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State-owned enterprises : rationales for mergers and acquisitions

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Rationales for Mergers and Acquisitions

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State-Owned Enterprises:
Rationales for Mergers and Acquisitions

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Working paper CIRIEC No. 2018/01

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Abstract

The paper contributes to the empirical literature on M&A deals performed by SOEs with a detailed analysis of the reported rationales from a sample of SOE-led acquisitions over the last decade. The sample includes 355 worldwide M&A deals performed by SOEs as acquirers over the period 2002-2012. The data set was obtained by combining firm-level information from two sources, Zephyr and Orbis (Bureau Van Dijk). The analysis is on a case-by-case basis for the rationales of the sample. Overall, the most important message arising from our analysis is that rescue of firms in financial distress is a relatively minor one role played by contemporary SOEs in spite of the Great Recession, while shareholder value maximization and long term strategic goals are more frequently the objective of the observed deals.

Keywords: State-owned enterprises, M&As, nationalization, privatization.

JEL Codes: L32, L33, G34

I. Introduction

In recent years there has been an increase in the number of academic publications on the contemporary SOE's[1], and their differences from and similarities to private firms. The growing attention is motivated not only by the expanding size of SOE's[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 reengineering, accountability and transparency standards, and they have become more mixed enterprises, with enhanced competitive capabilities and facing similar issues and challenges than private enterprises (Lebedev *et al.*, 2015; Florio, 2014; Cuervo-Cazurra *et al.*, 2014; He *et al.*, 2016; Musacchio *et al.*, 2015; Bruton *et al.*, 2015). Besides, 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 (De Olloqui, 2013; Millward, 2011; Eslava and Freixas, 2016), and in channeling funds to long-term societal challenges (Mazzucato and Penna, 2016).

Among recent publications, a rising number of papers is focusing on M&A (Lebedev *et al.*, 2015; Karolyi and Liao, 2016; Clò *et al.*, 2016, Bacchiocchi *et al.*, 2017; Del Bo *et al.*, 2016; Cheng and Young, 2010; Wu and Xie, 2010; Xie *et al.*, 2017; Reddy *et al.*, 2016). The reason for such a specific interest in this one important aspect of the new activisim of SOE's 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 targets' assets purchased by SOE's was reported to be no less than 690 billion Euros that 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 have 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 regularly invest

[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 worlds' 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; Christiansen, 2011; Kowalski and Perepechay, 2015).

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&A's over the last decade. Specifically, we analyze to what extent recent changes that are reshaping the overall activity of contemporary SOE's 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 with 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 SOE's as acquirers over the period 2002-2012. The deals' rationales are reported by Zephyr (Bureau Van Dijk) based on a variety of sources. Additionally, Zephyr provides information on the global ultimate owner (GUO) for each acquirer, and 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 the deal occurred, we had first 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&A's and speculating on their differences and similarities relative to private firms. Within our sample, around 80% of the deals is represented by majority acquisitions, of these 143 deals are total acquisitions. A considerable share 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 SOE's is shareholder-value maximization, by means of expected efficiency gains, 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 SOE's are more finance- and market-oriented than in

the last century and that they offer public services in a more business-like manner (Aivazian *et al.*, 2005; Bozec and Breton, 2003; Levesque, 2003; Grossi *et al.*, 2015; Clò *et al.*, 2015; Lebedev *et al.*, 2015; Florio, 2014; Cuervo-Cazurra *et al.*, 2014; He *et al.*, 2016; Musacchio *et al.*, 2015; Bruton *et al.*, 2015). Moreover, we detect a group of deals that are driven by motivations which specifically relate to the role of modern state capitalism in the economy, such as the development of innovative sectors (e.g. renewable and environmental-friendly energy), and the pursuit of national strategic goals by means of rent extraction and accumulation of resources. M&A's for the purpose of bailing-out distressed firms deviates from the principle of value maximization, but we find that this is far from being the main rationale of SOE M&A's.

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 SOEs deals rational and discusses the main findings. Section 5 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 analyze the phenomenon from multifarious viewpoints, such as stock market reactions and pre- and post-merger accounting performance (De Young *et al.*, 2009; Andrade and Stafford, 2004; Breinlich, 2008; Agrawal and Jaffe, 1995; Rhodes-Kropf and Viswanathan, 2004), differences between domestic and cross-border deals (Reddy, 2015; Rossi and Volpin, 2004; Erel *et al.*, 2012; Karolyi and Liao, 2015; Ferreira *et al.*, 2009; Bris *et al.*, 2008; Coeurdacier *et al.*, 2009), waves clustered by industries (Mitchell and Mulherin, 1996; Harford, 2005; Andrade and Stafford, 2004; Hackbarth and Miao, 2012), impact on competition, economic growth and innovation (Craig and Hardee, 2007; Carow *et al.*, 2006; Cassiman *et al.*, 2005; Piscitello, 2004; Wand and Wong, 2009). All these different analyses have contributed to the elucidation 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 SOE's (Lebedev *et al.*, 2015, p. 660). Only recently there has been a rising interest in M&A deals performed by government-owned acquirers specifically. For example, Karolyi and Liao (2016) 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 Market for Corporate Control, in particular in pursuing smaller targets, in related industries, with fewer growth opportunities. Clò *et al.* (2016) analyze a sample of 24,726 deals worldwide, 10% of which involving a government-owned acquirer, and find that SOE's takeover underperforming targets on average, 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 Market for Corporate Control are at least as efficient and profitable as their private benchmarks, and this finding is clearly stronger for development banks versus commercial state-owned banks. Focusing on cross-border M&A 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 the Chinese firms and Bertrand and Betschinger (2012) in the Russian market: both showed a negative relationship between state-ownership and acquirer's performance. See also Del Bo *et al.* (2016) who focus on the pre-deal characteristics of acquirers in deals involving SOE's (including privatisation).

All these papers have analyzed differences and similarities in the performance of SOE's 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 to identify differences and similarities with the above mentioned motivations. The working hypothesis we want to study in our paper is the following:

Deviation Hypothesis

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

However, recent evidence suggests an alternative working hypothesis.

Convergence Hypothesis

H_1: following the recent literature trends on SOE's, we expect there are not 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 hypothesis is supported by the evidence?

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 (GUO)[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 *both* the vendor and the acquiring company involved in a deal (at time *t*) do not figure as

[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 per cent of shares (usually regarded as granting control or at least a large influence in decision-making, see Christiansen and Kim, 2014).

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]. 108 state-owned enterprises were involved as acquirers in the 355 deals. By comparison, the sample considered in Del Bo *et al.* (2016) 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.* (2016) the public-private sample includes 1,034 deals, around 8% of the full sample (13,475) and around 60% of the deals 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.

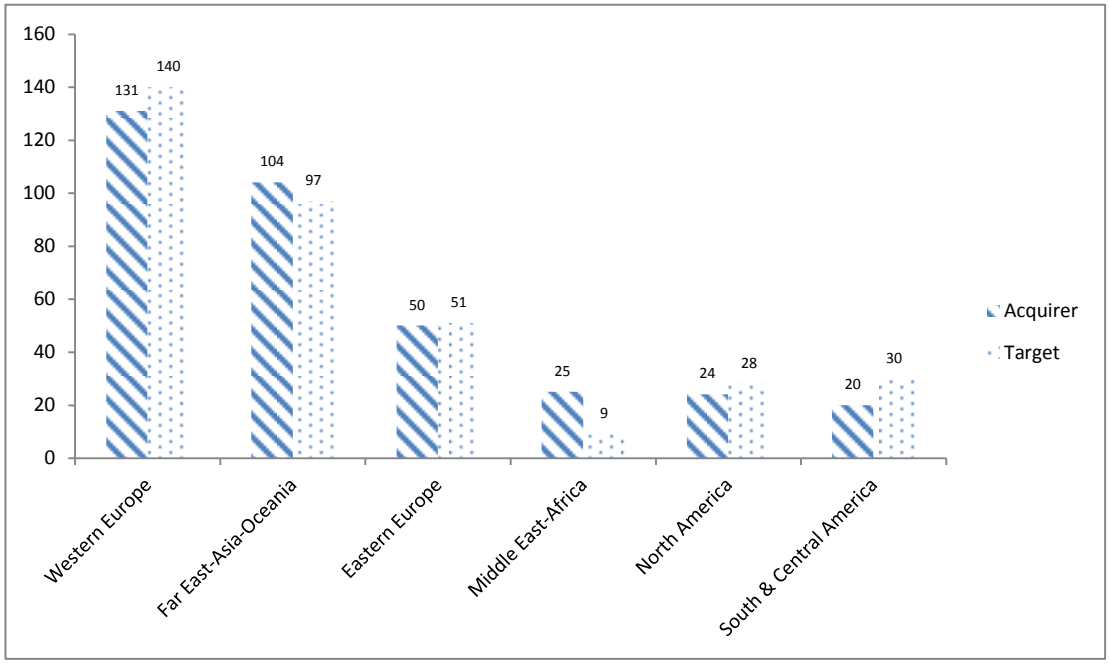
Figure 1 and table 1 provide information on the number of M&A's performed by SOE's broken down by geographical and sector distribution in our sample. The most significant features in our data are the high number of deals performed in Western Europe and Far East and Asia, in line with larger waves of nationalizations 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 SOE's in the market for cross-border acquisitions, in line with recent empirical evidences (Karolyi and Liao, 2016).

[5] Indeed, when defining the ownership type of any enterprise involved in the deal, there is the possibility to wrongly considering 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".

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 belongs 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 closer sectors (i.e. mining SOE's invest in oil & gas; oil & gas SOE's invest in transport). Not surprisingly, public-public deals are all domestic: they are mainly 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 - Number of deals by macroareas



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

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).

Regarding the distribution of deals over time, 116 deals were performed in the years prior the 2008 crisis, and almost 239 after the crisis. Among them, a significant number of deals are rescues motivated by financial distress of the target and performed by SOE's in line with the countercyclical role they played after the crises. The median value of deals is around 200 thousand Euros, but a not negligible number of deals (6%) have a value greater than one billion Euros. 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.

4. Reported rationale for M&A's performed by SOE's: Selected examples

In this Section we focus on deals' rationales, 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 relative 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.

[7] We are aware that any classification may simplify the complexity underlying deals' 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 thought product and diversification strategies. We are also aware that non-profit maximization motives, clearly identified in empirical analysis, are unlikely to be explicitly declared as the rationale of the deal.

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 it has been highlighted in recent literature on SOE's, these rationales are not necessarily inconsistent with shareholder-value maximization[8].

A first group of deals rationale 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, thought 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 bail-out of financially distressed firms arising because of severe market failures, such as the 2008 crisis. We call this rationale "financial distress".

In the next sections we report several examples of deals belonging to the different types of rationales.

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

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

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 strengthens RUAG's position and to open 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, offers lower operating costs and increases customer satisfaction and loyalty".

Market power

The Malesyan 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 of 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) is 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 operation of expansion or strategic initiatives in order to offer more landline broadband, based on fibre technology. For instance, Emirates Telecommunications purchased Tigo PVT, Belgacom bought Tele2 Luxemburg, and Telenor purchased Vimpelcom.

Diversification

Diversification is a rational 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 the 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 Malesyan Kencana, which is engaged in provision of offshore and onshore engineering, acquired Torsco Snd, 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, seems to have the aim of developing alternative energy and green projects in Russia since "it could be regarded as 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 upgrading 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 the 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, Petroleo Brasileiro are the acquirers mainly involved in these types of deals, which are aimed at strengthening the government's 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, as in Sakalin Energy Investment Company Ltd, with a strategy of entering in the liquefied natural gas market 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 Byelorussian 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 the market position in the extraction of oil, hence this approach accords with a strategic policy to expand and reinforce the extraction market also in Europe too, where most of the deals have been made with Nederland Enterprises. The targets of Qazmunaigaz are 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 acquisitions of cross-country targets. The aim seems to be to expand and increase the ownership in the refined petroleum products sector across different geographical areas, such as Japan, the US, Poland and Uruguay for the sector of refined petroleum products. Here are some comments: "Petrobras will take control of the natural gas market in Uruguay. The acquisition fits in with Petrobras' overall strategy of consolidating its position as a Latin American market leader" (after the acquisition of Gaseba Spa); "The acquisition allows Petrobras to continue is 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 financial distress motivation were performed after the 2008 financial crisis. They were mainly realized by government agencies or financial state-owned acquirers and are 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. Société Fédérale 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 done by Temasek, a holding owned by the government of Singapore, which acquired Banco the Bajìo 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 the Beurs van Berlage Stichting, a company of creative, arts and entertainment activities that had a deficit of 7 million of euro, 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&A 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 private organization. In this case Zephyr reports the vendor, rather than the acquirer 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 re-organization of the public debt has also been done by Empresa de Energia de Bogotà when it acquired Empresa Colombiana de Gasfrom 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 stabilization of BBP's capital structure".

Table 2 summarizes the most recurring keywords in the reported rationales in Zephyr dataset.

Table 2 - Keywords by deal type

Shareholder-value maximization	Innovation	Rent-extraction	Financial distress
Economies of scale and scope; synergies; 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; stabilization; lowering the cost of capital.

5. Empirical analysis

In this Section we analyze the evidence that we have collected. First of all, Table 3 highlights the distribution in the sample of the different groups of rationales according to our taxonomy.

Table 3 - 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).

Almost 64% of the deals performed by SOEs as acquirers are driven by shareholder-value maximization motives. 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 4); 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 5), "Innovation" is more relevant in the electricity industry and in developed countries, while "rent extractions" mainly belongs to the mining and oil & gas sector, with a higher incidence in South and Central America and Eastern countries.

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 need underlying this rationale to increase market power (Table 6).

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. Concerning the distribution by type of vendor (Table 7), 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&A's are more concentrated in Eastern Europe, and financial distress in Asia, Oceania and the Far East.

Table 4 - 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 5 - Number of deals by rationales and period of time

Sector	Shareholder-value maximization (1)	Innovation (2)	Rent-extraction (3)	Financial distress (4)	Total
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 6 - 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 7 - 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).

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 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' motivations.

Table 8 reports the median value, by rationale group, of the considered variables for both acquirer and target involved in each deal, while Table 9 reports the results of the Wilcoxon-Mann-Whitney test (Wilcoxon, 1945; Mann and Whitney, 1948), which highlights whether the median value of the differences, computed for each deal, is statistically significant.

Table 8 - 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 9 - 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 percentage; p-value according to the Wilcoxon test: *** p<0.01, ** p<0.05, * p<0.1

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 a 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 SOE's are similar to M&A's 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 belongs to government-led M&As 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 10 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 the Table 8 where we have all the median values (both for acquirer and target) for each rationale.

Table 10 - Statistical significance test in median distribution for acquirers by groups of rationales ('shareholder value maximization' 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 percentage; p-value in bracket according to the Mann & Whitney test, (level of significance: *** p<0.01, ** p<0.05, * p<0.1)

[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 if the distributions are independent.

The results highlight that, compared to the benchmark group, active SOE's engaged in deals that are driven by a mission to strengthen the government 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 asset 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.

SOE's that are entering deals to play an active role in the development of innovation projects and/or competitive physical and technological infrastructures are large in size as well, 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 SOE's 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 SOE's tends to contradict earlier widespread assumptions about their role in the economy in terms of objectives and performance. The traditional literature tended to look at SOE's as captured by politicians and overall underperforming relative to private firms. Some authors, however, most notably e.g. 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 by a novel perspective. We look at SOEs from the angle of the Market for Corporate Control and we analyze in detail the reported rationales of a sample of 355 M&A deals performed by SOE's 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.

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 and 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 which are not the typical contemporary SOE's, but financial entities and other organizations in the public sector, or directly governments.

As far as accounting indicators, "shareholder-value maximization" 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 SOE's are similar to M&A's performed by private companies. Compared to this group of deals, "Rent-extraction" M&A's 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 which 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 rescue of firms in financial distress, in spite of the Great Recession, is a relatively less frequent deal rationale when SOE's 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 source of

international comparable evidence than the one we use (the combined Zephyr and Orbis databases), but it would be interesting to study in detail some cases to double check if 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 field work 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 e.g. of Faccio (2006) or Borghi *et al.* (2016), in order to discover if 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 suggest also 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.

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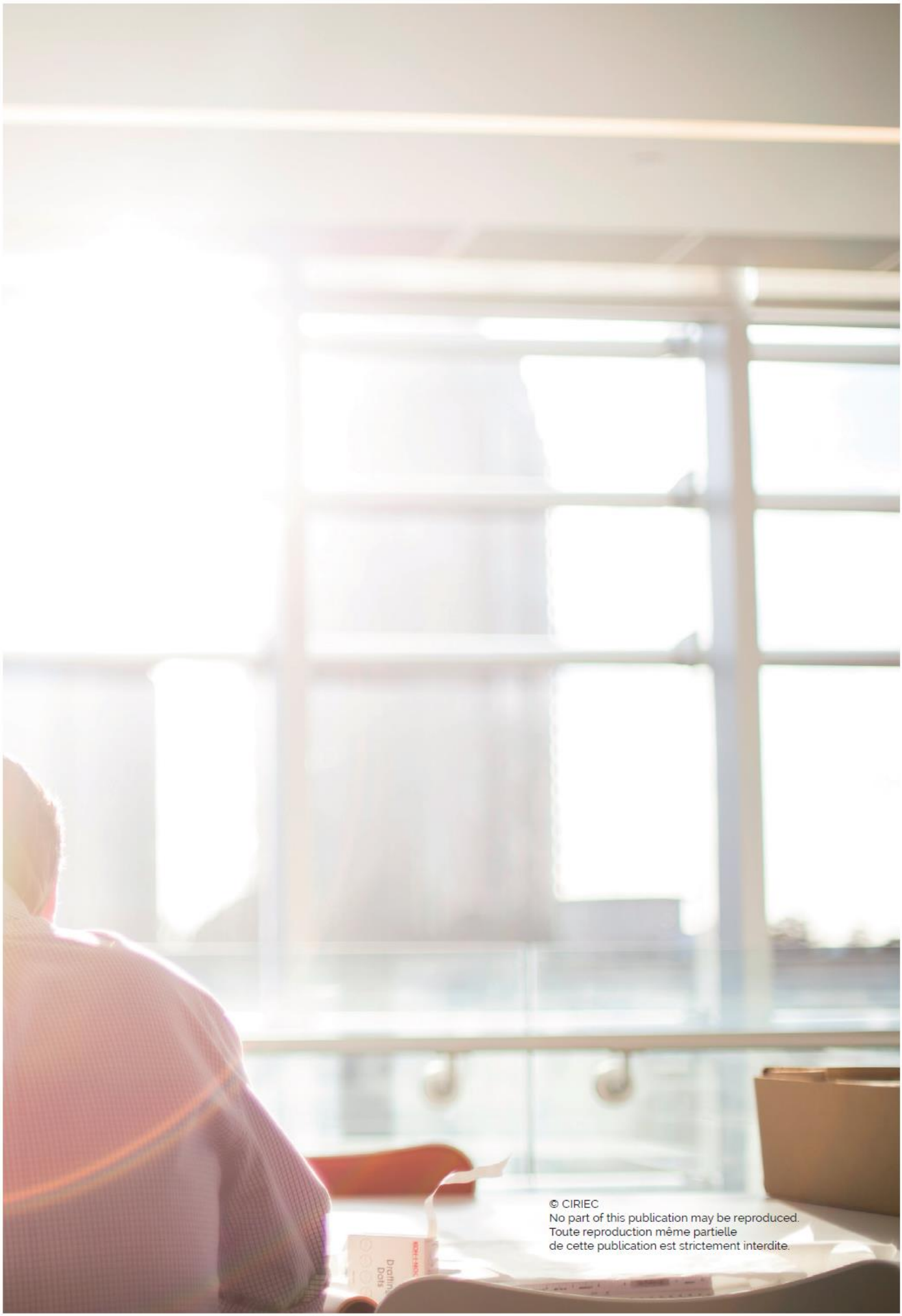

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