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TOPIC GUIDE



Privatisation in developing countries: What are the lessons of experience?

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This is one of a series of topic guides commissioned by the UK Department for International Development (DFID). It has been prepared by Professor Saul Estrin and Dr Adeline Pelletier, under the guidance of Tim Green and Deborah McGurk of DFID.

Drawing on international sources of evidence and guidance, this Topic Guide is an introductory guide for economists on privatisation in developing countries. It provides the reader with an introduction to the economic theory and key concepts behind decisions on the ownership and management of goods and services. It examines the current patterns of public/state ownership in low income countries (LICs) and Low-Middle Income Countries (LMICs) and outlines the current practice of regulation of utilities. In addition, this Topic Guide offers an overview of the evidence of the results of privatisations in developing countries, including fiscal impacts, efficiency of production, corruption, broader impacts on the economy of changes in the performance of previously state-owned firms, including distributional impacts.

Extensive references and links are provided for further reading and for obtaining international data on privatisation.

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Executive summary

- i The purpose of this paper is to review DFID and international experience with the process of privatisation in developing countries. After about 25 years of experience, this remains a controversial topic in development debates amongst NGOs, policy makers, academics and the public.
- ii It is acknowledged that all countries need both a private and a public sector. The decision to provide any good or service in one or the other sector should be a pragmatic choice based on the appropriate criteria. It is generally agreed that public provision will mainly be appropriate where there would be severe market failures with provision by the private sector. Such market failures could include imperfect information, significant benefits for society as a whole from consumption of a certain good above levels determined on ability to pay, or the existence of a natural monopoly which prevents competitive pricing. It should also be recognised that problems and failures can occur in both the private sector and the public sector. Thus privatisation may occur for example if technological change has altered the likelihood of private market failure (as in telecommunications). However, if a shift from public to private sector is associated with failures in the private sector of various kinds, efficiency and welfare may not necessarily improve.
- iii The success of privatisation should be considered against the specific objectives of any particular programme. Since these objectives vary, there is a danger of declaring the policy a failure against one objective, when the key aims of the policy were something different. It is suggested that the primary objectives of privatisation in poor countries include the creation of a market economy (especially in transition regions); the improvement of efficiency, particularly in potentially contestable sectors; allowing investment decisions to be taken against commercial criteria; and to provide fiscal savings for the government budget by eliminating subsidies to state owned enterprises and creating scope for tax collection. Where privatisation is pursued with multiple objectives in mind, it should be recognised that failure or partial success against one objective may not in itself constitute a judgement of policy error.
- iv Evidence on the impact of privatisation is contested and sometimes ambiguous. There are a number of studies that have found that privatisation is associated with improvements in operating and financial performance, even if this is found to be limited in some studies. On the other hand there are cases of less than anticipated levels of private investment, continuing poor levels of service delivery, high tariff increases (often resulting not from privatisation as such but from the reduction or elimination of public subsidy), and negative impacts on employees due to downsizing. Overall, the studies on developing economies show that private ownership alone rarely generates economic gains. The success of privatisation also depends on the regulatory framework which in turn depends on the institutional and political environment. Effective competition is also the key to bringing about performance improvements, as it is associated with lower costs, lower prices and higher operating efficiency.
- v Besides the impact of privatisation, there is a range of considerations relating to the process of privatisation. These concern how the government implements the privatisation process – for instance whether the policy is effectively communicated to the public, whether the programme is correctly sequenced with the creation of regulatory capacity, and whether effective corporate governance is created for privatised entities. Some privatisation programmes

have been associated with high levels of corruption and poor value for money to the taxpayer, as well as increasing levels of inequality.

- vi The overall policy implication of this paper is that the risks of privatisation should be recognised and assessed in any decision to privatise, and where possible, such risks should be mitigated. Key risks include the failure to secure government ownership and leadership of the privatisation programme; to adequately regulate the private sector; to link fiscal savings to poverty reducing expenditures; to prevent corruption in the privatisation process; to properly assess poverty impacts or to compensate affected groups; to communicate the privatisation policy to the public; and to adequately assist and compensate laid-off workers.
- vii But with sound appraisal, design, and implementation, privatisation programmes can be beneficial in poor countries, as they have tended to be in more developed economies. Positive indicators for success would include strong government ownership of the process, well-designed and sequenced reforms, the implementation of complementary policies, the creation of regulatory capacity and good corporate governance structures, attention to poverty and social impacts, and strong public communication. This list is not an insignificant challenge however, especially in low-income countries that lack administrative capacity. This may help to account for the greater prominence of privatisation programmes in middle income countries, and the stronger enthusiasm for this type of initiative in countries with a large state sector and better administrative capabilities like India.

1 Introduction: evolution of the debate on privatisation

1.1 Defining privatisation

The OECD, in its 2009 «Report on good practices » concerning privatisation in the 21st century, offers the following definition: « *As privatisation may be considered any material transaction by which the state's ultimate ownership of corporate entities is reduced.* » (2009:5). This definition encompasses direct divestment by the state, divestment of corporate assets by government-controlled investment vehicles and the dilution of state positions in State Owned Enterprises (SOEs) by secondary share offerings to the non-state shareholders. Overall, «*the word privatisation is used to refer to a transfer of assets to the private sector rather than a transfer of activities.* » (OECD, 2009:5).¹

The methods of privatisation can be first divided into two groups, depending on whether the privatisation is undertaken by the SOE itself or by the state. Another distinction among privatisation methods is between a direct transfer of the SOE to private ownership (an individual, a company or a closely held structure) and a listing of the SOE on the stock markets.

Four methods can be identified (OECD, 2009):

The first one is **trade sales**, which can be undertaken by private placement or by trade sale auctions. Negotiated sales of entire SOEs to a preferred bidder are relatively uncommon in the OECD, while it is more frequent to offer tranches of shares in already listed SOEs privately to groups of preferred investors (« Block Trades »). SOEs can also be auctioned off *en bloc* to highest bidder, generally private companies.

A second method is **share offerings**, either initial public offering of all or a tranche of the enterprise's shares on a stock exchange, secondary public offering, or offering via accelerated book building when the government charges a number of financial intermediaries (investment banks) with placing tranches of shares of already listed SOEs with institutional investors.

A third method is **management or employee buy-out**. In this case, SOEs can be sold to legal entities controlled by the incumbent staff and/or management.

Finally, the **privatisation can be led by the SOE**. This can be done through capital increases, by issuing additional stock, thus diluting the government's ownership share, or through indirect privatisation. Another method is indirect privatisation, by the sale of material assets by the SOE. In particular, privatisation occurs when wholly state-owned enterprises under government instructions sell off their corporate assets, subsidiaries or commercial activities.

The method of privatisation will also depend on the local context. For instance, initial public offering are more difficult to conduct in countries where capital markets are underdeveloped. In such context, trade sales to foreign firms in similar industry may be a better method (Estrin et al. (2009).

¹ Note that the transfer of certain commercial activities from SOEs to private operators (for instance, through concessions, leasing or other forms of public-private partnership) is generally not considered as privatisation.

1.2 Current debates

As Borisova *et al.* (2008) note when governments consider divesting state-owned enterprises, they have several goals in mind, among which generating revenues, encouraging economic efficiency, decreasing government intervention, introducing competition and market discipline. There are, however, several arguments against privatisation, which include loss of control over companies that are strategically important to the country (banks, telecommunications, etc.), reductions in employment after privatisation, or selling off of national assets to foreign investors, which implies that the profits are channelled outside the country.

In the early to mid-20th centuries the role of the government often became central in infrastructure, with the emergence of national networks and the recognition of economies of scale. By the 1950s, communication and energy networks were run by state enterprises in most Western European countries. However, movements of liberalization and privatisation started at the end of the 1970s. In developing countries these policies were promoted by the World Bank and the International Monetary Fund. The central argument for privatisation was the belief that private sector ownership would bring about efficiency gains by addressing the principal-agent problems of state ownership via replacing state by private owners. It was also hoped to increase competition or contestability in formerly monopolistic market structures. The overall results of this process have however been mixed, both in terms of competition -as often the original incumbent has retained a dominant position- and in terms of network expansion and access (Roland, 2008).

With regards to developing and transition countries, the tone of the privatisation debate has shifted among the international financial institutions, acknowledging the difficulties of implementation and some privatisation failures in the 1980s and 1990s (Jomo, 2008). More emphasis is now placed on creating the preconditions for successful privatisation. In particular, it is suggested that governments first provide better regulatory and institutional framework, and then that reforms should be tailor-made, with strategies for privatisation being adapted to local conditions. As such, greater emphasis is now put on correct sequencing of reform and establishing the preconditions for privatisation before actually starting the process. This includes creating a strong prior legal development, ensuring a well-functioning capital market is in place, as well as protection of consumer employee rights.

As Bognetti and Obermann (2008) note, recent debates around privatisation have taken two directions. The first is based on the assumption that public enterprises are intrinsically inefficient. Therefore while significant assets are in state hands, the overall allocation of resources is inefficient, and marginal costs are too high. At an empirical level, several studies have been conducted to establish whether private enterprise is more efficient than public, but, as will be developed in section 5, no unambiguous conclusion has yet been reached, as the outcomes are very context-specific. Theoretical research has focused on the organizational features of the firm, using transaction costs, property rights and principal-agent theory as analytical tools to compare the performance of private and public firms, and to assess the differences in incentive structures and in managerial behaviour.

The second debate is centred on the issue of the benefits of a liberalization of the public utilities sector. This requires an element of competition to guarantee lower costs and higher quality. One extreme position in this debate is to opt for complete deregulation. That said, as Bognetti and Obermann (2008) write, given the nature of the utilities industry, based upon networks and economies of scale, there are unavoidable elements of natural monopoly which makes full deregulation/competition impossible.

1.3 Central issues in privatisation

The key takeaways of this report are outlined below and presented in schematic form in Figure 10 (p. 46). The success (or failure) of privatisation will depend on the following factors:

- **Market structure and degree of contestability of the market**

The first point is that the sectorial context is key to understanding the potential for successful privatisation. In particular, the need for privatisation, as well as the privatisation outcome, will depend on the market structure and the degree of contestability of the market. As such, it is necessary to distinguish between firms that are a natural monopoly, and for which the benefits of public ownership are important (see section 2), and firms in sectors in which competition can be reinforced through privatisation. The market structure will have impacts both on the methods and the proceeds of privatisation.

- **The potential for spill-overs**

A successful privatisation can bring benefits to an economy beyond its effects on the privatized firm's efficiency. The benefits of privatisation can spill-over to other sectors and consumers through, for instance, lower prices and increased quality (see section 6). The costs can spill over via distributional effects (see section 6).

- **The institutional and political context**

The institutional context matters for privatisation. The first point is that the institutions, in North's (1990) sense, of the country where privatisation is conducted define the constraints within which the privatisation process will operate. In an economy with competitive markets, with well-defined and enforced property rights, the privatisation process should be smoother and the success rate higher, than in transition economies, for example, where governance was typically weak.

The second point is that privatisation outcomes depend on political economy factors. Whether a country privatizes and liberalizes a particular sector will depend on its political structure, and the configuration of interest groups². In addition, the allocation of benefits or costs of privatisation is often the result of a political process, where poor and corrupt political decisions can aggravate the negative impact of weak institutional governance.

² See the work of Li and Xu, 2002, on the political economy of privatisation in the telecommunications sector.

2 Economic Theory on Private and public ownership

2.1 Incentives and Market Failures

2.1.1. Traditional Industrial Organisation view on natural monopolies

In order to consider the experience of privatisation, it is helpful to review the issues affecting the choice between retaining services in the public sector and moving them from the public sector to the private sector. There is a global consensus that countries require both a private sector and a public sector, implying that neither is universally more efficient, effective, or equitable for all goods and services. **Traditional industrial organization theory argues in favour of public ownership or regulation in the case of market failures, notably natural monopolies.** In sectors where economies of scale are very large, there is no place for more than one firm. This would be the case of water or electricity distribution, for example, which involves huge fixed costs in infrastructure. Nationalization of sectors operating under conditions of natural monopoly would allow government to impose pricing and production policies on firms, avoiding monopolistic profit maximization and increasing social welfare (Roland, 2008).

In recent years, the focus of the discussion has evolved towards the extent to which a particular sector constitutes a natural monopoly and the potential to introduce competition in parts of the supply chain. For instance, while electricity distribution may be subject to natural monopoly, it may not be the case for electricity production, where competition can help bring the prices down.

2.1.2. The incentives argument

Beyond this, in some countries the state plays a direct role in economic development, for instance by strategically deploying SOEs to achieve political objectives (Aharoni 1981; Li, Cui, & Lu, 2014). From this perspective, state ownership addresses some of the market failures associated with under-development by enabling the funding of crucial industrialization or infrastructure projects (George & Prabhu, 2000). Indeed, in transition economies like China or Vietnam and market economies such as Singapore, the leading political traditions envision the state as guiding the process of market driven economic development (Lin, 2011; Redding & Witt, 2009; Tipton, 2009).

While traditional IO theory helps frame the discussion about ownership and regulation in the case of natural monopolies, it provides little guidance in the choice between the effects of government ownership and the regulation of privately owned firms. The more recent **developments of contract theory, focusing on incentives and agency issues**, have offered new perspectives in the comparison between public and private ownership. Contract theory considers that private ownership can deliver better incentives than public ownership.

Vickers and Yarrow (1991) and Laffont and Tirole (1993) focus on the **role of capital markets to discipline managers**, leading to important differences in incentives between privatized and non-privatized firms. There are two important arguments in favour of private ownership in Anglo-Saxon countries. The first one is that stock prices convey information about the level and quality of managerial investments. This information can be linked to managerial compensation, providing strong incentives to perform. This mechanism is however based on the underlying assumption that the market is efficient, with all relevant information about firms incorporated in the stock market prices. The second argument in favour of private ownership is that it introduces corporate take-over threats, especially for large corporations with numerous shareholders, which can discipline managers. These arguments can be generalised to other institutional contexts.

While in Anglo-Saxon countries the constraints on managerial discretion in large part derive from stock markets (see Megginson, 2005), in countries which are more debt-oriented such as Japan or Germany, the mechanisms can be different, with less reliance on an adversarial market for corporate control and more extensive use of internal governance constraints. In these countries, ownership is typically highly concentrated into the hands of banks or strategic investors (funds or families) who are granted board representation. These investors undertake close monitoring of managerial performance directly, and use the managerial market and management incentive schemes. Similarly, **in developing countries with underdeveloped stock markets, the monitoring benefits of capital markets are weaker** (Estrin and Perotin, 1991) and internal governance constraints (for example via business groups) or the discipline of product market competition may provide stronger incentives. Recent empirical evidence from China (Chen *et al.*, 2015) illustrates well these incentive issues, especially internal governance mechanisms, showing how internal capital markets functioned differently within state-controlled, compared to privately-owned business groups in China. Using data on within-group capital flows, they document stark differences: while private groups allocate more capital to units with better investment opportunities, state groups do the opposite. They argue that in the context of China's state business groups, state capitalism does a poor job of allocating capital efficiently. They further conjecture that capital allocations at state groups reflect the private career objectives of their chairmen. Consistent with a career motive, they find that capital allocations are used to prop up large and struggling employers, but only if the chairman has a realistic chance of being promoted and if the cost of self-interested behaviour is not too high. This empirical research shows how the structure of incentives is an important channel through which ownership affects firm's efficiency.

2.1.3. Private and Public sector failures

Private sector firms will tend to be more efficient in the production of goods and services if they operate in a competitive market. However, markets are rarely perfectly competitive and market failures are therefore typically possible and present to an extent in the private sector (Greenwald and Stiglitz, 1986). **Market failures**³ by themselves may not be a sufficient reason to bring an activity into the public sector. Some market failures can be addressed by public action such as an effective competition policy. Private sector operations are not isolated from the public sector, particularly in the case of public services – utilities, transport, health and education services-, which require regulation and other forms of public intervention such as establishment of a policy environment, with certain legitimate social objectives.

Any productive activity requires effective **corporate governance**. Privatisation in transition economies and emerging markets designed to improve efficiency has often led to corruption scandals, for example in Russia. However, corporate governance can also be extremely weak in the private sector, particularly when ownership is concentrated in the hands of the powerful, or so widely disbursed to the public that management retains effective autonomy. Thus, the choice of whether a certain activity is best delivered in the public sector will depend on the sectorial and institutional context. In either case, the quality of government policy and corporate governance will impact upon the extent to which objectives of efficiency, service delivery, and social and environmental policy are achieved. Some of the key failures are explored in Table 1.

³ Productive and allocative inefficiencies, negative externalities, information failure, failure to assign property rights, information failure etc.

Table 1: Government and Market Failures

	Government Failures	Market Failures
Setting tariffs at the right level	Governments may set tariffs at below economic cost for reasons other than those related to legitimate benefits to society. For example, power subsidies may not cover costs in order to subsidise powerful lobbyists.	Private sector firms will maximise profits, which in the absence of effective regulation or competition will lead to excessively high tariffs.
Investment levels	Government investment may be constrained by overall fiscal stress caused by high levels of deficits and indebtedness, which can starve public services of investment.	The private sector will invest in relation to the private rate of return, and will therefore under-invest in projects with higher social returns than private returns.
Employment and wages	Public companies frequently over-staffed due to political objectives to maximise employment creation or avoid redundancies. Wages influenced more by overall public sector pay policies than company performance.	The private sector will employ the optimum number of employees. If an overstaffed public sector firm is privatised, this can involve redundancies. But if the firm expands after privatisation, employment can increase, often after a time lag.
Environmental policies	The environmental impact of public sector industries depends on incentives and regulation within the public sector. In some cases the public sector has been responsible for considerable environmental damage.	The private sector will have an incentive to minimise net expenditure on pollution control without regulation and again, the right incentives.
Service delivery and access by the poor	In theory, there is a public incentive to improve service delivery to all voters, but this can be frustrated if tariffs are overall too low, financial performance is poor, technical efficiency is low, and the government is forced to limit sector investment and subsidy.	In maximising profits, private firms will not serve the poorest clients, particularly where the fixed cost of infrastructure investment is prohibitive (e.g. in Water and Power Supply). But with appropriate regulation there is scope for effective cross subsidy within the private sector.

There are further good explanations as to why public sector provision may be preferred:

- Where the public is not able to purchase a service because of a **lack of information** about what they require. Health care is the classic example of such a service, because a private provider, driven by profit, will have an incentive to provide more extensive and expensive treatment than is required, or fail to prevent a problem with the interest of providing curative care in due course.
- Where there are strong benefits to society, or spill-overs, which are beyond the benefit to the individual from any private consumption, there is a traditional case for providing services within the public sector. Such benefits are known as **“externalities”**. The best known examples relate to health and education issues.
- The provision of most goods and services is probably better achieved through private ownership because the forces of competition lead to efficiency and low prices. However, **state ownership can be justified in markets where there is an absence of competition** which is based on the underlying technology rather than pure market power (the latter must be addressed through competition policy). Natural monopolies occur when average costs are declining throughout the range up to and beyond the point where market

demand is satisfied. This is caused for example by economies of scale or network effects and means that ensuring competition implies higher average costs through the duplication of networks. The typical cases of this phenomenon are utilities, such as electricity supply, water supply and gas supply (Vickers and Yarrow, 1988). In this situation, there will often be widespread public ownership, but this may be associated with for example low levels of efficiency, and poor rates of innovation. This may lead governments to consider privatisation, but this will need to be associated with regulation so that private sector suppliers do not charge excessively for the supply of the service.

2.2 Motivation for Privatisation

Before looking at the experiences of privatisation in developing countries, it is helpful to review the various motivations for a privatisation policy. Outcomes should be assessed in terms of the objectives of the exercise. Key objectives for privatisation have included:

- The creation of market economy, notably in transition economies;
- improving the efficiency of enterprises by increasing management autonomy and improving corporate governance;
- allowing investment decisions to be subject to commercial factors and be financed by the private sector;
- Reducing the budgetary cost of public enterprises in order to create fiscal space for social sector investments.

The transition of former communist economies into market economies was a major motivation for the effort and support provided by donors to privatisation in these countries since the 1990s. An evaluation in 2002 by the OED of the World Bank⁴ notes the enormous increase in the share of the economies controlled by the private sector in transition economies as a result of the privatisation process. Whilst there has been considerable criticism of the privatisation process in countries such as Russia, on the grounds that it led to increased inequality and was associated with corruption on a grand scale, this does not negate the achievement of the creation of an irreversible shift to a market economy.

Improving the efficiency of public enterprises has been another major objective of privatisation. Public enterprises in low-income countries have frequently had a low rate of return on capital employed because they have lacked the motivation to maximise profit and have been poorly governed and badly managed. In many low-income countries, investment in state-owned public services is starved by constraints on public expenditure. Governments of poor countries are able to mobilise a smaller share of national income as government revenue, and national income is by definition small. With mounting external debt repayment obligations, one of the least painful cuts that can be made in the short-run is public sector investment. Inadequate or erratic investment further undermines performance in the public sector. Subsidies to state owned enterprises, whether a result of recurrent losses, or to finance investment, crowd out other expenditure in the budget. This creates a double gain to privatisation as there is a one-off capital receipt as companies are sold and a long-term gain from reduced subsidies and eventually from increased tax revenues if loss-making subsidised public enterprises are transformed to profit making private ones, paying tax. If the public sector fails to control SOE costs, especially employment costs, privatisation can become virtually inevitable because it is too difficult to tackle the problems within the public sector⁵.

⁴ Assistance to the Transition Economies, Were There Alternatives? Jan Svejnar, 2002

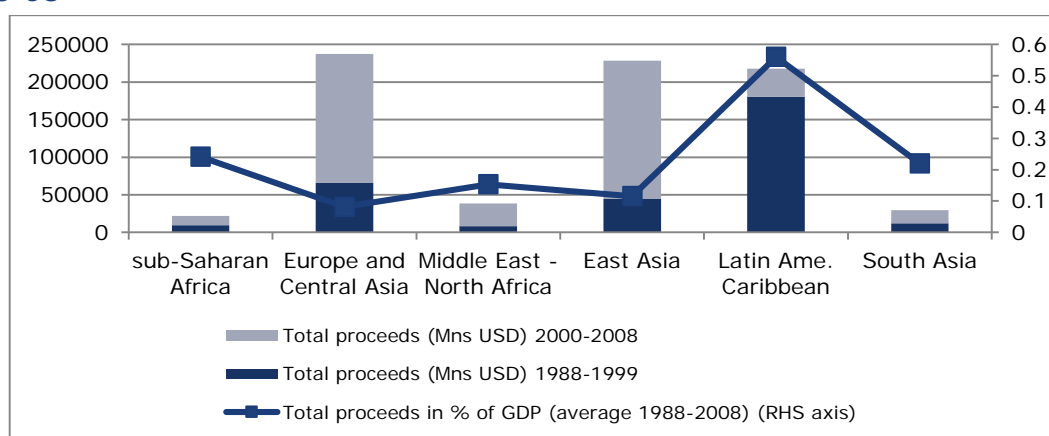
⁵ For instance, Argentine railways with over 90,000 employees had a wage bill equivalent to over 160% of the firm's total revenues pre-privatisation.

3 Privatisation trends: stylized facts

Since Margaret Thatcher initiated a large privatisation program in the late 1970s, Western Europe has been the leader in privatisation revenues, representing roughly a third of privatisation proceeds over the period 1977 to 2002 (Roland, 2008). However, according to a study by Bortolotti and Milella (2008), a large proportion of the deals only concerned minority stakes of state-owned firms and governments have kept sizable residual shares.

- **Spectacular privatisations have taken place during the transition process in Central and Eastern Europe**, with proceeds totalling US\$240bns over the period 1988-2008. The proceeds of privatisation have been much more limited in Africa, the Middle East and South Asia, with total proceeds below US\$50bns for each of these regions⁶ (See Figure 1, with the latest data from the World Bank). However, they are on par or above Europe once they are expressed as a percentage of GDP.
- **In Asia, the picture is contrasted. While South Asia has had a limited privatisation experience (India in particular), this was not the case in East Asia**, with total privatisation proceeds of US\$230bns (30% of total world proceeds) over the 20-year period considered. China, in particular, stands out. Over a 25-year period, Chinese governments have encouraged forms industrial ownership, especially at the subnational level, that combines elements of collective and private property. New private entry and foreign direct investment have also been encouraged. As a result, by the end of the 1990s, the non-state sector accounted for over 60% of GDP and state enterprises' share in industrial output declined from 78% in 1978 to 28% in 1999 (Kikeri and Nellis; 2004).
- Finally, in **Latin America and especially in Chile, large-scale privatisation programs have been launched, especially in the infrastructure sector**, starting in 1974 in Chile and culminating in the 1990s. Over the 1988-2008 period the total privatisation proceeds amounted to US\$220bns in Latin America (28% of total world proceeds). One needs to be cautious, however, when interpreting these figures. Indeed, examining these proceeds as a percentage of GDP the picture is more nuanced and the differences between the privatisation experience of Africa, Asia and Europe become less striking, while Latin America culminates with privatisation proceeds representing on average 0.5% of GDP over the period (see Figure 1).

Figure 1: Value of privatisation transactions in developing countries by region, 1988-08



Source: World Bank, Privatisation database

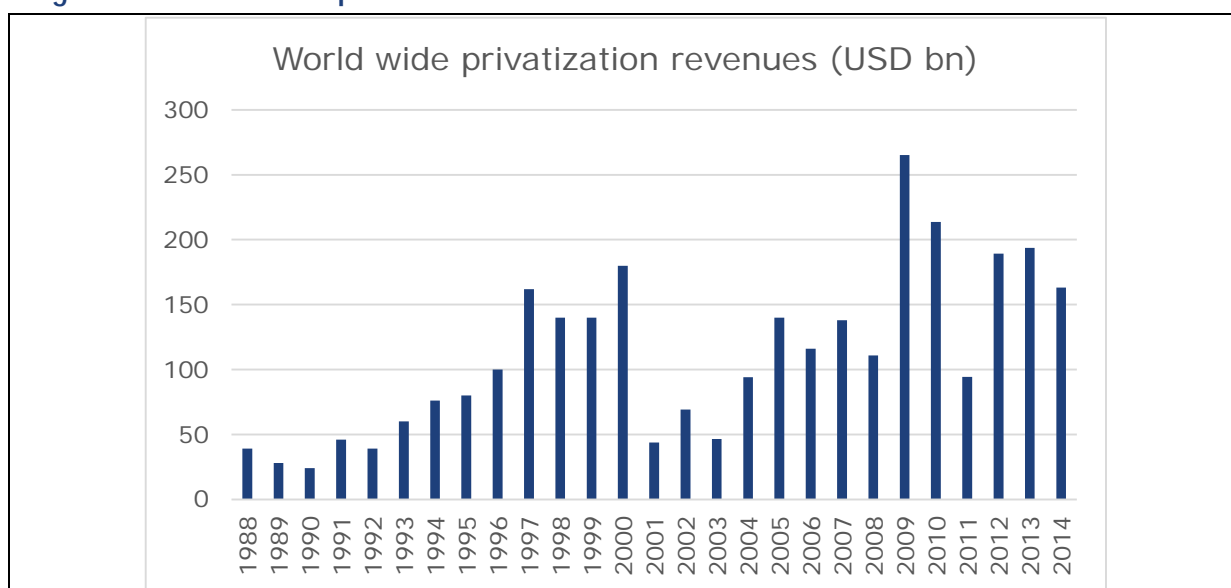
⁶ Each of these three regions representing between 3%-5% of total world privatisation proceeds over the 1988-2008 period.

3.1 Privatisation trends over the last five years

According to the Privatization Barometer (PB) Report 2013-2014, the global privatisation total exceeded US\$1.1 trillion from January 2009 to November 2014, including US\$544 billion divested assets between January 2012 and November 2014. This is far more than any comparable period since the beginning of the privatisation programs in the U.K. in the late 1970s (see Figure 2), though as noted below, a significant part of this was driven by the unwinding of positions taken in banks by governments during the financial crisis. China has consistently been one of the top privatizers over the last five years, being the second largest privatizer in 2009 and the first privatizer in 2013 and 2014, with aggregate privatisation deals totalling more than US\$40 billion in both 2013 and 2014. In comparison, the U.K., the next leading country in 2013 totalled proceeds of US\$16.3 billion (against US\$7.8bns in 2009). The United States ranked 11th in 2013 and 7th in 2014, while it was exceptionally first in 2009 with US\$140.10 billion paid to the U.S Treasury by American banks to redeem TARP equity capital injections. This accounted for over half of the global privatisation total for 2009. This trend continued in 2011, with the offering of 300 million shares in the rescued American insurance company AIG, which raised a total of \$8.70 billion for the company (\$2.90 billion of newly-issued shares) and the U.S. Treasury (\$5.80 billion of existing shares). This one sale was large enough to make the United States the third largest privatizing country of 2011.

In the EU as a whole, privatisation proceeds totalled US\$67.4bns in 2013 and US\$59.7bns in the first eleven months of 2014. This represents more than a third of the global annual totals. In comparison, they stood at US\$48.9bns in 2009, \$28.75 billion of which were preferred shares redeemed by European banks and that had been purchased by governments as part of rescue packages during 2008 and early 2009.

Figure 2: Worldwide privatisation revenues



Note: 2014 is an estimate as of 30/11/2014. Source: Privatization Barometer website.

With total privatisation proceeds of US\$12.4bns, Turkey was the largest privatizing nation in 2013 outside EU after China (see Table 2). The next five leading emerging/developing countries of 2013 were India [49 deals worth US\$10.69bns]; Russia [26 deals worth US\$10.54bns]; Brazil [12 deals worth US\$6.79bns]; Malaysia [11 deals worth US\$ 3.72bns] and Nigeria [one deal of US\$2.50bns].

Table 2: Ranking non-EU countries by total privatisation revenues, 2013 and 2014

2013 Country	#Deals	Value (US\$ mil)	2014* Country	#Deals	Value (US\$ mil)
China	115	4,1308	China	124	40,640
Turkey	4+	1,2400	Hong Kong	13	12,514
India	49	1,0689	Australia	17	10,304
Russian Fed	26	1,0543	Turkey	4+	10,000
Australia	9	9,731	United States	6	7,478
Japan	3	8,044	Russian Fed	17	6,474
Brazil	12	6,793	Saudi Arabia	3	6,125
United States	10	6,415	India	18	3,893
Singapore	10	4,636	Japan	3	3,525
Malaysia	11	3,715	South Korea	7	2,004
New Zealand	3	3,267	Malaysia	8	1,821
South Korea	14	2,748	Canada	8	1,459
Nigeria	1	2,500	New Zealand	2	871
Hong Kong	13	2,378	13 others	25	2,602
Indonesia	1	1,304			
Iraq	1	1,277			
Philippines	3	1,125			
12 Others	37	2,329			
Total non-EU 2013	322	131,202	Total non EU 2014*	255	103,512
Total World 2013	406	193,715	Total World 2014*	318	163,171

*estimates as of 30/11/2014. Source: Privatization Barometer Report 2013-2014.

The largest single deal outside the developed world was realized in Brazil, with Banco do Brasil executing the largest IPO thus far in 2013 with an equity carve-out of its insurance subsidiary, BB Seguridade Participacoes, raising US\$5.74bns (€4.36bns) (see Table 3). In 2010 Brazil also topped privatisation deals ranking with the \$27.5bns (€20.6bns) secondary public offering of Petrobras shares, which was the second largest

share issue privatisation ever, after the \$40.3bns Nippon Telegraph & Telephone offering in November 1987.

Table 3: Top 5 Deals Developing/Emerging countries in 2010, 2011, and 2013 (data not available for 2012)

Date	Company name	Nation	Sector	Value (US\$ mil)	Method of Sale
4/2013	BB Seguridade Participacoes	Brazil	Finance	5,740	Secondary offer
3/2013	Regional Electric Distributors	Turkey	Utilities	3,460	Asset Sale
5/2013	Bank VTB	Russian Fed	Finance	3,272	Primary Offer
2/2013	Sinopec Corp	China	Petroleum	3,101	Primary Offer
12/2013	China Everbright Bank Co Ltd	China	Finance	2,998.75	Primary Offer
10/2011	Freight One (Russian Railways)	Russian Federation	Transportation	4,200	Secondary
02/2011	"Bank VTB"	Russian Federation	Finance & Real Estate	3,269	Secondary
10/2011	Carabobo 2 Block Project	Venezuela	Natural Resources	2,200	Secondary
09/2011	Sinohydro Group Ltd	China	Pharmaceuticals	1,531	Primary
05/2011	Shanghai Pharm Hldg Co Ltd	China	Mining	1,384	Primary
09/2010	Petrobras	Brazil	Oil and gas	27,500	Secondary
07/2010	Agricultural Bank of China	China	Banking	22,100	IPO
12/2010	Electricity and gas distribution grids	Turkey	Utilities	9,600	Auction
11/2010	Petronas Chemical	Malaysia	Chemicals	4,100	IPO
10/2010	Coal India	India	Coal mining	3,500	IPO

Source: Privatization Barometer Report 2010, 2011, 2012, 2012-2014

3.2 Privatisation patterns in Africa: a few countries only

Privatisation programs in sub-Saharan Africa occurred in successive waves, with some countries privatising much earlier than others (Bennell, 1997).

- The **first group** to start such programs, in the late 1970s to early 1980s, were **francophone West African countries** (Benin, Guinea, Niger, Senegal and Togo). However, their progress in privatisation has been limited.
- The **second group** of countries to embark on privatisation programs started in the late 1980s and is composed of **Anglophone and Francophone countries** (Ghana, Nigeria, Ivory Coast, Mali, Kenya, Malawi, Mozambique, Madagascar and Uganda). These programs were mostly the **outcome of pressure from the international financial institutions to privatize** (Nellis, 2008). However, as Bennell (1997) notes, apart from Nigeria no significant progress was made at least until the late 1990s.
- The last group consist of **"late starters"** which did not start privatisation programs until the early-mid 1990s. Among these countries Tanzania, Burkina Faso and Zambia have shown a strong political commitment to privatisation, whereas in the other three countries (Cameroon, Ethiopia and Sierra Leone), only minimal progress had been made by late 1995.

Privatisation in the 1990s

Only a minority of SOEs have been subject to privatisation over the period 1991-2001 and very little privatisation has taken place outside of South Africa, Ghana, Nigeria, Zambia and Cote d'Ivoire (Nellis, 2008). African states have privatized a smaller percentage (around 40%) of their SOEs than other developing region such as Latin America and the transition economies (Nellis, 2008). In addition, privatisation has generally concerned smaller manufacturing, industrial or service firms. Bennell (1997) also reports that smaller SOEs have generally been targeted during the initial stages of privatisation programs in Sub-Saharan Africa (SSA) as they were easier to sell. Five industries in particular have been prominent in most national privatisations: food processing, alcoholic beverages, textiles, cement and other non-metallic products, and metal products. These five industries accounted for 60% of the total proceeds from the sale of manufacturing SOEs during 1988-1995 (Bennell, 1997), if we exclude the exceptional large sale of ISCOR (Iron and Steel Industrial Corporation) in South Africa.

Bennell (1997) explains that the **lack of significant progress in privatisation in the 1990s was due to a lack of political commitment compounded by strong opposition from entrenched vested interests** (senior bureaucrats in ministries and SOEs themselves, as well as public sector workers concerned about their job security). For instance, in Cameroon, only five of the 30 SOEs scheduled for privatisation were sold by the end of 1995. In other countries, such as Nigeria, the privatisation program started well but then stalled. Despite the fact that Nigeria's program had been one of the most successful in SSA in the 1990s, it was suspended in early 1995 in favour of a mass program of "commercialization". In Madagascar, the privatisation program was also suspended in mid-1993 due to serious mismanagement and its unpopularity among the population.

In addition to the lack of political commitment, Bennell (1997) reports that there were also **intense nationalist concerns about the possible political and economic consequences of increased foreign ownership as a result of privatisation.**

However, in the late 1990s, some political constraints had lifted. First, a growing number of governments in SSA started to undertake significant economic reforms, under the aegis of the World Bank and the IMF, in which privatisation was an integral part. Reforms and privatisation were also progressively being accepted by the population. In addition, important political liberalization, with multi-party elections, broke with the statist policies of the predecessors, and created some room for manoeuvre to implement privatisation

program. Finally, the weak financial position of SOEs and their rapid deterioration, in conjunction with the fiscal crisis of the state experienced in many SSA countries in the 1990s also opened the way for a sell-off of SOEs.

Despite this stronger commitment, Nellis (2008) notes that **African states have retained significant minority stakes in the few infrastructure privatisation deals**, with one third of the shares on average being retained by the government at the end of the 1990s. In total, between 1988 and 1999, the total proceeds amounted to US\$9.8bns, with the manufacturing and services sector accounting for 36% of the total, the infrastructure 28%, the energy sector 17%, the primary sector 14% and the financial sector and other 6% (Source: World Bank Privatisation Database).

The early to mid-2000s

The situation in sub-Saharan Africa evolved in the early to mid-2000 with important privatisations in the infrastructure sector. Between 2000 and 2008 the total proceeds amounted to US\$12.654 bns in the region (World Bank Privatisation Database). Nigeria comprised 51% of this amount, followed by Kenya (10%), Ghana (9%) and South Africa (6%). Infrastructure⁷ represented 73% of the total amount of the deals, followed by the manufacturing and services sector⁸ (17%), the financial sector⁹ (6%), energy¹⁰ (4%) and the primary sector¹¹ (1%) (Source: World Bank Privatisation Database).

Privatisation post 2008

Very few privatisation deals have occurred post-2008 in Africa. One notable exception is Benin, with the privatization of the cotton and the public utility sectors. The concession for the operation of the container terminal of the Port of Cotonou and the majority stake in the cement company were awarded to a strategic private investor in September 2009 and March 2010, respectively, and the privatization of Benin Telecom was launched in 2009 (still ongoing) (IMF Country Report No. 10/195). Nigeria was also notable for its sale of 15 electricity generating and distribution companies in 2013, raising US\$2.50bns (Source: Privatization Barometer 2013-2014). In Chad, the government announced that it was re-launching in 2015 the attempt to sell 80% of Société des Telecommunications du Tchad (Sotel-Tchad), after the previous attempt collapsed in 2010, during the country's civil war.

3.3 Privatisation in South Asia: a slow opening

Privatisation in South Asia, and in particular India, has traditionally been low, despite the notable inefficiency of SOEs (Gupta, 2008).

Why a reluctance to privatize?

- Reluctance to privatize can be explained by historical reasons, with the **government's involvement in developing an industrial base in the postcolonial era** (Gupta, 2008).
- **Particular sectors were reserved exclusively for government-owned firms**, such as the infrastructure sector but also capital goods and raw materials industries such as steel, petroleum and heavy machinery.

7 Which includes transportation, water and sewerage, telecommunications, natural gas transmission and distribution, and electricity generation, transmission, and distribution.

8 Which includes agribusiness, cement, chemicals, construction, steel, hotels, tourism, airlines, maritime services and other sub-sectors that are not infrastructure or finance related.

9 Which includes banks, insurance, real estate, and other financial services.

10 Which includes the exploration, extraction, and refinement of hydrocarbons, oil, and natural gas.

11 Which includes the extraction, refinement and sale of primary minerals and metals such as coal and iron ore.

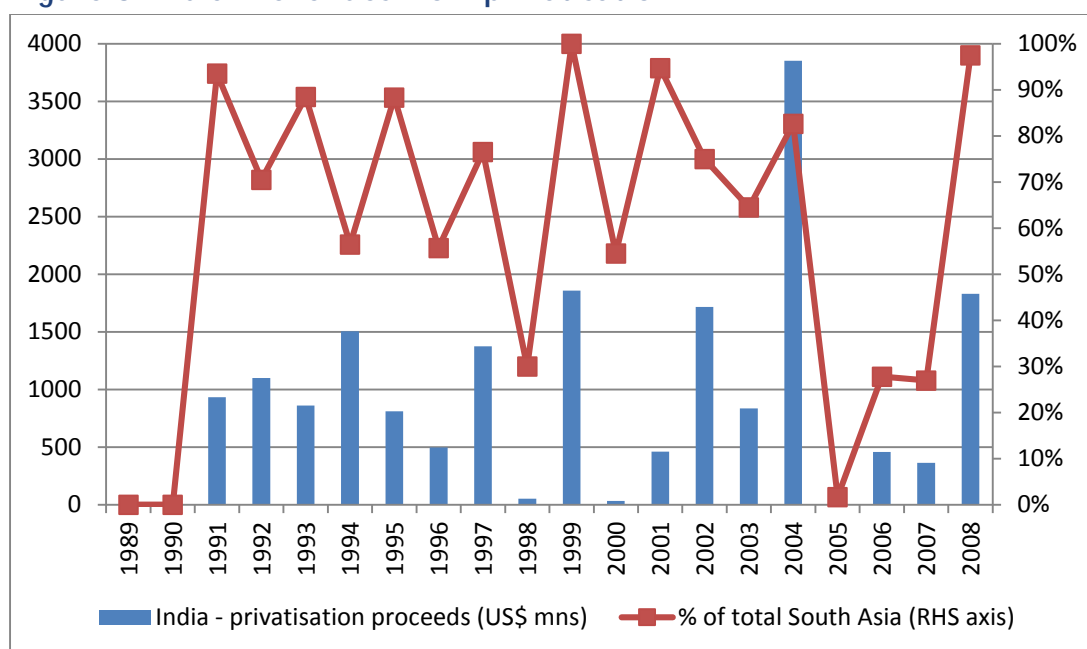
- In addition, the **government nationalized many loss-making private companies in order to prevent closure and state ownership expanded.** However, more than half of the firms owned by the Indian federal government were loss-making in the 1990s.

Following the balance of payment crisis of 1991, the Indian government implemented a series of reforms under the Industrial Policy Resolution of 1991 to encourage private enterprise and initiated privatisation, mainly through **two approaches: partial privatisation and strategic sales.** However, privatisation has remained limited, with the government selling only minority equity stakes until 2000, without transferring management control. Political uncertainty over the period prevented a coherent policy on privatisation to emerge. Majority stakes sales and the transfer of management control were conducted after the elections of 1999, but until 2004, the government retained an ownership of an average of 82% of equity in all SOEs (Gupta, 2008).

The **lack of progress in privatisation in the next decade was also related to political factors,** with successive governments being reluctant to privatize because of a potential electoral backlash, and the coalition government in power after 2004 requiring the support of anti-privatisation political parties to maintain a parliamentary majority.

Overall, between 2000 and 2008, the proceeds of privatisation totalled US\$ 17.45 bns in South Asia, the bulk being realized in India (55%) followed by Pakistan (43%). Afghanistan, Bangladesh, Nepal and Sri Lanka totalled the remaining 2% of the proceeds over the period (Source: World Bank Privatisation Database). The infrastructure sector represented 51% of the proceeds in the region, followed by the energy sector (26%), the financial sector (12%), manufacturing and services (10%) and the primary sector (2%) over the 200-2008 period (Source: World Bank Privatisation Database).

Figure 3: Indian revenues from privatisation



Source: World Bank Privatization database.

The stalled privatisation program was finally revived in 2010 by the government, led by the Congress party, with a secondary offering of shares in National Thermal Power Corporation Ltd (NTPC), which owns 20% of India's power generation capacity (Privatization Barometer Report 2009). That said, the sale of the US\$1.85bns block of shares only reduced the government's existing stake in the company by an additional 5%, leaving 85% still under government control. In addition the performance of the offering was considered to be limited, with a subscription of only 1.2 times for the secondary

offering, mainly with the help of government-owned financial institutions. Finally, in 2013 the Indian government issued an additional secondary offering of a 9.5% stake in NTPC Ltd (US\$2.14bns). That year it also executed two primary stock offerings: the share sale by Power Grid Corporation of India (US\$ 1.13bn) and the capital-raising by Axis Bank yielded (US\$ 1.03 bn).

4 Regulation and competition

“Privatisation should not be looked at in isolation. Its success depends on appropriate deregulation and reregulation of privatized firms, as well as the creation of stable institutions that foster the development of financial resources needed by privatized firms to grow independently from the state.” Lopez-de-Silanes (2005)

4.1 Approaches and Regulatory framework in the OECD

The OECD Privatisation Report (2009) lists the key elements of the regulatory framework that should be in place prior to privatization. In particular, an appropriate regulatory framework should:–

- promote transparency and efficient markets
- clearly articulate the division of responsibilities among different supervisor, regulatory and enforcement authorities.
- highlight the importance of competition, and the inclusion of anti-trust regulation and specialised regulation to oversee activities where an element of monopoly is likely to persist. (see Chapter I of the Principles).

Individual guidelines also recommend a clear separation between these regulatory functions and the state’s ownership role. For instance, most OECD governments have chosen to transfer the ownership and financial responsibility for an SOE to a central ownership function or an economics ministry, and to retain the regulatory functions in the relevant sectorial ministry or agency.

In practice, and especially for developing countries, regulatory and political problems abound during the privatisation process, given the difficulty of de-politicizing certain sectors and setting up a truly independent regulator. The other issue is the degree to which an SOE’s value chain should be exposed to competition. This relates to the question of “structural separation”, with some parts of an SOE remaining a monopoly and other parts being opened to competition.

This section will first review the UK experience and approach with regulating utilities, which has constituted a blueprint for other developed/developing countries, and then examine the regulation experience in developing countries in the utilities sector.

The Littlechild Report on telecom regulation

The U.K. model of utilities regulation has its origin in the Littlechild Report on telecom regulation, published in 1983. A landmark document, it set out the basis of the regulatory framework for Oftel, the new telecom regulatory established in 1984 after the privatisation of British Telecom. Since then, independent economic regulators have also been established in Britain for other sectors. Ofwat, which regulates water in England and Wales, was established in 1986, in the spirit of the Littlechild Report. Regulators have also been created for electricity and natural gas as well as in transport (airports and railways).

Stern (2014) identifies 7 key characteristics of the post-privatisation British model of utility regulation, which have developed since the Littlechild Report.

- 1 **independence** - specifically independence from government and independence from regulated companies.
- 2 **forward-looking incentive regulation**, with the periodic resetting of regulated prices (RPI-X regulation), based on forward looking efficiency gains and investment requirements. This is regulation in which the firm is allowed to increase its prices by the retail price index minus an exogenously determined rate of technical progress;

derived for example by looking at productivity gains in this industry in other countries. Hence if inflation (RPI) is zero, prices must fall at the hoped-for rate of productivity gains in the industry, whether or not they are achieved in that particular company.

- 3 **consumers' welfare**, both in terms of prices and of quality of service and security of supply, not only for current consumers but also future consumers.
- 4 **competition** has also been one of the key features of the regulation model, in order to maximise utility consumers' welfare. In particular, regulation has been conceived as a facilitator of competition, intervening to address unavoidable monopoly power.
- 5 **Private ownership** of the utilities has been the dominant model, as the British utility regulation model was formed by the 1980s privatisation programme.
- 6 **strong legal processes and well-defined appeal rights** have been key characteristics of the utility regulation scheme. In particular, regulatory appeals have been handled primarily by the Competition Commission and not by the general courts, which is unusual. This has reinforced the focus on competition of the utility regulation.
- 7 **light-handed or light touch regulation.**

Overall, whilst in the UK there has been little change in the degree of independence of regulators over the last decade, the number of regulatory staff has increased steadily – as evidenced in the fast growth of Oftel-, both in terms of staff and budgets¹², questioning the “light-touch” approach of the Littlechild Report (see Stern, 2014 for more details).

4.2 Regulation of utilities: the experience of developing countries

Effective regulation is central to ensuring effective privatisation of natural monopolies in developing countries. For instance, the econometric analysis by Cubbin and Stern (2006) of the relationship between the quality of regulatory governance and the level of generation capacity per capita for electricity supply industries in 28 African, Asian, Caribbean, and Latin American countries over 1980–2001, has shown that both regulatory law and higher quality regulatory governance are positively and significantly associated with higher per capita generation capacity¹³. Furthermore, their results suggest the existence of a causal relation with better regulatory governance driving higher electricity generation¹⁴.

Regulatory quality is however highly unequal across countries, as evidenced by the regulatory quality index of the Worldwide Governance Indicators (World Bank), and is highly correlated to a country's level of development. As such, the experience of regulation will differ between developed and developing countries, and among developing countries themselves.

Gassner and Pushak (2014) have examined the impact that the UK regulatory model has had in developing and transition countries, and the extent to which they have successfully followed the key features of the model, competition, independence and efficiency of service delivery through incentive-based regulation. **The authors note that while regulatory agencies have spread rapidly across the world, the success of the UK regulatory model has been partial in middle and low-income countries.** They argue that the particular context of developing countries, with below cost-recovery tariffs and continued

¹² The 1983 Littlechild Report suggested that the telecoms regulator would need a budget of around £1.5 million and around 50 staff. In the mid-1980s, Oftel already had 120 staff and by 2001-02, it had 230 staff and a budget of £17 million (£7.9 million in 1983 prices). In 2012, the number of staff grew to 780 (Stern, 2014).

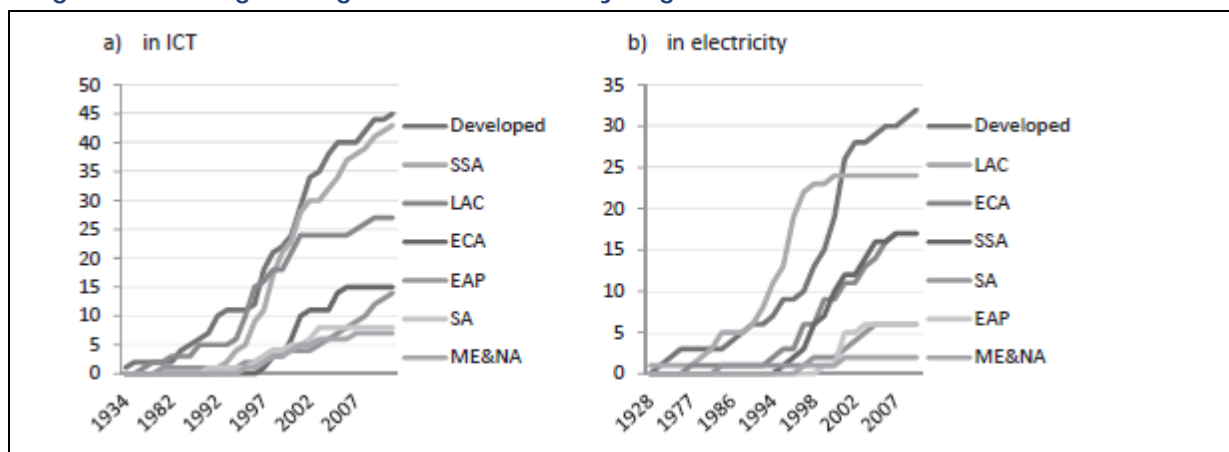
¹³ The authors control for privatisation and competition, and use country fixed-effects.

¹⁴ Note that the authors are cautious about any causal interpretation, though the fact that the core results are maintained even with 3-year lags on the regulatory index and with sophisticated dynamic modelling strongly suggests an underlying causal relationship

state-ownership makes it more difficult to establish truly independent regulatory institutions.

That said, the model of sector-specific regulatory agencies has spread rapidly across the developing world post-1984. In the 1990s, regulatory institutions were created at an exponential rate in the ICT and electricity sectors. In fact, Gassner and Pushak (2014) note that there are more regulatory bodies for ICT services today in developing countries than developed ones, although a few emerging countries such as Russia and China have not established one. The same is observed for electricity regulators, with 30 regulatory agencies for electricity in 2010 in developed countries, versus 70 in developing countries (see Figure 4).

Figure 4: The growing number of utility regulators



Source: Gassner and Pushak (2014). a) ITU; b) Authors' database

In terms of timing, it is interesting to note that Latin American countries adopted regulatory agencies in the same period as Western countries. A second wave of adoption occurred in the 1990s with the establishment of regulatory agencies in sub-Saharan Africa, Eastern Europe and Central Asia. This second wave can be explained by the role of the IMF and the World Bank in promoting utility sector reforms in the developing world and setting up independent sector regulators following the UK model.

While the adoption of regulatory agencies has been fast in developing countries, the degree of regulatory independence achieved in these countries is debatable.

- One proxy for the independence of the regulatory is the **source of funding for regulatory agencies**. Funding from third parties, such as donor agencies, are presumed to be more operationally independent and less politically influenced in their decision making than those exclusively funded by the national treasury. Another source of funding which favours regulatory independence (and long term sustainability) is fees levied by the regulator. In Africa, two different models of regulatory agency funding emerge; either the regulatory agency is entirely financed by fees/donors, or is entirely funded from other sources (revenues through general tax system).¹⁵ Around half of the 17 countries surveyed by the African Development Bank¹⁶ (see Gassner and Pushak (2014)) rely on donor funding. This might be a good sign in terms of regulatory independence, but it may also raise questions in terms of long-term sustainability.

¹⁵ In comparison, in Latin America, the vast majority of regulatory agencies fund their operations budget from a tax charged directly to electricity providers (Gassner and Pushak, 2014).

¹⁶ These 17 countries are Burundi, Cote d'Ivoire, Ethiopia, The Gambia, Kenya, Lesotho, Madagascar, Mali, Morocco, Niger, Rwanda, Seychelles, South Africa, Togo, Tunisia, Uganda, and Zambia.

- **Another way to examine the independence of a regulator is to examine its leadership and how it can be influenced.** Over 60% of the agency heads in 22 African countries¹⁷ in the telecoms, electricity, and water and sanitation sectors are appointed by the president of the country or the sector minister. Overall, the data from Africa shows that political appointments are still important and that financial independence and control over their own sources of funding is not yet the norm for utility regulators in developing countries.

Competition is another pillar of the UK regulatory model. In developing countries, Gassner and Pushak (2014) report that **competition in mobile and internet services have become the norm. However, for fixed line telephony, the percentage of full or partial monopoly still stands at 49% of countries in Africa, 48% in Arab states and 31% in Asia and the Pacific.** The degree of private participation can also be an indicator of market opening and competitive pressure. While the telecoms sector and the electricity sectors are largely open, with significant entry of private investors, infrastructure sectors such as transport and WSS remain, for the most part, state-operated models.

Overall, developing countries face many regulatory challenges.

- They often start with **important operational inefficiencies** and insufficient revenue generation. According to Gassner and Pushak (2014), the difficulties in regulating utilities in developing countries stem from the fact that generally they do not charge cost-recovery tariffs, for political and social reasons.
- In addition, a majority of them are still publicly-owned, partly because they are **not attractive enough for private sector investors and partly because governments do not want to cede control of essential services.** In these circumstances, incentive regulation for efficiency savings is difficult: given the low tariffs, not enough investment can be undertaken to improve service delivery, and without private profit motives there is not a strong incentive for managers to bring about efficiency. Under-pricing and poor operational performance are serious problems: according to the 2010 Africa Infrastructure report published by the World Bank, the under-pricing of electricity costs the sector at least US\$2.2bns a year in forgone revenues (0.9% of GDP on average).

Recently, the concept of **hybrid regulatory models** has been introduced as a solution to the challenges in developing countries (Eberhard, 2007). **In hybrid models, regulatory contracts and independent regulatory agencies coexist. In a context where the institutional capacity is low and/or regulatory commitment is weak, an independent regulatory agency may be supplemented by contracting out or outsourcing certain regulatory functions.**

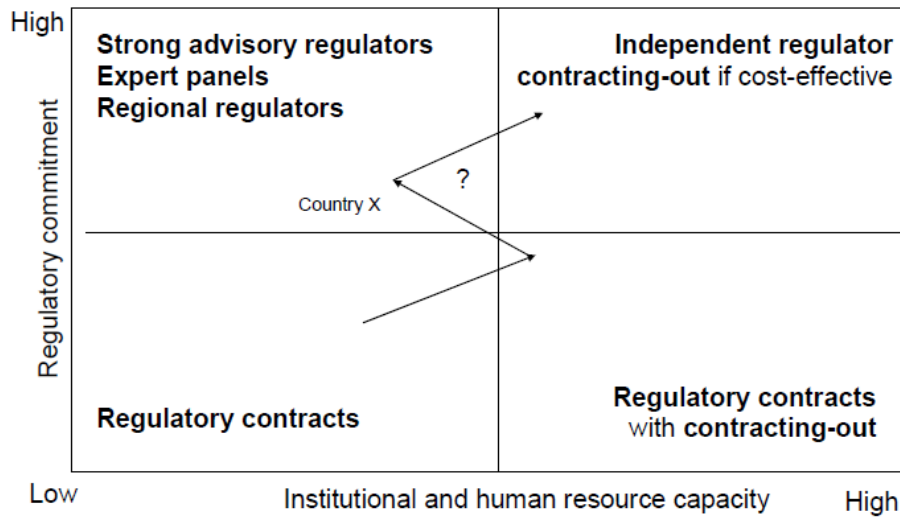
A survey by Trémolet, Shukla and Venton (2004) investigated the potential for contracting out utility regulation and found that regulators may contract out for a variety of reasons, including addressing limited in-house capacity and improving the quality and credibility of regulation. Contracting-out arrangements are sometimes built into the institutional design of the regulatory framework. Concession contracts may for instance specify the contracting of independent experts to undertake specific binding or advisory functions. An illustration of this is the 20-year water and electricity concession contract in Gabon which requires using external experts to monitor the service provider's performance in achieving coverage targets. The experts are paid from dedicated funds set aside from the concessionaire's revenues and produce only nonbinding studies. This monitoring mechanism is aimed at strengthening the independence and competence of the ministerial department

¹⁷ Burundi, Comoros, Cote d'Ivoire, Djibouti, Egypt, Ethiopia, The Gambia, Kenya, Lesotho, Madagascar, Mali, Morocco, Niger, Rwanda, Sao Tome and Principe, Seychelles, South Africa, Tanzania, Togo, Tunisia, Uganda, and Zambia.

responsible for supervising the contract. Policymakers may also obtain regulatory assistance from regional regulators or from other countries through twinning arrangements. For example, the Eastern Caribbean Telecommunications Authority (ECTEL) serves the member countries of the Organisation of Eastern Caribbean States as a shared regulatory body (Tremolet *et al.*, 2004).

These models imply varying degrees of regulatory discretion, depending on the local context, political, legal, and institutional, and on the local human resources capacity for an independent regulatory agency (see Figure 5).

Figure 5: Regulatory choices and context



Source: From Eberhard (2007)

5 Effects of privatisation: efficiency and firm performance

Overall, the **studies on developing economies show that private ownership alone does not generate economic gains. The success of privatisation depends on several factors:**

- Whether privatisation is total rather than partial (total privatisation has been more beneficial than partial privatisation)
- The regulatory framework which in turn depends on the institutional and political environment.
- The characteristics of the new owners (foreign ownership has been associated with superior business performance post-privatisation, especially relative to "insider" ownership (privatisation to managers and workers)).

Effective competition is also critical in bringing about improvements in company performance because it is associated with lower costs, lower prices and higher operating efficiency. Note however that in the utilities sector, water in particular, the technology and the nature of the product restrict the possibility of competition in the market and therefore the efficiency gains from competition following privatisation. In this case, competition for the market (to win the contract or concession agreement) has to be organized. Given the ambiguous results of privatization in noncompetitive markets in terms of improving economic performance (Megginson and Netter 2001), regulation of privatized utilities may prove to be more effective (Kirkpatrick et al., 2006).

5.1 Measuring efficiency and firms' performance post-privatisation

This section will introduce methods of measuring privatisation's impacts in terms of firms' post-privatisation performance and efficiency. Some of the key metrics analysts look at to measure efficiency and performance include return on equity, output growth, labour productivity and changes in cost and income.

As Megginson and Sutter (2006) note, researchers face many methodological problems when they analyse the economic impacts of privatisation. In particular, data availability and consistency, especially in developing countries, and sample selection bias –occurring, for instance if the best firms are privatized first- represent key issues. Other problems in measuring performance changes arise when using accounting data: the determination of the correct measure of operating performance, the selection of an appropriate benchmark and statistical tests area two important challenges. These issues need to be borne in mind when evaluating the results of the studies surveyed below.

5.1.1. Methods to compare the efficiency of state vs. private ownership:

Single country or single industry comparisons of costs and productivity growth of private and government-owned firms.

A first way to examine the impact of government ownership on firm performance is to **compare the performance of government-owned to privately owned firms.** However, important methodological issues arise. First, it is difficult to determine the appropriate set of comparison firms, especially in developing countries where the private sector is limited. Second, selection effects and endogeneity may bias the comparison, as factors determining whether the firm is publicly or privately owned are also likely to affect performance.

One of the first studies to compare SOE and private firm performance is that of Ehrlich, Gallais-Hamonno, Liu, and Lutter (1994). They used a sample of 23 comparable

international airlines of different ownership categories over the period 1973-1983 for which they have data on cost and output for comparable goods and ownership data. 5 of these 23 companies are from developing/emerging countries (India, Pakistan, Singapore, Thailand, Brazil). They find a significant association between ownership and firm-specific rates of productivity growth. Their results indicate that while the short-run effects of changes from state to private ownership on productivity and costs are ambiguous, the change from complete state to private ownership in the long run would increase productivity growth by 1.6 to 2 percent a year, while costs would decline by 1.7 to 1.9 percent. Interestingly, the empirics also suggest that the benefits are based on complete privatisation of the firm, and that a partial change from state to private ownership has little effect on long-run productivity growth. Other studies have employed a similar approach examining differences in efficiency between private and government-owned firms, based on a specific country, such as Majumdar (1996) with Indian firms and Tian (2000) with Chinese firms. They both find that private-sector firms are more efficient. However, the relationship is not necessarily linear. Majumdar (1996) finds that private firms have higher efficiency scores than SOEs, but while sector efficiency improves during “efficiency drives” it declines afterwards. Tian (2000) finds that corporate value generally declines with state ownership, but then increases after the state share passes 45%.

Cross-country, multi-industry comparisons of X-efficiency and profitability ratio of private and government-owned firms.

Another approach to study the effects of government ownership on efficiency is to **exploit a multi-industry, multi-national cross-sectional time series**. The advantage of this type of studies is that they are able to capture differences that are not apparent in single-country or single-industry series. In their seminal work, Boardman and Vining (1989) use measures of X-efficiency and profitability ratios of the 500 largest non-US manufacturing and mining corporations in 1983 (“The International 500”, Fortune 1983). These large firms are mainly from developed countries, but the sample also includes firms from developing countries such as the state-owned Petroleos de Venezuela¹⁸. They find similar results as in the previous studies, privately owned firms being significantly more profitable and productive than state-owned and mixed ownership enterprises. They also find that mixed enterprises are no more profitable than SOEs. A later study by the same authors (Vining and Boardman, 1992) using a sample of Canadian firms found qualitatively similar results. Another important study is that of Frydman, Gray, Hessel and Rapaczynski (1999), which compares the performance of privatized and state firms in the transition economies of Central Europe, trying to control for selection bias explicitly¹⁹. They use survey data for 506 midsize manufacturing firms in the Czech Republic, Hungary, and Poland in 1994. Comparing the privatized group to the non-privatized group with panel data and controlling for potential pre-privatisation differences between the two groups they find that privatized firms perform better than the state-owned firms. However, they find that the performance improvement is related to revenue improvement rather than cost reduction in privatized firms.

We review some of the key empirical studies below. Following Megginson and Netter (2001), we distinguish between empirical examination of privatisation in transition and non-transition countries because privatisation in transition countries were part of a larger political and economic reform program, while it is often the sole major component of reform processes in non-transition countries. Note that the category “non-transition

¹⁸ Given that the theoretical framing holds for both developed countries and developing countries, a mixed sample is appropriate for the empirical work.

¹⁹ The authors use several methods to control for selection bias. First they use a fixed effects model. Then they contrast the performance of firms privatised in one period with those privatised in another for two different time periods, to compare the privatised firms with how they would have performed without privatisation. Finally, to control partially for selection (better firms being selected for privatisation), they compare the pre-privatisation performance of managerially controlled firms with those controlled by other owners.

countries" includes both developed and developing countries (excluding all the transition/eastern European economies).

5.1.2. Empirical studies of non-transition countries (developed and developing countries)

Focusing on empirical studies of non-transition economies including both developed and developing countries, two different types of studies have been carried out. The first set of papers is focused on a single industry, single country or one or a small number of firms. They compare post-privatisation performance changes with either a comparison group of non-privatized firms or with a counterfactual. The second set of studies focuses on firms divested through public share offerings, and measures changes in performance after privatisation, comparing the operating or financial performance three years before and three years after.

Counterfactual performances on a set of single industry or single country companies

In the first set of studies, single industry or single country, one can cite the influential study by Galal, Jones, Tandon, and Vogelsang (1994), which was sponsored by the World Bank. They compare the actual post-privatisation performance of twelve large firms in the airlines and utilities industry in Britain, Chile, Malaysia and Mexico to a counterfactual performance. They estimate net welfare gains in eleven of the twelve cases considered, equalling on average 26 percent of the firms' pre-divestiture sales. La Porta and Lopez-de-Silanes (1999) study privatisation in Mexico and find that privatized Mexican SOEs rapidly close a large performance gap with industry-matched private firms that had existed prior to divestment. They find that output increases by over 50% and that the privatized firms reduce employment by half, while the remaining workers see a significant pay rise. The authors attribute this performance increase to better incentives.

Comparing pre-post divestment sales and income data for companies privatized by public share offering

The second set of studies examine the effects of privatisation on firm performance by comparing pre and post divestment data for companies privatized via public share offering. Each firm is compared to itself (a few years earlier) using inflation-adjusted sales and income data. The first study using this methodology is the one of Megginson, Nash and van Randenborgh (1994) (henceforth, MNR methodology). As Megginson and Netter (2001) note, this type of methodology suffers from several drawbacks, among which selection bias is probably the greatest concern, since SIPs (Share Issue Privatisation) are among the largest companies sold during a privatisation program. Another weakness is that it can only examine simple accounting variables (assets, sales, etc.), which is an issue when comparing accounting information at different point in time and in different countries. Most of the studies in this tradition also imperfectly account for macroeconomic or industry changes in the pre and post privatisation window (see Megginson and Netter, 2001, for a critique). Finally, the studies cannot account for the impact on privatized firms of regulatory or market-opening initiatives that are often launched in parallel of privatisation programs. That said, the MNR methodology offers the advantage of examining and comparing large samples of firms from different industries, countries and time periods. In addition, while carrying the risk of selection bias, SIP samples contain the largest and most (politically) important privatisation. The studies in this tradition have focused on specific industries [banking (James Verbrugge, Wanda Owens, and Megginson 2000) and tele-communications (D'Souza and Megginson 2000)], other use data from a single country [Chile (Carlos Macquieira and Salvador Zurita 1996)], while other employ multi-industry, multinational samples. Most of these studies find a significant improvement in performance post-privatisation. That said, the significance of many of the operating and financial improvements sometimes declines once adjustments for changes experienced by other firms over the study period are made.

Overall, the 22 studies from non-transition economies reviewed in Megginson and Netter (2001) suggest that privatisation is associated with improvements in operating and financial performance, even if it is limited in some studies. However, regarding employment levels, the results are more ambiguous. While a large number of studies find a decline in employment, other studies (Megginson et al., 1994) do not find any evidence that employment declines, and some even report an increase in employment (Boubakri and Cosset, 1998)²⁰. This could reveal real differences between countries and sectors in privatisation outcome with regards to employment.

5.2 Empirical evidence to date in transition and developing countries

This section will summarise the empirical evidence to date on the effects of privatisation on firms' performance and efficiency. After reviewing the experience of the transition economies (Estrin *et al.*, 2009), this section will examine experiences of privatisation in sub-Saharan Africa and Asia. The sectors covered include banking, telecommunications and utilities.

5.2.1. Experience in transition countries

There are a large number of studies of how privatisation affects the performance of firms in transition economies. The most complete study of the impact of privatisation on firms is by Djankov and Murrell (2002) which surveys the findings of more than 100 empirical studies of transition economies and uses a meta-analysis of the results to draw conclusions. The overall findings remain ambiguous, partly because the studies employ a variety of data sets, measurements and methods which produce contradictory results. For example there are a large number of ways of measuring company performance including profitability, productivity, sales growth, export growth, and restructuring and findings differ between them. Commencing with productivity, there is a wide variance in results across countries and samples, with private ownership found to yield positive, zero or negative effects depending on the study. There is however **convincing evidence that privatisation to foreign owners yields a positive effect, and that privatisation is more likely to improve performance in Central Europe than in the former Soviet Union**. More recent literature strongly confirms the results with respect to foreign direct investment (e.g. Sabirianova, Svejnar and Terrell, 2012). However, it is harder to discern positive effects from privatisation when profitability is the performance measure, though once again some studies find a positive impact when the firm is privatized to a foreign owner, and very few studies isolate a positive significant effect from privatisation on revenues.

However, the variation in results is not merely a consequence of the wide variety of measures and countries upon which the effects of privatisation has been tested but also of methodological difficulties such as selection, as mentioned above, and reverse causality, if the state chooses to keep the best firms for itself and only to sell the less productive ones. Unfortunately, very few studies of privatisation in the transition economies have been able to do much to address this problem of reverse causality. The data sets upon which the empirical work has been based have been small and usually derived from sample survey questionnaires that did not contain sufficient information to control for the selection problem.

Even so, Djankov and Murrell (2002) conclude on the basis of the weight of the evidence that the impact of privatisation on company performance has probably been positive and significant, though not in every circumstance. Two factors are usually cited as being particularly influential in determining whether privatisation acts to enhance company performance.

²⁰ This study compares 3-year average post-privatization performance ratios to 3-year pre-privatization values for 79 firms from 21 developing countries and 32 industries over 1990-92.

- 1 The first is the **nature and characteristics of the new private owners**. While foreign owners lead to an improvement in most measures of performance, there is almost no evidence that company performance is improved when firms are privatized to insiders, either managers or workers. This is probably because insiders have exploited their control to resist the changes in behaviour required to make firms competitive in the market environment, rather than to promote them.
- 2 The second factor is the **institutional and business environment in which privatisation takes place**. In countries where the legal system is not functioning effectively, and businesses face high level of corruption and weak standards of financial discipline, private ownership cannot, on its own, improve company performance.

These two limiting factors affect some privatisations in all transition economies, but on average have been more likely to pertain in the economies of the former Soviet Union than those of Central and Eastern Europe. The positive effects from privatisation are not automatic. They depend on to whom the firm was privatized – foreigners, outsiders or insiders, and on the broader business environment in which the firm operates. The latter in particular tends to be better in Central Europe and especially in the new Accession economies to the European Union. Privatisation methods may also have played an important role (see Bennett, Estrin, Urga, 2004).

5.2.2. Experience in developing countries

On a sectorial basis, the evidence from empirical studies of privatisation in developing countries suggests that

- Bank performance improved after privatisation **in most cases**.
- **Concerning the utilities sector (electricity and water), the gains of privatisation in terms of efficiency tend to be limited.**
- Finally, concerning the telecommunications sector, the impact of privatisation on efficiency and coverage varies by region. It has been shown to be positive in Central America and in resource scarce coastal Africa and Asia, but negative in South America and in African resource landlocked countries.

The banking sector

The studies reviewed by Clarke *et al.* (2005) in developing countries suggest that **bank performance improved after privatisation in most cases**. For instance, Boubakri *et al.* (2005) use data from 81 privatisations in 22 low- and middle-income countries and find that some measures of performance improved after privatisation, but that it was unequal across countries. Environmental factors play a role in the success of privatisation. The study of Beck, Cull and Afeikhena (2005) in Nigeria shows that privatisation can improve bank performance, even when the macroeconomic and regulatory environment is inhospitable and the government sells the weakest banks. At the same time, the study also shows that an adverse macroeconomic and regulatory environment can reduce the benefits of privatisation, as the performance of privatized banks improved in the first year after privatisation but not after that. Furthermore, privatisation did not stimulate performance improvements among non-privatized banks. Some measures of performance improved, but measures of costs and cost efficiency improved less often than measures of profitability and profit-efficiency. Finally, another important takeaway from these studies is the importance of looking at the impact of privatisation several years after the initial event had taken place, as some changes, such as improving portfolio quality or introducing information technology, can take several years to implement, and restructuring can be costly. For instance, Boubakri (2005) find that although credit risk and economic efficiency improved over time, the benefits were not immediate.

The studies surveyed by Clarke *et al.* (2005) also find that **privatisation is more beneficial when it is total rather than partial**. This result has been found in transition

countries (Bonin, Hasan and Wachtel, 2005) as well as in Brazil (Beck, Crivelli and Summerhill, 2005) and in Nigeria (Beck, Cull and Afeikhena, 2005), where improvement in performance was observed in fully divested banks but not in the ones where the government retained minority shareholdings. The experience in Nigeria shows the negative performance effect of even minority government ownership and the experience in Brazil shows the limited effect on performance of state restructuring of government-controlled banks. Performing a cross-country analysis using a sample of 21 share-issue privatisations from nine developing countries (Croatia, Egypt, Hungary, India, Jamaica, Kenya, Morocco, the Philippines, and Poland), Otchere (2005) finds that the shares of the privatized banks under-performed the market and that the share of ownership retained by the government explained a substantial part of the under-performance. The studies reviewed also find that the performance of most banks privatized through share-issue privatisations did not improve after privatisation, while the performance of banks privatized through sales to strategic investors did. This conforms to the conclusion of Estrin *et al.* (2009) that incentives are stronger when shares are held by strategic investors. The studies also show that foreign ownership is associated with greater performance. Finally, there is some evidence that privatisation can boost competition in the banking sector. For instance, Otchere (2005) examines share-issue privatisations in nine countries and finds that rival banks suffered abnormally negative returns following privatisation announcements, which suggests that shareholders expected more intense competition and lower returns.

The telecommunications sector

One of the first telecom studies focused on developing countries is the one by Wallsten (2001). Using a panel of 30 African and Latin American countries from 1984-1997 he explores the effects of privatisation, competition and regulation on telecommunications performance. Overall, the author finds that **competition is significantly associated with increases in per capita access and decreases in costs**. However, **privatisation alone is associated with few benefits, and is negatively correlated with connection capacity**. In addition, **privatisation only works when coupled with effective and independent regulation and increases in competition**.

More recently, Gasmi, Maingard, Numba and Recuero-Virto (2012) have examined the impact of privatisation of the fixed-line telecommunications operator on sector performance, analysing the outcomes of privatisation reforms in a 1985–2007 panel dataset on a selection of 108 countries (OECD, Asia, Africa, Latin America). They find that the impact of privatisation on sector outcomes (fixed-line deployment, cellular deployment, labour efficiency, price of fixed-line) was positive in the OECD, Central America and the Caribbean and in resource scarce coastal Africa and Asia, while it was negative in South America and in African resource landlocked countries and not significant in Africa resource rich countries.

Gasmi *et al.* (2012) explain that Asian countries relied mostly on domestic capital in their privatisation processes and the state provided strong support to their infrastructure reforms. Coverage of telecommunication networks rose through the injection of local capital and labour efficiency also increased. In Central America and the Caribbean and in African resource-scarce coastal countries, the search for economic competitiveness has orientated the policy-making process and the objective of privatization has followed that goal. In particular, Gasmi *et al.* (2012) note that countries have developed their infrastructure through the creation of appropriate institutional structures which have improved the effectiveness infrastructure policies and that the coverage of networks increased thanks to the additional capital available with privatisation. In South America, African resource scarce landlocked and African resource rich countries, privatisation outcomes proved to be poor due to weak contractual design and inadequate enforcement of policies in the infrastructure sector, as well as insufficient aggregate demand. In the

absence of strong state capacity²¹, competition appeared to be a more effective instrument to foster performance than privatisation. Unlike in Asian countries, in South America and African resource-scarce landlocked and African resource-rich countries, foreign participation in privatisation had mixed effects. Under foreign control, infrastructure was built, but these groups of countries failed to enforce contractual agreements and network coverage remained very limited, excluding most of the rural population.

The extent of infrastructure privatisation also diverged across regions. While almost all OECD countries have privatized their telecommunications utilities, the rate of privatisation is around 70% in Latin American, Asian, and African resource-scarce coastal countries. In African resource-scarce landlocked and resource-rich countries, the percentage of privatized infrastructure in telecommunications is even lower, at around 40% and 30% respectively. However, as Gasmi *et al.* (2012) note, the privatisation performance (in terms of efficiency and network coverage) was low in these African countries and yet their governments continued to privatize with the support of the international financial institutions. Sometimes governments failed to attract investors because the privatisation process was inadequately designed, such as in Tanzania or Tunisia. In other African countries, political risks and conflict rendered privatisation difficult. Overall, the study by Gasmi *et al.* (2012) shows that **there were limited privatisation effects on network expansion and that productive efficiency did not increase in all the regions post-privatisation.** As such, the authors conclude that there is **no unique model of reform for infrastructure sectors.** Finally, the success of privatisation in infrastructure sectors depends on how attractive the sector and country economic and institutional endowments are to private capital looking to commit to long-term investment.

The utilities sector

In terms of privatisation of water, two studies on developing countries are worth mentioning. The first, by Estache and Rossi (2002), is based on an estimation of a stochastic cost frontier using 1995 data from a sample of 50 water companies in 29 Asian and Pacific countries. They find that efficiency is not significantly different in private and public companies. The second, by Kirkpatrick, Parker, and Zhang (2006) of uses a questionnaire survey on water utilities in Africa, covering 13 countries and 14 utilities that reported private sector involvement. They also perform statistical data envelopment analysis and stochastic cost frontier techniques. They do not find strong evidence of performance differences between state-owned water utilities and water utilities involving some private capital. The authors consider that this result is related to the technology of water provision and the nature of the product, the costs of organizing long-term concession agreements, and regulatory weaknesses. In particular, the technology of water supply and the nature of the product²² severely restrict the potential for competition in the market and therefore the efficiency gains that can result from encouraging competition following privatisation. As a consequence, rivalry under privatisation is essentially in the form of **competition for the market**—competition to win the contract or concession agreement. But, as the authors explain, transaction costs can be high in the process of contracting for water services provision; for example the costs of organizing the bidding process, monitoring contract performance, and enforcing contract terms where failures are suspected.

In terms of **privatisation of electricity**, the study of Zhang, Parker and Kirkpatrick (2008) provides an econometric assessment of the effects of privatisation, competition

²¹ The authors note that African resource scarce landlocked countries have extremely low levels of GDP per capita and are particularly prone to state breakdown and that African resource rich countries have weak governance institutions and poor checks and balances.

²² Whereas competition is feasible in telecommunications markets, it is usually cost inefficient in the market for water services given the scale of the investment in network assets required to deliver the product.

and regulation on the performance of the electricity generation industry, using panel data for 36 developing and transition countries, over the period 1985-2003. They examine the impact of these reforms on generating capacity, electricity generated, labour productivity in the generating sector and capacity utilization. They find that, overall, **the gains in economic performance from privatisation and regulations are limited, while introducing competition is more effective to stimulate performance.** In particular, they do not find that privatisation leads to improved labour productivity or to higher capital utilization, or to more generating capacity and higher output, except when it is coupled with the establishment of an independent regulator. The authors conclude that when competition is weak, an effective regulatory system is needed to stimulate performance, while regulation of state-owned enterprises without privatisation is ineffective. Table 4 presents a summary of the empirical evidence on privatisation performance in developing countries.

Table 4: Empirical evidence on privatisation performance in developing countries: a summary

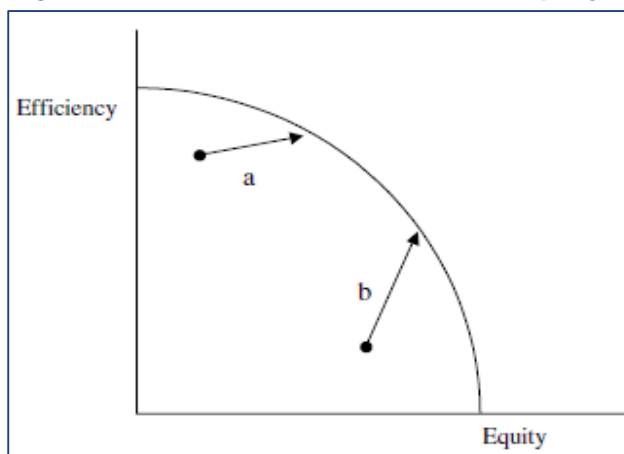
Sector	Empirical evidence
Banking	Bank performance improved after privatisation in most cases. Privatisation is more beneficial when privatisation is total rather than partial. Foreign ownership is associated with greater performance.
Telecommunications	Impact of privatisation on sector outcomes (fixed-line deployment, cellular deployment, labour efficiency, price of fixed-line) is region-specific: Positive in OECD, Central America and the Caribbean and in resource scarce coastal Africa and Asia. Negative in South America and in African resource landlocked countries. Not significant in Africa resource rich countries.
Utilities	Limited gains of privatisation in terms of efficiency, labour productivity generating capacity in the electricity sector. Little evidence of performance differences between state-owned and private enterprises in the water sector. Importance of independent regulator to stimulate performance.

6 Privatisation Process: Distributional impacts

6.1 Framework to assess the distributional impacts of privatisation

Birdsall and Nellis (2003) place the question of the distributional impact of privatisation in an **efficiency/equity framework**. If an economy is on the frontier, a move along the frontier must lead to more efficiency and less equity or vice versa. There is a trade-off between equity and efficiency. However, if an economy is not perfectly competitive, and is located inside the production frontier, there is no such necessary trade-off. This is the case of most developing and transition economies. The authors note that low incomes are not only the result of limited resources, but also of poor allocation and misuse of resources due to lack of enforceable property rights, policy deficiencies, etc. In addition, for a given productive capacity, developing economies tend to be inequitable, because of government or policy failures, corruption or historical concentrations of wealth. This means that for most developing economies there is no necessary trade-off between increasing efficiency (and economic growth) and increasing equity²³. As a consequence, it should be possible to implement privatisation measures which increase both²⁴, by reducing monopoly rents; illustrated in Figure 7 by moves along a or b.

Figure 6: Privatisation with more equity and more efficiency



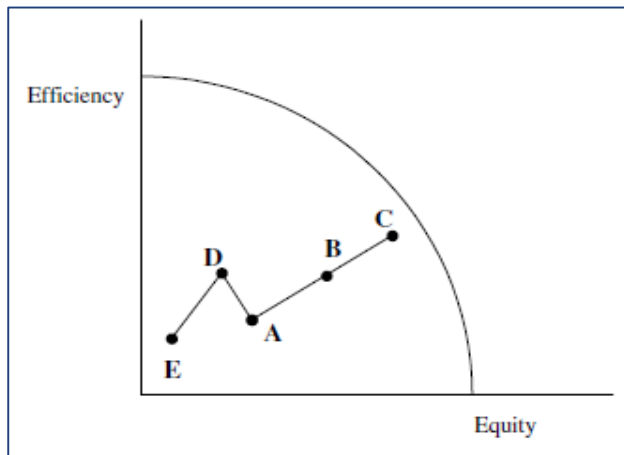
Source: From Birdsall and Nellis (2003)

Birdsall and Nellis (2003) also note that pre-privatisation conditions matter and that the post-privatisation environment, in terms of degree of competition and regulation can reinforce or change the original path.

²³ Birdsall, Ross, and Sabot (1995) argue that the lack of any trade-off between economic efficiency and equity explains why the East Asian tigers, with relatively low inequality, grew rapidly in the 1960s through 1980s compared to Latin America, with its high inequality. In particular, East Asian countries implemented policies that reduced poverty and income inequality, such as emphasizing high-quality basic education and augmenting labor demand, also stimulated growth.

²⁴ Kikeri and Nellis (2004) argue that in infrastructure, a sector in which welfare effects may matter as much as efficiency effects of privatisation, privatisation can improve welfare when it is accompanied by proper policy and regulatory framework. In their 2004 review of the empirical studies on the welfare effects of privatisation, they conclude that even though in many instances prices rise following privatisation (to offset prices that have been well below cost), leading to a negative distributional impact, these negative effects are often outweighed by increased access and can be mitigated by regulatory frameworks or subsidies aimed at protecting the less favoured. For instance Chile subsidized telephone costs in rural regions. Another way to mitigate the negative equity effects of price increases is to design tariffs that are more favourable to the poor (see also section 7.2. below).

Figure 7: Possible post-privatisation paths

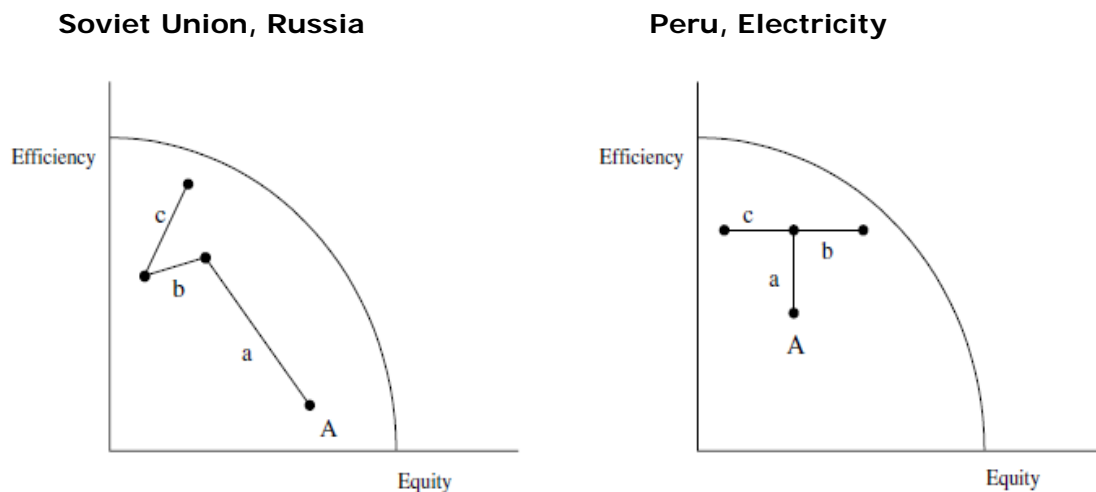


Source: From Birdsall and Nellis (2003)

As illustrated in Figure 8, **the post-privatisation path of a society is not necessarily uni-directional**, it will be **shaped by factors such as the amount of time since the process began, the extent to which the process directly affected the post-privatisation environment**, among other factors. For instance, the efficiency gain at point D was only temporary. Often, as Birdsall and Nellis (2003) argue, the main objective of privatisation is that of efficiency, while redistribution is considered as a way to make privatisation more politically acceptable, the assumption being that governments can use more traditional instruments for redistribution such as taxes.

For instance, the Soviet Union was highly inefficient but relatively equitable (point A). Privatisation made the economy more efficient but less equitable (path a), with high concentrations of wealth and assets in the hands of a small group of insiders. After policy changes and corruption controls, the increasing inequity slowed down and the environment became more competitive (path c). In the example of Peru, the state-run electricity utility was inefficient initially, with high levels of inequity (some neighbourhood had no access to services), while under-pricing or failing to collect fees from large industrial users. At first, privatisation efficiency increased importantly, while equity decreased (path a), due to a combination of higher prices for the middle class and decrease of access for some urban poor, whose prior access through illegal hook-ups was eliminated. In subsequent years, the sector could be on path b (more equity) or path c (less equity), depending on the institutional, and in particular regulatory, environments and political pressures.

Figure 8: Privatisation paths, Soviet Union and Peru



Source: From Birdsall and Nellis (2001)

Another example in Latin America is that of Brazil, where privatisation of state telecommunications monopoly brought important efficiency gains, with greatly increased coverage and quality of services. However, the under-pricing of the sale meant that the windfall gains benefited only a small number of new owners and increased the concentration of assets. In addition, when windfalls gains are used to reduce the stock of public debt, those revenues may still be used in practice in the absence of fiscal discipline to finance the government's current expenditures indirectly or to increase its capacity to borrow²⁵. If this leads to increases in interest rates or future reductions of social expenditures, inequity may be exacerbated.

Overall, the key takeaway of the Birdsall and Nellis (2003) framework within which to consider the efficiency and equity gains and losses of privatisation is that there is no clear prediction on the distributional effects of privatisation. **The distributional impact will depend on the initial conditions, the privatisation process and the post-privatisation political and economic environments. The assessment of the effect should thus be dynamic, taking into consideration the point on the "path" when we measure the outcome.** The distributional impacts will thus be highly country-specific, depending on the political and economic context and its history. Finally, the authors note that in developing countries, there is scope for efficiency-enhancing privatisation which also promotes equity.

6.2 A review of the distributional impacts of privatisations in the last decade

According to Birdsall and Nellis (2003), the effect of privatisation on income distribution in the long run between taxpayers and new owners depends both on the initial price and on the post-sale stream of value produced by the asset. The impact of privatisation on equity can also be framed through the capability approach developed by Sen (1999). This framework requires us to think of poverty (and inequality) not in terms of basic needs but in terms of freedoms that people have to perform a large range of activities. These include (1) political freedoms, (2) economic facilities, (3) social opportunities, (4) transparency guarantees and (5) protective security. These freedoms are supposed to advance the general capability of a person. As such, the equity goal in a privatisation project could be understood as a widening, through privatisation, of people's opportunity to have and use economic resources or entitlements to live a fruitful life.

We review below the distributional impacts of privatisations through their **effect on ownership, employment, prices and their fiscal effects and explore the gender impacts of privatisation**. Box 1 on privatisation of Zambian mines also provides an illustration of the different channels through which privatisation can have a distributional impact.

Box 1: Post-privatisation performance: The case of the Zambian mining sector

Zambia has had one of the most extensive privatisation programs in sub-Saharan Africa. While the privatisation of firms outside the then severely depressed copper sector has been quite positive (Nellis, 2008), the results have been much more ambiguous concerning the privatized mining sector.

Zambia has one of the world's highest-grade copper deposits and was the sixth largest copper producer in 2011 with a production equating 4.4 percent of global output (KPMG, 2013). At its peak in the late 1960s and early 1970s, copper mining accounted for more than 80% of the country's foreign exchange earnings, and represented around 20% of total formal sector

²⁵ This was for instance the case of Argentina. Mussa (2002) explains that despite significant revenues from privatisations in the mid-1990s the government failed to generate the fiscal surpluses it needed and both the national and subnational governments kept on borrowing. Ultimately the privatisation revenues were completely spent in the collapse of the currency and debt default in 2002.

employment (Simutanyi, 2008). However, the performance of the copper mining industry declined from the mid-1970s to the end of the 1980s. The collapse of the commodity prices in the mid-1970s, coupled with poor political decisions, as well as under-capitalisation, poor technology and over-manning explain this poor performance. The industry's contribution to government revenue saw a steep decline from around 58% in 1970 to only 3% in 1976 (Simutanyi, 2008).

The state mining conglomerate Zambia Consolidated Copper Mines Limited (ZCCM) received large subsidies from the Zambian government to palliate its losses. At the same time, as the ZCCM was the major source of foreign exchange revenues, the state directed the company to provide social services in mine areas that it was no longer able to serve, such as the provision of health and educational services. Some observers considered that the gradual diversion of the core business of mining along with the politicisation of the ZCCM board led to the decline of production of the mines in the 1980s and early 1990s. The poor performance of the copper mining industry, with the shutdown of unprofitable mines and shafts, played an important role in the collapse of the Zambian economy in the 1980s (Simutanyi, 2008).

The new government that took office in November 1991 was committed to privatisation and in 1992 the Privatisation Act led to the creation of the Zambia Privatisation Agency (ZPA), which oversaw the privatisation of 273 state-owned companies by 1996. Privatisation was part of the overall economic reform, and was spearheaded by the international financial institutions. Generous incentives were provided to new investors with tax holidays of up to five years on income tax and customs and excise duty. In particular, the Mines and Minerals Act of 1995 provided for tax concessions to new mine owners, and a stability period of 20 years in which there would be no change to the existing agreements. The privatisation of the copper mines took time as politicians were reluctant to let go of a sector that they considered a matter of national sovereignty. Finally, in 1997, the mines were unbundled and privatized as single units.

The objectives of privatisation were multiple and included the transfer of control to private sector companies and the promotion of Zambian participation in the ownership and management of the mining assets. Despite the announced objective of promoting transparency, observers note that there was little consultation and that the privatisation of the mines was conducted in a secretive fashion. In addition, there has been little Zambian participation in the ownership (Simutanyi, 2008).

In terms of performance, the mining industry recovered from its trough in the mid-1990s. The copper production more than doubled in the space of 6 years, from an all-time low of 257,000 tonnes in 2000 to 600,000 tonnes in 2006 as a result of increased investment in the sector. In addition, the contribution of mining to gross domestic product (GDP) increased from 6.2% in 2000 to 11.8% in 2005.

However, while the privatised mines have recorded large profits, the Zambian government has benefited little from it in terms of revenues, given the important tax concessions which were part of the privatisation agreements, as well as the reduction in mineral royalty taxes to almost 0%.

In addition, total employment in the mining industry declined significantly despite the improved performance of the sector. From a high of 66,000 in 1976, employment dropped to 51,000 in 1986 and then to an all-time low of 22,280 in 2000 (source; Central Statistics Office, Zambia)

Overall, while the privatisation has led to an increased production performance, the process has been poorly managed and it has not contributed to poverty reduction: employment has declined and government revenues from copper mining have been very low due to important tax concessions.

Nellis (2008) notes that institution building did precede privatisation in Zambia, with the creation of the Zambia Privatisation Agency. However, the decision to remove the sales of the mining firms from the purview of the agency, which contributed to the mismanagement of the privatisation, was politically motivated. As such, both institutional factors and political economy factors need to be taken into consideration when implementing a privatisation

6.2.1. Ownership

The effects of change of ownership through privatisation will depend partly on the conditions of the sale. For instance, if the asset is under-priced and rewards political cronyism, it will hurt equity. As Megginson (2000) notes, in countries that have privatized through vouchers or asset sales, such as was the case for many transition countries, the process has frequently been plagued by insider dealing and corruptions. Asset sales were often processed in a non-transparent way, with poorly publicized sale. In Russia, the "loans

for shares" programs enabled well-connected financiers to obtain controlling stakes in the country's most valuable firms for a price well below their true value (Megginson, 2000). In other cases, vouchers offered to the general population were widely distributed to address ownership issues (see Box 2 on the methods of privatisation in Eastern Europe). However Birdsall and Nellis (2003) note that the distributional impact has been disappointing, especially in Russia and the Czech Republic, not because the recipients paid a high fee for it (they generally obtained the vouchers for free or at a nominal price), but rather because the returns on the vouchers were much lower than anticipated, and very small in comparison to what a very few well-connected group of people obtained in the privatisation process. In such cases, when privatisation leads to a mass transfer of asset ownership from society to a small group of privileged and corrupt actors, ownership becomes highly concentrated and the impact on asset distribution is negative, at least in the short term.

Birdsall and Nellis (2003) also note the negative psychological aspect of this unequal distribution of assets. Disappointment and resentment among the population, who were led to believe that the distribution of vouchers would allow an equitable share of the assets among the citizens, is still strong and has significantly weakened popular support to privatisation and liberalization in general.

Box 2: Methods of Privatisation in Eastern Europe

The collapse of communism had left state owned firms with limited internal structure to handle the new requirements of the marketplace and no mechanisms to monitor or enforce governance on state owned firms (see Blanchard *et al.*, 1991). The authorities had either quickly to create structures whereby the state as owner could control enterprise decisions or face a gradual dissipation of the net worth of the enterprise sector by consumption, waste or theft. These stark alternatives persuaded many reforming governments and their Western advisors to consider rapid privatisation. This led the reformers to innovate with privatisation methods. In particular, to increase the pace of privatisation, a number of transition countries began to experiment with "mass privatisation." This entails placing into private hands nominal assets of a value sufficient to purchase the state firms to be privatized. To avoid the inflationary consequences of such wide-scale "money" creation, the new assets must be non-transferable and not valid for any transaction other than the purchase of state assets. This was largely achieved using the instrument of privatisation vouchers or certificates. It was hoped that any deficiencies in the resulting corporate governance mechanism arising from the fact that the ownership structure was initially diffuse would be addressed by capital market pressures leading to increased ownership concentration (Boycko, Shleifer, Vishny, 1995).

Mass privatisation has been carried out in a number of different ways, but the differences can be summarized around two issues. The first was whether the vouchers or certificates were distributed on an egalitarian basis to the population as a whole or whether, as in Russia and many CIS states, management and employee groups received many of the shares, perhaps to diffuse potential opposition to privatisation. Second, policymakers needed to determine whether vouchers were intended to be exchanged directly for shares in companies, or whether the vouchers should be in funds that own a number of different companies. In the Czech and Slovak republics and in Russia, vouchers were exchanged directly for shares, although financial intermediaries soon developed onto the market. In the Polish scheme, vouchers were exchanged for shares in government-created funds that jointly owned former state-owned enterprises.

Mass privatisation was the most common privatisation method across the transition economies; nineteen of the 25 countries listed used some form of mass privatisation as either a primary or secondary method. Moreover, Management Employee Buyouts (MEBOs) also proved important, perhaps because transition governments sometimes did not have the authority to take on entrenched insiders in firms. Thus nine countries used MEBOs as their primary method, with six more using them as their secondary method. Most transition economies therefore eschewed the conventional method of privatisation, by direct sale. In fact, only five countries used this as their primary privatisation method though these were among the most developed transitional economies.

6.2.2. Employment

Privatisation can affect the distribution of income through its impact on employment. **As public enterprises tend to be overstaffed prior to privatisation, private ownership might lead to restructuring and consequent disproportionate laid-off of specific categories of worker** (low-skilled for instance). That said, if the newly privatized firm become more efficient and dynamic, total employment might recover after the initial restructuring phase. The study by Chong and Lopez-de-Silanes (2002) based on a survey of 308 privatized firms (comprising 84 countries) over the period 1982-2000 has shown that post-sale employment reduced in 78% of the cases, with no change or job gains in only 22%. As such, in the short-run, the average employment effects of privatisation have tended to worsen distribution (Birdsall and Nellis, 2003).

6.2.3. Prices and access

Privatisation can have different impacts on income groups through prices and access to services. First, **privatisation can lead to a fall in prices if it is accompanied by increased competition**. In addition, if private management leads to efficiency gains, some of the savings can be passed on to consumers. **However, prices may increase if they were previously below cost-recovery level**. The distributional impact depends on how the consumption of the goods and services varies by income levels. Access may increase if the privatized business is expanded through investments (which could not be undertaken by investment-constrained public firm). However the private owner can also decrease its engagement in specific market segments. Important price increases are common following privatisation in network or infrastructure industries, along with large increases in the quality of services. On the one hand subsidised services tend to benefit more the relatively wealthy consumers than poorer ones; as such they may be relatively more impacted than the lower-income segment by privatisation. On the other hand, price increases following privatisation of electricity and water will increase the burden of the poorer consumers, especially if it is accompanied by the end of illegal water and electricity connections (Birdsall and Nellis, 2003).

Several studies in Latin America have shown that utility privatisation has led to network expansion and increased access to the service by the population, especially the rural poor [Peru (Torero & Pasco-Font, 2001), Argentina (Chisari *et al.*, 1999; Delfino & Casarin, 2001; Ennis & Pinto, 2002), Bolivia (Barja & Urquiola, 2001), Mexico (Lopez-Calva & Rosellon, 2002)]. These increased network coverages have often been the results of market expansion enabled by private investment capital.

For instance the study of Clarke, Kosec and Wallsten (2004) on the effects of private sector participation on coverage in the water and sewerage sectors in Argentina, Bolivia and Brazil show that connection rates to piped water and sewerage improved following the introduction of private sector participation (PSP). However, they also find that connection rates also improved in the control regions, with no introduction of PSP. This suggests that PSP, per se, may not have been responsible for those improvements²⁶. The authors suggest that this absence of significant difference between PSP regions and control regions could be a result of competitive pressures: benchmark competition with private utilities encourages utilities that remain publicly owned to improve their own performance. Popular pressure from residents served by public companies for their water system to perform as well as their neighbors' systems (benchmark competition) could have led to an improvement in coverage in the control regions. At the same time, although the authors do not find that PSP improves coverage, they also do not find strong evidence that the poor were significantly harmed by privatisation. This led them to conclude that, in terms

²⁶ Proceeding to an econometric analysis to explore connection rates for piped water and sewerage before and after PSP and to compare those rates to comparable cities that did not introduce PSP the authors find that privatisation is positively and significantly correlated with piped water coverage when controlling only for population and income. However, including year dummies causes the estimate to become statistically insignificant and smaller in magnitude, though it remains positive. This indicates the importance of time trend effects (coverage improving over time even in the absence of PSP).

of connections at least, privatisation did not harm the poor. Another study by Galiani *et al.* (2005) using data available at the municipal level in Argentina where about 30 percent of localities privatized water delivery services, show an increase of access to the water network by 12%. The authors also show that, controlling for other factors, child mortality fell by 5 to 7 percent more in areas that privatized water services than in those that did not.

When access has increased significantly without a steep rise in prices, privatisation has had positive distributional effects (see Birdsall and Nellis, 2003, for a review). However, it has often been the cases that increased access has been accompanied by substantial price increases to cost-covering levels (Estache, Foster and Wodon, 2002). In addition, and as it has been mentioned previously, an important negative distributional impact has been through the elimination of illegal connections to electricity and water networks by lower income people. Box 3 below, based on the recent paper by Hailu, Guerreiro-Osorio and Tsukada (2012) on water service privatisation in Bolivia in the late 1990s early 2000s, shows how tariff increases required for full cost recovery may lead to adverse privatisation outcomes, in this case the eventual renationalization of the company, even when coverage is expanded.

Box 3: Privatisation and renationalization: the case of the water sector in Bolivia

The privatisation and subsequent renationalization of the water sector in Bolivia is an interesting case of failure of privatisation in the absence of significant effects (or at least the perceived lack of effects) on welfare.

The water sector was privatized in the three large Bolivian cities of La Paz, El Alto and Cochabamba, with the first private sector participation contract signed in July 1997 (see Hailu *et al.*, 2012 for more details). Lyonnaise des Eaux, the world's largest water consortium, won the 30-year concession contract for water and sewerage provision in La Paz and El Alto through the company Aguas del Illimani S.A. (AISA). The contract stipulated expansion requirements, such as absolute number of connections, overall percentage coverage, and coverage according to neighbourhood criteria. The concession company failed to reach the targets established in the contract, with AISA having reached only 65% of its target in terms of water connections by 2001. With the water tariff adjustments in 2001 (an increase of 12% authorised by the regulator, against a 24.6% request made by AISA at the time of the first tariff review), discontentment grew among the population. Connection fees increased from US\$155 to US\$196 for water (Hailu *et al.*, 2012). Other factors added to the political upheaval, such as the reclassification of houses with brought even higher prices for some properties, and the lack of transparency in the negotiations between the government and the concessionaire. In addition, the World Bank stipulated in its Public Expenditure Review that "no subsidies should be given to ameliorate the increase in water tariffs" (World Bank, 2009). The combination of these factors led to a strong public discontent which eventually caused the early termination of the concession contract in 2005. The water (and sewerage) utility was renationalized.

Interestingly, Hailu *et al.* (2012) find that access to water by low-income consumers increased under private provision. Despite this they identify four main factors which eventually led to the termination of the contract. First, as mentioned above, despite an expansion in coverage, the concessionaire failed to meet the targets stipulated in the contract. The increase in water prices was the second factor, and the authors argue that the bidding process took the widest network expansion and not the lowest water price as a criterion. Third, the costs of connection were especially high for the low-income households, as the concession contract required that communal standpipes be eliminated and replaced by in-house connections. However, standpipes were inexpensive alternatives to in-house connection for the poorer households. Fourth, issues related to contract design and enforcement arose. In particular, households complained about low water pressure in the city and in El Alto. In addition, the concession company failed to meet the targets for new connections but did not suffer penalties despite clear penalties for non-compliance in the contract.

Several lessons can be drawn from this case. First, it is very important to set realistic target given higher tariffs after privatisation. Second, sudden shifts in delivery and abrupt increases in prices may not be recommended, while it may be a more sensible strategy to progressively phase out

subsidies and adjust tariffs. Finally, the transparency of the negotiation and bidding processes is also crucial (see Hailu et al., 2012).

6.2.4. Fiscal effects

The fiscal effects of privatisation on income distribution are indirect and come through changes in revenues and expenditures. In particular, privatisation may affect real income (net of taxes) if it reduces the tax burden differentially across households, or if it leads to increased access by the poor to government services funded by new tax flows.

Auriol and Picard (2009) develop a theoretical model to analyse the trade-off between fiscal benefits and consumer surplus during privatisation of non-competitive sectors. Privatisation transfers control rights to private interests and eliminates public subsidies, benefiting taxpayers but reducing consumers' surplus if costs are increased. They show that for low opportunity costs (as in the case of wealthy governments) public ownership dominates privatization, and for high opportunity costs (as in the case of financially strapped governments) the opposite holds. For instance, privatization is an appealing alternative when government cannot finance an infrastructure project, because it is better to have a privately owned and operated infrastructure, even with monopoly distortion, than no infrastructure at all. However, the authors also show that this monotonic relationship between privatization and the budget constraint breaks down when natural monopolies are sufficiently profitable and when governments are not able to recoup large enough divestiture proceeds. This situation often stem from developing countries' difficulties attracting investors when auctioning off profitable state enterprises. As such, the privatization decision is shown to be optimal with under-priced public assets, but only for intermediate values of the opportunity cost of public funds.

The study of Davis, Ossowski, Richardson, & Barnett (2000) on 18 developing and transition countries has shown that the net fiscal effects of privatisation were receipts on the order of 1% of GDP. In some countries the main fiscal benefits of privatisation has been to eliminate subsidies. Subsidies in critical infrastructure services has often led to the rationing of under-priced services, affecting poorer households which often had no access to these services, while the non-poor enjoyed under-priced access to these services. To the extent that privatisation stops these flows of subsidies it produces indirect benefits in terms of increased retained revenues (Birdsall and Nellis, 2003). This could indirectly benefit the poor. However, if governments use privatisation to reduce the stock of the public debt but with no fiscal discipline the revenues of privatisation could merely increase the capacity to borrow more. For instance Macedo (2000) argues that the potential benefits of privatisation in the mid-1990s in Brazil were lost as the government used reserves to protect the currency. Table 5 summarises the distributional impacts of privatisation.

6.2.5. Gender effects of privatisation

The process of privatisation is not always gender-neutral and may have unanticipated, or unintended, differential effects on men and women. This section reviews the small set of empirical studies that have explored the gender dimension of privatisation.

Land reform and property rights

In a study of the impact of privatisation on gender and property rights in Africa, Lastarria-Cornhiel (1997) shows that privatisation and land reforms can impact more negatively on more vulnerable groups, including women. As customary systems are replaced by property systems based on private property and monetary systems, women who had specific access to land under customary law find themselves at a disadvantage because of their inability to claim ownership rights to land during the transition. Given that their access rights to land are generally indirect and dependent on a male relative, they find that the few rights they had under customary law are ignored, while land tend to become concentrated in the hands of those in privileged positions such as community leaders or male household heads. This has important distributional impacts, as women's access to land under customary law allowed some autonomy and independence to provide for themselves and their family.

Privatisation of social security

Arenas de Mesa and Montecinos (1999) have also showed how the privatisation of the pension system in Chile in 1980-1981 has increased gender inequalities, with the new calculation of benefits being unfavorable to women and leading to lower pensions. In the newly privatized system, affiliates received benefits according to individual contributions and levels of risk. In particular, continuity of contributions was crucial in the privatized system, which affected women more negatively given their higher rate of unemployment and greater labor instability (De Mesa and Montecinos, 1999:29)²⁷. Other gender related factors such as women's longer life expectancy, earlier retirement age, lower rates of labor-force participation and lower salaries also affected their contribution to their individual retirement accounts, leading to lower pensions.

Privatisation and labour segmentation

Dong et al. (2004), in exploring privatized Township and Village Enterprises in China, consider that privatisation has contributed to gender segmentation. Their research was based on interviews with managers and local government representatives and questionnaires completed by workers in the provinces of Jiangsu and Shandong in 1999 and 2000. It shows that privatisation has resulted in significant changes to labour practices (downsizing of the workforce) and to occupational segregation by gender within the workplace, with managers expressing strong preferences for certain groups of workers by gender (mainly related to norms about the gender appropriateness of types of work). In addition, male workers reported significantly higher satisfaction of the impact of privatisation on the opportunity to participate in decision-making and skill training than women. Concerning wage patterns before and after privatisation the authors find that the wage gap between male and female increased post-privatisation. Controlling for differences in the productive characteristics of men and women, they find that for men there has been an increase in the rate of return to education and experience while for women there has been an increase in the rate of return to education only. They also find that the unexplained portion of the wage gap (i.e. not related to measurable productive characteristics, which is usually attributed to discrimination) is higher in the post-privatisation period both in absolute (log) and relative (percentage) terms.

²⁷ For instance, women did not have any particular minimum years of contributions required to benefit from old-age pension, while the minimum requirement was 20 years under the private pension system. In addition, insured with long life expectancy (typically women) and those who retired earlier got lower benefits, while there was no such discrimination in the public pension system.

Table 5: Summary of distributional impacts of privatisation (spillovers)

Distributional impact	Progressive effect	Regressive effect
Ownership	If the sale is conducted in a transparent way, with a wide distribution of vouchers with positive returns.	If the asset is under-priced and rewards political cronyism. If the sale is non transparent.
Employment	If newly privatized firm become more efficient and dynamic, total employment might recover after the initial restructuring phase	The restructuring and consequent disproportionate laid-off of specific categories of worker.
Prices	Privatisation can lead to a fall in prices if it is accompanied by increased competition. In addition, if private management leads to efficiency gains, some of the savings can be passed on to consumers.	Prices may increase if they were previously below cost-recovery level.
Access	Access may increase if the privatized business is expanded through investments.	If the private owner decreases its engagement in specific market segments that are beneficial to the poor. In addition, poorer consumers can see their access reduced if privatisation is accompanied by the end of illegal water and electricity connections.
Fiscal	If it leads to increased access by the poor to government services funded by new tax flows.	Privatisation may affect real income (net of taxes) if it reduces the tax burden differentially across households. Privatisation transfers control rights to private interests and eliminates public subsidies, benefiting taxpayers but reducing consumers' surplus if costs are increased.
Gender	Depends on pre-existing power structures and on how access to privatised services are related to factors that are not gender-neutral.	

7 Policy Implications

This guide has explored international experience with privatisation in poor countries. Overall, to be successful a privatization program needs to align the objectives with the methods of privatization, taking into account the sector in which the company operates and the national environment. Figure 10 below places these different variables into a framework and the following sections develop on these key points.

7.1 Necessary pre-conditions for successful interventions: regulatory agency and managerial incentives

As Lopez-de-Silanes (2005) note, good rules and contracts are key for a smooth and beneficial privatisation process. Failure cases have often been linked to collusion or corruption as occurred in the transition economies. **As such, ensuring a clear and homogeneous process of privatisation is essential for success.** The author considers that government restructuring of SOEs prior to their sale is likely to be fraught with political difficulties as government official may try to extract private benefits before the sale. Although restructuring programs could lead to increased revenues from the sale, some empirical evidence (Lopez-de-Silanes, 1997) suggests that restructuring policies do not lead to higher revenues for the government.

In addition, Lopez-de-Silanes (2005) note the importance of policies to complement privatisation. In particular they stress the need to **set up an appropriate regulatory and institutional framework after privatisation.**

Indeed, several papers have shown **how a strong and independent regulatory can help address the negative impact of corruption on the privatisation process.** Wren Lewis (2013) uses a fixed-effects estimator on a panel of 153 electricity distribution firms across 18 countries in Latin America and the Caribbean from 1995-2007. They show that greater corruption is associated with lower firm labour productivity but this association is reduced when an independent regulatory agency is present. The association between corruption and productivity also appears weaker for privately owned firms compared to publicly owned firms (though this result is less robust).

Taking into consideration local management and incentives is also key for a successful privatisation. Liu *et al.* (2006) identify the motives of local government leaders and the constraints that they face during a privatisation process. They conclude that local governments' motivation to privatize their SOEs depends on if the ownership transfer stimulates sufficiently high growth of local tax revenues without sacrificing bureaucrats private control benefits.

7.2 Guidelines for a "pro-poor" privatisation

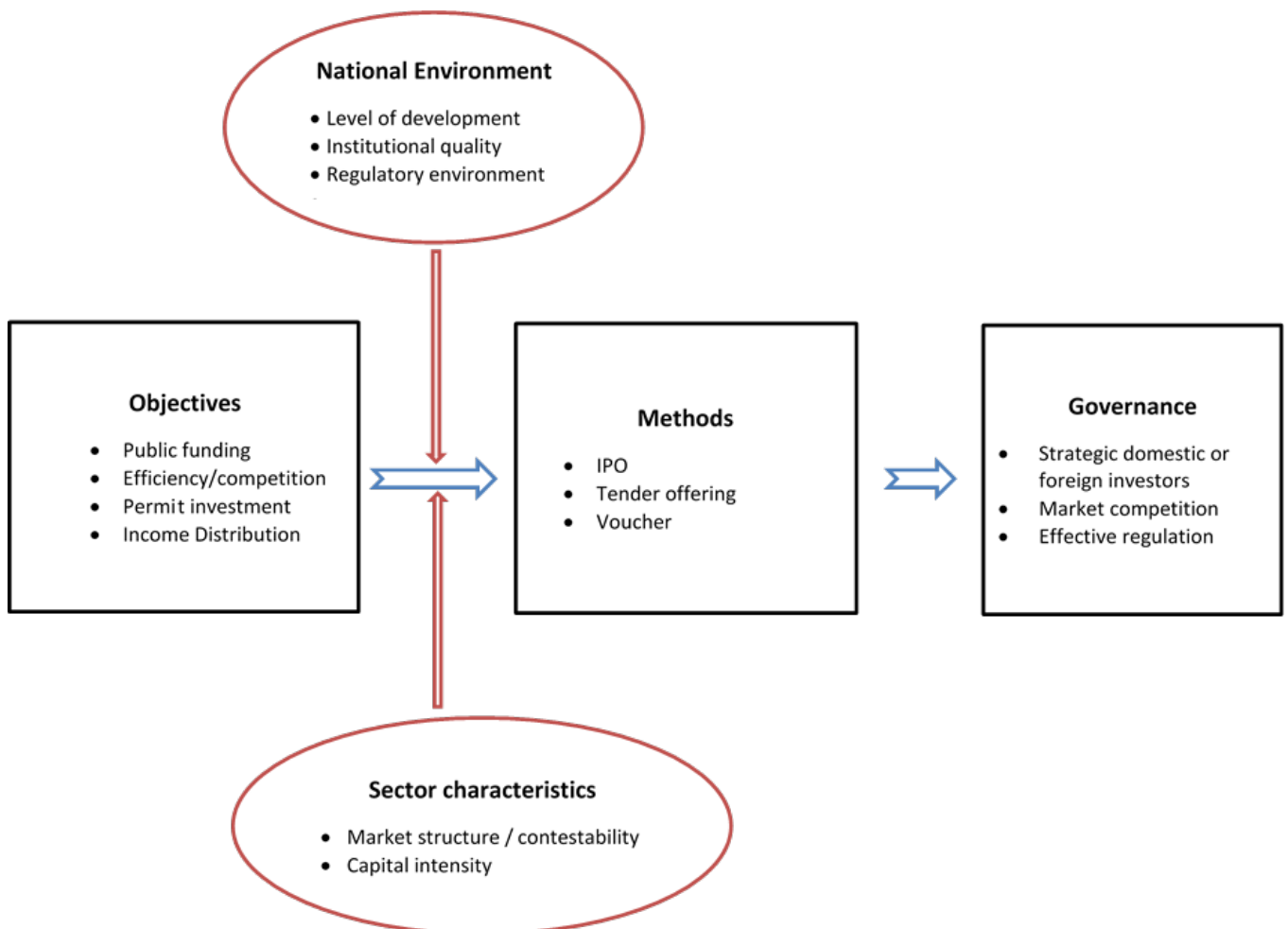
According to Estache *et al.* (2001), to achieve a "pro-poor" privatisation, three areas of public policy need to be viewed as complementary: the privatisation strategy, regulatory policy and social policy. Privatisation policy and social policy should be considered first in the reform process so that the regulatory rules are consistent with the privatisation and social goals.

- **Promoting competition** is essential as it should increase efficiency but it implies the elimination of cross-subsidies, which may hurt the poor. That said, if utility tariffs drop and access to services improve this may affect the poor positively. It is important as well to pay attention to the investment and quality targets set at the time of privatisation. The authors recommend avoiding setting targets that are based on developed country benchmarks as this can make the service too expensive for the poor. They suggest for example to alter

the price/quality combination for the poorer community to improve efficiency within the same cost parameters.

- **The tendering mechanism will also have an impact on distribution.** According to Estache *et al.* (2001), if poor households are already connected to the service, then they will benefit more if tariff is the competitive variable in the tendering process. However, if the poor are unconnected, then choosing investment commitments has a higher potential to benefit the poor.
- The authors also argue that there is **a balance to be found between strict regulatory rules which allow higher predictability and lower susceptibility to corruption and a certain amount of discretion granted to the regulator to be able to design tariff that can benefit the poor.** They argue that regulators should also be open to new approaches to solve operational issues related to poorer users. For instance, community participation in the construction and operation of networks may reduce their cost. Finally, the use of innovative tariff structures, with a menu choice to users could be beneficial to low-income users.

Figure 9: Privatization framework



7.3 Guidance for successful donors intervention

As Figure 10 makes clear, whether or not a particular privatisation programme will be successful depends on the policy objectives, the sector and institutional environment, the proposed privatisation method and the post- privatisation governance arrangements. All of these factors imply that any privatisation process will expose a country to some risks. An important policy implication is that key risks should be assessed in deciding on a particular reform programme and that where possible such risks should be mitigated. Table 6 summarizes the risks attached to privatisation and potential policy measures to mitigate those risks.

Table 6: Risks and Policy implications

Risk	Policy Implication/Risk Mitigation
1. The partner government does not own and lead the privatisation policy	<ul style="list-style-type: none"> • Privatisation should be considered amongst a full range of reform options within the context of a poverty reduction strategy • Conditionality should not be used to promote privatisation unless part of such a strategy
2. Failure to adequately regulate privatised firms	<ul style="list-style-type: none"> • Decision to privatise should take account of regulatory capacity • External support for regulation should be provided
3. Fiscal savings from SOE reform are not translated into pro-poor expenditures	<ul style="list-style-type: none"> • Dialogue with partner governments around the medium term expenditure framework and budget priorities
4. Corruption undermines the privatisation programme	<ul style="list-style-type: none"> • Donors can help promote a transparent privatisation process and effective corporate governance of privatised firms
5. The poverty impacts of privatisation are not well understood	<ul style="list-style-type: none"> • A thorough poverty and social impact analysis should be undertaken for major privatisation programmes
6. Retrenchment of workers leads to hardship and political opposition	<ul style="list-style-type: none"> • Provision of fair and affordable financial support for social safety nets • Undertake tracer studies to monitor the long term impact on affected workers
7. Poorer groups are adversely affected by tariff increases or do not benefit from service delivery expansion	<ul style="list-style-type: none"> • Tariff reform measures should take account of social impacts and special "lifeline" tariffs considered. • Possible use of direct subsidies or cross subsidies to promote access by poorer groups within an affordable strategy
8. The motivation for privatisation is not clear or communicated to the public	<ul style="list-style-type: none"> • Clear objectives for fiscal savings, service delivery improvement, and other key objectives should be agreed and published • An accurate and informative communications programme should be put in place

7.4 Privatisation Check List for Policy Makers

Privatisation involves the transfer of productive assets from the state to private hands. Such transfers are, by their very nature, politically sensitive and subject to potential abuse. We outline below the key issues that policy makers should have in mind when examining a proposed privatisation.

1 What are the objectives of the privatisation programme?

To evaluate privatisation proposals, it is important to start **by understanding the objectives of the policy**. These usually fall in to four categories:

- i **Encouraging economic growth**, directly or indirectly, though improving company productivity.
Key direct mechanisms include more effective corporate governance around simpler corporate objectives (e.g. profitability); focusing and sharpening managerial incentives around this objective; encouraging innovation and investment; and increasing market competition.
Key indirect mechanisms include bringing key relative prices, for example for electricity, gas, transport, in line with international levels so that firms can make appropriate decisions about global comparative advantages.
- ii **Improving the regulation and performance of natural monopolies**, replacing direct state with control with private ownership combined with regulation.
- iii **Generating revenues for the state**, for example to address a significant public sector deficit.

Note: These objectives are not necessarily inconsistent with each other, but **each will imply different emphasis in the privatisation programme**. For example, (i) implies a focus on global and domestic capital markets, private management and competition. The emphasis within (ii) will likely be on domestic capital markets, market competition and government capabilities. Revenue maximisation may conflict with the previous two; for example breaking a domestic monopoly up will enhance market competition but reduce the amount for which the industry can be sold. Similarly, in economies where the state and private wealth are closely inter-twined, the highest offers for firms will not necessarily be received from the people who can generate the most productive use of those assets.

We henceforth assume that the primary purpose of privatisation is **economic growth**. The issues below sometimes need to be adjusted for other objectives along the lines discussed above

2 Preconditions for success

- i What is the **quality of the business environment** for competition, governance and entry?

The evidence suggests that privatisation has greater benefits in better business environments economies because the **process relies on governance and competition**. Key issues here are therefore:

- **Depth and liquidity of capital market** (particularly important for privatization via IPO)
- **Barriers to new domestic firm entry** (formal entry costs, bureaucratic costs, possibilities for incumbents to restrict entry by the use of political relationships)
- **Quality of legal system** concerning corporate governance for example concerning company accounting procedures, rules on minority shareholders etc.

- **Quality of business support** e.g. legal firms, accounting firms, management consultants, recruitment firms
- **Open-ness to foreign direct investment**, both via acquisitions (via privatisation) or via greenfield (to create competition), and **access to foreign portfolio capital**
- **Depth and competitiveness of managerial market** (pool of qualified managers)
- **Strength and effectiveness of competition, and competition agency.** Independence of anti-monopoly agency from state

ii How do you evaluate the quality and independence of the state's administrative apparatus?

Privatisation makes considerable demands on the capability of the state, both in ensuring that the process is not captured by local elites, and in managing the relationship between the government and the state at arm's length post-privatisation, e.g. via regulation.

- Successful privatisation requires **competent government with low levels of corruption**; privatisation involves transferring state assets into private hands and the possibilities for abuse and theft are manifest.
- The **level of government** may be relevant here; state assets may be held at federal, state or local level; sometimes all three.

iii What are the structure and the technology of the market in question?

- **Structure:** Privatisation often occurs in **sectors of natural monopoly**. In these cases, the success of privatisation depends on the capacity of the state to ensure effective regulation; else private monopoly power replaces public monopoly power and welfare may suffer.
- **Technology:** Changing technologies mean that formerly monopolistic sectors such as telecom may be contestable or even potentially competitive. In general, it is bad sign if privatisation is not associated with pro-competition moves within the sector e.g. breaking large firms up or opening the market to domestic or foreign competition.

3 Privatisation Methods

The chosen methods **depend in part on the preconditions** noted above. Countries with poorly developed capital markets are unlikely to be able to privatise through IPOs. The main methods of privatisation, listed in order of likely favourable impact on economic growth and development are:

- **Sale to high quality foreign firms**; note however that this method may suffer from a trade off with competition objectives since foreign firms may seek local monopoly power. Such sales may be accompanied by conditions with respect to technology transfer, domestic content of inputs, employment, environment etc.
- **Sale on domestic capital market via IPO**
- **Sale to domestic businesses or business groups** (trade sale)
- **Sale to existing managers** and/or workers
- **Free distribution of shares** to the population (mass privatisation)

There are obvious **trade-offs**:

- Free distribution ensures equality in allocation of assets around the population but is likely to lead to weak corporate governance.

- Sale to foreign owners, with appropriate safeguards, can raise company efficiency but lead to job losses.

4 Impact of Privatisation

Privatisation is primarily about improving company efficiency via corporate governance. However, the policy may have a number of **side-effects which impact other key policy targets** and these need to be considered in advance:

- i Social and economic side effects.
Higher efficiency/profitability may be obtained through lower levels of employment, lower wages, reduced public service provision and higher product prices, with negative distributional and social effects.
- ii Competition side effects.
Especially if the government is concerned to sell to foreigners and/ or to maximise revenues, then competition effects may be negative and serious.
- iii Global impact.
Sale of key assets such as banks or resource companies to foreign firms may restrict the range of domestic policy and hinder long term development
- iv Political side effects.
Sale of assets to elites may concentrate political power and economic wealth into fewer hands.
- v Effects on distribution of income.
An enhanced focus on profitability of firms may lead to increased prices of important products for poor households, as well as reduced pay, worse employment conditions and fewer job prospects.
- vi Effects on fiscal balance
In principle this should be unchanged because if the asset is priced correctly the price should reflect the future expected earnings from the company. In practice, pricing may be set low, to achieve distributional targets or to support elites and friends. This would worsen the government's balance sheet. At the same time, the new owners may be more productive than the state, and hence raise activity and profits, with a positive effect on GDP and on government revenues.

References

- Aharoni, Y. (1981). 'Performance Evaluation of State-Owned Enterprises: A Process Perspective'. *Management Science*, 27(11): 1340-1347.
- Arenas de Mesa, A. and Montecinos, V. (1999). The Privatisation of Social Security and Women's Welfare: Gender Effects of the Chilean Reform. *Latin American Research Review* Vol. 34, No. 3 (1999), pp. 7-37
- Auriol E. and Picard P. (2008) Infrastructure and Public Utilities Privatisation in Developing Countries, *The World Bank Economic Review*, 23(1) : 77–100.
- Barja, G., and Urquiola, M. (2001). Capitalization, regulation and the poor: access to basic services in Bolivia. WIDER Discussion Paper No. 2001/34, United Nations University.
- Beck, T., Crivelli, J.M., and Summerhill, W. (2005) State bank transformation in Brazil - choices and consequences, *Journal of Banking & Finance* 29(8-9):2223-2257.
- Beck T., Cull R. and Afeikhen A. (2005) Bank Privatisation and Performance: Empirical Evidence from Nigeria, *Policy Research Working Papers*. February 2005.
- Bennell, Paul (1997), Privatisation in Sub-Saharan Africa: Progress and Prospects during the 1990s, *World Development*, Vol. 25, No. 11, pp.1785-1803.
- Bennett, J., Estrin, S., Maw, J. and Urga, G., 2004. Privatisation Methods and Economic Growth in Transition Economies, *CEPR Discussion Papers* 4291, C.E.P.R. Discussion Papers.
- Birdsall, N. and Nellis, J. (2003) Winners and Losers: Assessing the Distributional Impact of Privatisation *World Development* 31(10):1617–1633.
- Birdsall, N., Ross, D., & Sabot, R. (1995). Inequality and growth reconsidered: lessons from East Asia. *World Bank Economic Review*, 9(3), 477–508.
- Blanchard, O., et al (1991): *Reform in Eastern Europe*, Cambridge, MA: MIT Press.
- Boardman, A. and Vining, A. 1989. Ownership and Performance in Competitive Environments: A Comparison of the Performance of Private, Mixed, and State-Owned Enterprises, *Journal of Law Economics* 32(1):1-33.
- Bognetti, G. and Obermann G. (2008), Liberalization and privatisation of public utilities: origins of the debate, current issues and challenges for the future. *Annals of Public and Cooperative Economics*, Volume 79, Issue 3-4, pages 461–485, September/December 2008.
- Bonin, J.P., Hasan, I., Wachtel, P., 2005. Bank performance, efficiency and ownership in transition countries. *Journal of Banking and Finance* 29:31–53.
- Borisova G., Ingram M. & Megginson, W. (2008) The Phenomenon of Privatisation: A Comparative Analysis, *Journal of Comparative Policy Analysis: Research and Practice*, 10(4):445-462.
- Bortolotti, B., and Milella, V. (2008) Privatisation in Western Europe. Stylized facts, outcomes, and open issues, In *Privatisation. Successes and failures*. Edited by Gérard Roland. pp. 32-75. New York (NY): Columbia University Press.
- Boubakri, Narjess and Jean-Claude Cosset. 1998. "The Financial and Operating Performance of Newly-Privatized Firms: Evidence from Developing Countries," *J. Fin.* 53, pp. 1081-110.
- Boubakri N., Cosset J.-C., Fischer K., Guedhami O. (2005) Privatisation and bank performance in developing countries, *Journal of Banking & Finance* 29 (2005) 2015–2041.
- Boycko, M., Shleifer, A. and Vishny, R. (1995): *Privatizing Russia*. MIT Press, Cambridge, MA.
- Chisari, O., Estache, A., and Romero, C. (1999). Winners and losers from the privatisation and regulation of utilities: lessons from a general equilibrium model of Argentina. *World Bank Economic Review*, 13(2), 357–378.
- Chong, A. and Lopez-de-Silanes, F., 2002. Privatisation and labor force restructuring around the world, Policy Research Working Paper Series 2884, The World Bank.
- Clarke, G., Kosec, K., Wallsten, S., (2004) Has private participation in water and sewerage improved coverage? Empirical evidence from Latin America, World Bank Policy Research Working Paper.
- Clarke G., Cull R., Shirley M. (2005) Bank privatisation in developing countries: A summary of lessons and findings, *Journal of Banking & Finance* 29 (2005) 1905–1930.

- Cubbin J. and Stern J. (2006) The Impact of Regulatory Governance and Privatisation on Electricity Industry Generation Capacity in Developing Economies. *World Bank Economic Review* 20:1, 115-141.
- Davis, J., Ossowski, R., Richardson, T., and Barnett, S. (2000). Fiscal and macroeconomic impact of privatisation. International Monetary Fund Occasional Paper No. 194, IMF, Washington, DC.
- Delfino, J. A., and Casarin, A. A. (2001). The reform of the utilities sector in Argentina. UN University WIDER Discussion Paper No. 2001/74, June.
- Chen, D. and Jiang, D. and Ljungqvist, A. and Lu, H. and Zhou, M. (2015) State Capitalism vs. Private Enterprise, working paper Available at SSRN: <http://ssrn.com/abstract=2544246> or <http://dx.doi.org/10.2139/ssrn.2544246>
- Dong, X., MacPhail, F., Bowles, P., Ho, S. (2004). Gender Segmentation at Work in China's Privatized Rural Industry: Some Evidence from Shandong and Jiangsu, *World Development*, Volume 32, Issue 6, June 2004, pp. 979-998.
- D'Souza, J. and Megginson, W., 2000. Sources of Performance Improvement in Privatized Firms: A Clinical Study of the Global Telecommunications Industry, working paper, U. Oklahoma.
- Djankov, S. and Murrell, P. (2002): Enterprise Restructuring in Transition: A Qualitative Survey. *Journal of Economic Literature* 40 (3): 739-793.
- Eberhard, A. (2007) Infrastructure Regulation in Developing Countries, An exploration of hybrid and transitional models, Public Private Infrastructure Advisory Faculty (PPIAF), Washington D.C.: The World Bank.
- Ehrlich, I., Gallais-Hamonno, G., Liu, Z., and Lutter, R. (1994) Productivity Growth and Firm Ownership: An Empirical Investigation, *Journal of Political Economy* 102:1006-38.
- Ennis, H. M., and Pinto, S. M. (2002). Privatisation and income distribution in Argentina. Unpublished paper delivered to a seminar on Privatisation and Inequality in Latin America, Inter-American Development Bank and Universidad de las Americas, Puebla, Mexico, May.
- Estache, A., Gomez-Lobo, A., Leipziger, D., (2001) Utilities Privatisation and the Poor: Lessons and Evidence from Latin America, *World Development* 29(7):1179-1198.
- Estache, A., Foster, V., & Wodon, Q. (2002). Accounting for poverty in infrastructure reform. World Bank Institute of Development Studies, Washington, DC.
- Estache A., and Rossi M. (2002) How Different Is the Efficiency of Public and Private Water Companies in Asia? *World Bank Economic Review* 2002 16(1):139-147.
- Estrin S., Hanousek J., Kocenda E., and Svejnar J. (2009), The Effects of Privatisation and Ownership in Transition Economies, *Journal of Economic Literature*, 47(3):699-728
- Frydman, R., Gray, C., Hessel, M., and Rapaczynski, A. (1999) When Does Privatisation Work? The Impact of Private Ownership on Corporate Performance in Transition Economies, *Quarterly Journal of Economics* 114(4):1153-91.
- Estrin, S., Perotin, V., (1991). Does ownership always matter? *International Journal of Industrial Organization* 9, 55-72.
- Galal, A., Jones, L., Tandon, P., and Vogelsang, I. (1994) Welfare Consequences of Selling Public Enterprises. Oxford: Oxford U. Press.
- Galiani S., Gertler P., and Schargrodsky E. (2005) Water for Life: The Impact of the Privatisation of Water Services on Child Mortality, *Journal of Political Economy*, 113(1):83-120.
- Gasmi F., Maingard A., Numba P., Recuero Virto L. (2013) The Privatisation of the Fixed-Line Telecommunications Operator in OECD, Latin America, Asia, and Africa: One Size Does Not Fit All, *World Development* 45:189-208.
- Gassner, K. and Pushak, N. (2014) 30 years of British utility regulation: Developing country experience and outlook, *Utilities Policy* 31: 44-51.
- George, G. and Prabhu, G.N. (2000). Developmental financial institutions as catalysts of entrepreneurship in emerging economies. *Academy of Management Review*, 25(3), 620-629.
- Greenwald B. and Stiglitz J. (1986) Externalities in Economies with Imperfect Information and Incomplete Markets, *Quarterly Journal of Economics* 90, May 1986, 229-264.
- Gupta, N. (2008) Privatisation in South Asia. In Roland, G. (ed.), Privatisation: successes and failures.

- Hailu, D. and Guerreiro Osorio, R. and Tsukada, R. (2009) Privatisation and Renationalisation: What Went Wrong in Bolivia's Water Sector? *World Development* 40(12): 2564–2577.
- Jomo, K.S. (2008) A critical review of the evolving privatisation debate. In Roland, G. (ed.), *Privatisation: successes and failures*.
- Kikeri, S. and Nellis, J. (2004) An Assessment of Privatisation, *The World Bank Research Observer*, 19 (1): 87-118.
- Kirkpatrick C., Parker D., and Zhang Y.-F. (2006) An Empirical Analysis of State and Private-Sector Provision of Water Services in Africa, *The World Bank Economic Review*, 20 (10):143–163.
- KPMG (2013) Zambia Country Mining Guide.
- Laffont, J. and Tirole, J. (1993) *A Theory of Incentives in Regulation and Procurement*. Cambridge, MA: MIT Press.
- La Porta, R. and Lopez-de-Silanes, F. (1999) Benefits of Privatisation-Evidence From Mexico, *Quarterly Journal of Economics*, 114(4):1193-242.
- Lastarria-Cornhiel, S. (1997) Impact of Privatisation on Gender and Property Rights in Africa. *World Development*, 25(8):1317-1333.
- Li, M. H., Cui, L., and Lu, J. (2014). Varieties in state capitalism: Outward FDI strategies of central and local state-owned enterprises from emerging economy countries. *Journal of International Business Studies*. doi: 10.1057/jibs.2014.14
- Li, W. and Xu, L. C. (2002) The Political Economy of Privatisation and Competition: Cross-Country Evidence from the Telecommunications Sector, *Journal of Comparative Economics* 30, 439-462.
- Liu, G., Sun P., Woo, W.T. (2006) The Political Economy of Chinese-Style Privatisation: Motives and Constraints, *World Development* 34(12):2016–2033.
- Lin, N. (2011). Capitalism in China: A centrally managed capitalism (CMC) and its future. *Management Organization Review* 7(1), 63-96.
- Lopez-Calva, L. F., and Rosellon, J. (2002). Privatisation and inequality in Mexico. Unpublished paper delivered to a seminar on Privatisation and Inequality in Latin America, Inter-American Development Bank and Universidad de las Americas, Puebla, Mexico, May.
- Lopez-de-Silanes, F. (1997) Determinants of Privatisation Prices, *Quarterly Journal of Economics* 107(4): 965–1025.
- Lopez-de-Silanes, F. (2005), "Dos and Don'ts in Privatisation: Evidence from Less Developed Countries", *The PB Newsletter*, No. 2.
- Macedo, R. (2000). Privatisation and the distribution of assets in Brazil. Working Paper No. 14, Carnegie Endowment for International Peace, Washington, DC.
- Macquieira, C. and Salvador Z. (1996) Privatizaciones en Chile: Eficiencia y Politicas Financieras, *Estudios de Administracion* 3:2, pp. 1-36.
- Majumdar, S. K. (1996) Assessing Comparative Efficiency of the State-Owned, Mixed, and Private Sectors in Indian Industry, *Public Choice* 96 :1-24.
- Meggison, W. (2000) Privatisation, *Foreign Policy* 118:14-27.
- Meggison, W., Nash, R., and van Randenborgh, M. (1994) The Financial and Operating Performance of Newly Privatized Firms: An International Empirical Analysis, *Journal of Finance* 49:403-52.
- Meggison, W. and Netter, J. (2001) From State to Market: A Survey of Empirical Studies on Privatisation, *Journal of Economic Literature* 39(2):321-389
- Meggison, W. L., and Sutter, N. (2006). Privatisation in developing countries. *Corporate Governance* 14:234–265.
- Mussa, M. (2002). Argentina and the fund: from triumph to tragedy. Institute of International Economics, Washington, DC, March.
- Nellis, J. (2008) Privatisation in Africa. What has happened? What is to be done? In Roland, G. (ed.), *Privatisation: successes and failures*.

- North, D. C. (1990) Institutions, Institutional Change, and Economic Performance. Cambridge: Cambridge University Press, 1990.
- OECD (2009) Privatisation in the 21st Century: Recent Experiences of OECD Countries Report on Good Practices, January 2009.
- Otchere, I. (2005) Do privatized banks in middle- and low-income countries perform better than rival banks? An intra-industry analysis of bank privatisation, *Journal of Banking & Finance* 29(s 8–9):2067–2093.
- Privatization Barometer (2014) Privatization Barometer Report 2013-2014. *Riding the wave*.
- Privatization Barometer (2010) Privatization Barometer Report 2010. *Here comes another privatization wave*.
- Privatization Barometer (2009) Privatization Barometer Report 2009. *Privatizing America*.
- Redding, G. and Witt, M. (2009). China's business system and its future trajectory. *Asia Pacific Journal of Management*, 26(3), 381-399.
- Roland, G. (2008), Private and public ownership in Economic Theory. In Roland, G. (ed.), Privatisation: successes and failures.
- Sabirianova P., Svejnar, J. and Terrell, K. (2012) Foreign Investment, Corporate Ownership, and Development: Are Firms in Emerging Markets Catching Up to the World Standard?, *The Review of Economics and Statistics* 94(4):981-999.
- Sen, A. K. (1999), *Development As Freedom*, Oxford: Oxford University Press.
- Simutanyi, N. (2008) Copper mining in Zambia The developmental legacy of privatisation, Institute for Security Studies (ISS) working paper 165.
- Stern, J. (2014) The British Utility Regulation Model: Its recent history and future prospects. Centre for Competition and Regulatory Policy (CCRP), City University London CCRP Working Paper No 23.
- Svejnar, J. (2002) *Assistance to the Transition Economies: Were There Alternatives?* Washington D.C.: The World Bank.
- Tian, G. (2000) State Shareholding and Corporate Performance: A Study of a Unique Chinese Data Set, working paper, London Business School.
- Tipton, F.B. (2009). Southeast Asian capitalism: History, institutions, states, and firms. *Asia Pacific Journal of Management*, 26(3), 401-434.
- Torero, M., and Pasco-Font, A. (2001). The social impact of privatisation and the regulation of utilities in Peru. World Institute for Development Economics Research (WIDER), Discussion Paper No. 2001/17, United Nations University.
- Tremolet, S., P. Shukla, and C. Venton. 2004. "Contracting Out Utility Regulatory Functions." ERM report. World Bank, Washington D.C.
- Verbrugge, J., Owens, W. and Megginson, W. (2000) State Ownership and the Financial Performance of Privatized Banks: An Empirical Analysis, Proceedings of a Policy Research Workshop at the World Bank, March 15-16, 1999. Dallas: Fed. Reserve Bank Dallas.
- Vickers, J. and Yarrow, G. (1988), *Privatisation: An Economic Analysis*, London Cambridge MA, MIT Press.
- Vining, A. R. and Boardman, A. (1992) Ownership Versus Competition: Efficiency in Public Enterprise, *Public Choice* 73:205-39.
- Wallsten, S. (2001) An Econometric Analysis of Telecom Competition, Privatisation, and Regulation in Africa and Latin America, *The Journal of Industrial Economics* 49:1-19.
- World Bank (1999). *Bolivia: Public expenditure review*. Report no. 19232-BO. Washington, D.C.:World Bank
- Wren-Lewis, L. (2013) Do infrastructure reforms reduce the effect of corruption? Theory and evidence from Latin America and the Caribbean, Policy Research Working Paper Series 6559, The World Bank.
- Zhang Y.-F., Parker D., Kirkpatrick C. (2008) Electricity sector reform in developing countries: an econometric assessment of the effects of privatisation, competition and regulation, *Journal of Regulatory Economics* 33:159–178.