)	36 (100%)	355 (100%)

Sources: Our elaboration from Zephyr and Orbis (BvD)

Table 11. Pre-deal economic characteristics and financial indicators of acquirer and target (median value).

Variables	Shareholder-value maximization	Innovation	Rent extraction	Financial distress
Total asset° of acquirer	1,397,429	17,591,401	17,574,590	1,957,415
Total asset° of target	140,548	214,427	274,330	844,254
Turnover° of acquirer	631,272	1,134,622	3,962,076	450,577

Turnover° of target	91,281	263,574	144,943	406,593
Ebit margin°° of acquirer	12.61	20.22	33.26	22.82
Ebit margin°° of target	12.49	9.36	20.34	8.73
ROA§ of acquirer	7.16	5.81	12.83	4.64
ROA§ of target	6.73	5.28	8.91	3.06
Solvency ratio§§ of acquirer	46.20	38.86	58.29	45.10
Solvency ratio§§ of target	41.25	33.55	38.49	34.44

°thousands of Euro; °°Ebit/Turnover; §Profit before taxes/total asset; §§equity/total asset
Source: Our elaboration on Zephyr-Orbis: the sample is balanced for each single variable

Table 12. Differences between acquirer and target (median value).

Variables	Shareholder-value maximization	Innovation	Rent extraction	Financial distress
Total asset°	308,029***	33,678,936***	20,540,920***	428,159**
Turnover°	203,398***	739,604**	1,876,507***	6,639
Ebit margin°°	0	4.26*	3.03	-2.61
ROA§	-0.51	0.94	-0.26	-0.80*
Solvency ratio§§	-1.05	18.98	2.92	0

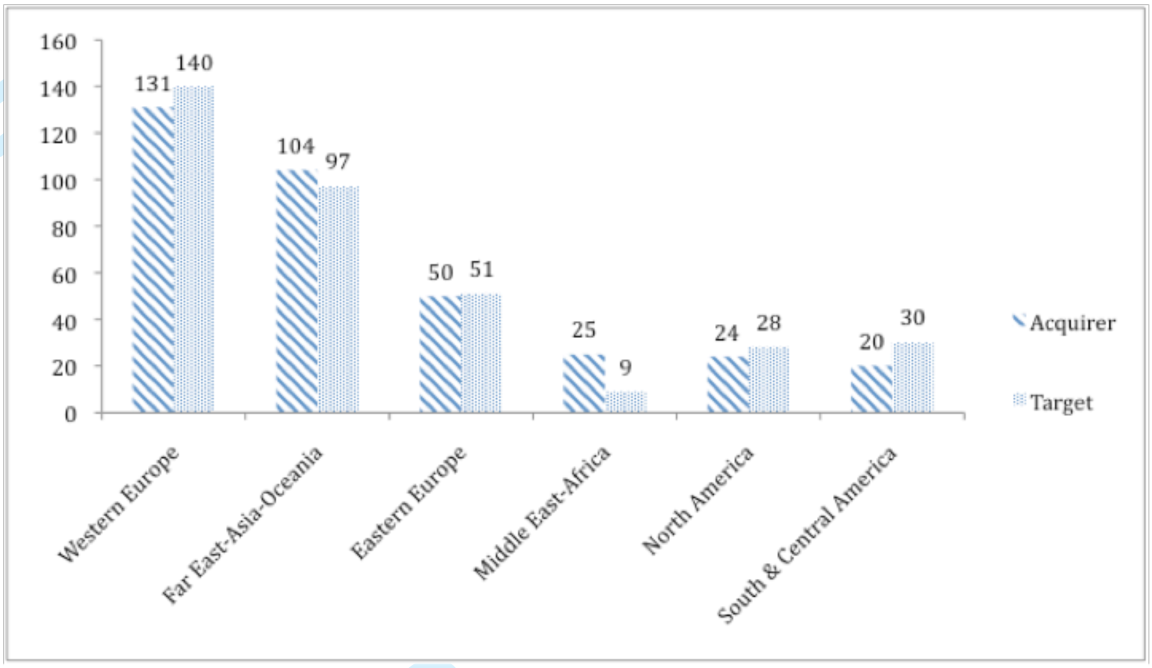
°thousands of Euro; °°Ebit/Turnover; §Profit before taxes/total asset; §§equity/total asset
Source: Our elaboration on Zephyr-Orbis: the sample is balanced for each single variable. All the absolute values are in Thousand of Euro; the Ratios are in in percentage; p-value according to the Wilcoxon test: *** p<0.01, ** p<0.05, * p<0.1

Table 13. Statistical significance test in median distribution for acquirers by groups of rationales ('shareholder value maximisation' as benchmark)

Variables	Innovation	Rent extraction	Financial distress
Total asset°	16,193,415***	16,177,161***	559,986*
	(0.0000)	(0.0001)	(0.1253)
Turnover°	503,350*	3,330,804**	-180,695
	(0.0388)	(0.0573)	(0.9123)
Ebit margin°°	7.61*	20.65***	10.21*
	(0.0552)	(0.0120)	(0.0868)
ROA§	-1.35	5.67**	-2.52***
	(0.1968)	(0.0336)	(0.0026)
Solvency ratio§§	-7.34	12.09*	-1.10
	(0.3001)	(0.1430)	(0.6986)

°thousands of Euro; °°Ebit/Turnover; §Profit before taxes/total asset; §§equity/total asset
Source: Our elaboration on Zephyr-Orbis: the sample is balanced for each single variable. All the absolute values are in Thousand of Euro; the Ratio are in in percentage; p-value in bracket according to the Mann & Whitney test, (level of significance: *** p<0.01, ** p<0.05, * p<0.1)

Figure 1. Number of deals by macroareas.



Sources: Our elaboration from Zephyr and Orbis (BvD)