Daniel Chavez and Sebastián Torres (eds.)

REORIENTING DEVELOPMENT

STATE-OWNED ENTERPRISES IN LATIN AMERICA AND THE WORLD

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Introduction: Public Enterprises and Development in Latin America and the World

Daniel Chavez and Sebastián Torres

The reasons behind this book

The aim of this publication is to contribute new insights on the significance, performance and development contributions of public enterprises in Latin America and the world, with emphasis on state companies engaged in the provision of public services and in industrial policy. The contributors to this book discuss the relevance and validity of various theoretical assumptions and political arguments about these entities, based on the interpretation of specific experiences of state ownership and management in various sectors and national contexts.

The need for a publication of this type has been suggested from many different analytical perspectives. In a report published by the World Bank some years ago (Gómez-Ibáñez, 2007: 5) it was noted that "unfortunately, there is less research on the alternatives to privatization than on privatization" and that "many of the studies of public enterprise reform involve firms in industrialized countries", with relatively little attention to state-owned enterprises in the South. More recently, and from a more radical position—explicitly critical of market reforms—other researchers have stressed the absence of useful concepts and evaluation criteria that could allow a more objective assessment and the meaningful comparison of experiences across different sectors and regions (McDonald and Ruiters, 2012).

In Latin America and other parts of the world, despite the massive privatisation programmes that have been implemented over the past four decades, the state still owns and manages a wide range of enterprises. In this context, there has been increasing debate about the role of government in development and the significance of state companies, the criteria and indicators needed to measure their performance, and

the specific characteristics of governance within public entities. Moreover, the ongoing transformations in the global economy, in the context of one of the most severe crises in the history of the capitalist system, have also given fresh impetus to international academic and policy discussions on the meaning of development, the "developmental state" and possible options for industrial and social policy to overcome the crisis (see Fine, 2011).

The significance of public enterprises

The international debate on state intervention in the provision of goods and services is not new and has always been characterised by highly polarised theoretical and ideological viewpoints. In the 1990s, at the height of the Washington Consensus in Latin America and during the transition from "socialism" to neoliberalism in Eastern Europe, the hegemonic perspective held that state-owned enterprises (SOEs) and state-controlled enterprises (SCEs) were inherently inefficient and should be privatised. A few years ago, one of the world's most influential economists (Rondinelli, 2008: 21) still insisted: "increasing evidence indicates that most public enterprises either do not contribute strongly to development or perform their public service functions ineffectively or inefficiently.

In more recent times we have seen an increase in the number of authors that emphasise the positive aspects of state ownership and management and recognise the significance of public enterprises in fostering economic growth and social development. As another renowned international expert in development policy has noted, "despite popular perception, encouraged by the business media and contemporary conventional wisdom and rhetoric, SOEs can be efficient and well-run" (Chang, 2007: 8). He goes on to add that "[t]his may sound like a trivial statement, but it is very important to start our discussion with this point, given the depth of prejudice against SOEs".

The importance of public enterprises has tended to be better appreciated in the aftermath of the global economic and financial crisis that erupted in 2008. Even the mainstream media, including publications traditionally very critical of the public sector such as *The Economist*, have recognised its growing significance. In a special report on

"state capitalism" published in January 2012, the world's most prestigious business magazine warned its readers about the shift from a liberal capitalist model to alternative models centred around these kinds of companies. The detailed report published by *The Economist* underlined the existence of multiple state-owned or state-controlled companies that have a marked influence in shaping the global economy, including:

- thirteen of the largest oil firms, which between them control more than three-quarters of the world's oil reserves;
- the largest company active in the exploitation of natural gas, Gazprom of Russia;
- the world's biggest mobile phone company, China Mobile, with 600 million customers;
- one of the most profitable chemical companies in the world, Saudi Basic Industries Corporation, from Saudi Arabia;
- the third largest bank in Europe by market capitalisation, Sberbank of Russia;
- the third largest port operator in the world, Dubai Ports, based in the United Arab Emirates (UAE);
- the world's fastest-growing airline, at a rate of 20per cent annually, Emirates, also from the UAE.

Many influential economists still trot out a very dubious statement made over a decade ago, which stated that "private companies are more efficient and more profitable than state-owned enterprises" (Megginson and Netter, 2001: 380). The examples listed above, however, challenge the widespread belief in the intrinsically inefficient nature of public enterprises. Nevertheless, a recently released meta-study (Mühlenkamp, 2013), based on a very large database, shows that there is no reason to believe that private enterprises are more efficient than public enterprises in general, and confirms that new and more detailed studies that compare the welfare consequences/effects of publicly and privately owned firms are still much needed.

Other researchers have recognised the difficulty posed by the coexistence of different definitions of "public enterprise" in attempting international comparisons (see Christiansen 2011). Recognising this

limitation, and aiming to more accurately measure the importance of state-owned companies on a global scale, recent research commissioned by the Organisation for Economic Cooperation and Development (OECD) has analysed the degree of public ownership among the world's 2,000 largest companies—those included in the Forbes Global 2000 index—and their 330,000 subsidiaries (Kowalski et al., 2013). The study identified as public enterprises those where the state owns, directly or indirectly, more than 50 per cent of the shares at the national or subnational level. The findings are striking: more than 10 per cent of the world's largest companies (204 firms) in 37 different countries are state-owned or controlled, with a total value of sales amounting to $3,600 billion in 2011. This turnover represents more than 10 per cent of the combined sales of all the Forbes Global 2000 and is equivalent to 6 per cent of the global GDP, exceeding the gross national product of countries such as Germany, France or the United Kingdom.

A quick review of the international empirical evidence enables an even clearer appraisal of the growing power of public enterprises in different economies around the world. The economic weight of the public sector varies considerably across countries. SOEs and SCEs account for 80 per cent of the capitalisation of the stock market in China and over 60 per cent in Russia, but just under 35 per cent in Brazil (*The Economist*, 2012). In Latin America, while some major state companies emerged out of high-profile renationalisations, such as in Venezuela, Bolivia and Argentina, or through the establishment of new public enterprises, as in Ecuador, many pre-date the wave of privatisation in the 1990s.

The country where the power of public enterprises is most evident is China. At present, some of the world's biggest and most influential companies are owned or controlled by China's central government. Most of these enterprises were created in the 1950s, following the Soviet model, but since the mid-1980s the Chinese government has pushed through several reforms in their operations and management. As a result, "in many respects these companies look like multinational companies. Some are listed on overseas stock markets, and some feature prominently on lists of the world's largest corporations" (KPMG, 2013: 1).

The real number—and economic and political weight—of Chinese SOEs and SCEs is not easy to estimate, but according to figures disclosed by the official news agency at the beginning of this decade the country had 144,700 companies owned or controlled by the state, excluding financial institutions (Xinhua, 2012). Their total assets were calculated to be 85.4 trillion yuan ($13.6 trillion), and they were estimated to contribute 35 per cent of China's revenues and 43 per cent of China's total industrial and business. Most public enterprises belong to local authorities; even if those managed by the central government receive most of the attention. The centrally-managed firms are those controlled by the powerful State-Owned Assets Supervision and Administration Committee (SASAC; a mega holding company).

In the past two decades many Chinese companies have been privatised or have been forced to introduce new managerial mechanisms and comply with rules for regulation based on market liberalisation. However, these changes do not mean that the government is pulling out of the economy. On the contrary, the state continues to intervene and plays a very active and dynamic role in China's economic and social fabric, although not only based on the same methods of direct control and rigid state planning of earlier times (Breslin, 2012). Despite a series of recent press articles about the slowdown and lower economic performance of state companies, academic research provides evidence that Chinese public enterprises are in fact stronger than ever: although foreign-owned firms seem to be more productive than non-exporting firms, "exporting SOEs [continue to be] the most productive of all possible groupings of firms" (Elliott and Zhou, 2013: 1).

The other major Asian power, India, has also empowered several public entities that play a crucial role as catalysts for development, ensuring—among other functions—the financing of many small and medium companies. In recent years, the central government has also promoted the internationalisation of its SOEs by granting them greater autonomy to invest in foreign operations and engage in joint ventures. For instance Bharat Heavy Electricals Limited (BEHL) expanded its operations to several other national markets. Another example of the same trend has been the recent internationalisation of Oil and Natural Gas Corporation Limited (ONGC), with exploration and production projects in countries as diverse as Brazil, Burma, Cuba, China, Colom-

bia, Iran, Iraq, Nigeria, Kazakhstan, Syria, Sudan, Uzbekistan and Vietnam (Hiscock, 2012).

In France, the State Assets Agency (*Agence des Participations de l'État*, APE) manages a large portfolio of strategic companies in the areas of defence, infrastructure, transport, energy, real estate and financial services. The main function of these enterprises is to promote economic growth. The composition and goals of the public enterprises are reviewed periodically to ensure they are aligned with the long-terms goals of France's industrial policy. The financial intermediary role played by what has been called the "shareholder state" (*l'État actionnaire*) via the *Société de Prise de Participation de l'État* (SPPE) has also ensured the availability of credit to rescue various ailing companies and contribute to economic recovery in times of crisis (APE, 2012).

In Singapore, public enterprises have been one of the main drivers of economic growth. Most of them are grouped within the state-owned conglomerate Temasek Holdings, which reports to the Ministry of Finance. The objectives of state enterprises and their role in Singapore's economic expansion have been synthesised in the published national growth strategy, which focuses on five themes: (1) transformation of the economy, (2) expansion of the middle class (3) innovation applied to the creation of new products and/or companies, (4) deepening the comparative advantages of Singapore, and (5) focusing on "emerging champions" (Temasek, 2011).

Public enterprises also play an important role in a number of European countries, ranging from Italy, Austria, Belgium and the Netherlands to Poland, Slovenia and the Czech Republic. In Ireland, an independent evaluation published when the country was in the midst of a very acute economic crisis identified several core functions of state enterprises in the national economy (Forfás, 2010):

- Provision of essential infrastructure and public services that are critical for national development (e.g. energy, water, health, transport, waste management, telecommunications).
- Enhancing skills (including technical and managerial abilities) and entrepreneurship.
- Promotion of economic growth and social well-being in line with broader public policy objectives.

- Setting salary levels for certain professionals across the economy.
- Substantial investment in infrastructure provision and direct engagement in the implementation of Ireland's National Development Plan.
- Initiation of strategically important economic activities which the private sector has either failed to initiate or to operate on a sufficiently extensive scale.

In Latin America, as already noted, progressive governments have chosen to reverse some privatisations that had taken place in previous decades, under various forms of re-nationalisation of companies operating in industrial activities, the energy sector and public services. In the field of mining, notwithstanding changes in the ideological profile of the government during the past five decades, Chile has always maintained the very profitable National Copper Corporation (CODELCO) in state hands. Other countries, particularly Brazil and Uruguay, have deepened the process of recovery and strengthening of public enterprises—as further explained in the chapters dedicated to the Uruguayan state companies in this volume. At the same time, other countries in the region are reviewing the nature and role of the public sector, as observed in current debates in Mexico about the future of the state monopoly in the energy sector and the possibility that the emblematic Petróleos Mexicanos (PEMEX) company associates with private capital, supposedly without relinquishing state ownership (Corona, 2012).

Previous studies have already highlighted the progress made in recent years in the management of state enterprises in Latin America. A recently published report by the Andean Development Corporation (*Corporación Andina de Fomento*, CAF) highlights the best practices of "good [public] corporate governance" in oil companies such as Petrobras in Brazil, the mining firm CODELCO in Chile, the energy companies ISAGEN and Public Enterprises of Medellín (EPM) in Colombia, the Panama Canal Authority, and the National Fund for Financing State-Controlled Entrepreneurial Activities (FONAFE) in Peru (Bernal et al., 2012).

At the global level, the debate around the significance and prospects of public enterprises is very much alive. In parallel to the expan-

sion of the state in many countries, elsewhere privatisation has returned to the political agenda with great force. The industrialised countries that make up the Organisation for Economic Cooperation and Development (OECD) had already gone through a first wave of privatisations in the 1990s. Currently, these countries are facing a new privatisation drive. In the context of the austerity policies, privatisation is affecting sectors intrinsically at the core of the welfare state, for example, hospitals and health care, social services, health care programs for children and youth, prisons, etc. The return of privatisation is particularly visible in the countries of the Mediterranean area, where the combined pressure of the agencies that make up the so-called "troika"—the European Commission, the European Central Bank and the International Monetary Fund—is imposing on the Southern European governments privatisation programmes very similar to those applied in Latin America in earlier decades as part of structural adjustment programmes (Zacune, 2013).

Beyond the return of privatisation policies in Europe, throughout the world SOEs and SCEs are listed among the largest and fastest-growing companies, with real capacity to compete with private corporations at national, regional and global levels. Analysts and policymakers hostile to the state have lucidly perceived their increasing importance, demanding the imposition of new barriers to prevent their expansion. In the framework of negotiations of a new generation of international agreements to liberalise trade and secure greater protection for foreign investment—such as the Trans-Pacific Partnership (TPP) and the Transatlantic Trade and Investment Partnership (TTIP)—the advocates of the market have called for more stringent conditions for the operations of public enterprises (Heather and Wolff, 2012; Khor, 2013).

Recently, the famous economist Nouriel Roubini (2013), internationally known as "the guru of the crisis", analysing the economic indicators of Brazil, Russia, India, China and South Africa (the so-called BRICS) has also argued that the model of "state capitalism" based on strong public enterprises had helped to foster the development of "emerging economies", but that nowadays state intervention would hinder productivity gains and be one of the main reasons for the current economic slowdown. Other analysts have retorted that this type of

argument shows a marked ideological bias and ignores the potential of state enterprises for revitalising the world economy, considering the fact that they represent 19 of the 100 largest companies in the world and 28 of the top 100 in the so-called "emerging markets" (Rebossio, 2013).

Public enterprises in contemporary Uruguay

The new economic dynamism of the state is particularly visible in Latin America. Five of the ten largest firms in the region—all of them oil companies—are SOEs or SCEs: Brazil's Petrobras and Petrobras Distribuidora (1 and 6, respectively), Mexico's PEMEX (2), Venezuela's PDVSA (3), and Colombia's Ecopetrol (7). A state-owned or state-controlled enterprise is also at the top of the national ranking of companies in most countries of the region (*América Economía*, 2013).

Within the Latin American context, Uruguay stands out in terms of good governance in the public sector. For most of its history, this small Southern Cone nation has rarely made headlines in international news, but has recently gained global fame after *The Economist* selected the "modest yet bold, liberal and fun-loving" Uruguay as the "country of the year" for 2013, in recognition of a series of "path-breaking reforms that do not merely improve a single nation but, if emulated, might benefit the world" (2013: 7). Such reforms allude to a package of progressive legislation around sensitive issues such as abortion, gay rights, and the government-regulated sale of marijuana, but could have also referred to the country's long tradition of efficient, innovative and socially-oriented state companies.

At the opening session of an international seminar held in Montevideo in October 2012—jointly organised by TNI and the Uruguayan government—the Minister of Industry, Energy and Mining, Roberto Kreimerman, argued that "public companies are an opportunity for national progress because they enable innovation and development in various sectors". He stated that "these companies were originally created with a political vision quite similar to that promoted by the current progressive government: to secure the provision of strategic services and be a strong enabler of national development". From the perspective of the Uruguayan government, public enterprises "should

function well, be efficient, innovative, offering high quality and productivity; but being state companies they must also catalyse economic development and social inclusion". Further, according to Kreimerman, the Uruguayan government "believe[s] that public enterprises, besides their key role in areas such as telecommunications, water and energy, should be a tool for social cohesion within the framework of a long-term national project".

From a similar viewpoint, the Dean of the School of Engineering of Uruguay's University of the Republic, Professor Héctor Cancela, added that "public enterprises should strengthen their role in cultural leadership" in terms of "managing quality standards and structuring logistics chains". He also highlighted the importance of these entities "in the formation of human capital and the development of new thematic options for academic degrees and the identification of new specialised areas for research in cooperation with the academia". This affirmation is very much in line with the key points of the presentation given by Richard Kozul-Wright, Director of the Unit on Economic Cooperation and Integration among Developing Countries at UNCTAD (the United Nations Conference on Trade and Development) at the Montevideo seminar, when he highlighted the need for "strong states, genuinely interested in playing an active role in industrial policy".

The historical significance of public enterprises in Uruguay's social and economic evolution had already been recognised in the opening session of the seminar by Professor Gerardo Caetano, from the University of the Republic. "The Uruguayan experience consists of an array of well-established public companies that have withstood the ravages of neoliberal privatisation that in other countries of the region had devastating effects on the structure and roles of the state", Caetano noted, recalling that "in Uruguay, for over 100 years, we have been engaged in a fruitful discussion on the weaknesses and strengths of the specific configuration of our public enterprises".

In short, considering the exchange of ideas that began at the Montevideo seminar and the contributions of the various authors of this book, we can conclude that public enterprises have a positive impact on national development at several levels: protection of natural resources, development of marginalised regions, delivery of essential services, foreign currency saving, job creation, scientific and technolo-

gical innovation, establishing the material base that defines the sovereignty and the levels of equality and development of a country.

The contents and structure of this book

This publication is part of a broader process, the continuity of which is assured by the recent formation of the Latin American Network of Public Enterprises and Development: a new convergence of academic scholars, public enterprise managers, government officials and trade unionists from various countries in the region. The creation of the network was first discussed at the international seminar Public Enterprises: Transformations, Challenges and Opportunities—co-organised by the Transnational Institute (TNI), Uruguay's National Directorate for Industrial Development (MIEM-DNI) and the National Telecommunications Administration (ANTEL) in Montevideo in October 2012—and was concretised in a workshop held at the University of Costa Rica (UCR) in March 2013. The network subsequently organised a second international seminar in November 2013, at the National Autonomous University of Mexico (UNAM). The network is currently designing a regional research programme on public enterprises, and opening new channels of communication and cooperation among a diverse array of institutions and individuals active in this field.

More than 30 academic researchers, government officials, labour activists, managers and technical staff of state enterprises from Uruguay and other countries contributed to the Montevideo seminar. While the authors who contributed to this book have not agreed a common definition of public enterprise, they all refer, broadly, to organisations that are (1) owned or co-owned by government, (2) have a public policy mission, (3) enjoy certain budgetary autonomy, (4) exhibit managerial discretion, and (5) operate mainly in a market environment and for which (full) privatisation would be possible, but has not been adopted or planned by the government. This definition is based on the one proposed by the researchers coordinating The Future of Public Enterprise project (CIRIEC, 2012: 2) conducted by the Centre for Research and Information on the Public, Social and Cooperative Economy (CIRIEC International). This definition excludes other types of public entities, such as departments or agencies that are part of the central or municipal government.

The book is composed of three sections and 12 chapters. The first part focuses on issues of theoretical and conceptual relevance. The second section includes various interpretations of the evolution and prospects of public enterprises in several countries of the Americas. The third and last part is focused on the concrete experiences of state enterprises in contemporary Uruguay.

The first section begins with a chapter by Massimo Florio, Professor of Economics at the University of Milan. Florio proposes a new research agenda on public enterprises in the current global scenario. Among other topics to be included in the agenda, the Italian researcher highlights the emergence of new models of public ownership in the energy sector, the current trends of re-municipalisation in the field of local public services, regulation and state ownership, the internationalisation of state enterprises, and the social benefits of a public monopoly as opposed to the unbundling of network industries. Florio argues that some of these research issues are still nascent, but constitute the basis for future discussions that could help revitalise the role of state enterprises and give a new meaning to the current trend towards republicisation (bringing privatised enterprises back under public control).

In the second chapter, Manuel Montes, Senior Advisor on Finance and Development at the South Centre, discusses the role of state enterprises in industrial policy. Based on a review of various experiences from Asia, Africa and Latin America, the Filipino analyst assesses the prospects for the emergence of "a new kind of efficient and competitive public company". He also identifies a number of threats to the role of the state and public enterprises arising from free trade agreements and new regulations for competition imposed by some international agencies and governments of the North on governments of the South.

In Chapter 3, Alfredo Schclarek Curutchet, Professor of Economics at the National University of Córdoba, presents the reasons that would justify the existence of state enterprises. He defends various theoretical arguments in favour of the direct intervention of state enterprises in the production cycle. The Argentine academic also highlights the need to "raise the level of debate and not fall into extreme conclusions and simplifications biased by prejudice and dogmatism" when

discussing the various options for the reorganisation of public enterprises.

The next chapter presents the results of studies conducted by the international research network Municipal Services Project (MSP) in various countries of the world, focused on the corporatisation of public services. The MSP coordinator, David McDonald, Professor of Development Studies at Queens University, Canada, discusses the ambiguous nature of public enterprises through corporatisation. McDonald focuses on companies that are formally still owned by the state but whose management has sometimes internalised the logic of the private sector, via the adoption of a market rationality and an enhanced concern for efficiency and profitability primarily focused on financial gains. He explores the deterioration of the public ethos under this model, but points to the potential for a more progressive corporatisation framework and politics.

The second section reviews a range of experiences of creation and expansion of state enterprises in different countries of the Americas. First, Guillermo Guajardo Soto, a Chilean academic based at the Centre for Interdisciplinary Research in Science and Humanities of the National Autonomous University of Mexico (UNAM), presents a historical account of the various factors that influenced the creation and subsequent consolidation of public enterprises in Latin America. Guajardo Soto analyses the tensions between regulation and intervention, focusing on the Mexican experience.

Chapter 6 describes the foundation and growth of public enterprises in Costa Rica, a nation with a long and rich tradition of social inclusion and economic development defined by a very strong presence of the state. Alberto Cortés Ramos, Professor of Political Science at the University of Costa Rica, also discusses the prospects of these companies and the threats posed by the continuity of the neoliberal project hegemonic in the current government. The author explains the paths towards the creation of a network of robust public institutions that followed the brief but decisive civil war of the year 1949. Over many decades, Costa Rica has built a development model that has positively differentiated it from all the other Central American countries.

The second section concludes with a chapter written by three Brazilian researchers on the process of internationalisation of the oil company Petrobras, one of the world's most successful state-controlled enterprises. Armando Dalla Costa, Huáscar Fialho Pessali and Sandra Cristina da Cunha Gonçalves, from the Federal University of Paraná, analyse the evolution of Petrobras as a positive example of a SCE from the South that has managed to become one of the major global players in the oil industry, including the leadership position in technological innovation for offshore exploration and production. The chapter also suggests many questions for further research about the real significance of state control within a framework of partial privatisation and extensive corporatisation of the firm, which could challenge the nature of SCEs as truly *public* enterprises.

The third section focuses on the particular situation in Uruguay. Like the previous one, it also begins with a historical perspective. Magdalena Bertino, Professor of Economic History at the University of the Republic, offers an interpretation of the process of modernisation and reform of public enterprises. The main question addressed by Bertino is "what slowed the advance of privatisation of public enterprises in Uruguay, and why this happened". She explores the explanatory powers of several possible answers, looking at the historical roots of state companies, their social and economic functions, their financial results and the citizens' opposition to the neoliberal reforms, which according to her might have determined the atypical evolution of Uruguay as an "entrepreneurial state".

The board presidents of the top state-owned companies in Uruguay are the authors of the last four chapters. In chapter 9, the president of the host organisation of the international seminar of October 2012, Carolina Cosse, summarises the major achievements and challenges of ANTEL, the national telecommunications company that has positioned the country at the forefront of technological innovation in Latin America. Cosse also highlights the importance of preserving the *public* vision and mission of the company, in a context of strong competition with the two transnational corporations that have oligopolised the telecom sector throughout the region: the Spain-based Telefónica and the Mexico-based America Móvil (Carlos Slim). Despite the liber-

alisation of the national telecom market, the public enterprise continues to be the dominant company in Uruguay.

Chapter 10 is dedicated to presenting the changes, contributions to development and challenges of the National Water and Sanitation Company (OSE). The president of the board, Milton Machado, begins his chapter recalling the tenth anniversary of a historic event: on October 31, 2004, through a referendum, the Uruguayan citizenry passed a constitutional amendment that reaffirmed the exclusive provision of services by the state and established that access to water and sanitation is a basic human right.

Chapter 11 presents the experience of the National Administration of Fuels, Alcohol and Portland Cement (ANCAP). Raul Sendic, president of the energy company, describe the changes processed within Uruguay's largest enterprise in recent years, focusing the analysis on the process of implementation of the strategic plan approved in 2005. Sendic argues that the goal is to reposition ANCAP as a leading company in the region, based on the incorporation of advanced technology, expanding its business portfolio, modernising its governance and overcoming decades of disinvestment and decay.

The final chapter is devoted to a company that in 2012 celebrated its hundredth anniversary: UTE, the national electricity company. Its president, Gonzalo Casaravilla, describes the company's strategic plans and the great challenges that UTE expects to face in the coming years, with emphasis on the significance of retaining power generation and distribution in the hands of the state as an essential factor of development. Casaravilla highlights the role UTE is playing in the radical transformation of Uruguay's energy matrix, which will significantly contribute to the country becoming—by 2015—the first in the world to satisfy more than 50 per cent of its energy needs from renewable sources (following a strategy agreed in 2010 by all political parties represented in parliament).

In discussing the importance of this specific type of enterprise we cannot ignore the concept of *publicness*, which should not be treated as antagonistic to the market, but as an idea that transcends it. Public companies require leadership and coordination, and therefore they should be viewed from a collective perspective.

Organisations are the cornerstones of society, not the atomised and isolated individuals who take decisions based on market mechanisms. That has to be understood in its full magnitude because it forces us to change the way we think about the economy. Public enterprises represent the triumph of the logic of collective action, which is what determines the nature and quality of development processes.

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1. The return of public enterprise

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Introduction

This chapter summarises different research perspectives on contemporary public enterprise. There is a renewed interest in this topic for several reasons. Despite mass privatisations since the 1980s, governments still own and manage substantial productive assets. According to *The Economist* (2014: 7):

> State-owned enterprises in OECD [Organisation for Economic Cooperation and Development] countries are worth around $2 trillion. Then there are minority stakes in companies, plus $2 trillion or so in utilities and other assets held by local governments. But the real treasures are "non-financial" assets—buildings, land, subsoil resources—which the IMF believes are worth three-quarters of GDP on average in rich economies: $35 trillion across the OECD.

While these figures, perhaps confusingly, mix assets of very different types, it is true that governments around the world still control substantial shares of productive capital. This fact has revived the interest for privatisation, but has also raised the question: what is the importance of contemporary public enterprises? Why do states still own productive capital?

A related research perspective is the evidence that following the global slump since 2007-2008, *publicisation* or other forms of state-control of assets were the immediate response by several governments to the collapse of a range of corporations, from core banks in the United Kingdom, like the Royal Bank of Scotland, to car companies in the United States, like General Motors. Such countries are the cradle of the Anglo-Saxon neoliberal thinking and the simple fact that their governments have considered and implemented such moves, even if admittedly as exceptional and temporary emergency solutions, is similar to what happened during the Great Depression in the 1930s, when

many state-owned companies (SOEs) were created for similar reasons. Is emergency nationalisation a feature of government in capitalist economies?

A trend in several countries has been the *republicisation* of formerly privatised firms providing services of general interest. This is most evident with municipal governments (Paris is a notable example) after the disappointing experiences with concessions or other forms of private capital involvement of in water or other local services. Such experiences led to the conclusion that it was not in the interests of citizens to continue with these approaches, and a reversion to direct management of public services. What are the drivers of these changes?

The chapter goes on to focus on the role of SOEs in network industries—particularly in energy and telecoms, and mainly in the European Union—and their performance from the perspective of consumers. How is this performance in terms of prices offered? Eventually, the OECD and other international organisations have noticed the new acquisition activism of state-owned enterprises, from China to Brazil, from France to Russia, which have been involved in important acquisition deals involving as targets privatised or private firms, including some abroad. How then has it happened that SOEs, a supposedly moribund type of organisation, one that should have been supplanted as an anachronism by privatisation, is in fact able to buy assets around the world?

The chapter covers these topics very selectively in the next five sections, and concludes with some suggestions for further research and some policy implications.

Contemporary public enterprises

To discuss the persistence of SOEs in contemporary economies we need a definition of public enterprise, and there is none which has no drawbacks, given the multifaceted nature of these organisations (Christiansen, 2011). For example, a rather restrictive definition has been provided by CIRIEC in a working document (2012: 2):

> For the purpose of this project, we shall refer to "public enterprises", in the broad meaning of organisations (a) directly producing public services, either through liberalised market ar-

rangements or under franchised monopoly, (b) ultimately owned or de facto controlled by public sector entities, (c) with a public mission, (d) whose ownership in principle can be shifted to the private sector.

This definition would exclude from our scope of research several other organisations:

- manufacturing companies owned directly or indirectly by the public sector;
- departments or agencies, which deliver core government functions (defence, law and order, administration, etc.);
- companies which have temporarily been put under government control following bankruptcy, or for other reasons, but for which no public mission can be identified (more on this below).

Diverging from this definition, in the discussion below we shall drop items (a) and (c) of the CIRIEC definition. This allows the inclusion of, for example, oil companies or manufacturing firms, and also those service providers which are controlled by the public sector, perhaps by minority stakes, for which a permanent public mission is not easily identified. The expanded scope of this perspective reflects the exploratory nature of this chapter, which includes for example emergency nationalisations, or purely financial considerations related to government ownership.

Under a similar broad definition, Kowalski et al. (2013) offer some evidence related to companies included on the *Forbes Global 2000* list, augmented with the Orbis database. They consider sales, profits, assets, and market value, equally weighted to rank global firms, and attribute the SOE label to those companies for which—according to Orbis—the ultimate ownership is more than 50,01 per cent of the shares.

Before discussing the findings here below, we need to express some reservations about two issues. First, the *Forbes Global 2000* excludes from the list some organisations that are in fact among the largest in other world rankings. This is acknowledged by Kowalski et al. (2013). Second, some of the core SOEs in the world, particularly in Europe, are effectively controlled by governments with a stake of 20-25 per cent (see *The Economist,* 2014: 18), compared with much more dispersed

equity owned by other shareholders. For both reasons, we believe that the importance of government ownership in the largest world enterprises is only very conservatively represented by the 50,01 per cent threshold. The OECD paper, however, is one of the few attempts to study the issue in a systematic way; some findings are summarised here below. The market value of the *Forbes Global 2000* would represent 81,9 per cent (at 2010) of the global capitalisation of listed companies, and they are parent to around 330,000 firms (domestic or foreign subsidiaries).

Given that SOEs comprise 10.02 per cent of the list, it seems safe to conclude that the average SOE performs *better* than the average private company in the *Forbes* list, around 11 per cent more in terms of sales per firm; 35 per cent more profits per firm; 64 per cent more assets per firm; and a 34 per cent higher market value per firm.

Table 1.1 Aggregate financial indicators, % of GDP and ratios (2010)

	Forbes 2000	***SOE***	***SOE/Total***
Total sales	51.1	5.7	11.15
Total profits	3.7	0.5	13.51
Total assets	218.6	35.8	16.38
Total market value	58.4	7.8	13.36
ROS (profits/sales)	7.24	8.77	1,21
ROA (profits/assets)	1.69	1.40	0,82
ROE (profits/market value)	6.33	6.41	1,01

Source: Kowalski et al. (2013)

The authors find that around ten per cent of the companies analysed—204 out of 2000—are SOEs. Putting together world reference figures about some benchmarks (such as world GDP), in our table 1.1 we have re-evaluated the figures in the above-mentioned OECD paper. We suggest that *Forbes*-listed SOEs would represent between 11 and 16 per cent of total sales, profits, assets and market value of the *Forbes Global 2000* aggregate.

Since the total list includes the SOEs themselves, it is logical to assume that a direct comparison of public-private subsamples would give further confirmation that the SOEs outperform their private counterparts on several indicators.

As usual in the sampling of firms, the distribution of variables is skewed, and the average may be influenced by a particularly well-performing SOE. In any case it is worth noticing that, even in terms of profitability, public enterprises (in the strict definition of majority-owned by the public sector) appear far from weak compared to their private counterparts.

There are three other indicators that may be of interest. Taking ratios of profits and sales, we can get a crude ROS (return on sales) estimate; and the ratio of profits and assets, or market value, respectively, would give us a crude estimate of ROA (return on assets) and ROE (return on equity). From this perspective the average ROS in the list is 7.2 per cent, while SOEs show a stellar 8.8 per cent. ROA in the total list is around 1.7 per cent, while it is 1,4 per cent in the SOEs; and ROE is respectively 6.3 per cent and 6.4 per cent.

Thus, using the most common financial ratios, the large SOEs outperform the world league of major companies in terms of ROS; as well as in terms of ROE; while they underperform in terms of ROA (given the substantial assets they own). This picture, while crude and partial, may help to explain the survival and activism of SOEs: simply, they perform well—even better than private (listed) firms—at least in the league of major global players, own substantial assets and earn profits.

Where are the major SOEs located, and in which industries? In terms of geographical distribution, and importance within their original national economy, some OECD countries stand out: for example, France (5), Poland (6) or Korea (4), but also Switzerland (6) and the United States (3) owned important SOEs at the time of the survey. Outside the OECD, China—with 70 out of the 204 identified major SOEs—leads the list, but other countries with high numbers are India (30), Brazil (7), Indonesia (6) and Russia (9). Moreover, in some cases, the importance of the SOEs in the economy is not represented by counting them, but by looking at their contribution to GNP. Countries such as Japan, New Zealand, Italy, France, United States, Britain, Nor-

way, Canada and Germany[1] should be considered from this analytical perspective.

Finally, sectors where the share of SOEs in the domestic economy is high (more than 10 per cent of GDP) include coal mining, land transport, transport via pipelines, oil extraction, electricity and gas, but also telecommunications, financial intermediation, engineering, warehousing, manufacturing, and air transport.

We conclude that SOEs, particularly the large ones, are still important actors in the economic arena. They are present in many countries—both developed and developing—and in several industries, with quite different technological characteristics. Their survival is probably linked, at least in part, to good performance in terms of standard financial indicators, a fact that would need more careful consideration in future research and policy debate.

Public enterprises and the Great Depression(s)

As far as we know there is no systematic evidence about the extent of renationalisation, *de jure* or *de facto*, in the last five years, following the global "financial" crisis that in fact has had a huge real impact. Historically, the Great Depression in the 1930s was behind the origin of public enterprises in several countries. In the case of Italy, for example, the collapse of private banks, forced the government to rescue them by nationalisation, as these banks in turn owned substantial shares in the equity of their illiquid creditors, including many major manufacturers. The Institute for Industrial Reconstruction (IRI) was established in 1933 to manage these companies. As a result, a considerable part of the economy was under the control of government, even when there still were private minor shareholders in the companies.

It is interesting to acknowledge that around 80 years later, governments had to face similar circumstances. The financial sector is particularly prominent in this light (Yeyati et al., 2007; Panetta et al, 2009). Below we cite just a small sample of episodes since the 1980s (i.e. during the privatisation decades).

[1] See *The Economist* (2014: 19), which, using IMF data, shows that the governments of these countries—central and local—own non-financial assets worth at least 40 per cent of GDP.

In Mexico, in 1982 most of the banking system was nationalised after the debt crisis (then reprivatised around ten years later). In Israel, following the stock crisis in 1983 the major banks were nationalised: Bank Hapoalim, Bank Leumi, Discount Bank, Mezrachi Bank. Sweden nationalised a substantial part of its banking system in 1992. There were several other episodes in the 1990s, but the recent global crisis had a major impact on bank ownership by governments. In the Baltic countries Parex Bank (Latvia) was nationalised in 2008, and Soras (Lithuania) in 2011. In the Netherlands, the government in 2008 nationalised the Dutch branch of Fortis, a Belgian-Dutch banking and insurance company. More recently, in 2013, the Dutch insurance and banking institution SNS Bank was also nationalised. The Portuguese Business Bank was nationalised in 2008. In 2009 the same happened with Seylan Bank in Sri Lanka.

According to Iversen and Sjögren (2012) an interesting case history is offered by Denmark, a country with no tradition of government ownership of banks. In just four years, from October 2008 to the end of 2012, Finansiel Stabilet (a rescue organisation established and guaranteed by the Danish state) had to take over EBH Bank (November 2008), Roskilde Bank (July 2009, after one year of ownership by the National Bank), Fionia Bank (March 2009), Capinordic (April 2009), Løkken Sparekasse (June 2009), Eik Banki (January 2010), Amagerbanken (February 2011), Fjordbank Mors (June 2011), and Max Bank (October 2011). These acquisitions, prompted by solvency problems and the inability of the private sector to provide an injection of equity capital, transformed the Danish government, in a few years, into a major player in the country's banking industry.

Perhaps the most surprising nationalisations in the financial sectors have been recorded in the homeland of privatisation, Great Britain. In one year, 2008, the government had to rescue Northern Rock; part of Bradford & Bingley; and the Royal Bank of Scotland. aHBOS-Lloyds TSB was also partly nationalised. The Government share in RBS equity, one of the largest banks in the world, was initially 60 per cent and eventually became 80 per cent. The government's share in HBOS-Lloyds TSB was 40 per cent. The amount of equity funding by the government for RBS and Lloyds is around 66 billion pounds, and

difficult to recover[2]. This emergency funding was in fact only part of a £500 billion bank rescue package for British banks and building societies.

Other countries where governments have needed to act to rescue banks include Ireland, Iceland, Switzerland, Germany, France, and many others in recent decades only (not to mention more distant episodes over more than one century of financial history).

To conclude this very incomplete list of examples, the United States had to take control of a very large number of savings and loans in the 1980s, through the Resolution Trust Corporation. More recently, the Troubled Assets Relief Program (TARP) has bailed out (through de facto nationalisation) Citigroup, and the government also had to intervene to rescue AIG, an insurance company, and other core players in the mortgage industry, as part of the first $700 billion emergency intervention, later followed by other large funding in different forms.

Looking at these case histories, it seems that La Porta et al. (2002) should update their much-cited paper on "Government Ownership of Banks", which stated:

> The data show that such ownership is large and pervasive, and higher in countries with low level of per capita income, backward financial systems, interventionist and inefficient government, and poor protection of property rights. Higher government ownership of banks in 1970 is associated with slower subsequent financial development and lower growth of per capita income and productivity.

This may be true, but the fact that governments in countries such as the United States, the United Kingdom, Sweden, and many others in core capitalist economies have had to rescue banks through nationalisation, temporary or otherwise, suggest that these emergency measures are far from exceptional, and occur even in the most advanced economies.

There are similar examples of recurrent government rescue in other industries providing services of general interest: notably the airways,

[2] According to the Public Account Committee, November 2012, which stated that privatisation is not an option in the next years.

railways, and other transport services. Some of these episodes are also related to the occasionally failing general economic conditions of each country. No sector, however, is more revealing than banking in highlighting the emergency role that may be played by government ownership in capitalist economies. This caretaker role has far from disappeared, and it should be seriously studied, to provide governments with research and policy advice in this area of intervention, which is part of a wider issue of crisis management.

Republicisation of public services

While technically not necessarily falling under the definition of nationalisation, there is evidence that governments have often reconsidered franchising or concession to private firms of services of general economic interest, such as water, electricity, and others, particularly at the local level.

Hall (2012) reviews water and electricity republicisation in France and Germany. He considers as remunicipalisation "change from private to wholly public ownership of assets or companies; changes from outsourcing or contracting-out of service to direct provision by a public authority; and the replacement of concessions or lease contracts by direct provision by a public authority". In his article, Hall considers not only municipal governments, but also regional ones, inter-municipal public entities, etc.

The case history of water in France is interesting because, in spite of the traditional interventionism of French governments, this was a service largely managed by the private sector, in the form of very large firms (such as Veolia). Republicisation has been decided on, or at least considered as a policy option, in Bordeaux, Brest, Cherbourg, Grenoble, Nantes, Rouen, Toulouse, and, most notably, Paris. The drivers of remunicipalisation of water in France seem to be the evidence of higher prices, and environmental issues.

The evidence concerning electricity in Germany between 2007-12 includes 63 new *stadtwerke*, that is, municipal firms; 14 remunicipalisations of firms; 192 remunicipalisations of distribution networks, four cases of repurchase of major assets. Hence, more than 50 per cent of electricity distribution in Germany is now managed by public enter-

prises (while generation is mostly handled by the private sector). There have been strong campaigns and legislative debates around this policy trend, which currently seems firmly established in some *Länder*, and actively discussed in others.

The United States hosts a large number of municipal or inter-municipal companies (Warner 2012) and remunicipalisation has some strong precedents, as in Atlanta and Felton for water. Other examples worldwide are available at the portal <www.remunicipalisation.org>, which mentions interesting case histories in Uruguay, Argentina, Bolivia, Spain, Indonesia and elsewhere. Several episodes are explored by the Municipal Services Project, a global research network (see McDonald, 2014; and McDonald's chapter in this same volume).

While there is no systematic evidence, and it is likely that the trend of privatisation in the local public services still prevails worldwide, it is important to acknowledge that republicisation occurs, in different countries, under different political environments, often driven however by similar rationales: excessive prices charged to users by private concessionaires; concerns about the sustainability of investment, environmental issues, affordability and quality of service. In some cases there may be also a fiscal issue, as municipalities would prefer to keep the long-term net cash flows arising from some services, rather than relinquishing them to the private sector.

From a financial perspective, this suggests a biased market for local public services, as the price the private investors may be willing to pay for the franchise may reflect a degree of risk aversion (e.g of expropriation), which is not relevant in the public sector. Hence a mismatch between demand and supply price in the market for these concessions, and possibly a component of a mismatch between service price to consumers offered by a public and private enterprise respectively.

Network industries in Europe

When this chapter focuses on network industries in advanced economies, such as the member states of the European Union before its 2004 enlargement (the EU-15) it is apparent that public enterprises, while less significant after three decades of privatisations, are surpris-

ingly resilient. For example, in 2009, out of the seven major electricity companies in the EU (GDF Suez, EON, EDF, ENEL, RWE, Iberdrola, Vattenfall), with a combined yearly turnover of more than €384 billion, four are controlled (fully or partially) by governments[3] (Thomas 2010). Interestingly, in countries as diverse in terms of political orientation and institutional quality as Austria, Denmark, France, Greece, Ireland, the Netherlands and Sweden, the incumbents are state owned.

As for natural gas, two countries with their own natural gas reserves and production, the United Kingdom and the Netherlands, have adopted very different policies, despite both being committed to market opening. The United Kingdom has wholly privatised British Gas, initially as an integrated regulated monopoly, and then has forced market access and unbundling. The Netherlands, which initially had a vertically integrated industry dominated by a partnership between the government, Royal Dutch Shell and Esso, currently has a 100 per cent state-owned gas transport operator, and mostly municipally-owned distributors and retail suppliers. In Italy and France, the incumbents are still effectively controlled by the government, while in Spain and Germany the extent of private ownership is traditionally much larger.

In telecommunications, the industry where the large-scale privatisation policy started in Europe, some of the core players, such as France Telecom, Deutsche Telekom, the Scandinavian main operators, and others, are partially government-owned.

Why are public enterprises still far from being marginalised even in Western Europe, with abundance of capital and of managerial resources, and an apparently broad consensus against SOEs? A possible answer is that they offer lower prices to the residential consumer, and are better perceived, compared to their private counterparts, without any need for government subsidies to achieve this performance.

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[3] According to Thomas (2010), the seven major electricity companies around 2009 are GDF Suez (36 per cent state-owned, turnover €80 billion), EON (listed, turnover €82 billion), EDF (85 per cent state-owned, turnover €67€ billion), ENEL (32 per cent state-owned, turnover €64 billion), RWE (listed, turnover €48 billion), Iberdrola (listed, turnover €25 billion), Vattenfall (100 per cent state-owned; turnover €20 billion).

There is clear evidence (see tables 1.2 and 1.3) that consumers pay lower electricity net-of-tax prices in countries where there are still incumbents owned by national governments.

Table 1.2 Household net-of-tax electricity and gas prices (dependent variable). EU15 countries around 1980-90 to 2007. Different empirical models

Main regressors	**Electricity**	**Gas**
Regulatory variables	***Coefficients***	***Coefficients***
ECTR aggregate regulatory index (0 to 6, more to less reformed countries)	Not significant	Negative **
Public ownership	Negative***	Negative ***
Vertical integration	Not significant	Not significant
Entry regulation	Negative* (or not significant)	Not significant (positive* in some models)
Dynamics		
Price inertia	Positive***	Positive***
Year fixed effects	Included	Included
Controls		
Macroeconomic variables	Included	Included
Combustible fuels	Positive** (or not significant)	-
Share of nuclear energy	Negative**	-
Brent oil price	---	Positive**
Other controls	Included	Included
Number of observations	402	295
Number of countries	15	11

*** p< 0.01; ** p < 0.05; * p< 0.1

Source: IEA, EUROSTAT, OECD/ECTR. Estimation methods: GMM dynamic panels, OLS, 'within'-time period, number of countries, number of observation, results for the preferred models. A negative coefficient implies that prices are lower when the ECTR indicator is higher; for example, when there is a greater share of public ownership in that industry in each country.

As table 1.2 shows, based on previous research of our team at the University of Milan, statistically significant negative coefficients in dynamic panel models of electricity net-of-tax IEA prices have been estimated in the EU-15 using the OECD indicators of ownership, after controlling for other reform indicators and control variables such as lagged prices (with different lags), per capita GDP, type of fuel used in generation, year fixed effects, and others. For the econometric details and new findings, see Fiorio and Florio (2013). The magnitude of the net effect is not negligible (up to 30 per cent on net-of-tax prices, or 20 per cent on gross-of-tax prices) and robust to different model specifications, inclusion or exclusion of countries, and the standard econometric tests.

As the OECD indicators (ECTR database) are such that a higher score implies more government ownership, the negative coefficient means that prices are lower where government ownership is higher. In other words, for the average EU-15 household it was rather more beneficial to be in a market where one or more players were under government control between 1980 and around 2007. More recent data for the EU-27 confirm the accuracy of this finding.

Moreover, there is also some evidence that on average, respondents to the Eurobarometer survey are more likely to consider "fair" the electricity prices they pay in countries where public ownership is a feature of the industry structure than elsewhere: see Fiorio and Florio (2013) and table 1.3. Thus, state-owned electricity utilities are still strong players in the EU's liberalised markets, they often offer reasonable prices to households, without incurring losses than would need subsidies from the tax-payers.

The evidence is fairly similar for natural gas service. In the eleven EU countries we consider (in parts of the European Union the consumption of natural gas is negligible or zero), public ownership of the incumbent company as reported by the ECTR indicators is correlated to lower net-of-tax prices, after considering other reforms, lagged prices, the price of Brent oil (because of the well-known link between natural gas long-term contracts and the oil price index; see Brown and Yücel, 2008), other factors, and year and country fixed effects (for further technical details see Brau et al., 2010).

In fact, the price for households in Euro per Gigajoule in 2007 (IEA) data was slightly higher in Britain than in the Netherlands, and even higher in Germany and Spain than in France and Italy. Thus, both directly looking at prices, and econometric analysis, confirm the same finding for gas.

Table 1.3 Customer dissatisfaction (dependent variable) with prices of electricity and gas. EU15, years 2000 to 2006. Different empirical models

Main regressors	**Electricity**	**Gas**
Regulatory variables	***Coefficients***	***Coefficients***
ECTR aggregate regulatory index (0 to 6, more to less reformed countries)	Not significant	Negative ***
Public ownership	Negative**	Negative **
Vertical integration	Not significant	Not significant
Entry regulation	Positive*	Not significant
Dynamics		
Price	Positive***	Positive***
Price (T-2)	Not significant	Not significant
Year fixed effects	Included	Included
Controls		
Individual characteristics	Included	Included
Macroeconomic variables	Included	Included
Country mixed effects	Included	Included
Number of observations	57, 153	30,757
Number of countries	15	15

*** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$

Source: Eurobarometer, 2000 to 2006 waves; ECTR/OECD (same years), EUROSTAT. Estimation method: Probit—number of countries and of observations for selected models. A negative coefficient implies that dissatisfaction is lower when the ECTR indicator is higher.

Again, a cross-check of consumer satisfaction with Eurobarometer data, and with lagged prices, macroeconomic controls, individual characteristics, country and year fixed effects, taking into account other concurrent regulatory features, points to higher satisfaction with prices paid by the respondents to comparable surveys in countries where there are one or more state-owned major players. The evidence for telecommunications points in the same direction, even though there is not such a clear sentiment in favour of public ownership (see Bacchiocchi et al., 2008).

Table 1.4 Matrix of total number for typology of acquirers and vendor/target at the time of the deal (2004-2010). Orbis-Zephyr sample

		Acquirer		
		Public	***Private***	***Total***
Vendor/ Target	***Public***	690	1,034	1,724
	Private	450	11,301	11,751
	Total	1,140	12,335	13,475

Source: own elaboration, Orbis-Zephyr Dataset (after merging with Orbis and after cutting the left side tail), from Clò et al. (2014).

*Table 1.5 N*umber and percentage of cross-border deals (non-missing observations)

	Public reorganisation	**Publicisa-tion**	**Privatisa-tion**	**Private reorgan-isation**	**Total**
Deal with acquirer and target in the same country	622	287	769	7,942	9,620
Deal with acquirer and target in different countries (cross-border)	68	163	265	3,359	3,855

Source: Clò et al. (2014).

If SOEs in essential services offer fair prices to consumers, do not incur losses, and are well perceived, some governments may have concluded that—to say the least—it is not urgent to sell them. The unpopularity of the privatised energy utilities in Britain (Del Bo and Florio, 2012), where it seems that there has been considerable underinvestment along with high transfers from the consumers to the firms, added to environmental issues, show that the case for privatisation in energy has now lost some ground in Europe.

Acquisitions and the multinational public enterprise

While privatisations have been extensively studied and regularly recorded, it is worth mentioning that publicisation is also occurring worldwide, for a number of reasons, in different sectors, and countries.

Recent research and preliminary findings by the University of Milan Team (see Clò et al., 2014), based on extensive use of Zephy and Orbis, two global databases maintained by Bureau Van Dijk, reveals a number of interesting facts. A sample of 13,475 deals recorded from 2004 until 2012 (selected on the basis of data availability out of a much larger database) revealed:

a) There have been 1,034 privatisations, where the acquirer had a private ultimate-owner and the target was a public enterprise, the latter defined as ultimately owned by a government entity (with at least 25 per cent of equity). In the same period, there were also 1,140 acquisitions by public enterprises. Of these, 61 per cent were deals where the acquirer was a company ultimately owned by the government and the target a private company. Excluding from the sample both acquirers and targets with fewer than 10 employees, this leaves 450 cases of publicisations—that is, deals with a public acquirer and a private target—and 690 acquisitions of public enterprises by other public enterprises. In the following we shall refer to the subsample that excludes micro-firms with fewer than 10 employees, including a total of 13,475 deals (see table 1.4).
b) There is some evidence in this sample that the ratio between the number of publicisations and the number of privatisations

peaked from slightly more than 20 per cent in 2004 to slightly more than 80 per cent in 2007 (the year before the global crisis), and then went back to near 40 per cent in 2012. We consider this boom in publicisations as a response by governments to the crisis. Privatisation deals decreased substantially between 2006 and 2009, before subsequently recovering.

c) Turning from the number of deals to the characteristics of acquirers and targets, a p-value test on the differences of the median values between acquirers and targets shows that, in both publicisations and privatisations, the acquirer is larger than the target company in terms of operating revenues, total assets and Ebit. In terms of financial ratios, the ROS (Ebit/Operating Revenues) is also higher for acquirers than for targets. The differences are not statistically significant for other financial ratios, such as the ROA, for both publicisations and privatisations. This points to the fact that the financial health of government-owned acquirers relative to their private targets is not different from the financial health of private acquirers relative to their public targets. For a smaller sample, there is also some evidence that the public acquirers are financially stronger in terms of ROS relative to their private and public targets.

d) In the sample there are 3,844 cross-border deals—i.e. acquisitions where the acquirer and the targets have their main operations in different countries. Interestingly, while 265 such deals are privatisations, 163 deals are publicisations (public acquirer and private target), and there are also 68 deals involving a public enterprise on both sides of the transaction. In proportion, there are more cross-border publicisations (36 per cent of the total publicisations sample) than cross border privatisations (26 per cent of the privatisations sample) (see table 1.5).

e) In fact, one surprising effect of globalisation has been an opportunity for major public enterprises to go abroad. There are different aspects in this trend:

a) Strong government owned or partly government owned companies in profitable industries such as electricity, gas, telecommunications, have diversified their portfolio of investments abroad (see Clifton et al., 2012).

b) Sovereign funds have invested their gargantuan resources abroad, in some cases following a strategy that goes beyond the purely financial (Clò et al., 2014).

National oil companies are increasingly dominant players in their markets (Clò et al., 2014). This also applies to some companies in other sectors such as mining or engineering, among others.

Concluding remarks

According to *The Economist* (2014: 7), the world is just expecting a new privatisation wave:

> [F]or governments that are serious about bringing their spending in line with revenues, privatisation is a useful tool. It allows governments to cut their debts and improve their credit ratings, thus reducing their outgoings, and it improves the economy's efficiency by boosting competition and by applying private-sector capital and skills to newly privatised assets. Thatcher and Reagan used privatisation as a tool to transform utilities, telecoms and transport. Their 21st-century successors need to do the same for buildings, land and resources. Huge value is waiting to be unlocked.

While privatisation is still the dominant policy approach, in this chapter we have identified five drivers about the return of public enterprises as active players in the economic arena, contrary to the perception that privatisations would have led to their disappearance.

a) Looking at the top global companies, particularly those listed in Forbes Global 2000, more than 10 per cent are public enterprises. They are present in different countries, both developed and developing, from the US to China, from France to Brazil, and in several industries, with quite different technological characteristics, from energy to telecommunications. The survival of large SOEs is probably linked, at least in part, to their good performance in terms of standard financial indicators, such as ROS. We suggest that within the above mentioned top 2000 companies, the average SOE outperforms its private counterpart.

b) The recent global financial crisis, as happened during the Great Depression in the 1930s and in other episodes, has seen a strong reappearance of an emergency role of government ownership, most notably, but not only, in the banking sector: this implies that managers appointed by governments are now running enterprises mismanaged by managers appointed by private shareholders.

c) There is some evidence of reversal of privatisation, particularly by local governments, probably disappointed by the price, investment, and sustainability performance offered by private sector control of such services as water and electricity supply.

d) In network industries in the EU-15 there is clear evidence that households pay a lower bill for energy (and possibly other services) when the incumbent is ultimately owned by the government, and this may help explain why despite a wide political consensus around privatisation, public or partly-public enterprises are still important in Europe.

e) There is also evidence that SOEs are active in acquisition deals, both in their country of origin and cross-border. There are proportionately more cross-border deals involving public enterprises as acquirers than cross-border privatisations. Moreover, there is no evidence that the public acquirers are performing poorer than private acquirers relative to their respective targets in publicisation and privatisations.

These findings may help to explain the resilience of public enterprises, and perhaps their return. Some of the best performing global players are under government ownership. There is evidence of occasional re-publicisation of formerly privatised utilities. Consumers in advanced economies are happier about prices of energy under a government-owned incumbent. There is even some evidence that government-owned acquirers are indeed in better shape than their targets, including in cross-border deals. These are all elements of a puzzle: the successful survival of public enterprises in spite of the privatisation mantra.

Economists should not necessarily subscribe *The Economist's* view. Or at least not without some reservations about advising governments

that the best that they can do now with the assets they own is to sell them, and "unlock huge value". Well-managed public enterprises, with a clear rationale, may still be a feature of good government.

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2. The role of state-owned enterprises in industrial development

Manuel F. Montes

The historical relevance of state enterprises

State-owned enterprises have always been basic elements of capitalist economies. The notion that their presence, or even dominant presence, in capitalist economies is an aberration is another example of how economic ideas are divorced from historical facts in order to smooth the path for policies favoured by large private interests.

In China, state-owned enterprises played a big role in the catch-up process. When members of the Communist Party in China began to be charged with important responsibilities in managing the finances and assets of production enterprises, it was but a sign that the country was making a decisive shift to a socialist economy with Chinese characteristics.

State enterprises have been important features of capitalist economies, particularly in the growth or development phase (Musacchio and Flores-Macias, 2009:1):

> [S]tate intervention in economic activity was ubiquitous prior to World War I in places as varied as Victorian Britain, Republican Brazil, and Bismarckian Germany. Across countries and industries, governments sought to provide incentives for wary investors to purchase securities in everything from banks to railways and other infrastructure endeavors. While in 1840 around 80 percent of railway tracks worldwide were in private hands, by 1910 states owned nearly 60 percent of a much larger network of total operating railway tracks
>
> Government ownership of utilities increased rapidly in continental Europe in the first few decades of the twentieth century. Robert Millward, a professor of economic history at the University of Manchester, has demonstrated in his research that, in

> the nineteenth century, western European municipal and state governments were owners of utilities companies before socialist parties even existed. In fact, before the Great Depression, most governments in continental Europe owned large utilities and had equity in large commercial banks.
>
> But before World War I government subsidies in the form of state guarantees for investors were not incompatible with globalization. Government guarantees or financial support for companies in trouble before 1930 was not what brought down globalization at the beginning of the twentieth century. What brought down globalization in the 1920s and 1930s was, first, the disruption in international capital flows caused by World War I and, subsequently, the wave of retaliatory increases in trade barriers after the United States passed the Smoot-Hawley Tariff Act in 1930.

The recent discussion on state-owned enterprises (SOEs), based as it is on the view that private companies are the norm and SOEs are the exceptions, leads to discussion on the conditions under which their existence is justified. SOEs are seen as blemishes on efficiency, growth, and investment in a normal capitalist economy. It is natural that this framework sustains a discussion on how the economic importance of SOEs can be diminished (through privatisation, for example) or their operations made to conform to private norms.

Another consequence is the extensive discussion on how SOEs might be able to achieve the standards of governance and corporate flexibility and resilience hypothesized for the private firm. This is where issues, such as the "soft budget constraint" posited by Hungarian economist Janos Kornai for socialist economies, arose. It turns out that "soft budget constraints" also exist in capitalist economics in the cases of privately owned firms, such as "large employers or politically sensitive industries such as armaments or hospitals" which have been rescued by "avowedly free market governments" (Chang, 2007:16).

These discussions are parallel to the important issue that SOEs play a critical role in development and economic diversification, which is what this presentation will focus on. Private markets malfunction in normal times requiring government regulation, but more importantly,

in developing countries private companies cannot be relied upon to undertake the investment and risks associated with new increasing returns to scale economic activities (Memis and Montes, 2008). Government leadership in the development process, including through the deployment of SOEs, is indispensable. However, recent international discussions and proposals indicate a growing threat to the use of SOEs by developing countries. Because of the critical role SOEs play in development, it is also important to shed light on trends in the international systems that are directed at reducing SOE activities in the developing countries.

State-owned enterprises and development

There are three important grounds why SOEs have proven critical during the development process:

1. The scale of long-term capital required in new economic activities, many of which are critical foundations for other new activities, requires state involvement/leadership
2. The size of the risk of new ventures is too high for private entities to undertake for reasons of technology and absence of critical complementary economic activities
3. Private appropriation of benefits from certain new economic activities prevents more widespread access by other private sector parties and requires higher cost than if undertaken by a state enterprise with lower profit requirements and longer-term investment horizons.

These three reasons can be seen as aspects of a single reality in developing countries. The private sector is undeveloped and private capital markets are too small. Domestic technological capability and skills are at a level not comparable with those in developed economies.

In actual practice, societies and their governments must grapple with these constraints in their own ways and at particular points in time. For the most part, state-owned enterprises arise not because of grand economic planning, but as problem-solving and/or as the outcome of domestic politics. But the actual response is constrained by resources, politics, and domestic capabilities. Some national states may be too fragmented (because of federalist constraints, for example) or

politically disintegrated to set up SOEs to address these constraints. There are also situations where elite pools of domestic private capital are large enough and these pools perhaps have access to external finance, so that the actual initiation of new activities are undertaken by the private sector. This is probably the case in the Western expansion of the railroad system in the United States. The Western railroad construction was characterized by extensive fraud (and the defrauding of investors by the "robber barons"), a subsequent deep crash in the domestic financial system, and state support for the private alienation of land in the Western states (often land not completely controlled by the state).

In the subsequent paragraphs, I will elaborate on the nature of the three reasons. First, the absence of large pools of capital in developing countries often prevents the introduction of modern infrastructure and energy systems. SOEs have the capacity to raise the pools of capital required for these projects that are not economical, unless undertaken on a large scale. We see SOEs in railway, road and other transportation systems, electrical grids, waterworks and irrigation networks. Sometimes, the capital requirements are not considered large by world standards, but in developing countries they are unreachable. Airlines, such as the successful Singapore Airlines, are the example of such an investment. The installation of modern infrastructure supports the rise of new economic activities by the private sector.

Because the returns on large-scale projects often take decades to be realised, they need long-term finance. State involvement in development banking is appropriate for providing financing for large scale, long-term projects.

The second important development constraint which SOEs can address is the technological barrier. Developing countries have to build educational systems (including state universities), research institutes, and SOEs through which foreign technology can be adapted for domestic needs and for use by the private sector. Well-known SOEs or "government-linked" companies in the aerospace and defence industries operate in clear view in advanced economies. Developing countries have significant catch-up challenge to increase domestic capabilities in foreign technology and to create techniques appropriate to their resource endowments. World Trade Organization (WTO) restrictions

often make it necessary for developing countries to adapt and develop technology in SOEs and pass these on to domestic enterprises to maintain their competitiveness.

The third constraint that SOEs are well-placed to address concerns the sharing of certain products and processes among private companies and sectors — a situation often associated with "economies of scope". SOEs can develop and provide these products and services to a variety of sectors at reasonable cost. The example of SEMATECH, a state company created in the United States to counter the loss of competitiveness in the semiconductor industry is a good one. SEMATECH permitted a group of private companies to share patents to facilitate product development among its participants. In the Japanese development experience, state trading companies serving a group of manufacturing firms facilitated research in external markets, product design, financing, and export development. In developing countries, there is much experience in sharing technology in the agricultural sector, but this is now under threat with the entry of large, private multinational companies in agricultural technology enjoying trade-sanctioned intellectual property protection.

Growing international threats to state-owned enterprises

After World War II, much of the reputation of SOEs came about when national economies were heavily protected. Because of the strong separation between external and domestic markets in the earlier period, the issue of externally imposed restrictions on SOE operations was not important. With the greater integration of developing countries to external markets, there is a growing threat that international obligations will severely restrict the ability of governments to use SOEs to secure their industrial development.

An opinion piece published by *The Economist* on 6 October 2012 captures the international trend succinctly with the title "State-owned enterprises, The State advances, The State's grip on the economy has been tightening. Could foreign pressure persuade the new leadership to change course?" The editorial is aimed at China. After highlighting all the many advantages SOEs in China enjoy in competing with

private companies and foreign firms, the editorial cites an IMF study that suggests that removing SOE advantages could be good for China's citizens, boosting income per person tenfold in the long-run.

Theoretical considerations are being used to persuade developing countries to accept obligations restricting the use of SOEs because these will redound to their own development. The argument is that competition forces firms to be efficient and to innovate, and SOEs are by nature firms that are relatively insulated from market competition.

Between 1996 and 2004, developed countries attempted to introduce a competition agreement in the WTO "to enable foreign firms and their goods and services to compete 'equally' with local firms, through the removal of preference and subsidisation of local firms" (Khor, 2008:58). While the effort failed in the WTO, the United States has been incorporating "Competition Policy" in its free trade agreements (FTAs).

In the US and other advanced countries, competition policy is meant to restrict monopolies by prohibiting business practices that restrict entry and competitive pricing. In developing countries the private sector is relatively undeveloped; applying this same approach would involve allowing freer entry of foreign firms in domestic markets. Foreign companies have enormous advantageous in terms of size, finance, and technology and could wipe out domestic competitors when they enter developing country markets.

During Japan's development period, its competition policy was oriented towards strengthening domestic firms' capacities to produce industrial goods, while raising their productivity, which ultimately led to strengthened ability to compete with foreign companies. This often involved forcing individual companies to share technology and information with each other; it also involved forced mergers so that Japanese companies became large enough to take advantage of economies of scale and subsequently compete with their foreign counterparts. This kind of competition policy would be more appropriate for developing countries.

The new situation, in which domestic markets are not strongly separated from foreign markets, makes it important that developing countries have the space to design their own competition policy. Oth-

erwise, global integration would be futile and self-defeating because it could mean widespread destruction of their domestic enterprises. Khor (2008:59) formulates the problem this way:

> Competition law and policy, in appropriate forms, are beneficial to a country's development. However each country must have full flexibility to choose a model which is suitable, and which can also change through time to suit changing conditions. Having an appropriate model is especially important in the context of globalisation and liberalisation where local firms are already facing intense foreign competition. In particular, developing countries must have the flexibility to choose the paradigm of competition and competition policy/law that is deemed to be more suitable to their level of development and their development interests.

A standard feature US FTAs is that the partner country agrees to pass competition legislation shortly upon agreement along the lines of US competition policy. The features of competition provisions in the US FTAs indicate the kind of restrictions on SOE operations that developed countries are interested in.

In 2003, Singapore signed an FTA with the US. This FTA, which has a competition chapter, is a good case study for many reasons. The FTA incorporates the most important features and formulation of the US approach to competition policy. Despite its self-professed reputation as a free-market oriented economy, Singapore has an important SOE sector. In 2001, Singapore's Department of Statistics estimated that "government-linked company" (a company with a regular investment from a government-owned holding company" (GLCs) accounted for 12.9 per cent of GDP in 1998, with the non-GLC public sector (companies directly operated by the government) accounting for another 8.9 per cent, giving a total public sector/GLC share of 21.8 per cent (Chang 2007, p. 9). Government-related companies are in many key sectors in the Singaporean economy. The wholly owned government company Temasek Holdings controls:

> 100 per cent of Singapore Power (electricity and gas) and of PSA International (ports), 67 per cent of Neptune Orient Lines (shipping), 60 per cent of Chartered Semiconductor Manufac-

> turing (semi-conductor), 56 per cent of SingTel (telecommunications), 55 per cent of SMRT (rail, bus, and taxi services), 55 per cent of Singapore Technologies Engineering (engineering), and 51 per cent of SembCorp Industries (engineering). It also directly owns a controlling stake in the following enterprises: 32 per cent of SembCorp Marine (shipbuilding) and 28 per cent of DBS (the largest bank in Singapore) (Chang, 2007:9).

The competition chapter of the Singapore-US FTA has three subjects: (1) anti-competitive business conduct, (2) designated monopolies, and (3) government enterprises. The FTA's overall purpose is to secure increased trade and investment for companies (and citizens) between both countries. The introduction of the competition chapter states that its purpose is to prevent conduct on the part of the parties that restrict trade and investment, and thus reduce the agreement's benefits to both countries. (See Khor, 2008, for a more detailed analysis of the Singapore-US FTA.)

On the first subject, Singapore committed to installing competition law a year after the signing of the agreement. The competition law is constrained by the other provisions in the FTA that require (a) government enterprises cannot be exempted and (b) enforcement policy cannot discriminate on the basis of nationality. On the second subject, the countries committed to making sure that monopolies they designate do not operate in such a way as to minimise or eliminate the benefits promised by the FTA. Designated monopolies are required to act solely in accordance with commercial considerations in the purchase or sale of the monopoly good or service in the relevant market, including with regard to price, quality, availability, marketability, transportation, etc.

The FTA defines the proper behaviour of enterprises using a broad standard, which presumably even non-monopolies might be held to. These conditions in effect defeat the purposes, for example taking advantage of economies of scale or providing public goods, for which monopolies are allowed to operate and regulated by national authorities.

For government enterprises, the Singaporean government is required to make sure that these operate "solely" on commercial consid-

erations and not engage in anti-competitive actions. While Singapore may exercise its voting rights in government enterprises, it "shall take no action or attempt in any way, directly or indirectly, to influence or direct decisions of its government enterprises, including through the exercise of any rights or interests conferring effective influence over such enterprises, except in a manner consistent with" the FTA. This broad and general prohibition opens the door for the other party, the US, to raise questions on any action of a government–related enterprise, including those that government enterprises normally undertake to assist the country obtain new and higher capabilities.

Singapore is required to submit a report annually on the performance of government enterprises and the extent of government control over these. Singapore must provide information to the US on receipt of a request for information about a specific enterprise. The criteria for lodging a complaint are very broad—the perceived nullification of benefits as intended by the free trade agreement.

The provisions in effect defeat the purpose for which governments in developing countries undertake policies to build new capabilities and international competitiveness in domestic enterprises, including using SOEs to good effect. There are provisions that define what SOEs cannot do, and what governments cannot do with their SOEs. Because of the entry into domestic markets of foreign firms with greater competitive capacity under equal terms, the net effect could actually be anti-competitive if it results in the elimination of domestic companies.

State-owned companies in the new area of global competition

The previous debate about state-owned enterprises that occurred at end of the era of "closed economies" centred on whether they were too inefficient and costly, or unreformable, to play an important development role. The new debate about state-owned enterprises arises in an era when developing country economies are more integrated internationally. The previous argument that SOEs are costly is being deployed to convince developing countries to reduce their reliance on them and to open their markets to multinational companies.

In fact, Musacchio and Flores-Macias (2009) suggest that if only because of more openness, the return of the wasteful SOE variety is unlikely; efficient and competitive SOEs could be the norm in the near future. What is being pushed in research activities and international negotiations is for developing countries to undertake competition policy as practiced in advance economies. This has the danger of prematurely (or, in the case of natural monopolies, unnecessarily) providing market access to multinational companies with enormous advantages in resources, experience, and technology. This can eliminate domestic competition and lead to the very monopolisation of markets that advanced economy competition policy is meant to prevent.

As in the previous debate when the Washington Consensus prevailed, the danger exists that an ahistorical, inaccurate, and theoretically erroneous view of the role of SOEs in development will lead to reforms (often promoted by well-intentioned civil society movements) in poor countries that end up eliminating SOEs as tools of development. In developing countries, domestic productivity upgrading and diversification has to be built within the capsule of enterprises (Memis and Montes, 2008). SOEs play a critical role in achieving industrial development objectives.

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3. Five theoretical reasons in defence of state-owned enterprises

Alfredo Schclarek Curutchet

Introduction

The current global economic crisis is challenging the logic of mainstream economic thought. Thus, a central question is once again highly relevant: is the market the best or the only solution to the many and diverse economic, social and political problems? The response to that question, as argued in this chapter, is that *politics* matters and that the evolution of society cannot be left solely to market forces. This premise underpins the following analysis on the role of the market and the state in contemporary economic activities.

The second section presents some theoretical arguments in favour of the direct intervention of state enterprises in the process of production. The third section analyses the difficulties that emerge when public enterprises are privatised, as well as the problems of state regulation and control.

Reasons for the existence of state enterprises

This section discusses some of the conceptual reasons that would justify the existence of public enterprises as necessary or desirable. In other words, it explores the advantages of pursuing an economic policy that encourages the provision of goods and services through state-owned enterprises rather than letting the market being the main player, or opting for privatisation.

The analysis provided in this chapter should not be read as an attempt to justify state intervention in *all* productive activities or as a complete rejection of any potentially beneficial outcome of privatisation. It should be seen, instead, as an intellectual exercise aimed at raising the level of discussion in order to move beyond extreme conclusions, overly simplified arguments and purely ideological prejudices.

Only by discussing these issues in the open, as objectively as possible and without dogmatism, can we move forward in the international debate about the roles of the state and the market.

In terms of theoretical justifications for the existence of state enterprises, six arguments are proposed. The first argument relates to the goal of economic development and the need for strategic productive sectors, such as energy, transportation, steel production and chemical industries. Without basic control over these strategic productive sectors it would very difficult, if not impossible, to enable the development of a country or implement any policy of industrialisation.[4] However, to develop these productive activities, large investments over long periods are required. In some cases, particularly in the context of low-income countries with insufficient endogenous technological capacities, the state is able not only to mobilise more resources than the private sector, but can also deploy a more comprehensive and long-term vision, using state-owned enterprises as a key policy tool for the implementation of an autonomous development strategy.

This argument applies even to those economic activities that, due to their specific characteristics in terms of technological or financial requirements, demand the coordinated investment of several agents in order to make them profitable. The individual performance of some projects is much greater if there have been previous investments in the sector. In these cases, private companies might not be inclined to be the first to invest, whereas the state can take a leadership and coordinating role in facilitating public and private engagements. The state intervention can be subsidiary and complementary to the private sector, in order to enable private investment.

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[4] This argument is related to the theories of industrialisation through indicative planning or selective industrial policy and industrialisation through import substitution (Chang, 2009). A similar argument, but focusing on the fact that for the production of new goods or services is necessary to have certain capabilities provided by the production of various previously available goods and services, has been proposed by Hidalgo et al. (2009). However, they argue that given the amount and complexity of the necessary capabilities, it is not clear that the state can positively affect the creation of new products or sectors. Undoubtedly, the difficulties in determining which new products or services a country will succeed in producing should not be minimised, but this does not mean it is not possible to determine which products or sectors are key to initiating a process of industrialisation.

A second argument, which is also related to economic growth, has to do with innovation and technology. As is already commonly accepted, innovation and technological development are preconditions for sustainable development. However, the intrinsic nature of the process of innovation is characterised by high levels of uncertainty, and quite often is triggered by fortuitous or accidental discoveries. Moreover, the discovered knowledge often refers to public goods, making the private appropriation of benefits more difficult. It is therefore not surprising that private companies, which seek to maximise their profits, would be inclined to invest less in basic research and more in applied research. Evidently, it is necessary that the state plays an active role in innovation and technological development, not only to create knowledge in universities and public laboratories, but also as a catalyst and mobiliser of resources through state enterprises. In short, this means the state as the creator of the knowledge economy (Mazzucato, 2013).

State enterprises can be used to lead the process of innovation by developing strategies for technological advancement in priority areas and by disseminating knowledge and innovation to the various sectors of the economy, either through existing networks or by facilitating the establishment of new networks. This aspect of leadership is particularly relevant to research and development that has a specific aim, unlike the general advancement of knowledge. Moreover, the success of a *cluster* of high-tech production is not achieved immediately, but may take several years, plagued by moments of uncertainty, with an ebb and flow in the perception of the likelihood of success and the desirability of investing. In these situations, public enterprises have a greater chance of survival.

A third reason justifying the existence of public enterprises is that the objectives of private companies do not always match or complement the objectives of society as a whole. In other words, the decisions taken by a private company do not always reflect a choice for what would be best for the development of the country or for the society in which it operates. Larger and long-term projects, even if they have a prospect of high social returns, are often unattractive to private investors (Brophy Haney and Pollitt, 2010). A basic feature of private sector investments is a preference for low-risk projects that yield high profits in the short term. This applies even to highly-profitable sectors

where profits could be used to invest in other sectors and foster productive development, instead of being distributed as dividends. Furthermore, multinational companies design their investment plans taking into account not only the situation in a particular country, but in terms of a much broader global strategy. This means that the investment needs of a country are not always aligned with the overall investment plans of multinational companies (YPF, 2012). Quite often the argument is made that private companies have no incentive to invest because the state cannot commit to respecting property rights, with the subsequently higher risks of expropriation and tax increases (Esfahani and Ardakani, 2005).

A fourth advantage of having public enterprises is that they can be actively used in the implementation of macroeconomic policies to smooth business cycles, or promote domestic price stability. This can, for instance, be an important supplement to expansionary monetary and fiscal policies in periods of low economic activity or during recessions. When mild recessions occur, it may be sufficient to use expansionary monetary policy that lowers the interest rate set by the central bank to make access to credit for productive activities cheaper, thereby stabilising the economy. However, when recessions are more severe, a reduction in the interest rate set by the central bank may not be enough, since banks may refuse to give credit due to the increase of systemic risk. This reduction in the supply of credit, and the consequent decline in productive investment, may aggravate crises even further. In these cases, having state banks can be very useful, since they would continue to be willing to offer credit to stimulate productive investments and aggregate demand (Brei and Schclarek, 2013).

Even state companies active in productive sectors may behave counter-cyclically and increase their investments to thereby stabilise aggregate demand and prevent the recession deepening. Funding for public investments can take place through an increase in the credit available for production, recapitalisations, and/or directly via expansionary fiscal policies. Public enterprises can be also used for anti-inflationary purposes, implementing price control measures (Galbraith, 1980). Since many of these companies are monopolies or oligopolies and have a positive profit margin, it is possible to decrease prices temporarily while trying to reduce inflation.

A fifth reason for the existence of state enterprises is that they can provide goods or services at a lower price than private companies, especially in sectors where there is real market power (Kwoka, 2002; 2005). Of course, this argument implies that state enterprises are efficient, because otherwise the outcome would be the opposite: cheaper provision of goods and/or services by the private sector. The reason why efficient state enterprises may offer cheaper goods or services than private companies is that the latter are intrinsically profit-seeking. On the other hand, public enterprises can opt not to raise prices and maximise profits, if their mission includes some other social objectives. Furthermore, private companies have a tendency to foster market concentration in order to maximise profits, even to the extent of collusion and the formation of cartels. In such cases, the presence of a state company in an oligopolistic market can be used to introduce some real competition, lowering the price of a specific good or service also provided by the private sector.

The goal of maximising profits can also mean that private companies may prefer to lower the quality of their products and services in order to decrease production costs. In general, this is more likely to occur when there is less competition, when it is more difficult to observe or distinguish the low quality of a service or product, or when consumer decisions are ineffective in penalising such behaviour and/or when private companies do not care about their reputation (Brophy Haney and Pollitt, 2010). There are cases where the state responds to the natural tendency of private companies to increase prices and lower quality by the granting of subsidies to the very same companies. Such cases clearly contradict one of the main arguments in favour of privatisation: that of reducing the fiscal deficit of the state. Public enterprises are not solely focussed on maximising profits and may have as a primary objective the maximisation of the quality or coverage of goods or services, even if this means forgoing some financial gains. The successful achievement of social objectives also implies that public enterprises are efficient; otherwise, the quality or the coverage offered by the state might be lower than that which private companies could provide.

Finally, as the sixth argument, there are some goods and services of great social utility, but which by their nature do not generate any economic incentive to the private sector to engage in their production,

turning therefore essential the intervention of the state (Böheim, 2011). Profitability is a fundamental criterion for all private companies; there is no private commercial initiative that is not guided by the profit motive. In the case of public enterprises, the rationality is different. There are other grounds on which to base the existence of state companies, such as social justice, equality, an interest in promoting development or extending the coverage of services to sparsely populated or more deprived areas. The state can provide essential goods and subsidise access to services. This applies, for instance, to the provision of water, electricity, gas, telecommunications and other essential services in remote and thinly populated areas or lower-income communities.

Problems with privatisation and (de)regulation

Some of the arguments raised above, especially the third, fifth and sixth points, could theoretically be solved through privatisation, the implementation of an appropriate regulatory framework and the creation of a state regulatory agency whose function would be to control the privatised firms (Laffont and Tirole, 1991). Regarding the first, second and fourth arguments, about the advantages of state enterprises— i.e. the use of these as development tools and as instruments of countercyclical economic policies —it seems that the model of privatisation and regulation would not be an option. In relation to the first and second arguments, it has already been suggested that coordination failures would mean that a particular good or service may not develop or be offered by the private sector. How to regulate and control a market that does not even exist? Clearly the involvement of state companies, at least initially, will be necessary. Regarding the second point, a countercyclical policy requires discretionary decisions and actions in a timely and diligent manner. It does not seem easy, nor desirable, to pursue a countercyclical policy, as proposed above, through regulation and state control over private companies.

Returning to the argument that a solution might be privatisation with proper state regulation and control, at least three related problems could be mentioned. First, privatisation is all too often not the result of a transparent debate and a democratic decision, but the outcome of corruption and/or external imposition; for example as part of a pack-

age of financial aid provided by multilateral agencies in the context of a financial crisis. In such cases, privatisation can be the result of external imposition, without a real social and political consensus to back it up. It could be argued that privatisation derives from breaking the rules of the game and is therefore a measure that suffers from an intrinsic weakness. This weakness—the lack of social consensus—increases the risk of a reversal of the decision to privatise, especially if the government changes. This may result in private companies that have benefited from privatisation having as their main objective the recovery of the initial investment in the shortest possible time, even if this means not complying with the regulatory framework. Obviously, those companies would also be extremely reluctant to make large and long-term investments.

The second aspect that calls into question the appropriateness of the solution of state regulation over privatised firms has to do with the prevailing institutional quality. As Perotti (2004) argues, in a country where there are no developed institutions that could ensure effective control and regulation of the private sector, a rapid process of privatisation can lead to negative economic impacts and greater safety and public health risks. It is also quite likely that the regulatory process would be captured by the same economic interests that should be regulated, which would mean the opposite of the objectives sought to be achieved with privatisation. Following this line of thought, it would be desirable to postpone the privatisation process until a certain minimum level of institutional development can be put in place to ensure at least a modicum of effective state regulation.

Thirdly, and perhaps more fundamental than the two previous arguments, is the fact that regulation and state control can be extremely difficult and costly, or even impossible to implement (Hart, 2003; Sappington and Stiglitz, 1987). In some cases it is very problematic or expensive to define *ex ante* the activities, resources and supplies that would be needed for the proper provision of a good or service of a certain quality, and involving a certain degree of complexity in its production. This implies that it would be impossible to draft a complete contract *ex ante,* where prices, costs, quality and investment necessary for the provision of these goods or services area are exactly agreed. From a theoretical point of view, this difficulty relates to theor-

ies related to incomplete information, risk, uncertainty and profits (Knight, 1921).

Failure to implement a complete contract *ex ante* makes it necessary for the regulator to audit the privatised companies *ex post*. However, in some cases this also results in a very complex and costly process, and requires a lot of information and human resources with great knowledge and skills. Moreover, knowledge about the difficulty of adequately regulating and controlling *ex post* and *ex ante* could lead to the privatised company wanting to anticipate potential losses related to the uncertainty about the true costs. Also, the owner of the privatised company may take advantage of the difficulty of regulating and controlling ex post to overestimate the true costs and the quality of goods and services provided and not go forward with the agreed investments. From a theoretical point of view, these difficulties are related to the concepts of asymmetric information and transaction costs (Williamson, 1975).

Conclusion

Throughout this chapter we have analysed—from a theoretical point of view—the main arguments for the existence of state enterprises and the problems related to privatisation. An initial conclusion of this work is that the decision to let the market take care of the provision of goods or services—whether to maintain direct state intervention through state enterprises, or to privatise and institute state regulation and control—is an empirical question that shows the need to study and analyse the specific characteristics of each industry or sector. This means a detailed analysis of the characteristics of the good or service in question, the process of production and technology aspects, the customers, the consumers, the suppliers, and even the recent historical, political and institutional situation at the national or regional level.

There is no general rule: it is necessary to comprehend the wide variety of choices available, without falling into extremes motivated by purely ideological prejudices. In this sense, whether insisting that any state enterprise should be privatised, or arguing that all businesses should belong to the state, means being trapped within an overly

simplistic analytical framework that does not consider the particularities and complexities of each specific case.

A final thought: in order for public enterprises to meet their goals they need to be competitive, efficient, transparent, participatory and innovative. In short, they should be well managed. This is not an easy task for a private company, and even less so for a public enterprise. There are several idiosyncratic issues that hinder state companies in fulfilling that objective, such as the diffuse forms of citizens' ownership, the difficulties for direct control, budget constraints, etc. Moreover, those in power often make decisions detrimental to public businesses, with a clear ideological goal and/or deliberately to commit acts of corruption.

Undoubtedly, the proper administration of the state, and particularly public enterprises, it is something that needs to be studied deeply and continuously (Chang, 2007; Schclarek and Torres, 2012). Despite significant efforts, such as those promoted by the Organization for Economic Cooperation and Development (OECD, 2005, 2010) and the Andean Commission (CAF, 2012), we currently lack sufficient technical and academic studies to improve the management of public enterprises.

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4. The ambiguity of public and the corporatisation of state enterprises

David A. McDonald

Introduction: the meaning and scope of corporatisation[5]

After three decades of privatisation and harsh rhetoric against the state, government ownership and public policy are back in vogue. States are retaking control of services that had been sold or leased out to private operators. The increase in the number of public companies around the world is evident since the late 1990s (Clò et al, 2013). Even in the Anglo-American core, privatisation has slowed down, not having achieved the improvements in quality or cost savings promised by its advocates, particularly in essential services such as water and electricity (Cardwell, 2013; Warner, 2010; Warner and Hefetz, 2012).

Corporatisation refers to the process of creation and management of public enterprises in which the state remains the owner and operator, but which function with a high degree of autonomy. Sometimes the academic and technical literature refers to these entities as "agencies" or "parastatals", but overall the concept denotes public companies with a separate legal personality and often a business structure similar to that of private companies. Many water and electricity providers have adopted this management model, but corporatisation has spread to a much wider range of goods and services, including airports, universities, hospitals, transport companies, and manufacturing (Aivazian et al, 2005; Bilodeau et al, 2007; Fink, 2008; Meyer, 2002; Moynihan, 2006; Nelson and Nikolakis, 2012; Oum et al, 2006; Preker and Harding, 2003; Sumsion, 2006; Zatti 2012).

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[5] This chapter is based on the introduction written by the author for an edited volume on this subject: McDonald, D.A. (ed.) (2014). *Rethinking Corporatization and Public Services in the Global South*. London: Zed Books.

The main objective of corporatisation is the creation of state enterprises in which managers assume responsibility only for the production of goods or services that fall within their managerial authority, and where expenditure and income are accounted for as if each enterprise were an independent organisation. This reconfiguration of institutional responsibilities—*agencification*, as it is often called—is in theory designed to promote greater transparency and/or financial efficiency, to reduce political interference, and strengthen accountability.

More controversial forms of corporatisation have also been used to promote profound cultural and ideological changes within the public sector, introducing corporate perspectives and administrative practices initially conceived for private companies. Since the late 1970s, many public enterprises have internalised the logic of the private sector through the adoption of performance indicators focused on financial performance, setting tariffs and fees based on a new cost structure, and the outsourcing of functions. These changes reflect a broader trend influenced by so-called *New Public Management* (NPM), often linked to an explicit trend toward privatisation once the maximum potential benefits of corporatisation have been reached (Hood, 1991; McDonald and Ruiters, 2012a; Moynihan, 2006; Osborne and Gaebler, 1992; Shirley, 1999). As it has been observed in China (Aivazian et al, 2005), these reforms might be seen as a desirable alternative policy for governments interested in restructuring state enterprises without massive transfer of ownership to the private sector, with the added benefit of preparing the ground for eventual privatisation. The Organisation for Economic Co-operation and Development (OECD) has supported this trend, stating that governments should not discourage future policies or programmes of privatisation (OECD, 2005). In other words, corporatisation might be seen as a way to preserve the "public" nature of a company in a formal sense, but not necessarily its essence, generating new questions about the meaning and nature of state ownership.

Not every corporatisation process, however, has developed with the imperative of commercialisation in mind. Similar administrative structures can obscure different variants of corporatised entities, from proto-privatization to distributive hand-outs to initiatives promoted by "socialist" or "progressive" governments. In this sense, corporatisation could be understood as little more than an empty institutional format

that can take many forms and respond to different objectives in diverse locations.

One of the objectives of the Municipal Services Project (MSP) has been to better understand both the structures and ideologies of corporatisation, discussing the extent to which an option can be considered regressive or progressive for the provision of public services. Our efforts have focused on water and electricity in the South, but the lessons learned have wider geographical and sectoral relevance. The available literature on this topic (in particular critical research) is relatively scarce, and much of what has been published is empirically weak or inconsistent in its conceptual foundation and/or methodology, so it is difficult to make relevant comparisons between diverse geographical and sectoral contexts.

To advance the study of this form of commercialisation is important in these peculiar times, as state-owned and -controlled companies are expanding in the South, at all levels of government and in many sectors. Corporatisation is more common in market economies, but it is also present in "socialist" countries such as Cuba and Venezuela (Alvarez, 2006; Benzing, 2005; Bremmer, 2009). China is undoubtedly the most active country in the promotion of corporatisation, having converted many of its major public companies into agencies with a high level of institutional independence (Aivazian et al, 2005; Ocko and Field, 1994; Ramesh and Araral, 2010).

In the MSP we are also interested in corporatisation because some analysts perceive this modality as a positive alternative to privatisation. In several countries of the South, private sector investment in essential services has not materialised as expected, and resistance to privatisation has been strong (Hall et al, 2005; Mansfield, 2007; Spronk, 2007). In Asia, Africa and Latin America, governments have become less optimistic about the benefits of private provision and less hopeful of private investment in response to the lack of infrastructure and services (Bakker, 2007; Bayliss, 2002; Roland, 2008). As Araral and Ramesh (2010: 1) have emphasised: "States are back, hesitatingly, even unwillingly, and it is widely accepted that they have no option but to rescue the market from itself".

Corporatisation has not been the only answer to the alleged market failure, but is a growing tendency and could become the dominant form for the provision of services in the global South in the near future (Kickert, 2001; Bach et al, 2012; Dan et al, 2012; Florio, 2013; Pollitt and Talbot, 2004).

Distinguishing what is local and what is global in this trend is another important challenge. There are some universal features, particularly in the neoliberal variant of corporatisation, but, in different social, political and economic contexts, this trend may lead to different operational realities. More than with any other form of public service provision, corporatisation challenges the meaning of *public* and the nature of the state in the delivery of essential services.

Current debates around corporatisation

Our research has focused on responding to a basic question: can corporatisation be considered a progressive option for the provision of public services or, on the contrary, should it be seen as the first step toward more radical forms of commercialisation? The academic literature on this subject is divided. Authors who defend corporatisation tend to celebrate corporate practices inspired by the market as an effective way to depoliticise public administration and improve efficiency (Hood, 1991; Osborne and Gaebler, 1992; OECD, 2005; Preker and Harding, 2003; Shirley, 1999). Its critics perceive corporatisation like the proverbial wolf in sheep's clothing, featuring a façade of publicness while it spreads market ideology; or as a form of privatisation without the political and economic risks associated with the sale of public assets (Blum and Ullman, 2012; Gentle, 2009; Magdahl, 2012; van Rooyen and Hall, 2007).

The World Bank is arguably the most prolific and influential advocate, including through the provision of technical guidance and funding for the corporatisation of public enterprises in countries of Asia, Africa and Latin America (Andres et al, 2011; Kessides, 2012; Marin et al, 2010; Preker and Harding, 2003; Shirley, 1999; World Bank, 2006).

The critics highlight the particularly harmful effects of corporatisation in the South, where some governmental public service pro-

viders have internalised the business logic even more deeply than their private sector counterparts: cutting services to households who cannot afford to pay, establishing differentiated systems for accessing services according to the economic level of users (or "customers" to be more precise), and promoting new moral codes around the "responsibility to pay" for public services (Blum and Ullman, 2012; Gentle, 2009; Magdahl, 2012; van Rooyen and Hall, 2007).

The evidence provided by empirical research, however, also reveals positive examples of state enterprises from the South, where equity is the priority and where accountability, sustainability and participation are key components of progressive governance. Studies by the MSP have identified varying degrees of corporatisation in public enterprises that seem to swim against the neoliberal current, trying to preserve or even deepen its public ethos.

The six cases we have studied in depth demonstrate the need to overcome the binary opposition—the ultra-statist perspectives on one side and the ultra-liberal on the other—that blocks the necessary debate on public sector reform. As has been suggested by others, a more realistic and nuanced narrative is required, "suggesting a number of ways in which publicness is being disassembled and reassembled" (Newman and Clarke, 2009: 132).

The impetus for our research also came from the need for a more consistent methodology for conducting research on corporatisation. The academic and technical literature tends to rely on a limited set of performance criteria focused on financial results, paying little attention to issues of equity and accessibility. Meanwhile, those who are against corporatisation tend to be critical of these economistic criteria but do not always provide a clear analytical framework for the evaluation of alternatives.

The historical evolution of corporatisation

Some aspects of corporatisation are as old as the state itself. The Achaemenid Empire of Persia, for example, was dominated by state companies operating with some autonomy from political leaders and was managed by "professionals" known for their "efficiency" (Farazmand, 1996). Similar patterns can be observed in

other ancient and medieval regimes, with varying degrees of success. Sweden began to structurally unbundle the supply and production of public services in the seventeenth century and has continued to promote reforms in the same direction (Moynihan, 2006).

Even the Soviet Union experimented with the idea of corporatisation, creating about 750,000 independent companies during its years of existence. "Communist" China has also created more than one million independent companies. Many of these entities are now sold or outsourced to the private sector, but some of the largest and most strategic remain independent public agencies (Farazmand, 1996; Painter and Mok, 2010). Multiple local experiments in "municipal socialism" in Europe and the United States, from the late nineteenth century to the 1940s, also promoted corporatisation through the creation of autonomous municipal companies for the provision of public services (Stand, 1985; Graicer, 1989; Radford, 2003).

Even fascist governments promoted corporatisation. In Italy, Benito Mussolini created the *Istituto per la Ricostruzione Industriale* (Institute for Industrial Reconstruction) which, "as of the late 1930s… led to the Italian state owning a bigger share in the economy than in any other country except the USSR" (Baker 2006: 229). Hitler undertook similar initiatives in Germany, building an expanded range of new state-run public services intended to improve "the folk" and boost public welfare—at least for those deemed sufficiently "Germanic"—(Bel, 2009; Guérin, 1938; Schweitzer, 1946).

In other words, the creation of arm's-length, state-owned entities is neither historically specific nor ideologically predetermined, with the rationale for public enterprises having differed dramatically across place and time. Their one common feature is their quasi-independent cadre of professional bureaucrats tasked with managing a delineated set of activities, buffered to some degree from direct political intervention. Whether the aim is to serve an elite, advance a racist agenda, build a socialist society, or promote market ideologies, the creation of arm's-length public enterprises can lend itself to radically different objectives.

Even within market economies there are differing motives at play. As noted earlier, some policy makers see corporatisation as a first step

toward privatisation. Some see it as an opportunity to commercialise services without the political and economic risks of direct private sector participation. Others are committed to Keynesian forms of welfarism, while others still see corporatisation as a form of state capitalism.

The cases researched by the MSP are illustrative of these eclectic market rationales and motivations. The creation of the *Instituto Costarricense de Electricidad* in 1949 (the public enterprise in charge of electricity and telecommunications services in Costa Rica; see Cortes's chapter in this volume) grew out of the import-substitution models popular in Latin America at the time, and has reformed along with the social democratic policies of the Costa Rican state. Tunisia's electricity provider, the *Société Tunisienne de l'Électricité et du Gaz* (STEG), was a product of post-independence nationalisation, followed by tight public management under an authoritarian regime and is currently grappling with the rapid changes of the so-called Arab Spring. In Malaysia, the *Tenaga Nasional Berhad* (TNB) dates back to the creation of the Central Electricity Board (CEB), also in 1949, by British colonial managers, and is part and parcel of a post-war economic recovery effort to counter communist insurgency in rural areas, modified again in the 1980s and '90s in response to changing post-independence politics.

In the water sector, the MSP conducted a case study of *Obras Sanitarias del Estado* (OSE), a national water utility that was transferred to the Uruguayan government from a private British firm in 1952 in partial payment of Britain's debts following the Second World War (see Machado's chapter in this volume). OSE has co-existed with military dictatorships, neoliberal administrations and the current left-wing government. The Filipino case researched by the MSP, *Leyte Metro Water District* (LWMD), analyses the meaning of corporatisation since the creation in 1955 of the National Waterworks and Sewerage Authority, which later gave way to a more decentralised system. The last public enterprise studied by the MSP, the *Office National de l'Eau et de l'Assainissement* (ONEA), emerged as a corporatised water service provider in Burkina Faso following the nationalisation of a private company in 1977, and is now influenced strongly by the World Bank and other international donors.

In the face of such diversity it makes little sense to speak of corporatisation as a single model in market economies in the South: 1940s

Costa Rica bears little resemblance to 1990s Malaysia or to contemporary Burkina Faso. In this regard, the MSP research demonstrates the heterogeneity of corporatised entities in the global South, and offers concrete examples of the potential for a public ethos that goes beyond the narrow confines of new public management. The case studies document how public servants can escape the logic of commodification (to varying degrees) and how public ownership and management can be used as a platform to leverage relatively equitable and effective service delivery in a global market economy.

But the MSP research also tells a cautionary tale. In each of the six public enterprises neoliberal forces percolate near the surface, threatening to undermine progressive gains in service delivery. Despite claims that new public management has run its course, or that neoliberalism more generally is on the wane, corporatisation remains heavily influenced by both. Recognising and theorising this impact is essential to understanding the limits and opportunities of public ownership in a marketised global economy.

Equally important are caveats about the problems with "traditional" forms of service delivery. The MSP research on corporatisation reveals patterns of top-down, paternalistic forms of welfarism with little in the way of public engagement. Better resources for strong state services should be fought for where appropriate, but we must not wax nostalgically about Keynesian-era public management models that have at times been exclusionary, opaque and blindly productivist in their orientation (Esping-Anderson, 1990; Newman and Clarke, 2009).

Neoliberal corporatisation

The diversity of corporatisation notwithstanding, it is useful to outline the contours of what I argue to be the most dominant form of public enterprise today, that of the neoliberal corporatised utility. As with any typology the intent is not to suggest that there is a single, inescapable neoliberal model of public ownership, but rather to highlight general characteristics and trends to help us better understand the larger political, economic and ideological context in which corporatisation is taking place.

A useful starting point here is the debate over the merits of new public management as an analytical concept. Despite widespread use of the term, some have argued that NPM is too broad and ambiguous to be of theoretical use. Hughes (2008: 3-6), for instance, calls it a "mythology", arguing that the concept exists only "in the eyes of critics", suggesting it "has no theorist, no doctrine, no agenda and no program. Its only utility has been as a punching bag for public administration academics antithetical to the idea of public management reform…used more to scare than as something that is real or can be analysed… [B]etter not to use the term at all". Hughes argues that there are no paradigmatic examples of NPM, and that it has not penetrated as deeply or as smoothly into public sector thinking and practice as some of its critics suggest. The six cases studied by the MSP attest to this, as do studies in other parts of the world, making it clear that no "ideal type" NPM exists in practice (Nor-Aziah and Scapens, 2007; Pollitt 2006).

Pollitt and Bouckaert (2011: 14-15) agree, calling NPM "something of a mirage". For them, NPM has run its course, with the most recent trend being "modernizers" such as Finland, France, Italy, the Netherlands and Sweden which "place greater emphasis on the state as the irreproducible integrative force in society, with a legal personality and operative value system that cannot be reduced to the private sector discourse of efficiency, competitiveness and consumer satisfaction…a distinctive public service" (Pollitt and Bouckaert, 2004: 98-100). Countries that still practice NPM (a largely Anglo-American cluster that includes the UK, US, Australia, Canada and New Zealand), are portrayed as being stuck in the past.

But while it is true that "core" NPM has faded in popularity, neoliberalism continues to cast a much wider and stickier ideological net in public administrations than these authors suggest. We can still observe revised forms of NPM: a softer, less aggressive method of commercialisation that grants a stronger role for the state than was being called for in the 1980s and 1990s, but one that does little to alter mainstream public administration commitment to commoditisation. As with neoliberalism more generally (Harvey, 2005; Peck, 2010), NPM has undergone significant change, morphing over the years to respond to its own internal contradictions and limitations. As certain features

of NPM have become difficult to sustain in the face of resistance or failure (e.g. outright privatisation, full cost-recovery, drastic cutbacks in spending), modifications have been made (e.g. public-private partnerships, prepaid meters, "self-help" programmes). It is exactly this shifting nature of NPM that is one of its defining characteristics, with modified language and modes of practice emerging in response to crises, as variations on the original leitmotif. The NPM leopard may have changed its spots, but the underlying objectives of marketised public ownership remain strong in governments around the world today.

Renewed vigour for bringing the state back in captures this deceptive dialectic of change, with public agencies now being reconfigured and re-embraced, rather than ridiculed as they were in the 1980s, but with the same basic objective of enhancing private capital accumulation. Neoliberalism today draws as much on John Maynard Keynes as it does on Milton Friedman, looking to the state as an essential moderator of market cyclicality and a broker of ideological reform, making the current vogue for state intervention as predictable as its inevitable shift back to a more laissez-faire discourse once markets have been (re)stabilised and capital accumulation patterns (re)established (Aalbers, 2013; Crouch 2009, 2011).

In this respect, it could be said that "we are all neoliberals now" (Harvey, 2005: 13), a play on Milton Friedman's celebrated quote at the height of welfarism's influence—and later attributed to former US President Richard Nixon—that "We are all Keynesians now" (*Time Magazine*, 1966). The ethos and evaluation of public service has been altered so dramatically over the past 30 years that it is hard to remember what a less marketised form of public service delivery looked and sounded like, let alone bringing one back (Newman et al, 2009).

Contemporary Sweden illustrates the point, with no less a pro-market voice than *The Economist* touting it as the "next supermodel" of public sector governance, noting, as a case in point, that "The Swedes have done more than anyone else in the world to embrace Milton Friedman's idea of educational vouchers" while at the same time appearing statist in its orientation (2013: 5). Francis Fukuyama (2011), another market stalwart, speaks enthusiastically of "getting to Denmark", by way of illustrating what he sees as the need for a strong

and engaged state to be competitive in today's global economy. The retention of a larger suite of neoliberal policies around liberalisation, deregulation, export orientation, inflation targeting, and other marketised reforms by institutions such as the World Bank and the International Monetary Fund suggest it is more a case of neo-neoliberalism than one of post-neoliberalism, serving to strengthen and broaden marketised ideologies and neoliberalism's grip on a wide spectrum of policy actors (Saad Filho and Johnston, 2004).

This is not to say that it is impossible to escape these world views; quite the opposite. It is inevitable that neoliberal practices and narratives will be challenged. We can therefore acknowledge that "the imperative towards opening up public services to markets and market-like principles remains strong", while at the same time insisting that "wherever markets are being made, there are other voices and other discourses that challenge the appropriateness of market relations—questioning their subjection to profit rather than need, pointing to the risks of corruption and collusion, demanding that values other than market value are relevant, or insisting on the superiority of morals, ethos and solidarity to individualism and self-interest" (Newman and Clarke, 2009: 75-76).

These voices are the counter-publics that emerge from the contradictory spaces of neoliberal corporatisation (Olesen 2010), where the logic of commodification has run amok, and where unions, community groups and (sometimes) bureaucrats are pushing back. In post-apartheid South Africa, for example, corporatised institutions such as Eskom (electricity) and Rand Water have proven themselves to be hyper-commercial entities, cutting off services to millions of low-income households for relatively minor payment infractions, introducing prepaid meters that limit access to services, and outsourcing tasks to private firms. These agencies have been the target of sustained protest by community groups demanding a different form of public service (Alexander 2010), although even here we see the ambiguous nature of corporatisation complicate matters, with many South Africans confused by the "public" status of service providers that cut them off.

Being alert to these tensions is important. No two cases of neoliberal corporatisation look the same, and no two patterns of resistance will be identical, but there are ongoing and powerful features of mar-

ket-based forms of agencification that will make the creation of equitable and sustainable corporatised service delivery difficult in a neoliberalised global market economy. Three trends deserve particular attention.

Commoditisation

The emphasis on monetary performance in neoliberal corporatisation has had particularly corrosive effects on the publicness of services. The trend toward performance-based salaries for senior managers and other narrow pecuniary incentives often lead to a change in management ethos, with a focus on short-term financial bottom lines, creating publicly owned and operated entities that behave like private companies, mimicking business discourse and practices and establishing systems of competition that can serve to "hollow out" the state (Dunsire, 1999; Stoker, 1989; Taylor-Gooby, 2000). The outcomes can be a heightened sense of commercialisation, multi-tiered services that respond to people's willingness rather than ability to pay, and a service agency that caters to the demands of an increasingly fleet-footed global elite.

Like converts to a religion, corporatised managers can adopt overly zealous market-oriented styles, languages and techniques, often pushing through policies and actions that private companies would dare not implement (such as widespread water cut-offs to poor families). Sometimes this behaviour is adopted to impress superiors. Sometimes it is done to protect jobs from outsourcing or privatisation. Sometimes managers deeply believe in these market-based incentives (in no small part due to the market-oriented training programmes offered by organisations such as the World Bank). Whatever the cause, the outcome has been a growing emphasis on raising revenue through cost-reflexive pricing and reducing expenses via outsourcing and other discreet forms of cost-cutting.

The ideological effect on service users can be just as dramatic. Consumers are increasingly seen (and come to see themselves) as *customers* instead of *citizens*, with services seen as commodities to be bought and sold like any other product on the market, dissociated from broader public goods and concealing the complex social and labour arrangements behind their exchange price (Clarke et al, 2007).

Myopia

By definition all forms of corporatisation create silos of activity, but this trend is exacerbated under neoliberalism with its emphasis on narrow financial performance criteria. Under "traditional", aggregated forms of welfarist public administration, infrastructure projects were typically brought together under horizontally organised public service departments. With the advent of neoliberal marketisation, they have been legally and physically separated from one another, told not to "waste" resources on other departments, contributing to a blinkered and myopic approach to service planning. Water and sanitation personnel, for example, often make decisions about long-term infrastructure investments independently of planning in public health or waste management. Different levels of government can operate in splendid isolation even though they may share the same building and equipment and service the same jurisdictions.

The same myopia can apply to workers. Forced to operate in vertically oriented administrative structures, frontline staff toil in isolation, sometimes in separate unions, making worker coordination and solidarity across public services difficult (which can be a neoliberal strategy in and of itself, of course). These managerial and accounting systems are intended to reveal the "real" costs of running a service, allowing managers to identify areas of financial loss/gain otherwise hidden in the intricate accounting systems and cross-subsidisation mechanisms of a more centralised production and distribution system. In this process, ring-fencing can deny synergistic gains that may be had from collective planning (Bollier, 2003; Whincop, 2003).

Cross-subsidisation across sectors also becomes difficult in this context. Where revenues from one service may have supported non-revenue generating services such as libraries or primary health care, managers are now disinclined to share resources, and elected officials may no longer have the power to demand their transfer. Corporatised entities become fiefdoms, with protective barriers erected in the name of autonomy. Competition within and across service units becomes valorised, typically requiring deregulation of monopolistic state control and allowing multiple service providers to compete for sub-contracts based on price.

Productivism

Neoliberal corporatisation is also fixated on the growth of services. Water and electricity are particularly illustrative in this regard, as both are essential to the health and well-being of households, as well as to create mass-consumption societies. This is not necessarily a bad thing, of course. Hundreds of millions of people in Africa, Asia and Latin America are in desperate need of new and improved service extensions and it is critical that these investments are made as quickly as possible for moral, economic and environmental reasons.

There are, however, hundreds of millions of others around the world who are over-consuming, with the distribution of consumption (and waste) wildly skewed in favour of a relative minority of the world's population. Can neoliberal corporatisation respond to these ethical and environmental tensions? Can it promote growth in some areas and contain/shrink it in others? Corporatised service agencies are inclined to behave like any other private firm in this regard, chasing growth through revenue maximisation and focusing on service expansion in markets that offer the best short-term returns on investment (i.e. in industry and wealthy neighbourhoods). In this respect corporatised services are but a cog in the wheel of expanding market economies, the history of capitalism being one of "creating new infrastructure for market-oriented economic growth" (Brenner and Theodore, 2002: 362).

But enough of the negatives. As much as the MSP research is a cautionary tale it is also an attempt to shed light on corporatised services that have managed to avoid the worst aspects of neoliberalised public agencies. None of our six case studies have escaped the clutches of NPM entirely, but they are illustrations of how and why it can be resisted to varying degrees.

The MSP research approach to corporatisation

The six case studies conducted by the MSP were drawn from a mapping exercise of *alternatives to privatisation* in the water, electricity and health sectors in Africa, Asia and Latin America (McDonald and Ruiters, 2012b). Our starting point was to look at case studies from all three continents to have as broad a comparative reference as possible,

with candidates selected from the most promising examples of "progressive" forms of corporatisation found in our previous mapping exercise. Not surprisingly, the largest number of potential candidates were found in Latin America, where the establishment of public enterprises was part of the expansion of the developmentalist state in the early and middle decades of the twentieth century, and where there has been a concerted and extensive period of experimentation with "post-neoliberal" public policy over the past 10-15 years with the turn to the New Left (Cameron and Hershberg, 2010; Chavez and Goldfrank, 2004; Weyland et al, 2010).

Progressive examples from Africa and Asia were more difficult to identify (another illustration of the hegemony of neoliberal reforms). This was particularly true of sub-Saharan Africa where neoliberal donors and international financial institutions continue to hold enormous sway and where state capacities for service delivery are relatively weak, as illustrated in the heavily marketised version of corporatisation found in our study of Burkina Faso (see also Bayliss and Fine, 2007; McDonald, 2009; Pigeon, 2012).

In terms of sectors, the research was restricted to water and electricity provision, in part because they lend themselves relatively easily to ring-fencing due to their status as "natural monopolies" with clear revenue and expense streams, but also because they are essential services that have been flashpoints for debates about corporatisation and privatisation in the past. Invariably, there are sector-specific outcomes, but it is hoped that the MSP findings will be of relevance to researchers, activists and government officials interested in similar trends in other sectors as well, such as health care, education, telecommunications and transport.

Another important feature of the MSP research has been the normative criteria used to evaluate performance. Unlike the narrow financial and statistical data used for studies of corporatisation by organisations such as the World Bank, we employed a broader set of qualitative and quantitative benchmarks, which had been used in our previous work (for an extended discussion see McDonald and Ruiters, 2012c). The objective was to establish a general set of universal principles against which to evaluate performance of a given corporatised service unit, while still allowing for contextual difference.

We have employed criteria unique to public services, such as "public ethos" and "solidarity", and have opted for concepts (such as equity) with sufficient elasticity of meaning to allow for variations in interpretation. These criteria are summarised in the table below.

Table 4.1 Criteria and guiding questions for the evaluation of public services alternatives

Criteria	Guiding questions
Equity	• Is availability of the service equitable for different social groups? • Is the quality and quantity of the service equitable? • Are prices equitable? • Is equity formalised, legalised or institutionalised in some way?
Participation in decision making	• Is the depth and scope of participation adequate? • Is participation equitable? • Is participation formalised, legalised or institutionalised in some way? • Is the model of participation sustainable?
Efficiency	• Is the service delivered in a financially efficient manner? • Are adequate investments being made in long-term maintenance? • Do efficiency gains undermine other potentially positive outcomes? • Do efficiency gains take into account other services and/or levels of government?
Quality of service	• Is the overall quality of the service good? • Is quality improving?
Accountability	• Are service providers accountable to end users? • Is accountability formalised, legalised or institutionalised in some way?

Transparency	• Does the general public understand the operating mandates of the service provider? • Are decisions about service delivery regularly communicated to the public? • Is transparency formalised, legalised or institutionalised in some way?
Quality of the workplace	• Do frontline workers participate in the policy making of the service? • Are workers paid a fair salary and benefits? • Are there adequate numbers of workers to ensure quality, safety, sustainability? • Are there good relations between frontline workers, managers and end users of the service? • Is there equity among workers?
Sustainability	• Are there sufficient financial resources available to ensure successful continuity of the service? • Is there sufficient political support for the service entity at different levels of government? • Is the service using natural resources in a sustainable way?
Solidarity	• Does the service help build solidarity between workers, community, bureaucrats, politicians, NGOs, end users? • Does the service help to build solidarity between different service sectors? • Does the service help to build solidarity with other levels of state?

Public ethos	• Does the model help to create/build a stronger 'public ethos' around service delivery? • Does the model promote thinking and dialogue about concepts of public ownership and control? • Does the service model explicitly oppose privatisation and commercialisation?
Transferability	• Is the model transferable to other places (in whole or in part)?

Importantly, we were not looking for "perfect" examples of corporatisation. No public enterprise can realistically meet all of the normative criteria outlined, and what may be deemed important in one place at one time (e.g. community participation in decision making) may be less important in another. There is no single blueprint for success.

Neoliberals, by contrast, adopt a very different methodological approach to evaluating public services, arguing that all human behaviour is ultimately based on a self-interest that responds to signals from the market. There may be differences in the way people produce and consume a service, but self-maximisation is seen to be central to all service behaviours, with concepts of marginal utility serving as a universal indicator to explain everything from "willingness to pay" to the creation of "social capital" (Becker, 1992; Dasgupta et al, 2009; Fine, 2001). Using this rationale, neoliberal researchers see individualised behaviour behind every action, allowing them to argue that deviations from marketised behaviour are aberrations in need of the appropriate market corrective.

At the other extreme, some post-structural analysts reject any notion of universal norms, seeing them as "erroneous patterns of Enlightenment thought, incapable of adaptation to a world of incommunicability and irreconcilable cultural difference" (Harvey, 2000: 86). Social perceptions of water and localised forms of energy production are argued to be too different from place to place to allow for consistent forms of assessment, or reproducibility, making it impossible to employ any form of universal evaluative criteria.

Our aim has been to build a dialectical bridge between these polar extremes, one that allows for the use of broadly acknowledged universal goals (such as "equity" and "accountability") while at the same time recognising that generalisations are fraught with cultural and political tensions that may be irreconcilable at times (see Harvey, 2000). Our normative criteria are therefore intended as a relatively fluid reference point for research, not as a fixed anchor. The aim has been to allow for context-based evaluations that acknowledge local norms but do not fetishise difference.

With this in mind we could better compare the pros and cons of experiences with corporatisation in places as diverse as Uruguay, Tunisia and Malaysia, and we could see the varied circumstances that have allowed some corporatised service entities to become relatively progressive while others have been more captured by market logics. We can also see why good corporatisation experiences are not as easily transferable as organisations such as the World Bank would like us to believe, and why the neoliberal template, as powerful as it is, can never fully shape human behaviour.

In the end, there are no magic bullets for progressive corporatised services. Networked infrastructures such as water and electricity are extremely complex and capital intensive, impacting the built and natural environments for decades (if not centuries), with rapidly increasing demand and shifting technologies of production. Figuring out what works in one place at one time still requires flexibility, as politics, cultures and machineries change.

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5. The Latin American public enterprise: the past of a hard-to-kill Leviathan

Guillermo Guajardo Soto

The historical relevance of state enterprises

After decades of privatisation, state-owned enterprises (SOEs) in many countries continue to fulfil an essential role in the provision of infrastructure, energy, public services and transport, as well as—to a lesser extent—in the industrial sector. SOEs are present in strategic business sectors. In the member countries of the Organisation for Economic Cooperation and Development (OECD), the SOEs are characterised by massive capital investments and having a workforce close to nine million people in companies directly owned or controlled by the state (Christiansen, 2011). Other relevant data have been popularised by *The Economist* in a special issue published in January 2012 on "the resurgence of state capitalism": 13 large SOEs control more than three-quarters of the world's oil reserves, and in countries such as China and Russia the restructuring of the public sector has been done in a selective manner, without the state losing control over the largest firms.

In Latin America, the so-called stabilisation policies implemented since the mid-1970s have been more radical than in other regions of the world and have included the indiscriminate sale of public assets. However, the surviving SOEs continue to be essential operators in fields such as power generation, transmission and distribution; provision of drinking water and sanitation, transport and telecommunications. Some SOEs are also active players in the production of raw materials and industrial goods.

The situation described here suggests that, despite neoliberal policies, these companies continue to play an important role, but also that the advocates of privatisation have succeeding in mainstreaming a negative image, a "black legend" that would justify their sale. The aim

of this chapter is not to present a rosy picture about a type of organisation that, in some cases, could have been a creation of Frankenstein, but rather propose some reflections around basic questions. Do we have an objective appraisal of the significance and impacts of privatisation in concrete strategic sectors the Latin American economies? Do we really know the historical trajectory of Latin American SOEs? What types of organisations are grouped under the generic notion of *public enterprise* and how good or bad has their performance been?

To begin to answer these questions we need an assessment of the historical factors that contributed to the creation of SOEs, focusing on the tensions between regulation and intervention. The analysis that follows is centred on the experience of Mexico, a country where until the 1980s a wide spectrum of SOEs operated on several fronts, with enormous economic, managerial and technological constraints. The chapter concludes with some brief synthesis of the main ideas discussed in this text.

Origins, formats and definitions

According to several authors (Toninelli, 2000; Bouneau and Fernandez, 2004; Díaz-Fuentes and Comin, 2004; Millward, 2005), the original concept of public enterprise emerged in Europe around the manufacturing industries, shipyards and arsenals of the Old Regime. It was, however, in the nineteenth century when, according to Millward (2005), the modern public enterprise emerged to regulate, coordinate and develop the new networks, energy systems and infrastructure that evolved from the industrial revolution in three major fields:

- mass consumption of services such as water, gas, transportation, postal services, telegraph and railroads;
- definition of "rights of way" and regulation around expropriations, routes, fares, engineering standards, interests, subsidies, taxes and administrative boundaries;
- new infrastructure built to endure, altering territories and cities.

All this was deployed in five historical phases: (i) proto-industries, manufacturing and royal arsenals; (ii) public services, between 1815 and 1914, including new infrastructure for banking and financial services; (iii) expansion and restructuring, between 1914 and 1940, cata-

lysed by the two world wars, protectionism and nationalism in sectors such as oil, coal, gas, electricity, radio and weaponry; (iv) dissemination, maturity and reconversion, between 1940 and 1980, with state dirigisme and interventionism in industrial activities; (v) privatisation and reform, from 1990 onwards.

The inventory of SOEs includes a wide range of legal forms, such as companies, institutes, commissions, agencies and departments within centralised or decentralised agencies of the national, provincial or municipal administration. This scenario presents great difficulties in suggesting a precise historical definition; therefore, comprehensive approaches prevail, such as that proposed by Aceña and Comin (1990) to characterise the Spanish public sector, referring to various types of organisations, companies or services that are owned (wholly or partially) or controlled by the state.

Latin American researchers (such as Belini and Rougier, 2008) have used the notion of *Estado empresario* ("entrepreneurial state") to include not only public entities, but also the broader range of institutions and conditions required to support or sustain governmental interventions in the national economy. Ribeill (2004) has analytically reconstructed the history of French companies and services by including a wide variety of state monopolies, concessions granted to private companies, mixed companies, nationalised companies and other entities that make up an eclectic and not very coherent "bazaar" of legal forms. Millward, meanwhile, has found that the most common formats are: (a) public enterprises located within a governmental department such as the post, telegraph and railways; (b) public institutions like those established in France after 1940, an innovation that created a type of organisation with legal personality and financial autonomy, with a board of directors independent of the government; in the UK this form amounts to public corporations, with a legal framework different to the one that regulates commercial companies; (c) state-controlled companies structured on capital composed of shares, such as Air France and Lufthansa.

In the United States one can also find various organisational forms, a notable example being the Port Authority of New York, created in 1921 in order to solve problems of administrative and operational coordination between railway operators and manage urban growth. To

perform such tasks, the company built new infrastructure and favoured the expansion of automobile transportation as a flexible and cheaper alternative to railways (Doig, 2001). Further south, in Latin America, the SOEs emerged to address the lack of regulation and coverage in transportation, water, electricity and other public services. The State Railways Company was founded in Chile in 1884 with the aim of unifying the services provided by different companies that were already public, offering a cheap option for the promotion of agriculture and strengthening state control over the national territory (Guajardo, 2007a). A different situation could be observed in Mexico, where the federal government's inability to regulate competition between railway companies was resolved by the participation of the sate as a shareholder in the capital of companies, a strategy that resulted in the creation of the National Railways of Mexico (Ferronales) in 1907 (Grunstein, 1994; Kuntz and Riguzzi, 1996).

Regulation, coordination and extension of new infrastructure were the original reasons for creating state companies. The motivation began to change in the 1930s and 1940s, when the SOEs expanded to new areas, including—from the 1950s onwards—the promotion of industrialisation and the expansion of the domestic consumer markets. In this sense, Latin America did not follow a different path to Europe: SOEs were created to provide subsidised goods and services, through state participation in the capital of new firms, or intervention in (or absorption of) private enterprises. There were also companies that received capital contributions from the state during their initial evolution, with the ownership and managerial authority later being transferred to the private sector (Marichal, 2003; Rougier, 2008; Guajardo and Rougier, 2010).

Two common features of these companies have been that the definition of their main business is a responsibility of the government and that they operate in the market. This situation has, since its inception, generated a tension that is present in current discussions on regulation and public ownership, leading to long-standing arguments against SOEs, such as: (1) the lack or weakness of mechanisms to monitor their activities and performance; (2) asymmetries in the flow of information between managers and owners for the empirical verification of the performance of firms based on share capital; (3) the SOEs

tendency to "capture" the regulator; (4) the maximisation of their particular interests being the fundamental motivation of public servants; (5) the critique proposed by the "Austrian school", which argues that economic and opportunity costs are essentially subjective and that public officials are not interested in devising price schemes based on limiting costs and clear rules for investment rules for the public sector (Millward, 2005). The latter argument has been widely used in Latin America to privatise SOEs and reduce state involvement in the economy.

From heterogeneity to dissolution

The historical analysis of the public enterprise has been heavily influenced by neoclassical approaches (Comin and Díaz-Fuentes, 2004), therefore it is necessary to take into account a broader spectrum of theoretical perspectives. One can look at the studies published by Mark Kaplan (1972) on the role that SOEs could play in the process of Latin American economic integration, or studies such as those by Muñoz Gomá (1977 and 1986) on how the results of the first wave of privatisation in Chile led to a reconsideration of the role state enterprises had played in the development of the country. In Mexico, the rapid growth in the number and economic weight of the SOEs has been researched by Carrillo (1976), Barenstein (1982) and Casar and Peres (1988), among others. Much of the literature highlights the fact that by the late 1970s many Latin American SOEs manifested financial problems, a confusion of social and economic objectives, as well as being highly diversified and lacking coordination.

The start of the problem dates back to the 1950s, when many governments created new entities that began exercising responsibilities that used to belong to the central administration. SOEs were created outside the established legal framework, through an unplanned process and following many paths of integration into the structure of the state. In the 1970s, it was possible to distinguish different configurations of SOEs:

- Public services enterprises, particularly in the fields of transport and energy.

- Entities created or initiated by the state to implement economic plans or strategic projects in specific areas.
- Entities incorporated into as the result of expropriations.
- "Rescue nationalisations", whereby the state took over economic activities which were not profitable for the private sector.

The different forms of public entrepreneurship are reflected in three very general types of organisations (see Inter-American Development Bank et al., 1979): (a) the independent company, with legal personality, own income and a decentralised financial administrative management; (b) the mixed company, a legal entity that operates under private law, engages in economic activities as a corporation, and whose shares are majority-owned by the state, directly or indirectly; (c) the public enterprise, with legal personality under private law, with its own assets and capital entirely owned by the state, created to operate a specific economic activity, or due to contingencies or administrative convenience.

Overall, this was the regional inventory of SOEs when Latin American countries began to feel the exhaustion of the previous import substitution industrialisation (ISI) strategy, with increased inflation and the ideological confrontation of opposing political projects, all of which paved the way to stabilisation measures. Early versions of neoliberal reforms were implemented in Chile, Mexico and Argentina, and in the 1990s the prescriptions of the Washington Consensus—based on the ideas of deregulation and privatisation—spread throughout the region. In Chile, the reforms initiated under a dictatorship were kept in place by democratic governments that continued to privatise with the use of new mechanisms—such as that characterised by Ernesto Tironi, the economist who directed the Corporation for the Promotion of Production (created in 1939 and which until 1973 guided the development of the country's SOEs), as the "dilution" of public ownership by injecting private capital into existing state enterprises.

A case study: public enterprises and economic colonisation in Mexico between 1950 and 1980

Mexico, due to its size and internal diversity, illustrates much of the regional trends. The railway company Ferronales was created in 1907,

but it was only after the approval of the 1917 Constitution that the central government started to have greater powers to intervene in the economy. This led to a gradual increase in the number of SOEs in the areas of energy, rural development, transport, communications and services, with the aim of strengthening the country's sovereignty and furthering social progress. From 1950 onwards the number of state enterprises increased in response to conjunctural problems, diversifying and making even more complex the state apparatus.

The Mexican government adopted principles in vogue at that time, disseminated by United Nations agencies, UNESCO and the International Institute for Administrative Sciences (IIAS). In 1953 the government sent a representative to the IIAS congress in Turkey, and in 1955 founded its own National Institute of Public Administration. The new significance of SOEs was reflected in policy adjustments such as legislation passed in 1958 that created the Department of National Assets as the governing body of public enterprises active in the energy, mining, transport and manufacturing sectors. This policy lasted until the 1970s, when the Mexican government began to test new ways of interacting between the federal ministries and the SOEs. The Ministry of Mines and Parastatal Industries was created in 1982, in a context of organisational anarchy and increasingly bureaucratic management (Marichal, 2003; Ayala, 2003).

In the early 1980s Mexico had more than 1,150 state companies and public entities, with a workforce of around one million people. In 1982 public spending represented 58 per cent of the GDP (Tamayo, 1992; Ayala, 2003). It has been estimated (Casar and Peres, 1988) that, by 1984, the Mexican "bazaar" of SOEs was composed of 498 companies, excluding financial institutions, trust funds and entities related to health and education. Of this group, 65.9 per cent companies were active in the manufacturing industry, while the energy, telecommunications and transport sectors accounted for 9 per cent. Most companies had a recent history: the 65 per cent recorded a date of establishment between 1970 and 1982.

In response to this situation, the government led by President Miguel de la Madrid (1982-1988) first improved the systems for planning and control of the bureaucratic machine, and then experimented with decentralisation. In the second half of his administration he de-

cided to privatise or liquidate some SOEs, merge some entities and liberalise the economy. This strategy was radicalised in 1989 during the government of Carlos Salinas (1988-1994), when a whole cycle of promotion of SOEs as key elements for the modernisation of society and the economy of Mexico was terminated (Sanchez, 2009). Between 1950 and 1980, the state had assumed responsibility for the construction of major projects, infrastructure and industrial facilities, the promotion of oil production and the provision of public services.

Three cases of public enterprises in three different sectors show the territorial and productive significance of state companies since the 1950s: (1) the establishment of an industrial city in the state of Hidalgo; (2) the production of oil in the Gulf of Mexico, which transformed the country into an exporter of oil; (3) the construction of a tourist resort in the Caribbean Coast to gain access to foreign currency in the context of a protectionist economy. The timeframe of these three cases falls largely within the launch and the closure of the *desarrollo estabilizador* ("stabilising development"), a strategy for controlling inflation and promoting growth that resulted in GDP growth rates greater than 6 per cent per year and enabled the industry to contribute more than a quarter of the domestic product in the 1960s. This strategy came to an end at the beginning of the 1970s, with the intensification of trade between Mexico and foreign markets (Unger, 1985; Ortiz Mena, 2000; Villarreal, 2000) and the increasing weight of the oil and services sectors in the national economy. At the territorial level, the SOEs were active agents in the process of economic colonisation, decentralising the economic activity throughout the country.

In the early 1940s much of the urban population and industrial activity were already concentrated in Mexico City. The population of the capital city was by then 1.6 million, and in 1970 reached 12.8 million. That same year, the Federal District contributed 48 per cent of the industrial GDP. To facilitate decentralisation, the Mexican government opened industrial parks, following a model whose origin dated back to the second half of the nineteenth century in the United States and England. The same model had been used after the Great Depression of 1929 to stimulate growth and reduce unemployment. A variant of this strategy had been applied in the Soviet Union to industrialise backward regions. Mexico adopted the British model of industrial zoning:

in 1950 the initiative was launched in Ciudad Sahagun, in the state of Hidalgo, based on a project initiated by the Bank of Mexico (the central bank) that initiated the Mexican programme of industrial development poles.

One of the firms created in this context was the National Railwagons Company (Concarril), which in 1952 launched the Mexican railway equipment industry, as a supplier of rail vehicles for Ferronales. Concarril could not use all their productive capacity because Ferronales, its main customer, decided to continue using wagons rented from companies located in the United States, generating the paradox that in 1960s Concarril started selling rolling stock to the American railway system while another major Mexican public company was renting cars from the same neighbouring country. By the mid-1980s, the industrial pole had not been developed due to lack of basic conditions, such as skilled workers, banking and professional services, suppliers, developed infrastructure and a local market (Garza, 1992). To this must be added the inability of the government to coordinate a public market for capital goods and engineering (Guajardo, 2010).

Another case was the experience of the oil sector in the Sonda de Campeche, an underwater extension of the Yucatan Peninsula in the Gulf of Mexico. Petroleos Mexicanos (Pemex)—a company formed after the expropriation of 1938, during the government of Lázaro Cárdenas—initiated exploitation of the Cantarell field in 1979, consolidating Mexico's profile as an exporter of oil, represent 36.7 per cent of total oil production in the 1980s and 40.8 per cent in the next decade. The advances in the oil sector arose from decisions made during the presidency of Gustavo Díaz Ordaz (1964-1970), when exploratory offshore drilling began. The Mexican Petroleum Institute was established in 1965 as a provider of research and development services for Pemex, enabling the expansion of productive capacity. By the late 1970s, Pemex was the only oil company—and Mexico the only country in the world— that had discovered giant deposits (three) with reserves of more than 5 billion barrels. The Cantarell field made it possible for Mexico to become a reliable supplier of oil for industrialised countries (Ortiz Mena, 2000, Gálvez, 1988; Guajardo, 2007b).

On the Gulf side of the peninsula of Yucatan, Pemex promoted the oil industry, while on the Caribbean side, in the state of Quintana Roo,

the Central Bank developed the tourism industry, catalysing the economic integration of the peninsula (Baños, 2000). For the latter, state agencies built the town and tourist resort of Cancun, with the construction of intrusive and aggressive infrastructure in pristine forests and coral reefs, beginning the rapid environmental modification of the Mexican Caribbean. Cancun was a project of the Central Bank and the Ministry of Finance to attract foreign investment in operate hotels, but for that the federal government had to build all the infrastructure, while SOEs such as the Federal Commission of Electricity, Pemex and Telmex (the until then state-owned telecommunications company) had to provide basic energy and telephone services (Torres, 2003; Macías and Pérez, 2009). The decision was based on economic and strategic reasons: to promote tourism in order to draw in foreign currency and strengthen the scarce government presence in a region that could be affected by the geopolitical tensions generated by the Cuban Revolution of 1959. In 1962 the federal government had helped a group of private entrepreneurs to establish telecommunication and radio stations in the states and Yucatan and Quintana Roo to counteract Cuban propaganda (Orea, 2004).

The next step was to integrate Cancun within the broader tourism industry, which by 1970 was already structured around five main areas: Cancun, Ixtapa, Huatulco, Los Cabos and Loreto. These movements led to the creation of a sector of SOEs centred on tourism, in response to the private sector's inability and lack of interest. The National Fund for Tourism Development was launched in 1974, having been allocated the tasks of building Cancun: hotels, residential areas, condominiums, golf courses, a convention centre, an airport and urban facilities for a population of just 4,000 persons, most of them workers hired for building the new city. The formative period of Cancun concluded in 1981, when several hotels and the airport were inaugurated, highlighting the lack of urban planning and serious logistical problems for the provision of food, energy and services, in both the tourist area and the city that was built behind it (Romero, 2009: Fernández de Lara, 2009; Macías, 2009).

Conclusion

The Latin American public enterprise is a Leviathan that refuses to die. Its history cannot be told as a rosy tale, but neither does it deserve to be twisted into a black legend. The region's public enterprises had, since their inception, to undertake various tasks assuming multiple legal forms, which reflected the lack of coordination but also the realities of each country, sector, activity and territory in which they operated. It might have been necessary to create an industrial company to supply the domestic or foreign market, with unionised and highly trained personnel, or form a new public agency and convoke several state enterprises to clear the forest and build a whole new city from scratch.

The history of these entities is as complex as their formats, origins and evolutionary paths, so that it cannot be reduced to the (almost official) narrative that the privatisers have been promoting. This holds that the transfer of ownership and managerial responsibilities to the private sector was justified, as SOEs supposedly exemplified the inherent inefficiency of the public sector and constituted a threat to economic freedom.

Today in Latin America, we witness the re-emergence of strong social protest, led by new organisations that mobilise in defence of the public interest, as was the case of the massive Brazilian demonstrations that began in June 2013 in demand of better public services. At the same time, the inertia, short-sightedness and simplicity of the arguments posed by the Latin American school of neoliberalism, also remain obvious. The neoliberal advocates of privatisation are still unable or unwilling to understand the particular history of large socio-technical systems that were, and still are, vital to ensure energy, water, transport and telecommunications—among other factors—in increasingly urban societies.

Thirty years ago, public enterprises reached their highest point of development. Innovative paths were opened, which today are largely forgotten, such as a new kind of pact between the unions and the state and the development of more complex managerial and technological skills and capabilities. Thereafter, many governments opted for the simplicity promised by a group of economists that tried to justify the

sale of public assets with arguments that eventually proved to be false, such as those popularised in Mexico by Rogozinski (1993) stating that privatisation would enable the best solutions for the provision of drinking water, health, education, and productive investment. Decades have passed and those promised remain unfulfilled. What remains, in one form or another, is a structural system based on the reasons that constitute the core of both the history and the future of Latin American public enterprise.

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6. State-owned enterprises and development in Costa Rica

Alberto Cortés Ramos

Introduction

This chapter analyses the process through which Costa Rica has built a strong network of public institutions and enterprises, based on a very particular form of state intervention that enabled a specific style of development that has differentiated this country from the rest of Central America.

In general, studies on the Costa Rican experience put emphasis on the characteristics of public policy rather than its operators. This chapter focuses instead on the creation and history of strategic institutional actors—state companies and public institutions—that have become key catalysers for national development, centring the analysis on the developmental (1949-1980) and neoliberal (1980-2013) periods.

The Costa Rican institutional apparatus in the regional context

By way of contextualisation, we begin by indicating that Costa Rica has the strongest and most complex conglomeration of state companies and public institutions in the Central American region. An ambitious comparative study included in the recently published State of the Region Report 2010 (Programa Estado de la Nación en Desarrollo Humano Sostenible, 2011) presents some significant data on the composition of Costa Rica's institutional apparatus and public budget vis-à-vis its neighbouring countries.

The comparative study indicates that in 2009 there were 968 public entities active in Central America: 276 in Costa Rica, 102 in Belize, 121 in Guatemala, 162 in El Salvador, 92 in Honduras, 104 in Nicaragua and 111 in Panama. That means that Costa Rica concentrates almost 30 per cent of all public institutions in the region. As far as budgetary

data are concerned, the relative weight of Costa Rica is even greater, because it represents 43.8 per cent of the region's total.[6] To put these data in context, the most populous states in the region, Guatemala (more than 14 million inhabitants) and El Salvador (over 6 million), have public budgets that amount to about half of Costa Rica (fewer than 5 million).

A third noteworthy aspect of this regional contextualisation is the more or less complex institutional apparatus of the Central American states, which are defined according to the type of service they provide. Again, in Costa Rica the density and complexity of the institutional apparatus is clearly evident in both the diversity of activities covered—the provision of social, economic and environmental services—and the number of institutions involved.

The final set of relevant comparative data refers to the period of creation of public entities in the Central American region. In general, the institutions that compose the central state apparatuses are relatively young, as most public agencies were created in the last 20 years. On the other hand, only a small portion of the entities created in the nineteenth century remain active. In Costa Rica, most of the existing public institutions and state enterprises were created over the past 60 years, as will be discussed in more detail in the following sections.

The trajectory of Public Enterprises in Costa Rica

Costa Rica shows clear specificities in terms of development of a welfare state established around the creation and expansion of a large array of public enterprises. This largely explains the higher level of human development achieved by this country in comparison to other countries in Central America

This is a country with a particular trajectory in terms of creation and expansion of what has been called a public apparatus with a large capacity in terms of infrastructure and functions (Mann, 1984). This feature corresponds to a *longue durée* configuration. Early on, after

[6] The study relied on information from a sample that covered only 58 per cent of all existing public entities (Programa Estado de la Nación, 2011).

independence in 1821, the Costa Rican state engaged in several strategic activities, such as the expansion of transport infrastructure (roads and railways), the creation of monopolies on the production of tobacco, or the promotion of coffee as the country's main export (González, 1984).

The creation of public agencies and state enterprises (1850-1948)

As early as 1850, in the period known in Costa Rica as "patriarchal", the Costa Rican state created the National Liquor Factory (*Fábrica Nacional de Licores*, FANAL) in order to control the production of alcoholic beverages, increase public revenues and boost sugarcane cultivation. This public company operated as a monopoly, which continues to be in place today, even though for some years neoliberal advocates have been pressuring the government to transfer this area of production and commercialisation to the private sector (FANAL, 1998).

In the second half of the nineteenth century the state was relatively active in diverse areas, but not so much in the creation of new public entities. The trend changed in the first four decades of the twentieth century, coinciding with a period of social conflict. This saw transformations in the world of labour that included the creation of the first trade unions—initially in the banana enclaves on the Caribbean side of the country—and political changes that enabled the emergence of left politics and policies, manifested in the foundation of the Communist Party in 1932 (Sánchez, 2004).

During the period known in Costa Rica as the "liberal" phase, the state became more directly involved in many different economic and social fields. As Hidalgo Capitán (2003) has noted, the government launched a programme of public works to reduce unemployment and promoted the expansion of the institutional apparatus, partly as a result of the crisis of 1929 in the United States and partly as a result of growing social polarisation.

One important new area of intervention was the financial sector. There had been several – unsuccessful—attempts to create a state bank since 1850, and it was not until 1914 that such an initiative would prosper, with the creation of the fully state-owned International Bank of Costa Rica. The bank prioritised extending credit to small farmers and financing coffee exports (Quesada, 2008; Rovira Mas, 1990). It is

important to note that President González Flores had tried to negotiate the establishment of a mixed-ownership—public and private—bank with the economic groups that composed the coffee oligarchy, but they opposed such a move. In 1936, this financial organisation became the country's central bank, assuming the role of issuer of the national currency, and the main authority for the design and implementation of monetary policy. During that time, it changed its name to National Bank of Costa Rica (*Banco Nacional de Costa Rica*). This decision was seen as the first real effort towards the democratisation of financial credit from the state, which would later be expanded with the bank nationalisation in 1949 (Gil Pacheco, 1982; Mora, 1999).

Another initial area for state intervention was the insurance sector. In 1915, the government began to discuss the need to establish a monopoly on insurances and instituted the Workers' Safety Act, transferring the responsibility of administrating the insurances for workers to the newly established International Bank of Costa Rica. In 1919 a bill was introduced to consolidate the monopoly, with arguments that revealed a new conception of the state that broke with the liberal model. This vision was inspired by socialist ideals imported from Europe and more advanced Latin American countries such as Chile and Uruguay (Monge, 1994). A quote from the official text that argued in favour of the monopoly gives an idea of the social and political climate that prevailed at the time of formulation of the new policy: "The main role of the state is to protect its citizens, especially the weak, against the advances of the powerful, as well as against any impairment or disability that may hinder their contributions to the common good" (cited in Monge, 1994:274).

The new policy approach reflected a nationalist project aimed at defending the country's sovereignty, seeking to increase economic independence by making good use of the savings of ordinary Costa Ricans. This would be achieved by granting insurance coverage to workers who suffered accidents, and by providing assistance to their families in case of death or permanent incapacity. This form of state intervention polarised the positions between those political and economic sectors that represented private gains—such as the interests of international insurance companies active in the country—and those in government, who by instituting a monopoly on insurances aspired to overcome the

limits of the minimal state that characterised the previous liberal perspective. In the context of that debate, the then-Secretary of the Treasury made a robust defence of the state, arguing that it should move into private businesses if it was necessary to uphold the common good over individual interests, stating that "the social order should be based on the community, not on individual profit".

The proponents of the initiative aimed at instituting the state monopoly demonstrated a profound knowledge of the international trends in the field of insurance. In refuting the arguments of the political opponents to the project, who argued that the state should not move forward because the Costa Rican society would not be prepared for a state monopoly (Monge Alfaro, 1994: 299), the minister who defended the legislative proposal cited examples from Denmark, New Zealand, Sweden, Norway, Switzerland and even the by-then already progressive Uruguay. Finally, in 1924, the law that instituted the state monopoly in this field was approved, giving birth to the National Insurance Bank, which later (in 1948) would be re-founded as the National Insurance Institute (*Instituto Nacional de Seguros*, INS) in the post-war wave of creation of new public entities.

In this same period, shortly before entering a time of transition and social reform between 1940 and 1948, the government created—in 1933—the Institute for the Defence of Coffee (*Instituto de Defensa del Café*) in order to regulate relations between producers and intermediaries. This represented once again an intervention of the state in response to the contraction of the economy in the context of an international crisis, which had a great negative impact in the coffee sector, particularly among small farmers who suffered not only the contraction of their export market, but also the pressures of the intermediaries to keep prices low (Acuña Ortega, 1985).

In terms of the evolution of the entrepreneurial profile of the state, the liberal period was more fruitful during the times of institutional transition and social reform between 1940 and 1948. During the liberal period not many new public entities were formed. This was, however, when two of the most important Costa Rican institutions were created, with extensive and continuous social impact: the national university (*Universidad de Costa R*ica, UCR) in 1940—more than a half century after the 1888 closure of the *Universidad de Santo Tomás*—and the

Costa Rican Social Welfare Agency (*Caja Costarricense del Seguro Social*, CCSS) in 1943. Both institutions have had a tremendous influence on the country's social and cultural development, democratising access to higher education and health care services. But even the profound changes that occurred in the 1940s were not as radical as those that would take place after 1949 (Hidalgo Capitán, 2003).

The developmentalist institutional boom (1948-1980)

A few public institutions were created during the eight years of the reformist interregnum of the 1940s, but the creative thrust of the state acquired new impetus immediately after a brief civil war that shook the country in 1948. The armed conflict was triggered by a series of electoral disputes that led to the formation of two rather atypical coalitions. The government was defended by a coalition composed of representatives of the landed oligarchy, the Communist party and sections of the Catholic Church, while on the opposite side there was a rebel army composed of small farmers, urban professionals and social-democrat activists led by José Figueres Ferrer (Acuña, 1992).

After the victory of the social-democratic coalition led by Figueres Ferrer, the opposing sides agreed to establish a Constituent Assembly, which concluded in 1949 with the creation of several new autonomous state agencies and public enterprises. The new bloc in power had a strong faith in the state as the main agent for social, economic and political change. This group included not only Figueres as leader of the Social Democratic Party—which in 1951 would constitute the basis of the new National Liberation Party (*Partido de la Liberación Nacional*, PLN)—but also intellectuals associated with the Centre for the Study of National Problems (*Centro de Estudios para los Problemas Nacionales*, CEPN), directed by the future UCR chancellor, Prof. Rodrigo Facio (Quesada, 2008).

The new reform-oriented hegemonic group promoted the creation of a wide array of state enterprises and public agencies, prompting government intervention in the economic sphere to facilitate rapid industrialisation (Sojo, 1984; Hidalgo Capitán, 2003). The new organisations were granted extensive administrative and financial autonomy from the central government to meet their institutional objectives (Jiménez, 1987). The decision to create public enterprises and autonomous agen-

cies was not politically neutral; the coalition that had emerged as the winner of the short but defining civil war represented mainly the interests of the middle class and the petty bourgeoisie, wishing to expand their social and economic base and weaken the coffee oligarchy and the economic groups that prevailed before 1948 (Sánchez, 2004).

One of the main decisions taken by the Governing Council (*Junta de Gobierno*) that assumed control of the country after the civil war was the nationalisation of private banks and the consequent creation of the national system of public commercial banks, which would concentrate all current and savings accounts and provide credit to finance the capitalist modernisation of agriculture and industrial production (Sojo, 1984).

The Governing Council also relaunched the Institute for the Defence of Coffee as the Coffee Bureau (*Oficina del Café*), a semi-autonomous institution under the Ministry of Economy. It also increased the autonomy of the National Production Council (*Consejo Nacional de Producción*, CNP) to facilitate the expansion of agricultural production for the domestic market, and created the Costa Rican Electricity Institute (*Instituto Costarricense de Electricidad*, ICE) to ensure the generation and distribution of electric power. Years later, the ICE would also assume monopolistic control of the telecommunications sector (Hidalgo Capitán, 2003; Chavez and Cortés Ramos, 2013).

The decisions of the Governing Council and the National Constituent Assembly would open a cycle of expansion of state activity stretching over the next three decades, during what is known in Costa Rica as the "developmentalist" (*desarrollista*) period. In 1954, the National Institute of Housing and Urbanism (*Instituto Nacional de Vivienda y Urbanismo*, INVU) was created, as an autonomous institution responsible for implementing social housing and urban development programmes across the country. The Costa Rican Tourism Institute (*Instituto Costarricense de Turismo*, ICT) was established in 1955 as the governing body in charge of increasing the number of visitors, the construction and maintenance of new accommodation and recreational facilities for tourists, and monitoring private activities in this field. The Land and Colonisation Institute (*Instituto de Tierras y Colonización*, ITCO) was also created in 1961 to address the problems of peasants' access to land and growing social unrest in the countryside.

This institute later became the Institute for Agrarian Development (*Instituto de Desarrollo Agrario*, IDA), in 1982.

Other important new state entities were aimed at developing particular regions. The Atlantic Coast Port Administration and Economic Development Board (*Junta de Administración Portuaria y de Desarrollo Económico de la Vertiente Atlántica*) was created in 1963 as a state monopoly, to be funded by the revenues generated by Puerto Moin, the country's main port.

This organisation was intended to promote the economic and social development of the Caribbean region. Among many other similar initiatives, it is also worth mentioning the establishment of the Costa Rican Oil Refinery (*Refinadora Costarricense de Petróleo*, RECOPE) in 1974, and the Costa Rican Radiographic Company (*Radiográfica de Costa Rica*, RACSA) in 1964 (Hidalgo Capitán, 2003).

In total, 113 decentralised state entities were created during the period 1948-1979. Not all of these organisations had an autonomous status; some were semi-autonomous and therefore had closer links with the central government (Jiménez, 1987). This growth in the size and scope of state enterprises and public agencies generated several important results over decades of continuous expansion: enlargement of the coverage and quality of public services, improvement of social indicators and the weight of public employment within the economically active population, expanding the middle classes and reducing poverty. As Cerdas Cruz (2001) has already observed, during the process of economic and social transformation the state engaged in the provision of all kinds of goods and services, such as road infrastructure, construction of energy projects and the extension of educational services throughout the country.

At the same time, the state became a major employer, opening new opportunities for political clientelism that would benefit the ruling party. The state also became a disputed mechanism for both individual and social economic advancement, and a big market for goods and services highly influenced by political and electoral considerations.

The social impacts of the renewed dynamism of the state also became evident. For example, in terms of income distribution and equity, Costa Rica achieved great progress during the developmentalist peri-

od, as shown by the Gini index decreasing from 0.5 in 1961 to 0.42 in 1977. The level of poverty also decreased significantly, from 50.3 per cent of the population in 1961 to 18.5 per cent in 1977 (Hidalgo Capitán, 2003). This was due to a combination of public policies that included as priorities the development of basic infrastructure and improved access to public services at subsidised rates.

By the late 1960s, the criticism of the level of autonomy that the state had granted to public enterprises and agencies increased, focused on two main arguments. First, the supposedly excessive dispersion and disarticulation of public policy that had resulted from the rapid increase in the number of entities created and/or owned by the state. Second, the fact that the executive branch could not always exercise control over the orientation and actions of all these organisations, some of them active in very strategic sectors. As a result of the growing criticism, a constitutional amendment to Article 188 was passed in 1968, reaffirming the administrative "independence" of the autonomous entities (Jiménez, 1987; Hidalgo Capitán, 2003). The discursive contradiction was quite obvious, as instead of consolidating “independence” the new norm politically subordinated such entities to the central government.

The centralist turn deepened during the next government of José Figueres Ferrer, between 1970 and 1974, after the passing of two new laws that greatly weakened the managerial and financial autonomy of public enterprises and agencies. The first law (popularly known as *Ley 4-3*), approved in 1970, divided the seats on the boards of directors between the two largest political groups, granting four members to the ruling party and three to the opposition. The second law, the Executive Presidency Act of 1974, strengthened the power of the President of the Republic in appointing the board members of public entities (Rovira Mas, 1987).

These measures, which were supposed to solve the problem of lack of coordination between the government and the autonomous entities, and reduce the institutional dispersion, in fact ended up creating new managerial problems. On the one hand, the exacerbation of political partisanship within the leadership teams of public entities, all of them appointed by the President of the Republic; on the other hand, internal contradictions and conflicts between political appointees and profes-

sional managers, which undermined the quality of management and administration (Jiménez, 1987; ICAP, 1987).

Parallel to this process of weakening the managerial and financial independence of autonomous entities, in the period 1970-1978 the country reached the highpoint of the expansion of the public sector with the launch of a state-owned holding company: the National Development Corporation (*Corporación para el Desarrollo S.A.*, CODESA). The companies created under the umbrella of this corporation represented a major advance in the expansion of what was referred to —in the theoretical debates of the time—as "state capitalism".

Initially, during the last government of José Figueres Ferrer (1970-1974), at a time of economic slowdown due to the impacts of a grave international crisis, the aim was to boost the financial and technical leverage of the state through CODESA, engaging in economic activities that the private sector would consider too risky. The new model was conceived as a formula for combining private entrepreneurship with state action. In fact, in some companies that were promoted after 1972, the state contributed two-thirds of the capital and the private sector would contribute the rest. This approach reflected the interests of a new class of political entrepreneurs, of which Figueres was the best representative.

Nevertheless, there were contradictions within the PLN on the meaning and scope of this approach. The dispute was between the political entrepreneurs—who had been hegemonic in the direction of the party until then—and the entrepreneurial politicians, a new group that represented the interests of the new state bureaucracy, headed by Daniel Oduber, a rising political leader linked to the state enterprises and the public sector in general (Cerdas Cruz, 1979; Sojo, 1984; Doryan, 1990). When Oduber was elected president in 1974, he quickly consolidated the strategy of developing CODESA as an expression of the entrepreneurial state (*el Estado empresario*), promoting significant investments financed with public funds and the creation of new state-owned firms (producing cement and sugar, for example) in direct competition with the private sector.

This strategy was facilitated by the fact that CODESA operated under private law and was not subordinated to the fiscal supervision of

the Comptroller General. Apart from the lack of control that allowed cases of corruption, another aspect that drew criticism was the large amount of credit that the public holding company absorbed, in a time when the granting of credit was a state monopoly. In 1976, an open conflict between the government and the private sector exploded around these issues, and the executive decided to accelerate the process of creating companies wholly-owned by the state. This was the first serious rift between the PLN and the business sector (Doryan, 1990). The sectors in which the state expanded its economic presence were mining, agro-business, metal and wood processing, transportation, fisheries, marketing and financial services. In each of these sectors the state controlled more than one activity and several companies (Cerdas Cruz, 1979).

In 1978, Rodrigo Carazo Odio won the presidential election, as the candidate of the Unity (*Unidad*) coalition. Although he had stated during the election campaign his intention to reduce state involvement through CODESA, the correlation of external forces and those within his own coalition prevented the reduction of the scale of the corporation. The privatization of CODESA would occur only in the context of the new neoliberal strategy that would begin to be implemented after the crisis of 1980-1982 (Doryan, 1990).

The period of structural adjustment, neoliberalism and reform of the state (1980-2013)

The Latin American debt crisis of the early 1980s had a strong impact in Costa Rica. Like most countries of the region and the global periphery, the Central American government was driven to implement a structural adjustment programme based on the set of measures imposed by the Washington Consensus (Ferraro Castro, 1998). However, given the complex geopolitical situation of the region between the 1970s and 1990s, including the strategic interests of the United States in Costa Rica and the need to showcase it as a capitalist "democratic alternative" to the Sandinista Revolution in Nicaragua, the country's governments had a relatively wider margin for unorthodoxy in the implementation of economic shock therapies, in a less radical manner than in most Latin American countries (Rovira Mas, 1987; Doryan, 1990).

The structural adjustment measures were not only aimed at reaching financial equilibrium; they were part of a global economic and political restructuring aimed at modifying the previous configuration of state-society relations. The impact in Costa Rica might not have been as profound as in other countries, but the structural adjustment measures clearly marked the end of a cycle. The prevailing idea since then has been the establishment of a new model of development functional to the interests of the global market, characterised by the reorientation of production towards exports as a means of obtaining the revenues necessary for the payment of the foreign debt. They also implied a profound change in the institutional configuration of the state and in the values that had prevailed during the previous developmentalist period. "This is not simply a rearrangement of the factors of production, but a complete restructuring of society, with negative consequences in terms of equity in the distribution of wealth and, in general, in the democratic nature of the country" (Rojas Bolaños, 1990: 5).

The neoliberal transformation has also implied a new way of conceiving the meaning of *public*, of politics, of public policy, of public enterprises and of the state in general. From the perspective of the Costa Rican born-gain neoliberal ideologues, the market is the key to solving any economic problem, as well as the main mechanism for social intermediation. The growing power of the new ruling elite in government has been aimed at changing the logic of the public sector, promoting extensive corporatisation (see McDonald's chapter in this volume) in those cases where the transfer of ownership from the state to the private sector does not comply with the interests of national or foreign business operators. In Costa Rica, the process of structural adjustment has meant a restructuring of the state apparatus and the meaning of 'public' in at least three interrelated levels:

First, the creation of enabling conditions to redirect the productive structure towards non-traditional exports. This included the establishment of a new legal framework and tax incentives for foreign investment (through free trade zones and international trade agreements, for example) and for sectors dedicated to producing non-traditional exports.

Second, the restructuring of the mechanisms to generate government revenues and reorient public spending. With respect to income

generation, the new logic implied at least three elements: (a) a change in the tax structure favouring capital to the detriment of salaried workers; (b) a reorganisation of the tariff structure to favour exporters and foreign investors and, at the same time, punish the formerly protected sectors by reducing tariff protectionism, especially for the industrial sector and small and medium farmers linked to the production of basic crops (Trejos, 1993); and (c) the use of public services tariffs to balance the government financial deficit, forcing the state enterprises into a constant raising of tariffs to enable subsequent transfers of resources to the central government. This last point meant that state companies providing public services began to be evaluated from a purely commercial perspective, distorting the mission of enterprises that had been originally created with a public mission to meet social objectives—such as an expansion of coverage and the provision of quality services through cross-subsidies—and not as purely revenue-generating entities (Rojas Bolaños, 1990; Trejos, 1993; Jiménez, 1987).

Third, the restructuring of the institutional matrix and the reconfiguration of public spending. The structural adjustment mechanisms meant not just the establishment of more regressive forms of taxation and tariffs, but also the reorientation of the public budget with significant cuts in the resources earmarked for social programmes. At the beginning, this would mean budget cuts for the organisations active in the social sector, those responsible for the delivery of health care, education and social welfare (Rojas Bolaños, 1990). Later, in the period 1990-1994, it would also mean strictly focalised social policy to reach almost exclusively the poorest population (Valverde, 1993).

In relation to the restructuring of public enterprises, the neoliberal reforms were based in two main components. First, corporatising the management, administration and operations of state-owned firms. The main objective of the market-oriented restructuring was posited as increasing their "efficiency" in order to generate higher revenues or surpluses. The result was the increase in the cost of basic services and the internalisation of a new market logic in public enterprises. Second, to attempt to privatise public enterprises and/or transfer responsibilities from state agencies to the private sector. In fact, CODESA was fully privatised. The discussion about which public entities should be privatised, which state monopolies should be dismantled, or what form

of privatisation should be promoted, began three decades ago (Trejos, 1993) and continues to date.

Since the late 1980s, the neoliberal advocates in government have been rehearsing diverse strategies to achieve the privatisation of public agencies and state companies, parallel to the process of transnationalisation of the Costa Rican economy. One suggested option was the all-embracing privatisation of public entities. Another strategy—when the complete sale of state assets was not feasible or convenient for market operators—has been deregulation, forcing public enterprises to compete in a liberalised market. This has been the case with ICE, forced to compete with two giant transnational corporations (América Móvil and Telefónica) after the liberalisation of the telecommunications sector. The first option has to a large extent proved unfeasible—due to the radical opposition of the citizenry to this type of proposal—except for those companies that composed the holding corporation CODESA. But government officials of successive administrations over the past three decades have tried to justify the need to sell state companies; for example, in 2002 a high-profile commission composed of former ministers of finance argued in favour of privatisation as the best alternative to solve the problem of the growing fiscal deficit and the allegedly excessive swelling of the government apparatus.

When a parliamentary attempt was made in 2000 to approve the partial privatisation of the country's flagship public enterprise, the Costa Rican Electricity Institute—through a bill popularly known as the *Combo ICE*, which eliminated the state quasi-monopoly in both electricity and telecommunications—the country witnessed one of the largest protest movements in the modern history of Costa Rica. The protest was of such scope that the National Assembly ended up reversing the approved legislation by a majority of more than two-thirds (Cortés Ramos, 2009; Chavez and Cortés Ramos, 2013).

The liberalising strategy known in Costa Rica as *aperture*, however, has proven to be much more effective in defending the interests of powerful business groups. The first successful attempt was the liberalisation of the financial sector in 1983, with the consequent breakdown of the banking monopoly in current and savings accounts. This process culminated in 1994, during the government of José María Figueres Olsen (son of José Figueres Ferrer), with the full opening of

the sector and the entry of foreign and domestic private banks into the national financial market. In the case of state-owned commercial banks, even though they still handle most of the national credit, nowadays they operate with a clear commercial logic, not according to their foundational public mission. The change within public banks has been legitimised with the discourse of "modernisation" of the financial system and the provision of "better" service along the lines of private banks.

While it is true that the liberalising strategy has proved effective for influential business groups, it is also true that public agencies and state enterprises continue to enjoy a high prestige within Costa Rican society, as evidenced by several public opinion surveys (Cortés Ramos, 2009). It was relatively easy to predict that the attempts to change the institutional status of ICE and INS would generate broad social resistance. Therefore, private business groups and their representatives in government and parliament incorporated the liberalisation of telecommunications and insurance in the text of the Central America and Dominican Republic Free Trade Agreement (CAFTA-DR) with the United States. This treaty was the subject of a referendum, which approved it with a very narrow majority (51 per cent in favour and 48 per cent against), forcing the liberalisation of both sectors.

Clearly, the deregulation of strategic services in the context of trade liberalisation and transnationalisation also implies the need for internal transformations within the public sector. Among other things, the CAFTA-DR treaty calls for the elimination of subsidies, equal treatment of domestic and foreign companies, and the requirement for public enterprises to operate on a commercial basis or generate profits. Corporatisation, in short.

To this, must be added the fact that since 1990, under the confusing discourse of the "reform of the state" (*reforma del Estado*), the neoliberals have managed to promote new managerial models, pass legislation and implement policies that have tended to weaken the public sector even more, while new market niches are generated for private operators. This has happened with the CCSS, which was forced to outsource services to private providers of health care, which ended up being more expensive than if they had continued to provide those services themselves. The same happened with the laws 7,200 and 7,508,

which authorised the private generation of electricity. This legislation forces ICE to buy power from private power generators at a higher price, financially weakening the ICE and effectively subsidising the business operations of private operators. Something similar has happened with the construction and maintenance of road infrastructure, after the approval of legislation that grants concessions to private firms while the operating capacity of the Ministry of Public Works and Transport is gradually weakened.

It is not a coincidence that, after three decades of the hegemony of the neoliberal paradigm, Costa Rica has suffered a deterioration of the quality of public services, an increase in the absolute and relative number of families in poverty, higher unemployment and increased social inequality.

Conclusions

This chapter has presented a periodisation of the state's role in the development of strategic economic and social sectors, showing that Costa Rica has followed an atypical pattern of evolution in comparison to other Central American countries by adopting a pragmatic attitude in the creation of public entities. This trend began in the country very early in its history, immediately after independence. The chapter has also described how, after a long period of liberal rule in the nineteenth century and early twentieth century, the growing social unrest catalysed new ideas calling for the state to assume a more important role in national development. This vision began to materialise with the creation of important public entities in the 1940s, but got a much stronger impetus after the Civil War of 1948, with the creation of an array of state enterprises and public agencies active in many strategic sectors, during the phase known as the developmentalist period (1948-1980).

This process of creation and expansion of the public sector has not been free of social and political tensions. The system of highly autonomous state entities generated multiple contradictions and conflicts. At the peak of increased statism in the history of Costa Rica, around the time of creation of CODESA, the central government forcefully reintroduced the notion of centralisation and political control, reducing much of the earlier autonomy granted to these entities

and causing substantial problems that continue to affect their operations even today.

The chapter has also analysed how the statist vision began to lose strength in the 1980s and was eventually replaced by the neoliberal paradigm, which is based on the premise that *public* is by definition a negative concept. As a logical consequence, during the last three decades there have been many attempts to privatise public agencies and state enterprises, and when it was not possible or convenient the option was to deregulate and liberalise the sector in question. Moreover, the signing of a trade agreement with the United States has been used to end the state monopolies in the strategic telecommunications and insurances sectors. Although the balance of neoliberalism in terms of coverage, equity and quality is mostly negative, neoliberalism has been effective in weakening the country's historically strong public sector.

From the point of view of the author, it is necessary to deepen our understanding and have real debates in Costa Rica and other Central American countries about recent innovative experiences aimed at the recovery of the *public* in the Southern Cone, particularly in Uruguay and Brazil. To reconstruct a progressive meaning of the concept of *public* is, without any doubt, one of the biggest challenges that Costa Rican society faces today.

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7. Petrobras: An internationalised state-controlled company

Armando Dalla Costa, Huáscar Fialho Pessali, and Sandra Cristina da Cunha Gonçalves

Introduction

In September 2010 Petrobras raised $69.97 billion in the biggest share sale ever in the global capital market. Its market value reached $270 billion, becoming the world's second largest oil company behind Exxon—$313 billion—and ahead of PetroChina—$266 billion—(Sciarretta, 2010).

These resources are supposed to be used mainly to make possible the exploitation of the massive Pre-Salt offshore reserves off the coast of Brazil. The Pre-Salt layer is a geological formation that holds enormous deposits of natural gas and good-quality oil, which lie below over 2,000 metres of water and deep layers of salt and rock, up to 250km into the Atlantic Ocean. Understandably, this makes the drilling process very challenging in terms of technology and the financial resources required for commercial production. The company's 2012-2016 Business Strategy foresees to the investment of $236.5 billion in this period. Petrobras's goal is to produce 3.9 million barrels of oil equivalent per day (BOEs) in 2014, and 5.4 million BOEs in 2010.[7]

Petrobras' net profit in 2012 was $11.1 billion, with projected investments for 2013 totalling $51.3 billion, mainly in exploration and production in Brazil (*G1*, 2013). By the end of 2012 the company had 85,065 employees in 27 countries, including Brazil, of which 7,640 were working abroad. In terms of its financial turnover, the international activities in the same year accounted for 12.4 per cent of the total sales, equivalent to $18.4 billion from a total of $148 billion. At

[7] Unless otherwise indicated, all the data concerning Petrobra's infrastructure and productivity is based on narrative and financial reports published by the company.

present, the company has an industrial infrastructure composed of 109 drilling rigs, 13,174 producing wells (oil and gas), 125 platforms, a daily production of 2.6 million barrels of oil and 452 barrels of natural gas, 16 refineries in Brazil and abroad, 242 ships, 8,356 commercial posts, 2 fertiliser factories, 7 biofuel plants, 16 thermoelectric plants and 4 wind power plants.

At the time of its creation, in October 1953, even the most optimistic Brazilians would not dare to think that the company would reach such a size, becoming the country's most important firm and the key to Brazil's self-sufficiency in oil extraction and refining.

This chapter's main objective is to examine the performance of Petrobras throughout its history, focusing on the process of internationalisation. The first part offers some theoretical reflections that contribute to understand the trend towards international expansion. The second section refers to the company's history and performance in Brazil. The third part concentrates on the extension of Petrobras's activities to other countries in America, Eurasia and Africa. The chapter concludes with a set of conclusions

Theoretical elements on the process of internationalisation

It has been argued that "the complexity of the internationalisation process involving companies and countries with quite distinct structures does not permit the emergence of a general theory about this process" (Além and Cavalcanti, 2007: 260). Despite this assumption, there have been several efforts in the literature to interpret and systematise the phenomenon of internationalisation of large companies. Most of the literature focuses on the expansion of firms from the North to countries in the South, a trend observed since the 1950s. Although much less systematised, there have been some studies on the internationalisation of companies from the South, a phenomenon that became more visible since the second half of the 1970s.

According to published research (Dunning, 1988), the firms that engage in processes of internationalisation must possess certain types of advantages over its competitors to justify direct investment abroad. So-called "ownership advantages" include, for instance, those related to

tangible and intangible assets (trademarks, technology, training and qualification of the labour force) that allow firms to take advantage of "locational advantages" offered by other countries, such as natural resources, labour, infrastructure and market size. Dunning (1988) has classified the motivation of companies towards the internationalisation around four elements: (a) natural resources and comparative advantages; (b) increased marketability; (c) access to new markets; (d) increase in efficiency. The access to resources and the use of comparative advantages refers to seeking raw materials and labour cheaper than in the country of origin, which would make more viable the production for other markets with internationally competitive costs. In terms of increased marketability, the installation of representative offices — among other options — would help ensure the availability a product in a new foreign market with greater control over the distribution channels. The access to new markets relates to several factors, including the existence of natural trade barriers (physical impediments) or created barriers (tariffs). The pursuit of efficiency is related to the rationalisation of production to exploit economies of specialisation and location. In a more advanced degree of internationalisation, multinational companies distribute stages of their productive activities in different countries to gain concrete advantages during a specific stage of production. What originally could be seen as a subsidiary ceases to be a faithful "copy" of the parent company, as it may specialise in one or a few specific production stages. This can be characterised as a form of international vertical integration.

By studying diverse cases of internationalisation of Brazilian companies, Iglesias and Motta Veiga (2002) have distinguished concrete types of foreign investments that support the expansion of their exports: commercial offices, warehouses, distribution centres, assembly facilities in the target market, re-exporting, after-sales customer services, laboratories and workshops for adapting products to the preferences of the importing market. To these, we add the establishment of commercial offices, outlets and franchises. These new forms of entrepreneurship in other countries aim at providing direct attention to international business partners.

The breadth and diversity of investments, as mentioned above, is typical of companies with more experience and knowledge of the in-

ternational market, and will generally include trade agreements with local partners. Such agreements usually involve an increase in the number of the strategic agreements signed by Brazil, linked to the business strategies of Brazilian companies and the search for new foreign partners. Thus, the challenges of a productive nature add up with those related to international management. Firms try to overcome these barriers through organisational innovations that mainly involve decentralising decisions and harnessing local advantages.

Internationalisation through foreign direct investment would be similar— in the motivations and the organisational ways to make it possible—to the processes of integration and diversification of the firm in geographically diverse markets within the home country. But companies must also take into account the transaction costs required for doing business in different institutional environments.

Another theoretical approach that helps understand the internationalisation experience of Petrobras implies seeking concrete answers to the following questions: *Why* do firms decide to enter the international market? *What* are the types of assets and/or activities transferred to the international market? When is the right time to internationalise? *Where* is it important to have activities abroad? How should one enter the international market? Two broad theoretical currents have contributed potential responses to such questions: a current focused on traditional economics (normative), and another one focused on behavioural economics (descriptive).

The first current analyses the internationalisation of firms as a result of rational decisions aimed at pursuing profit optimisation through growth in foreign markets. The second current conceives of internationalisation as a process related to attitudes, perceptions and behaviours of agents (firms and managers), focusing on the reduction of risks and transaction costs in deciding where and how to expand.

In relation to foreign direct investment (FDI), it has been stated that many firms go through a process of gradual increase in the commitment to internationalisation (Johanson and Wiedersheim-Paul, 1999). This would mean, for example, that: (a) at the beginning the firm is not focused on activities for export, (b) export begins being performed by independent international representatives, (c) sales oc-

cur through the firm's own subsidiaries, and (d) production starts to take place in plants installed by the company abroad. This classic interpretation is known as the Uppsala model, in recognition of the Swedish university that has promoted this type of process.

Over the years, the Uppsala model has undergone several reviews and revisions, though it still helps to explain many cases and serves as a starting point for further analysis. The most recent cases of mergers and acquisitions, for example, refer to companies that go beyond the gradual approach described above and show the new dynamics of internationalisation. Diverse case studies suggest that in many occasions companies (in particular those native to emerging countries) do no necessarily go through several stages in their processes of internationalisation. There have been cases where companies have moved directly to foreign direct investment (FDI) without having previous experience as exporters. Several companies have had access to technological or institutional innovations that allow then to benefit from a monopolistic position that grant them enough time to learn and adapt to the new business environment in the host country

It has also been noted that companies from emerging countries have some local specificity that is impregnated into the path of internationalisation, since other factors such as the scale of operation or the better knowledge of complex environments tend to be an advantage of firms based in the North (Dunning, 1981; 2001). Companies from the South may also adapt or develop technologies originally designed in the North to be used in their specific markets, a pattern known as localised technological change. This would contradict the idea that these companies just take advantage of pre-existing local resources to capitalise on comparative advantages. They are able to develop technological skills that can eventually be exploited for internationalisation. This is enhanced by the growing income in the country of origin and the associated evolution in the scale of operations of the company.

The oil industry is a peculiar sector, and its growing oligopolisation at the global level cannot be ignored. Both the scale of operations and the high investment risks, as well as the uncertainty of access to reserves, should be taken into consideration. Thus, many governments in emerging countries have created state-owned or state-controlled enterprises (SOEs or SCEs) as a way to compensate for the distortions

of the oligopolistic control, and reduce their dependence on a few and powerful suppliers based in the North. Several emerging countries have tried to negotiate access to their reserves in return for access to technology in the hands of companies from the North, in order to accelerate their catching up technologically. By mastering the transferred knowledge and using it in combination with the specificities required by local markets, some companies from emerging countries have successfully developed the necessary skills to expand in the international market.

Petrobras and the roots of the oil industry in Brazil

Some historical records date the start of oil exploitation for commercial purposes in West Virginia, in the United States, back to the 1820s (McKain and Allen, 1994), but Edwin Drake is usually identified as the first man who drilled the first true modern oil well, in 1859, in Pennsylvania. Drake's well was 22 feet deep and initially produced 25 barrels per day (Moura, 2003).

In Brazil, the first real attempts at exploration were made in the 1890s in the state of Sao Paulo. The first oil reserves, however, were discovered in January 1939, in Lobato, state of Bahia. The discovery resulted in the drilling of 17 wells by technicians from the National Department of Mineral Production, still on an experimental basis. It was only in May 1941 that the discovery in Candeias (Bahia) of the first commercial oil field in the country occurred. By December 1942, Brazilian oil production had reached 32,000 barrels, and a year later had increased to 48,000 (Moura, 2003).

An ongoing dispute between the advocates of foreign companies and the nationalists opposed to the presence of multinationals in the Brazilian oil sector intensified after the end of World War II. The nationalists used the slogan *o petróleo é nosso* (the oil belong to us) in campaigns to promote the creation of a state company in charge of exploration, exploitation and refinement.

The outcome of the controversy was the creation in 1938 of the National Petroleum Council (CNP), under the leadership of President Getúlio Vargas, which increased the control that the state had over the

oil sector. Years later, on 3 October 1953, President Vargas signed Law No. 2,004/53, creating the company Petróleo Brasileiro SA, Petrobras.

The federal government became the main shareholder, exercising full control over the exploitation and processing activities. It is worth noting that Petrobras and its subsidiaries had a monopoly on oil-related activities, with distribution being the only exception (Moura, 2003). The monopoly prevailed until 1997, when the passing of new legislation altered the market structure.

Soon after its creation Petrobras gained control of a CNP refinery in operation and another under construction, at a time when there were five other small private plants active or under construction: Destilería Rio-Grandense de Petróleo, Ipiranga (in operation since 1930), Capuava and Manguinhos (opened in 1954), and Manaus (opened in 1956). However, the first refineries built by Petrobras itself would be only opened in the 1950s and 1960s; in particular the Presidente Bernardes refinery (1956) in the state of Sao Paulo, and the Duque de Caxias refinery (1961) in the state of Rio de Janeiro, allowing the country to achieve a refining capacity that exceeded consumption (Moura, 2003).

Other components of the company's business strategy were investments in research and development of new technologies, which would become an essential feature of Petrobras (Moura, 2003). The start of this process occurred in 1957 with the foundation of the Centre for Oil Research and Training (CENAP), later renamed Research and Development Centre (CENPES). CENPES was dispersed in several units until 1973, when they were centralised at the Federal University of Rio de Janeiro (UFRJ), enabling the conditions for the first offshore explorations that would be essential for Petrobras' internationalisation strategy.

The expansion and regionalisation of the production capacity were secured with the construction of the Gabriel Passos and Paulinia refineries in 1968. In addition, four private refineries in operation at the beginning of the 1970s were expropriated; two of them were incorporated into Petrobras and the other two were deactivated (Moura, 2003).

In December 1967 Petrobras launched Química SA (Petroquisa), built in the petrochemical hub of Sao Paulo. Another subsidiary in the fertilisers' sector, Petrofértil was created in 1973, thus reshaping the

nature of Petrobras as a holding company. The holding corporation preserved its monopoly in the areas of exploration, exploitation and refining of oil, with subsidiaries (Braspetro, Petroquisa and Petrofértil) in related areas.

The first global oil crisis, which began in 1973, profoundly altered the dynamics of the national oil sector. The sharp increase in the price of oil stimulated new investments in the search for alternative fuel sources in importing countries. In the Brazilian case, the decision was to invest in the production of biofuels, which resulted in the launch of the National Alcohol Programme (Proálcool) by the federal government in 1975.

A second set of actions was to invest in the discovery of new oil reserves. In this sense, the discovery of the Garoupa field in November 1974, off the coast of Rio de Janeiro, opened a promising new phase in the exploration and production of oil. This demanded the development of new technologies based on the specific conditions of the prospected sites, tens of miles offshore and in deep waters.

During the 1980s, Petrobras made significant advances in both the exploitation of offshore oil and in refining and distribution. The costs of importing oil derivatives in 1981 reached $10 billion; in 1989 they had been reduced to just $3 billion. In the area of offshore exploitation, in 1986 Petrobras was already drilling wells in water 1,200 metres deep and able to extract oil at depths around 400 metres, a world record. In 1988 this record was surpassed in the Marimba field (in the Campos basin, off Rio de Janeiro), at 492 metres below the surface. In the words of Decio Costa (2003), Petrobras's Executive Manager for the Southern Cone:

> Nowadays, Petrobras' production is basically the result of the discoveries we made in the deep-water Campos Basin, in Rio de Janeiro, from 1985 onwards. At that time, only foreign companies had oil drilling platforms at sea and with capacity to reach depths of 800 to 900 metres. Around the world there were only 10 or 12 of these platforms in operation and almost all were place here, in Brazilian waters.

The 1990s was a decade of profound transformation within the company, with the end of monopolistic control and the privatisation of

several companies directly linked to Petrobras. After Law No. 9,478 was passed in 1997 the state monopoly was limited to the deposits of oil, natural gas and other hydrocarbons. Another major influence on internal changes in Petrobras was the change in the shareholding structure of the holding company, as the result of partial privatisation. Two-thirds of the shares went to the hands of private capital, with 40 per cent traded on the New York Stock Exchange. The Brazilian government, however, retained control over 56 per cent of the voting shares.

The process of mercantilisation started with the launch of the National Privatisation Programme during the first elected government that followed the military dictatorship (led by President Fernando Collor de Melo, elected in October 1989 and deposed by impeachment in March 1990). The federal programme directly affected Petrobras, with the privatisation of Petrobras International Trade (Interbras) and Petrobras Mineração (Petromisa) and the closure of the National Petroleum Council. Privatisation also meant the sale of Petroflex, Fosfértil, Copesul and Compañía Álcalis of Rio Grande do Norte.

The trend towards privatisation expanded during the first government of Fernando Henrique Cardoso (1995-98), causing other major changes in Petrobras. On August 1997 the Brazilian Parliament passed the "Petroleum Act", Law No. 9,478, which opened the Brazilian market to competing firms, ending the state monopoly. The Act limited the participation of the Brazilian federal government in the capital of Petrobras to 50 per cent plus one of the voting shares. From then on, the management of Petrobras would not be based on purely national interests, since the decisions of the board should also consider private interests. Private interests had already been influencing the company's strategy, but in 1997 the process became more explicit and had a marked impact in the trend towards internationalisation.

In 1999 the company launched the Petrobras System's Strategic Plan, deepening the corporatisation of the company's structure (see McDonald's chapter in this volume) and establishing five main business units: exploration and production, supply (including refining, transportation and marketing), distribution, energy and natural gas, and petrochemicals.

The start of operations of the National Agency of Petroleum, Natural Gas and Biofuels (ANP) in 1999 changed the procurement process for companies interested in the concession of rights for the exploitation of offshore blocks (or other predetermined areas). In 1998, before the new tenders, Petrobras had already registered its rights over 397 blocks (ANP, 2007). Since then, Petrobras has been actively bidding for new exploration rights, often in association with foreign companies. By the end of 2001 the company was already operating 10,000 producing wells, 31 drilling rigs and 96 platforms (Moura, 2003).

In the 2000s, the idea of reconverting Petrobras into a fully-integrated energy holding company became more explicit. Besides the expansion in the area of oil production, the firm's strategy was also aimed at the exploitation of gas and renewable energy sources, in particular biodiesel. The renewed concern about not being dependent on a single non-renewable resource and the consequent search for new alternatives for the generation of energy able to meet the new demands for environmental sustainability, will be essential components of the Petrobras' growth strategy in the near future.

Braspetro and the start of the internationalisation of Petrobras

It can be argued that the internationalisation of the company was initially driven by two main events of the 1960s. First, after several unsuccessful attempts at finding oil on solid ground, drilling started offshore, in waters belonging to the states of Sergipe and Pará. The new strategy required the importation of equipment and the hiring of foreign companies with know-how in the field of marine exploitation.

The second event took place in 1963, when the federal government granted Petrobras the monopoly for the importation of oil. These two events forced the company to engage in international operations, negotiating technological and commercial agreements with other companies, thus developing greater insight into the global dynamics of oil production.

In the early 1970s, Brazil was still immersed in enabling its peculiar "economic miracle", characterised by the rapid expansion of industrial activities and, consequently, the achievement of high rates of

growth. This obviously demanded greater dynamism from the oil industry. The growth of the demand for oil encouraged the further expansion of Petrobras, which has included the search for oil in other countries and investments in prospecting new reserves.

To better manage its activities outside Brazil, in 1972 the company created a subsidiary: Petrobras Internacional SA, Braspetro. Shortly after the launch of Braspetro the first major oil crisis hit, when the Organisation of Petroleum Exporting Countries (OPEC) dramatically reduced supply and pushed up the price of oil in the international market. The Brazilian state's response was aimed on several fronts. One was the expansion of domestic supply through dismantling the monopoly in the area of exploitation, and signing risk-sharing contracts with foreign companies. The second response was facilitating the expansion of production of an alternative fuel: alcohol. The third was to develop prospecting and exploitation of oil in international fields through Petrobras.

According to the literature presented in the theoretical section of this chapter, one of the reasons that would lead firms to internationalisation is the "pursuit of natural resources" (Dunning, 1988). In 1972, through the creation of joint ventures with other companies, Petrobras engaged in prospecting activities in Colombia, Iraq and Madagascar. In the African country there was an association with Chevron. The following year, such activities spread to Egypt and Iran, in association with Mobil Oil. In the second half of the 1980s, as Moura (2003: 198) states, the company intensified trade relations with:

> Iraq, Iran, China, Nigeria, Angola, Algeria, Venezuela and Ecuador, which contributed to a reduction of 43.6 per cent in expenditures on overseas purchases in 1986, compared to the prior year. Meanwhile, the exports of petroleum products (mainly to the United States) increased from $673 million in 1985 to $923 million in 1989, with gasoline accounting for 56.3 per cent of such revenues.

Regarding exploration and production, Petrobras expanded to several continents: South Yemen and China in Asia; Algeria and Angola in Africa; the Gulf of Mexico in North America; in South America, it began to operate in Colombia in 1989 and later signed contracts for

offshore exploration and production with Argentina; in Europe, it sought reserves in Norway's oceanic waters (Moura, 2003). One factor has been crucial in boosting Petrobras' international operations: the in-house development of new technology for research, exploration and production of oil in deep waters. This technology has allowed the discovery of oil reserves and initial production in the Brazilian "Pre-salt" layer.

From the mid-1970s, onwards CENPES was in charge of much of the technological catching up vis-à-vis the most advanced international companies. Technological innovation paid off years later in the expansion of deep-water production. External recognition of this effort came through awards such as the Distinguished Achievement award from the Offshore Technology Conference—received for the first time in 1992, and once again in 2001. But it was during the 1990s that Petrobras assumed the challenge of developing the technology required for production in ultra-deep waters (more than 1,500 metres). By the end of the 1980s the challenge was to exploit oil up to 500 metres deep; in 1999 Petrobras achieved the record of 1,853 metres deep in the Roncador Field (Rio de Janeiro). In 2000 the company started to develop deep-sea offshore reserves at a depth of more than 3,000 metres. The technology created and used by the company allowed it to move from importing to exporting highly technology-intensive products and processes.

Petrobras International at the turn of the millennium

Petrobras' international activities include the whole chain of operations of the oil industry and the broader energy sector, ranging from exploration and production to transportation, refining and processing of oil and natural gas, as well as petrochemicals production, distribution and marketing of products, and the generation, distribution and transmission of electricity.

Regarding exploration and production in the oil and gas segment, the company now has assets in around 20 countries. In the refining segment it is active in Argentina, the United States and Japan. In the distribution segment it operates in Uruguay, Paraguay, Colombia, Ar-

gentina and Chile. It is worth noting that in Argentina Petrobras also has a presence in the petrochemical and electricity sectors. The company has signed cooperation agreements with Cuba for developing several petroleum products and has offices in the United Kingdom, Japan, China and Singapore.

All this activity falls within the responsibilities of the company's International Department, a business unit that has incorporated most of the operations previously conducted by the subsidiary Braspetro, which was completely absorbed by the parent company in 2002. The international operations include planned investments of $11 billion by 2016, of which 80 per cent should focus on exploitation and exploration. The international expansion began in the Americas and then expanded to Eurasia and Africa.

Petrobras in the Americas

Colombia was the country where Petrobras first began its international operations. The first entry took place in 1972 when Braspetro bought the exploitation concessions of the Tennecol company. Shortly after, however, Petrobras left the country and did not return until 1986 to run exploration activities. In 2004 Petrobras joined forces with Exxon and the Colombian state oil company (Ecopetrol) to explore oil discoveries in the Colombian Caribbean Sea, in waters up to 3,000 metres deep.

Another important landmark was the entry into the United States oil market in 1987. The company created the subsidiary Petrobras America Inc., originally launched for the exploration of oil fields in the Gulf of Mexico and later expanded to other North American regions. In parallel, the company created Petrobras Norge, which sought to develop operations in the Norwegian Sea, and Brasnor Neptun, a partnership between Braspetro and Neptun Teknologi, a company specialising in deep-water services (Moura, 2003). In 2004 these developments enabled Petrobras to get the concession to explore 37 blocks in deep waters of the Gulf of Mexico, off the coast of Texas.

Another milestone in the history of Petrobras' internationalisation in the Americas was its expansion to Argentina in 1993. The process began with obtaining concessions for exploration and the acquisition of other companies already active in that market. The strategy adopted

to enter Argentina was to become an integrated energy company, turning Petrobras into one of the largest producers of oil and natural gas in the neighbouring country. Its activities cover a range of assets and businesses in the areas of exploration and production of oil and natural gas, marketing, refining and processing, distribution of oil, petrochemical production, power generation, distribution and transmission of electricity.

The business portfolio in Argentina is mainly managed by Petrobras Energía SA, a company incorporated in 2005 as a result of the merger of Petrobras Argentina SA with two other firms. The Brazilian company invests approximately $500 million per year in Argentina, in consideration of the fact that the Argentinian reserves and production activities in the areas of oil and natural gas are Petrobras' biggest outside Brazil. For the distribution of fuel in Argentina, for example, Petrobras owns a network of 746 service stations, which have generated more than 5,000 jobs.

Petrobras has also been a mayor player in Bolivia since 1996, focusing on the exploitation of natural gas. In 1997 the company began the construction of the Bolivia-Brazil pipeline, which required a significant investment. Meanwhile, the company also entered the segments of gas processing and petroleum refining. In 2001, it launched its own network for fuel distribution, with 62 stations throughout Bolivia. In 2006 Petrobras employed 1,533 workers, of which 95 per cent were Bolivians. A decade later, Petrobras' investments in Bolivia had reached over a billion dollars and its operations represented 18 per cent of Bolivia's GDP and 24 per cent of total tax revenues.

Petrobras' activities in Bolivia evolved according to plan until the nationalisation of oil refineries in May 2006, following a radical political decision taken by President Evo Morales. After long negotiations, on October 2006 Petrobras and the Bolivian state-controlled company YPFB signed an agreement, specifying the rights and obligations of each party. As a result of such agreement, Petrobras is currently resizing its investments in Bolivia. The company might shift some investments to the production of natural gas in Brazil, but that would not necessarily mean that Petrobras will decrease the scope of its current operations in Bolivia.

In 2009 Petrobras also entered the Chilean market, through the purchase of 230 gas stations from Esso Chile for $500 million. Since this purchase, Petrobras has been in charge of fuel supply at 11 airports and 7 distribution terminals, accounting for 16 per cent of the Chilean retail market and 7 per cent of the industrial market.

Moving to other countries in the Americas, since 1996 Petrobras has been active in oil exploration in deep waters off the coast of Ecuador, in partnership with other multinational companies (Bacoccina, 2006). In Mexico, since 2003, Petrobras has been engaged in technology-cooperation agreements for deep-water oil exploration with the national state-owned company PEMEX. Also since 2003, Petrobras has signed agreements with Venezuela's PDVSA to explore and produce oil in that country. In Paraguay, since 2006, Petrobras has been running a network of service station purchased from Shell and also sells LPG and aviation products.

Petrobras has also conducted exploration activities in the seas off Cuba since the beginning of 2000, and in 2008 signed a new agreement with the government to work together in the exploration and production of oil and gas. The counterpart of this contract is the Cuban Oil Company (CUPET). The block to be jointly explored by the two enterprises is located in deep waters (400 to 1600 metres), in a region near Cuba's onshore oil belt. The contract has a term of 32 years, with an exploration period of 7 years and 25 years for production.

More than a decade ago, one of the company's senior managers had already stated that "Petrobras is completely different today than it was a decade earlier. It is the second largest oil company in Argentina and the first in Bolivia" (Costa, 2003). A similar view was expressed by another top executive (Planinscheck, 2003), when he declared that

> For us, the main country is Argentina, where our greatest assets are located. At this moment [in 2003] our growth strategy focuses on Latin America, the West Coast of Africa and the Gulf of Mexico, but we are monitoring new opportunities around the world. Still, our strength is Latin America.

In almost every case, Petrobras has signed joint-venture contracts with other state-owned or multinational companies, in order to gain

access to the experience and knowledge of the international market, as well as the oil and gas.

Petrobras in Africa

In the 1970s Petrobras had several isolated experiences in Africa as a minor business partner in contracts of co-production with other large companies. But it was in 1979 that the Brazilian enterprises established a solid foundation in Angola, with contracts for oil exploration and production in offshore fields. In 2004 Petrobras signed agreements with the Angolan government to explore in deep waters of the South Atlantic and has since continued to expand its activities in the region.

In 1998 Petrobras expanded to Nigeria, focusing on exploration and subsequent production in deep waters off the Niger Delta. In 2004 Petrobras won the concession to explore offshore fields more than 2,500 metres deep. The activities in Africa increased markedly over the past decade. In June 2004, for instance, Petrobras began to operate in Tanzania, based on a partnership with the state-owned oil company, expanding its presence to the east of the continent. The agreement focuses on exploration in waters 500-3500 metres deep.

In January 2005 Petrobras entered the Libyan market, after winning a bid to explore oil and gas in Mediterranean deep waters. In January 2006 the Brazilian firm won a contract for joint exploration of oil in Equatorial Guinea, at depths ranging between 500 and 2,200 metres. More recently, in October 2006, Petrobras signed a memorandum of understanding with the national oil company of Mozambique, for exploration of oil and gas on land and sea.

The agreement also includes opportunities for research and future production of biofuels in the country: biodiesel from jatropha—an oilseed abundant in the region—and ethanol from sugarcane. Once again, almost all of cases involve agreements between Petrobras and other state-owned or multinational companies.

Petrobras in Eurasia

In 1997 Petrobras opened an office in London, with the objective of facilitating commercial and financial transactions in the European oil market. Until then the company had failed to make any headway in

Europe, a market already occupied by large companies, mainly European and North American.

Petrobras' profile in Europe began to change in 2007. First, it signed an agreement with Statoil, the state oil company of Norway. The document sets the framework for cooperation in research and development of technologies for the production of ethanol and biodiesel, as well as joint development of technological projects for exploration and production of oil in ultra-deep waters. Second, after the fruitful conclusion of negotiations initiated a year before, Petrobras began exploring for oil off the Portuguese coast, in waters up to 2,000 metres deep.

In Asia, the firm opened an office in Singapore for business and financial representation that would support the company's commercial activities in the region. In 2000 the company entered the Japanese market through Petrobras International Finance Company. Headquartered in Tokyo, the subsidiary had as its main function the facilitation of closer relationships with financiers and other players active in the oil market. In 2005 CENPES signed agreements with the Japanese state oil company, JOGMEC for joint technological studies. In 2007 Petrobras started its first oil refining activities in Asia and also signed a new contract with JOGMEC to explore and produce oil in deep waters, both in South America and in southeast Asia. In 2008 Petrobras began selling Brazilian ethanol on the Japanese market.

Another important development in Asia was an agreement with the Chinese state company SINOPEC in May 2004, which enabled the establishment of an office in China. In 2005, the agreement between the two companies was formalised, aiming mainly at joint offshore exploration and production of oil off the coasts of China and Brazil.

In 2004 Petrobras also won a tender in Iran for exploration of oil in the Persian Gulf, in a region densely occupied by other large companies. In 2006, it began operating in Turkey, after being granted a concession to explore and produce oil in the Black Sea. In 2007 it was granted a similar concession in Pakistan, to explore and produce oil in waters up to 2,000 metres deep. Also in 2007, the company reached an agreement with the state oil company of India for the joint exploration of deep water along the coasts of both countries.

It is relevant to highlight the fact that almost every agreement signed by Petrobras in large oil-producing markets is focused on offshore exploration and in most cases covering waters of great depths. This feature demonstrates the technological superiority achieved by Petrobras in the field of deep and ultra-deep water exploration and drilling, for which it is recognised as a world leader. This superiority has been an important driving force in the process of internationalising the Brazilian enterprise.

The objectives of the company have also changed during its international expansion. According to the Director of the International Department of Petrobras (Marin, 2006):

> Since 2003, the international operations of Petrobras are no longer focused on just securing the constant supply of oil to the Brazilian market. Nowadays, the goal is to invest seeking always higher profitability. Our contracts are not based on philanthropy.

The strategic plan of the company reflects this new orientation. The investments planned for foreign markets in the period 2006-2010 were approximately $7.1 billion, 13 per cent of the total investments planned by the company. A similar pattern of change can be observed in the composition of its labour force. By the end of 2006, Petrobras employed 62,286 workers, of which 6,877 were active in international operations. The Business Plan for the period 2008-2012 has made explicit the goal of transforming Petrobras into one of the five largest integrated energy companies in the world.

Conclusions

Within a period of six decades, Petrobras has managed to become a very successful state-controlled enterprise and one of the world's largest multinational corporations. Its international expansion was originally driven by the pursuit of natural resources not available in sufficient quantity in the home country (Dunning, 1988). Several factors leading to the initial launch of Braspetro have been identified; among others to internationalise the labour force, to access the technology and know-how controlled by other companies, and to guarantee the supply of oil and derivatives for the country. It is also worth highlight-

ing the fact that before the start of the process of internationalisation Petrobras imported about 80 per cent of the oil consumed in Brazil.

Since the 1990s, other driving forces contributed to the greater dynamism of the process of internationalisation, framed by a corporate strategy aimed at conquering new markets and becoming a regional and global leader in the oil industry. To fulfil its original purpose, the firm was able to achieve rapid strides in catching up, in technological terms, becoming a global reference point in offshore technologies (Ortiz Neto, 2006). Petrobras' leadership in this area is recognised globally, enabling it to win contracts for exploration and production around the world in deep and ultra-deep unexplored waters. Moreover, such proficiency has enabled partnerships with other industry giants for joint research and technological development projects. The new strategy of internationalisation was based around "intangible assets" (Dunning, 1988), which included the creation of markets for biofuels and other business opportunities in the broader energy sector.

Revisiting the theoretical arguments presented at the beginning of this chapter, in particular the "levels of internationalisation" described by Johanson and Wiedersheim-Paul (1999), it is possible to analytically reconstruct the evolution of Petrobras. Beginning its expansion as a timid and emerging player in an environment already dominated by large multinationals, it has become a new kind of state-controlled multinational corporation that is at the forefront of technological innovation, with operations in 26 countries and getting about 15 per cent of its revenues from foreign markets. At a time when there is so much debate about the intensity of globalisation, the history of internationalisation of Petrobras demonstrates that state-controlled companies from the South can be successful not only in producing commodities and labour-intensive goods, but also able to build new competitive advantages and benefit from technological innovation (Silva, 2002; Dalla Costa, 2011; Dalla Costa and Souza Santos, 2011).

Petrobras' technological strength is also responsible for one of the largest oil and gas discoveries in recent years, the Pre-Salt layer off the coast of Brazil, making it possible to access resources that were unthinkable to exploit just a few years ago. The Investment Plan of Petrobras for the next decade foresees an additional injection of $270 billion (Paduan, 2012) for exploration and exploitation activities, which will

enable the company to increase the level of production from the current 2.3 million barrels per day of oil and gas to 5.2 million in the year 2020, definitely consolidating Brazil's position among the world's major producers.

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8. The reform of public enterprises in Uruguay: an economic history perspective

Magdalena Bertino

Introduction

This chapter provides an interpretation of the modernisation and reform of state-owned enterprises (SOEs) in Uruguay from an economic historian's perspective. This process has been part of the reformist trend that took place globally since the 1970s, marked by the increasing dominance of neoliberal politics and ideology. Reform is understood here not just as the modernisation of operational and management tools, but the introduction of market criteria as a way to improve efficiency and efficacy of public enterprises as well. The most radical reforms, in the 1990s, led to the privatisation of major state-owned companies in many countries around the world.

In Uruguay, the reform processes were driven by different governments more or less in line with similar developments observed throughout Latin America and other world regions (Comín and Díaz Fuentes, 2004; Millward, 2005). However, when in the early 1990s the Uruguayan society faced the concrete prospect of privatisation of the largest public enterprises, which generally constituted natural monopolies and were responsible for essential or strategic functions, the proposed legislation was repealed by popular vote. The same behaviour was reiterated in response to almost every following attempt at privatisation in the past two decades.

The key question addressed here is why and how the privatisation of large public companies in Uruguay was blocked. This chapter offers some answers looking at the genesis of SOEs in this South American country, their social and economic roles and their financial perform-

ance, as well as the evolution of the *Estado Empresario* (entrepreneurial state).[8]

Origin and evolution of the Uruguayan entrepreneurial state

During the first decades of existence of the Uruguayan state, in the first half of the nineteenth century, public services were built and operated by private enterprises, with the exception the postal company, which was established in 1829 as a SOE. The private sector was responsible for the initial development of the telegraph, railways, banks, telephones, electricity, harbours, and water and sanitation services. The early Uruguayan state was a weak entity, embroiled in civil and international wars, with little capacity for regulation of private activities. The ownership of public lands was also gradually transferred to individuals, without the state having the authority required to stop it.

The role of the state began to change around the 1870s, when the government was able to consolidate its power throughout the national territory. The state assumed control of the telegraph, the actions of private railway companies were regulated and, after the crisis of 1890, the state-owned Bank of the Republic was created. The emerging electricity utility of Montevideo was also nationalised by the government. The foundations of the long-lasting Uruguayan *estatismo* (state-centred national profile) were established during the intensely modernising times that characterised the progressive governments of the first three decades of the twentieth century. Three powerful public banks were launched: the Bank of the Republic (BROU) was fully institutionalised as the main state bank, the Mortgage Bank of Uruguay (BHU) was nationalised, and the State's Insurances Bank (BSE) was founded. The national electricity company (UTE) was also created as an enterprise fully owned and managed by the state, and the national

[8] This chapter is based on several studies conducted in the framework of a research project funded by the Sectoral Committee for Scientific Research (CSIC) of the University of the Republic—"Public companies in Uruguay and its linkages with economic policy. 1912-2010"—that the author has coordinated in previous years. Milton Torrelli. Federico Araya, Gastón Díaz, Natalia Mariño, Martina Querejeta, Fillippe Rímoli and Daniela Vazquez have also contributed to the research.

government assumed the monopolistic control of the telegraph and telephone services (operated by UTE between 1931 and 1974, and by ANTEL from 1974 onwards). The state also nationalised and expanded the railways and tramways company and institutionalised the monopoly of port services with the creation of the National Port Authority (ANP). The growing sway of the state continued during the global Great Depression with the creation of the National Administration of Fuels, Alcohol and Portland (ANCAP) in 1931.

All these companies were conceived as autonomous enterprises and/or decentralised services governed by public law. In general, the stated objectives included the provision of quality services at low prices for the benefit of the whole population (Boneo, 1973; Solari and Franco, 1983; Nahum, 1993; Nahum et al, 2006; Bertino et al, 2012). The largest and most profitable companies were supposed to transfer a portion of their profits to the central government, while unprofitable companies would receive subsidies (Azar et al., 2009; Bertino et al., 2011, 2012a, 2012b, 2012c, 2012d).

During the period of state-led industrialisation, the public sector experienced a major expansion due to growth in coverage and functions of the two major companies, UTE and ANCAP. The expansion was also influenced by the creation of new companies, mainly through the nationalisation of utilities owned by British capital, resulting in the foundation of AFE (railways) and OSE (water and sanitation) in 1952. In the same year, the state also nationalised the national airlines (PLUNA), created the National Institute for Land Reform (INC) and founded the Oceanographic and Fisheries Agency (SOYP; later rebranded as ILPE in 1976).

The power company UTE expanded nationwide by expropriating private utilities, setting a single tariff throughout the country, extending the national telephone network, and ceasing concessions to private telephone companies. The oil company, ANCAP, expanded the capacity of its refinery and began to produce and distribute fuel-related products. ANCAP also expanded its distilleries to meet the domestic demand for alcohol and alcoholic beverages. In parallel, the state company began in 1952 the cultivation of sugar cane in the region of El Espinillar, as well as the plantation of vines for the production of wine

and cognac. The first cement factory run by ANCAP began production in 1956.

The trend continued until the late 1960s and the early 1970s, during the years of political crisis and economic stagnation. The Uruguayan state took control of several ailing industrial firms (including three meat-packing plants and a textile factory) and nationalised the crisis-ridden British-owned Gas Company.

The reform of public enterprises

Since the late 1960s, within the international context of economic liberalisation and deregulation, public enterprises had to face renewed pressures towards greater efficiency. Market-friendly critics demanded "price realism" in tariff-setting, according to the marginal cost of the services provided by SOEs.

Concurrently, the organic charters of several SOEs were amended, opening the possibility of association investors and the concession of services. This process deepened in the 1980s and 1990s, when the idea of privatisation was finally proposed. The process was halted in Uruguay after the 1992 referendum rejected privatisation.

Nevertheless, a gradual contraction of the size of the entrepreneurial state could be already observed in previous years, after the right-wing military took power in 1973. The *Frigorífico Nacional* (the state-owned meat-packing plant) and ILPE closed down, the gas company was re-privatised, and the airline PLUNA became a mixed-property company with private capital in control of the majority of the shares. The activities and/or services of several other SOEs were reduced or suppressed, such as the production of alcohol and chemical products by ANCAP or AFE's passenger train service. The process continued with the demonopolisation of the generation of electricity, the postal services and the insurance sector, as well as the introduction of competition in the mobile phone market. Other measures aimed at reducing the clout of SOEs were the granting of concessions for public works and the promotion of public-private partnerships (PPPs).

Moreover, since 1973 and principally in the 1990s, a strong and sustained reduction in the number of SOE workers took place. The number of employees was reduced from 65,000 to around 30,000 by

2000 (Azar et al., 2009). Technological changes account for part of the reduction of workers in the operational and administrative areas, but much of it had to do with the closure of services considered non-strategic and the outsourcing of activities. An extreme case was the ANP, after the approval in 1992 of the Ports Act (Law 16,246) that amended the legal framework of the sector and transferred many responsibilities for the operation and management of port services to private companies. Between 1992 and 2006 the number of ANP workers was reduced from 6,000 to 800.

Another phenomenon of economic and political importance could be noticed in recent years: the creation of numerous new companies owned by the largest SOEs but which function under private commercial law, breaking with the historical tradition of the country's public enterprises. This is a clearly significant but understudied process, which has motivated the concern of some government officials and parliamentarians who demand more information and stricter control of the activities of such companies. They refer to several dozen companies allegedly created with the aim of not computing their activities for the calculation of the fiscal deficit, which means they can be freer in managing their investments, can hire and dismiss their employees more easily under private law, and have greater management flexibility.

In conclusion, in the past three decades Uruguay SOEs travelled a path similar to reforms implemented in other countries, but in a more gradualist manner. The Uruguayan society has also been able to resist the overwhelming international wave of privatisation of the 1990s. The core objectives of SOEs were in part modified, giving greater importance to economic efficiency and profitability. After a long and contradictory process, the tariffs of public utilities reflect more realistic rates and subsidies have been reduced. Important programmes to improve the management and modernise the operations of SOEs were implemented. Some key economic sectors were demonopolised and some state companies were authorised to operate in liberalised and deregulated markets and some supposedly non-essential activities are no longer a state responsibility.

Privatisation, back and forward

During the military dictatorship (1973-1984) and the first constitutional government (1985-1990) the advocates of privatisation did not advance much, although the Articles of Association of various public enterprises were amended to establish the possibility of partnerships with the private sector and the concession of services. For the electricity company UTE the main change was the passing of a decree in 1977, the so-called General Electricity Act, which aimed at the suppression of the company's social objectives and new rules for setting tariffs based on commercial criteria.

The main challenge was introduced by the neoliberal government of the time in 1991, with the attempt to privatise every major SOE through Law 16,241, popularly known as the "Public Enterprises Act". Article 1 of the law provided that the government could grant permits or concessions for the provision of public services, promoting freedom of competition and avoiding the perpetuation or creation of de facto monopolies. Other articles stated that ANTEL could contract with third parties active in telecommunications services or associate with private capital to create new companies with limited state participation. The law also authorised the sale of PLUNA sales and the liquidation of ILPE.

A broad coalition of trade unions, social organisations and political groups organised the opposition against such a law. The campaign concluded with a national referendum held on 13 December 1992, which preserved the nature and functions of the country's most important public enterprises. Nevertheless, despite the success of anti-privatisation campaign, three companies not included in the articles contested by the referendum (ILPE, PLUNA and the Gas Company) were allowed to be sold, and water and sanitation services in the region of Maldonado were transferred to private investors via time-limited concessions. Another law passed in 1996 eliminated the monopoly of ANCAP on alcohol and alcoholic beverages and authorised the company to establish partnerships with public and private firms.

Another important milestone in the process of reform was the legal approval in 1997 of the Regulatory Framework for the Electricity Sector, which amended the National Electricity Act, unbundling the

different components of the sector in a way that maintained the monopoly of the state in the transmission and distribution segments and eliminated the monopoly in generation. Furthermore, a new entity, the Electricity Regulatory Unit (UREE), was created, granting open access to the state-owned transmission and distribution grid. The new legal framework allowed large consumers to make their own arrangements with private power suppliers to cover their needs. The trade unions and other social organisations manifested their opposition to an institutional reform that they interpreted as a form of privatisation, but the popular mobilisation failed to gather enough support to repeal it through a referendum.

At the turn of the century, the government made a new attempt towards the mercantilisation of ANTEL. The government's annual budget proposal of 2001 included two articles that meant the annulment of several components of the national telecom company's charter, authorising ANTEL to form a corporation for the provision of mobile services in association with private investors. The trade unions and other civil society organisations opted once again to promote a referendum against such measure. The following year, following the announcement that the campaign had reached the number of signatures required by law to organise a referendum, and forecasting a negative popular vote, the government decided to derogate the liberalising legislation.

The next big privatisation push occurred in 2002, when the monopoly of the import, export and refining of crude oil and the export of oil derivatives by ANCAP was removed. The piece of legislation that liberalised the sector was subsequently repealed by large majority in a plebiscite in 2003.

With regard to water and sanitation, private companies had been granted the concession of services in the 1990s in some sections of the coastal region, with the entry of some powerful transnational companies into the Uruguayan market. The government submitted a proposal in 2003 aimed at creating a new regulatory framework for water and sanitation services as a mechanism to move towards greater private participation in service provision. The social response was the creation of National Commission in Defence of Public Water, which proposed a constitutional amendment to be approved by referendum in conjunc-

tion with the 2004 presidential and parliamentary elections. The constitutional reform was approved, expanding the wording of Article 47 that refers to the protection of the environment. The revised article in the Constitution of Uruguay declares that "water is an essential natural resource for life. Access to clean water and access to sanitation are basic human rights". It also adds that "the public provision of sanitation services and the water supply for human consumption will be provided exclusively and directly by the state". With this reform Uruguay became the first country on Earth to institutionalise access to safe water and sanitation as fundamental human rights.

Since 2004 onwards, the two consecutive left-wing administrations of the Frente Amplio (Broad Front) have demonstrated a new commitment to the development of public enterprises, but with some contradictions. On the one hand, the left governments have supported the expansion of the largest state companies. Both administrations have promoted a policy of diversification of the energy matrix led by ANCAP and UTE. The left in government has also strengthened UTE as a key player in the integration and interconnection of the region's electricity grid, as well as fostering the expansion of ANTEL's broadband services. Moreover, the left has invested substantial resources in OSE, recognising the significance of water as an essential social service. All these moves suggest a reinforcement of the country's statist profile (Narbondo, 2012). On the other hand, it should be noted that the left in government continues to encourage the creation of new state-owned companies that operate under private commercial law, to which we have already referred. The dissolution of PLUNA in 2012 and the lack of public investment in AFE are other signs of the unceasing corporatisation of SOEs and the advancement of private capital, marking the continuity of market-friendly policies initiated by the previous governments.

The second and unfortunate process of privatisation and private management of PLUNA in the period 2006-2012 has generated a new wave of debate on the meaning and roles of SOEs in Uruguay. When in 2012 the consortium of private investors failed to secure the financial viability of the national airline, the government decided on its abrupt liquidation, facing potential lawsuits against the state (by then in control of the minority shares). The government opted first for the full sale

of the company's assets, and later for the transfer of ownership of the airplanes and the management of the flag-carrier company to a co-operative created by PLUNA's workers, while ruling out any kind of further state investment that could be read as a complete renationalisation of the airline.

As regards AFE, during the first Frente Amplio administration (2005-2010) the government promoted the creation of a new railways company led by the National Development Corporation (NDC), in charge of the operation of freight services, the rehabilitation of the railway infrastructure, and the acquisition of new trains. AFE would associate with the NDC to form the new company, according to the new law passed in December 2005. In 2008 the legal framework was changed once again to authorise the NDC to form a special-purpose corporation for the operation of rail freight services, and incorporate a private investor shareholder that would gain control of the majority shares. After increasing opposition from the workers' organisations the measure was repealed by a new piece of legislation promoted by the second Frente Amplio government. The new legal scheme foresees the creation of a new company that would function under private law, of which the ownership would be divided between two state companies: AFE (51 per cent) and NDC (49 per cent). The law states that workers of the new corporation "do not possess the quality of public servants", which raised the predictable opposition of AFE's trade union. At the time of writing, the new corporation still has no real existence.

The economic performance of large non-financial public enterprises

Unlike other Latin American countries, privatisation of SOEs in Uruguay was limited and did not challenge the nature and position of the biggest non-financial public enterprises, which together with the three state banks form the core of the country's entrepreneurial state. To help unravel the causes of this peculiarity, this section analyses the economic performance and weight of the largest state companies throughout their history.

The four state companies that were left out of the privatisation process are currently the largest non-financial public enterprises: AN-

CAP, UTE, ANTEL and OSE.[9] The combined weight of these four companies in the country's GDP allows us to visualise their economic and social significance. By the late 1930s, the sum of added-value contributed by ANCAP and UTE reached 2 per cent of GDP. The development of both companies and the incorporation of OSE in the 1960s increased such contribution to 4 per cent, and after the founding of ANTEL it increased to 6 per cent in the 1980s and up to 10 per cent of GDP towards the end of the 1990s.

The three major state-owned enterprises have not had financial deficits, except during some exceptional years of hyperinflation between 1960 and 1980. Nor, with such exceptions, have they received state subsidies. In fact, these companies have been very important contributors to the state's treasury. The fourth company, OSE, had deficits and received subsidies until the 1990s, but when its tariffs were adjusted to cover the real costs, the transfers from the central governments stopped and investment expanded. Without any doubt, we can say that the four companies mentioned here were never a burden on the country's taxpayers.

Our research reviewed the financial performance of the main four state companies in consideration of their income and net transfers. Both sets of indicators were positive as a whole, at least until the mid-twentieth century, and then increased sharply since the 1990s, thus greatly contributing to the state's accounts. We lack information about financial results between 1947 and 1973, but the existence of transfers until 1953 indicates a positive performance. In the 1960s, the results of these companies tended to worsen and OSE required financial assistance via subsidies, but their financial performance has clearly improved in recent years (Bertino and Tajam, 1999).

[9] Not included here is AFE, a company that at the time of its creation was one of the largest public enterprises. The decline of the railways company, facing competition with transport by road, has been evident in increasing financial deficits and poor investments, resulting in technological backwardness, inefficiency and the need for large state subsidies. The gradual reduction in the length of the functional rail network (which today is half of what it was at the time of foundation of AFE), especially since the abolition of passenger services in 1988, has challenged the viability of the company.

Until the late 1920s, the contributions of these companies represented 1 per cent of the total revenues of the central government, and by the mid-1940s between 2 and 3 per cent. In the last two decades the transfers have become once again positive and significant for the public treasury. The financial performance of the SOEs shows different results between the 1990s and the first decade of the twenty-first century. OSE, since the mid-1990s, has no longer had a deficit, except in a few exceptional years. This positive evolution meant that SOEs contributed to an appreciable reduction of the fiscal deficit, while there have been intense political debates as to whether the tariffs of public enterprises should be used as a means to collect revenues for the state. The two major contributors were ANTEL and UTE.

In times of need, the treasury has resorted to the income generated by the SOEs. In the context of difficult years, following the 1982 crisis, the government asked ANP and ANCAP to increase their contributions. The contributions of state enterprises also increased in the framework of a stabilisation plan that was implemented at the beginning of the 1990s. More markedly, the transfers from SOEs became numerically more significant in the context of the poor performance of the Uruguayan economy after 1998 and during the acute 2002 crisis. It should be noted that the response to the international crisis that began in 2008 has been different, since the non-financial public enterprises have in fact reduced their contributions to the state, in part because their tariffs were used to contain inflation, while the profitable public banks (BROU and BSE) have increased their contributions to the treasury during these crisis years, offsetting the decline in contributions from non-financial public enterprises.

Conclusions

The main question that was posed in the introduction of this chapter was why privatisation of large public enterprises has not taken place in Uruguay. The response to that question can be structured around a set of hypotheses, which are expected to be a contribution to national and regional debates on the meaning and roles of state-owned companies.

The process of neoliberalisation that began in the 1970s had an impact in Uruguay, observed in the reduction of the size of the entre-

preneurial state, through the closure of public enterprises, the liquidation of services and productive units considered unprofitable or non-strategic, and the introduction of market mechanisms in the management of non-privatised SOEs.

The largest companies—ANCAP, UTE and ANTEL—have throughout their history exhibited robust economic performance. For many years they have been an important source of revenues for the state. In recent decades, OSE has reversed its deficit without further reliance on subsidies from the central government. Most state companies have significantly improved their efficiency to meet their core objectives, and have improved their internal managerial processes and administration. And in the face of the international crisis, these companies are also used as tools for macroeconomic policy.

We should also pay attention to other factors beyond the purely economic. The peculiar reconfiguration of social and political forces in Uruguay in the past two decades allowed the organisation of nationwide struggles in defence of the SOEs, with strong popular support. The struggles against privatisation are rooted in long-standing convictions about the significance of the public enterprises in the history of the country. Uruguayan society has historically favoured a hegemonic role for the state in social and economic terms.

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9. ANTEL: a socially committed public enterprise at the forefront of technological innovation

Carolina Cosse

Introduction

In 2014 ANTEL will celebrate its 40th anniversary in a position of technological leadership, reaffirming its social mission, supporting the education sector and promoting widespread access to new technologies.

The state-owned company has made it possible for Uruguay to have over 40 per cent of households with access to the fibre optic network and 57 per cent already enjoying broadband connectivity by mid-2012, placing the country well above the world average—39 per cent—and that of developing countries—29 per cent (Radar, 2012). The company plans foresee that the year 2013 will conclude with all the homes of the capital cities of the 19 departments having access to the network, and to extend the same service to all towns of more than 3,500 households by 2015. The fibre optic will significantly increase the speed of data transmission and upstream and downstream Internet connectivity. It will also enable a higher quality of life via new applications for tele-education and tele-medicine, among many other possibilities.

The programmes implemented by ANTEL for the expansion of the telecommunications infrastructure reflect its commitment to the idea of national development. The company has made explicit its goal of connecting every Uruguayan family to the Internet superhighway in the near future, establishing the material foundations for the construction of a genuine knowledge society and a nation-wide productive ecosystem.

The Uruguayan telecom company is responding to the popular mandate received in 1992, when in a national referendum over 70 per cent of the citizenry opposed privatisation and decided that public enterprises should remain fully owned and managed by of the state. In this context, the investment portfolio of ANTEL will exceed $260 million in 2013 and is expected to reach $290 million over the following two years.

This chapter reviews the recent evolution of ANTEL as a state-owned company and discusses the major challenges for the medium-term future. The basic assumption is that the truly *public* profile of this enterprise has meant real contributions to national development, unlike in other countries of Latin America and the South characterised by the polarisation between the 'haves' and the 'have-nots' in terms of access to new technologies and the many associated opportunities for economic, social and cultural progress enabled by technological innovation.

The historical roots of the state-owned telecommunications company

A study published some years ago noted that while in many countries "bureaucratic inefficiency and ineffectiveness of state enterprises were the pretext for processes of liberalisation and privatisation of the telecommunications sectors, in Uruguay the public model has been successful, with a very good coverage of services throughout the country"; and that the population perceived ANTEL as a "trustable and profitable company (Germano and Rivoir, 2008:12).

State-managed telephony services have a history of over a century in the country. Initially, this sector was operated by *Usinas Eléctricas y Teléfonos del Estado*, UTE, the public enterprise created in 1912 to generate and distribute electricity—the same mission it continues to have —and since 1953 also the provision of telecommunications (see Gonzalo Casaravilla's chapter in this volume). The National Telecommunications Administration (*Administración Nacional de Telecomunicaciones*, ANTEL was founded on 25 July 1974, by Law No. 14,235, as a decentralised agency within the industrial and commercial dominion of the state, with the mission of operating urban and long-distance

telecommunication services, both national and international (Article 4 of the founding charter), classified as "essential" (Article 2) and under a regime of state monopoly (Article 6).

Nowadays, the Uruguayan telecommunications sector is characterised by the coexistence of segments with different degrees of market competition. Fixed telephony services, including national long-distance calls, are operated exclusively by ANTEL, but the public enterprise competes with private operators in the mobile market and in the partially-liberalised market for international calls.

The current situation is the product of a series of rather contradictory political decisions promoted by the government and by the citizens since the early 1990s, in parallel with the evolution of regional and global debates on the liberalisation and eventual privatisation of telecommunications. In Uruguay, unlike several other Latin American countries, the debate was defined by profound political dissent, which prevented the full implementation of the set of market-driven reforms demanded by the neoliberal supporters of the Washington Consensus.

The first private mobile operator, Movicom/Bellsouth, entered the Uruguayan market in 1991. That same year, during the National Party's government headed by President Luis Alberto Lacalle (1990-1995), backed by sections of the Colorado Party, the liberalisation of telecommunications began with the passing of Law No. 16,211, popularly known as "the public enterprise law" (*ley de empresas públicas*), which allowed the privatisation of several state companies. The privatisation drive, however, was overturned in a referendum promoted by a variety of social organisations and supported by 71.6 per cent of the voting citizens.

Later, during the administration of the Colorado Party headed by President Jorge Batlle (2000-2005), trade unions and other civil society organisations collected 225,000 signatures in support of another referendum to repeal two articles of Law No. 17,296, passed in February 2001, which had authorised the sale up to 40 per cent of the ownership of ANCEL, a subsidiary company of ANTEL in charge of mobile services. The pre-emptive response of the government and the parliament to the citizens' initiative was to abort the legislative process before its completion and before the referendum could take place. The result was

a new situation of "legal uncertainty, after the nullification of a law that had derogated a previous law that had granted the state-owned company ANTEL exclusive rights for the provision of telecommunications services" (Vaillant et al, 2008:192).

Law No. 17,524, passed in August 2002, abolished the two controversial articles of Law No. 17,296. Nevertheless—due to the legal uncertainty mentioned above—it did not mean the end of the process of liberalisation of the telecommunications sector, as became clear in October 2002, when the government went ahead with the first public auction to authorise the operation of mobile services. The Regulatory Unit for Communications Services (*Unidad Reguladora de Servicios de Comunicaciones*, URSEC) had been created a year earlier, in 2001. In this manner, Uruguay started a "process of incipient competition in the segments of international calls and mobile telephony", allowing for "precisely those areas that provided the greatest opportunities for growth and profit, such as mobile services and broadband Internet" (Berretta et al, 2006:24.) to then be transferred to private operators.

The nature of a Public Enterprise

Despite the initial fears about the sustainability of ANTEL and its ability to compete with powerful transnational corporations in a liberalised market, the public enterprise remains today as the leading firm in the Uruguayan telecommunications sector. ANTEL continues to be a company fully owned by the state and with an explicit social mission, but these characteristics have not hindered its capabilities to compete in the market. For mobile services, the state telephone company remains the favourite for Uruguayan users.

The competitors are "two of the largest transnational corporations in the sector, more than a hundred times larger in size than ANTEL", which have "tremendous advantages for competition in a domestic market such as that of Uruguay, with plenty of experience in global markets and able to handle economies of scale that allow them more favourable conditions for purchasing of equipment and phone terminals" (Gómez Germano and Rivoir, 2008:13).

Despite such unequal competition ANTEL's market share in the mobile segment by the end of 2012 was 47 per cent, well ahead of the two transnational conglomerates that exercise an oligopolistic control over most Latin American telecom markets: Telefónica (operating under the brand Movistar) with corporate headquarters in Spain, had a market share of 37 per cent in Uruguay, while the Mexico-based America Móvil (under the brand Claro), owned by the business mogul Carlos Slim, trailed behind with just 16 per cent (URSEC, 2012).

In the fixed telephony segment, ANTEL operates directly and exclusively local services and national long-distance calls, and has to compete with other operators for international calls. As in most countries, the revenues generated by fixed telephony have been falling in recent years, both in relative and absolute terms. At the same time, there has been visible growth in traffic from fixed lines to mobile terminals, mainly after 2003, in parallel with the increase in the number of active mobile connections. In the context of these two trends, in June 2007 ANTEL decided that interurban or national long-distance calls would be charged as local calls.

The rates of coverage achieved by the public enterprise in the segment of fixed telephony are very high, especially when compared with other Latin American countries. At the middle of the past decade Uruguay ranked second in the continent, behind only Costa Rica, where services are provided by another state-owned company, ICE (see Alberto Cortés Ramos' chapter in this volume). In 2007, Uruguay had 29 fixed lines per 100 inhabitants, with 78 per cent of households connected. The unmet demand was null and the national network was already almost entirely digitised (URSEC, 2007). In the past five years the coverage of fixed telephony services has remained constant, with a teledensity of 30.7 and 1,010,953 lines installed by the end of 2012 (URSEC, 2012).

The leadership position that ANTEL continues to hold has also created new problems that must be resolved innovatively. The company has prioritised the improvement of its customer service. The new managerial guidelines foresee substantially lower response and resolution times in the near future. By June 2013, the average time taken to resolve 95 per cent of the issues submitted by corporate clients had decreased from 38 hours to just 14.5 hours, while for 95 per cent of the

issues presented by residential users the average response time was lowered from 24.9 hours to just 8 hours.

ANTEL has also become a driving force for building a knowledge society in Uruguay. In this regard, it cannot be forgotten that the state company is in tough competition with two huge transnational corporations. Therefore, it is very important for ANTEL—and for any other public enterprise in a similar situation—to invest substantial resources in the design and implementation of an institutional policy aimed at attracting and retaining talent in the company, and to constantly promote training and education opportunities for its workers. Ideally, most Uruguayan students in the areas of technology, administration or managerial sciences should aspire to get a job in ANTEL, in consideration of the possibilities for professional growth that working for this company would imply. In this regard, the company has launched an internal programme to facilitate all its workers completing their formal education.

The strategy that ANTEL has followed to compete with the two large transnational corporations active in Uruguay is based on a vision deeply committed to the future of the country and all its people, in line with the broader strategic project of the current national government, for example with regard to regional integration. From the perspective of the Uruguayan government, regional integration with other Latin American countries is a political priority. For ANTEL, this implies new spaces for technical cooperation, joint training of staff, and logistical complementation with the services provided by other state-owned telecom companies of the region. In the light of this, in March 2012 ANTEL hosted the founding assembly of the International Telecommunications Organisation of the Americas (*Organización Internacional de Telecomunicaciones de las Américas*, OITA). The founding meeting was attended by representatives of ARSAT of Argentina, ENTEL of Bolivia, Telebras of Brazil, ETECSA of Cuba, CNT of Ecuador, COPACO of Paraguay, ANTEL of Uruguay and CANTV of Venezuela, opening the door for the future integration of other public enterprises from the region. OITA's main objective is to promote synergies for the development of state-owned companies in the telecommunications sector, working together to reduce the digital divide in Latin America,

as well as building regional alliances to purchase technology and deploy new services.

The contributions to technological development

ANTEL services to access the Internet have dramatically increased the country's connectivity, offering a wide range of options, from free access enabled by the *Universal Hogares* programme for low-income residential users to very high speed connections for academic institutions.

ANTEL's services based on the optic fibre network have consolidated the Uruguayan leadership position in Latin America, with a very noticeable improvement in broadband connectivity, reaching 16,000 kbps download speed in 2012, above the world average and even above the average of several industrialised countries. ANTEL's fibre optic is also internationally advantageous in terms of pricing, provided at a cost 20 per cent or more below United States prices for similar services.

The fibre optic network allows ANTEL's users to have access to a larger capacity for transmission and reception and data. This is a medium with a virtually infinite band-width; therefore, ANTEL has been incorporating in recent years technology that will allow the average Uruguayan household to reach speeds of over a hundred megabits per second. That speed could be even higher in the future, as new technological discoveries will make possible even faster connectivity using the same network already installed in Uruguay. From a citizens' perspective, the fibre optic also means the possibility of universal connection for every household. Gradually, ANTEL will replace the remaining copper services, which were previously used for the telephone network. Users with ADSL lines can already access the fibre optic at no cost: ANTEL makes the change and installs the modem for the new network. Uruguay is one of the few countries in the world, and the only one in Latin America, which is extending the fibre optic based on a socially and spatially inclusive vision that will reach every corner of the national territory.

The extension of fibre optic not only offers new and better services for homes, but also greatly contributes to the development of a national productive ecosystem. ANTEL is investing millions of dollars in in-

vestments that will mean positive externalities for many other companies and industries. Deploying the fibre optic network implies giving a strong impetus to national software producers, the audio-visual sector and the electronics industry. Households will have very high speeds to access the Internet, and that will allow much more than simple web browsing. ANTEL is researching new applications in the areas of energy efficiency, for instance, through technological solutions that will enable to control home appliances remotely from a smartphone, a tablet or from a desktop computer in the workplace.

The expansion of the fibre optic network by ANTEL does not follow the patterns of traditional business plans. This is a truly strategic programme, similar in scope to the key decisions that Uruguayan public enterprises took a century ago. For the future of Uruguay, the fibre optic is as important as the expansion of railways or road infrastructure was a century ago. This is a new kind of superhighway that will make possible revolutionary changes in the energy, security, education and health care sectors, among many others. These are changes that until very recently would belong to a universe of science fiction for ordinary Uruguayans.

The increase in speed and capacity for data transmission also requires upgrading ANTEL's facilities and the options for international connections. In the past two years the company has made a major investment in its Data Centre. This is a Tier 3 facility that can be conceived as a large computer at the service not only of ANTEL, but of many others institutional users. ANTEL is in top condition to cover the needs of companies that require data processing services of the highest quality and maximum security. The public enterprise is already working with large companies and is expanding its range of services to small software companies who want access to large customers. ANTEL offers a reliable solution: a data centre with the guarantee of a company backed by the Uruguayan state and at affordable prices.

The potential of the fibre optic network will also boost ANTEL's capacity to support the national industrial sector through the production of new products and higher value added. It will also increase the possibilities for synergy with other public and private companies and agencies. Based on UTE's deployment of a smart grid for the provision of electricity ANTEL is already working together with sister state com-

panies in the field of energy efficiency. The fibre optic will also make possible to connect new equipment to monitor environmental indicators in the cities and in the countryside, to install new sensors to take better-informed decisions about crops or have instant access to agricultural data, among many other prospects. ANTEL is already involved in joint projects with the University of the Republic (*Universidad de la República*, UdelaR) to introduce and adapt new technological developments to the specific reality and needs of the country.

The contributions to education and social inclusion

In addition to the aforementioned high rate of residential connections, the existence of state-owned enterprise has enabled 98 per cent of Uruguayan schools to have Internet access, placing the country on top of the regional ranking, followed by Mexico with a rate of just 65 per cent (Hinostroza and Labbé, 2011). University centres have access to speeds of 1Gbps/512Mbps, with services of a quality comparable to those until recently available only in a handful of countries in the world.

The contribution of ANTEL is not limited to supporting connectivity in universities and schools. In this regard, the company has a Mobile Community Plan (*Plan Móvil Communitario*), which provides wireless services with various benefits to primary school teachers and directors of kindergartens.

ANTEL will invest $100 million in the expansion of the fibre optic network in 2013, after having invested more than $100 million on this project in 2012. The magnitude of such investment has generated positive impacts on the labour market, involving 37 companies and allowing the creation of over 29,000 jobs. It has also meant new opportunities for training in technological skills and professions, with courses for technical staff, the opening of a new training centre and the launch of a new Diploma in Fibre Optic Technology run in cooperation with the Technical University (*Universidad del Trabajo del Uruguay*, UTU).

ANTEL also contributes to the development of science and innovation in the country through its participation in the *Butiá* Project, which aims to create an accessible, programmable and open platform for the development of robotics in the country's schools, allowing stu-

dents to transform any computer, tablet or phone into a robot. The state company is also developing the first Uruguayan satellite, Antelsat, in partnership with the UdelaR's School of Engineering.

In the same vein, in recent years ANTEL has sponsored the annual *Idea* competition, a national contest that supports innovative technological projects based on a creative use of telecommunications. The company supports the realisation of viable projects, from the study of the technical and economic feasibility of each proposal to its full implementation. In the first contest, in 2012, 35 projects were submitted and two were selected. The second competition, in 2013, has focused on technological solutions in the areas of health care and the fight against domestic violence.

Another initiative supported by the company is *Antelmática*, which aims to promote mathematics education in the country's primary and secondary schools. ANTEL has also supported the participation of Uruguayan students' teams in the international competition 24 Hours of Innovation (*Les 24 heures de l'innovation*) organised by the Quebec University's School of Engineering in Montreal , Canada.

In previous years, ANTEL has also supported the deployment and connectivity of the *Plan Ceibal*, the award-winning programme launched in 2007 for the provision of a laptop to every student in the country's public schools. This initiative by the Uruguayan government, as part of a national programme to improve education standards and contribute to the building of a knowledge society, has gained international recognition and has begun to be replicated in other countries.

In terms of social inclusion, ANTEL has a special programme aimed at enabling free access to the Internet, the *Universal Hogares* plan already mentioned above. According to recent data collated by the company, more than 100,000 households—in a country with a population of just over three million people—benefited in 2013 from free access to the Internet through this programme. ANTEL has also launched a national campaign, called "Universal in the Neighbourhood" (*Universal por los barrios*), to encourage the installation of the free service to households that are not yet connected.

ANTEL also manages the *Programa Integra*, a recycling plan for computers collected for donation to various civil society organisations.

By the end of 2012, the plan had already distributed 2,284 computers equipped with free software. In keeping with its sustainable environmental guidelines, the company also has a programme for recycling used mobile telephones.

ANTEL has also invested heavily in rural areas to improve telephone services and provide Internet access to isolated communities, with 27,000 installations completed by mid-2013 through its *3G Rural Plan*. Social inclusion is a primary imperative of ANTEL. Unlike many other telecom companies, financial profitability is not its main objective. This explains why ANTEL would invest $16 million in modernising the rural telephony network, which would not make sense from a purely commercial perspective.

Moreover, thinking about the future and the importance of adding value to the services provided by the company, ANTEL is promoting a new programme for electronic payments, called *Bit$*, which handles transactions to recharge cell phone accounts, pay parking fees, send money orders, and several other possibilities, directly via a cell phone. The company predicts an exponential growth of this service in the near future, which by the end of 2012 had 40,000 users who performed 87,000 transactions, a figure which had gone up to 287,000 by mid-2013.

Conclusion

Every telecommunications company, in order to survive and grow, must invest substantial resources in technological development. In 1992 the Uruguayan citizens voted in a referendum that had long-term implications, stopping full-scale privatisation but not preventing the liberalisation of the telecommunications sector. In this sense, the recent history of ANTEL reflects two fundamental tensions: on the one hand, the need to respect the sovereign will of the citizens; on the other hand, the challenge of running a company that has to operate in a context of strong market competition with two major transnational corporations, much bigger in size and economic power than the national state company.

The new global reality of the telecommunications sector, marked by rapid and profound technological change that aims at the conver-

gence of industries and services, as well as harsh competition in liberalised markets, has had profound impacts on the nature of ANTEL as a public company. Therefore, ANTEL has carefully thought out how and where to invest its large, yet limited, resources.

The challenges of the future require that ANTEL fully assume its mission as a public enterprise responsible for making available to the ordinary Uruguayan the technological developments of our time. The company is very open to working with different actors engaged in the project of national production, adopting new business models but without losing its essential identity as a *public* enterprise.

The most interesting feature of the managerial model developed by ANTEL in recent years is its ability and willingness to combine investment and technology with a clear social orientation. The advances in both fields have gone hand in hand: installing and extending the fibre optic network, launching the *Universal Hogares* and *Integra* plans and optimising the capabilities of its Data Centre, trying all the time to improve the quality of services and democratise access to them.

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10. OSE: internal change, challenges and contributions to national development

Milton Machado

Introduction

The international seminar on public enterprises organised by TNI, ANTEL and MIEM-DNI in Montevideo in 2012 took place at the most propitious time to analyse the nature and evolution of the State Sewage and Water Works Company (*Obras Sanitarias del Estado*, OSE) as a public entity. On 31 October 2004 the Uruguayan citizenry made a fundamental decision in the history of the country in the *referéndum del agua* (the "water referendum"). The vast majority of the people, over 60 per cent, decided to keep the provision of services in the orbit of the state, and declared access to water and sanitation a fundamental human right.

A decade later, bearing that decision in mind, this chapter analyses the internal transformations, contributions to development and current challenges of OSE as a public enterprise.

The State Sewage & Water Works Company: basic data

To understand the significance of the State Sewage & Water Works Company (*Obras Sanitarias del Estado*, OSE) as a public enterprise it is necessary to consider some essential data. OSE is the state body responsible for water supply at the national level. The company has 4,600 employees. The water network has a length of 14,722 kilometres, covering 98% of the urban population (over 99% in the provincial capital cities) and 94% of the national population. It has an annual production capacity of 330 million cubic meters of potable water. OSE provides services to 365 locations and has 1,043,000 connections, 72 water

treatment plants, 691 storage and distribution centres, and 22 reservoirs.

OSE is also in charge of sanitation services in the whole country, with the exception of Montevideo, as this service in the national capital is the responsibility of the provincial government. OSE's sewerage system is 2,966 kilometres long and covers 40 per cent of the urban population (320,535 households and 263,167 connections).

OSE does not receive subsidies from any other body of the state. It is funded solely by the fees paid by its users for water and sanitation, which according to company estimates represent 0.92 % of the monthly household income. In 2011, the entity had revenues equivalent to $350 million, which enabled investments above $125 million.

Water and sanitation in Uruguay: the historical background

What kind of public enterprise do we want, and for what kind of country? To answer these two questions it is necessary to briefly review the history of the company. OSE was created by Law No. 11,907 of 19 December 1952, which means that we have already celebrated our sixtieth anniversary. The company emerged in the context of what Uruguayans refer to as the *Estado empresario neo-batllista* (the neo-Batllista entrepreneurial state, referring to the development model promoted by President José Batlle y Ordóñez at the beginning of the last century), a type of government that began to evolve in the 1930s and lasted until the early 1970s. This model of governance was based on an idea of state-led national development and the expansion of the government's social and economic functions (Bertino et al, 2012).

In more concrete terms, OSE was an indirect result of World War II, as its foundation followed the sale of the assets of British firms in Uruguay as payment of the debt that the United Kingdom had accumulated during the war. The trade balance in favour of Uruguay was exchanged for the property of the various companies, including those in charge of operating the railways and trams, and the Montevideo Waterworks Company (Nahum, 1993). As has already been pointed out from an economic history perspective, the foundation of state companies in Uruguay in the past century "required a broad political con-

sensus, because its creation entailed deep ideological definitions in at least three areas: monopolies versus free market, public capital versus private capital, and direct foreign investment versus national capital" (Jacob, 2012: 84).

During its first decades as an autonomous public enterprise, OSE did not promote any major change in its internal management, administration and operations. The real change began to take form in the 1990s, as a result of the neoliberal wave that affected most of the countries of Latin America. The objective of neoliberalism was to minimise the role of the state, limiting it to basic functions in the areas of security and arbitration, leaving all economic activity exclusively in the hands of private actors. The hegemonic ideological orientation proposed radical changes in the structure and functioning of public enterprises, including a tendency towards the "modification of their goals, giving primacy to a market logic inspired on the management of private companies, focusing on profitability and, in countries where this process was more acute, culminating in widespread privatisation" (Bertino et al., 2012:5).

In Uruguay, the road to the privatisation of water and sanitation services began in 1992, in the period immediately prior to the referendum that prevented the privatisation of public enterprises (see Magdalena Bertino's chapter in this volume). OSE's Board of Directors at that time, probably foreseeing the crushing defeat of the full privatisation model—72 per cent of the registered voters expressed their support for a citizens' initiative calling for a referendum around the constitutional amendment that would strengthen the role of the state—began to travel the route of "concessions" of public works, maintaining the ownership of the infrastructure in the hands of the state and transferring the provision of services to private companies.

In this context, a series of concessions of water services were granted to Spanish and French corporations in areas of the departments [provinces] of Canelones and Maldonado, supposedly because of the lack of state resources to invest in the expansion and maintenance of the network. In 1993 OSE signed a contract with Aguas de la Costa SA (owned by the Aguas de Barcelona Group, a subsidiary of France's Lyonnaise des Eaux) for the area east of the Maldonado river, and in 2000 another concession was granted to Uragua SA (a company owned by a

consortium of private and public corporations led by Aguas de Bilbao Bizkaia), covering the area to the west of the Maldonado river. In total, OSE signed concession contracts with more than ten private companies of different sizes and corporate profiles.

The concession areas granted to private firms would become the epicentre of social mobilisation against the privatisation of water and sanitation in Uruguay. In 1998, the Federation of State Water Workers (*Federación de Funcionarios de OSE*, FFOSE) started to prepare themselves for the eventual privatisation of water services, after the circulation of rumours that the government planned to increase private participation in the sector. In October 2000, several social organisations coalesced to launch the Commission in Defence of Water and Sanitation of Costa de Oro and Pando (*Comisión en Defensa del Agua y el Saneamiento de la Costa de Oro y Pando*, CDASCOP). This organisation was the predecessor of the citizens' coalition that would catalyse the social mobilisation around the referendum: the National Commission in Defence of Water and Life (*Comisión Nacional en Defensa del Agua y la Vida*, CNDAV), composed of CDASCOP, FFOSE, the Manantiales Neighbours' League (*Liga de Fomento de Manantiales*), and the Social and Ecological Network (*Red de Ecología Social -Amigos de la Tierra*, REDES, the Uruguayan chapter of Friends of the Earth).

This period of social mobilisation marked the beginning of a new stage in the evolution of the public enterprise. On 31 October 2004, in conjunction with a presidential and parliamentary election, Uruguayans voted in the water referendum. The will of the 64.7 per cent of the electorate amended Article 47 of the Constitution, placing Uruguay as the first country in the world to declare that "water is an essential natural resource for life", that "access to clean water and access to sanitation are basic human rights", and that "the public provision of sanitation services and the water supply for human consumption will be provided exclusively and directly by the state".

The internal transformation of the company after the referendum has been highlighted by academic researchers in a recently published study (Bertino et al., 2012: 40), which notes that the vote "put an end to the privatisation trend" and that, from 2005 onwards,

> [OSE] has been complying with the results of the referendum, rates remain low (including a special social tariff for the poorest sector of the population), and no new financial transfers from the central governments are requested. At the same time, this is the period of the greatest expansion of investment. Employment stops falling and even grows moderately, without affecting productivity, which continues to rise.

OSE's contributions to national development and new institutional challenges

The new meaning of public enterprises in the current political-institutional context of progressive governance in Uruguay has been properly summarised in a statement by the previous president, Tabaré Vázquez, when he declared that "we want a better state and a better market" (*La República*, 2006: 3). From this perspective, the state is conceived as an engine that operates at different levels, articulating the whole society, to guarantee equal opportunities to all citizens, combat social and economic inequality and provide public services based on criteria of solidarity, efficiency and effectiveness. The synthesis proposed by the former president—and current candidate of the left for the presidential election of 2014—refers to changes in the management model and the significance and roles of public companies as mechanisms for the implementation of the ambitious development strategies set up by the national government.

In terms of its particular contributions to development, the greatest challenge for OSE is to universalise access and provision of services according to the spirit of the water referendum. In addition, the company has also adopted the Millennium Development Goals agreed at the United Nations Millennium Summit of September 2000, in particular the seventh goal (ensuring environmental sustainability), which proposes "to halve, by 2015, the proportion of the population without sustainable access to safe drinking water and basic sanitation" (UN, 2012). In the specific case of Uruguay, this means providing sustainable access to drinking water to the population that relies on unsafe sources and is therefore subject to health risk. It also means expanding the sanitation network incorporating validated alternative systems.

In this line of work, OSE is primarily aimed at regaining full control of water services that in the nineties had been granted to the for-profit private sector as concessions. Second, it has established a social tariff and a rural rate, providing subsidies to the most vulnerable sectors. Third, it ensures informal settlements access to water services, consistent with the policies of social inclusion promoted by the national government. Fourth, it expands the supply of water to rural towns in the hinterland, including historically marginalised social groups. Fifth, it has been promoting legislative changes aimed at compulsory connection to the sanitation network, in order to be able to increase the coverage and thus contribute to the satisfaction of the goals of social inclusion and universalisation of services. Under this new political and institutional framework, the company prioritises the needs of the most vulnerable sectors, which had been less considered by previous administrations.

At this stage, the company responds to a model of management of a public enterprise based on a series of strategic guidelines and a clear mission and vision. The published mission of the company states that OSE should "contribute to protecting the health and improving the quality of life of society by providing public drinking water at the national level, as well as collective sanitation in cities of towns of the interior of the country, in a sustainable and environmentally friendly manner". Moreover, the company's vision aims at developing "a public company that provides services of excellent quality in the areas of water and sanitation, committed to the goals of universal access and highest user satisfaction, managed in an efficient and sustainable manner, with social and environmental responsibility and with active citizen participation".

The components of OSE's current entrepreneurial strategy are the following:

1. *Universalisation of access to services and social inclusion.* A key priority is to ensure the provision of water to small rural settlements. OSE has a program to ensure that schools and the surrounding population of the geographically most isolated areas have access to water with the same quantity and quality as in the rest of the country. It is expected that upon completion of the programme in 2014, about 20,000 Uruguayans (6,000 house-

holds) who are now prone to health risks because of unsafe sources of water in rural areas, will have access to potable water. The company is also working on the formalisation or regularisation of informal urban settlements, including connection to sewage systems. At present, the vast majority of families living in informal settlements have access to water supplies through unauthorised connections, but to avoid exposure to health risks, OSE does not cut water services to these residents.

2. *Reduction of unaccounted-for water and energy efficiency.* The objective is to optimise water provision, control the operation of networks and operate the system in a more efficient manner. OSE is currently replacing 160 kilometres of pipelines and changing 77,000 water meters. It is also implementing new procedures to control water consumption with automated processes. The company is promoting pilot projects and new technologies in the field of telemetry (remote measurement), which will have a positive impact on the cycle of operations and contribute to its financial stability.
3. *Water quality and environmental policy.* The company is committed to providing services with high levels of quality, quantity, continuity and adequate price for the users.
4. *Risk management and impacts associated with climate change.* This strategic focus involves adapting plans, projects and works based on the appropriate forecast of future changes. OSE is getting better prepared to face potential droughts, raising the height of the dam at the Paso Severino reservoir (the main source of water for the metropolitan region) for the treatment plant located in the town of Aguas Corrientes, in order to assure the supply of drinking water to most populated area of the country. Among other initiatives, OSE is also building new plants in the departments of Durazno and Treinta y Tres.
5. *Research, development and innovation.* The company is committed to expanding its investments in the development of appropriate technologies for the water and sanitation sector.
6. *Management of human capital.* OSE is committed to developing the skills necessary for the optimal performance of its workers. The company is training its staff for the effective implementation

of the new management model and the modernisation of the company in different areas. It has also placed more importance on the analysis of its financial revenues, based on a more accurate identification of strategic areas for improving and developing the services, in the framework an investment plan for the next 10 to 15 years.

7. *Economic and financial sustainability.* From the perspective of the current administration, sustainability means an efficient and effective management of revenues, financing sources, expenditures and investments.
8. *Creation of new business areas.* OSE is constantly exploring new opportunities for entrepreneurial development in the country and abroad. Among other initiatives, OSE has created Aguasur, a subsidiary company that commercialises technology, technical assistance and external consultancy services, and which also handles the sale of transportable water purification plants (*Unidades Potabilizadores de Agua*, UPAs; a technological innovation developed by the Uruguayan public enterprise) in other countries.
9. *Improved administration and management.* OSE is committed to a culture of high quality and productive management, based on a system of planning, administration and management that enables the company to achieve its objectives as a public enterprise and fulfil its social responsibility.

OSE is continually seeking to improve and modernise its managerial procedures in the areas of logistics, risk management and knowledge creation. In recent years, this has included the centralisation of strategic processes and the decentralisation of operational activities. In other words, the chosen alternative has meant—at the same time—both greater tactical autonomy and greater strategic dependency of the different components of the company. The strategic guidelines of OSE are defined centrally, so that the whole enterprise follows the same orientation, while greater autonomy is granted to the decentralised regional units in order to guarantee that the provision and maintenance of services are conducted in the most appropriate way, and based on the particularities of each place.

Besides the aforementioned Aguasur company—95 per cent of which is owned by OSE, with the balance owned by the National Development Corporation (*Corporación Nacional del Desarrollo*, CND)—another noteworthy initiative is the *Consorcio Canario*, a new public corporation formed by OSE and government of the department of Canelones (known as *Comuna Canaria* in Uruguay). Each partner owns 50 per cent of the consortium, and its main objective is to implement a comprehensive project of storm-water drainage and public services infrastructure in the northern and eastern sides of the metropolitan area. This model of management implies enhanced coordination between public bodies as the key factor to implement a comprehensive development strategy.

The current agenda of the company promotes the convergence of policies, programmes and resources through various agreements with diverse state agencies and ministries, in particular the Ministry of Housing, Spatial Planning and the Environment (*Ministerio de Vivienda, Ordenamiento Territorial and Medio Ambiente*, MVOTMA). The intra-governmental agreements cover joint projects in the fields of water and sanitation, housing policy and environmental development.

With the Ministry of Social Development (*Ministerio de Desarrollo Social*, MIDES), the company is implementing joint programmes in urban and peri-urban settlements. Social cooperatives have been created to facilitate the engagement of low-income residents in the extension of public works.

Another ministry with which OSE has signed agreements is the Ministry of Labour and Social Security (*Ministerio de Trabajo y Seguridad Social*, MTSS). Recently, the company has joined the *Yo estudio y trabajo* ("I study and work") programme launched by the Uruguayan state. This is an initiative aimed at the social and professional integration of young people, which grants internships at public enterprises. OSE has also signed agreements with departmental governments and the National Drug Board (*Junta Nacional de Drogas*, JND), enabling job opportunities for young people who have fallen into substance abuse and have difficulties entering the labour market.

Building a sustainable public enterprise also involves considering the challenge of financial sustainability, which is essential to guarantee

the goal of securing universal access to water and sanitation services. OSE is today a sustainable and autonomous company, as already mentioned. It depends exclusively on the water and sanitation fees paid by its users.

To support its operations the company is implementing a policy of internal redistribution and cross-subsidies: there are parts of the country that have plentiful provision of services while in other parts the coverage is still deficient. It would be impossible to carry out the expensive expansion of the sanitation system or build new treatment plants on the banks of the Uruguay River, or expand the over-worked network in certain departments north of the Black River, if OSE did not have a policy of cross-subsidisation through which the most economically prosperous sectors enable the financing of projects in underserved areas.

Ultimately, the challenge for OSE and for all public enterprises in Uruguay is to reconstruct the state as the shield of the most vulnerable, as the shield of the poor. As clearly expressed by President José Mujica: "We are not proposing just to expand the state and get rid of the market, but we are aware that the needs of society are not the same of the market. We need a state that is able to channel and push development and social justice" (Mujica, 2010). Within the framework of a broader state policy of redistribution and social justice, OSE and all the other Uruguayan public enterprises have to take on the challenge of promoting greater equity and development.

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11. ANCAP: an expanding public company committed to national development

Raúl Sendic

Introduction

In October 2013 the *Administración Nacional de Combustibles, Alcohol y Portland* (National Fuels, Alcohol and Portland Administration, ANCAP) celebrated its 82nd anniversary. The state-owned company, founded in 1931 with the responsibility of importing and refining of oil, has turned into Uruguay´s most important industrial and commercial enterprise (Nahum, 2006).

At present, ANCAP remains active in the field of hydrocarbons, but also produces cement, biofuels, food products, alcoholic beverages, lubricants, bitumen and solvents. It operates as a commercial supplier of natural gas, and explores the country oil potential in various parts of the territory and its maritime area. The company is also actively involved in the modernisation of its internal logistics and production infrastructure, and supports Uruguay's development in the area of science, technology and innovation.

Over the last decade ANCAP has been implementing an ambitious investment plan, incorporating advanced technology, and transforming its managerial system. The objective is to overcome many years of disinvestment and decay.

The process of change initiated in 2005

This chapter focuses on the main changes undertaken by the company in recent years, with emphasis on the strategic plan agreed in 2005 and the related restructuring and expansion programmes aimed at consolidating ANCAP's position as the country's largest company.

The current reality of ANCAP is the result of a process of change initiated in 2005. Some time before, in December 2003, the majority of the citizens (62 per cent of the vote) had ruled out the idea of privatisation, having decided that ANCAP should remain as a company fully owned and managed by the state. In 2002 the government of the time had passed Law No. 17,448, which allowed the de-monopolisation of oil importing and refining, and the association of the public enterprise with private operators.

The possibility of privatisation generated a profound debate within many different segments of society, and therefore the referendum of 2003 can be interpreted as a kind of a national "shareholders' assembly"—with all Uruguayans citizens being the shareholders— that reaffirmed the *public* nature of the company. According to the interpretation of the results of the referendum of 2003 proposed by an academic researcher (Moreira, 2004:40):

> All the electoral predictions that were based on the indications that the leaders of the main parties had given to their respective political constituencies failed miserably. The anti-privatisation vote was guided by something more than party loyalties. The popular discontent had deepened as result of the unprecedented economic crisis and the growing awareness that market-driven reforms had done nothing but ruin the country, revitalising the essential statist profile of the Uruguayan society. The referendum contributed to a widening of the gap between the government and the citizenry, and was a sort of "trial" vote in anticipation of the national [parliamentary and presidential] elections of 2004.

Taking into consideration the results of the referendum, the new board of directors appointed in 2005 had to take charge of a firm that had suffered a very profound process of divestment. ANCAP exhibited enormous difficulties in many areas, and limitations of many kinds, due to the fact that in the decade prior to 2005 the company had mostly been prepared to be put on sale, not to function as a viable enterprise. From a longer and more accurate perspective, it can be argued that in the preceding three decades there had been no real investment in the cement factories or in the area of logistics. The average amount of the company's total investments before 2005 was just over $10 million per year. These figures were totally inadequate, particularly for a

company that had to operate in the area of hydrocarbons—where constant and substantial investments are unavoidable.

Consequently, the design and implementation of a coherent and appropriate investment plan became the new team of directors' first priority. But that also meant the need to work out a broader strategy for internal and external development. This involved redefining (or recovering) the role of ANCAP in the national economy, and its significance for the implementation of the new guidelines for economic growth and social inclusion that the incoming progressive national government presented to the Uruguayan people. Those of us who assumed the direction of ANCAP at that time were well aware that the company was of crucial importance for the country, and should become one of the pillars of national development. We assumed the immense responsibility of ensuring the reliable supply of energy, to make possible the new and ambitious governmental plans for economic growth and social development.

The entrepreneurial strategy in the current political context

In this and the other chapters that focus on Uruguay's four largest public enterprises (ANCAP, ANTEL, OSE and UTE), the chairs of the board of each company emphasise the importance of infrastructure and recognise the significance of a safe and steady supply of energy. Within ANCAP and the other Uruguayan state companies there is a clear understanding that infrastructure and energy can be either highly restrictive factors, or key catalysers of economic and social development. From that perspective, ANCAP has adopted a new strategic plan and is deploying a tremendously ambitious investment programme. Since 2005, the company has moved from an average annual investment barely above $10 million to over $200 million in 2013. ANCAP has built a desulphurisation plant in the district of La Teja, in Montevideo, which by itself represents an investment of $300 million, making possible the extraction of about 30 tons of sulphur per day from the oil, which in turn will be transformed into fertilisers.

To better position the country in terms of logistics, ANCAP is investing in the construction of pipelines, improved port facilities, barges

and a tugboat, besides the acquisition of a fleet of trucks and improved delivery systems for the fuel plants. It is also constantly working to improve the stocking capacity of petroleum products, among several other manifestations of the increased investment.

ANCAP not only seeks to better position itself in the hydrocarbon sector; it aims at the diversification of the country's energy mix. In 2005, when the current process of change began, several private companies raised the possibility of investing in the production of ethanol or biodiesel, proposing to sign long-term contracts with ANCAP for joint production. The implicit message was that the state should be the funder of this new line of business, but that production *per se* should be delegated to the private sector. The government decided not to finance production by private operators who would then sell ethanol and biodiesel to the state, becoming the hegemonic actors in the domestic market. It was decided that the public enterprise would directly engage in both investment and production.

In line with that decision, ANCAP acquired a run-down sugar mill that had belonged to the failed company CALNU in the Bella Union district of the department of Artigas, and drafted an investment plan to convert the mill into the sugarcane processing complex that exists today. Moreover, the plan included the installation of a biodiesel plant in Montevideo—in conjunction with COUSA, a private firm—for processing grain and producing vegetable oil as raw material for biofuels. In recent years, ANCAP has begun to develop a new supply chain that has opened new horizons for the promotion of alternative sources of energy. The company's biofuel production is very auspicious, together with the generation of energy from biomass and the associated production of food products. ANCAP has, through these investments, already become the largest producer of livestock feed in the country, allowing for the substitution of imports by authentically national products.

Obviously, the manufacture of biofuels from plants such as sugarcane—a crop that has a long history in the Bella Union area—also involves the production of sugar for human consumption. The company has been aware from the beginning that it would not be possible or desirable to produce biofuels using raw materials that can also be used for the production of food, and that therefore an appropriate comple-

mentarity between the two areas of production was indispensable. The experience of ANCAP's subsidiary Alcoholes del Uruguay (Alcohols Uruguay, ALUR) has demonstrated that the manufacture of biofuels without displacing the production of food products is not only viable, but essential. In Uruguay, it would not be feasible to produce sugar from cane without the integration of multiple production systems in the areas of sugar, ethanol, electricity and animal feed. ALUR is jointly owned by ANCAP (90 per cent) and by the Venezuelan state company PDVSA (the remaining 10 per cent). It produces not only biofuels, but also high-protein meals and other products derived from a variety of crops, such as sugarcane, soy, sunflower and sorghum. The cultivation areas and production plants are located in various parts of the country.

The new industrial agenda also means innovation, and a strong impetus to applied biotechnology to literally "get all the juice" out of biofuel production. The company has entered a new phase in this cycle after the installation of a large ethanol production plant in the department of Paysandú, and a biodiesel plant in Montevideo. By the end of 2012, the energy sector contributed 55 per cent of ALUR's revenues, while the food sector accounted for the balance, based on the annual production of 22,000 cubic meters of ethanol, 19,500 cubic meters of biodiesel, 45,000 tons of animal feed, and 30,000 tons of sugar. By 2015, the company is expected to be producing around 95,000 cubic meters of ethanol and 84,000 of biodiesel, plus 220,000 tons of animal feed per year. By then, ALUR will meet the entire domestic demand, and also generate a surplus. Uruguay will save more than $220 million per year on dispensable imports of oil, diesel, and animal feed products for the beef and dairy industries.

The experience of ALUR has meant enhanced productivity, industrial diversification, and higher efficiency in different sectors with different scales of production. The combined cultivation of sugarcane and sorghum as raw materials for the factory located in Bella Union allowed the complementarity of different harvests in one of the country's poorest regions. This model has generated a new value chain with positive, and very evident, social impacts in rural communities that until the expansion of ALUR registered the worst health and nutrition indicators.

Another dilapidated sector that ANCAP had to rebuild was the cement industry. In 2005, the situation in this sector was characterised by two virtually dismantled industrial plants. It was necessary to implement a process of reconversion of the factories already installed in the cities of Paysandú and Minas, with major investments that are gradually beginning to yield results. ANCAP's investments in Paysandú department, which also include the installation of the ethanol plant and public works in the local harbour, will amount to more than $300 million. The refurbishing of the factory in Paysandú—incorporating the most modern technology—will make production both cheaper and more efficient, raising output to over half a million tons of cement per year.

In addition to the upgrading of the two plants already mentioned, we must add the construction of two new factories in the eastern part of the country. ANCAP has built a production plant in the department of Treinta y Tres, which will supply cement to the Brazilian state company Eletrobras for the construction of a new thermoelectric plant near the border with Uruguay. In the same department, ANCAP will also build another plant in partnership with the Brazilian company Votorantim, which will produce one million tons of cement per year.

ANCAP has also been working with UTE—the state-owned enterprise in charge of the provision of electricity (see Casaravilla's chapter in this volume)—in the construction of a regasification plant in Montevideo. This is a huge investment that will greatly increase the availability of energy in the country from 2015 onwards, when the plant comes online. The regasification plant will also substantially transform the national energy mix—with a daily production capacity of 10 million cubic meters of natural gas—to meet local demand, as well as allowing the sale of surplus production to neighbouring Argentina.

At the same time, while governmental actors and civil society organisations are currently engaged in a heated debate about whether or not to build a new deep-water port in the south-east of the country, three national public enterprises—ANCAP, UTE and ANP (the National Port Administration)—have already decided to build a new harbour. The terminal of Puntas del Sayago, in the department of Montevideo, will have an access channel, a large jetty, and rail and road access; in other words, all the essential features of a new port. The new

terminal, located at the entrance of the existing port of Montevideo, will be connected directly to ANCAP's refinery and allow direct unloading of large tankers. This project is of strategic importance for Uruguay, since it will reduce the current high level of vulnerability resulting from the existence of single point of entry of oil through the terminal of José Ignacio, in the department of Maldonado. While the volume of traffic will not be the same, its capacity will ensure a continuous supply of oil to the country.

Finally, in this quick review of major projects, we should highlight the reaffirmation of ANCAP's original identity as an oil company. In this period, since 2005, the company has been directly involved in oil exploration as never before in the history of the country. Until very recently Uruguay did not appear in the global map of oil production. The last exploratory works in the country had taken place in the 1970s, and since then the state had not invested resources in this area. Nowadays, Uruguayans can perceive substantial progress in the knowledge of the geological characteristics and the productive potential of the national territory. If the studies currently being conducted in Uruguay conclude that exploitation is commercially viable, ANCAP will negotiate the concession of blocks for 30 years with other companies, with a view to engaging in joint ventures with those firms.

For this area of work ANCAP has had to develop a new action plan, which began with researching the geological features of the country. Recently, seismological studies and exploratory drilling have confirmed the existence of highly-promising formations and structures, both onshore and offshore. At the same time, the company has invited potential partners for the exploration and eventual exploitation of oil. Several leading international oil companies have expressed interest in such agreements, including the signing of contracts that have already amounted to $1,560 million for investments received by ANCAP to explore the offshore areas over the next three years.

For some of the most promising blocks, the company has received up to five bids. In total, for the exploration of the maritime zone ANCAP received 19 proposals, exceeding the original expectations and resulting in a situation unthinkable in Uruguay just a decade ago. In the town of Pepe Núñez, in the department of Salto, scientific research has confirmed the existence of a geological formation of the Devonian

era that indicates great potential for oil production. ANCAP also found a geological formation of the Permian era, with a greater amount of organic matter, and continues to explore other levels of depth, pressure and temperature that could ensure the existence of oil in different parts of the country.

ANCAP also has a business portfolio abroad. The company exports stocked or surplus imported oil to other countries of the region, amounting to approximately $450 million annually, which represents around 15 per cent of the total turnover. In addition, the company is developing new initiatives in Venezuela and Argentina, and is considering its possible participation in new oil-producing projects in partnership with other companies in Peru and Angola.

ANCAP is working towards expanding its entrepreneurial operations on the basis of a strategic plan: to ensure further progress in the exploration and exploitation of oil, strengthen its position as Uruguay's largest company, develop its capabilities as a refiner of oil, and promote greater diversity in the national energy mix through the production of biofuels.

The process of internal transformation

The redefinition of its strategy also involves improving its internal managerial, operational and administrative practices. Since 2005, the board of directors have promoted a type of restructuring that means a virtual re-founding of ANCAP. The expansion of all its areas of business has required a tremendous effort in terms of strengthening the company's management capacity. One of the most important challenges that ANCAP faces today is the cultural change within the company. To meet this challenge the firm has implemented a series of internal reforms, which include the strengthening of the company's leadership, the incorporation of a comprehensive risk management system, and internal budgetary reallocations to support the new priority areas.

Other strategic components under consideration by ANCAP are improvements in industrial safety procedures and the quality-control systems, based on a renewed concern for the occupational health of its workers. In October 2012 ANCAP also launched the *Alejandría Project*, which enabled the full computerisation of the company's adminis-

tration. The company has also opened discussions with the trade union over the adoption of a new salary scale, based on productivity.

Making good use of the experience gained in recent years, ANCAP has formed a wholly-owned subsidiary called *Asistencia Técnica y Servicios* (Technical Support and Services, ATS).This provides consulting services to other public and private enterprises in areas such as engineering, management, monitoring and evaluation, and the design and construction of large infrastructure projects. Moreover, ANCAP is expanding into new business areas, such as irrigation systems—based on the agricultural production around the city of Bella Union. ANCAP is also negotiating with Montevideo Gas for a stake in the distribution of natural gas in the capital city. It has also received proposals and requests from other government agencies to participate in new municipal solid waste management projects for the Montevideo metropolitan area.

This set of changes confirms the restructuring and repositioning of a company that is strategic for the country. The impact of a public enterprise the size of ANCAP can be seen in multiple areas, such as in the national network of suppliers of goods and services required by the company. ANCAP is contributing to the reversal of a market system that tends to reproduce itself and leads to further concentration of economic power. The company's procurement policy prioritises buying goods and services from local firms.

A company the size of ANCAP also weighs heavily in the process of technological development. The company considers it vital to strengthen its emerging partnerships with academia and national research centres, encouraging continuous innovation in the country. Like other public enterprises (see Cosse's chapter on ANTEL in this volume), ANCAP has established close links with the main organisations responsible for research and innovation in the country, being aware of the need to provide financial and other forms of collaboration. ANCAP has already signed agreements with the *Universidad de la República* (University of the Republic, UdelaR) and the *Agencia Nacional de Investigación e Innovación* (National Research and Innovation Agency, ANII), and is exploring further possibilities for cooperation with the Clemente Estable Institution (a Montevideo-based research centre in the field of biotechnology).

Complementing these initiatives, ANCAP also promotes the expansion of its technical capacities and the development of talent within the company. ANCAP supports internal innovation, based on an annual call for innovative proposals originally launched in 2012, when 160 proposals were submitted and 30 received grants for the full development of projects up to $100,000 each.

Another example of this materialised during the construction of the desulphurisation plant. ANCAP signed an agreement with the unions, the *Universidad del Trabajo* (Technical University, UTU) and the National University (UdelaR) for the training of personnel in developing large infrastructure projects, opening new capacity-building opportunities that have benefited over 2,000 workers.

A COMPANY THAT BRACES ITSELF FOR THE FUTURE

The biggest challenge facing ANCAP today is the reaffirmation of the original values that historically have been at the core of the strong feelings of identification with the company shared by most of its workers. This implies the constant training of its staff to keep up with the new times of entrepreneurial expansion and opening of new areas of activity that were inconceivable until recently, such as oil exploration and exploitation in the Uruguayan territory.

Those of us who are currently working for ANCAP have to demand more from ourselves, and further improve the systems for controlling the quality of internal procedures, identifying the strengths and weaknesses of each area of work.

Shortly before the international seminar on public enterprises held in Montevideo in October 2012, the directors of ANCAP had a meeting with the new president of the Argentinian state-owned oil company YPF (after the nationalisation of REPSOL shares). The situation of public enterprises in the region, its internal difficulties, the emerging conflicts and the possibilities for joint initiatives by state companies from different countries, were some of the issues discussed at that meeting. The theoretical contributions of several thinkers who have contributed relevant ideas in this field were also part of the exchange. But among all thinkers that should be considered when we analyse how to strengthen our public enterprises, one in particular has to be

highlighted: Ernesto *Ché* Guevara. In his essay on *Socialism and the New Man in Cuba* (Guevara, 1965), *Ché* argued that nothing will change at the societal level if the desired transformation does not begin within ourselves. In the same vein, we must also bear in mind a powerful idea that we have heard on several occasions from our national president, José *Pepe* Mujica: "state enterprises should be the shield of the weakest, the shield of the poor".

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12. UTE: a centennial and truly national public enterprise

Gonzalo Casaravilla

Introduction

In October 2012, immediately prior to the international seminar on public enterprises held in Montevideo, the National Administration of Power Plants and Electrical Transmissions (*Administración Nacional de Usinas y Transmisiones Eléctricas*, UTE) celebrated its centenary. In this special moment in the history of our company is appropriate to reflect on the model of national development we want to pursue, and the role of public enterprises as engines of development in Uruguay.

The founding objectives of UTE have remained unchanged throughout its century-old history. More recently, the company has introduced some new guidelines which state that the generation and supply of electricity should be based on the principle of sustainability, while preserving the original ideas of accessibility and efficiency. UTE's significance has increased as the national economy grows; nowadays nobody within the company or in the country would challenge the fact that energy is an essential development factor, as Raul Sendic argues in his chapter on ANCAP in this volume.

This chapter presents UTE's current entrepreneurial strategy and discusses the major challenges for the future, with emphasis on the importance of keeping electric power in the hands of the state as a catalyst for development. The analysis also focuses on the alternatives that the company is currently exploring in terms of transformation of the country's energy mix, technological modernisation and improvement of its administrative and managerial procedures.

UTE is a successful and sustainable public enterprise. The state-owned company responsible for the provision of electricity has enabled Uruguay to achieve impressive indicators in terms of access and quality of services, well above the regional average (UTE, 2012).

UTE: A COMPANY WITH A CENTURY-OLD HISTORY

The Uruguayan electricity company has 1.3 million clients in a population of just over 3 million, meaning that Uruguay has reached an almost universal rate of electrification (99 per cent), much higher than in most other countries in the Latin American and Caribbean region (OLADE, 2013). The company has moved up to first place in Latin America in user satisfaction, according to a survey that represents the views of 300 million customers of 50 utilities in the region (CIER, 2010). Similar surveys commissioned by UTE itself during the last decade have regularly reported a satisfaction rate above 90 per cent among urban residential users. The company also leads in energy efficiency in Latin America, according to comparative regional studies (CIER, 2012). In terms of economic efficiency, the company regularly transfers dividends to the state, demonstrating its economic and financial strength.

It is relevant and useful to begin the analysis of the current national strategy for the development of the electricity sector with a meticulous reading of the written exchanges between the government and the parliament a hundred years back, when the company was created. The historical documents and archival records from that period indicate very clearly that the public enterprise was created with the same long-term vision that continues to drive UTE.

During the second presidency of José Batlle y Ordóñez (1911-1915), the government modified the institutional framework to establish the state monopoly on the generation, transmission and distribution of electric power, through the creation of the National Administration of State-Owned Electric Power Plants (*Administración General de las Usinas Eléctricas del Estado*). The sixth article of the law that created the entity granted the state company exclusive rights, "with the exclusion of every other company or person", for "the provision to third parties of energy for lighting, power, traction and other applications in all cities and towns of the Republic". The text prepared by the Executive requesting the approval of the law by the Uruguayan Parliament still resonates a century later, arguing in favour of "the collective provision of public services" as "an economic and social phenomenon of general order [...] that conditions the evolution of contemporary societies".

The same document includes other powerful ideas, including the assumption that "the delivery of these services is one of the most important responsibilities of the state", which should aim "at higher purposes, such as securing the basic conditions for securing the collective well-being, comfort and hygiene, making it possible for the most disadvantaged social classes to access benefits that would otherwise be accessible only to the wealthy". It goes even further to argue that, if the state failed to intervene, the provision of public services—and in particular electricity—would be left "in the hands of all-powerful capitalists", and degenerate into "abusive monopolies and disadvantages". The message concludes by stating that the mission of the public enterprise should be "to respond to the needs of the people, improving, extending and making cheaper the services to be provided" (quoted in Medina Vidal, 1952: 114).

At present, such deep conviction that the public enterprise should be in charge of supplying the energy that the country needs for its development is still the strongest argument that justifies the energy sector remaining in the hands of the state. This argument is supported by other factors related to sustainability, a concept that from the perspective of UTE encompasses multiple dimensions, from environmental to economic and social indicators. We are aware that energy can be a powerful force for economic growth and social development, but it can also have quite negative impacts if it is not properly planned and managed. With regard to social sustainability, when electricity is in the hands of the state, with real decision-making authority, it is possible to think of many possibilities to further development and promote greater equity and social inclusion.

Public services, in particular water and energy, constitute a powerful factor of social inclusion, as Milton Machado also argues in his chapter on OSE in this volume. The tariffs that UTE has set for the consumption of electricity, like those established by OSE and ANTEL in the areas of water and telecommunications respectively, are currently calculated in consideration of the social reality of the country, taking into account the principles of equity and solidarity.

The public identity of the Uruguayan electricity company

When we refer to *public enterprises* we are always referring to national firms, which have the possibility of implementing cross-subsidisation and enabling conditions for equity that are easier to control, regulate or impose when companies remain in the orbit of the state. This observation is particularly relevant in a sector as strategic as energy, where state control is vital and unavoidable.

When the reality of the power sector in Uruguay is compared with other Latin American countries, it is easy to observe that UTE has remained at one end of the range of options of ownership and management-structure reforms. In Uruguay, energy (in a broader sense; see Raúl Sendic's chapter in this book about the national oil company) has remained mostly in state hands. The public company has preserved the core of ownership and management, and still plays a major role in the processes of design and implementation of national policies for the sector. According to the findings of a research project conducted by an economic historian: "It is not possible to understand the particular structure of the Uruguayan electricity sector without emphasising the role of the state, which throughout the twentieth century exercised monopolistic control over the generation, transmission and distribution of power" (Bertoni, 2009: 28).

Since passing the Electricity Sector Regulatory Framework Act in the late 1990s, Uruguay has undertaken important changes in the institutional and regulatory environment, but without questioning the existence and objectives of the state-owned electricity company. The Uruguayan system is based on a vertical integration model that maintains the monopoly of the public company in the transmission and distribution segments (see Ruchansky and Dubrovsky, 2010).

UTE's strategy for the provision of services is embedded within the country's broader long-range energy policy. After the energy crisis that Uruguay suffered in 2007 and 2008, the government implemented a number of measures to respond in the most appropriate manner to potential similar situations in the future. In 2011, with support from all political parties, the parliament passed a new policy framework aimed at diversifying the energy mix, in order to achieve greater energy inde-

pendence, particularly in relation to gaining further autonomy vis-a-vis the price of oil. The policy package includes measures aimed at promoting increased production of renewable energy. The country is committed to the development of domestic sources in general, and renewable sources in particular. Among other expected outcomes, this should result in greater diversification, lower costs, support to national industry in the field of energy, reduced dependence on oil, and improved interconnections with the energy systems of neighbouring countries. In the context of this process of change UTE is playing a significant role in the promotion of new alternatives.

Over the course of the next few years—which will be marked by much stronger support for the expansion of the renewable energy sector, as well as the construction of a regasification plant and a combined cycle power plant in Montevideo—the acute dependence that the country has hitherto suffered will become a thing of the past and Uruguay will be transformed into a net-exporter of energy. To these initiatives, one must add the existing network integration with Argentina (for electricity and natural gas) and the imminent connection of the electricity grid with Brazil. The complete change of the profile of electricity generation should be accomplished within the next two years.

By the end of 2015, Uruguay should be on its way to becoming a world leader in renewable energy, particularly through new investments by UTE in wind generation. These principles are fundamental components of the energy policy of the country with a horizon set on 2030, which takes for granted a changing global context in which liquefied natural gas (LNG) will have a greater importance. Within the very near future, renewable energy sources will account for more than 50 per cent of the energy consumed in the country, while natural gas is expected to represent between 15 and 20 per cent of the national energy mix by the year 2030. Considering the growing level of investment in wind power, the expansion of solar energy (both thermal and photovoltaic), and the increased biofuel production (see Raúl Sendic's chapter in this volume), we are confident that Uruguay will exceed the target of 50 per cent.

This will allow Uruguay to become the first country in the world where renewable sources account for more than half of the energy consumed at the national level. Focusing on the analysis of the electricity

sector, which has already reached a level of virtually universal coverage, this means that 90 per cent of the country's energy by the end of 2015 will come from renewable sources; approximately 45 per cent from hydroelectric power generation, 30 per cent from wind and 15 from biomass.

The particular composition of the envisioned energy mix has been carefully planned. Given the fact that 97 per cent of the country's hydraulic potential is already being exploited, the most convenient option from an economic point of view would be to promote a mix of wind (with the option of shifting later to an increased reliance on photovoltaic generation) and combined cycle power plants as backup. Basically, the system will operate saving the water stored in dams when there is sufficient wind and using more hydropower when the wind is absent. When water is insufficient, under drought conditions, the system would be supplemented with thermal generation based on combined cycle plants, considering their higher efficiency. The greater availability of natural gas enabled by the regasification plant is the golden clasp that binds together the model, by virtue of its relatively lower cost and environmental impacts compared to other fossil fuels. For a country with the specific characteristics of Uruguay other options for thermal backup—that is, permanent generation based on coal or thermonuclear generation— would not be attractive from an economic point of view, as they would not allow the proper optimisation of hydropower combined with renewable sources of energy.

We must also remember that a key objective of the Uruguayan state is to provide energy at the lowest possible cost, but that there are other factors to consider beyond pure economics. For example, both the wind and biomass options offer the possibility of incorporating more labour and locally-sourced components. In the cycle of biomass, 86 per cent of the money invested in that segment is redistributed within the Uruguayan society. Wind power also allows redistribution, but at a lower level—about 29 per cent—being very intensive in capital investment and in technological components that are not easy to develop at the national level. We must always remember that public enterprises must be at the service of the whole society, so on occasions UTE opts for technological alternatives that might not be seen as prof-

itable for the company, but which have a spillover effect on other elements of the national economy.

When UTE conducts a cost-benefit analysis it must take into consideration many variables, not only the short-term profit returns. We can choose technologies that incorporate more labour, or we can also choose technologies that require us to incorporate more national science and innovation to be used first by the company, and which will then benefit other areas of the national economy.

It is also necessary to consider other factors more related to global and regional geopolitics, and thus decide, for example, to make long-term investments in forestry for energy generation. In five decades, with oil becoming worryingly scarce, our electrical system will be based mostly on renewable sources and will continue to need backup options to respond to situations of drought and the intrinsic unpredictability (with changing degrees of availability of wind or sunlight) of renewables. In this context, biomass is an option that already is—and will remain as—an alternative, given the fact that the country has good solar irradiance and appropriate land for tree plantations. If we are forced to face events such as wars or other international conflicts in the oil- or gas-producing regions, we can always have this source of energy readily available in the country. Biomass is a guarantee of energy supply. In the 1940s, when Uruguay faced a situation of limited access to fossil fuels due to World War II, the country had to schedule power outages and suffered a lot of associated problems related to the lack of proper energy planning in the previous decades. At that time we had not yet incorporated the hydropower potential that Uruguay has today, and therefore the dependence on hydrocarbons was too great. Hence, the long-planning decisions that we make today will have clear consequences in the future, and cannot be the result of purely economic considerations narrowly focused on financial costs. We must find the most appropriate combination of energy sources, and we must consider many different factors simultaneously.

Being the state company responsible for the power sector, UTE views it as a priority to preserve its original profile as a vertically integrated firm that operates in the generation, transmission, distribution and sale of electricity in the whole country. The introduction of new products and the promotion of new entrepreneurial alternatives are

increasingly associated with control of the demand for electricity according to the availability of power, an aspect largely resolved with what is now popularly known as "smart grids". This implies active involvement in the whole value chain of the electricity sector. Otherwise, we could suffer the same kind of problems that other public enterprises have experienced elsewhere after unbundling, when the core mission of state companies has been subordinated to the narrow interests of the market.

In a vertically integrated public enterprise such as UTE the company may utilise internal mechanisms for cross subsidisation, but for that we must also control the specific financial indicators of the separate business units, in order to monitor, prevent or correct eventual inefficiencies. Moreover, being a state company, UTE must comply with the general guidelines of the national energy policy established by the government and parliament, which is "to ensure proper quality, safety and affordability in the provision of energy to all citizens", taking into account that "energy access is a right" and the need to "integrate the access to energy services within the country's broader social policy", quoting recent declarations of Uruguay's National Director of Energy, Ramón Méndez (*La Diaria*, 2013).

In this sense, thanks to a series of projects focused on the expansion of services, the reduction of power losses and the connection of low-income households, the company foresees closing the administrative period 2010-2015 with an additional 3,000 families connected to the grid. UTE is also very close to achieving the goal of 100 per cent rural electrification, which will undoubtedly have many positive social impacts in the quality of life of the most isolated segments of Uruguayan society.

The investments that have been made in the electricity sector are also very important. In the period 2010-2017 UTE will invest approximately $6,600 million, an amount equivalent to 1.6% of the country's annual GDP over eight years. This breaks down as: UTE's regular budget of $2,800 million, $500 million to the regasification plant, $400 million to photovoltaic projects, $2,350 million to wind projects, and $550 million to biomass.

Another key factor in the development of any enterprise is the managerial model. At this moment, Uruguayan public enterprises have a historic opportunity to transcend the limitations of previous years. In UTE we are trying to pursue a virtuous cycle, primarily related to the most appropriate utilisation of our staff, which is the most important resource that the company has today and which we should strengthen. We are already working with new managerial models of modern management that provide state companies with the ability to respond better to the constant changes in technology.

A significant problem to be considered is the fact that the boards of directors of public enterprises change every five years, which does not play well with the medium- and long-range perspectives that are needed in the energy sector, and which imply continuity in the design and implementation of policies, programmes and projects. To respond to such a limitation, UTE is working towards strengthening specific skills required for planning and management in different key areas of the company, based on strategic definitions established by the board and on the understanding that state companies are primarily a tool for national development, and not simply profit-making entities (UTE, 2009).

Conclusion

This century will be an era of many profound technological changes, as Carolina Cosse and Raúl Sendic have already explained in their chapters about the experiences of technological innovations processed by ANCAP and ANTEL, respectively. These changes will primarily affect the telecommunications and energy sectors, and therefore we need new management models that allow us to constantly reinvent public enterprises without losing our founding identity and mission. To date, those of us in charge of directing the main public enterprises of Uruguay have both the opportunity and the obligation of coordinating better, and creating synergies towards the expansion and improvement of state-run activities across economic and social areas.

The political and institutional context of present day Uruguay requires that we pay more attention to the issues of cooperation and coordination. This is the proper moment for moving forward in the discussion about the creation and coordination of state-owned holding

companies, among other proposals that deserve a more articulated debate in our country. Public enterprises can and should coordinate their objectives and activities, based on the structures that already exist. In Uruguay we already have institutional spaces that would allow us to advance further in that direction. The owner of our companies is the same; it is the state, and therefore the citizenry. We need to share our successes, and exchange and discuss our particular experiences, in order to avoid repeating the mistakes of the past.

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Daniel Chavez and Sebastián Torres (eds.)

REORIENTING DEVELOPMENT

STATE-OWNED ENTERPRISES IN LATIN AMERICA AND THE WORLD

The growing evidence of the failure of privatisation as prescribed by the *Washington Consensus* has prompted a reconsideration of state ownership and management in Latin America. In parallel, in other regions of the world, the economic and financial crisis has spurred a resurgence of analytical perspectives that challenge the hegemony of the free market paradigm. At both the academic and political levels, very intense debates have reemerged on the significance of state-owned enterprises in national and regional development strategies.

This book is based on contributions from several researchers and policy makers that belong to the *International Research Network on Public Enterprises and Development*, following an international conference held in Montevideo in November 2012, jointly organised by Uruguay's National Directorate for Industrial Development (MIEM-DNI) and the state-owned telecommunications company (ANTEL) in association with the Amsterdam-based Transnational Institute (TNI). The chapters of this book analyse the nature, advantages, limitations and challenges of public companies, framing the discussion vis-à-vis ongoing political processes and contributing new theoretical and conceptual insights on the nature and roles of the state and the controversial meanings of development.

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