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Please cite this paper as:

Kowalski, P. *et al.* (2013-04-24), "State-Owned Enterprises: Trade Effects and Policy Implications", *OECD Trade Policy Papers*, No. 147, OECD Publishing, Paris.
http://dx.doi.org/10.1787/5k4869ckqk7l-en



OECD Trade Policy Papers No. 147

State-Owned Enterprises

TRADE EFFECTS AND POLICY IMPLICATIONS

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Abstract

State-Owned Enterprises: Trade Effects and Policy Implications

With a growing integration via trade and investment, state-owned enterprises (SOEs) that have traditionally been oriented towards domestic markets increasingly compete with private firms in the global market place. Three principal questions emerge from the international trade perspective: (1) How important is state ownership in the global economy; (2) What types of advantages granted to SOEs by governments (or disadvantages afflicting them) are inconsistent with the key principles of the non-discriminatory trading system; and (3) What policies and practices support effective competition among all market participants? Using a sample of world's largest firms and their foreign subsidiaries, this paper shows that the extent of state presence in various countries and economic sectors is significant. Moreover, many of the countries with the highest SOE shares and economic sectors with strong SOE presence are intensely traded. The potential for economic distortions is hence large, if some of these SOEs benefit from unfair advantages granted to them by governments–an allegation that is often raised in political and business circles. Existing information on such advantages is often either anecdotal or limited to individual cases. As a groundwork for future analysis and building on the existing information and literature, this paper presents a conceptual discussion of how potential SOE advantages can generate cross-border effects. It also describes several cases when actions of SOEs as well as advantages allegedly granted to them by governments have been contested as inconsistent with national or international regulations, albeit with varying degree of success. This may be partially explained by the fact that existing regulatory frameworks that discipline some forms of anti-competitive behaviour of SOEs have been designed with domestic objectives in mind or were conceived at times when the state sector was oriented primarily towards domestic markets. The survey of existing rules at the national, bilateral and multilateral levels presented in this paper is a first step in determining whether there is a need to fill any gaps and in finding the most constructive ways of doing so.

Keywords: international trade, international investment, state-owned enterprises, ownership, WTO, competition policy, competitive neutrality

JEL classification: F13, F14, F21, F23, G38.

Acknowledgements

Comments and inputs by Carmel Cahill, Hans Christiansen, Douglas Lippoldt, Raed Safadi, Trudy Witbreuk, colleagues at the WTO Secretariat, and statistical assistance of Clarisse Legendre, are gratefully acknowledged. All remaining errors and omissions are the sole responsibility of the authors. Contact author: Przemyslaw.Kowalski@oecd.org

Table of contents

Executive summary 4

1. Introduction 9

2. International effects of SOEs 10
   2.1 Economic reasons for and against state ownership from the domestic perspective 11
   2.2 Concerns related to cross-border activities of SOEs 13

3. SOEs in the global economy 17
   3.1 Augmented database for world's largest state-owned and private firms 18
   3.2 State ownership among the world's largest companies 20
   3.3 SOEs among the world's largest companies 21
   3.4 Country SOE Shares – SOEs among the largest companies in selected countries 22
   3.5 Country SOE Shares and key economic characteristics 23
   3.6 Sector SOE Shares – SOEs among the largest companies in selected sectors 27
   3.7 Extension of the dataset and robustness checks 29

4. International activities of SOEs 31
   4.1 SOE prevalence and cross-border trade 31
   4.2 Foreign subsidiary activity of SOEs 35

5. Existing approaches dealing with anti-competitive cross-border effects of SOEs 37
   5.1 Competition law 38
   5.2 OECD Guidelines on Corporate Governance of SOEs 38
   5.3 Other domestic arrangements aimed at fostering competitive neutrality 39
   5.4 WTO disciplines 39
   5.5 SOE provisions in preferential trade agreements and bilateral investment treaties 40
   5.6 National investment regimes 41
   5.7 Government procurement rules 42

6. Conclusions 42

References 44

Annex A1. Tables and Figures 49
Annex A2. State sectors in the OECD area and the BRIICS—qualitative analysis 52
Annex A3. State-owned enterprises in international markets—selected case studies 65
Annex A4. Supplementary information on regulatory approaches dealing with anti-competitive cross-border effects of SOEs 74

Executive Summary

The state sector has always been an important element of many economies, including the most advanced ones. There are legitimate economic and non-economic reasons for state ownership and views on the role of government in the economy may differ across countries and political systems. State-owned enterprises (SOEs) can act on the basis of commercial considerations, or they may have non-commercial priorities. In certain circumstances they can be granted advantages that can potentially hinder market access in importing countries or affect export competition. These advantages can take the form of direct subsidies, concessionary financing, state-backed guarantees, preferential regulatory treatment, exemptions from antitrust enforcement or bankruptcy rules, and others. Having effects on the global market, these may be incompatible with the principles of the WTO rules-based multilateral trading system, where countries have undertaken market access and other obligations under the condition of non discrimination and in respect of market principles.

The key questions from the trade perspective are thus:

- What are the concerns associated with cross-border activity of SOEs?
- What types of advantages granted to SOEs by governments may be inconsistent with the key principles of the non-discriminatory trading system?
- How important is state ownership in the global economy?
- What policies and practices support open markets for SOEs' legitimate international trade and investment and effective competition among all market participants?

Answering the first two of these questions exhaustively requires a comprehensive cross-country analysis of the types of advantages enjoyed by SOEs and, ideally, quantification of their cross-border effects. Existing information on such advantages is often either anecdotal or limited to individual cases. A compilation of new data would require further detailed research. As an initial approach and groundwork for future analysis, building on the existing information and literature, this paper presents a discussion of cross-border effects of SOEs and describes several examples of the use (or alleged use) of such advantages in the cross-border context.[1]

To shed light on the third question, this paper uses a sample of world's largest firms and their foreign subsidiaries to assess the relative importance of SOEs by country, by broad sector of economic activity, and to consider their international trade and investment activities.

To shed light on the fourth question, the paper reviews existing policies that can be used to deal with undesired cross-border effects of SOEs.

Annex A2 provides an overview of SOE sectors and SOE policies in different countries, including policies related to international expansion of SOEs. Annex A3 presents a selection of case studies, which illustrate some of the regulatory difficulties arising from competition between SOEs and privately owned enterprises in international markets. Finally, Annex A4 expands on some of the details of policies that can be used to deal with undesired cross-border effects of SOEs.

[1] For recent work on the role of SOEs in international investment see OECD paper: "A Stock-taking of International Investment by State-Owned Enterprises and of Relevant Elements of National and International Policy Frameworks", DAF/INV/WD(2013)5.

Concerns related to cross-border activities of SOEs

There are several reasons why SOEs may be increasingly expanding to foreign markets, some of them relating to government policies *per se* and some to internal factors concerning these firms as well as dynamics of markets in which SOEs operate. From the trade perspective, the reasons for international expansion of SOEs are pertinent not in and of themselves but because of the effects associated with such expansion on competitive conditions in international markets

First, some countries may be using SOEs as a vehicle for pursuing non-commercial or strategic objectives and this may involve anti-competitive effects for their trading partners. Second, when SOEs expand to international markets, a number of issues which in a domestic context can either be contained or are not considered as problems, move to the forefront and become an international concern. Third, certain schemes of compensating SOEs for their public services obligations at home, which are proportional to the business volume rather than public service obligations themselves, may create a distortive and government supported incentive for commercial expansion, including to foreign markets. Fourth, support for SOEs in pursuit of economies of scale may be justified on general economic grounds from a domestic perspective but if this involves increasing market shares abroad it may be perceived differently in different constituencies.

All these objectives of SOEs can be pursued by governments by granting advantages and privileges such as: direct subsidies, concessionary financing, state-backed guarantees, preferential regulatory treatment, exemptions from antitrust enforcement or bankruptcy rules, and others. Each of these advantages can be seen as having a direct or indirect subsidisation effect through a reduction of fixed or variable costs of production. Consequently, SOEs benefitting from such advantages would have a competitive edge over foreign (and domestic) private competitors in home or international markets.

Evidence presented in this paper indicates that various actions of SOEs as well as advantages allegedly granted to them by governments, have at times been contested as being inconsistent with national or international regulations, with varying degree of success. This illustrates, first, that governments have at times pursued SOE strategies that were seen by others as being illegitimate or having anti-competitive effects. Second, it appears that some of these allegations were without merit or, if not, that the existing legal frameworks may be only partially fit to deal with cross-border effects of SOEs' activities.

SOEs in the global economy

Overall, the public enterprise sector in the OECD area has, overtime, become significantly smaller than in many emerging countries. Still, SOEs remain important across the board in a few OECD economies and in particular in network industries (energy, telecommunications, and transport) and the banking sector. In terms of international trade and investment, it is difficult to identify explicit strategies of OECD governments to expand the activity of their SOEs abroad. This does not mean that the governments have no means of shielding an SOE or a national champion from foreign competition, or of helping facilitate their expansion abroad.

Among the emerging countries considered in this paper, state presence in the economy remains significant, and has in some cases even increased in recent years. Some of these economies are seen to use state ownership to further developmental and other strategic goals. The majority of large SOEs are active internationally and engaged in trade and some emerging country governments pursue explicit policies of SOE internationalisation.

This paper uses multiple sources of information to develop a measure of state ownership covering companies most relevant to international trade and investment, and one that ensures maximum comparability across countries, sectors and forms of ownership. *Forbes© Global 2000* list of the world's largest 2000 public companies is used as the principal source of financial information.[2] Importantly, these global firms are parent to more than 330 000 domestic or foreign subsidiary firms which are also covered in the analysis.

Of the 2000 largest companies, 204 have been identified as majority SOEs in the business year 2010-2011 with ownership spread across 37 different countries. The numbers vary significantly by country, with China leading the list (70 SOEs), followed by India (30), Russia (9), the United Arab Emirates (9) and Malaysia (8). The combined sales of the 204 SOEs amount to USD 3.6 trillion in the business year 2010-2011, representing more than 10% of the aggregate sales of the 2000 largest companies and exceeding the 2010 Gross National Incomes (GNIs) of countries like the United Kingdom, France or Germany. The value of sales (USD 327 billion) of these SOEs is equivalent to almost 6% of world GDP. Their combined market value (USD 4.9 trillion) corresponds to 11% of global market capitalisation of all listed companies.

China, the United Arab Emirates, Russia, Indonesia, Malaysia, Saudi Arabia, India, Brazil, Norway and Thailand are the ten countries with the highest *Country SOE Shares* (CSS).[3] The OECD countries with a non-zero CSSs are Norway, France, Ireland, Greece, Finland, Korea, Belgium, Sweden, Austria and Turkey.[4] The CSS does not reflect the share of the state in the whole economy but among a country's top firms and as such is a robust proxy for the relative importance of the state among a country's most international business players. Many of the countries with the highest SOE shares are also important traders. This is most notably the case for China—the world's second largest exporter, accounting for more than 10% of world's merchandise exports in 2010, and simultaneously the country with the highest country SOE share. This provides an indication as to why China is often mentioned in the context of possible cross-border effects of SOEs. The seven countries following China in terms of high SOE shares (the United Arab Emirates, Russia, Indonesia, Malaysia, Saudi Arabia, India and Brazil) together accounted for an additional 10.4% of world trade. Thus, the eight countries with the highest SOE shares collectively account for more than 20% of world trade.

The prevalence of SOEs also varies considerably across industrial sectors. Statistics on SOE sales, assets and market value among the world's largest companies have been used to calculate *Sectoral SOE Shares* (SSS). The five sectors with the highest shares are: *mining support activities*; *civil engineering*; *land transport and transport via pipelines*; *mining of coal and lignite*; and *the extraction of crude petroleum and gas*. Contribution of OECD SOEs to these shares is generally small, while the BRIICS contribution is significant, notably in natural resources and manufacturing.

Several manufacturing sectors with moderate SOE shares account for significant chunks of world merchandise trade. For example, the *manufacture of motor vehicles, trailers and semi-trailers* sector, with an average SOE share of 20%, accounts for close to 12% of world trade. Sectors such as *manufacture of fabricated metal products, except machinery and*

2 The data has been augmented by the OECD Secretariat with additional ownership, structural, financial and foreign subsidiary information from the *Orbis* database and, for ownership, from other primary sources. Robustness checks have been performed using a sample of more than 9 000 world's largest firms.

3 CSS are computed as equally weighted averages of SOE shares of sales, assets and market values among each country's top ten companies.

4 Only countries that are represented by at least ten firms in the database are considered.

equipment; *manufacture of basic metals*; *manufacture of electrical equipment*; *manufacture of machinery and equipment n.e.c.*; and *manufacture of other transport equipment* all have SOE shares above 7%; together they account for up to 60% of world merchandise trade of those goods.

The services sectors with the highest SOE shares also account for significant shares of world services trade. Examples include *civil engineering* and *architectural and engineering activities; technical testing and analysis*, two important sub-categories of *other business services*, which accounts for approximately 21% of world services trade. Transportation services, which include *land transport and transport via pipelines* as well as *air transport*, account for another 20% of this trade. *Financial service activities, except insurance and pension funding* account for approximately 7% of total services trade. Here, again, emerging economies' SOEs are, with some exceptions, the main contributors to the high sector SOE shares.

Overall, both for raw materials, merchandise and services, many sectors with strong SOE presence are in fact intensely traded. This suggests that there is a potential for economic distortions in world markets if the SOEs operating in these sectors benefit from unfair advantages granted to them by governments. In particular, the large state presence and international orientation of SOEs in some emerging economies—which use state ownership as an element of economic development policy, but whose regulatory frameworks are less developed and thus cannot ensure a consistent application of corporate governance and transparency standards—highlight the need for enhanced dialogue on cross-border effects of state ownership going beyond the OECD membership.

Existing approaches dealing with anti-competitive cross-border effects of SOEs

Regulatory frameworks that counter some forms of anti-competitive behaviour by SOEs in international markets, and which are discussed in this paper, include: OECD Guidelines on Corporate Governance of SOEs (OECD SOE Guidelines); national competitive neutrality frameworks (CNFs); national competition laws; the WTO Agreements; preferential trade agreements (PTAs); and bilateral investment treaties (BITs).

Some of these regulatory frameworks have been designed with domestic objectives in mind or were conceived at times when the state sector was oriented primarily towards domestic markets. Thus, they often offer only partial SOE provisions. Others contain more modern SOE disciplines, which however typically concern a small number of countries. Finally, various frameworks also differ considerably in the level of required implementation and effective enforcement capacity.

- National antitrust law can in principle be used to deal with the abuse of dominant position by SOEs, including in the international context, or to prevent anticompetitive effects associated with merger and acquisition activities of SOEs. However, traditional antitrust standards apply to profit maximising firms and competition laws of most countries aim at preventing price gouging. They are not aimed at preventing subsidies and artificially low prices—except where these are manifestly motivated by predatory strategies.
- OECD SOE Guidelines recommend the maintenance of a level playing field among state-owned and privately owned incorporated enterprises operating on a commercial basis, by listing and elaborating on a number of guiding principles in a number of areas. Yet, the Guidelines do not explicitly consider nationality of SOE competitors, are voluntary in nature and are not subject to regular assessment of implementation. They can be a useful tool for advocacy-oriented approach to minimising unwanted

cross-border effects of SOEs among countries committed to the reform of the state sector, or as a benchmark to assess the quality of potential SOE investors, but they fall short of providing binding rules seen typically in international trade or investment agreements.

- Competitive neutrality arrangements introduced by some OECD jurisdictions aim to mitigate or eliminate competitive advantages of SOEs, including with respect to taxation, financing costs and regulatory quality. Some of the state-of–the-art competitive neutrality arrangements, most notably those of the European Union and Australia, offer effective tools to level the playing field, including in respect of certain aspects of cross-border competition. Yet, far from all OECD countries have such arrangements in place and, where they exist, their scope, ambition and enforcement differ widely.
- In principle, WTO rules impose obligations on Member governments as opposed to private entities. Nevertheless, some WTO rules do address behaviour by certain non-governmental entities, some of which may be SOEs. In addition, WTO rules are generally ownership-neutral; the disciplines which they impose with respect to government regulations and actions do not distinguish between situations where the provider of the goods or services covered by the regulation or action is a public or a private entity.
    - For example, SOEs are covered by WTO subsidy disciplines when they are subsidy recipients, but when they act as conveyors of subsidies (e.g. providing cheaper inputs to other firms) the application of subsidy disciplines depends on the facts of each case. Also, services sectors, often with significant SOE presence, are not disciplined as a general matter by existing WTO subsidy rules.
    - GATT Art. XVII on State Trading Enterprises (STEs) and its understanding specifically aim to limit the degree to which such enterprises, some of which may be SOEs, are used as vehicles to influence international trade. However, neither STEs nor state trading are clearly defined and this may in some cases represent a handicap in the application of the Article.
    - Some of the GATS provisions also help discipline SOEs. For example, GATS Art. VIII aims at regulating the behaviour of monopolies, whether public or private. Moreover, other GATS disciplines, such as the national treatment obligation and market access obligations, prohibit favouring domestic entities in certain situations, including SOEs. However, these obligations apply only in sectors where WTO Members have undertaken specific commitments in their GATS Schedules
    - China's WTO Accession Protocol to the WTO has specific disciplines that aim to deal with anti-competitive cross-border effects of SOEs. Yet, doubts have been expressed whether these provisions have sufficiently impeded trade-distorting policies that advantage Chinese SOEs. In the most recent WTO Accession Protocol of The Russian Federation, the discussion of SOE-related disciplines was also substantial, but the accession commitments focus primarily on existing WTO provisions, with the exception of the banking sector.
- Many existing preferential trading agreements include specific provisions on SOEs, attempting to fill gaps in existing multilateral provisions. For example, some agreements explicitly specify that their provisions apply similarly to SOEs, clarify some

of the definitional lacunae in the WTO context, or include additional provisions pertaining to services and competition policies.

- Most bilateral investment treaties contain general non-discrimination clauses that can promote competitive neutrality, even though they are not specifically aimed at SOEs. In addition, most BITs refer to both state-state and state-investor relations and in many instances address directly issues of competition in countries with a considerable state presence in the economy. However, even in some of the most advanced BITs, the definition of state enterprises as well as transparency requirements or arbitral proceedings may fall short of imposing clear disciplines.

1. Introduction

"The rise of state capitalism—the spread of a new sort of business in the emerging world will cause increasing problems" read the title of the January 2012 special issue of The Economist. Indeed, an investigation of the world's 2000 largest companies—the so-called Forbes Global 2000—and their domestic and foreign subsidiaries presented in this paper reveals that more than 10% of these firms are majority state-owned. The aggregate sales of these large, blue chip state-owned enterprises (SOEs) from around 40 OECD and non-OECD countries are equivalent to 6% of world GNI. These companies are among the largest and most influential world enterprises and several important emerging countries have very high shares of state ownership among their largest firms. The state sector has always been a key element of many economies, including of the most advanced ones. So why has state ownership recently come to preoccupy policy makers and business?

First, traditionally the state sector has been oriented towards domestic markets. But in a globalized world, characterised by a growing integration of markets via trade and investment, SOEs increasingly compete internationally with private firms. This happens in their domestic markets, in the home markets of the private companies, and in third markets, and often involves upstream or downstream business partners. Second, in some instances, the expansion of the state sector was related to government stimuli in the context of the financial crisis, as a result of which the state sector has grown rather than retrenched. Third, multilateral trade liberalisation under the GATT and the WTO, preferential trading agreements, and unilateral reforms have all resulted in dramatically reduced tariff barriers in developed and developing countries. Today, it is increasingly behind the border barriers (for example, regulatory barriers) that hinder trade, and in some instances these barriers appear to be related to state ownership.

On the other hand, there are legitimate economic and non-economic reasons for state ownership and views on the role of government in the economy may differ across sovereign countries and across political systems. So, why is state-ownership of concern to the trade community?

The main concern for the trade community is the anti-competitive effects of advantages granted to SOEs. In many countries SOEs obey the same set of rules -- or even stricter rules -- than their private counterparts, or can in some way be disadvantaged compared to private firms, for instance with regard to public good obligations. However, in many other instances SOEs enjoy government-granted advantages, which can give them a competitive edge over other firms. These advantages can take the form of direct subsidies, concessionary financing, state-backed guarantees, preferential regulatory treatment, or exemptions from antitrust enforcement or bankruptcy rules—to name only some.

Anti-competitive cross-border effects that can potentially be generated by SOEs can pose challenges both to private businesses and to the existing policy frameworks designed to foster competitive international markets. Where such damaging effects are significant and difficult to discipline within current legal and policy options, they may trigger commercial tensions and become a source of protectionism. The foreign public may want their governments to impose restrictions or trade barriers to prevent harmful interaction with foreign SOE, possibly resulting in a situation with negative externalities or even in a trade war. Thus there is a basis to call for international co-ordination of SOE policies and regulation. So far, evidence on cross-border effects remains either anecdotal or is limited to studies covering individual cases. Given that internationally active SOEs have caused occasional controversy, a more systematic cross-country analysis seems both timely and necessary.

Three principal questions emerge from the international trade perspective: (1) How important is state ownership in the global economy; (2) What types of advantages granted to SOEs by governments (or disadvantages afflicting them) are inconsistent with the key principles of the non-discriminatory trading system; and (3) What policies and practices support effective competition among all market participants?

Answering these questions decisively requires a comprehensive cross-country analysis of the types of advantages enjoyed by SOEs and quantification of their cross-border effects. Existing information on such advantages is often either anecdotal or limited to individual cases. A compilation of new data would require further detailed research. As an initial approach, this paper first presents a discussion of cross-border effects of SOEs and describes several examples of the use (or alleged use) of such advantages in the cross-border context. Then, using a sample of world's largest firms and their foreign subsidiaries, the empirical part provides an assessment of the importance of SOEs by country, by broad sector of economic activity, and considers their international trade and investment activities. Subsequently, the paper reviews existing policies that can be used to deal with undesired cross-border effects of SOEs.

Annex A2 provides an overview of SOE sectors and SOE policies in different countries, including policies related to international expansion of SOEs. Annex A3 presents a selection of case studies, which illustrate some of the regulatory difficulties arising from competition between SOEs and privately owned enterprises in international markets. Finally, Annex A4 expands on some of the details of policies that can be used to deal with undesired cross-border effects of SOEs.

2. International effects of SOEs

There are various forms of state ownership. The state can either hold various levels of equity[5] in enterprises incorporated according to normal corporate law, or pass enabling legislation to create a statutory corporation governed by a status outlining its objectives and formal requirements. Multiple definitions of SOEs are applied across countries, which complicates formulation of a meaningful uniform definition of SOEs that would cover the full extent of government control and enable cross-country comparison. Moreover, fostering competitive markets aims not at reducing the extent of state ownership *per se* but at eliminating unfair benefits bestowed by governments which may result in anti-competitive

5 In the case of equity holding, government can either hold all shares, or have a majority or minority stake. Even when a government has a minority share in an enterprise, it can still be a controlling share, when a government is still the biggest owner or has a golden share, which allows de facto control regardless of formal voting rights.

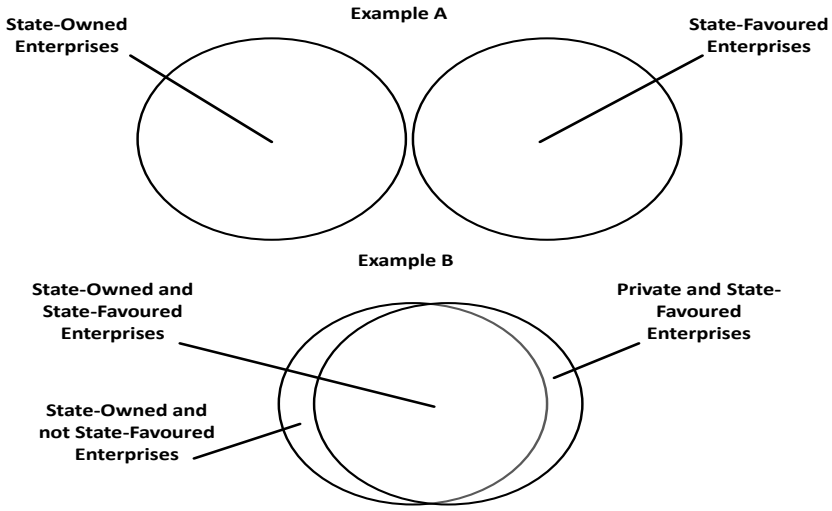
behaviour of state-owned or private firms (Box 1). Bearing these realities in mind, in order to spearhead a methodologically consistent assessment of the role of SOEs in global trade and investment, this paper adopts a working definition of SOE as a majority state-owned enterprise[6], while also offering insights into other forms of state ownership and government-created competitive advantages.

Box 1. State ownership as a lens for analysis of state influence

State ownership does not necessarily involve preferential treatment by the government. Entirely private firms can also be state-favoured, enjoying advantages granted by governments that give them a competitive edge over their competitors in domestic or international markets. Also, non-commercial obligations imposed on SOEs by government may at times be equivalent to a tax on, rather than a boost to, their commercial operations.

The diagram below illustrates different possible degrees of overlap between the sets of enterprises enjoying state-granted advantages and those owned by the state. In example A, none of the state-owned firms is state-favoured, and none of the state-favoured enterprise is state-owned. In example B, the majority of state-owned firms are state-favoured and the majority of state-favoured firms are state-owned. Which of these examples is relevant and what are the associated economic consequences is likely to be country and sector-specific.

State-Ownership and State-Favouritism



Despite these considerations, considering state ownership has following data-related and substantial merits. First, given the difficulty of measuring various forms of government's favouritism and the near absence of empirical data on, for example, subsidies or regulatory exemptions granted to firms, state ownership can serve as a first-past proxy for state influence on firms. Second, the double role of the government as a regulator and owner of a commercial enterprise does entail potential conflicts of interests that are arguably absent in case of POEs, and creates a potential for favourable treatment. This is why strong corporate governance frameworks for SOEs in certain countries with large state sectors aim to discipline the behaviour of SOEs as well as the government (OECD, 2009a).

2.1 Economic reasons for and against state ownership from the domestic perspective

There are many arguments for state ownership in the economy (e.g. OECD, 2005b; MacCarthaigh, 2011). On one side of the spectrum there are arguments related to various positive or negative externalities in the context of natural monopolies, public or merit goods. In this context, state ownership is a way of correcting market failures, particularly in the

6 As defined by ownership shares reported in our database of 2000 largest world firms (see Section 3).

context of countries with weaker regulatory frameworks or where outsourcing of state activities to the private sector is difficult. State ownership is also sometimes argued for in cases where the private capital base is deemed insufficient or where SOEs can be a more reliable way of generating government revenue. There is also the argument evoked by some governments that SOEs are not necessarily less efficient than private companies and that the "government can be as good a capitalist as any" (Christiansen, 2013). Finally, state ownership is one type of market interventions which are used in pursuit of industrial policy (OECD, 2012a).

Many countries maintain SOEs where monopolies are considered desirable or natural. In fact, certain types of legal and natural monopolies may make state ownership the most efficient solution. In industries with substantial economies of scale, for example, optimal efficiency is reached when the output is supplied by a single monopolistic producer. Examples of these natural monopolies are sectors that require an interlocking supply network for the provision of goods and services (electricity or gas provision, railways, etc.). Private monopolists may produce and price at levels which are not socially optimal. Government regulation can mitigate this though effective regulation in this regard can be hard to achieve or too expensive. In such circumstances state ownership may deliver outcomes that come closer to social optimality as compared to unregulated, or poorly regulated, private ownership.

State ownership can also offer a venue for the provision of public and merit goods. Various public goods are characterised by positive externalities associated with separation of consumption from payment, and by non-excludability of consumption. Under standard economic assumptions provision of such public goods by private firms is at sub-optimal levels. Similar is the case of merit goods, such as basic nutrition or health services, which private firms are likely to supply at suboptimal levels. Hence, governments may choose to supply such goods through SOEs.

SOEs can also be used to foster industries that are considered economically desirable and that would not otherwise be developed though private investment. An infant industry argument is made in favour of state involvement in markets. When nascent industries have externalities that cannot be incorporated in pricing strategies, or when information is asymmetric, or capital or insurance markets imperfect, private investors can be reluctant to invest. When these industries have potentially important spillovers within or across sectors, the state might decide to invest instead. In fact, it is often argued that many successful private sector firms in advanced countries owe their success, at least in part, to prior state ownership. This line of argument links SOE presence to economic development and thus suggests that the need for state ownership changes along different stages of economic development. Furthermore, private companies might for example be reluctant to invest in research, especially if the protection of intellectual property is considered weak, or if the gains from the research would be difficult to capitalise on. State-owned research institutions might then yield long-term benefits for the economy.

Although economic efficiency, as measured by standard performance indicators, may not be the primary objective of state ownership there is always a question of whether SOEs are the most economically efficient instrument of correcting market failures. Also, it is not unusual for SOEs to be present in sectors where competitive equilibria have the potential to be socially optimal, and where state-owned firms tend to be systematically outperformed by their private counterparts. These are important considerations for governments when addressing policies towards SOEs.

State ownership has traditionally been seen to entail less efficient business performance as compared to privately owned firms because of state ownership itself, regulation or business

environment factors (Bartel and Harrison, 2005). Idiosyncrasies specific to state ownership can cause less effective management and weaker SOE performance. Objectives pursued by SOEs are often not well defined and can be transient in the context of changing policies and administrations (Gosh and Whalley, 2008; Megginson and Netter, 2001). SOEs have in many instances lesser budget constraints and enjoy direct or indirect, and often politically-motivated, state funding, which reduces incentives for performance. Official or unofficial exemptions from bankruptcy rules can further reduce performance incentives (Bai and Wang, 1998; MacCarthaigh, 2012; Liu et al., 2001). Furthermore, state firms tend to employ excess labour inputs (Boycko et al., 1996) and are exposed to pressure to hire management or employees according to politically-motivated reasons, rather than qualification (Krueger, 1990). In addition, shareholders of private firms internalise the costs of monitoring and conduct more efficient management control which results in improved management performance in private companies, as compared to the supervision of SOEs by bureaucrats (Shleifer and Vishny, 1986).

When state ownership is dominant in a particular sector, ineffective and poor performance can carry significant costs to the entire economy. An example would be the banking sector where ineffective allocation of capital and poor management can make access to capital for private firms more difficult, increase start-up costs and stifle entrepreneurship.

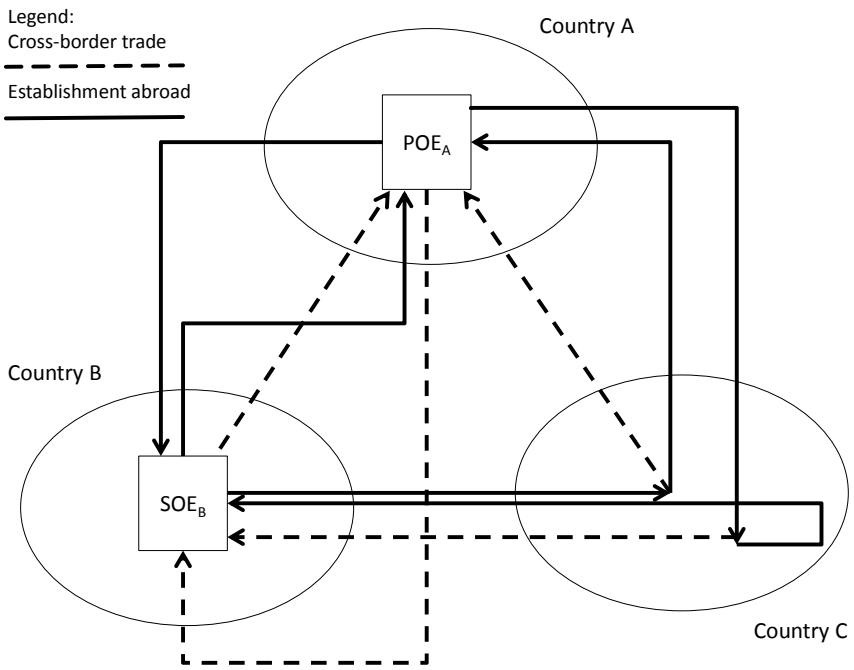
2.2 Concerns related to cross-border activities of SOEs

Whereas in the past SOEs have tended to serve only their domestic markets, often shielded from competition, today privately owned enterprises frequently find themselves competing with SOEs, both domestically and internationally. The mixed markets can take multiple forms including: competition through arms-length trade (e.g. exports or imports); competition with foreign SOEs established in POEs' domestic markets; competition with POEs established in SOEs' domestic markets; or competition through trade or investment in a third market (Figure 1). Thus, national SOE policies may have important cross-border ramifications and should be considered within the context of highly integrated international markets and production networks, as well as overlapping jurisdictions and legal frameworks (see Section 5).

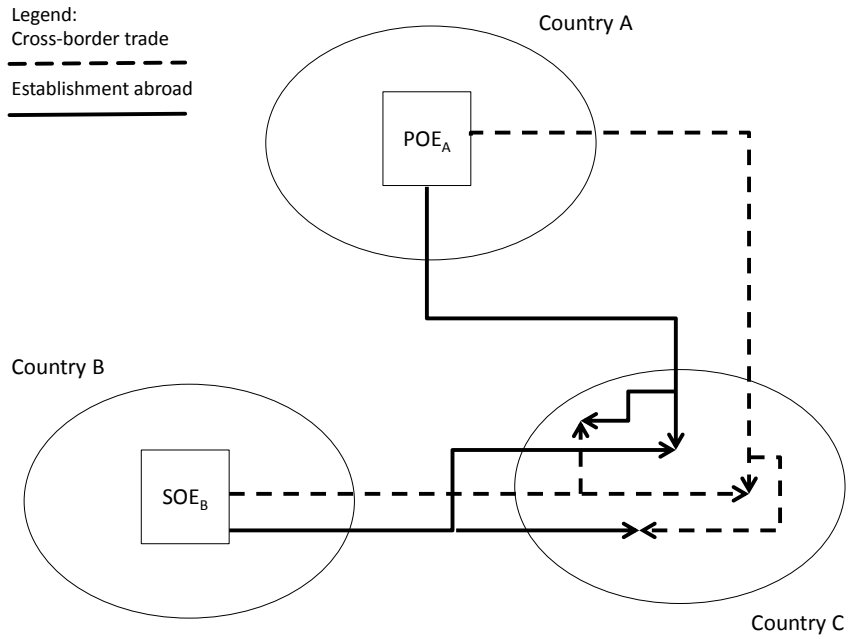
Openness to trade and investment can generate important economic gains for individual enterprises and the economy as a whole, by enabling access to better technologies and cheaper inputs, more efficient specialisation and unleashing competitive pressures that raise productivity. This potential holds also for state-owned businesses and may be an important driver for a recent significant expansion of SOEs into international markets. Yet, at the same time the potential size and reach of losses due to trade distorting government policies, including through SOEs, are also larger than they used to be when national markets were less interconnected.

Figure 1. Modes of foreign competition between private enterprises and SOEs

(a) in domestic and foreign markets



(b) in third markets



Because firms exposed to international competition are more productive and more technologically advanced (Box 2), SOEs-related distortions in contestable international markets may be associated with higher welfare costs as compared to distortions in closed markets. Additionally, such costs would not only accrue to the host countries of SOEs but also to their trading partners, constituting an incentive for international co-operation.

Box 2. Cross-border activity of SOEs—implications of firm-heterogeneity-based trade theory

The recent strand in trade theory initiated by Melitz (2003) focuses on firm-level interactions and lays out predictions about the relative size and productivity characteristics of national and international firms engaging in international trade and investment. How productivity characteristics may be influenced by policy has also received attention. One of the key propositions of the theory is that exposure to international markets induces a reallocation of market shares and profits towards the most productive firms which engage in export activity. Less productive firms serve the domestic market or are forced to exit. Various extensions of the Melitz framework provide additional insights for analysis of international effects of SOEs. Helpman, Melitz and Yeaple (2004), for example, show that most productive firms are more likely to serve foreign markets through subsidiary sales, less productive ones through exports, and the least productive ones serve only the domestic market. Bustos (2011) showed that low productivity firms are likely to use lower technology to serve only domestic markets. Firms with intermediate productivity levels use lower technology to serve the domestic market and to export while only firms with highest productivity levels invest in more expensive and better technology.

Empirical evidence on cross-border effects of SOEs that has emerged recently has confirmed some of these hypotheses. Controlling for sectoral specificities, Miroudot and Ragoussis (2011) examined the link between state ownership and export performance of firms using a large panel data set for three OECD countries (France, United Kingdom and Greece) and found that SOEs have both lower export propensity and lower export intensity as compared to private firms in these economies. Commander and Svejnar (2011) studied cross-firm performance, export and ownership patterns as well as aspects of the business environment using an extensive firm-level survey data set. Controlling for various unobservable effects they found that private ownership exerts a positive impact on firm performance when characterised by foreign participation. Yasuyuki et al. (2012) argue that privatisation of SOEs has a positive impact effect on export performance, driven by improved productivity, optimised firm size, more efficient debt management and other intangible management methods.

Miroudot and Ragoussis (2011) find also that negative effects of state participation in a specific sector go beyond SOEs themselves; private firms in sectors that are dominated by SOEs are less export oriented than firms in other sectors. The latter result provides yet stronger evidence for the hypothesis of relatively high costs of state ownership in the context of an open economy.

There are several reasons for why SOEs may be increasingly expanding to foreign markets, some of them relating to government policies *per se* and some to internal factors concerning these firms as well as dynamics of markets in which SOEs operate (e.g. OECD, 2009a; OECD, 2010a). From the trade perspective, the reasons for international expansion of SOEs are pertinent not in and of themselves but because they allow to understand the effects of this expansion on competitive conditions in international markets

Some countries may be using SOEs as a vehicle for pursuing strategic, commercial or non-commercial, objectives abroad and this may involve anti-competitive effects. First, governments as owners of SOEs may grant them advantages (e.g. subsidies) which would allow them to outcompete foreign market contestants. They can also use SOEs to acquire know-how and proprietary technologies abroad in order to disseminate them widely in the home economy[7] or to secure control over scarce natural resources for the country (e.g. OECD, 2010a: 4). It should be noted there may also be instances when SOEs or national champions may be stopped from pursuing a commercially viable international strategy for political reasons.

7 Most private companies would rather put them to internal use.

Second, when SOEs expand to international markets, a number of issues which in a domestic context can either be contained or are not considered as problems, move to the forefront and become an international concern. While certain forms of government support of SOEs can be an effective and efficient solution from a domestic perspective, it may not be so from the perspective of governments of their commercial partners because of negative impacts on enterprises or consumers abroad. For example, state support to prop up ailing SOEs for political economy purposes may be popular with the domestic constituency. At the same time it may be damaging for competition from the perspective of foreign market players.

Third, certain schemes of compensating SOEs for their public services obligations at home (e.g. delivery of postal service or transport services in remote areas which would not be commercially viable) which take the form of regulatory derogations or tax concessions may create a distortive and government supported incentive for expansion, including to foreign markets. This may be the case of schemes that are proportional to the business volume rather than public service obligations themselves.[8]

Fourth, support for SOEs in pursuit of economies of scale may be justified on general economic grounds from a static domestic perspective. However, if this involves increasing market shares abroad it may be perceived differently in different constituencies. This can be the case, for example, with state support to national flag carriers in small countries which may be justified by the positive externalities of connecting the economy to international markets and at the same time involves increasing the share in the world air transport market with potential competition controversy (OECD, 2010a).

All the above-mentioned objectives of SOEs can be pursued by governments through a number of advantages and privileges. Whereas legitimate reasons for state ownership exist, government-created advantages for SOEs can be perceived as unfair by other market actors. [9] Examples of government-created advantages put forward in the domestic context include: outright subsidisation; concessionary financing and state-backed guarantees; preferential regulatory treatment; exemptions from antitrust enforcement or bankruptcy rules; captive equity which can result in anti-competitive and exclusionary pricing strategies; other forms of predatory pricing; or information advantages (OECD, 2005b, Capobianco and Christiansen, 2011).

Each of these advantages can be seen as having a direct or indirect subsidisation effect through a reduction of fixed or variable costs of production. Consequently, an SOE benefitting from such advantages would have a competitive edge over foreign (and domestic) private competitors in home or international markets.

Against this backdrop, it is not astonishing that a number of SOE-related tensions and trade disputes have arisen in the past. For example, selected subsidy-related cases involving SOEs described in this paper include a dispute between EDF and the European Commission over a USD 1.5 billion tax rebate granted to EDF by the French government, initially considered illegal state aid and successfully appealed by EDF in the European Court of Justice (See Annex Box A4.1). The WTO Dispute Settlement case *DS379 United States –Definitive Anti Dumping and Countervailing Duties on Certain Products from China* considered in this report found that certain Chinese State-Owned Commercial Banks (SOCBs) were conveyors of subsidies in the form of concessionary financing when providing loans at below-market

8 For a discussion of the appropriateness of alternative compensation schemes, see OECD (2012b).

9 As discussed in Box 1, similar advantages and privileges can in principle be granted to private companies.

interest rates to companies selling to international markets (Annex A3). The same WTO dispute settlement considered if certain Chinese SOEs were conveyors of subsidies under WTO law by providing inputs to other Chinese companies for allegedly less than adequate remuneration.

Preferential regulatory treatment was claimed in the WTO Dispute Settlement (*DS413 China – Certain measures affecting electronic payment services*) where the United States challenged the regulatory requirement that dual-currency credit card transactions in Renminbi are handled by China UnionPay (CUP) which can be considered an SOE for the purposes of this paper.[10] The claim that CUP represented an across-the-board monopoly supplier was rejected. Yet, the claim that CUP held a monopoly for one type of transaction was upheld and it was ruled that this, together with other regulatory advantages enjoyed by CUP, represented a breach of China's commitments under GATS Article XVI (market access) and Article XVII (national treatment) (See Annex Box A4.5). Another controversy involving Chinese SOEs was an allegation that immediately after the establishment of its anti-monopoly law in 2007, some of the SOEs did not adhere to the notification procedure required by the law, and that responsible authorities took no action despite several lawsuits brought to the courts by private competitors. Given that Chinese SOEs together with joint-ventures involving foreign firms are the two major players in China's mergers and acquisitions market such an exemption had non-trivial effects on competition in the international context (e.g. Taylor, 2011).

Finally, several WTO disputes concerned the more classical question of special privileges granted to, and state influence on the level or direction of trade of, so-called state trading enterprises (STE) as defined by Art. XVII of GATT. In the Korea Beef case (*DS160 Korea – Measures Affecting Imports of Fresh, chilled and Frozen Beef*) the activities and the management of tender procedures by an import state trading monopoly were considered to violate certain WTO rules on state trading. In the Canadian Wheat Board case (*DS276 Canada — Measures Relating to Exports of Wheat and Treatment of Imported Grain*) the US claimed inter alia that the export of wheat conducted by the CWB was inconsistent with rules on state trading. The WTO's ruling rejected the claim that Canada had violated the provisions on state-trading.

As illustrated above and expanded on in the Annex, various forms of advantages granted to SOEs by governments or provided to private firms via SOEs, have at times been challenged as incompliant with national or international regulations, with varying degree of success. This illustrates, on one hand, that governments have at times pursued SOE strategies that were seen by others as having anti-competitive effect on the international market; and on the other, that some of these allegations were not valid or that the existing legal frameworks may only partially be fit to deal with cross-border effects of SOEs' activities.[11]

3. SOEs in the global economy

While several countries underwent large scale privatisation in the 1980s and 1990s SOEs remain significant actors in competitive markets, both domestically and globally. Furthermore, state ownership has in several instances expanded over the last decade or so. New policy strategies for selected firms and sectors have driven state ownership, particularly among emerging economies (Hsueh, 2011). This expansion includes also some governments' short

10 The question of CUP's ownership status was not addressed in this dispute and the concept of SOEs is not found in the GATS.

11 The latter aspect is taken up in more detail in Section 5.

term interventions in the context of the financial crisis. As a result SOEs are important actors in several domestic and international markets.

The state enterprise sector in the OECD economies today is significantly smaller than in emerging economies. Yet, it remains quite important in a few OECD economies and in a number of selected economic sectors, most notably in network industries (energy, telecommunications, transport) and the banking sector. The majority of remaining OECD SOEs are incorporated according to the ordinary company law and, thus, need to comply with regular corporate requirements.[12] Many of the OECD SOEs are also subject to as stringent, or even more stringent, financial disclosure and transparency standards as private enterprises. Similarly, accounting and auditing standards apply to SOEs to the same extent they apply to private companies, while SOEs may also undergo additional controls carried out by specific state audit entities.

Despite waves of privatisation and reform, state presence in the economy remains significant among emerging countries. In particular, the governments are seen to use direct ownership to further developmental and policy goals.[13] While increasing numbers of SOEs in these countries are economically viable enterprises, a consistent application of corporate governance standards is nevertheless still lagging, in particular due to an intricate web of legal statuses and varying SOE definitions.

3.1 Augmented database for world's largest state-owned and private firms

One of the principal objectives of this paper is to build on existing definitions, qualitative information and data on SOEs to develop a more comprehensive quantitative picture of their importance in today's world economy that would inform the current policy debate. The principal two questions that need to be answered are: which countries own internationally active SOEs; and which economic sectors do these SOEs operate in? Yet, developing cross-country cross-sector measures for state-ownership is a non-trivial task. First, countries apply different definitions of state-ownership, which makes comparisons difficult (e.g. Christiansen, 2011). Second, comprehensive ownership data is scarce; countries that fully disclose and update key information on their state-owned enterprises are the exception rather than the norm.

This paper uses multiple sources of information to develop a measure covering companies most relevant to international trade and investment, and one that ensures maximum comparability across countries, sectors and forms of ownership. *Forbes© Global 2000* list of the world's largest 2000 companies is used as the principal source of financial information. The list is a worldwide ranking of public firms, calculated as the sum of rankings in four equally weighted aspects of economic size: sales, profits, assets and market value.[14] The list

12 See Annex A2.

13 *Ibid.*

14 DeCarlo, S. (2012), "Methodology: how we crunch the numbers", Forbes, available at: *http://www.forbes.com/sites/scottdecarlo/2012/04/18/methodology-how-we-crunch-the-numbers/* , as of 28 April 2012. Underlying data are drawn from Interactive Data, Thomson Reuters Fundamentals and Worldscope databases via FactSet Research Systems. Publicly-traded subsidiaries are excluded if the parent firm consolidates the reporting (generally, where the parent controls more than 50% of the stock).

contains firms from 66 countries and covers 72 different economic sectors. Fifteen hundred of these 2000 firms are based in OECD economies.[15]

The value of sales of these firms in the business year 2010-2011 corresponded to more than 51% of world GDP[16] and their market value exceeded 80% of the market capitalisation of listed firms worldwide (Table 1). Furthermore, the value of annual sales of these firms was larger than the value of world trade in 2010 by a factor of 1.7 and larger that the value of global FDI flows by more than a factor of 20. In addition, the firms in the sample are parent to more than 330 000 domestic or foreign subsidiary firms (for more details on this aspect see Section 4.2). It is deemed that such a sample is sufficiently representative of the global economy since the bulk of international economic activity, such as exports, imports or foreign direct investment, is typically driven by a small fraction of large firms.[17]

Table 1. Aggregate financial indicators for all firms, % of selected benchmark aggregates (2010)

	Total sales	Total profits	Total assets	Total market value
GDP, global	51.1%	3.7%	218.6%	58.4%
Industry value added, global	187.3%	16.6%	801%	214%
Services value added, global	88.5%	6.4%	378.4%	101.1%
Manufacturing value added, global	323.6%	23.6%	1383.6%	369.5%
Agriculture value added, global	1263%	92%	5340%	1442.2%
Cross border trade, global	171.9%	12.5%	734.7%	196.2%
FDI flows, global	2261.3%	164.7%	9667.8%	2582%
Market capitalisation of listed companies, global	71.7%	5.2%	306.7	81.9%
Stocks traded, global	48.7%	3.5%	208.2%	55.6%

Sources: Forbes and WDI.

The Forbes dataset has been augmented with ownership information from the *Orbis*© database. The Orbis database contains structural, ownership and financial information on more than 63 million companies worldwide. A firm has been classified as an SOE when a state, a government or a public authority is, according to Orbis or other primary sources, the ultimate

15 It is important to stress that the methodology used to compile the Forbes Global 2000 list excludes some of the firms considered as the world's largest in other rankings.

16 Comparing SOE sales to countries' GDPs is only indicative since the former measure refers to turnover while the latter refers to value added. The relation between the two measures differs across different types of economic activity. For example, in retail trade the share of value added in sales can be considerably smaller than in extractive industries.

17 Not only the number of firms that engage in international business activity is relatively small but, additionally, a small fraction of these internationally active firms account for a large share of cross-border trade and direct investment. For instance, of the 5.5 million firms that operated in the United States in 2000 less than 5% were exporters and the top 10% of these exporting firms accounted for more than 95% of aggregate US exports (Bernard et al., 2007). Similarly, only a sub-section of total European firms are exporters, and in 2003 a major chunk of not less than 80% of total European exports was provided just by the top 10% of exporters (Mayer & Ottaviano, 2008). Patterns of greenfield investment or mergers and acquisitions (M&A) are similarly concentrated. For instance, Renault's USD 5.4 billion investment in Nissan in 1999 accounted for 95% of Japanese FDI net inflows from France during that year (Head and Ries, 2008).

owner of that firm and holds more than 50.01% of the firm's shares. Firms with lower percentage of shares held by state are considered private.[18]

Ownership data provided by Orbis for each of the Forbes Global 2000 firms has been cross-checked with primary sources such as government reports or annual reports of companies and, in 44 cases where there were any disparities, overwritten.[19] Each firm's country classification has been determined by the country of the owner (i.e. a firm based in the United Kingdom, whose ultimate owner is the government of Russia, is marked as Russian). In cases where the location of the owner is unknown, the country of firm registration has been used instead.

3.2 State ownership among the world's largest companies

Using the criteria and methodology described above, 204 out of the world's 2 000 largest publicly listed firms were identified as SOEs. They originated from 37 different countries with China leading the list (70 SOEs), followed by India (30), Russia and the United Arab Emirates (9 each) and Malaysia (8). Overall, 35 industries—roughly half of all 2-digit NACE industries—had at least one SOE. It is important to underline that this listing does not cover SOEs that are not public. While this means that many of the large unlisted SOEs will not be covered (e.g. unlisted statutory enterprises, in postal services for instance, or utilities at sub-national level), this augmented dataset provides comparable information on SOEs that are likely most active in global trade and investment. The combined sales of these SOEs amounted to USD 3.6 trillion, representing more than 10% of the aggregate sales of the 2 000 world largest companies, and exceeding the 2010 GNIs of countries like the United Kingdom, France or Germany. The value of sales of these SOEs was tantamount to almost 6 % of world GDP and was higher than global value added in agriculture by a factor of 1.4 or combined FDI flows around the globe by a factor of 2.5. Their market value corresponded to 11% of the market capitalisation of all listed companies worldwide (Table 2).

Table 2. Aggregate financial indicators for SOEs, % of selected benchmark aggregates (2010)

	Total SOE sales	Total SOE profits	Total SOE assets	Total SOE market value
GDP, global	5.7%	0.5%	35.8%	7.8%
Industry value added, global	20.8%	1.9%	131.1	28.7%
Services value added, global	9.8%	0.9%	61.9%	13.6%
Manufacturing value added, global	36%	3.3%	226.5%	49.7%
Agriculture value added, global	140.3%	12.8%	884%	193.8%
Cross border trade, global	19.1%	1.7%	120.3%	26.4%
FDI flows, global	251.2%	22.9%	1582.6%	346.9%
Market capitalisation of listed companies, global	8%	0.7%	50.2%	11%
Stocks traded, global	5.4%	0.5%	34.1%	7.5%

Sources: Forbes, Orbis, WDI.

18 It is noteworthy that governments hold significant minority stakes in a number of firms (Christiansen, 2011).

19 All the sources on basis of which ownership data was augmented have been documented.

3.3 SOEs among the world's largest companies

Eighteen OECD countries in the augmented dataset have at least one SOE and, overall, SOEs account for about 3% of OECD firms in the sample.[20] Table 3 provides an indication of the economic weight of Global 2000 SOEs in OECD economies, comparing their sales, profits, assets and market values to their home countries' Gross National Incomes. While in most OECD countries the scale of the SOE presence is modest, there are a few notable exceptions. In terms of SOE assets, Ireland, the UK and US register high values relative to GNI but this is driven by a small number of large financial sector firms that, in line with our generic SOE definition, were recorded as SOEs in 2011—the year of ownership information in our dataset—as a consequence of nationalisation in the aftermath of the 2008-2009 financial crisis. These government support measures have been announced as temporary and some of them have been withdrawn since 2011. Yet, several other OECD countries' SOE are also relatively large. Korea records a significant volume of SOEs assets equivalent to 48% of the country's GNI, spread across several economic sectors. In Norway, oil and telecom SOEs' sales, assets and market values add up to one-quarter or more of annual GNI. Poland also records double-digit scores in terms of sales, assets and market valuation of its SOEs.

Table 3. Forbes Global 2000 SOE sales, profits, assets and market value as a % GNI, OECD countries, 2011

Country	Sales	Profits	Assets	Market value
Austria	1.1%	0.1%	3.8%	3.1%
Belgium	2.6%	0.9%	31.4%	2.9%
Czech Republic	5.6%	1.3%	15.4%	13.1%
Finland	3.3%	0.7%	11.5%	10.6%
France	7.9%	0.4%	23.0%	7.1%
Germany	0.1%	0.0%	0.3%	0.2%
Greece	5.8%	0.4%	23.2%	3.8%
Ireland	6.5%	-1.9%	133.2%	0.3%
Italy	0.4%	0.0%	0.8%	0.2%
Japan	0.5%	0.0%	0.8%	0.8%
Korea	6.8%	0.2%	48.3%	4.0%
Norway	25.0%	2.1%	32.7%	25.9%
Poland	12.4%	1.3%	27.2%	14.8%
Sweden	3.4%	0.7%	7.6%	8.1%
Switzerland	3.1%	0.6%	27.8%	7.1%
Turkey	0.7%	0.1%	0.8%	0.4%
United Kingdom	2.8%	-0.1%	96.8%	3.2%
United States	2.7%	-0.1%	38.5%	0.4%

Note: GNI data refer to 2010.

Source: Authors' calculations. GNI from World Bank, *World Development Indicators*, on-line.

The global importance of Brazil, China, India, Indonesia, Russia and South Africa (BRIICS) is manifested in the number of companies from these countries that are among the largest in the world. Out of the 2000 largest companies, 260 are from the BRIICS countries,

20 For some comparatively small economies such as the Czech Republic, Greece, Norway or Poland, the SOE shares among these countries' firms are 20% or more, whereas the shares for other OECD countries are significantly smaller. It is noteworthy that a significant share of world largest firms are from the United States and Japan, which together account for more than half of OECD firms on the Forbes Global 2000 list. Both of these countries have relatively few SOEs. See Annex Table A1.1.

with China and India accounting for the majority of these. 123, or 47%, of these largest BRIICS enterprises have been classified as SOEs according to our definition, with China and India accounting for, respectively 70 and 30 of them.[21] The market value of SOEs amounts to 32% of GNI among all the BRIICS (Table 4). Furthermore, with the exception of South Africa, SOEs control relatively large amounts of assets in the BRIICS, with China, India and Russia leading the list. In total, the value of assets of all BRIICS SOEs listed on Forbes Global 2000 is equivalent to the value of their GNI.

Table 4. SOE sales, profits, assets and market value as percentage of GNI

Country	Sales	Profit	Assets	Market Value
Brazil	12%	1.7%	51%	18%
China	26%	2.9%	145%	44%
India	16%	4.3%	75%	22%
Indonesia	3%	0.3%	19%	12%
Russia	16%	3.0%	64%	28%
South Africa	2%	1.7%	3%	1%

Note: Data from Forbes *Global 2000* are for the year 2011 and data from WDI for the year 2010.
Sources: Forbes *Global 2000* and WDI.

3.4 Country SOE Shares – SOEs among the largest companies in selected countries

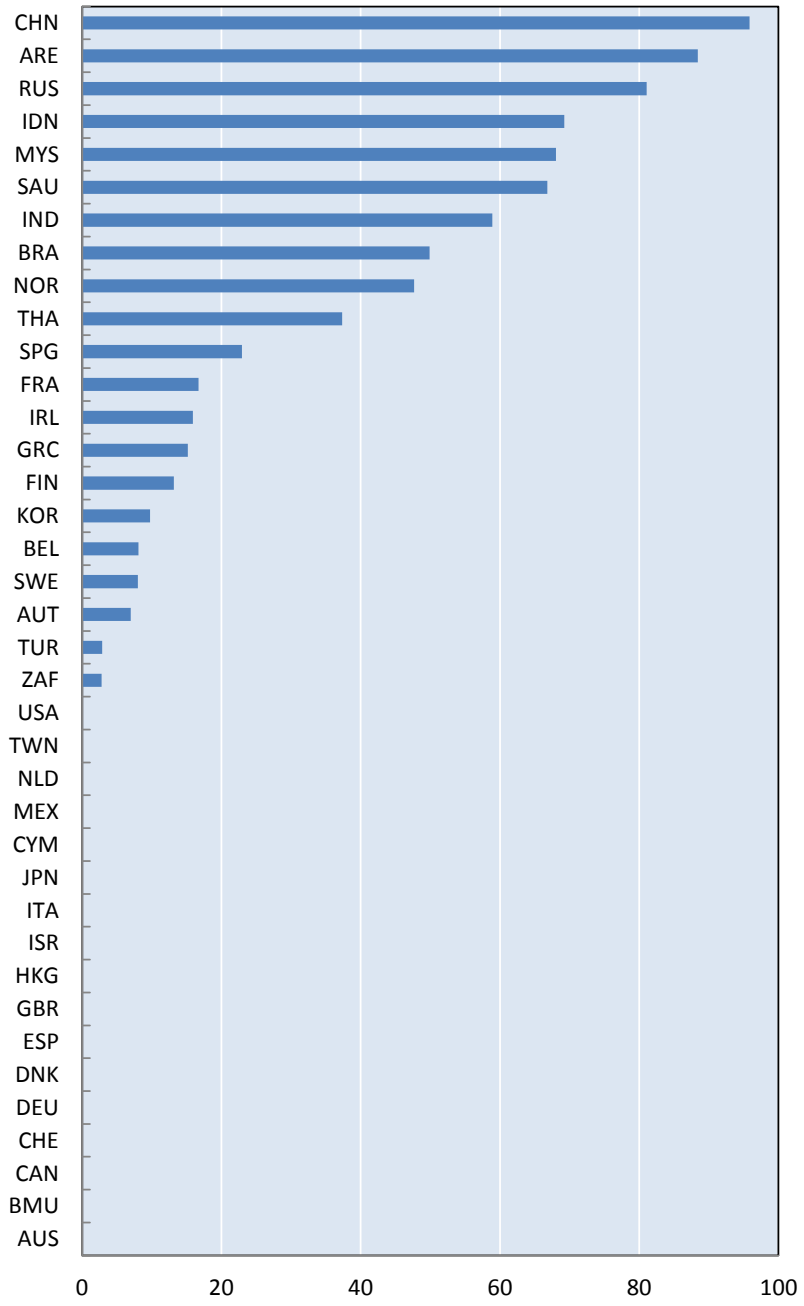
The dataset is used to assess the importance of SOEs among the largest companies in individual countries or economies. To ensure comparability across countries, a sub-sample of the ten largest firms per country has been drawn, irrespective of ownership type and for a total of 38 countries. The covered countries include all those that have at least ten firms on the Forbes Global 2000 list. They comprise 23 OECD countries, all six BRIICS countries and nine other countries or territories. For each of these countries a *Country SOE Share* (CSS) is calculated. The CSS is an equally weighted average of SOE shares of sales, assets and market values among country's top ten companies.[22] The CSS thus gives an estimate of significance of state ownership amid a country's largest business entities. It ranges from 0 (no state ownership) to 100 (all sales, assets and market value of country's ten largest companies are accounted for by SOEs).

Twenty-one out of 38 countries have a *Country SOE Share* higher than zero (Figure 2). The ten countries with the highest CSS are China (CSS 95.9), the United Arab Emirates (88.4), Russia (81.1), Indonesia (69.2), Malaysia (68), Saudi Arabia (66.8), India (58.9), Brazil (49.9), Norway (47.7) and Thailand (37.3). Among the BRIICS economies, South Africa, with a considerably lower CSS of 2.8, is the only country that is not among the top 10 countries with highest CSIs. The OECD countries with a non-zero CSS are Norway (CSS 47.7), France (16.7), Ireland (15.9), Greece (15.2), Finland (13.1), South Korea (9.7), Belgium (8.1), Sweden (8), Austria (7) and Turkey (2.8)

21 The shares of SOEs among the Forbes Global 2000 companies exceed 50% for China, India and Indonesia. They are also significant for Russia and Brazil, 39 and 19%, respectively. South Africa records a modest 6% share (Annex Table A1.2).

22 Information on profits is excluded, given the extensive body of literature, which identifies differences in profitability across different types of ownership (e.g. Megginson and Netter, 2001).

Figure 2. Country SOE Share for selected 38 economies



Source: ORBIS, Forbes Global 2000 and author's information and calculations.

3.5 Country SOE Shares and key economic characteristics

The extent of state ownership may be related to country's history, its level of economic and institutional development, political system, macroeconomic situation, structural characteristics, comparative advantages, access to various resources, as well as its integration with international trade and investment markets. At the same time, state ownership may have very different ramifications depending on some of these listed institutional and economic factors. For example, from a trade perspective, it makes a difference whether a country with

large state sector is also a large world market player. Determining any causal relationships in this respect goes beyond the scope of this paper but it is interesting to consider how the calculated country SOE shares correlate with selected economic indicators.

Figure 3 juxtaposes the annual growth rate with GDP per capita, with the vertical and the horizontal lines indicating respective medians and bigger circles denoting higher CSSs. Countries or economies with high CSSs are clustered in the upper left part of the box, with growth rates above the median and income levels below the median stressing the point that the economic role of state has to be considered in the context of different stages of economic development.

Figure 3. Growth rate (pre-crisis) vs. GDP per capita, weighted by CSS



Note: Data from Forbes *Global 2000* are for the year 2011 and data from WDI for the year 2010 (GDP per capita) and 2007 (Growth rate). The black lines indicate respective medians.

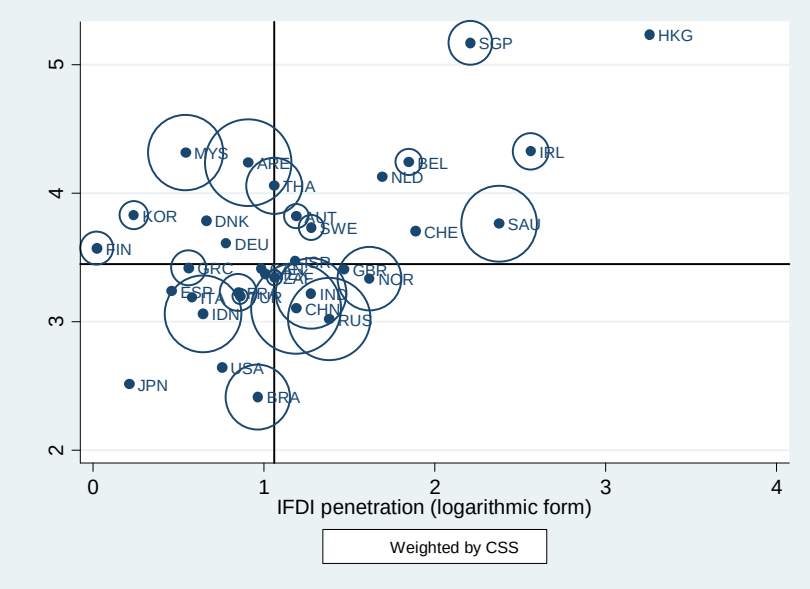
Countries or economies with high CSSs do not necessarily have high FDI inflows as percentage of GDP but their imports of goods and services as percentage of GDP are often below the sample median (Figure 4). The latter correlation bodes well with the correlation between measures of goods and services trade impediments and SOE shares in Figure 5. Figure 5 juxtaposes average tariff rates with the World Bank's Services Restrictiveness Index, measuring the extensiveness of countries' GATS commitments, where higher scores mean more ambitious commitments.[23] Figure 5 makes clear that many countries or economies with high CSSs have relatively high average tariff rates and less ambitious GATS commitments. This is not particularly surprising, given the correlations between trade openness and the level of economic development on the one hand and the level of economic development and the extent of state ownership on the other. Yet, the fact that economies with smaller SOE sectors tend to be more open may also imply that greater regulatory cohesiveness, which tends to

23 This is based on the Word Bank index of GATS commitments reported in the World Trade Indicators database. The index is an imperfect measure of services trade restrictiveness but so far this is the only index that offers a broad sectoral coverage and comparability across countries.

reduce border and behind the border trade restrictions, boosts government's ability to delegate public functions to private sector actors.[24]

Overall, correlation between trade barriers and state ownership in Figure 5 suggests also that there might be room for potentially significant welfare gains via trade liberalisation, possibly higher than in the case of countries at a similar development level but with a less dominant state sector. Indeed, previous theoretical work and simulation exercises on economies with large SOE sectors and trade policy reform demonstrate that an increase in trade openness can result in important efficiency gains, given the initial departure from Pareto optimality in these economies (e.g. Ghosh and Whalley, 2008).

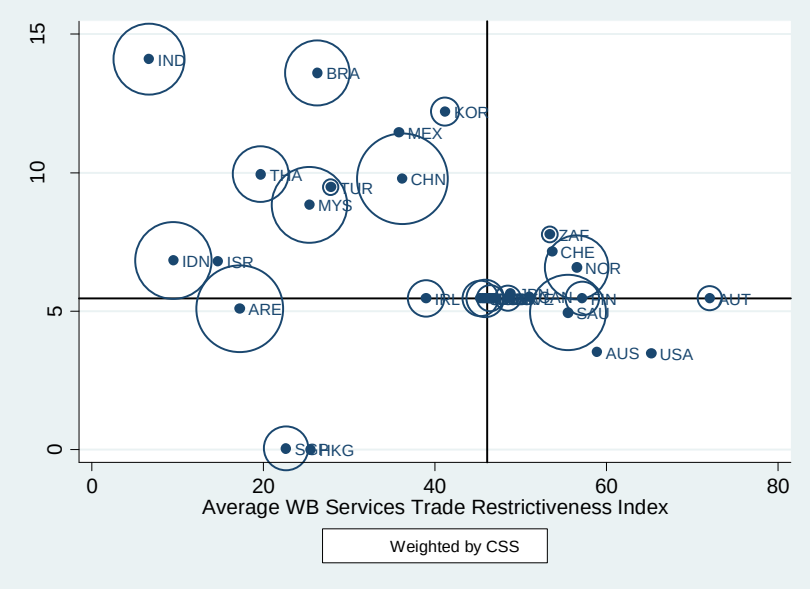
Figure 4. Import penetration vs. Inward FDI penetration, weighted by CSS



Note: Data from Forbes *Global 2000* are for the year 2011 and data from WDI for the year 2010. Import penetration is measured as imports as percentage of GDP (logarithmic form). IFDI penetration is measured as inward FDI +1 as percentage of GDP (logarithmic form). The black lines indicate respective medians.

24 This is because regulatory efficiency allows the state to enter contractual relationships with private sector actors, instead of reverting to achieving its aims through direct ownership.

Figure 5. Average tariff rates vs. World Bank Services Trade Restrictiveness Index, weighted by CSS

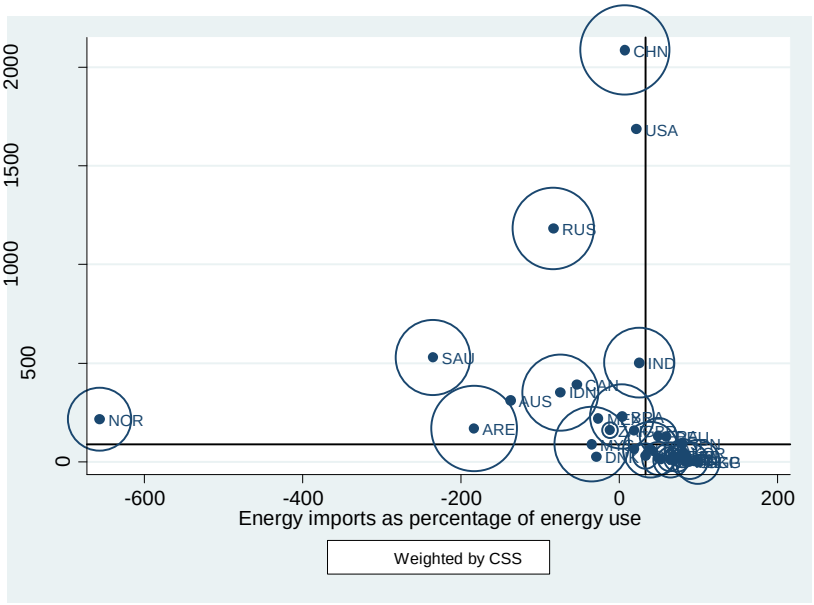


Note: Data from Forbes *Global 2000* are for the year 2011 and data from WDI for the year 2010. The black lines indicate respective medians.

Traditionally, SOEs are dominant in the natural resource extraction and energy production sectors which can be associated with monopolistic rents and important economies of scale. These sectors are often listed as 'strategic', which might also explain high SOE incidence. In fact, 12 out of the world's 25 largest SOEs of the augmented Forbes database are active in sectors of natural resource extraction, energy provision and related activities. Figure 6 portrays the correlation between the CSS and measures of economies' energy production and imports. Many economies with high CSSs are clustered in the upper left corner of the graph, indicating low or negative energy imports and high levels of energy production, implying that large energy producers and net energy exporters tend to have large SOE sectors. Causality may run both ways, but an important point here is that state ownership is related to economic structure, comparative advantage and trade patterns with its partners.[25]

[25] Another potentially interesting aspect is cross-subsidisation from energy to non-energy sectors and the question if and, to what degree, SOEs in energy producing sectors may be providing energy at prices below market rates to SOEs in other sectors.

Figure 6. Energy production (thousand kt equivalent) vs Energy imports as percentage of energy use, weighted by CSS



Note: Data from Forbes *Global 2000* are for the year 2011 and data from WDI for the year 2010. The black lines indicate respective medians.

3.6 Sector SOE Shares – SOEs among the largest companies in selected sectors

The prevalence of SOEs varies considerably not only across countries but also across economic sectors. To assess these differences a methodology similar to the one used for computing the *Country SOE Share* was applied. First, information on the sector of each company's main economic activity was collected from Orbis (according to the 2-digit NACE Rev. 2 classification).[26] Then, sectors with less than ten firms (SOEs or non-SOEs) were excluded,[27] leaving 41 sector categories for which equally-weighted averages of sectoral SOE shares in total sales, assets and market value were calculated. These average shares range from 0 (not a single SOE operating in the sector) to 100 (all sales, assets and market value of firms in the sector are accounted for by SOEs).[28]

The SOE shares by sector are first computed for firms from all countries, and then disaggregated into three country groupings: the OECD, BRIICS and other countries. When all countries are considered, only 11 out of the 41 sectors record a zero SOE share. The average SOE share across sectors is 10.7%, indicating that for every 10 firms operating in a sector there is approximately one SOE. As far as broadly-defined sectors are concerned, SOE shares are highest in natural resource extraction- and provision sectors as well as in construction. The five 2-digit NACE sectors with the highest SOE shares are: *mining support activities* (SOE

26 14 companies of the sample could not be assigned to a specific sector.

27 There were 128 firms active in sectors with less than 10 *Forbes 2000* firms.

28 This approach has been repeated, using a subsample with the 10 top performers in each of these sectors. The shares computed in this way were very similar (correlation coefficient of 0.97) and in the interest of space are not reported in the current paper.

share of 42.7%); *civil engineering* (40.8); *land transport and transport via pipelines*[29] (40.3); *mining of coal and lignite* (35.1); and the *extraction of crude petroleum and gas* (34.1).

Contribution of OECD SOEs to these shares is small in most sectors; they are present in 11 out of the 41 sectors and the average contribution to the sectoral SOE shares presented in Figure 7 is a mere 1.8 percentage points. Currently, the sector with the highest OECD contribution to the overall SOE share is in *provision of electricity, gas and steam* (OECD contribution of 18.3 percentage points). Other sectors with important OECD contributions are: *manufacture of tobacco* (15 percentage points) [30]; *warehousing* (11.7); *manufacture of motor vehicles* (6.7)[31], and *financial intermediation* (6.7).[32]

BRIICS countries' SOEs are represented in 25 of 41 NACE sectors and the contribution of these countries' SOEs to sectoral shares are overall much higher, reflecting a higher overall prevalence of SOEs in these economies. There are also some important cross-sector differences between BRIICS and OECD country groupings. Namely, BRIICS SOEs are noticeably more present in natural resources and manufacturing sectors. In fact, high overall sectoral SOE shares in *mining support activities*, *civil engineering*, *land transport and transport via pipelines* as well as *mining of coal and lignite* are driven entirely by BRIICS' SOEs, most notably from China (Figure 7). In addition, BRIICS SOEs contribute heavily to overall sales, assets and market capitalisation in sectors such as *extraction of crude petroleum and natural gas* (BRIICS contribution of 26.5 percentage points); *manufacture of fabricated metal* (12.9), *financial intermediation* (12.4), and *telecommunication* (10.3). Similarly, this is the case for some heavy and electrical industries, such as: *manufacture of basic metals* (9.1 percentage points); *electrical equipment* (8.3); and *machinery and equipment* (7.7). Finally, *air transport* is also a category with a substantial contribution of BRIICS' SOEs (7.3 percentage points).

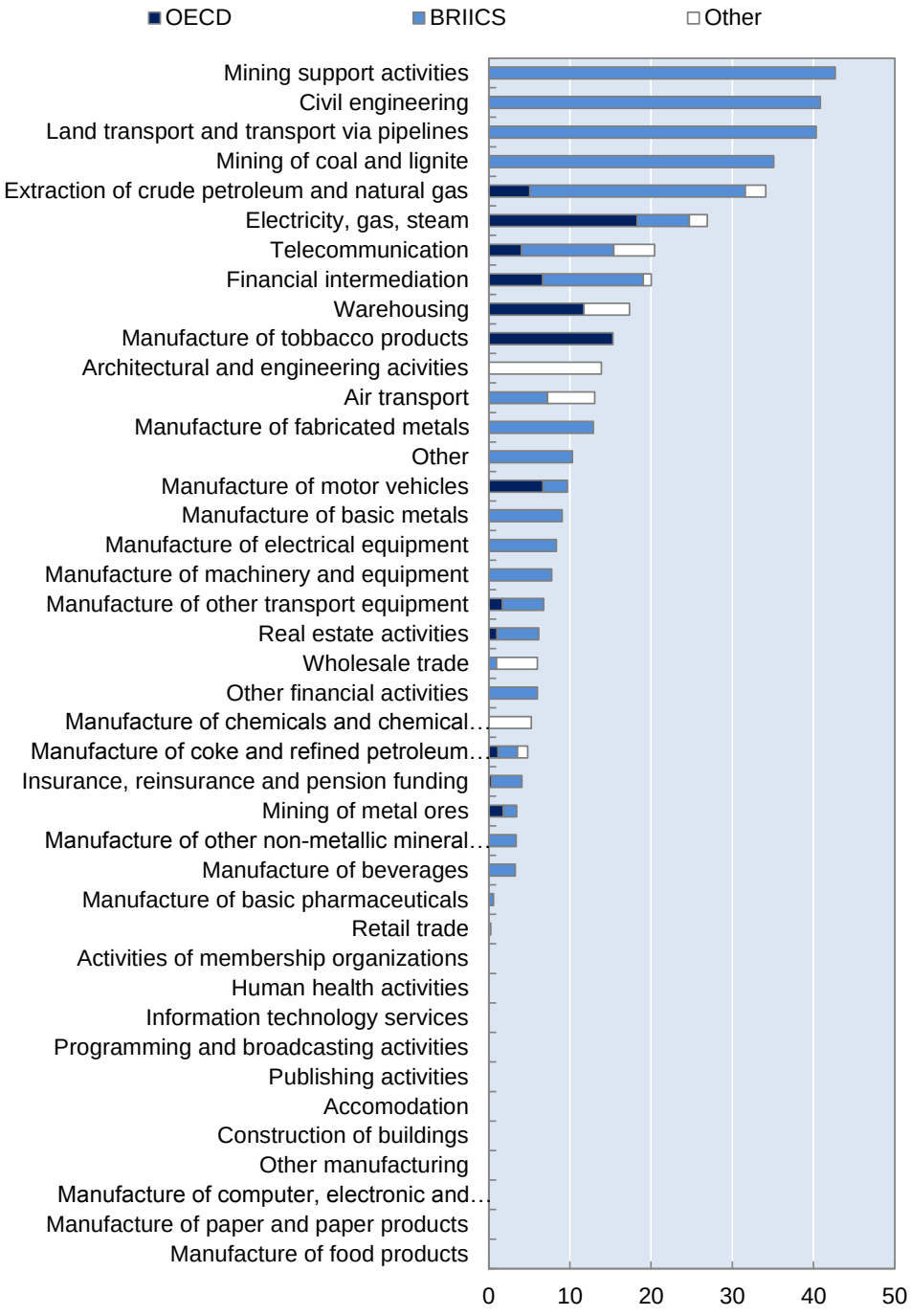
29 This category includes some big petrol and gas providers such as, for example, Gazprom.

30 This number is driven by Japan Tobacco which holds rank 228 on the Forbes 2000 list.

31 This reflects the 2009 bail-out and the ultimate ownership by the U.S. government of General Motors which was ranked 61st on the Forbes 2000 list for the business year 2010-2011. In December 2010 General Motors repurchased a substantial part of its shares and thus, according to our criteria, the firm lost its SOE status.

32 As discussed above this reflect the engagement of various OECD governments in the financial sector during the crisis. At the same time, because of the methodology used to compile the Forbes Global 2000 list some of the world's largest financial institutions are not included in the analysis.

Figure 7. Sectoral SOE shares in selected sectors



Source: Authors' calculations using World Development Indicators.

3.7 Extension of the dataset and robustness checks

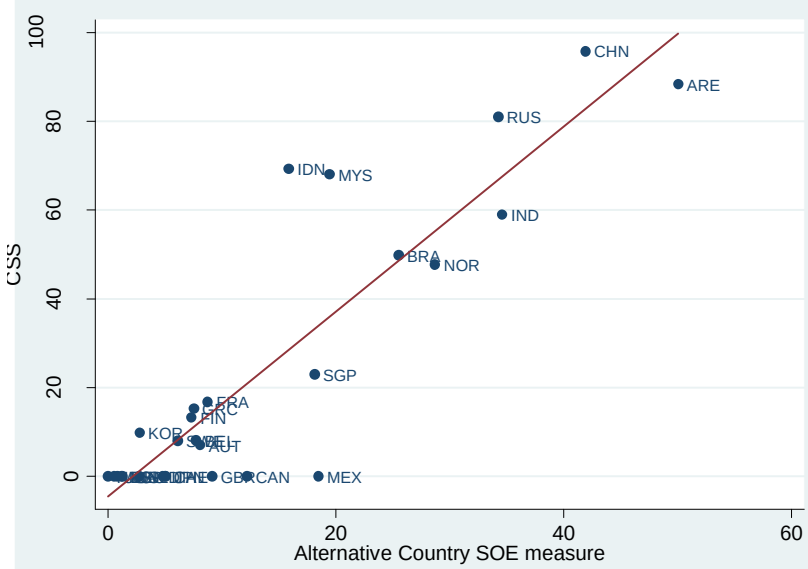
The methodology used in this paper aims at providing comparable indicators of state ownership across countries and economic sectors while using a sample of the world's most important firms. This is why it is based on *Forbes Global 2000* financial data and on ownership data from ORBIS and other sources. Yet, to what extent are the indicators

developed using world's 2000 largest firms robust if the sample is extended to smaller firms? Also, how robust is the financial information used in comparison to other sources? To answer both questions, an alternative indicator, based on a larger sample of firms, has been calculated and compared with the original CSS indicator.

The sample has been extended to 9600 firms using the Orbis database, covering top 200 firms[33] in each of the 48 countries for which data is available. The same ownership criterion of more than 50% global ultimate state ownership has been applied[34] and key financial statistics such as firms' employees, operating revenue, gross profits, total assets and sales have been used to calculate the alternative share of state ownership. [35] Foreign firms have been included in this sample and, thus, our alternative share likely under rather than overestimates the extent of the state's ownership in a given country.

Not surprisingly, and taking into account the differences in the composition of indicators, the shares of state firms among the top 200 country firms tend to be smaller as compared to the original CSSs. Most importantly, both measures are highly correlated (coefficient of correlation of 0.9) (Figure 8). Consequently, both of these measures give very similar country rankings, especially for countries with highest CSSs.

Figure 8. Robustness test: CSS vs an alternative country SOE share measure



Source: Authors' calculations.

33 The ranking is in terms of turnover as reported in the Orbis database.

34 Individual verification of ownership is not possible for this sample of 9 600 firms. Thus ownership is indicated as private when no indication of state ownership is provided by Orbis.

35 The alternative country SOE share is the average of employees, operating revenue, total assets and sales shares. A caveat of this measure is that financial information contains, in contrast to the smaller dataset provided by Forbes, missing observations. This measure should therefore mainly be considered as an instrument to test for robustness of the earlier results.

4. International activities of SOEs

One of the most salient economic developments since the 1980s has been the global integration of production chains and the spread of multinational enterprises. Today, one US dollar of value added in the OECD area is associated with approximately 28 cents worth of exports, up from 19 cents at the beginning of 1980s. This provides an indication of the extent to which economic activity has become more international. The number of multinational enterprises, broadly defined as firms that "control and manage production establishments in at least two countries" (Caves, 1996), grew between 1980 and 2004 by a factor of 4. In 2010, the amount of value added by multinational enterprises reached USD 16 trillion and the foreign subsidiaries of these firms contributed about 10% of world GDP and a third of world exports (UNCTAD, 2011).

SOEs, too, evolved from the traditional government-granted monopolies operating mainly in national markets and sheltered from foreign competition, towards state-owned corporations with objectives of foreign investment or expansion into world markets for goods and services. In some of the non-OECD countries with the largest SOE sectors, international expansion of state enterprises is an explicit policy objective (see Annex A2.5).

4.1 SOE prevalence and cross-border trade

Section 3 presented the methodology for assessing the prevalence of SOEs across 38 OECD and non-OECD countries, as well as across 41 industries based on a sample of the world's 2000 largest firms. This analysis showed that total sales of SOEs in the sample amounted to 19% of the value of global exports of goods and services. While data currently at hand do not allow us to assess the exact share of these sales associated with exports,[36] ca. 90% of SOEs in our dataset had at least one foreign subsidiary suggesting that international activity accounts for an important part of their endeavours. Should these SOEs benefit from unfair advantages granted by their governments, these data suggest a fair potential for distortions in world markets. This tentative hypothesis is further supported by some of the more refined statistics presented below.

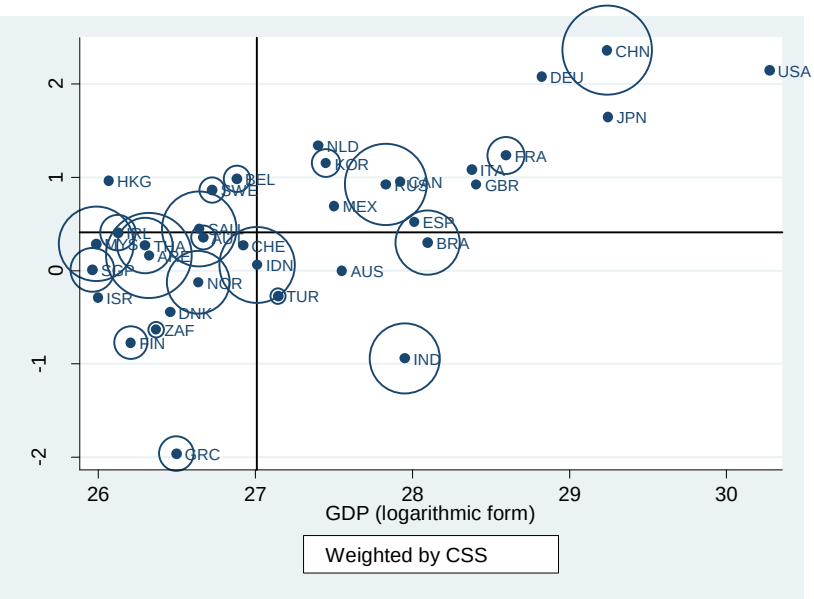
Indeed, some of the countries with highest SOE shares are important traders (Figure 9). This is most notably the case for China. In 2010, China was the world's largest merchandise exporter, accounting for more than 10% of world's total merchandise exports; across the 38 countries covered in Section 3, China also had the highest weighted share of SOEs (96%) among its largest enterprises. This provides an indication as to why China is often mentioned in the context of possible cross-border effects of SOEs. Other economies with high SOE shares individually account for much smaller shares of world trade than China and display a strong heterogeneity with regard to their role in world trade, relative to their GDP. Yet, together, the seven countries following China in terms of high SOE shares (the United Arab Emirates, Russia, Indonesia, Malaysia, Saudi Arabia, India and Brazil) accounted for an additional 10.4% of world trade. Thus, the eight countries with the highest SOE shares collectively account for more than 20% of world trade. Among the OECD countries, France comes across as the countries with relatively high shares in world trade as well as moderate SOEs shares among its largest firms (Figure 9).

It is worth pointing out here that competitive neutrality disciplines and corporate governance standards are less well advanced in the non-OECD countries having high SOE

36 While exports-to-sales ratio variable exists, for instance, in the Orbis database, the coverage of this statistic across the whole sample of firms is very poor.

shares, than in the OECD area. Additionally, some of these non-OECD countries explicitly set international expansion as one of their SOE policy objectives (Annex A2). This points to a fair potential for economic distortions in relation to SOEs.

Figure 9. Country's share in world merchandise trade vs GDP, weighted by CSS (2010)



Note: black lines indicate respective medians.

Source: World Bank Development Indicators and authors' calculation.

Certainly, the observation that countries with high SOE shares account for a significant part of world trade does not indicate that state ownership is a serious cross-border issue. For example, this would not be the case if SOEs were disproportionately concentrated in domestic, non-tradable sectors. Yet, as explained in detail below, while our data confirm that this is the case for some sectors, our analysis also shows that SOEs are very active in sectors that account for significant portions of world trade. This underscores the importance of engaging of these important non-member countries in discussion of the cross-border effects of the activities of these firms.

For example, there are several manufacturing sectors with moderate SOE shares that account for significant chunks of world trade. Figure 10 shows this for merchandise trade. It replicates the 2-digit NACE sectoral SOE shares presented in Section 3 and juxtaposes them with the estimates of shares of these sectors in world merchandise and services trade.[37] *Manufacture of motor vehicles, trailers and semi-trailers*, with an average SOE share of 20%, accounts for close to 12% of world trade. SOE presence in other important manufacturing sectors is almost entirely accounted for by the BRIICS. *Manufacture of fabricated metal products, except machinery and equipment*, *Manufacture of basic metals*, *Manufacture of*

37 The latter are estimates since the existing classifications for which trade data are available, such as for example ISIC, do not map unambiguously into 2-digit NACE sectors. In particular, some 4-digit ISIC categories map into more than one 2-digit NACE category, resulting in certain degree of double counting. Thus, the trade share estimates should be treated as indicative only. Nevertheless, when combined with SOE shares, these trade figures do provide some interesting insights into the potential role of SOEs in international markets for specific types of products.

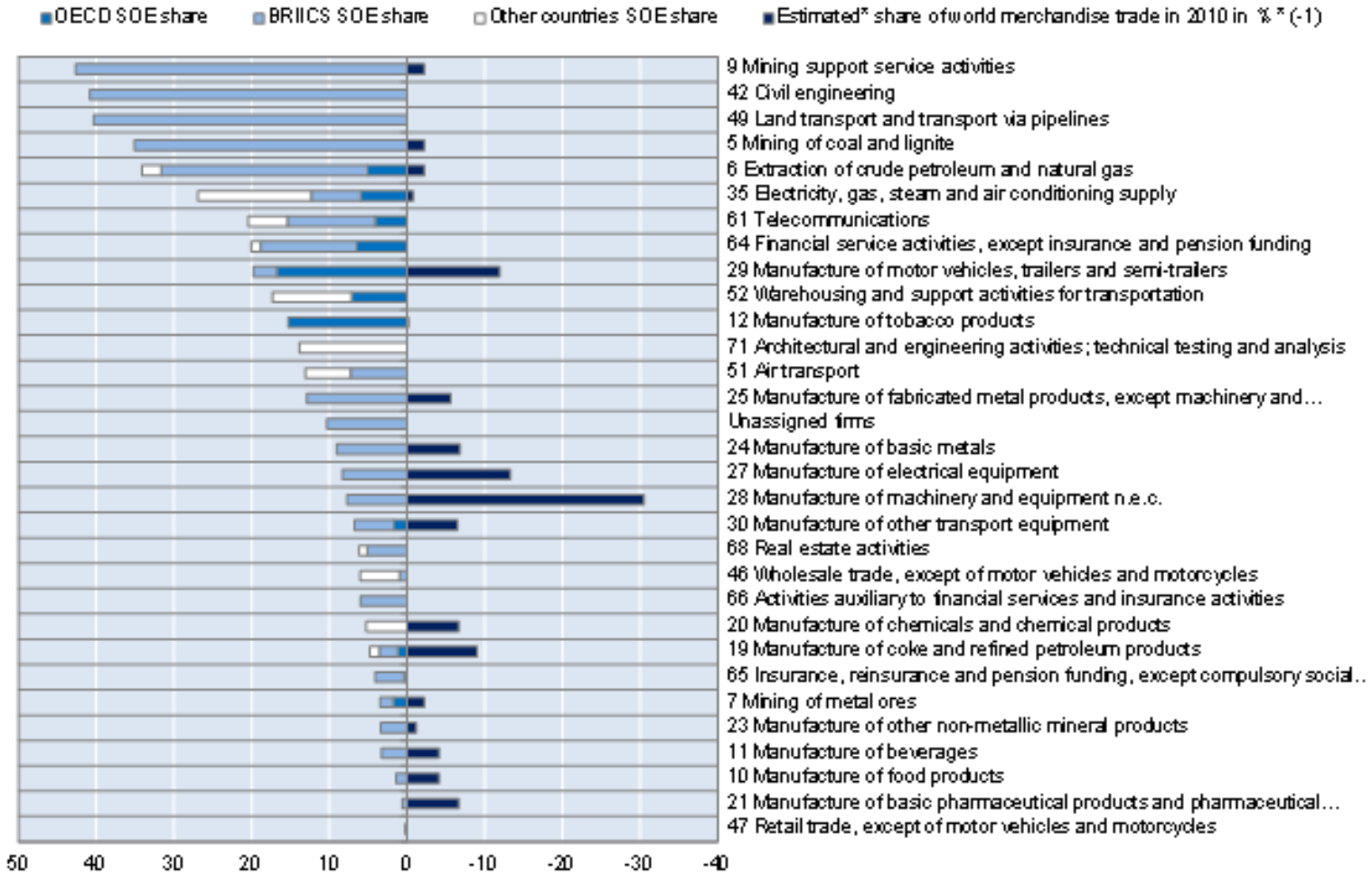
electrical equipment, Manufacture of machinery and equipment n.e.c. as well as *Manufacture of other transport equipment* all have SOE shares above 7%, while together they are estimated to account for up to 60% of world merchandise trade.

Several sectors with relatively little trade exhibit high SOE shares, as one might expect with a more traditional model of state ownership. Such is the case for *Mining support service activities*, *Mining of coal and lignite* and *Extraction of crude petroleum and natural gas* or *Electricity, gas, steam and air conditioning supply* with SOE shares of respectively 42%, 35%, 34% and 27%, but an estimated combined share of 7.5% of the value of world merchandise exports in 2010. It is worth mentioning here that these high sectoral SOE shares are also accounted for almost entirely by SOEs from the BRIICS (Section 3).

Figure 10 shows that SOE presence is very prominent in service sectors such as *Civil engineering* (SOE share of 41%), *Land transport and transport via pipelines* (40%), *Telecommunications* (20%), *Financial service activities, except insurance and pension funding* (20%), *Warehousing and support activities for transportation* (17%), *Architectural and engineering activities; technical testing and analysis* (14%), and *Air transport* (13%). Here again the BRIICS countries' SOEs account for most of the high shares, with the exception of *Electricity, gas, steam and air conditioning supply*, *Telecommunications* and *Warehousing and support activities for transportation*, where contributions by SOEs of the OECD and other countries are also significant.

While the value of cross border trade in services (Modes 1 and 2) is only a fraction of the value of world's goods trade, and while the IMF Balance of Payments (BOP) classification of services categories does not have a direct correspondence for all NACE sectors, it is nonetheless clear that some of the services sectors with highest SOE shares also account for significant shares of world services trade. For example, *Civil engineering* and *Architectural and engineering activities; technical testing and analysis* are two important sub-sectors of the BOP category *Other business services*, which accounts for approximately 21% of world services trade (Table 5). The BOP category *Transportation services*, which includes NACE's *Land transport and transport via pipelines* as well as *Air transport*, accounts for another 20% of world services trade. *Financial service activities, except insurance and pension funding* account for approximately 7% of total services trade.

Figure 10. Sectoral Prevalence of SOEs and world merchandise trade



Source: Authors' calculations based on Forbes Global 2000, Orbis, UN Comtrade and IMF Balance of Payments.

In sum, as was the case for merchandise trade, some of the services sectors with relatively high SOE presence are in fact intensely traded. This suggests that there is a potential for economic distortions in the world markets if the SOEs operating in these sectors benefit from unfair advantages granted to them by governments. The visible importance of the BRIICS countries' SOEs in these sectors, their less advanced status with respect to corporate governance and competitive neutrality policies, and their pursuit of active international expansion of SOEs, all suggest that cross-border aspects may be an important element of debate on levelling the playing field between private and public businesses.

Table 5. Composition of world services trade in 2010, by category of service

Communications Services	2%
Computer and Information Services	3%
Telecommunications	*2%*
Construction Services	4%
Financial Services	7%
Government	3%
Insurance Services	2%
Other Business Services	21%
Other Business Services, Miscellaneous Business, Professional, and Technical Services	*16%*
Personal, Cultural, and Recreational Services	0%
Royalties and License Fees	9%
Transportation	20%
Transportation, Other Transport	*5%*
Transportation, Air Transport,	*8%*
Travel	28%

Source: Authors' calculations based on Forbes *Global 2000*, Orbis and IMF Balance of Payments.

4.2 Foreign subsidiary activity of SOEs

Having explored the presence of SOEs in sectors of the domestic economy that tend to be more important to international trade, now we turn to a set of questions related to SOEs presence abroad: to what extent are SOEs active abroad as owners of subsidiaries? How does this foreign ownership compare with their domestic ownership? How does this compare with privately-owned businesses? In order to shed some light on these questions, the firm-level dataset of world's largest companies has been augmented with information on domestic and foreign subsidiaries of SOEs and non-SOEs available in the Orbis database (see Section 3).[38]

Inclusion of subsidiary information resulted in expansion of the dataset to more than 332 000 observations, where non-SOEs and SOEs from the OECD countries account for ca. 305 000 domestic and foreign subsidiaries. The corresponding statistics for the BRIICS and other emerging countries are respectively ca. 12 000 and 15 000 subsidiaries. More than 35% of all subsidiaries in our dataset (almost 119 000) have a mother company based in the United States, reflecting the prominence of US firms among the world's largest companies as well as the degree of their connectedness with the global economy.

The median parent firm from the Forbes *Global 2000* list has 751 domestic or foreign subsidiaries in our dataset. Around 55% of all of the subsidiaries in the dataset—more than 181 000 firms—operate outside the parent company's home market. Again, US companies are

38 111 entries with inconsistent subsidiary identifiers were excluded.

most represented internationally with more than 46 500 foreign subsidiaries. Overall, firms from the OECD countries are the largest owners of foreign subsidiaries: 90% of foreign subsidiaries in our dataset have parents domiciled in the OECD area. Less than 2% of foreign subsidiaries, ca. 3 000 firms, have parents domiciled in the BRIICS, and approximately 10 000 foreign subsidiaries are from countries other than the OECD or the BRIICS.

Only a fraction of foreign subsidiaries, ca. 3 000 firms, or less than 2% of the total, have SOEs as their parent companies. This is considerably lower than the share of SOEs among the *Global 2000* list, suggesting plausibly that private firms may be overall more active internationally than SOEs.

In order to assess the extent of international orientation of SOEs' direct investment in our sample, we conduct regressions at the firm-level. The dependant variable in a first regression is the number of a firm's domestic subsidiaries; in a second regression the number of its foreign subsidiaries; and in a third regression the ratio of foreign to domestic subsidiaries as a proxy for internationalisation. Independent variables are the mother company's sales, profits, assets, market value and a dummy that equals unity if the firm is an SOE and equals zero otherwise. Country and sector fixed effects control for respective country and sector idiosyncrasies.[39] The results (Table 6) show that the SOEs in the sample do not differ from private firms with regard to their number of domestic subsidiaries but their number of foreign subsidiaries and as such the ratio of foreign over domestic subsidiaries is significantly lower than for private firms. These findings suggest that the SOEs among the world's largest publically listed companies tend to be less internationally oriented than their private counterparts.

Table 6. Firm-level regressions on the internationalisation of SOEs

	Domestic subsidiaries	Foreign subsidiaries	Ratio foreign over domestic subsidiaries
Sales	0.274***	0.335***	0.058
	(0.039)	(0.047)	(0.045)
Profits	-0.166***	-0.036	0.069
	(0.041)	(0.049)	(0.048)
Assets	0.343***	0.097**	-0.215***
	(0.041)	(0.044)	(0.043)
Market Value	0.141***	0.421***	0.355***
	(0.049)	(0.060)	(0.058)
SOE	-0.83	-0.923***	-0.582***
	(0.113)	(0.135)	(0.132)
Constant	-3.432***	-5.398***	-2.792***
	(0.530)	(0.588)	(0.606)
F-test	13.67***	17,86***	14.44***
R^2	0.379	0.443	0.397

Source: Forbes Global 2000 and Orbis, authors' calculations. Regressions are OLS. Country and sector fixed effects are not reported for brevity. Statistical significance is indicated by p<0.01***, p<0.05** and p<0.1*.

In a next step of analysis, the last regression with the ratio of foreign subsidiaries over domestic subsidiaries as dependant variable is repeated but instead of using the total sample we separately test subsamples with OECD countries, BRIICS countries, and other countries. This allows us to observe potential differences among these groups. The results are shown in Table 7. The variable of interest, an indicator that equals 1 if the firm is an SOE, is statistically significant and has a negative coefficient in each of these estimations, meaning that SOEs are

39 All continuous variables are in their logarithmic form. Firms with negative profits are dropped from these estimations.

less internationally oriented than their compatriot private firms in each of three sub-samples. Yet, there are important differences with regard to the quantitative magnitude of this aspect: The SOE coefficients for the OECD and BRIICS countries indicate that SOEs in OECD countries tend to be relatively more domestically oriented than in emerging economies.[40]

Table 7. Firm-level regressions on the internationalisation of SOEs: Sub-samples

Dependant variable: Ratio Foreign over Domestic Subsidiaries			
	Sub-sample: OECD	**Sub-sample: BRIICS**	**Sub-sample: Other countries**
Sales	-0.018	0.112	0.380***
	(0.051)	(0.132)	(0.111)
Profits	0.071	0.207	-0.209*
	(0.054)	(0.145)	(0.109)
Assets	-0.180***	-0.190	-0.311***
	(0.048)	(0.128)	(0.115)
Market Value	0.378***	0.232	0.482***
	(0.066)	(0.170)	(0.149)
SOE	-1.211***	-0.612***	-0.408*
	(0.260)	(-3.933))	(0.244)
Constant	-3.014***	-3.933***	-1.436
	(0.737)	(1.142)	(1.385)
F-test	19.04***	10.08***	5.85***
R^2	0.437	0.487	0.613

Note: Sources are Forbes Global 2000 and Orbis and authors calculations. Regressions are OLS. Country and sector fixed effects are not reported for brevity. Statistical significance is indicated by p<0.01***, p<0.05** and p<0.1*.

5. Existing approaches dealing with anti-competitive cross-border effects of SOEs

As illustrated in Section 2, advantages potentially granted to SOEs (or disadvantages afflicting them) take various forms and different policy frameworks offer a variety of options for levelling the playing field. The current section summarises various regulatory frameworks that deal with certain aspects of international competition between POEs and SOEs These include: OECD Guidelines on Corporate Governance of SOEs (OECD SOE Guidelines); national competitive neutrality frameworks (CNFs); national competition laws; the WTO agreements; preferential trade agreements (PTAs); and bilateral investment agreements (BITs). Annex A3 to this paper further expands on some of the specifics of these frameworks relevant in the context of SOEs.

Some of these frameworks have been designed with domestic objectives in mind (e.g. OECD Guidelines, CNFs, national competition laws) or were created at the time when state sector has been oriented primarily towards domestic markets (WTO agreements), and thus may offer only partial provisions in this regard. Some PTAs and BITs contain more modern SOE disciplines which however typically concern a small number of countries. The various frameworks differ also considerably in the extent to which they oblige countries to implement them. For instance, the OECD Guidelines or CNFs are adopted and implemented voluntarily, while SOE-related provisions in the WTO, PTAs and BITs others are legally binding, often with provisions for dispute settlement.

40 Whereas these findings might suggest that SOEs' domestic markets as well as their export destinations are major venues for SOE-POE competition it is noteworthy that the results at hand do not allow for drawing inference about the dynamics of SOE internationalization over time. As such, a deeper analysis of trends of SOE internationalisation and SOE foreign investment strategies is warranted (see Annex A2 for a qualitative analysis of different aspects of SOE outward orientation).

5. Competition law

National antitrust law can in principle be used by governments as well as by competitors and consumers in private actions to deal with predatory abuse of dominant position by SOEs, including predatory pricing strategies, and anticompetitive effects associated with merger and acquisition activity of SOEs. However, as Capobianco and Christiansen (2011) point out, there are several general issues with the application of competition law to anti-competitive behaviour of SOEs, which are all related to the fact that traditional antitrust law is predominantly focused on preventing dominant companies or cartels from restricting competition, and thus normally assumes profit-maximisation as a competitive benchmark. Hence, it may be of limited relevance in the case of SOEs because of several types of government-created advantages (e.g. soft budget constraints or subsidisation), which make them more likely to engage in the so-called non-recoupment predation, not penalised under most competition laws.[41] Similarly, calculation of costs benchmarks for SOEs can be difficult because of non-economic objectives or incentives, particular governance structure and the lack of accounting transparency.

Fundamentally, antitrust law can help remedy some of the anti-competitive effects of SOEs only if they are not exempted from its application. According to Capobianco and Christiansen (2011) in the OECD countries the enforcement of competition law is generally neutral as to ownership of companies and, barring a few exceptions, most OECD countries do not exclude public sector businesses from competition law. This is particularly the case for SOEs incorporated according to the ordinary company law (OECD, 2012). While practices in the OECD countries in this regard are relatively well documented, this is less so for some of the non-OECD countries with large SOE sectors and there have been reports of exemptions.[42][43]

5.2 OECD Guidelines on Corporate Governance of SOEs

OECD Guidelines on Corporate Governance of SOEs (OECD SOE Guidelines; OECD, 2005a) constitute the first international benchmark to help governments improve the corporate governance of SOEs by providing standards and good practices, as well as guidance on implementation. The Guidelines recommend the maintenance of a level playing field among state-owned and privately owned incorporated enterprises operating on a commercial basis, by listing and elaborating on a number of guiding principles in a number of areas.[44] Capobianco and Christiansen (2011) assess that their implementation would go a long way towards addressing competitive issues associated with the distorted incentive structure of SOE

41 The recoupment test establishes whether following an allegedly predatory pricing behaviour the predator would be able to eliminate competition to the extent that it collect at least enough profit to recover the losses it sustained by engaging in predatory pricing (Capobianco and Christiansen, 2011).

42 Some of the existing sources indicate that in China, for example, immediately after establishment of its anti-monopoly law in 2007, some of the SOEs did not adhere to the notification procedure associated with mergers and that there were doubts about whether the Ministry of Commerce responsible for handling anti-trust cases was actively trying to remedy the situation (Taylor, 2011). According to the same source there were several cases where no action was taken by the antitrust authorities against SOEs despite several lawsuits brought to the courts by private individuals. Yet, more recently a number of actions have been taken against Chinese SOEs by China's anti-monopoly authorities.

43 For more on application of antitrust law to SOEs in cross-border context see Annex A4.1.

44 These include: Ensuring an Effective Legal and Regulatory Framework; Principles of state Acting as an Owner; Equitable Treatment of Shareholders; Relations with Stakeholders; Transparency and Disclosure; The Responsibilities of the Boards of State-Owned Enterprises.

management as well as conditions in access to finance, disclosure and cost-coverage of SOEs objectives.[45]

5.3 Other domestic arrangements aimed at fostering competitive neutrality

Going beyond reforms of corporate governance of SOEs, some OECD countries as well as the European Union have established various types of frameworks that aim to identify and eliminate competitive advantages of SOEs with respect to taxation, financing costs and regulatory quality.[46] Comparison of competitive neutrality framework (CNF) of Australia and competitive-neutrality arrangements of the EU[47]—the two are seen as the most advanced in the OECD area—indicates that they do *de jure* protect foreign and domestic companies operating in, respectively, Australia and the European Union, from anti-competitive conduct of Australia's and EU's SOEs. However, similarly to the case of reforms of corporate governance of SOEs discussed above, they have been adopted on a unilateral basis, they are non-binding and they do not deal with potential anti-competitive effects of foreign SOEs operating in these markets. Moreover, it is not clear whether these arrangements are an equally effective a tool when used by foreign firms in the domestic market or whether they are as rigorously applied when it is competition abroad that is in question.[48]

5.4 WTO disciplines[49]

There is no reference to the term "SOE" in the GATT/WTO text, but several agreements contain related concepts (e.g. state-trading enterprise, public monopoly, public body, etc.) which may overlap with the status of some SOEs. Hence, several WTO rules may be applicable and relevant to SOEs. From this perspective WTO rules that can be relevant in the context of potentially anti-competitive behaviour of modern SOEs can be categorised into five groups.

First, there are the WTO rules that are in principle ownership-neutral and, therefore, discipline some of the trade distorting government policies that may involve SOEs. For example, the national treatment or the most-favoured nation principles oblige all WTO Members to treat imports not less favourably than domestic like products or than other like imports, independently of whether the exporter was a POE, an SOE or a government. The Antidumping Agreement authorizes an importing Member to impose antidumping duties on "dumped" imports—whether the dumped imports were produced and exported, or exported, by a private firm or an SOE. Also, subsidies in the goods sector are regulated by the WTO irrespective of whether they are granted to an SOE or a POE.

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45 For more on OECD Guidelines on Corporate Governance of SOEs see Annex A4.2.

46 Recent report *Competitive Neutrality: Maintaining a Level Playing Field between Public and Private Business* (OECD, 2012) has identified and documented the various member country practices in realising competitive neutrality.

47 EU's legal arrangements should be distinguished from explicit CNF approaches in that they cover some activities not related to ownership (e.g. state aid) and do not cover some of the inadvertent advantages related to SOEs (e.g. cheaper finance form commercial lenders related to ownership status, incumbency advantages, etc.).

48 For more on CNFs of Australia and EU see Annex A4.3.

49 This section as well as the Annex section A4.4 have benefitted from comments by colleagues at the WTO Secretariat. It should be noted that any opinions expressed here do not bind the WTO Members or the WTO Secretariat.

Second, there are the WTO provisions that allow WTO Members to exempt SOEs' actions from the application of the WTO disciplines. For instance, Members can specify that their GATS specific commitments apply only to privately owned entities, which may restrict market access or national treatment of foreign SOEs.

Third, specific provisions under the GATT explicitly discipline some practices in which so-called State Trading Enterprises (STEs), some of which can but do not have to be state-owned, can be used by governments as vehicles to influence international trade. This is also the case for STEs under the Agreement on Agriculture. The principle here is that a State cannot hide behind such STEs to avoid its WTO obligations. However, neither STEs nor state trading are clearly defined and this ambiguity seems to represent a handicap in the application of the article. In a similar vein, the Subsidies and Countervailing Measures (SCM) Agreement disciplines subsidies in the goods sector involving financial contributions provided by either governments or *public bodies* which may be SOEs. Yet, when SOEs act as conveyors of subsidies (e.g. providing cheaper inputs to other firms) the application of subsidy disciplines tends to be more complicated. The WTO Agreement also contains special rules concerning tariffs on products traded by import monopolies, or other actions of public monopolies or other public bodies.

Fourth, generally WTO rules apply exclusively to governments. However, under certain circumstances, actions of SOEs can be "attributed" to states or governments, subjecting them to the same WTO rules as governments are subject to. Here state ownership is also not the determining factor, but it can be arguably related to the degree of state influence and makes such an attribution more likely.

Fifth, WTO Accession Protocols of China and Russia contain certain provisions which specifically refer to state ownership. Importantly, these accession protocols are an integral part of the WTO Agreement. Yet, doubts have been expressed whether even the relatively strong provisions in China's Protocol have sufficiently impeded trade-distorting policies that advantage Chinese SOEs.

Overall, each of the above types of WTO disciplines offers provisions that deal with certain aspects of international competition between POEs and SOEs. To what extent these provisions are complete and where there might be possibilities for extension in the future is developed in more detail in Annex A4.4.

5.5 SOE provisions in preferential trade agreements and bilateral investment treaties

A number of PTAs include specific provisions on SOEs as well as related regulations which can specify explicitly that provisions apply similarly to SOEs and to private firms, or they can provide exceptions for state enterprises or state monopolies (Solano and Sennekamp, 2006).[50] It is hard to say in general whether these provisions improve upon the existing WTO

50 For instance, the following PTAs have been identified by previous OECD trade policy research to contain provisions on state enterprises or state monopolies (Solano and Sennekamp, 2006): Albania – Bosnia and Herzegovina; Albania – Bulgaria; Albania – Croatia; Albania – Former Yugoslav Republic of Macedonia; Albania – Romania; Albania – Serbia and Montenegro; Albania – UNMIK (Kosovo); Algeria – EC; Australia – Singapore; Australia – US; Azerbaijan – Georgia; Bosnia and Herzegovina – Bulgaria; Bosnia and Herzegovina – Croatia; Bosnia and Herzegovina – Former Yugoslav Republic of Macedonia; Bosnia and Herzegovina – Moldova; Bosnia and Herzegovina – Serbia and Montenegro; Canada – Chile; Canada – Costa Rica; CariCom; CEFTA; Central America – Chile; Central America – Panama; Chile – EC; Chile – Korea; Chile – Mexico; Chile – US; Chinese Taipei – Panama; Colombia – Mexico – Venezuela; Croatia – EFTA; Croatia – Former Yugoslav Republic of Macedonia; Croatia –

provisions in terms of disciplining unwanted effects of SOEs, but many of the provisions aim to extend WTO provisions by requiring that state enterprises and state monopolies do not discriminate according to the country of origin of firms of a shared PTA.

A number of PTAs comprise dispute settlement mechanisms that may represent alternative strategic venues for arbitration (Bush, 2007).[51] Even though several PTAs include investment provisions, the major venue for the bilateral regulation of investment are bilateral investment treaties (BITs). In many instances, BITs directly address issues of competition in countries with a considerable presence of the state sector - the US model BIT, is an example, aiming *inter alia*, to "*…sharpen the disciplines that address preferential treatment to state-owned enterprises, including the distortions created by certain indigenous innovation policies".*

However, even in the case of this advanced model BIT, some argue that SOE-related provisions may fall short of effectively protecting investors in countries with important SOEs, such as China or India. Scissors (2012), for example, points out to insufficiencies with regard to the definition of state enterprises, transparency requirements or arbitral proceedings.[52]

5.6 National investment regimes

Some of the precursor OECD work on cross-border effects of SOEs was undertaken by the OECD Investment and Competition Committees with respect to foreign government controlled investment (OECD, 2008a; OECD, 2008b; and OECD, 2010b). The work of the Investment Committee in this area has aimed to keep markets open to foreign government-controlled investments, notably by reaffirming the relevance for them of OECD and international investment law principles that promote non-discrimination and liberalisation. [53] In particular, the work sought to help recipient countries develop policies that are both open and fair to foreign government controlled investors while also helping them to address any genuine concerns or risks that might be posed by their investments (e.g. relating to national security; 2008b). This work led to the adoption in 2008 of the *OECD Ministerial Declaration on SWFs* and, in May 2009, of the OECD Recommendation on *Guidelines for Recipient Country Policies Relating to National Security* (Gaukrodger, 2010).

The Investment Committee has since done further in depth work on recipient countries' concerns about investment by foreign SOEs and treatment of SOEs under investment agreements. This includes a detailed exploration of possible difficulties for host country law enforcement and civil proceedings if SOEs are eligible for protection under foreign state

Moldova; Croatia – Serbia and Montenegro; EC – Jordan; EC – Morocco; EFTA; EFTA –FYROM; EFTA – Jordan; European Economic Area; Former Yugoslav Republic of Macedonia – Moldova; Former Yugoslav Republic of Macedonia – Romania; Former Yugoslav Republic of Macedonia – Turkey; Israel – Mexico; Israel – Romania; Korea – Singapore; Mexico – Uruguay; Moldova – Serbia and Montenegro; NAFTA; Romania – Serbia and Montenegro; Singapore – US; Trans-Pacific Strategic Economic Partnership.

51 Yet, some PTAs like the EC-Chile agreement exclude competition-related aspects from the agreement's dispute settlement and arbitration mechanism.

52 For more on SOE provisions in PTAs and BITs see Annex A4.5.

53 The core OECD instruments for promoting non-discrimination and progressive liberalisation for international investment are the *OECD Declaration on International Investment and Multinational Enterprises* and *the OECD Codes of Liberalisation of Capital Movements and of Current Invisible Operations*. The relevance of non-discrimination and other provisions in OECD and other instruments will be explored further in future work undertaken by the OECD Investment Committee.

immunity[54], the usefulness of existing OECD instruments in gauging the commercial orientations of foreign SOE investors (with the support of the Working Party on State Ownership and Privatisation Practices[55]) and the role of competition law in addressing some of these concerns. [56]

5.7 Government procurement rules

Government procurement regulation at the national and international levels regulates the purchase by governments and state-owned enterprises of goods and services, including imports, and thus can be an important element of levelling the playing field between SOEs and POEs. There are public government provisions in the plurilateral Agreement on Government Procurement (GPA), regional trade agreements like North-Atlantic Free Trade Agreement (NAFTA), bilateral trade agreements like U.S.-Colombia Free Trade Agreement or EU-Mexico Free Trade Agreement, and domestic public procurement policies.[57]

6. Conclusions

Multiple definitions of SOEs are applied across countries, which complicates formulation of a meaningful uniform definition of SOEs that would cover the full extent of government control and enable cross-country comparison. Moreover, fostering a level playing field in international markets aims not at reducing the extent of state ownership *per se* but at eliminating unfair benefits bestowed by governments which may result in anti-competitive behaviour of state-owned or private firms. In order to spearhead a methodologically consistent assessment of the role of SOEs in global trade and investment this paper adopts a working definition of SOE as a majority state-owned enterprise, while also offering insights into other forms of state ownership and government-created competitive advantages.

There are multiple conclusions emerging from the analysis of this report. On the one hand, SOEs' presence in international markets and their influence on cross-border trade and investment is still relatively undocumented. Analysts and policy makers alike are currently at a fact-finding stage, still establishing useful definitions and a common understanding of the observed trends. On the other hand, there is a significant interest and a sense of urgency about addressing cross-border effects of SOEs' activity in an adequate and timely way. Commercial advantages potentially granted to SOEs (or disadvantages afflicting them) take various forms and various policy frameworks offer a variety of options for levelling the playing field. Thus, it will be important in future work to narrow down this complex subject matter and focus on the most important and pressing issues.

Evidence presented in this paper indicates that various actions of SOEs as well as advantages allegedly granted to them by governments, have at times been contested as being inconsistent with national or international regulations, with varying degree of success. This illustrates, first, that governments have at times pursued SOE strategies that were seen by

54 Gaukrodger D. (2010), Foreign State Immunity and Foreign Government Controlled Investors. OECD Working Papers on International Investment 2010/2; *http://www.oecd.org/dataoecd/21/32/45036449.pdf*

55 See *DAF/INV/RD(2010)1*.

56 See: *www.oecd.org/daf/investment/foi* and "A Stock-taking of International Investment by State-Owned Enterprises and of Relevant Elements of National and International Policy Frameworks", DAF/INV/WD(2013)5.

57 For more on government procurement see Annex A4.6.

others as being illegitimate or having anti-competitive effects. Second, it appears that some of these allegations were without merit or, if not, that the existing legal frameworks may be only partially fit to deal with cross-border effects of SOEs' activities.

Using a sample of world's largest firms and their foreign subsidiaries, the empirical part of this paper assessed the importance of SOEs by country, by broad sector of economic activity, and by their international trade and investment activities. The results of the analysis show that many of the countries with the highest SOE shares are also important traders. Many sectors with strong SOE presence, including raw materials, merchandise and services, are in fact intensely traded. This suggests that there is a potential for economic distortions in world markets if the SOEs operating in these sectors benefit from unfair advantages granted to them by governments. The large state presence and international orientation of SOEs in some non-OECD countries highlight the need for enhanced dialogue on cross-border effects of state ownership going beyond the OECD membership.

Some of the regulatory frameworks that discipline certain forms of anti-competitive behaviour by SOEs in international markets, and which are discussed in this paper have been designed with domestic objectives in mind or were conceived at the times when state sector has been oriented primarily towards domestic markets. Thus, they often offer only partial SOE provisions. Others contain more modern SOE disciplines, which however typically concern a small number of countries and reflect specificities of their state sectors. Finally, various frameworks at the national, bilateral and multilateral level also differ considerably in the degree of required implementation and effective enforcement capacity.

All this suggests that future work could usefully focus on: documenting specific advantages inherent to SOEs that result in most cross-border distortions and comparing them with advantages granted to POEs; understanding the nature of SOEs-related trade distortions in specific sectors where state-ownership is established to have important cross-border implications; determining whether there is a need to fill gaps in existing policy frameworks dealing with cross-border effects of SOEs and finding the most constructive ways of doing so; and engaging in this debate key players outside the OECD membership.

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Annex A1. Tables and Figures

Annex Table A1.1. Private enterprises and SOEs from the OECD and BRIICS countries among Forbes Global 2000 in 2011

Country	Forbes Global 2000 firms, by country	SOEs:	SOEs as share of each country's Global 2000 listed companies
Australia	40	0	0%
Austria	10	1	10%
Belgium	15	2	13%
Canada	68	0	0%
Chile	9	0	0%
Czech Republic	1	1	100%
Denmark	10	0	0%
Estonia	0	0	n.a.
Finland	12	1	8%
France	63	5	8%
Germany	52	1	2%
Greece	12	3	25%
Hungary	2	0	0%
Iceland	0	0	n.a.
Ireland	15	1	7%
Israel	12	0	0%
Italy	35	1	3%
Japan	260	1	0%
Korea	60	4	7%
Luxembourg	9	0	0%
Mexico	18	0	0%
Netherlands	28	0	0%
New Zealand	0	0	n.a.
Norway	10	2	20%
Poland	6	6	100%
Portugal	8	0	0%
Slovak Republic	0	0	n.a.
Slovenia	0	0	n.a.
Spain	29	0	0%
Sweden	27	1	4%
Switzerland	43	6	14%
Turkey	10	1	10%
United Kingdom	93	1	1%
United States	543	3	1%
Total (OECD):	1500	41	3%

Source: Authors' calculations based on Forbes *Global 2000* data.

Annex Table A1.2. Private enterprises and SOEs from the OECD and BRIICS countries among Forbes Global 2000 in 2011

Country	Forbes 2000 firms	SOEs	Share of SOEs
Brazil	37	7	19%
China	117	70	60%
India	57	30	53%
Indonesia	10	6	60%
Russia	23	9	39%
South Africa	16	1	6%
Total (BRIICS)	260	123	47%

Source: Authors' calculations based on Forbes *Global 2000* data.

Annex Table A1.3. Global top 25 firms in the business year 2010-2011

Forbes Rank	Company	Country	SOE	Sales	Profits	Assets	Market Value	Sector according to NACE Rev. 2
1	JPMorgan Chase	US	No	115.5	17.4	2117.6	182.2	Financial intermediation
2	HSBC Holdings	GB	No	103.3	13.3	2467.9	186.5	Financial intermediation
3	General Electric	US	No	150.2	11.6	751.2	216.2	Financial intermediation
4	ExxonMobil	US	No	341.6	30.5	302.5	407.2	Coke and refined petroleum products
5	Royal Dutch Shell	GB	No	369.1	20.1	317.2	212.9	Extraction of crude petroleum and natural gas
6	PetroChina	CN	Yes	222.3	21.2	251.3	320.8	Extraction of crude petroleum and natural gas
7	ICBC	CN	Yes	69.2	18.8	1723.5	239.5	Financial intermediation
8	Petrobras-Petróleo Brasil	BR	Yes	121.3	21.2	313.2	238.8	Extraction of crude petroleum and natural gas
8	Berkshire Hathaway	US	No	136.2	13	372.2	211	Insurance, reinsurance and pension funding
10	Citigroup	US	No	111.5	10.6	1913.9	132.8	Financial intermediation
11	Wells Fargo	US	No	93.2	12.4	1258.1	170.6	Financial intermediation
11	BNP Paribas	FR	No	130.4	10.5	2680.7	88	Financial intermediation
13	Banco Santander	ES	No	109.7	12.8	1570.6	94.7	Financial intermediation
14	AT&T	US	No	124.3	19.9	268.5	168.2	Telecommunication
15	Gazprom	RU	Yes	98.7	25.7	275.9	172.9	Land transport and transport via pipelines
16	Chevron	US	No	189.6	19	184.8	200.6	Coke and refined petroleum products
17	China Construction Bank	CN	Yes	58.2	15.6	1408	224.8	Financial intermediation
18	Wal-Mart Stores	US	No	421.8	16.4	180.7	187.3	Retail trade
19	Total	FR	No	188.1	14.2	192.8	138	Extraction of crude petroleum and natural gas
20	Allianz	DE	No	142.9	6.7	838.4	62.7	Insurance, reinsurance and pension funding
21	Bank of China	CN	Yes	49.4	11.9	1277.8	143	Financial intermediation
22	ConocoPhillips	US	No	175.8	11.4	156.3	109.1	Coke and refined petroleum products
22	Sinopec-China Petroleum	CN	Yes	284.8	10.9	148.7	107.7	Mining support activities
24	Volkswagen Group	DE	No	168.3	9.1	267.5	70.3	Manufacture of motor vehicles
25	Agricultural Bank of China	CN	Yes	49.4	9.5	1298.2	134	Financial intermediation

Note: Information on sales, profits, assets and market value is in billion USD. Source of financial information: Forbes. Source of ownership information: Orbis.

Annex Table A1.4. Global top 25 SOEs in the business year 2010-2011

Rank	Forbes Rank	Company	Country	Sales	Profits	Assets	Market Value	Sector according to NACE Rev. 2
1	6	PetroChina	CN	222.3	21.2	251.3	320.8	Extraction of crude petroleum and natural gas
2	7	ICBC	CN	69.2	18.8	1723.5	239.5	Financial intermediation
3	8	Petrobras-Petróleo Brasil	BR	121.3	21.2	313.2	238.8	Extraction of crude petroleum and natural gas
4	15	Gazprom	RU	98.7	25.7	275.9	172.9	Land transport and transport via pipelines
5	17	China Construction Bank	CN	58.2	15.6	1408	224.8	Financial intermediation
6	21	Bank of China	CN	49.4	11.9	1277.8	143	Financial intermediation
7	22	Sinopec-China Petroleum	CN	284.8	10.9	148.7	107.7	Mining support activities
8	25	Agricultural Bank of China	CN	49.4	9.5	1298.2	134	Financial intermediation
9	29	GDF Suez	FR	113.1	6.2	245.5	85.2	Electricity, gas, steam
10	34	China Mobile	CN	71.8	17.7	129.3	192.1	Telecommunication
11	51	Banco do Brasil	BR	68.9	7.1	488.7	48.5	Financial intermediation
12	60	Statoil	NO	90.4	6.5	110.3	83.8	Extraction of crude petroleum and natural gas
13	61	General Motors (*)	US	135.6	6.2	138.9	49.8	Manufacture of motor vehicles
14	68	China Life Insurance	CN	48.2	4.8	179.6	96.6	Insurance, reinsurance and pension funding
15	77	Rosneft	RU	46.1	10.4	93.9	85	Mining support activities
16	95	Saudi Basic Industries	SA	40.5	5.7	84.3	81.2	Manufacture of chemicals and chemical products
17	100	EDF Group	FR	87.2	1.4	319.9	78.2	Electricity, gas, steam
18	136	State Bank of India Group	IN	29.1	2.6	322.2	36.1	Financial intermediation
19	144	Cnooc	CN	27	8	41.8	101.3	Mining support activities
20	145	China Shenhua Energy	CN	23.1	5.8	51.6	82.3	Mining of coal and lignite
21	157	China Telecom	CN	32.5	2.3	61.8	47.2	Telecommunication
22	171	PTT PCL	TH	63.2	2.8	40.9	32.1	Wholesale trade
23	172	Oil & Natural Gas	IN	22.6	4.3	44.6	53.2	Mining support activities
24	178	Sberbank	RU	32.3	0.8048	234.4	74.4	Financial intermediation
25	179	Ecopetrol	CO	21.9	4.2	35.8	84.4	Extraction of crude petroleum and natural gas

Note: Information on sales, profits, assets and market value is in billion USD. Source of financial information: Forbes. Source of ownership information: Orbis.

* In, December 2010 General Motors repurchased a substantial part of its shares and thus, according to our criteria, the firm lost its SOE status.

Annex A2. State sectors in the OECD area and the BRIICS: Qualitative analysis

This part of the annex builds on existing OECD material, as well as data collected for the purposes of this project, and provides a broad overview of state ownership objectives, history, regulatory framework and policies across OECD and BRIICS economies, highlighting key commonalities and points of divergence. It aims to present general trends and to highlight differences among the individual countries and, as such, to provide insights into the role of SOEs in the domestic economies and, in particular, their international trade and investment activities.

A2.1 Objectives of SOE policies

The aims for state ownership have often been derived from some notion of market failure, be it the case of a natural monopoly, as in some segments of network industries such as electrical power or railways, or the case of public or merit goods and externalities, where the private sector may not supply an optimal level of a good due to inherent pricing challenges. Yet, if the state is able to regulate, distribute taxes and subsidies and contract private sector actors effectively, these market failures may not need to be addressed through direct state ownership (OECD, 2005c).

Other important reasons for state control pertain to the industrial, national security and fiscal policy objectives. Industrial policy considerations include supporting national champions in "strategic" sectors (e.g. French EDF in the power sector or Norwegian Statoil in the extractive industry), controlling the decline of senile industries (e.g. heavy industry in former transition economies) or preventing the collapse of services critical to the functioning of the economic or social system (e.g. large, distressed financial institutions during the recent crisis). Moreover, the state may be keen on retaining monopoly prices in some areas in order to boost its fiscal standing and use the revenues for subsidisation in other areas. Overall, there exists a variety in goals set for state ownership, examples of which are provided in Annex Box A2.1.

Given that regulatory frameworks are generally weaker, that financial markets can be less developed and that transaction costs to enforce contractual relationships can be higher in developing countries, there may be a stronger advocacy for state ownership of firms as vehicles to realise public goals in a development context. Indeed, many BRIICS economies have used state ownership in order to further their development goals.

For example, the Brazilian government states that all SOEs are obliged to leverage investments for the benefit of society and fulfil their "social function" (DEST, 2011). Yet, it remains undefined what this exactly implies for their governance. Also in China, India and Indonesia SOEs are to some extent considered an additional tool for the government in pursuit of its economic and development targets. However, the precise expectations for SOEs in achieving these broader policy aims remain somewhat unclear. Government policy towards SOEs in Russia, while not clearly defined, also seeks to fulfil general state functions, for example, in the areas of national security and social policy, as well as economic development and the re-structuring of the economy. The founding laws of state holdings and state corporations mention several objectives for industrial policy, including the modernisation of infrastructure, the diversification of the economy by attracting investments in high-technology sectors, innovation and the creation of large vertically-integrated structures in order to gain a competitive edge in international competition. Re-integration of research institutions and industrial enterprises is also frequently mentioned in public statements. In South Africa, SOEs

are tasked with substantial responsibilities in realising the government's "New Growth Path" framework, which includes improving transportation and power sector infrastructure and, more broadly, increasing employment. Thus not only statutory institutions, but also state-owned enterprises operating in a more or less competitive market, are often expected by BRIICS governments to carry some broader social and developmental role.

Annex Box A2.1. Examples of ownership objectives in selected OECD countries

In **Finland**, "The State seeks to achieve an economic and societal overall result that is as good as possible" (*2004 Decision in Principle on State's Corporate Ownership Policy)*; "The economic overall result is the sum of the development in value of the shares owned and their annual dividend yield" (*State Shareholdings in Finland*, 2005, p. 4).

In **Norway**, "The purpose of state ownership is to attend to the common good. As an owner, the State also expects these companies to take corporate responsibility and to uphold our basic values in an exemplary manner" (*The State Ownership Report,* 2005, p. 5).

In **Sweden**, "The Government's overall objective is creating value for the owners" (*State Ownership Policy*, 2006).

In the **United Kingdom**, the overall objective of the Shareholder Executive is "to ensure that Government's shareholdings deliver sustained, positive returns and return their cost of capital over time within the policy, regulatory and customer parameters set by Government, by acting as an effective and intelligent shareholder".

Source: OECD (2007).

A2.2 Historical and current trends in state ownership and privatisation

The Great Depression, financial crises and wars have intensified state interventionism in a number of OECD economies during the first half of the 20th century. Post-war reconstruction in Europe and Japan pushed a number of governments to intervene directly in the economy, either by nationalising or by founding state companies in the so-called "strategic" sectors, i.e. natural monopolies and large industrial corporations, mostly in the network services and banking segments (OECD, 2005c: 20).

In Turkey, Korea and Mexico direct state intervention was often based on development goals, while in former transition economies in Central Eastern Europe, such as, for example, Poland and the Czech Republic, significant numbers of SOEs persist as a legacy of the former system of central planning. In Norway state intervention was guided primarily by the desire to secure surplus wealth generated from petroleum and to shield the economy from currency appreciation, while in Finland a relatively large share of state-owned enterprises was located in manufacturing, mainly due to lack of private venture capital during the first decades of the country's independence (Parker, 1998).

The perceived utility of state ownership has diminished drastically in many countries, in part as a consequence of the development of the capacity of many countries' regulatory systems, as well as advances in technology and intensification of international trade and investment, which put a premium on flexibility and competitiveness. By the end of the 1980s, the fiscal burden of SOEs in the OECD economies reached significant levels, increasing pressure for reform.[1] The UK was among the first countries to undertake large-scale privatisation starting in the 1980s. By mid-1990s virtually all OECD economies followed suit with large waves of privatisation, including the post-communist economies from Central and Eastern Europe that had just become OECD members. During that period OECD privatisation proceeds each year averaged around 0.3% of GDP (OECD, 2003). Since the end of the 1990s,

1 An early wave of privatisation took place in the Federal Republic of Germany in 1950s and 1960s.

the scope and size of public enterprises in OECD countries has slightly decreased, while the pace of privatisation has slowed from early stages of the reform period.

Today, a large variation in the degree of state presence persists in the OECD area, which ranges from negligible across-the-board in some countries to significant in some sectors in other countries.[2] State interventions in the midst of the financial crisis had increased somewhat state equity holdings in a number of OECD economies, mostly in the banking sector and, in some cases, in large manufacturing firms. Central government authorities in the United States owned no shares, whether listed or unlisted, prior to the 2008-09 crisis and, in the UK, public authorities also held very few shares (OECD, 2010c: 6). This has changed during the crisis, when both governments came into possession of equity shares (e.g. General Motors in the US and the Royal Bank of Scotland in the UK). This trend appears, however, to be short-lived and governments have already divested or have committed to divestment of accrued assets in the near future. The weakness of equity prices in the aftermath of the crisis has also stalled or slowed the corporatisation and privatisation processes of existing SOEs, holding back the stock-market introduction of unlisted SOEs as well as further divestment of listed SOEs in most countries.[3] But high state ownership shares in the OECD must not reflect an unfinished privatisation process, but can also be a deliberate policy of the state. Currently the shares of equity holdings of some OECD governments exceed the equivalent of 20% of their countries' GDP, well above the OECD average of around 8% (OECD 2010a: 6).

Among the unlisted SOEs, public ownership declined over the same period, with strong reductions in a number of SOEs in Hungary, Czech Republic and Poland as well as reduced SOE portfolios in Denmark, Greece and Korea (Capobianco and Christiansen, 2011). This trend seems to reflect both further privatisation and a degree of consolidation, resulting from mergers of SOEs as a part of rationalisation process in some countries. Those few countries that increased their SOE ownership did so through corporatisation of an autonomous government body or a public service (e.g. Portugal, Sweden and Norway).

Whereas most SOEs in China and Russia stem from the period of a state-controlled planned economy, most of the other BRIICS established SOEs in order to aid industrialisation in light of a lack of private investment. In Brazil, SOEs became prevalent from World War II onwards. Initially established to secure investment, and further driven by national interest arguments, the country saw a second wave of SOE creation under military rule in the 1960s and 1970s (Pargendler, 2011). India, from 1948 onwards, operated a highly regulated and planned economy with heavy state involvement. Several SOEs were established and accounted for approximately 40% of India's gross investment between 1986 and 1991 (Sáez and Joy, 2001). In Indonesia, lack of private entrepreneurship was a key motivation for the formation of SOEs following World War II. Furthermore, most former Dutch companies (both private and state-owned) were nationalised in the same period. In South Africa, several SOEs were formed to aid import substitution during the Apartheid era.

In all the BRIICS, there has been some reform with the aim of increasing the profitability and effectiveness of SOEs. In Brazil, since the mid-1980s efforts have been underway to bring under control the spending of loss-making SOEs and to improve their performance in general. Reform of the SOE sector in China failed to prevent more than two-thirds of industrial SOEs

2 OECD's *Product Market Regulation* database contains information on the "size of the public sector" and "scope of public enterprises" and points to high variation in these two indicators in the OECD area (latest year: 2008).

3 Korea and Poland are the only two OECD countries where the number of listed SOEs increased between 2008 and 2009 (OECD, 2011c: 9).

from running deficits in 1998. The poor corporate governance, red-tape and distortive polices have been addressed to some extent through further reform and streamlining over the last decade (Deng et al., 2011: 10) but breaking up state monopolies and oligopolies have been identified as key for further private sector development and state enterprise reforms (World Bank, 2012). In India, the government has classified SOEs with accumulated losses equal to, or greater than, their net worth as "sick SOEs". A toolkit encompassing administrative frameworks and restructuring schemes has been employed to revive these, or they are being shut down. In Indonesia, SOE policy has been gradually directed towards a more market-based system since the late 1960s. Re-structuring of state enterprises, as well as industries, is a pronounced aim of the Russian government. In South Africa, a Presidential Review Committee on SOEs is currently working on recommendations regarding, among other things, further restructuring, introduction of accounting standards, and performance measurement.

While boosting short-term government revenue, privatisation of SOEs has also contributed to tackling the problem of loss-making SOEs. Across the BRIICS, poorly performing SOEs have been among the first to be privatised. Prior to 1990, the Brazilian government primarily privatised firms under state control due to financial difficulties. Privatisation of SOEs was first centred on mining and manufacturing companies. The leading telecommunications firm, Telebras, was privatised in the late 1990s. In China, privatisation took place under the "grasping the large and letting go the small" policy (*zhua da fang xiao*), commencing in 1994. By 1997 a majority of small SOEs had been privatised, while large SOEs were either converted into listed corporations or restructured. Indonesia has pursued privatisation with varying impetus since at least the 1980s. India's reforms during the 1990s were focused on general market liberalisation and divestment from loss-making SOEs. In Russia, a wave of mass privatisation took place after the collapse of the Soviet regime in the first half of the nineties. In South Africa, a wave of privatisation took place in the first decade after the end of Apartheid, but in recent years reform has rather focused on improving SOE performance.

Whereas most of the BRIICS have undergone more or less substantial privatisation and liberalisation of state controlled sectors, the momentum of these reforms has slowed, if not halted or in some instances even reversed, over the last decade. In Brazil, the 1999 devaluation crisis and the 2001 electricity shortage induced political concerns with respect to further privatisation. Subsequently, privatisation efforts came to an effective halt in the early 2000s. In China, privatisation undertaken in the 1990s ceased in the mid-2000s amid growing political emphasis on the state's role in key sectors of the economy. In Indonesia, privatisation and commercialisation of SOEs have rendered most SOEs profitable, which together with constitutional guarantees for state involvement in some sectors and public demands for price administration of basic goods has reduced incentives for further privatisation. Russia saw a steady decline in state ownership during the 1990s, but with new regulation of strategic sectors and government take-overs privatisation has stalled, if not reversed between 2004 and 2008. New reforms and privatisation in Russia have been further hampered by the international financial crisis. In South Africa, the state is currently reviewing SOE policy with an activist perspective and strategic development objectives in mind.

Sectors in which SOEs remain prevalent in the BRIICS are to some extent perceived as particularly important or strategic. In both Brazil and Indonesia, state control of strategic sectors and natural monopolies are constitutionally protected. In Brazil, the more recent constitution from 1988 has made private participation in protected sectors more difficult. Yet, different interpretations of the constitution have allowed privatisation (subject to some state regulatory control) of the telecommunications sector, and allowed private firms to operate on government concession, for instance in the distribution of electricity (both telecommunications

and electricity being covered by the constitution's protection of state control). The Indonesian constitution, dating back to 1945, granted the government rights to intervene in certain sectors and has been used as an argument for state control of companies in those parts of the economy.

India does not explicitly express a rationale for maintaining state control in particular sectors, albeit the SOE presence is relatively heavy in the sectors also identified as strategic by other BRIICS. In Russia, several new laws were passed between 2004 and 2008 protecting what were deemed strategic sectors. Most prominently, the Strategic Investment Law came into force in 2008 listing 42 activities considered of strategic importance for the state, specifying the rules of engagement for foreign investors interested in these sectors. In South Africa, the nine SOEs governed by the Department of Public Enterprises are concentrated in three sectors deemed strategically important, these being mining and energy, manufacturing, and transport. In addition to sectors like resource extraction, energy, telecommunications and transport, all the BRIICS countries maintain SOEs in the finance sector.

In addition to the consolidation of state ownership in strategic sectors in some BRIICS, the financial crisis has also encouraged state intervention. This has contributed to an expansion of SOEs in recent years. In Brazil in the 2000s, SOEs have seen increased investment turnover, in particular through an increase in state-owned minority shares (Lazzarini and Musacchio, 2011). In the case of the financial sector, large SOEs like the Brazilian Development Bank (BNDES) have increased dominance through injections of government capital in the wake of the financial crisis.[4] In China, the financial crisis saw government spending disproportionally benefit the state sector to the detriment of private enterprises (Deng et al., 2011). In Indonesia, the number of SOEs has marginally increased since 2006. Interestingly, the number of corporations in which the government holds only a minority share has simultaneously decreased. The number of officially recognised SOEs in India has gradually declined over the last decade, while the capital stocks and net worth of SOEs has increased. While the wave of re-nationalisations of already privatised firms pre-dates the crisis in Russia (OECD, 2011b), the crisis has further delayed the implementation of privatisation plans. Furthermore, state's support for the already dominant large state-owned banks (that did not face an immediate insolvency threat) and a wave of acquisitions performed by the two largest ones – Sberbank and VTB – have further bolstered the state's presence in the banking sector. In South Africa, the financial crisis increased pressure on loss-making SOEs to restructure and may have contributed to closer state review of SOEs as well as apparently, in some cases, to new appointments in SOE-related political and corporate positions.

In all the BRIICS, SOEs that are largely profit-making have grown in size, and often made new acquisitions. Where SOE presence remains notable in the BRIICS, there has also in general been increased investment in these firms.

4 BNDES is one of the largest federal financial institutions in Brazil. The bank received unique access to government funding in the wake of the financial crisis (OECD, 2011b). Subsequently, BNDES' assets more than doubled between 2008 and 2010, while turnover increased by more than 50%. BNDES is tasked with facilitating economic development. Furthermore, as noted above, among its responsibilities is fostering the production of domestically produced goods earmarked for foreign trade and facilitating the internationalisation of Brazilian firms.

A2.3 Legal status and official definitions of SOEs

A firm's legal form can be an important determinant of the quality of SOE governance. From a legal perspective, most OECD SOEs have the same status as private companies and are subject to national company law. The most common legal form for SOEs in the OECD area is "limited liability company"; this is followed, in second place, by "joint stock company" (OECD, 2005c: 36). There are, however, some statutory corporations with a distinct legal status provided by their enabling legislation (i.e. statutes). Statutory companies are more common among the BRIICS countries. Statutory as well as publicly-listed companies (or other corporate forms of companies) where the state owns a proportion of shares make out the two broad categories of SOEs usually reported.

Statutory companies exist in most of the BRIICS. Created by the state to fulfil some public purpose, the nature and ownership structure of such firms varies across several dimensions. They may be either fully or partially controlled by government at different levels (federal, state, municipal) and may or may not have other shareholders. State control may be determined not only by shareholder rights, but also by established legislation. In Brazil, for example, a handful of statutory companies, which have their budgets directly allocated by the Treasury, are classified together with other SOEs and overseen by the same government agency. Indonesia operates so-called "Perjans" that are non-profit agencies directly attached to a government department with the aim of delivering public services. These are gradually being phased out, and either converted into public companies or made into departmental agencies (Indreswari, 2006). Statutory corporations in Russia include so-called "State Corporations" that are government funded, non-profit enterprises tasked with promoting some public objective. Russia furthermore has "Unitary Enterprises", which are entirely controlled by public authorities and all their assets are owned by the state at the federal, regional or municipal level. In South Africa, several "Parastatals", usually created by parliament, are SOEs. These remain loosely defined and their governance is not clearly specified. In both China and India, statutory companies or government agencies are not officially classified as SOEs by the respective governments.

Examples of statutory SOEs in the OECD include the Czech Republic where the main SOEs are governed by special statutory laws. In Korea, the government-owned companies and the government-invested companies are also subject to special category laws.[5] A further harmonisation of the legal status of SOEs with either private or public companies would be helpful in allowing a more systematic use of corporate governance instruments and such efforts are being undertaken (OECD, 2005c: 37). For example, while two French power companies – EDF and GDF – were established as SOEs in the form of "Établissements Publics Industriels et Commerciaux" under special legislation, a 2004 law on public services in the gas and electricity sector changed their status to that of a limited liability company, thus, bringing them under general corporate law.

There are large discrepancies in reporting on the SOEs by national statistical offices and responsible ministries across the different countries. On average in the OECD countries, only 10% of SOEs are publicly listed, but wide variation persists with ratios significantly above the average in Norway, Greece, Italy, France and Finland, and below the average in Czech Republic, New Zealand and Poland (OECD, 2004 and 2011a). Yet, among OECD countries the share of public ownership tends to determine SOE status, the variation in this criteria is reflected in the results of the questionnaire assembled recently by the OECD Secretariat (OECD, 2011a). For example, the Ministry of Finance in Austria reports as SOEs all

5 See Annex I.2. in OECD (2005c) for a full overview of various legal categories used in the OECD area.

enterprises that have at least 10% of government ownership, including listed and unlisted enterprises and statuary corporations (Christiansen, 2011: 81). The Ministry of Finance in the Czech Republic only reports on majority-owned SOEs held by the central government and statutory corporations, excluding SOEs "in bankruptcy" and "in liquidation" from aggregate numbers (Christiansen, 2011: 84). In the case of Estonia, reporting covers SOEs operating as private limited companies and public limited companies, but only in cases where the state owns more than 50% of the capital; municipality-owned enterprises are excluded (Christiansen, 2011: 85).[6] In terms of the average size of the actual government stake, there is a clear predominance of majority and full control: on average, almost three quarters of SOEs in the OECD area are fully or majority state-owned and there is relatively little variance among the OECD economies (OECD, 2005c: 33).[7] In Australia, Belgium and Turkey, all SOEs are fully or majority state-owned.

Listed companies, where the government owns a specified proportion of shares, are officially considered to be SOEs in Brazil, Indonesia and Russia. In Brazil, the government needs to own more than half of the shares with voting rights in order for the company to constitute a "State Enterprise".[8] In Indonesia, any listed firm where the state owns more than half the shares is officially considered an SOE, so called "Perseros". Russia, on the other hand, applies a condition of 100% ownership of shares by the state for a listed company (joint stock companies) to officially constitute an SOE.[9] In all three countries, state-owned listed companies are subject to the same legal regime and requirements as their private counterparts.

In China, several government-owned enterprises were transformed into share-holding enterprises with the state as a majority owner. These companies are subject to the same public governance as non-listed SOEs. In India, majority ownership (more than 50% of shares, if listed) is a necessary, but not sufficient condition for SOE classification. So-called "Central Public Sector Enterprises", have been created as government companies under the Companies Act, or as statutory corporations under specific statutes adopted by the Parliament. Similarly, in South Africa the list of state-owned companies supervised by the Department of Public Enterprises includes only nine SOEs. The South African government classifies only a limited number of other listed companies, where national or regional authorities posses a controlling share, as public enterprises. Hence, in the official treatment by the Chinese, Indian and South African governments is in many cases based on a combination of the company's origin, current status and ownership stake.

6 For a comprehensive overview of the differences in definitions of SOEs used by the reporting institutions, see Annex C in Christiansen (2011).

7 Almost all OECD economies hold around 60% to 90% of their SOEs as majority or fully state-owned firms (OECD, 2004: 20).

8 The specification of shares with voting rights is of importance, as Brazilian legislation allows firms to offer shares without voting rights.

9 This is the definition used by the National Statistical Office of the Russian Federation (*Rosstat)*, while the data shared with the OECD by the Ministry of Economic Development for the purposes of completing Accession Review of the Russian Federation on Corporate Governance 2010 include information on joint stock companies with less than 100% government shareholding.

A2.4 SOE Regulation

Listed SOEs in most economies are subject to national company law and, thus, need to comply with regular corporate requirements. There are nevertheless exceptions, whereby SOEs are subject to special laws, pertaining either to particular categories of SOEs or specific SOEs.[10] The manner and channels through which Governments are seen to exercise their ownership functions over SOEs vary across countries.

SOEs in most OECD countries follow the same general rules for insolvency and bankruptcy as private companies.[11] OECD SOEs are also subject to as stringent financial disclosure and transparency standards as private enterprises. In fact, in many OECD countries SOEs are subject to additional requirements (e.g. Poland, Denmark, Finland). Moreover, in an increasing number of OECD countries, even when SOEs are not listed or not subject to the company law, they are required to report to the same standard as listed companies (e.g. Sweden). Similarly, accounting and auditing standards apply to SOEs to the same extent they apply to private companies, while SOEs may also undergo additional controls carried out by specific state audit entities (e.g. Japan, Australia and UK).[12]

The models for organisation of the exercise of ownership rights within the state administration also vary, and can be generally divided, as of 2005, into three broad categories: 1) *decentralised models*, where SOEs are under the responsibility of the relevant sector ministries, as for example in Finland; 2) *centralised models*, in which the ownership responsibilities lie within one main ministry (as in e.g. Belgium, Denmark or Poland), and 3) *dual models*, where the responsibility is shared between the sector ministry and the "central" ministry (e.g. in Mexico, New Zealand, Switzerland). While the dual model has been the most prevalent among OECD countries, recently undertaken reforms tend to move countries towards the centralised model (OECD, 2004: 26). Overall the regulatory frameworks governing the treatment of SOEs are still undergoing important changes with the view to improve the regulatory oversight.[13]

Some of the BRIICS economies have established dedicated government departments tasked with the oversight and management of SOEs along the lines of a *centralised model*. In China a set of State-owned Assets Supervision and Administration Committees (SASACs) have since 2002 been the state's representatives in the management of SOEs. The State Council SASAC is organised as a separate ministry of the central government and oversees some 30 regional level SASACs. In India the Department of Public Enterprises (DPE) is responsible for the

10 For a detailed repository of varying legal statuses of SOEs, see OECD (2005d).

11 Only three countries do not subject their SOEs to general insolvency and bankruptcy procedures (Belgium, Turkey and France), though there are some exceptions applied to some SOEs in the UK and Poland (OECD, 2004).

12 Additional specific reporting and control procedures have not always been effective in providing safeguards against incompliance with strategic orientation or prudent levels of risk among the SOEs. As a result, some countries adopted additional risk management tools, such as a "no surprise policy" in New Zealand, where the government should be informed in advance of any potentially contentious developments.

13 The OECD (2011c) took stock of recent regulatory changes regarding the governance of SOEs in the OECD area. For example, in Finland, the 2007 State Shareholding and Ownership Steering Act, transferring most SOEs to an ownership unit in the Prime Minister's Office, is seen as instrumental in enhancing the separation of the ownership function from the regulatory oversight. In Poland, the draft bill aims to collect in one legal act all regulations on the treasury ownership functions that are currently contained in various laws.

coordination of policies on CSPES as well as monitoring and evaluations the performance of public enterprises. In Brazil a separate department (Departamento de Coordenaça das Empresas Estatais – DEST) under the Ministry of Planning, Budget and Management is responsible for the management and oversight of most SOEs. An exception are the SOEs in the financial sector which are overseen by the Central Bank.

South Africa and Indonesia operate some quasi-governmental bodies under separate ministries. The nine most prominent South African SOEs are under the management of the Department of Public Enterprises while so called "Parastatals", tasked with more direct governmental objectives, lie under respective ministries (see Section 1.3). Similar to South Africa, Indonesia's "Perjans" (SOEs defined as social service agencies) are controlled by respective ministries depending on their area of operation. There is no single government department dedicated to the management of profit-seeking SOEs. These are regulated by a special act and the board is appointed directly by the President.

Russia can be seen to employ a *dual model* of SOE governance. The government's ownership function in SOEs is executed by the Federal Agency for Government Property Administration (Rosimuschestvo) established in 2004. The agency operates under the Ministry of Economic Development and Trade and is tasked with the formulation of policies for government property. Sector-specific ownership policies are however delegated to respective ministries.

While explicit, targeted competitive neutrality frameworks (CNF) are still relatively scarce, many OECD economies use a combination of competition law, procurement policies and merger control rules to ensure that state-owned and private firms compete on an equal footing. For instance, in the European Union, Article 106 of the Treaty on the Functioning of the European Union (former Art. 86) subjects public companies to the European competition rules and empowers the Commission to sanction directly infringing companies or governments.[14] Australia also has a specific competitive neutrality policy and is together with Europe often mentioned as an example in this regard.[15]

Many of the OECD economies have designed a set of specific objectives and performance indicators for their domestic SOEs in order to ensure effective use of capital, creation of value by the board and management and retention of acceptable levels of financial risk. These include both quantitative and qualitative targets that may apply either to the entire state portfolio, to certain sub-sectors of the portfolio (e.g. publicly traded companies), or to particular SOEs (OECD, 2008c:15). For example, in France there is a set of diverse indicators that measure performance of the entire SOE portfolio, including operational and financial profitability and indebtedness sustainability. In the UK, on the other hand, a single quantitative portfolio-level target is used instead. Namely, the shareholder executive agreed to increase the value of six main businesses in the government's portfolio (constituting 76% of total sales in the portfolio) by GBP 1 billion within three years from 2007.[16]

14 Moreover, European state aid and subsidies regulations require the member states to notify the Commission if they plan to grant state aid to any company and this is subject to the Commission's approval and the EU's transparency directive requires separate accountability for commercial and non-commercial activities of public firms in order to reduce the scope for cross-subsidisation (Capobianco and Christiansen, 2011).

15 For more details on the use of CNFs in the OECD area, see Capobianco and Christiansen (2011).

16 House of Commons, Committee of Public Accounts, *The Shareholder Executive and Public Sector Businesses*, 27.06. 2007.

There is also variation in terms of the type of performance-related requirements set for individual SOEs. For illustrative purposes, Annex Box A2.2 below provides a snapshot of goals set for postal services SOEs in three selected OECD countries. Some countries introduced a formal monitoring and review mechanism through so-called "management contracts" that set corporate objectives and require annual reports on performance, used for example in Australia, Belgium, France, Greece and New Zealand. To increase transparency, in some cases there are requirements for these to be submitted to parliament for approval (e.g. Australia). In some OECD countries such as Australia, Belgium and Canada, SOEs are also required to submit corporate plans, which set broad objectives covering a period from three to five years, as well as to provide progress reports on the state of their implementation. Despite a generally positive impact on performance and productivity of SOEs, the effects of performance contracts have nevertheless varied, depending on the nature of any wider SOE reform packages that were in place, and these contracts did not always ensure isolation from political interference.[17]

Importantly, most OECD economies do not allow outright subsidies or other forms of financial assistance to the commercial activities of SOEs and most subject their SOEs to the same regulatory framework and lending conditions as private sector companies. However, a few exceptions have been made to sustain loss-making SOEs or other government-controlled companies, either due to their large economic weight or their contribution to employment (OECD, 2010d).

Annex Box A2.2. Examples of mandates or objectives for similar SOEs (postal services) in different OECD countries

Royal Mail (UK) "Our main aim is to be the most trusted delivery brand in the United Kingdom which provides the Universal Service for our customers the length and breadth of the country. We also want to be seen as the premier European and UK express parcel businesses, offering excellent customer service. The Group also wants to sustain and grow the Post Office commercially while maintaining its key role as part of the United Kingdom's social and economic fabric." (*Annual Report 2010-2011*, p. 27).

PostNord AB (Sweden) "The group shall have a return on equity of 10% over a business cycle, an equity/assets ratio of at least 35% and at least 40% of the net profit for the year shall be distributed to the owners." (Annual *Report State-Owned Companies* 2010, p. 71).

Canada Post (Canada) **"**Mandate: Universal service, affordable rates, frequent and reliable delivery, convenient access to postal services, secure delivery, community outreach and consultation, responding to complaints, reporting on performance." (*Canadian Postal Service Charter 2009*) Goals for 2011: "We must be able to provide the quality service that Canadians expect and to remain relevant in the future. For 2011, our priorities are to achieve our financial imperatives and focus on opportunities for revenue growth in a challenging and uncertain economic environment." (*Annual Report 2010*, p. 56).

Favourable tax or regulatory regimes, regulatory exemptions (e.g. either from bankruptcy or competition law) or in-kind benefits can be seen in this light, as they can distort the competitive landscape by lowering the cost base of affected SOEs. While a few OECD economies have reverted to the use of such policies during the recent crisis, this trend seems temporary. In the long run, modernisation and privatisation are often the ultimate tools for dealing with underperforming SOEs in the OECD area, even thought the speed and scope of this process tend to vary across countries. For example, structural changes in the aviation

17 For a detailed summary of the best practice and an overview of SOE performance management tools used in the OECD area, see OECD (2005c, 2010e).

sector in Europe, which has seen the decline in profitability of many of the former national champions, led to a sale of a controlling share to a foreign investor in some countries (e.g. Austrian Airlines and Swiss Airlines). Faced with the growing debt of its national postal service, the UK government introduced a Postal Services Bill 2010-2012, which enabled it to sell up to 90% of Royal Mail to private investors, including foreign ones, in order to attract capital. While often subject to political considerations, restructuring of unprofitable SOEs tends to be an effective option, provided that historical liabilities can be accommodated to help attract private investors.

A2.5 Outward orientation of SOEs

In terms of international trade and investment, it is difficult to point to explicit objectives of OECD governments to expand the activity of their SOEs abroad. This does not mean that the governments have no means of shielding an SOE or a national champion from foreign competition, helping them win important international contracts, or lowering the borrowing cost on the international markets, indirectly facilitating their expansion abroad. For example, the liberalisation of the European Union's internal market that enabled cross-border integration of utilities and network industries, including those owned by the government, has given rise to an occasional controversy (OECD, 2009b: 3). It can be said that EU's internal market liberalisation, also in the sectors with numerous national SOEs, may facilitate market consolidation, including through expansion of more successful SOEs to foreign markets and take-overs of their less successful private or state-owned rivals (e.g. EDF in the power sector or Lufthansa in the aviation sector).

Expansion and increased activity in international markets is a discernable trend with large SOEs from the BRIICS economies. Indeed, international expansion is a pronounced policy objective of several of the BRIICS governments. In China the government has pursued a "going out" policy encouraging Chinese companies to invest and acquire market share abroad. SOEs are seen as serving a prominent role in this process. The strategy was first implemented in 1999, with its pronounced objectives including promotion of exports of goods and services and fostering links of Chinese companies with well-known brands. Already in 2006, the government reported that some 30 000 enterprises had developed transnational business.[18] Mergers and acquisitions (M&A) is the most important mode for Chinese's firms' international operations. Chinese SOEs' M&A overwhelmingly target large objects aimed at gaining market shares, achieving synergetic effects and economies of scale, and securing what is perceived as strategic assets. The key objective cited for both government policy on "going out", and for firms themselves, is the acquisition of natural resources. Both investment and M&A activities of Chinese firms is predicted by a government representative to increase rapidly over coming years.

The going out policy also guides the objectives of the central and regional SASACs in terms of oversight and, to some extent, management of state enterprises. Besides political pressure exerted on SOEs to expand abroad, the government has also focused on restructuring the bureaucratic system in order to facilitate and quicken the approval process for SOE ventures abroad. The Enterprise Research Institute of the State Council's Development Research Centre is developing policy recommendations that entail improved coordination and reform of the management system of state-owned assets and the investment and financing system. Reform of SOEs is recommended with the aim of improving corporate governance

18 State Council's statement "更好地实施"走出去"战略 [To Better Implement the Going Out Strategy], available at: *http://www.gov.cn/node_11140/2006-03/15/content_227686.htm*, accessed April 2012.

and in order to preserve the value of state-owned assets abroad. Increased support to Chinese firms going abroad through finance and taxation, as well as through diplomatic, legal, technological and information services is also recommended. In sum, policies recommended to support the international expansion of Chinese firms, and in particular SOEs, is centred on i) improving the effectiveness of SOEs, ii) providing support through a host of broad-ranging policy and business areas (including taxation as well as diplomacy), and iii) moving away from micro-management of SOE operations and strengthening its over-arching macro control. The "going out" policy and its likely future direction suggest that fostering SOEs international expansion is a government priority that entails extensive support policies.

In India, the government has its own scheme in place to promote the international expansion of SOEs. The Maharatna scheme applies to SOEs identified as national champions (called Navaratnas) with a potential for international growth. Indian SOEs classified as Navaratnas already enjoy privileges regarding capital expenditure, joint ventures, mergers and acquisitions, and regarding creation and investment in subsidiaries. Measures under the Maharatna scheme include increased operational autonomy with special regard to operations abroad. Indian SOEs' foreign market participation is centred on the acquisition of natural resources and materials abroad. In 2010-11, the foreign exchange expenditure of five of the largest Indian SOEs[19] exceeded foreign exchange earnings by almost USD 60 billion. By far the largest foreign exchange expenditure of Indian SOEs is the import of raw materials and crude oil. While the Indian government has an explicit aim of facilitating SOE expansion in international markets, the manner in which this is done seems to be more about relinquishing bureaucratic and political impediments than about offering privileged support.

In Indonesia, promoting SOEs internationally is a stated aim of the government for the strategic development of SOEs. One of the ways the government is trying to further the internationalisation of SOEs is through a restructuring of SOEs and their management. The approach entails the creation of over-arching holding firms to manage SOEs. This model is based on the successes of Temasek in Singapore and Khazanah Nasional in Malaysia, whereby both of these countries hold SOEs with significant international presence. Hence, the Indonesian government is currently engaged in reforming SOEs with an aim of increasing their international activities.

In Brazil, international expansion of SOE activities is not officially declared as a public policy objective. Yet, a prominent example of an SOE that seeks to promote the internationalisation of Brazilian firms is the above mentioned Brazilian state-owned bank BNDES. BNDES receives its mandate from the federal government and has been explicitly tasked with encouraging Brazilian firm's international operations. This includes both supporting export-oriented companies in Brazil, but also supporting Brazilian firms with operations and subsidiaries abroad. BNDES primarily offers support through provision of financing or raising capital via bonds or securities. BNDES benefits from unique access to relatively inexpensive government funding, something seen as an obstacle to private banks on the market, and seen to reduce the availability of private loans (OECD, 2011b). BNDES also helps Brazilian companies to identify opportunities for internationalisation and guides the structuring of Brazilian firms abroad. While this does not constitute a clear government policy of increasing SOEs presence abroad, it shows that internationalisation and trade of Brazilian firms is a policy priority. Furthermore, it provides an interesting case of how a state-owned bank can be employed as a tool in fulfilling internationalisation objectives for the economy.

19 Indian Oil Corp. Ltd., MMTC Ltd.; Bharat Petroleum Corp Ltd.; Mangalore Refinery, and Petrochemcicals; Hindustan Petroleum Corp. Ltd.

In South Africa, while leading SOEs are active internationally, the government has not stated a clear ambition of advancing their international presence. Yet, leading South African SOEs like Denel and South African Airways do seek to engage in international markets.

In Russia, it is a stated objective of the government to increase the international competitiveness of SOEs. In particular, the guiding laws for state holdings and state corporations declare an aim of creating large and vertically integrated structures, in order to gain international competitiveness. While international expansion of SOEs is not an explicitly stated aim of Russian policy, the goal of increasing their international competitiveness appears to indicate an effort to facilitate their growth abroad. Furthermore, several of the large Russian SOEs like Gazprom and Sberbank have noticeably increased their international presence over the last ten years. Thus, also in Russia the increased presence of leading SOEs abroad is accompanied by an expressed political aim of facilitating international expansion.

In sum, government policies for internationalisation of domestic enterprises vary across the BRIICS, as do the approaches for attainment of such objectives. SOEs can be used as an instrument facilitating the expansion of domestic firms abroad, for example, through provision of financing in the context of the shallow financial markets characteristic of many developing countries (e.g. in Brazil). In some countries SOEs are actively encouraged to lead the process of internationalisation of domestic enterprises, such as in the case of China, where SOEs are prominent in the economy also more generally. In other countries, such as India, the most successful SOEs benefit from reduced bureaucratic impediments in order to allow growth in foreign markets.

A2.6 SOE sector in the OECD and BRIICS—summary

Overall, it is apparent that state sector is prevalent and important in the BRIICS and various OECD economies. Furthermore, the largest SOEs are often active internationally and engaged in trade, sometimes enjoying direct or indirect support from their governments. Where official data on SOEs are available from different countries, the definition and treatment of these differ significantly. Hence, the varying manifestations of state-owned companies and their sometimes divergent national classifications suggest the need for more transparency and development of comparable data sources, in particular with regard not only to key financial statistics in home markets but also to SOE trade and investment activities.

Annex A3. State-owned enterprises in international markets: Selected case studies

Given the heterogeneity of approaches to regulating SOEs' activities at home and abroad, a case study approach provides a useful illustration of firms' interactions in the international market place and helps shed light on issues encountered by governments, private firms and SOEs. In particular, case studies allow to demonstrate how the letter of law is applied in practice, what difficulties appear in legal enforcement (e.g. question of definitions), and to what extent the existing legal frameworks effectively level the playing field in mixed markets.

This Annex looks at three selected cases: 1) an example of an international arbitration case between an SOE and a private firm under existing provisions in a bilateral investment treaty; 2) a WTO countervailing duties case against state-owned financial institutions providing credit to private firms at below-market rates; 3) and an example of the application of "national benefit" and "national security" tests under national investment laws. This line of work is likely to be continued in future OECD work on trade and investment of SOEs, in collaboration with BIAC, OECD Member States, and other OECD Committees to illustrate the ways of regulating SOEs' behaviour in the international market place.

A3.1 Bilateral investment treaties and international dispute arbitration: the case Maffezini vs. Spain

The spread of Bilateral Investment Treaties (BITs) has been called "[o]ne of the most remarkable phenomena in international law" (Vandefelde, 2009: 3). Indeed, the exponential growth in the volume of cross-border investment from the 1980s on has been mirrored in the proliferation of BITs in the international arena, with ca. 2 500 BITs that have been concluded by the mid 2000s, involving more than 170 countries (Bubb and Rose-Ackerman, 2007). Broadly, BITs can be defined as "agreements between two countries for the reciprocal encouragement, promotion and protection of investments in each other's territories by companies based in either country" and they generally cover the scope and definition of investment, rules on admission and establishment, anti-discriminatory clauses such as most-favoured nation treatment, national treatment and fair and equitable treatment as well as settlement proceedings in the event of an investment dispute (UNCTAD, 2004).

As such, BITs can provide a legal framework for the arbitration of disputes between SOEs and foreign investors, where the former exercise governmental functions. The case Maffezini vs. Spain is an example of an international investment dispute arbitration under the Argentina-Spain BIT, involving a private Argentinean investor and a Spanish SOE. The case has received considerable attention in the legal literature, for two principal reasons. First, it involves the application of the most-favoured nation (MFN) principle and illustrates the interconnectedness of different BITs among various jurisdictions. Second, it refers to the structural and functional tests of whether SOEs (or private firms) can be considered state entities.

In 1989, the Argentinean national Emilio Augustín Maffezini established in Galicia, northwest Spain, the firm Emilio A. Maffezini S. A. (EAMSA) for the production and distribution of chemicals. EAMSA was incorporated under Spanish law and the enterprise was undertaken in a joint venture with the Spanish majority state-owned firm Sociedad para el Desarrollo Industrial de Galicia (SODIGA) that subscribed to 30% of the capital, with Mr. Maffezini subscribing to 70% (Rosenberg, 2011). After receiving a loan from SODIGA as well as subsidies from the Spanish state, EAMSA purchased land and began to construct a chemical plant (Ripinsky and Williams, 2008). However, in light of growing and unforeseen

project costs, partly related to environmental impact assessments, EAMSA was increasingly confronted with financial difficulties. In November 1991 a bank transfer of 30 million pesetas from Mr. Maffezini's personal bank account to SODIGA was ordered by SODIGA's representative in EAMSA. The transfer was processed, despite not being authorised by Mr. Maffezini. Finally, in March 1992 Mr. Maffezini instructed the discontinuation of EAMSA's operations and laid off employees. After an ongoing disagreement between the two parties concerning financial liabilities, Mr. Maffezini filed on July 18th 1997 a request for arbitration against Spain at the International Centre for Settlement of Investment Disputes (ICSID).

Key elements in Mr. Maffezini's claim were the following: First, all acts and omissions of SODIGA were attributable to Spain because of the firm's status as public entity. Second, international rather than national (Spanish) jurisdiction could be invoked, based upon provisions of the Argentina-Spain BIT and, by way of the MFN clause in the latter, also provisions of the Chile-Spain BIT. Third, the failure of the joint-venture could mainly be attributed to SODIGA because its initial cost estimations and related counselling turned out to be largely unrealistic. Fourth, the bank transfer from Mr. Maffezini's personal bank account to SODIGA was unauthorised by Mr. Maffezini.

The tribunal that has been established at the ICSID dismissed the claims that were related to SODIGA's cost estimations. But the tribunal ruled that the transfer from Mr. Maffezini's bank account represented a breach by Spain of its obligations under the Argentine-Spain BIT to protect investment (Article III(1)) as well as to grant a foreign investor fair and equitable treatment (Article IV(1)). Consequently, the tribunal awarded 30 million Spanish pesetas as amount of compensation to Mr. Maffezini, plus interests of more than 27 million Spanish pesetas.

However, the case is less known for the rules on compensation than for its considerations on jurisdiction (Radi, 2007). When the case was filed internationally by Mr. Maffezini at the ICSID, Spain argued that this arbitration lacked jurisdiction and that Mr. Maffezini should have resorted to Spanish courts, instead. This argument referred to Article X(2) of the Argentine-Spain BIT, according to which disputes have first to be submitted to courts of the jurisdiction of the host country. Only when the dispute continues and when no decision has been made by the domestic court after more than 18 months from the initiation of proceedings, cases can be submitted to the ICSID dispute settlement mechanism. In its response the tribunal referred to the national treatment clause in Article IV(2) of the Argentine-Spain BIT that reads: "In all matters subject to this Agreement, this treatment shall not be less favourable than that extended by each party to the investments made in its territory by investors of a third country."

The most-favoured treatment here referred to Chile-Spain BIT according to which investors are not obliged to first submit cases to courts of the jurisdiction of the host country, but can bring the dispute directly to international arbitration after a six months period of negotiations. Thus, the tribunal applied the less restrictive conditions of the Chile-Spain BIT.

Spain argued also that the arbitration at the ICSID was lacking jurisdiction because, following the ICSID Convention, the ICSID has jurisdiction only over investment-related disputes that arise "between a Contracting State and a national of another Contracting State" and henceforth has no jurisdiction to arbitrate disputes between two States or two private entities (ICSID, 2000). According to Spain, EAMSA, although majority-owned by an Argentinean national, was a Spanish juridical entity and had a separate and distinct juridical personality from its shareholder. Furthermore, Spain argued that SODIGA was a commercial corporation established under Spanish law and that its activities were by consequence of

private commercial character and could not be attributed to the Kingdom of Spain. From the Spanish perspective, the dispute should therefore have been considered as a dispute between two commercial entities under Spanish law and not as a dispute between a foreign private entity and the Spanish state.

The tribunal dismissed these objections. It concluded that the investment in a Spanish company by an Argentinean in his personal capacity was covered by the broad definition of investment in Article I(2) of the BIT, which stipulates: "the term 'investment' means every kind of assets, such as goods and rights of whatever nature, acquired or made in accordance with the laws of the Contracting Party in whose territory the investment is made, and shall include, in particular though not exclusively, the following: shares in stock or any other form of participation in a company."

With regard to the status of SODIGA, the tribunal largely followed the argumentation of the claimant that the company was not only state-owned, but that it was also state-controlled and operating with government objectives for the development of Galicia. The tribunal first followed a structural test that referred to firm ownership (ICSID, 2000; paragraph 77): "Here a finding that the entity is owned by the State, directly or indirectly, gives rise to a rebuttable presumption that it is a State entity. The same result will obtain if an entity is controlled by the State, directly or indirectly."[20]

Yet, in its decision the tribunal did not follow the rebuttable presumption principle and argued that firm ownership or control alone is not sufficient to define a state entity. It was argued that a functional test was necessary to determine whether firm operations are commercial or governmental in nature, where state entities undertake functions that can be classified as governmental. In this context, the tribunal underlined that following the functional test privately owned firms can be considered as state entities as well (ICSID, 2000, paragraph 80): "By the same token, a private corporation operating for profit while discharging essentially governmental functions delegated to it by the State could, under the functional test, be considered as an organ of the State and thus engage the State's international responsibility for wrongful acts."

Following these two tests, the tribunal held that SODIGA represented an entity of the Spanish State because the latter owned more than 88% of the firm's capital ("structural test") and because the firm carried out governmental functions of regional development ("functional test").

Altogether, the decision of the tribunal illustrates that BITs can sometimes provide a legal mechanism for arbitration in disputes between SOEs or private firms that are state-backed on the one side and fully commercial entities on the other, representing a tool for disciplining anticompetitive practices. In particular, this might be the case if the anti-competitive practices take place in the home state of the SOE and if the contested actions can be attributed to the host state as an act of the state. Also, the case illustrates some of the complications related to existence of overlapping agreements as well as the role of MFN clauses in this context.

[20] A rebuttable presumption means that it will stand unless the other party provides evidence to the contrary.

A3.2 State-Owned financial institutions as credit providers: the dispute settlement case United States –Definitive Anti Dumping and Countervailing Duties on Certain Products from China

As argued in the main text of the paper in Section 5.4 on WTO Disciplines, while SOEs are in principle covered by WTO subsidy disciplines when they are subsidy recipients, the application of subsidy disciplines to SOEs as conveyors of subsidies may be more complicated. The first complication is related to the question whether SOEs can be considered public bodies. Second, in cases where the alleged subsidies by SOEs do not take the form of plain financial contributions, there is the question of whether providing inputs or other benefits can be treated as a subsidy. The dispute settlement case *DS379 United States –Definitive Anti Dumping and Countervailing Duties on Certain Products from China* described below is an example of these two aspects.

In response to increasing imports of two different kinds of pipe or tubes and a specific form of pneumatic off-road tyres[21] from China the United States Department of Commerce (USDOC) found in 2007 that preferential loans to Chinese exporters constituted a subsidy to their exporting activity (USDOC 2007a; 2007b; 2007c). Several aspects of SOEs in China were considered, including the provision of intermediate inputs to private firms by SOEs at prices perceived to be below market prices and special access to land for SOEs. In response to countervailing measures imposed by the US, China requested consultations[22] through the WTO in 2008. Consultation failed to facilitate an agreement and a panel was set up to review the case under the dispute settlement understanding. The panel report issued in October 2010 was subsequently appealed by China. A final report was adopted with modifications from the appellate body in March 2011.

In justifying and establishing countervailing measures the USDOC has applied a non-market economy status to China, where state involvement is seen to render domestic prices an inaccurate benchmark for market rate prices when calculating the rates of countervailing measures. A non-market economy (NME) status is important for calculating antidumping measures since it impacts the type of duty rates applied.[23] The NME methodology is based on "factors of production" methodology, whereby the factors of production used by NME producers are identified and quantified. Price information from surrogate countries is used to construct a normal value of the imported product under investigation (India is the most common surrogate country used for China). The dumping margin—and consequently the anti-dumping duty rate—are then determined by comparing this normal value with the NME company's export price to the United States. Besides the reference price used for the determination of the normal value, the second difference associated with NME status is that while all companies from market economy countries are eligible for individually determined or weighted average anti-dumping duty rates, companies from China and other NME countries must pass a separate rates test to be eligible for such rates. This test requires NME companies to meet two criteria: they must demonstrate that their export activities are free from government control both in law and in fact. For companies that could not (or did not attempt

21 Imports of off road pneumatic rubber tyres increased by some 30% from 2004 to 2006.

22 Consultation between members is the first stage of the WTO Dispute Settlement Mechanism where parties attempt to solve a contested issue bilaterally, consultation bring into effect the rules and proceedings laid down in the Dispute Settlement Understanding.

23 On the twenty five occasions that USDOC applied anti-dumping rates to both China and a market economy the average China country-wide rates were on average over 60 percentage points higher than comparable market economy rates (GAO AD Database).

to) pass the separate rates test, the USDOC calculates a country-wide duty rate, which is higher than for market economies.

Due to China's non-market economy status the USDOC did not use Chinese interest rates to determine whether loans from state-owned commercial banks constituted a subsidy. The Agreement on Subsidies and Countervailing Measures (SCM Agreement) Article 14(b) stipulates that a potential benefit of a government loan is the difference between the cost of the loan given (by a government or public body) and the cost of a comparable loan the benefactor could receive on the commercial market. The panel and appellate body supported USDOC's use of proxy interest rates in calculating the benefit of loans from state-owned commercial banks finding that the SCM agreement provides "sufficient flexibility to permit the use of a proxy in place of observed rates in the county in question where no "commercial" benchmark can be found" (WTO 2011a: 184).

A key issue was the status of state-owned commercial banks as public bodies. The SCM Agreement (Article 1) states that only benefits conferred from a government or public body can be considered a subsidy. The panel and subsequent appellate body supported the USDOC in considering state owned commercial banks as "public bodies". The initial panel report interpreted "public body" (in article 1.1.(a)(1) of the SCM Agreement) to mean "any entity controlled by a government" (WTO 2011a, p. 124). Furthermore the panel had relied on the "everyday financial concept of "controlling interest" and hence approved USDOC's approach of considering any company with a majority state share a public body (op. cit. p. 124) that underlined USDOC determinations of public body status in a number of other cases. The appellate body however overturned the panel's definition of a public body and instead saw the term to mean an entity that is "vested with or exercises governmental authority" (op. cit. p.132). Furthermore the appellate body found that government ownership is by itself not sufficient to prove that a body is vested with, or performing, a governmental function.

A US document investigating the links between the Chinese government and state-owned commercial banks in the context of a previous investigation was accepted by the appellate body as evidence for Chinese state-owned commercial banks constituting public bodies.[24] It argued that state-owned commercial banks were public bodies based on: a near complete state-ownership in the sector; Article 34 of Chinese banking law stating that banks are obliged to carry out business upon the needs of the national economy and social development under the guidance of state industrial policies; evidence of state-owned commercial banks lacking adequate analytical and risk management skills, and; lacking information on the loan request and approval process (WTO 2011a: 134). As a result the appellate body upheld the determination of Chinese state-owned commercial banks to be public bodies as they were seen to be "meaningfully controlled by the government in the exercise of their functions" (op. cit. p. 136). They were therefore considered to be covered by the SCM.

The SCM Agreement defines a subsidy as any financial contribution, given by a government or public body (within the territory of the given member) that confers a benefit. Classifying state-owned commercial banks as public bodies in the case of this particular dispute is hence important as it categorised non-commercial loans from such SOEs as subsidies that may be sanctioned within the WTO framework. Yet, it should be mentioned that this does not mean that in the future China's state-owned commercial banks will be automatically considered as public bodies. The burden of evidence will remain with the parties imposing countervailing measures especially as the characteristics of the sector, on the basis of

24 Issues and Decision Memorandum for the Final Determination in the Countervailing Duty Investigation of Coated Free Sheet from the People's Republic of China (Panel Exhibit CHI-93)

which the government function was argued in the discussed case, are likely to evolve in the future.

A3.3 Treatment of SOEs in national investment provisions: Cases of Australia, Russian Federation and Canada

Given perceived strategic importance of certain assets to local communities or national economies at large, governments at times decide to limit or regulate foreign investment in such sensitive sectors or firms. The application of the so-called "national security" or "net benefit" tests and stricter approval requirements for investment in "strategic" activities are often used for this purpose, whereby the foreign investor has to prove that the investment will in fact benefit, and not endanger, local or national interests. If such tests are sufficiently transparent and non-discriminatory they can be a useful tool in the hands of governments to protect valued national assets, while encouraging competition and growth. However, if the criteria used are arbitrary, rules applied subject to changing political pressures and the review process non-transparent, such tests can prove welfare-reducing by preventing legitimate investment, be it by private or state-owned firms. Various countries use different frameworks and policy designs, with a varying degree of stricter provisions applied to SOEs. While a comprehensive review of such frameworks is beyond the scope of this annex the remainder of this section discusses the examples of Australia, Russian Federation and Canada.

In Australia the *Foreign Acquisitions and Takeovers Act 1975* (FATA) allows the Treasurer, or his delegate, to review foreign investment proposals and decide, based on the recommendations from the Foreign Investment Review Board (FIRB), if they are in line with Australia's national interest, or block them otherwise. While in the case of private foreign investor a prior approval is required only beyond certain monetary threshold of investment, e.g. above USD 244 million for non-US investor, any investment by foreign governments or their related entities requires a prior approval irrespective of the value of investment (FIRB, 2012).

Overall, the system is deemed effective in clearing foreign investment, including by SOEs (Conference Board of Canada, 2012; Norton Rose, 2012). Still, a heated public debate about the application of "national security" tests in the context of growing investment by foreign SOEs, as exemplified by the discussion of the review of the failed Rio Tinto-Chinalco deal, and increased political pressure to tighten the existing provisions for SOEs, may lead to revisions in FIRB's policy in the future, in particular in natural resources, agricultural and agribusiness sectors (Norton Rose, 2012).

Russian Federation's *Strategic Investment Law* of 2008, instituted by a presidential decree, lists sectors and entities that are considered strategic – mostly in the natural resources, defence, natural monopolies and media sectors – and in which foreign investment is limited and requires prior approval by a special governmental commission chaired by the Russian prime minister himself.[25] Prior approval is required when a private foreign firm is to take "control" of a strategic entity and, in the case of a public foreign investor, a 5% share threshold applies. Moreover, a share above 25% by a public foreign investor is prohibited in strategic entities altogether (recently raised from a 10% threshold), and an acquisition above the same threshold in a non-strategic sector also requires prior approval under federal law.[26]

25 The Federal Antimonopoly Service of the Russian Federation is charged with managing the applications by investors and passes them on to the government commission for a final decision. For a full list of strategic entities, see the government's website: http://www.kremlin.ru/text/docs/2004/08/75174.shtml

26 No. 160-FZ "On Foreign Investments in the Russian Federation" of 9 July 1999.

The Law also includes specific restrictions for transactions involving "subsoil strategic entities", again with stricter provisions for SOE investment (approval required for a 5% or higher share).

The system has been perceived by some as legally vague and burdensome for foreign investors (Clifford Chance, 2012; Josefson and Kotlyachkova, 2012), even though the refusal rate of applications filed to the commission seems to be low: between 2008 and 2012, six out of 147 applications received by the commission were refused and 139 approved.[27] It has been also noted that some foreign SOEs have encountered difficulties in investing in Russia, but it may be because many have been targeting the "strategic sectors" with stricter provisions and review process. Recent amendments to the law, however, have been seen as facilitating investment by both private and sovereign investors (e.g. Norton Rose, 2011).

In the case of Canada, the *Investment Canada Act* (ICA) specifies the conditions under which foreign investment is required to pass the "net benefit" test and has to satisfy the "national security" condition. In general, a direct acquisition of a Canadian business by a foreign business (i.e. taking a controlling share in a firm) is subject to review, when the book value of the acquired assets is C$ 344 million or more.[28] The review process requires the company to submit necessary documentation to a review board, which then passes its recommendations to the Minister of Industry, who decides whether or not the deal meets the net benefit and national security conditions. In the case of the review of investment by SOEs under the ICA, an additional set of guidelines developed by the Ministry of Industry applies. The initial set of SOE Guidelines were developed in 2007 and included criteria against which the government reviews the investment by foreign SOEs, requiring in particular that the acquired business complies with Canadian corporate governance standards and that it continues operating on a commercial basis.

The SOE Guidelines have not necessarily led to disproportional blockage or dissuasion of investment by SOEs as opposed to investment by private firms.[29] Although very few transactions have been disallowed under the ICA, those transactions have involved private-sector firms,[30] while deals by foreign SOEs have been approved in the national resources sector.[31] In a recent case, a bid by a private investor in Canada's potash industry was withdrawn by an Australian-based company after receiving a notice from the Minister of Industry that the current proposal was not likely to be of net benefit to Canada. That an alternative investment by a Chinese SOE was sought is illustrative in this regard (see Annex

27 Altogether foreign investors filed 265 applications to FAS and 86 of them were not passed onto the government commission but returned to the applicants, either because of documents were incomplete (8 of them), because they were not subject to prior approval (7), or because the applicants recalled the application, having decided not to invest (32). All information was obtained by the OECD Secretariat from FAS via the Ministry of Economic Development.

28 A threshold is much lower if an acquisition involves a sensitive sector, e.g. a cultural industry, or a non-WTO member is pursuing the acquisition (usually CAD 5 million).

29 For example, Neylan (2008) argues that, in practice, it seems that the "net benefit" and "national security" tests enshrined in ICA have been more of a deterrent for SOE investment in Canada, rather than the SOE guidelines themselves due to a broad definition of net benefit and national security conditions.

30 For example the 2008 MacDonald Dettwiler deal in the satellite industry.

31 For example: China Investment Corp. 45% stake in Alberta oil sands project owned by Penn West Energy and a 5% stake in the company; Sinopec's 9% share in Syncrude Canada, one of the oil sands industry's top producers; acquisition of Harvest Energy by South Korea's National Oil Company.

Box A3.1 below). However, in the light of a growing presence of foreign SOEs in Canada's natural resources base,[32] the government amended the SOE Guidelines in 2012. It has done so following the approval of two high-profile acquisitions of Canadian firms in the oil sector by Asian-based SOEs in December 2012.[33] The government made an announcement that included revised SOE Guidelines with a few noteworthy changes, including the expansion of the definition of SOE to include the concepts of influence, [34] a commitment to retain the current asset threshold requiring a net benefit review under ICA for SOEs (C$ 344 million) while increasing it to $1 billion in enterprise value for private sector WTO investors, a clear preference given to private investors over SOEs in the oil sand sector, and a commitment to carefully monitor foreign SOE investment throughout the rest of the economy.[35]

As illustrated by the examples above, countries have tended to differentiate the application of "net benefit" or "national security" tests when clearing SOE investment. Often the asset thresholds triggering an investment review are lower for SOEs as are the maximum shares acquisition levels in some sectors. Sometimes, additional scrutiny or conditionality applies (e.g. SOE-specific guidelines). Still, despite a formal differentiation in legal requirements, to date the authors do not find evidence that SOEs have been systematically disadvantaged or barred from investing when such tests were applied. In fact, SOE investment has at times been perceived as better aligned with commercial and political objectives of the recipient country than that by its private sector rival. Recent developments in Canada suggest that this may, however, be changing and in some sectors a strong preference will be given to private firms and stronger scrutiny applied to foreign SOEs. Such additional review measures for SOEs are to provide recipient governments with further latitude to consider whether or not a control of a foreign state over an investing firm compromises the firm's commercial considerations or privatisation objectives in the sector. Using the review process to increase transparency in investing firms' operations and ensuring that commercial considerations are observed, e.g. through encouraging listing of shares at a local stock exchange, appears *a priori* to be of benefit to the recipient country regardless of the ownership status of the investing firm. Definitions will nevertheless require clarity and rules will have to be applied in a transparent and consistent fashion to ensure legitimate investment is not deterred.

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32 See for example, the speech by Prime Minister Harper from 7 December 2012; "In light of growing trends, and following the decisions made today [i.e. the approval of two acquisitions by foreign SOEs], the Government of Canada has determined that foreign state control of oil sands development has reached the point at which further such foreign state control would not be of net benefit to Canada."

33 On 7 December 2012 the federal government announced its approval of both Malaysian-controlled PETRONAS' proposal of a USD 6 billion acquisition of Progress Energy Resources Corp. and China National Offshore Oil Corporation's (CNOOC) proposed USD 15.1 billion acquisition of Nexen Inc.

34 The new definition includes not only enterprises owned or controlled directly or indirectly by a foreign government but also entities that are *influenced directly or indirectly* by a foreign government. In a related statement, the Minister of Industry indicated that he "will closely examine the degree of control or influence an SOE would likely exert on the Canadian business that is being acquired; the degree of control or influence an SOE would likely exert on the industry in which the Canadian business operates; and, the extent to which a foreign state is likely to exercise control or influence over the SOE acquiring the Canadian business. Where due to a high concentration of ownership a small number of acquisitions of control by SOEs could undermine the private sector orientation of an industry, and consequently subject an industrial sector to an inordinate amount of foreign state influence, the Government will act to safeguard Canadian interests".

35 "(…) the Minister of Industry will find the acquisition of control of a Canadian oil-sands business by a foreign SOE to be of net benefit to Canada on an *exceptional* basis only" (Industry Canada, 2012).

Annex Box A3.1. Approval of bid for PotashCorp under Investment Canada Act

Production of potash is considered a strategic sector in Canada, and in particular in the Saskatchewan province. Over 50% of the world's potash reserves are located there, primarily in Saskatchewan, and Canadian firms account for the largest share of world's potash production (30%) and global exports (36%), followed by Russia and Belarus. Due to high barriers to entry and high economies of scale, there are only few firms operating in the market, additionally organised in export cartels. The largest one – Canpotex – is located in Canada and sells potash outside of North America on behalf of the Canadian PotashCorp, Atrium of Canada, and U.S.-based Mosaic. PotashCorp, based in Saskatchewan, is Canpotex' largest supplier and used to be a Crown corporation until the province divested all its assets in 1993. Together with another export cartel – Belarusian Potash Company, representing a Moscow-based Uralkali and Belaruskali of Belarus, these two export cartels account for 70% of global potash exports and strongly influence global prices. The activity of Canpotex and PotashCorp is an important source of local government revenues in Saskatchewan. Hence, it may not be a surprise that foreign investors' actions seen as changing the position of either of these two firms may meet local opposition.

In August, 2010 BHP Billiton - an Anglo-Australian mining giant, made a USD 38.6 billion hostile take-over bid for PotashCorp. The firm applied for approval under ICA and the "net benefit' review was commenced. In the meantime, the Saskatchewan Government raised concerns that the biding company would resign from providing potash to the global market through Canpotex and that this change would significantly hurt its tax revenues.[36] Interestingly, in the meantime, PotashCorp's management approached a Chinese SOE – Sinopec, in order to rally up an alternative bid for a higher price. The fact that the management supported the bid by a foreign SOE, while an investment by a private firm was being questioned under the "net benefit" review, suggests that the price for the bid and the retention of Canpotex dominated the considerations, and ownership was of secondary importance.

Sinopec eventually withdrew its bid in October 2010, allegedly as the price was too high.[37] On 3 November 2010, the former Minister of Industry, Tony Clement, announced that he was not able to conclude that the BHP investment would "likely be of net benefit to Canada".

36 See, for example, the Conference Board Report, 2010 or the speech by Brad Wall, Premier of Saskatchewan opposing the bid on October 21, 2010: http://m.theglobeandmail.com/globe-investor/premier-walls-speech-on-proposed-takeover-of-potash-corp/article1215903/?service=mobile [accessed last on 2 Nov 2012].

37 See, for example: http://m.theglobeandmail.com/globe-investor/sinochem-courts-backers-for-move-on-potash/article4326132/?service=mobile [accessed last on 2 Nov 2012].

Annex A4. Supplementary information on regulatory approaches dealing with anti-competitive cross-border effects of SOEs

A4.1 Competition law

The general purpose of competition law is to protect competition in the market place. The application of competition law to remedy anti-competitive behaviour of SOEs in a cross-border context requires fulfilment of several criteria (for key points see Section 5.1 in the main text). The concept of extraterritorial jurisdiction in competition cases and the so called effects doctrine "implies that domestic competition laws are applicable to foreign firms as well to domestic firms located outside the state's territory, when their behaviour or transactions produce an "effect" within the domestic territory" (EC, 2012). Depending on how broadly the "effect within domestic territory" is interpreted, according to this doctrine, national antitrust law could in principle be applied to any type of anti-competitive behaviour by a foreign firm, including an SOE, whether it involves foreign presence or cross-border trade.

A first issue in competition cases against a foreign SOE is whether the anticompetitive conduct by a foreign SOE in their market might be shielded from jurisdiction by sovereign immunity as the action could be considered an act of the foreign State. Where foreign state immunity can be evoked, it means that "one State is not subject to the full force of rules applicable to another State; the doctrine bars a national court form adjudicating or enforcing certain claims against foreign States" (Gaukrodger, 2010). Traditionally sovereign immunity was considered very broadly, and referred both to immunity from jurisdiction (judging the actions of another State) and to immunity from execution (taking coercive measures against another state's assets) (Gaukrodger, 2010). Yet, with increasing States' involvement in commercial activities many jurisdictions began to apply a "restrictive" approach to immunity, where courts continue to recognise immunity for "sovereign" acts, but deny immunity for "commercial" acts with a view of protecting the legitimate expectations of business partners that engage in commercial transactions with foreign states. The "commercial exception" from immunity in the restrictive approach is now also set out in the *UN Convention on Jurisdictional immunities of States and their Property*, and is considered customary international law. Thus, SOEs will generally be subject to the competition laws of the host State both for jurisdiction and for enforcement against its assets in the host state (provided the assets relate to that commercial activity).

All this suggests that, provided certain criteria are fulfilled, private firms can attempt to seek a recourse from anti-competitive behaviour of foreign SOEs in their own jurisdictions[1] (i.e. host state jurisdiction), which may be less intimidating, and formally easier (e.g. potential residency requirements) than trying to do so in the jurisdiction of an SOE or a third country. While seeking such recourse on the basis of a foreign antitrust law is in principle also an option[2], there may be specific requirements for demonstrating the case (e.g. sufficient size, sufficient impact on the foreign market, etc.) which may be harder to meet. The latter option can also in general be more challenging due to information asymmetries, inability to access evidence located abroad, higher transaction costs, as well as unfamiliarity with specificities of foreign legal systems.

1 In some countries, such as, for example, the United States private enforcement of competition law is possible but more typically the pursuit of competition policy is the domain of competition authorities.

2 The key condition here is that SOEs are not exempted from the application of competition law (see Section 5.1 in the main text).

The application of competition laws to SOEs, but also to private monopolies, is complicated because they will sometimes enjoy exemptions from national competition laws in their home states and will be protected from enforcement of decisions of foreign competition authorities. Enforcement of competition decisions in the domestic market of the host state or importing state is often possible but this will not generally have an impact on activities in third markets. Competition authorities in countries with large markets can have the clout to enforce their decisions with respect to foreign SOEs and force them to effectively change behaviour also in third markets. When this is not the case the problem of enforcement where the anti-competitive behaviour takes place in a third state jurisdiction, without proper competition laws and enforcement, remains.

A4.2 OECD Guidelines on Corporate Governance of SOEs

The OECD Guidelines on Corporate Governance of SOEs establish the core elements of a good corporate governance regime that helps minimising costs associated with state ownership. To the extent these costs may spill across borders and to the extent the Guidelines are applied on a non-discriminatory basis (e.g. their enforcement is not lessened for SOEs competing with foreign POEs), they can serve as an instrument of minimising unwanted cross-border effects of SOEs. They cover a broad range of legal and regulatory issues pertaining to SOEs, and are outcomes-based, focusing on corporate outcomes while giving individual jurisdictions freedom on whether and how to apply these.

While *de jure* the Guidelines apply equally to domestic and foreign firms operating in a given country, in line with the non-discrimination principle, it is an open question whether they could be effectively used by foreign firms operating in the market to ensure level playing against domestic players, including SOEs. Equally, it is not clear if the governments require their domestic firms to align their conduct with these guidelines to the same extent when they are competing abroad as when they are competing in the home market. As Capobianco and Christiansen (2011) point out "it is not obvious that governments necessarily remain unwavering in their commitment to a level playing field when the playing field is located in a foreign economy. Issues of competition between countries as well as between enterprises may enter the calculation". In other words, countries may be less inclined to use the principles enshrined in the guidelines when their enterprises are operating abroad or when foreign enterprises operating in their domestic markets attempt to use competitive neutrality framework provisions against domestic firms.

Another shortcoming in the cross-border context is that the OECD guidelines are non-binding. They, as an OECD recommendation, are a legal instrument with which all members must formally associate themselves and, in the case of accession to OECD, prove that they can credibly do so. Investment regulators are free to use them as a benchmark to assess the quality of potential investors. Yet, even among the OECD members, they remain "recommendations at a high aspirational level", their implementation is not as consistent as of some other OECD instruments and they are generally not backed to the same extent by pressure from legislators, investors and stock exchanges (op. cit.). The non-binding and voluntary nature of the OECD guidelines suggests that, while they could be used as a useful tool for advocacy-oriented approach to minimising unwanted cross-border effects of SOEs among countries committed to the reform of the state sector, they fall short of providing binding multilateral rules as seen in international trade or investment agreements.

A4.3 Other domestic arrangements aimed at fostering competitive neutrality

The competitive neutrality framework (CNF) of Australia has been devised in addition to national competition law and provides a set of rules designed to ensure that government businesses operating in competitive or potentially competitive markets do not enjoy a net competitive advantage over the private sector because of their ownership. The key principles of Australian competitive neutrality are: taxation neutrality, debt neutrality, regulatory neutrality, commercial rate of return and that prices charged by SOEs reflect costs. Implementation is overseen by the National Competition Council and the Productivity Commission, and there is a special unit where companies can file complaints.

The CNF of Australia can be used by foreign firms to remedy some of the anti-competitive effects of SOEs. In fact, one of the few existing complaints filed does involve a subsidiary of the government-owned Meteorological Services of New Zealand Limited as a complainant against the state-owned Australian Civil Aviation Safety Authority's.[3]

In the European Union competitive neutrality is pursued through a set of special competition-law rules concerning interactions between government and private entities. Public companies fall under the scope of the competition law and are subject to rules on monopolisation and subsidies (Capobianco and Christiansen, 2011). The European Commission has the power to require national governments to apply competition rules to public companies and, in case of infringement, can require companies to stop the anti-competitive conduct and can impose fines. In the case of SOEs, if the anti-competitive behaviour is government-induced, the European Commission can require the government to stop such a practice. State aid rules cover both aid to private and public companies and include: capital injections, grants, tax reductions and tax holidays, reductions in social security costs and warranties. The selected types of state aid that are allowed have to be notified and approved by the European Commission, and the Commission has also the power to recover incompatible state aid (see Annex Box A4.1 for one example of a dispute over state aid in the EU context). In addition, the European transparency directive requires that commercial and non-commercial activities of public companies should have separate accounts (op. cit.). The EU has also strong EU-level public procurement rules.

The supranational character of the European Union's arrangement makes it particularly relevant for consideration in the discussion of disciplines on anti-competitive cross-border effects of SOEs. Its roots go back to the early stages of establishing a common market between the EU members—many of which had different traditions with respect to the role of the state in the economy—and as such the framework has been designed specifically to deal with cross-border competition issues. The EU's arrangement can thus be seen as one of the most advanced frameworks dealing with anti-competitive cross-border effects of SOEs and POEs. Yet, its provisions bind only EU members and rules bearing on competition, state aid and transparency aim principally at underpinning the EU single market. Also, its advanced state cannot be seen in separation from other dimensions of deep economic and social integration in the EU. It is unclear to what extent it could realistically serve as a model for international competitive neutrality agreement involving a larger group of less integrated countries.

3 See Commonwealth Competitive Neutrality Complaints Office (2001).

Annex Box A4.1. Dispute of EDF vs. European Commission concerning illegal state aid

Article 107(1) of the Treaty on the Functioning of the European Union prohibits state aid granted by member states or through state resources for the benefit of certain undertakings, or for the production of certain goods, if there is a possibility *the aid may distort competition or have an adverse effect on intra-community trade*. In order to assess if a measure adopted by the state vis-a-vis an SOE should be considered state aid, it has to be decided if the state was acting as a shareholder or a public authority. For this purpose a "private investor test" is applied: if the same measure would have been adopted under normal market conditions by a private investor in a situation similar to the state's, the undertaking concerned is not considered to have received state aid, under the EC rules.

According to the European Commission (EC), in 1997 France waived a tax claim against the then wholly state-owned company *Électricité de France* (EDF) worth 888.89 million Euros at the time. In 2003, the Commission ruled that the waiver strengthened EDF's competitive position *vis-a-vis* its peers and hence constituted *improper state aid* (Decision 2005/145/EC of 16 December 2003). The EC had argued that the state acts as a public authority, not a shareholder, when it uses measures that only a public authority can use, such as legislative or tax measures. EDF was ordered to pay 1.22 billion Euros after interest to the French state.

In 2009, EDF successfully appealed the EC ruling to the General Court - the European Union's second highest court, and the French state returned the money to EDF. The European Commission appealed the decision to the European Court of Justice. The final ruling came in June this year (case C-124/10 P), following a 15-year long dispute, when the court ruled in favour of EDF, allowing it to keep the money. The European Court of Justice rejected EC's appeal on the grounds that the EC erred considering the decision of the French state as that of the public authority rather than a shareholder in a company, behaving like a private investor: "The Commission erred in law by refusing, simply because the measure was fiscal, to consider whether the French state had acted as a private investor," the Court of Justice said in its statement.

The European Court of Justice came to the conclusion that the sovereign nature of the measure does not preclude the applicability of the private investor test. However, the member state must show unequivocally that it considered the measure *ex ante* as an investment on market terms, and not as financial support by a public authority, and it cannot argue *ex post* that the measure has effects comparable with a hypothetical action of a private shareholder.

A4.4 WTO disciplines

A4.4.1 Ownership-neutral WTO rules applicable to SOEs

As a general principle WTO rules impose obligations on governments, as opposed to private or non-governmental entities or SOEs or STEs. The WTO obligations aim at protecting the trading conditions of economic operators engaged in international trade. Generally WTO rules do not distinguish between POEs and SOEs when it comes to protecting the expectations of economic operators with respect to access to markets. A few examples are provided in the remainder of this sub-section. However, there are some WTO provisions which specifically target actions by enterprises having a "special connection" with a government, e.g. state-trading enterprises (STEs), to avoid situations where State could deny responsibility for actions taken by the legally distinct entity of the STE that might distort international trade. See for instance sub-sections A5.4.3 and A5.4.4.

A4.4.1.1 National treatment

The principle of national treatment is a core element of the legal framework of the General Agreement on Tariffs and Trade (GATT, Article III). It requires signatory governments to treat imported goods equally to like domestically produced goods and has the consequence of protecting expectations of foreign producers supplying a market from behind-the-border barriers, including when their products compete with products of SOEs of the importing country or are procured or handled by SOEs. The same could be said about most-favoured nation (MFN) and other principles; countries cannot normally discriminate between their trading partners, independent of their ownership status.

A4.4.1.2 Subsidies in goods trade

Subsidies belong to the list of key benefits granted historically to enterprises, including SOEs, by governments. The SCM Agreement disciplines apply in the same way to subsidies received by enterprises, whether private or state-owned. The SCM Agreement constitutes a set of rules that discipline the use of *subsidies* in industrial sectors but it does not apply to services industries. It sets out disciplines for different types of subsidies, and the remedies available to enforce those disciplines. In particular, subsidies which are contingent on export performance, or which are contingent on the use of domestic goods over imported ones, are prohibited. Other subsidies, while not prohibited, may be acted against if they cause adverse effects in international trade, and are thus deemed "actionable".[4] Both prohibited and actionable subsidies may be challenged directly in the WTO dispute settlement mechanism (DSM). In addition to DSM, a country whose domestic industry is injured by imports that benefit from a subsidy granted by another country (actionable or prohibited) may, following an investigation by the importing country's authorities, impose countervailing measures. Such measures usually take the form of additional import duties, the level and duration of which are governed by the SCM Agreement.

While SOEs are covered by the above-explained WTO subsidy disciplines when they are subsidy *recipients,* the application of subsidy disciplines to SOEs as *grantors of subsidies* is more complicated. Namely, the SCM Agreement specifies that subsidies granted by "public bodies" are subject to WTO disciplines in the same way as subsidies granted by government authorities. Whether or not an SOE is subject to these disciplines will thus depend on whether it can be considered a "public body". State-ownership is not a sufficient condition to make such a determination under the existing WTO rules (see also A3.2 and section A4.4.3.2 for more detail).

A recent stocktaking of the effectiveness of WTO subsidy disciplines by Horlick and Clarke (2010) suggests that the WTO SCM provisions have been successful in disciplining export subsidies, relatively less successful in disciplining import-substitution subsidies and largely failed to discipline so-called domestic subsidies, which are neither contingent on exportation nor on the use of domestic over imported goods, but might nevertheless have harmful trade effects.

A shortcoming of existing WTO subsidy disciplines in our context is that there are no equivalent subsidy rules for services. The SCM Agreement does not apply to trade in services and no specific disciplines have been developed yet for services subsidies.[5] Such subsidies are subject to basic GATS disciplines, including the MFN obligation and, where relevant commitments exist, the national treatment obligation (see below). GATS Article XV mandates WTO members to negotiate with a view to developing multilateral disciplines addressing trade-distorting subsidies but the negotiations have not resulted in new disciplines yet.

The lack of subsidy disciplines in the services sectors is important for three reasons. First, many modern internationally active SOEs operate in services sectors (see Section 3 of the main paper). Second, goods and services provision are tightly linked in a number of ways:

4 If a subsidy is determined to be prohibited, the country granting the subsidy will be directed to withdraw it without delay. In the case of actionable subsidies causing adverse effects, the granting country will be directed to take steps to remove the adverse effects, or withdraw the subsidy, within a reasonable period of time.

5 Nevertheless, subsidies granted to services and services suppliers are subject to some GATS disciplines, in particular the national treatment and the MFN obligations (see below).

many of modern enterprises engage in production of both goods and services; services are often embodied in traded goods, and vice versa; and there are strong vertical links between goods and services sectors. Third, the expansion of the state sector related to government stimuli in the context of the financial crisis was strongly concentrated in services sectors such as, for example, financial services and real estate. All this means that services—an important sector with significant SOE presence—is not efficiently disciplined by existing WTO subsidy rules.

A4.4.1.3 Anti-dumping

SOEs may behave in ways that do not always align with commercial considerations, for example due to non-economic objectives they may assume, and this may be reflected in their pricing strategies at home and in foreign markets. Dumping, i.e. selling abroad below the "normal value" (generally, the market price of the good in the exporting country), may be one of the manifestations of such a behaviour. GATT Article VI, as developed in the "Anti-Dumping Agreement", allows governments affected by dumping to defend their domestic industries by taking targeted anti-dumping measures in cases where imports from foreign producers—SOEs or POEs—are priced below the normal value and cause injury, or have the potential to cause injury, to a domestic industry producing the like product.

Anti-dumping measures usually take the form of additional import duties on the goods that are dumped. The level and duration of anti-dumping duties are governed by the WTO Agreement. The calculated margin of dumping limits the amount of additional duty that can be imposed, and its calculation may be more complicated in the case of products exported by SOEs. This is because in some cases margins of dumping are computed using production functions and profit margin concepts, which may be less relevant and reliable in the context of SOEs. In addition, in cases involving imports from so-called non-market economies (i.e. economies where state involvement is considered so high that domestic market prices cannot be treated as a reliable benchmark for what a normal value is), some countries use surrogate-country market prices to establish what normal value is to then calculate the anti-dumping duty rate, which further complicates the determination of the margin of dumping.[6]

A4.4.2 WTO provisions that allow exemptions of SOEs from the application of the WTO disciplines or commitments

A4.4.2.1 The GATS

Under the GATS, members undertake specific commitments by sector and by mode of supply. In sectors and modes where they undertake such commitments, members may protect national enterprises, including SOEs, in various ways. For instance, they can stipulate that the commitment will apply only to private entities. Alternatively, they may limit the number of service suppliers, refrain from granting national treatment or maintain some measures granting more favorable treatment to national entities. [7] There is also no direct equivalent to GATT Article XVII on State Trading Enterprises in the GATS.

6 For example, US Department of Commerce applies a "non-market economy" status to some countries, including China, and uses surrogate country prices to calculate the market price benchmark.

7 Some WTO members reserved the right to apply an additional government approval procedure for direct investments made by a foreign government-owned services provider while some others do not allow licenses to foreign government-owned services providers in certain sectors.

A4.4.2.2 The GPA Agreement

Some WTO members have agreed to further market opening in the area of government procurement (purchases of goods and services by public bodies for governmental purposes). Some SOEs can have both governmental and commercial functions. In that context, it is important to note that in negotiating GPA commitments, WTO members can, in their schedules to the Agreement, both list relevant SOEs and add qualifying provisions that limit the extent of their obligations (see also section A4.6) .

A4.4.3 Explicit rules on State Trading Enterprises and other concepts closely related to SOEs

A4.4.3.1 State Trading Enterprises

WTO rules explicitly discipline some practices in which so-called State Trading Enterprises (STEs), some of which can but do not have to be state-owned, can be used by governments as vehicles to influence international trade. The idea here is that states cannot hide behind such STEs to avoid their WTO obligations. GATT Article XVII on STEs and the Understanding of the Interpretation of Article XVII of the GATT 1994[8], aim to discipline cases where the level of purchases or sales conducted by STEs is not based on economic principles but rather on political or political-economy considerations.

A difficulty with WTO rules on STEs has been the lack of clear definition of what STEs and state trading actually are.[9] For example, the text of the original GATT Article XVII could suggest that state ownership is a sufficient condition for an enterprise to be considered an STE (see "State enterprise" in Annex Box A4.2). However, the WTO *Understanding on the Interpretation of Article XVII of GATT 1994* (*WTO Understanding* thereafter) provides the "working definition" of STEs which states that they are "governmental and non-governmental enterprises, including marketing boards, which have been granted exclusive or special rights or privileges, including statutory or constitutional powers, in the exercise of which they influence through their purchases or sales the level or direction of imports or exports". The latter definition suggests that state ownership is neither a necessary nor a sufficient criterion for an enterprise to be considered an STE.[10] Rather, STEs seem to be defined in terms of their actions or activities in the market, not in terms of ownership *per se*. However, it can be expected that ownership (by states) will influence choices of actions or activities of the concerned enterprises, thus bringing them within the scope of the WTO STE disciplines.

This lack of clear definition has had a number of implications. First, it has been, as stated by the WTO, "a serious handicap in the efforts to enforce the transparency obligation under Article XVII" (WTO's page in STEs), as illustrated by the consistent lack of the members' notification of STEs and their activities to the WTO Secretariat (Smith, 2006). The WTO reports though that compliance with the notification obligation has recently improved.

Second, while the *WTO Understanding* provides a *"*working definition" of an STE one could still argue which interpretation is the most useful one. For example, considering the letter of Paragraph 1(a) of the original Article XVII (Annex Box A6.1), it is not clear whether, and if so why, the "granting to the enterprise of exclusive or special rights or privileges"

8 WTO official website on STEs: http://www.wto.org/english/tratop_e/statra_e/statra_info_e.htm.

9 (op. cit.)

10 Typical STEs as listed by the WTO's Working Party on STEs include: statutory-, export- and regulatory marketing boards; fiscal monopolies; canalising agencies; foreign trade enterprises or boards/corporations resulting from nationalised industries (WTO, 2012).

element (rights element) is interpreted in the *WTO Understanding* as a stronger criterion for state trading as compared to the "State enterprise" element (ownership element) (Annex Box A4.3). One hypothesis here is that this is because traditionally the WTO law tended to be ownership neutral. Yet, there exist exceptions where WTO texts do explicitly refer to state-ownership or similar concepts (see below). Arguably, making either of the two elements (rights or ownership) sufficient, when combined with the "resulting influence, through the enterprise's purchases or sales, on the level or direction of imports or exports" element (trade distortion element) could make the Article more effective, while not making ownership a sufficient requirement in itself.

Another explanation is that Article XVII, and now more clearly the Understanding on Article XVII, defines state-trading enterprises with reference to whether the STE is capable of controlling the concerned market because of the privileges and rights provided to the concerned enterprise by the government. The GATT/WTO disciplines are not based on ownership *per se* because STE disciplines based on (majority) ownership alone could easily be circumvented. For example, under WTO rules, an enterprise that is not majority-owned by government can nonetheless be considered an STE if it receives any rights or privileges that give it power in the market. This is not to say that ownership is not relevant or indicative but it is not determinative of whether an entity is a STE (under GATT Article XVII) or a public body (under SCM) or a monopoly under GATS.

Other ambiguities in Article XVII evoked in the literature include the interpretation terms "commercial considerations", "customary business practice" and "enterprises of the other contracting parties" in Paragraph 1(b) (Smith, 2006). In addition, subsidisation, which is a highly relevant in the context of the state sector, is not elaborated on under Article XVII and trade-related subsidisation is instead disciplined by Article XVI, the SCM Agreement and different provisions of the Agreement on Agriculture (Qin, 2004). Finally, the relationship between the first and second sub-paragraph of Article XVII is unclear. For example, the first sub-paragraph of Article XVII prohibits STEs from any discrimination, while the second obliges STEs to respect commercial considerations, when it is generally accepted that discriminatory export price is a reasonable business practice. Some examples of dispute cases concerning STEs and GATT Article XVII are given in Annex Box A4.4

Annex Box A4.2. GATT Article XVII

State Trading Enterprises

1.* (a) Each contracting party undertakes that if it establishes or maintains a State enterprise, wherever located, or grants to any enterprise, formally or in effect, exclusive or special privileges, such enterprise shall, in its purchases or sales involving either imports or exports, act in a manner consistent with the general principles of non-discriminatory treatment prescribed in this Agreement for governmental measures affecting imports or exports by private traders.

(b) The provisions of subparagraph (a) of this paragraph shall be understood to require that such enterprises shall, having due regard to the other provisions of this Agreement, make any such purchases or sales solely in accordance with commercial considerations, including price, quality, availability, marketability, transportation and other conditions of purchase or sale, and shall afford the enterprises of the other contracting parties adequate opportunity, in accordance with customary business practice, to compete for participation in such purchases or sales.

(c) No contracting party shall prevent any enterprise (whether or not an enterprise described in subparagraph (a) of this paragraph) under its jurisdiction from acting in accordance with the principles of subparagraphs (a) and (b) of this paragraph.

2. The provisions of paragraph 1 of this Article shall not apply to imports of products for immediate or ultimate consumption in governmental use and not otherwise for resale or use in the production of goods* for sale. With respect to such imports, each contracting party shall accord to the trade of the other contracting parties fair and equitable treatment.

3. The contracting parties recognise that enterprises of the kind described in paragraph 1 (a) of this Article might be operated so as to create serious obstacles to trade; thus negotiations on a reciprocal and mutually advantageous basis designed to limit or reduce such obstacles are of importance to the expansion of international trade.*

4. (a) Contracting parties shall notify the CONTRACTING PARTIES of the products which are imported into or exported from their territories by enterprises of the kind described in paragraph 1 (a) of this Article.

(b) A contracting party establishing, maintaining or authorising an import monopoly of a product, which is not the subject of a concession under Article II, shall, on the request of another contracting party having a substantial trade in the product concerned, inform the CONTRACTING PARTIES of the import mark-up* on the product during a recent representative period, or, when it is not possible to do so, of the price charged on the resale of the product.

(c) The CONTRACTING PARTIES may, at the request of a contracting party which has reason to believe that its interest under this Agreement are being adversely affected by the operations of an enterprise of the kind described in paragraph 1 (a), request the contracting party establishing, maintaining or authorising such enterprise to supply information about its operations related to the carrying out of the provisions of this Agreement.

(d) The provisions of this paragraph shall not require any contracting party to disclose confidential information which would impede law enforcement or otherwise be contrary to the public interest or would prejudice the legitimate commercial interests of particular enterprises.

Source: GATT/WTO.

Annex Box A4.3. Excerpts from the Understanding on the Interpretation of Article XVII of the General Agreement on Tariffs and Trade 1994

Members,

Noting that Article XVII provides for obligations on Members in respect of the activities of the state trading enterprises referred to in paragraph 1 of Article XVII, which are required to be consistent with the general principles of non-discriminatory treatment prescribed in GATT 1994 for governmental measures affecting imports or exports by private traders;

Noting further that Members are subject to their GATT 1994 obligations in respect of those governmental measures affecting state trading enterprises;

Recognizing that this Understanding is without prejudice to the substantive disciplines prescribed in Article XVII;

Hereby agree as follows:

1. In order to ensure the transparency of the activities of state trading enterprises, Members shall notify such enterprises to the Council for Trade in Goods, for review by the working party to be set up under paragraph 5, in accordance with the following working definition:

"Governmental and non-governmental enterprises, including marketing boards, which have been granted exclusive or special rights or privileges, including statutory or constitutional powers, in the exercise of which they influence through their purchases or sales the level or direction of imports or exports."

This notification requirement does not apply to imports of products for immediate or ultimate consumption in governmental use or in use by an enterprise as specified above and not otherwise for resale or use in the production of goods for sale.

(…)

Source: Understanding on the Interpretation of Article XVII of the General Agreement on Tariffs and Trade 1994.

Annex Box A4.4. WTO disputes involving state trading enterprises (STEs)

A prominent dispute at the WTO's dispute settlement mechanism recalling GATT Article XVII on STEs is the Canada — Measures Relating to Exports of Wheat and Treatment of Imported Grain (DS276) case initiated by the US in 2002 (Smith, 2006). The complaint inter alia challenged Canadian exports of wheat which involved the Canadian Wheat Board (CWB), a mandatory marketing system for wheat and barley farmers of several Canadian provinces. The US claimed that that the export of wheat conducted by the CWB was inconsistent with Paragraphs 1(a) and 1(b) of GATT Article XVII on STEs. The WTO's panel report and subsequently the WTO Appellate Body report rejected the claim that Canada had violated its obligations under Article XVII with respect to the CWB. Smith (2006) interpreted this decision as reflecting insufficient empirical evidence in support of the claim that the sales of the CWB took place on an anti-competitive and non-commercial basis. However, despite the fact that the panel's interpretation provided important clarification of the concept of "commercial considerations", the same author suggested that the case highlighted the imprecision of the wording of Article XVII with regard to commercial considerations, export subsidies or import barriers in the context of STEs, and that this undermines legal applicability of the article (op. cit.).

A4.4.3.2 WTO provisions which specifically refer to entities closely related to SOEs

"*Public bodies*" *in SCM*

While SOEs are covered by WTO subsidy disciplines when they are subsidy recipients, the application of subsidy disciplines to SOEs as grantors of subsidies may be more complicated. The SCM Agreement provides that its disciplines apply equally to subsidies involving financial contributions provided by governments or "public bodies", and also to subsidies provided by private parties in certain circumstances. First, the question arises whether SOEs can be considered *public bodies*. The ruling in the Dispute Settlement case DS379 *United States –Definitive Anti Dumping and Countervailing Duties on Certain Products from China*

(see also A2.2) suggests that SOEs cannot automatically be categorised as "public bodies" based on state ownership. To be considered a "public body" such an entity must be controlled by the government and exercise "governmental functions". "*The mere fact that a government is the majority shareholder of an entity does not demonstrate that the government exercise meaningful control over the conduct of the entity, much less that the government has bestowed it with governmental authority"* (p. 318). Nonetheless it is clear that "*under the SCM, if an entity is a public body, then its conduct is attributed directly to the State"* (p. 309). Second, there is a question whether the provision of inputs or other advantages by a public body constitutes a financial contribution. Here, establishing a relevant market-based commercial benchmark for an input provided by an SOE can be more challenging especially in cases where the boundaries between commercial and public activities of SOEs are blurred.

SOE-related entities in the GATS

The GATS does not refer to state trading enterprises or state-owned enterprises, but contains two concepts which can potentially overlap with SOEs. Article I:3(b) of the GATS carves out from the scope of the Agreement "services provided in the exercise of governmental authority". These services are defined as services which are "supplied neither on a commercial basis nor in competition with one or more service suppliers". Hence, SOEs which do not supply services commercially and are not competing with other suppliers would benefit from this carve-out. However, SOEs which supply services on a commercial basis and/or are competing with other service suppliers fall within the scope of the GATS and are subject to its disciplines.

The GATS also contains disciplines regarding monopolies, which apply to both public and private monopolies. Under the GATS Article XVIII, Members must ensure that monopoly suppliers act in a manner consistent with members' specific commitments, as well as with the MFN obligation. Moreover, when a monopoly competes, either directly or through an affiliated company, in the supply of a service outside the scope of its monopoly rights and that service is subject to a member's specific commitment, that member must ensure that such monopoly supplier does not abuse its monopoly position in a manner inconsistent with those specific commitments.

A4.4.4 Some Actions of SOEs can be "attributed to" WTO Members or governments and thus become subject to WTO rules as if they were actions by governments

In certain circumstances, actions of SOEs can be attributed to WTO members or governments, subjecting them to the same WTO rules as governments are subject to. For example, the footnote to Article 4.2 of the Agreement on Agriculture explicitly extends the prohibitions against Members' quantitative import restrictions to measures maintained by STEs. The Ad Note to Article XI, XII, XIII, XIV and XVIII provides that "throughout Articles XI, XII, XIII, XIV and XVIII, the terms "import restrictions" or export restrictions include restrictions made effective through state-trading operations.

More generally, under the GATT, the *Japan - Semiconductor* panel report (1988) had concluded that in certain circumstances, actions that appear *prima facie* to be private measures can nonetheless be considered as governmental measures when such actions are indirectly monitored and controlled by government which maintains incentives and disincentives in their regard. Under general international law, actions by non-State actors, including SOEs, could be qualified as governmental measures if there is sufficient evidence role of State.

A4.4.5 WTO provisions which specifically refer to SOEs or STEs in the WTO Accession Protocols of China and Russia

China's WTO Accession Protocol of 2001 departs from the ownership-neutral philosophy of the WTO system (Qin, 2004) and relates in large part directly or indirectly to the country's dominant state sector. While the protocol does not contain obligations on privatisation of SOEs it provides in paragraph 46 of the Working Party Report that China *"…would ensure that all state-owned and state-invested enterprises would make purchases and sales based solely on commercial considerations, e.g., price, quality, marketability and availability, and that the enterprises of other WTO Members would have an adequate opportunity to compete for sales to and purchases from these enterprises on non-discriminatory terms and conditions. In addition, the Government of China would not influence, directly or indirectly, commercial decisions on the part of state-owned or state-invested enterprises, including on the quantity, value or country of origin of any goods purchased or sold, except in a manner consistent with the WTO Agreement.*"

China's WTO Protocol comprises several provisions that aim to rule out trade distorting effects of the Chinese state sector and that refer to market access commitments, obligations with regard to the liberalisation of trading rights or commitments on SOE subsidies and their notification (Qin, 2004). For instance, sectors where SOEs were enjoying monopoly rights, such as the banking sector, had to be opened to foreign competition; trading rights had to be extended from selected and mainly state-owned firms to all enterprises; export subsidies had to be phased out until the moment of accession, without benefitting from usual transition periods under the SCM Agreement; and the legal scope for domestic subsidies had considerably been reduced compared to other developing countries (op. cit.).[11] Furthermore, since specific subsidies are actionable according to Article 2 of the SCM Agreement, section 10.2 of the China protocol underlines that subsidies which are predominantly targeted towards state-owned enterprises[12] in terms of the number of recipients or the volume of subsidies are considered as specific subsidies. This SOE-specific provision, clearly addressing the issue of state ownership, is a departure from the otherwise ownership-neutral philosophy of the WTO.[13]

Thus, China's accession protocol can be considered a part of the WTO law with very strong disciplines dealing with anti-competitive cross-border effects of SOEs. Yet, some have expressed doubts as to whether these provisions have been effective in disciplining trade distorting effects of China's SOEs. On the one hand some legal scholars and economists have emphasised that the far reaching commitments made by China under its accession protocol have had and continue to have important spill-over impacts for the quality of the rule of domestic economic law, arguably with WTO law having more impact on Chinese law than any other international law (Manjiao, 2012), and for the transition and liberalisation of the state-owned sector with potentially huge welfare effects for the society as a whole (Bajona and Chu, 2010).

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11 China made specific commitment to eliminate the central government's subsidies to money-losing (SOE), one of the 24 subsidy programs notified to the WTO.

12 Whereas the protocol does not define SOEs, there exists a consensus among legal scholars that they comprise fully state-owned and state-controlled entities (Qin, 2004).

13 It should be noted that China's accession protocol allows it to maintain exclusive trading rights for certain SOEs on the trade of certain goods listed in the annex. Also, China made commitments to refrain from treating some SOEs' purchases as government procurements (paragraph 47 of the Working Party Report).

On the other hand, some critics argue that the current legal framework has not sufficiently impeded trade-distorting policies that advantage Chinese SOEs. The main criticism is related not to the provisions of the accession protocol but to the fact that, in addition to being time-consuming, WTO dispute settlement procedures can also have diplomatic as well as commercial costs and might represent a suboptimal forum for foreign producers in a context where the ultimate owners of competitor firms—government bodies—are closely affiliated to other government bodies which act as regulators, principals of government procurement biddings, etc. (e.g. Potter, 2001 and Annex Box A4.4). The Chinese case might thus illustrate that state ownership confers additional challenges for the effectiveness WTO dispute settlement mechanism.

The Working Party Report on the WTO Accession of Russian Federation notes that Russia needs to ensure that its "state-owned and state-controlled enterprises that operate in the commercial sphere" and "enterprises with exclusive or special privileges with regard to conducting commercial activity" would, when engaged in commercial activity, "*make purchases, which were not intended for governmental use, and sales in accordance with commercial considerations, including price, quality, availability, marketability, and transportation, and would afford enterprises of other WTO Members adequate opportunity in conformity with customary business practice, to compete for participation in such purchases or sales*" (WTO, 2011c: paragraph 46).

In the case of Russia, specific issues related to the operation of state-owned enterprises were also discussed during its accession negotiations, including pricing practices by SOEs that could be considered as either incompliant with "commercial considerations" requirement under Article XVII of GATT or "adequate remuneration" requirement provided for in Article 14(d) of the SCM Agreement (e.g. lower domestic prices of gas provided by Gazprom that may be a de facto subsidy to downstream industries). Still, most of the commitments were generic and reaffirmed the need for the Russian Federation to comply with existing WTO provisions, also in regards to SOEs. For example, the STE notification requirement was noted and Russia committed to notifying Gazprom as STE in accordance with Article XVII of the GATT 1994. It was also noted that Gazprom pricing practices will also have to comply with Articles XI, XVI of the GATT 1994 and the SCM Agreement. The only mention of state-owned firms in the Accession Protocol itself regards the banking sector, where the Protocol stipulates that "Russian authorities shall ensure that foreign banks established in Russia shall enjoy the same level of guarantee from the State for deposits as all other banks (including State-owned banks) and the same obligations as regards their participation in a possible deposit insurance mechanism." (WTO, 2011c: 46) While it is too early to tell to what extent the adherence to the general WTO acquis will allow foreign government to use DSM mechanism to discipline Russian SOEs, bearing in mind the experience with China so far, the prospects may be not particularly promising.

Annex Box A4.5. WTO disputes involving China's SOEs

China has been involved as respondent in several disputes concerning SOEs.[14] For instance, the case *China – Publications and Audiovisual Products* (DS363) initiated by the US[15] challenged the granting or trading of distribution rights for a variety of cultural products mainly or exclusively to Chinese SOEs, which violated a number of WTO provisions such as GATT Article III (national treatment), GATS Article XVI (market access) or GATS Article XVII (national treatment). The three cases grouped under *China – Measures Affecting Financial Information Services and Foreign Information Suppliers (*DS372, DS373 and DS378) involved the Chinese state news agency "Xinhua News Agency". The EU, the US and Canada claimed that conditioning the renewal of foreign financial information suppliers' licenses on the prior signing of agent agreements with a branch of Xinhua, named China Economic Information Service represented a violation to several provisions under GATS. However, these three cases have not led to the establishment of a panel.

In the case *China – Electronic Payment Services* (DS413) the US[16] argued that China UnionPay – (CUP) a Chinese entity which can be considered an SOE for the purposes of this paper[17] – was granted exclusive market rights for electronic payment services for transactions in Renminbi. It was argued that this represented a discrimination of foreign electronic payment services providers who were limited to transactions in foreign currencies violating provisions under GATS Articles XVI (market access) and XVII (national treatment). The dispute was filed by the US against China, and Australia, Ecuador, the EU, Guatemala, Japan, Korea and India joined the claimant in the case (WTO, 2012).

This case related to China's Services Schedule where China has undertaken certain commitments in respect of "[a]ll payment and money transmission services, including credit, charge and debit cards…" (WTO 2001) by 11 December 2006. Yet, long after this date has expired CUP continued to hold a strong position for different payment services transactions in Renminbi, and several multinational financial services corporations, most prominently Visa, complained about anticompetitive disadvantages they encountered in the Chinese market.

CUP was established under the approval of the State Council and the Chinese central bank People's Bank of China (PBOC) in 2002 and cooperated with foreign credit card companies by providing dual-currency credit cards, where holders' transactions in foreign currencies are handled by the partner whereas transactions in Renminbi are handled by CUP. Hence, foreign corporations could cooperate with CUP for foreign currency transactions, but the cards of foreign providers were required to carry the Yin Lian/UnionPay logo; cards had to be issued in the technical and security PBOC 2.0 standard; merchants and all terminal equipment in mainland China were required to accept CUP cards and to post its logo, whereas foreign providers had to negotiate contracts individually; and some Renminbi-denominated transactions could only be cleared by CUP (WTO 2012). The United States claimed that these requirements represented a violation of China's national treatment and market access obligation under the GATS.

The WTO panel report was circulated in July 2012. It rejected--due to a lack of evidence--the claim that CUP represents an across-the-board monopoly supplier. However, the panel confirmed that CUP held a monopoly in relation to one particular type of transactions and that this was contrary to China's commitments under Article XVI (market access). The panel also ruled that certain other regulatory advantages enjoyed by CUP as described above, represented a breach of China's commitments under GATS Article XVII (national treatment).

Yet, some commentators highlighted the limitations of the dispute settlement procedure in this case. Given the market dominance of CUP and its close connections with the Chinese government, different multinational corporations did not actively cooperate with the United States Trade Representative (USTR) because of a possibility of retaliation in China's market. It was difficult for the USTR to gather sufficient empirical evidence for its claims. And indeed, Visa which was among the main providers of information on anticompetitive advantages enjoyed by CUP, saw certain of its business activities in China blocked while the dispute was being settled, whereas some of its more timid private foreign competitors announced new co-operations with CUP (McGregor 2012). Arguably, a similar dynamic could evolve in a situation that involves purely private firms with important market shares only. However, it is questionable if CUP would have been in a similarly dominant position in the first place, and if it could maintain this position, if it has not been for its close ties to the government and the domestic legal system.

14 China has also been a major respondent in cases not related to state ownership. Between 2002 and 2011, it has been respondent to a total of 23 WTO cases and in 2009 it alone was respondent to more than a fourth of all WTO disputes during this year (Manjiao, 2012). During the same period it has been complainant of eight cases.

15 The case was joined by Australia, the EU, Japan, Korea and Chinese Taipei.

16 The case was joined by Australia, Ecuador, the EU, Guatemala, Japan, Korea and India.

17 Note: The question of CUP's ownership status was not addressed in this dispute and the concept of SOEs is not found in the GATS.

A4.5 SOE provisions in preferential trade agreements and bilateral investment treaties

Parallel to the multilateral trading regime of the WTO, a plethora of preferential trade agreements (PTAs) exists that regulate trade on a bi- or minilateral basis. Having mushroomed since the early 1990s, currently 511 PTAs have been notified to the WTO Secretariat[18] and a WTO member is on average party to some 13 PTAs. It is estimated that half of the world's trade takes place among PTA members and that some 16% is subject to PTA provisions that provide a preferential treatment relative to multilateral standards (WTO, 2011b). Predominantly, PTAs include regulations on tariffs or rules of origin.

Several countries with high SOE shares, such as China or India, actively pursue PTA-oriented policies (WTO, 2012). Also, many PTAs include specific provisions on SOEs as well as related regulations which can specify explicitly that provisions apply similarly to SOEs and to private firms, or they can provide exceptions for state enterprises or state monopolies (Solano and Sennekamp, 2006).[19] It is hard to say in general whether these provisions improve upon the existing WTO provisions in terms of disciplining unwanted effects of SOEs, but many of the provisions aim to extend WTO provisions by requiring that state enterprises and state monopolies do not discriminate according to the country of origin of firms of a shared PTA.

In addition, numerous PTAs comprise provisions on services or on other "trade +" issues such as intellectual property rights, technical barriers to trade, investment issues or competition policies. Whereas these provisions might not directly be related to SOEs, they can set rules that strengthen competitive neutrality in specific areas and discipline anti-competitive behaviour or practices with regard to monopolisation; anti-competitive mergers; state aid and subsidies; or the application of domestic competition laws or policies (op. cit.). The Singapore-Australia free trade agreement is one example of an PTA with extensive references to competitive neutrality. The North American Free Trade Agreement (NAFTA) addresses potentially trade distorting effects of state enterprises and designated monopolies in its competition chapter, reflecting the notion that a party owning a state enterprise is arguably in a position to influence its market behaviour and, as such, that state enterprises with authorities mandated by the government should be obliged by the same obligations under the agreement

18 When accounting for PTAs in goods and in services separately. Some of these agreements are still under negotiation or not yet ratified, but a majority of 319 PTAS is in force.

19 For instance, the following PTAs have been identified by previous OECD trade policy research to contain provisions on state enterprises or state monopolies (Solano and Sennekamp, 2006): Albania – Bosnia and Herzegovina; Albania – Bulgaria; Albania – Croatia; Albania – Former Yugoslav Republic of Macedonia; Albania – Romania; Albania – Serbia and Montenegro; Albania – UNMIK (Kosovo); Algeria – EC; Australia – Singapore; Australia – US; Azerbaijan – Georgia; Bosnia and Herzegovina – Bulgaria; Bosnia and Herzegovina – Croatia; Bosnia and Herzegovina – Former Yugoslav Republic of Macedonia; Bosnia and Herzegovina – Moldova; Bosnia and Herzegovina – Serbia and Montenegro; Canada – Chile; Canada – Costa Rica; CariCom; CEFTA; Central America – Chile; Central America – Panama; Chile – EC; Chile – Korea; Chile – Mexico; Chile – US; Chinese Taipei – Panama; Colombia – Mexico – Venezuela; Croatia – EFTA; Croatia – Former Yugoslav Republic of Macedonia; Croatia – Moldova; Croatia – Serbia and Montenegro; EC – Jordan; EC – Morocco; EFTA; EFTA –FYROM; EFTA – Jordan; European Economic Area; Former Yugoslav Republic of Macedonia – Moldova; Former Yugoslav Republic of Macedonia – Romania; Former Yugoslav Republic of Macedonia – Turkey; Israel – Mexico; Israel – Romania; Korea – Singapore; Mexico – Uruguay; Moldova – Serbia and Montenegro; NAFTA; Romania – Serbia and Montenegro; Singapore – US; Trans-Pacific Strategic Economic Partnership.

as the government itself. Other US PTAs with NAFTA-like obligations are agreements with Australia, Chile, Korea and Peru. Even more far reaching disciplines with regard to SOEs are contained in the US Singapore PTA that enhances transparency disciplines, prohibits direct government influence on SOEs, collusion and other anti-competitive activities and that foresees a progressive reduction in the number of SOEs. Against this backdrop, the current negotiations in the context of the Trans-Pacific Partnership are likely to reflect the US approach aiming at a level playing field between SOEs and POEs.

Similarly, trade agreements of the EU mirror the principles of non-discrimination and commercial considerations and aim to discipline the direct or indirect influence of the state on firms' decisions and strategies.[20] The EU treaty Article 345 specifies that: *"The Treaties shall in no way prejudice the rules in Member States governing the system of property ownership"* and by consequent the EU's definition of enterprises in international trade that are granted special or exclusive rights and privileges considers ownership not be a decisive factor alone, but focuses on state aid control in a broader sense as essential tool for competitive neutrality.

A number of PTAs comprise dispute settlement mechanisms that may represent alternative strategic venues for arbitration (Bush, 2007).[21] Currently, 30% of the disputes at the WTO take place between members who are also parties to shared PTAs (WTO, 2011) but the availability of alternative dispute settlement mechanisms opens up the possibility for complainants of strategically filing SOE-related cases regionally or multilaterally, sometimes referred to as "forum shopping" (op. cit.) (see Marceau and Kwak, 2006).

Even though several PTAs include investment provisions, the major venue for the bilateral regulation of investment are bilateral investment treaties (BITs). Similar to PTAs, BITs have been proliferating dynamically and today more than 2 500 agreements involving at least 175 countries are in place (Bubb and Rose-Ackerman, 2007). Interestingly, BITs are mainly concluded between countries of different levels of development; less than 30% of BITs are signed between developing countries, 7% between developed countries, and the bulk between a developed and a developing country (Sachs and Sauvant, 2009).

BITs usually cover the definition and the scope of investment and comprise rules and procedures on admission and establishment, most-favoured and national treatment, compensation in a case of expropriation, transfer of funds and arbitration (UNCTAD, 2004). By contrast to the multilateral trading system which is intergovernmental in design, most of the BITs refer to both state-state and state-investor relations (op. cit.). An examination of the database on BITs provided by UNCTAD[22] indicates for the countries with substantial SOE shares (as identified in Section 3) the following numbers of treaties: China (88 BITs), United Arab Emirates (46), Russia (43), Indonesia (52), Malaysia (36), South Africa (21), India (33), Brazil (8), Norway (15) and Thailand (37).

In many instances, BITs directly address issues of competition in countries with a considerable presence of the state sector and the US model BIT, having been released in a revised form in April 2012, is an example concerning this matter (Scissors, 2012). The model serves as an outline for BITs of the US with its partner countries and the United States Trade Representative (2012) and the US Department of State explicitly underline that the revised version of the model BIT aims, *inter alia*, to "*…sharpen the disciplines that address*

20 An exception in this regard can be services of general economic interest.

21 Yet, some PTAs like the EC-Chile agreement exclude competition-related aspects from the agreement's dispute settlement and arbitration mechanism.

22 *www.unctadxi.org/templates/DocSearch____779.aspx*

preferential treatment to state-owned enterprises, including the distortions created by certain indigenous innovation policies". The model BIT defines in its Article 1 a state enterprise as "*an enterprise owned, or controlled through ownership interests, by a Party*" and states in Article 2, Paragraph 2 that a party's obligations under the BIT apply to these state enterprises. Furthermore, the definition of "investment agreement" under Article 1 specifies that the agreement grants rights to the covered investment or investors in areas that are often dominated by SOEs, or more precisely:

- *"with respect to natural resources that a national authority controls, such as for their exploration, extraction, refining, transportation, distribution, or sale;*
- *to supply services to the public on behalf of the Party, such as power generation or distribution, water treatment or distribution, or telecommunications; or*
- *to undertake infrastructure projects, such as the construction of roads, bridges, canals, dams, or pipelines, that are not for the exclusive or predominant use and benefit of the government."*

In addition, although not explicitly addressing the issue of state ownership, the US model BIT comprises several provisions that level the playing field with regard to a competing domestic state-sector and that refer, for instance, to national treatment (Article 3); most-favoured-nation treatment (Article 4); a minimum standard of treatment (Article 5); transfers (Article 7); performance requirements such as export requirements or local content clauses (Article 8); or transparency (Article 11). However, even in the case of this advanced model BIT, SOE-related provisions may fall short of effectively protecting investors in countries with important SOEs, such as China or India. Scissors (2012), for example, points out to insufficiencies with regard to the definition of state enterprises, transparency requirements or arbitral proceedings.

A4.6 Government procurement under the Government Procurement Agreement

Government procurement, i.e. the purchase by governments and state-owned enterprises of goods and services, accounts for a significant percentage of GDP (10-25%) and has a direct impact on the economy. In particular, open and transparent government procurement regimes directly strengthen governments' capacities to build developmentally significant infrastructure and to provide socially important goods and services (e.g. medicines) for citizens. In addition, in countries with a large state sector, public procurement can become an important vehicle for providing preferential treatment to domestic private and state-owned firms or for restricting market access to foreign firms. Hence, effective regulation on the national and international level in this area is also crucial for levelling the playing field for international trade and investment. There are public government provisions present in a plurilateral Agreement on Government Procurement (GPA) in the WTO, regional trade agreements like the North-Atlantic Free Trade Agreement (NAFTA, bilateral trade agreements like the U.S.-Colombia Free Trade Agreement or the EU-Mexico Free Trade Agreement, and domestic public procurement policies.

On the multilateral level, the Agreement on Government Procurement, concluded in 1994 and renegotiated in 2011 (see Anderson, 2012) is, to date, the only legally binding agreement in the WTO focusing on government procurement.[23] The GPA is a plurilateral treaty signed by

[23] The revised GPA which was negotiated in 2011 will come into effect when formal acceptances have been received from two thirds of the Parties to the Agreement. In the meantime, the 1994 version of the Agreement remains in force.

42 WTO members that, as Parties, have rights and obligations under the Agreement.[24] The Agreement commits members to certain core disciplines regarding market access, transparency, competition, and good governance in relation to the procurements that are specified in each Party's annexes to the Agreement, which cover goods, services, and capital infrastructure construction by public authorities. Each signatory has negotiated coverage through a positive list or other approach with the other signatories of the GPA, based on mutual reciprocity. Entities covered are listed in the GPA's "Appendix I" for each Party, which is an integral part of the Agreement (see Article XXIV:12 of the 1994 Agreement), also referred to as each Party's "schedule".[25] Signatories may withdraw entities from GPA coverage on the grounds that "government control or influence over it has been effectively eliminated". Other signatories may object within 30 days of notification *(Article XXIV: 6).* State-to-state disputes pursuant to the GPA are subject to the WTO dispute settlement system (based on Article XXII of the 1994 GPA), hence providing an enforcement mechanism, and there have been three trade disputes under the 1994 GPA so far.[26] The GPA does not apply to every procurement of the covered entities, but only when the value of procurement is at or above a pre-defined threshold, which varies depending on the level of government (central government, sub-central and SOEs), and is not otherwise excluded.[27]

As of today, none of the BRIICS countries are parties to the GPA; China is the only BRIICS country currently negotiating accession to the agreement, having been bound to do so by its WTO accession protocol. Russia is also bound by its WTO accession commitments to submit an offer to the GPA within four years from its accession to WTO. Not being bound by GPA provisions, BRIICS countries have at times used government procurement as means of providing preferential treatment to its firms, including domestic SOEs, and, more generally, shielding domestic enterprises from foreign competition. For example, SOE procurement has been seen as a means of partially restricting market access to the Chinese wind turbine industry (e.g. National Foreign Trade Council, 2010). China's joining of GPA as the first BRIICS country would hence be an important stepping-stone, but also a challenge to the effectiveness of the agreement in regulating activities of a country with a large state sector (see e.g. Wang 2007; Wang 2009). For example, so far China has declined to offer any state enterprise for the GPA, but it is likely that it will have to commit to offering some (e.g. Wang 2009).

Some countries have pursued negotiations on government procurement disciplines in other international fora, principally regional and bilateral trading agreements. For example, government procurement, including SOE procurement, is currently discussed in TPP negotiations. Similarly many bilateral free trade agreements, such as U.S.-Colombia Trade Promotion Agreement's, have government procurement chapters. Domestic policies in various

24 A full list of GPA Parties is available at: http://www.wto.org/english/tratop_e/gproc_e/memobs_e.htm#parties [last accessed on 6 November 2012]. The membership of the Agreement is increasing, over time (see Anderson, 2012).

25 Central government entities are listed in Annex 1, sub-central government entities are listed in Annex A2, and other government entities (e.g. public utilities) are listed in Annex A3. For a list of entities proposed in each Annex by each GPA party, see: http://www.wto.org/english/tratop_e/gproc_e/appendices_e.htm#us [last accessed on 8 Nov, 2012]

26 A few earlier disputes took place under the GPA's predecessor (Tokyo Round Code on Government Procurement); a list available here [last accessed on 6 November 2012] : http://www.wto.org/english/tratop_e/gproc_e/disput_e.htm

27 See here for a list of thresholds for each country; http://www.wto.org/english/tratop_e/gproc_e/thresh_e.htm

countries also provide a varying degree of disciples attached to different types of procurement. For example, the EU has agreed to common procurement rules in the water, energy, transport, and postal services sectors (EU Directive 2004/17/EC). Finally, the *OECD Principles for Enhancing Integrity in Public Procurement* identify elements of good governance throughout the procurement cycle, and the OECD Public Procurement Reviews help to establish best-practice.