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PRIVATIZATION DISCONTENT AND ITS DETERMINANTS: EVIDENCE FROM LATIN AMERICA

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Abstract

While most economists usually believe that privatization policy is socially beneficial, it faces increasing opposition in several countries. In this paper we wish to discover the ingredients in a recipe for privatization discontent. To do so we focus on Latin America, where there is wide evidence of popular opposition to privatization. We use the results of Latinobarometro (2002), a survey of a representative sample of 18501 individuals in 17 countries as our dependent variable of perception, and a privatization dataset on the same countries, including sectoral disaggregation, time profiles, proceeds, number of shares and other variables for each country. We use a set of macrovariables as controls, and test our prior beliefs on the determinants of policy failure in this area. Our main finding is that the higher probability of disagreement with privatization is encountered when the respondent is poor, privatization was large and quick, involved a high proportion of public services as water and electricity, and the country suffered adverse macroeconomic shocks and worsening of disequality of incomes. Moreover, the more the respondent is educated, the more adverse to privatization he or she is. We suggest that these results depict a broadly consistent picture of privatization discontent that points to a combination of perceived distributional concerns that should be addressed by future research and policy design.

KEYWORDS: Privatization, Latin America, Distributive impact, Panel Survey Data, Social Attitudes
JEL NUMBERS: H 32, G 14, L 33

Introduction
During the last two decades privatization in Latin America (LA) was a vast process that changed the organization of these economies. Among developing countries LA was the region where privatization started earlier and reached an amount of money larger than in any other area (Lora, 2001).

Although privatization in Chile and Mexico in the early eighties constituted a first experiment, the massive process which involved almost all the countries in the area was launched around 1990 and reached a peak in 1998. State ownership was reduced by a half in this decade with only 5% of the GDP remaining under public control (Chong and López de Silanes, 2003). The cumulated proceeds from privatization in eighteen LA countries averaged 6% of 1999 GDP. Between 1990 and 2001, the private investment was 360,5 billion dollars which exceeds by 150 billion the other most important region, East Asia. Additionally, in LA were privatized not only the largest quantity of companies in the emerging markets countries but also the biggest ones (Nellis et al, 2003).

However, the ability of LA governments to continue privatization of infrastructure and utilities showed a loss of momentum in the late nineties. Currently, privatization is highly and increasingly unpopular in Latin America, as several surveys show. In academic circles, however, there remain a widespread approval of the process. No other structural reform probably generates a so great a gap between public perception, on the one hand, and theoretical and empirical opinions from academia (and multilateral institutions such as World Bank, International Monetary Fund or Inter American Development Bank), on the other. Hence, there is a big puzzle consisting of the disconnection between researcher's perceptions versus public opinion. In this paper we focus on this disconnection and use survey data to study the perceived determinants of privatization discontent. We suggest that our approach may help economists and other social scientists to understand why a policy that most of them consider as beneficial is increasingly opposed.
According to Birdsall and Nellis (2003), who review the worldwide evidence on the distributive impact of privatization:

'Some of the popular and critical perceptions and assertions are quite accurate – there can be little doubt that mistakes have been made and promises not kept- but a good number are not. An argument can be made that the concrete outcomes of privatization have been better than people think, or that privatization may not be the actual cause of the real difficulties they perceive. Nonetheless, count greatly in and of themselves if they result in political opposition sufficient to slow, halt or reverse a process that would bring efficiency and growth gains to a society –gains which could in principle be fairly shared using tax or other policy instruments.'

According to Williamson (1990, 2000) privatization was a key ingredient of structural adjustment in Latin American in the framework of the Washington Consensus, i.e. the policy package advocated in the 1980s by the US Treasury , the IMF, the World Bank, and other international organizations . The basic idea behind large scale divestitures of state owned enterprises in the last twenty years was to rise microeconomic efficiency at the same time of macroeconomic reforms Florio (2002).

Most of the empirical research in this area recur to simple microeconomic performance indicators, particularly they focus on changes in labor productivity or in profitability (Megginson, Netter, 2001). Only a more limited set of authors explore social costs and benefits of privatization, and particularly their impact on prices and redistribution of welfare (examples are Galal et al 1994, Newbery and Pollitt 1997, La Porta and Lòpez-de-Silanes 1999, Florio 2004 and other contributions reviewed by Birdsall and Nellis (2003).

However, recent social unrest in some Latin American countries shows that privatization is not just a matter of microeconomic efficiency, and it has an important distributive dimension.

According to McKenzie, Mokherrjee (2003):
'The supposed failure of privatization in Latin America has recently become the source of street riots, protest demonstrations, and adverse news coverage. Riots in Arequipa, Peru, erupted in June 2002 following the announcement of a proposal to privatize power plants, while Cochabamba, Bolivia, witnessed a so-called water war in April 2000. Antiprivatization protest also occurred recently in Ecuador and Paraguay, while water privatization in Lima and Rio de Janeiro had to be cancelled owing to popular opposition…These adverse opinions are not restricted to a handful of protesters. Latinobarometer opinion polls for 2000 show that a clear majority disapprove of the privatization process, a pattern that is uniform across countries, age, gender and socioeconomic classes. The opinions appear to be becoming increasingly adverse over time…' (p1-2).

While McKenzie and Mookherjee (2003), and previous papers on privatization in Latin America, notably La Porta, Lopez-de Silanes (1999) focus on the actual privatization outcomes in specific countries, in this paper we use a different strategy. Contrary to what is said in the above quotation, in fact we do observe variability in perceptions across a number of socio-economic characteristics of the respondents and we use this fact to explore possible determinants of perceived failures.
This issue is conceptually different, but indeed related, to efficiency changes and actual welfare redistribution impact. While in principle both consumers and producers may gain from privatization of inefficient state-owned enterprises, shareholders are a small number as compared with consumers. Thus if consumers (and tax-payers) do not perceive a net benefit of privatization they will be hostile and may overwhelm the positive evaluation by investors.
Obviously we cannot rule out the suspect that respondents are uninformed and that they give the 'wrong answer'. Nonetheless, this paper is not about an objective assessment of policy reform against subjective perceptions. Even if the respondents may do evaluation mistakes, it is important to learn if their beliefs show a pattern. Our key research focus is in fact to discover the ingredients in a recipe for perceived privatization failures. Moreover, we suggest that the analiyisis of subjective micro-information may suggest a redesign of empirical research and of policy reforms themselves.
We use the results of Latinobarometro 2002, a survey of a representative sample of 18501 individuals in 17 countries. The question asked was the following:
"The privatization of state companies has been beneficial to the country?".

The sample summary results are reported in table 1. They show that around 61% of interviewees disagree, or 67% excluding non respondents and those who 'do not know'. A new survey in 2003 shows even worsening perceptions , with a net disagreement around –40% (difference between those who agree and those who do not agree), and the highest disagreement in Argentina, around –70% and the lowest in Brasil, -20% (The Economist, 2003).

Table 1 – "Privatisation has been beneficial to the country" – Latin America 2002

Item	*cases*	*%*	*cases*	*%*
Strongly agree	1,573	8.49	1,573	9.37
Somewhat agree	3,781	20.41	3,781	22.52
Somewhat disagree	6,993	37.76	6,993	41.65
Strongly disagree	4,441	23.98	4,441	26.45
Do not know	1,271	6.86		
Non respondent	463	2.50		
Total	*18,522*	*100.00*	*16,788*	*100.00*

These results have been widely reported by the international press and have been acknowledged with some preoccupation by the World Bank (2003).
We try and understand why people do not see privatization as beneficial. In order to do so we build a simple conceptual framework of social costs and benefits of privatization. We focus on how subjective perceptions of welfare changes are related to social conditions of respondents and to their economic environment.
To do so we test our sample by three sets of explanatory variables and controls:

- social characteristics of the respondents (i.e. their economic conditions, education and if employed in the private or public sector)
- country macroeconomic environment (a set of economic indicators)
- privatization characteristics (i.e. composition by sector, timing, and amount of divestiture proceeds).

Our main finding is that the higher probability of disagreement with privatization is encountered when the respondent is poor, privatization was large and involved a high proportion of public services as water and electricity, and the country suffered adverse macroeconomic shocks and worsening of inequality of incomes. Moreover, the more the respondent is educated, the more adverse he or she is. We suggest that these results depict a broadly consistent picture of privatization discontent that points to a combination of perceived distributive concerns that should be addressed by future research and policy design.

The structure of the paper is the following. First, we briefly consider the conceptual framework on social benefits and costs of privatization, the possible relationship between objective and subjective evidence, and a set of propositions that we wish to test. Second, we present the background history and earlier empirical research on privatization in Latin America, particularly on its impact on consumers, and different national models. Third, we present our data sources and empirical results. We conclude summing up our results, and their implications for further research and policy design.

2. Social benefits and cost of privatization.

2.1 Framework

As said in the Introduction we cannot directly test here objective data on social costs and benefits of privatization. An analytical framework, however, is necessary to understand how in principle the various agents can be affected by public divestitures. To this end a useful approach has been offered by Jones, Tandon, Vogelsang (1990), see also Galal, Jones, Tandon, Vogelsang (1994) and Florio (2004).

The social welfare change of policy reform is the sum of the welfare changes of individual types: consumers, taxpayers, share-holders, workers. There may be other agents involved if we consider for example the suppliers and competitors of privatized firms, or the foreign sector. In turn each term can be dealt with separately when we know how to estimate it from observable data.
As for aggregation, given a social welfare function of the Bergson-Samuelson type, one may need to use welfare weights to weigh the change of welfare of respectively different consumers, taxpayers etc. Alternatively we may need specific weights to evaluate the marginal impact of the change in welfare of the representative consumer, the representative tax-payer and so on.
While economists would like to have all the relevant information to make this calculation, including the counterfactual scenario in order to understand the differential impact of a policy reform, and including shadow prices to account for general equilibrium effects, quite often these data are not available. Economists use conjectures and are influenced by their a' priori beliefs. In turn, when an individual is asked whether in his or her opinion a policy reform was 'beneficial to the country' , the interviewer asks for a sort of very crude cost-benefit analysis. The concerned individual will

answer partly on the basis of her direct experience, partly on his ideology and external factors. We discuss below some of the factors that in principle may influence the judgment of an observer of privatization.

2.2 Consumers

A typical result of the literature on the impact of privatization on consumers is that , against objective evidence, in the word of Mc Kenzie and Mookherjee (2003,38): 'Overall, the studies could not identify the reasons of the popular disenchantment with privatization'. Are then the respondents of surveys just irrational or uninformed?

Let us start with consumers. Privatization may have a direct impact on consumers' welfare , particularly through the divestiture of state-owned public utilities and other public services. Consumers may experience:

- changes in access to the network of utilities or to other public services
- price paid per unit of consumption, including changes in the structure of the tariff
- changes in quality
- indirect impact through prices of substitute goods.

While several empirical papers use information on prices and access in order to calculate the welfare impact of privatization, e.g Galal et al (1994), and - with first order and second order measures-Brau, Florio (2004), the main problem with this research approach is the lack of a clear counterfactual ("what" if no privatization occurs) and of suitably disaggregated data .

We give here just some examples of why economists may have difficulties to collect the relevant objective information necessary to understand why some consumers may perceive a negative welfare impact following industry reform.

First, household expenditure survey data after privatization may show increased access in industries such as water and electricity. However these data often do not allow for direct information on connections. In fact what we observe is an increase of expenditures and this does not allow for changes from illegal to legal connections to the network, a well known feature e.g. in electricity supply (Birdsall, Nellis, 2003). Moreover, privatized industries under weak regulation may consider unprofitable to serve some peripheral areas of the network and actually cut services if they hay no obligation to do so. Consequently it is not self-evident that privatization increases access to service for all income groups of users.

Second, as for price changes, the direction of changes of prices of privatized industries for specific income groups of users will depend upon many factors, including the level of cross-subsidies before divestiture, and changes in market power. An unconditional prediction for price decrease following privatization has no theoretical justification: poor liberalization and regulation may give ample room to privatized industries to increase prices, and hard budget constraints may have the same effect particularly when the state owned enterprises managed low tariffs in order to raise social consensus.

Third, improvements in quality with privatization were widely expected by its proponents, based on the release of investment constraints and increased marketing efforts. This was indeed one of the motivation of divestiture of state owned enterprises and of the new regulatory framework. Continued market power after privatization, however, combined with poor regulation and unit cost minimization may decrease quality of service. Moreover, objective data on service quality are often based on technical standards, and customers surveys may reveal reasons of dissatisfaction not well captured by those standards.

Thus, we cannot rule out that there may be some serious issues behind consumers' dissatisfaction as revealed by attitudes surveys.

The most important issue is perhaps the redistribution dimension of the reform. The poor under privatization suffers a risk of being a net loser: as said, the abolition of cross-subsidies in the tariff structure of some utilities may generate a tariff rebalancing unfavourable to low users of the service, particularly when only the most competitive part of the market is liberalized (e.g. international telephone calls). In some countries state – owned enterprises deliberately distorted prices in such a way as to sell at prices under long run marginal costs (LRMC) to some types of users , e.g residential users in water, telephone, electricity and gas, and over LRMC to other types, particularly business users. In principle, if privatization generates the incentive for managers to devote more effort and decrease production costs, this efficiency shock may countervail the adverse redistribution impact, and everybody is a winner (at least in absolute welfare terms). However this Pareto-improving reform is unlikely under sustained market power of the incumbent, or under weak regulation, and adverse welfare redistribution may appear, at least for some initial years . Moreover, under poor regulatory framework, regressive price-discrimination substitutes for the previous pattern (Unfortunately empirical research in this area sometimes misses the point because for lack of micro-data it feels forced to assume “that all households where sold the same product at the same price” in the words of McKenzie, Mookherjee, 2003, p.4. This is however exactly the key issue for the distributive impact of reforms in many sectors.[1]

In this paper we propose a complementary research strategy to the traditional welfare changes measurement: we assume here that consumers have at least some relevant information on access, quality and prices of the public services they use, before and after privatization, and that their answers on the social benefits of privatization depend at least partly upon this information, as upon several other factors as well.

Then, when the actual welfare impact of privatization is regressive, in countries with high income inequality, a large number of the respondents will be critical of the reform , and support to privatization will decrease with income or well-being of the respondents.

Under this angle survey data may be a complement (certainly not a substitute, however) to more traditional welfare analysis based on expenditure surveys or industry statistics.

2.3 Shareholders

There are two well-known reasons why shareholders benefit from privatization. First, they can appropriate a large part of any efficiency increase in the privatized industries. Second, they may earn a rent from asset underpricing.

The reason for our prior belief in this area is that a common pattern of divestiture across countries is placement of shares through Initial Public Offerings (IPOs) and there is overwhelming international evidence that IPOs lead to underpricing of the stock. As a consequence, those who buy in the first round, may earn a premium. Second, there is some evidence that particularly the privatized utilities may benefit from sustained market power and outperform the stockmarket for several years after divestiture. Third, privatization increases the opportunity for managers and other insiders to earn substantial increases in their incomes. Thus, our expectations is that high-income people may reap these benefits more than the middle classes and the poor, as individual shareholders, as investors in managed funds, or as managers and businesspeople involved in some way in the reshuffling of market power from the state to the private sector. In contrast, the poor (and most of the middle classes) have limited access to financial markets and to managerial and business positions and are excluded from these type of benefits.

Consequently, we may again conjecture that support of privatization should increase with income or wealth of respondents.

2.4 Workers

Most economists would be ready to subscribe the view that state owned enterprises are overstaffed because of political economy consideration: Policy makers, managers and trade unions form a coalition supportive of excess employment because they want to maximize broad consensus rather than profits.

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[1] For a more careful approach, supported by richer datasets, see for example Hancock and Waddams (1997).

For similar reasons, many economists think that wages paid in the public sector are excessive, i.e. they are not based on the value of labor productivity but they include a substantial combination of trade union-public sector premium.
Privatization would break this coalition because the political principals and the bureaucrats are replaced by shareholders who have an interest to provide managers with the right incentive to minimize unit costs, bring down excess employment and uncompetitive wages.
As a consequence one would observe decreasing numbers of employee in the privatized utilities and perhaps diminishing real wages, particularly for the unskilled workers.
While there is wide evidence worldwide that confirms these expectations, their interpretation is less clear. Florio (2004) for the UK finds that when one considers not just few years before and after privatization , but longer time series, state owned enterprises did not cut their work force following supply and demand shocks in a very different way than their privatized counterparts. He also observes real pay increase in several privatized industries. It may be the case that restructuring occurred before privatization, i.e. under public ownership and that the perception of workers is that in fact privatization ex post is not a big challenge to insiders, particularly if the industry still enjoys market power.
Thus, it would be interesting to test whether there are more privatization discontents among public sector employees than elsewhere. We have neutral expectations on this issue, in contrast to other authors who emphasize the down-sizing and real wage-containing impact of ownership change.

2.5 Taxpayers

Virtually any respondent to a survey is a taxpayer, at least because he or she pays indirect taxes. While many economists and policymakers may be confident that divestitures are a good deal for the taxpayer, this is not unconditionally true.
If we think the taxpayer as the owner of the nationalized industries, the divestiture deal is good if the price equals the social value of foregone revenues and the future fiscal dividend enter. This kind of calculation is difficult, however, and there are very few examples in the privatization literature of convincing assessments of the long term impact of the public finances of divestitures.
Nonetheless, under the angle of public perception, it is interesting to remember that for any random sample of the population in working age, the number of taxpayers exceeds the number of consumers of goods and services of the privatized industries, consumers in turn outnumber workers (the number of shareholders depends upon the privatization method, eg placement in the stock exchange, private placement or mass privatization).
Having said this, if there is a perception that privatization will help fiscal consolidation and less taxes in future, we should observe some support, particularly among those who pay high taxes. There should be a kind of reversed Ricardian equivalence here: privatization proceeds may help to decrease public debt and future taxes. However, taxpayers should be convinced that this is the case, and that it will not happen that governments will swallow the privatization proceeds to sustain current expenditures.
Hence, respondents to a survey may possibly include in their subjective evaluation their own perceptions on how their fiscal position will change with privatization.

2.6 Why perceived distribution matters.

All we have said posits that while economists typically have focused on the efficiency effect of privatization, there is a lot of redistribution involved in the process. Shareholders, managers, high income taxpayers, consumers of some types of services (e.g international telephone calls) may feel they are winners. Some consumers of public services and unskilled workers may feel they are losers. Taxapayers who are not confident in the reverse Ricardian equivalence may feel their position has worsened.

Agents may be wrong in their perceptions, but it is difficult to dismiss these perceptions as unimportant. If the net benefits of privatization are perceived to be concentrated in a minority of the population, popular opposition may block reforms.

A complementary proposition is that a country with high income inequality is more at risk of privatization discontent. The social aversion to inequality is probably not linear in inequality itself, and any reform perceived as regressive in countries where inequality is high may be very unpopular. Particularly important is the change over time of inequality. This trend can reinforce the perception that privatization may directly contribute to this process, or that the regressive consequences of privatization, albeit transitory, may be unbearable by those in the lower income brackets, who for example have to face tariff rebalancing.

Under this angle, we would expect that the public support of privatization -will diminish when industries to be divested include a high proportion of utilities. In fact the adverse redistribution aspects, or related fears thereof, are more likely for public services. The concern for selling state-owned manufacturing business, or financial services, is strong among workers in those sectors, but not very important for the general public who do not spend a substantial share of its income on those goods.

Another dimension of privatization discontent may be related to an excess of divestiture in short time: under these circumstances long habits of consumers of public services are suddenly disturbed, and even if quality of services may gradually increase, prices decreases, etc, initial reactions to a shock from consumers may be negative.

Eventually, macroeconomic conditions may also influence the perceptions: if the country suffers macroeconomic shocks, respondents are more pessimistic on their future incomes and they may fear that privatization may imply higher prices, or cut of public services and the necessity for them to recur to costly substitutes become higher.

Thus, the discussion above sets some working hypotheses for privatization discontent determinants to be tested empirically. Divestitures of state- owned enterprises in a country with poor growth or otherwise affected by macroeconomic unbalances, with high and worsening income inequality, where the divestiture process is big and quick, and where there is substantial share of socially sensitive utilities and poor liberalization, are at high risk to face high discontent. One can turn this proposition the other way round to offer a formula for greater popular support to privatization: sell state-owned banks first, wait for macroeconomic recovery, place stocks gradually, address distributive issues through careful price regulation or subsidy/tax changes or other policy reform.

In the next section we present some features of privatization in Latin America that justify why the region seems to be a very suitable candidate to test our conjectures.

3. Privatization patterns in Latin America

3.1 National variations within a homogenous policy trend

Because we are going to use a cross-country data sample, we should consider the relevance of country-specific features. The privatization process in Latin America in the '90s was part of political and ideological trend which was common to most political parties from the right to the left.[2]

But, this common trend showed national variations. This last factor could, eventually, give support to the different perceptions about privatization in each country. These differences are related to the magnitude, velocity, depthness and methodology of the privatization.

Regarding the scale of the process in each country -measured in relation to the economy dimension-, important disparities were found. The revenues of privatization during the period 1988-1999 were higher than 8% of GDP in four countries: Bolivia (19.7%), Peru (13.2%), Brazil (10.9%) and Argentina (8.6%), on the other hand; they do not exceed 3% of GDP in Honduras, Ecuador, Costa Rica, Paraguay and Uruguay (Chong and López de Silanes, 2003; Lora, 2001; Lora and Panizza, 2002).

The fact that Chile is not among the most intense privatizers is partially due to he fact that it started with privatizations earlier than the rest of the countries. Mexico was another earlier privatizer but the revenues in this case were not significant (McKenzie et al, 2002).

As regards to the sectors that have been involved in the process, 75% of the value of privatization's revenues came from utilities and infrastructure, the financial sector represented 11% the rest came from oil, gas and manufacturing. In contrast to Eastern Europe, in LA manufacturing was not important except for some old strategic heavy industries such as steel, aluminium and so on.

Most of the countries privatized telecoms, electricity, gas, water and sanitation services. Also, privatization of railways, airlines, airports and highway were less extensive. Privatizations of financial and productive sectors were not so important because private participation was always important in the financial sector and productive sector. Additionally, most countries insisted on retaining one or more public banks and, except Argentina, governments opted for retaining under public control the companies connected with natural resources such as oil, gas and copper.

Although Brazil was one of the most important privatizers in the world, it retained state participation in electricity, the financial sector and oil (Anuatti-Neto et al, 2003).

Colombia, Costa Rica and Uruguay were the only countries where telecoms were not privatized (Lora, 2001; Pombo and Ramírez, 2003), while in Peru, which underwent one of the most intense divesture processes measured with respect to GDP, there has not been private involvement in transport, sanitation services and an important presence in agriculture is maintained by the state.

There is a common perception that Chile is a leading case in LA privatization, this is based more on the characteristics and extension of the process than in its depthness. Here, the state retired from social security, health and education systems but, simultaneously, retained ENAMI and Codelco (the most important player in the copper sector), the monopoly of the oil sector, the fourth commercial bank, the post, the railways and the ports. Thus, the participation of the state in the GDP after privatization reaches 9%; which is higher than the average of its LA neighbours (5%), according Fischer et al. (2003).

In contrast, Argentina did not retain any important company in the state with the exception of some national or provincial banks and some provincial companies of sanitation (Galiani et al, 2003).

The cases of Mexico and Uruguay showed a very important role for the financial sector. In the former it represented a 50% and in the latter 90% of total revenues. For most countries, privatization in energy represented a minimum of 20%, but in Mexico, Venezuela and Uruguay practically nothing was privatized in that sector (Lora, 2001).

Uruguay was the only country that did not privatize electricity, oil and telecoms. In general the rest have privatized al least one of these sectors (Lora, 2001). Additionally, Uruguay is the sole country where public opinion expressed their opposition to privatization of these companies in different referendums. No other country has shown this popular participation in the privatization debate.

[2] According to Murillo (2002) this homogeneous behavior seems to give credence to the theories of policy convergence over those of partisan policymaking.

Nicaragua is a particular case; it was the only case in LA similar to Eastern European economies. To some extent it represents a transition from a socialist economy to a market economy.
As a symptom of disagreement with privatization, it is possible to mention the example of Bolivia, which was the most intense privatizer of the last years; there were problems with the privatization of sanitation services, the financial services and oil and gas. In fact, popular opposition to the export of gas to USA caused the president resignation.
The strategy of privatization has differed among LA countries. Bolivia, Chile, México and Nicaragua privatized first the state owned enterprises (SOEs) in the competitive sector (manufacturing and finance) and then, in a second phase, the monopolies and the utilities. Other countries like Argentina, Brazil, Colombia and Peru sold both types of companies simultaneously. In some countries like Bolivia and Argentina the monopolistic structure of some sectors was maintained in order to maximize the revenues, even in sectors like telecoms where the technology allowed more competence.
The governments used different methodologies for selling SOEs to the private sector: total sale through open international options, public offering of shares, concession contracts, direct transfers, etc. The intensity in the use of each method differed across countries, for example, Argentina, Chile, Mexico and Peru employed outright sales but, in Bolivia schemes of capitalization were used intensively. Concession contracts were used mainly in sanitation services, transport infrastructure and oil exploration and production.
There were several attempts to democratize of property, inviting small investors and workers to participate in the capital of companies. That common trend was especially intense in Argentina, Brazil, Colombia, Chile and Peru. But the most important strategy of capitalization was followed in Bolivia, were -in most cases no fiscal revenues from divesture were received by the state. However, as Anuatti-Neto et al. (2003) pointed out in Brazil and easily applicable to the rest of the countries: the governments neglected the opportunity to really democratize capital ownership.
Privatization programs in LA was part of a wider context of structural reforms known as the Washington Consensus which embraced trade and financial liberalization and labor markets flexibilization. (Lora, 2001). In every country privatization implies important inflows of foreign direct investment (FDI). Foreigners participated not only with capital but also taking over company operations. In LA FDI flows moved from 2.5 billon dollars during the eighties to 136,000 billon dollars during the nineties, which means an increases -in terms of GDP- from 0.3% in 1989 to 6.9% in 1999. Until the late eighties, most LA countries posed several barriers to foreign participation in services or strategic companies and the same happened with the remission of utilities. Once these restrictions were eliminated the privatization process played a key role in the attraction of foreign capital. According to Lora (2001), the 36% of FDI was directed to privatization. Additionally, privatization induced FDI in connected activities (Sader, 1993). Lora calculates that for the period 1986-1999 each dollar invested in privatization generated 1.16 dollar in related activities (Lora, 2001).
At the same time LA private holdings participated in joint ventures with foreign companies in order to facilitate, by political and technical means, expansion in the country. In most countries there was a problem of opacity in some privatizations (especially in the first ones). In these cases the principle seems to have been “privatize now, regulate later”. To some extent, the lack of well defined regulatory rules helped to maximize the price at the time of the sale. So, in several cases the new private sector, under the threat of bankruptcy, withdrawal, or desertion of future commitments was capable of bargaining protective regulations after privatization. As an strong example, Guasch (2001) shows that in LA in the last 15 years, 40% of the concession contracts were renegotiated just 2.2 years after.

3.2 Empirical research on the effects of privatization

In order to analyze the impact of privatization in a cross-country perspective we take advantage of several papers that cover nearly all the main country-cases or give a cross-country evaluation of Latin America[3] as a whole. In these studies the focus is mainly placed on dimensions such as:

- Fiscal effects
- Microeconomic behavior of the new private sector
- Effects of access and price policies on income distribution and poverty

a) On the fiscal side, studies show that there were several positive effects: first of all, a positive flow of founds (despite a likely underpricing), second, a reduction in subsidies and third, an increase in taxes paid by companies given the higher profitability (Chong and López de Silanes, 2003; Harris, 2003). In fact, in some countries like Bolivia and Argentina privatized companies are the main taxpayers. Nellis (2003) argues that the two later effects are more important than sales proceeds.
McKenzie and Mookherjee (2002) remark the positive impact of fiscal gains on stabilization policies. In this way the reduction in inflation benefits the relatively poorest people. Additionally, these revenues could have been used by the state to help the poor to compensate the negative effects of privatizations.
Moreover, fiscal effects are shown by some authors as an important instrument of compensation for other cost of privatization. Chong and López de Silanes (2003) assert that Argentina, Bolivia, Mexico and Peru are examples where SOEs generated such big loses that privatization revenues and tax-receipts were probably large enough to offset the costs of job losses.

b) Regarding microeconomic results of privatization, studies highlight that, with the exception of Chile and Colombia and to some extent Brazil, the public companies generated huge loses to the Latin American governments and produced under their possibilities. Different papers show that under private management revenues grew sharply. Profitability increased more than 40% in Peru, Mexico and Argentina and less than 10% in Brazil, Chile and Colombia (BID, 2002). The main reason behind these improvements in profitability were operating efficiency gains (Chong and López de Silanes, 2003). The sales-per-employees were superior to 80% in Chile, Mexico and Peru. In Brazil and Argentina they were around 45% (BID, 2002).
Production increases in new companies complemented the efficiency gains; these increments reached peaks of 35% in Colombia, Brazil and Mexico and around 30% in Peru, Argentina and Chile.
Reducing employees were a key action of companies restructuring. So, there was a negative impact in the short term because of the dismissal of previous overstaffs (McKenzie and Mookherjee, 2002). Except for Chile, the employment was reduced at important rates: 55% in Peru, 40% in Argentina, 36% in México, 23% in Colombia and 10% in Brazil, but in the long term there was a partial recovery of direct and indirect employment in privatized sector (BID, 2002). However, the reduction in staff was not relevant enough to affect the unemployment rate

[3] Among the mainstream papers, we have McKenzie and Mookherjee (2002) that present the main results of Ennis y Pinto (2002) for Argentina; Barja, McKenzie and Urquiola (2002) for Bolivia; López Calva and Rosellón (2002) for México; and Freije and Rivas (2002) for Nicaragua.
More recent papers are studied in Chong and López de Silanes (2003). They present seven studies done for different countries of LA (Argentina (Galiani et al, 2003), Bolivia (Garrón et al, 2003), Brazil (Anuattí-Neto et al, 2003), Chile (Fischer et al, 2003), Colombia (Pombo y Ramírez, 2003), Mexico (La Porta and López de Silanes, 1999) and Peru (Torero, 2002). The advantages of these studies are the more comprehensive data base.
Estache, Gomez-Lobo and Leipziger (2000), Estache (2003), Chisari, Estache and Romero (1995).
Nellis et al (2004), is another general study that specifically tries to understand the gap among public perception and economic reality as described by empiric works. Harris (2003), Murillo (2002); McCoy, Davies and Foote (1998), Meggisson and Netter (1998).
Papers from WIDER and FLACSO (Azpiazu and Schorr, 2004).

or to explain the generalized deterioration of labor market indicators in most of the LA countries (Chong and López de Silanes, 2003).

The conclusions from most of these papers are similar and in accordance with worldwide evidence (Megginson and Netter, 2000; Harris, 2003). Privatization had positive impact regarding efficiency, profitability, production and fiscal accounts. Still, a strand of literature exists which does not agree with the consensus about the good economic results of the privatization process in Latin America. An example for the Argentinean case is the work of Azpiazu and Schorr (2003). These authors criticize the normative framework in which privatized companies operated. Among the most important weaknesses they remark are: the high level of prices at the beginning of private activities; the "regulatory delay" to translate the higher productivity gains into lower prices, the indexation of the domestic tariffs according to foreign inflation and the systematic practice of renegotiating contracts promoted by companies and validated by the government. They argue that the way in which the privatization process took place tended to create and preserve non-competitive markets.

To accept the optimistic results found by most of the studies performed up to now for LA countries pose the key question of how to explain the dichotomy between academic economic evidence and public perception. Thus, the following step is to evaluate the distributive impact of privatization.

c) As mentioned in Section 2, the distributive impact of privatization depends on two main factors. The first one is the change in the access to services; this is related to the expansion of networks and the introduction of technological advances that facilitate access, as in the case of telecoms. The second factor is the change in affordability; this is related to the tariffs rebalancing, the temporal evolution of prices and the way this affects the pre-existing and new customers.

Regarding the question of access to services like electricity, telephone and water, McKenzie and Mookherje (2002) establish that private participation contributed to an expansion of these services. Moreover, the extension could have contributed more intensively to the access of poor people to electricity. However, their data source do not allow for direct information on connections, in fact what they observe is increased expenditure or use: this do not allow for changes form illegal to legal connections. In the case of telephone services, given the lower original coverage, the network expansion benefited mainly to upper and middle classes. Ugaz and Price (2002) confirm this tendency of relative improvement of poor customer's access. However, the deficit of connections continues to be high especially for sanitation services in urban areas and for all services in rural areas.

According to Chisari, et al. (2001) the LA experience shows that the poor are the last in receiving the benefits of higher access generated by privatizations. For instance, the rural poor are normally omitted from the reform because of the low profitability of these areas. Rural regions in Bolivia, where most people are poor, are an example of this contrast with urban areas (Barja and Urquiola, 2001).

Evidence about the impact of privatization on tariffs is mixed. It depends, among other things, on the sector and on the country; the technological progress in that area, how far prices were below cost-covering levels previous to privatization and the regulatory framework.

According to McKenzie and Mookherje (2002) the evolution of tariffs after privatization did not have a clear trend. They examine ten countries in LA and find five cases where they increase and five where they fall. Particularly, this sample seems very sensitive to the fact that some government increased tariff before privatization. On the other hand, Ugaz (2002) remarks that privatization implied new tariff structures oriented to show the cost structure and to allow the full cost recovery. For the three countries he considered he found the same pattern of rebalancing: an increase in fix cost and a decrease in variable cost. The magnitude of this relative change in tariff composition depended on both the original degree of distortions and the cross subsidies which existed during the previous public administration. As a result of this process of tariff rebalancing, the pre-existing low-income customers and especially the poor were penalized with substantive loses in the consumer's surplus. People in the bottom deciles of the income distribution suffer more intensively in absolute and relative (to their income) terms (Ugaz and Price, 2002).

Residential customers were more exposed to increases than the commercial and industrial ones, particularly in countries where there were cross subsidies. In several cases, fix cost represents a big percentage in respect to variable cost, so the affordability problem is very sensitive to connection charges (Chisari et al., 2001).

Delfino and Casarin (2001) analyze the change in the consumer surplus in the Argentinean case. They found that low-income households were damaged because of the increases in fix charges in telecom, electricity and gas. In the same form, in Peru, Chile and Argentina there was an increase in local calls that affected poor people more (Paredes, 2001; Torero and Pascó-Font, 2001).

In Bolivia, the rebalancing in electricity was harmful for low-income household. Barja and Urquiola (2001) verify that the reform was regressive from the point of view of welfare. Anuatti-Netto et al (2003) show the same pattern for the Brazilian case in electricity and telecom. They remark the increase in minimum monthly fees for access to a line as a key redistributive issue.

In a general overview Ugaz and Waddams Price (2003) confirm that utilities' tariffs increased very frequently and this affects the poor more. This evidence, according to them, raises the question about the distributive impact of privatization on utilities and the effectiveness of regulation to protect poor consumers from monopoly power. In that sense it is possible to say that, because of the priority given to fiscal aspects and efficiency gains, the social aspects were not weighted enough when privatization were implemented. That seems to be another common factor in LA divestitures.

3.3 Redistributive effects and disagreement

Could previous evidence support society's dislike about privatization? McKenzie and Mookherjee (2002) suggest indeed the possibility that popular dislike concerning privatization comes from the idea that they have contributed to increase poverty and income inequality. However, they states that empirical evidence was not found to support the existence of a negative effect of privatizations on income distribution. On the contrary, they stressed that the poor benefited with higher access and efficiency.

Yet, Nellis (2003) recognized that part of the higher access to services after privatization took place is no more than the recognition of illegal hook-ups (which was particularly important in the case of electricity). If this was the case, the poor received free services before privatization and now has to pay for them, which *caeteris paribus* increases income inequality. In addition to this, the new tariff scheme, which was intended to eliminate cross subsides, also contributed to damage equality because those subsides were beneficial especially for low-income groups. On the labor side, this study shows no statistically significant association between privatization and aggregate employment especially in the medium and long term, so privatization did not cause a rise in unemployment and the consequent deterioration of income distribution.

Even considering these counterarguments Nellis (2003), as most of the empirical papers (McKenzie and Mookherjee, 2002 and Chong and Lopez de Silanes, 2003), finally conclude that the process only slightly contributed to rising inequality and that it either reduced poverty or had no effect on it[4].

[4] Contrary to mainstream papers, Azpiazu and Schor (2003) show that privatized companies have contributed to extend an inequitable distribution of wealth.

As we see for a wider spectrum of papers, evidence about privatization effects on prices, access and distribution are mixed. Nevertheless, for the strand of literature that downplays negative distributive effects, a disturbing puzzle appeared: on one hand, mainstream papers remark than the benefits are considerably higher than the cost and, on the other, across countries public opinions increasingly disagree with privatization and its results.
The reaction to this was to concentrate the response on the political component of the privatization process; this explanation is used as a way to resolve the puzzle. For instance, some authors such as Nellis, Menezes and Lucas (2004) consider that while privatization may be winning the economic battle, it is losing the political war. Next, we will discuss detailed explanations presented in literature about the political economy of privatization.

A list of possible political explanations of why things went wrong includes the following:

- Privatization was a piece of a wider package of "first generation" structural reforms (the other main reforms are trade openness, financial liberalization and deregulation of labor markets in the economy) and people are incapable of separating the particular effects of each one (Nellis, 2003).
- Because of the relationship between privatization and FDI, a different explanation of the disagreement is based on the traditional refusal of foreign capital by LA society.
- The negative effect on employment reinforces the impression that privatization tends to generate benefits for a few on the shoulders of the workers (i.e. higher productivity was mainly based on higher job productivity). So, the reduction in staff of SOEs produced a phenomenon of concentrated cost and spread benefits (see Nellis, 2003). The image of hired workers has a deeper impact than the huge benefits to the consumer or taxpayer that are due to a more efficient use of resources. According to this view, when privatization and rationalization of inefficiencies affect some privileged sectors, who are vocal, visible and well organized they obtain a lot of criticism in the media which influences public opinion.
- Frequently prices when the utilities were SOEs were set below the average cost (the firm produced an operating deficit but it was financed by the treasury). Under a private operation, even with benevolent pricing, when price is equal to average cost, the perception of the consumer is an increase in prices. In other words, financing deficit via the Treasury is less visible and therefore more acceptable (McKenzie and Mookherjee, 2002).
- At the very beginning, most LA governments exaggerated the potential benefits of privatization and shouted about the necessary cost of reforming the public sector. In particular, the potential effect of privatization on growth and social progress was exaggerated as was the idea that any cost would be compensated easily. According to this perspective privatization was oversold and therefore disillusionment followed (Nellis 2003).
- Strong suspicions about corruption in the privatization process and the inexistence of efficient incentives in order to enforce an adequate regulations cause a negative perception of it. Additionally, Anuatti-Neto et al (2003) for the Brazilian case and Azpiazu and Schoor (2004) for Argentina remarked on government indifference about property concentration. In this way, the average citizen is not included in the privatization process and therefore its benefits went exclusively to shareholders.

Is it possible to explain social disagreement mainly by corruption and political mismanagement? Is privatization a good idea but badly implemented by corrupt institutions? The answer seems to be negative. Even a part of mainstream literature sees this problem as important but not capable of explaining the disagreement (Harris, 2003).
The majority of the recent studies about the effect of privatization in Latin America have resorted to one of the previous arguments to solve the gap and thus explain the anti-privatization feelings and

the lost momentum of the process in the last years. Nevertheless, nearly all these additional explanations to the puzzle are based on sociological or political hypothesis and they do not have enough empirical validation. Therefore, it is necessary to empirically investigate how these economic and political factors interact in order to explain the extended disagreement with privatizations.

4. Empirical analysis

4.1 Data

Our data derive from LATINOBAROMETRO (www.latinobarometro.org) an annual public opinion survey carried out in 17 Latin American countries. The survey started in 8 countries in the region in 1995 and extended to 17 countries in 1996. It is a private, non-profit initiative for use by the social and political sectors of the region.. The survey we use was conducted during the spring of 2002 and contained information on social characteristics of the respondent, and on his/her policy attitudes. Among these attitudes, the survey asked whether "The privatization of state companies has been beneficial to the country ?".

It is important to pay attention to the wording of the question. The interviewees were not asked whether the privatization were beneficial for them, but the focus was on the collectivity. Using the economists' jargon, one could rephrase the question posed by the survey as "did the privatization raise the social welfare ?". Even supposing that a man in the street may understand such a question, we could not expect an unanimous answer for the question, because individuals not necessarily share the same view about social welfare and the same information. In addition, my judgment about social welfare may be influenced by my relative position in income distribution.

This may explain why there is sizeable dispersion in public opinion with respect to the potential benefits of privatization, as reported in table 1. On average, two third of the population sample expressed against a beneficial role of privatization, and this opinion may be affected by several characteristics (like age, gender, education, income, wealth, family composition). If this were the case, since these features are approximately similar across countries we would have expected an analogous distribution when considering the attitude within each country. On the contrary, in figure 1 and table 2 we notice that there are wide variation across countries: the strong disagreement scores as high as 45.1% in Argentina and as low as 12.2% in Peru, as well as the support hits the highest in Brazil (16.5%) and its lowest again in Argentina (1.7%). Notice that the percentage of interviewees without a specific opinion varies significantly across countries, indicating that the issue of privatization is differently perceived. In table A.1 in the Appendix we report the estimates of the probability of non reporting an opinion in the survey, either by not responding or by a 'do not know' response. We find that women, young people, without formal education and in a bad or very bad self-assessed socio-economic condition, are most likely to not report an opinion.

Thus, the survey opinion about privatization is the outcome of both individual characteristics and country experiences. We can control for the former using available information from the survey itself, while for the latter we resort to aggregate evidence on the actual experience of privatization. By so doing, we gain insight on two issues:

i) identify the population subgroup that is more fiercely opposing the privatization of state enterprise. As long as their judgment are dependent on their social position, these people are more likely to be the potential damaged from this experience.

ii) classify the country experiences according to their impact on social opinion, ascertaining which are the features that create social discontent.

Table 2 – Attitude towards privatization by country (%) – Latin America 2002

country	*Strongly agree*	*Somewhat agree*	*Somewhat disagree*	*Strongly disagree*	*Do not know*	*number of observations*	*% of observations*
Argentina	1.75	11.94	38.81	45.16	2.34	1,198	6.63
Bolivia	4.64	19.38	53.91	18.16	3.91	1,228	6.80
Brazil	16.50	22.23	14.14	38.22	8.91	976	5.40
Colombia	4.34	18.39	38.77	25.85	12.66	1,153	6.38
Costa Rica	7.76	24.62	40.35	13.99	13.28	979	5.42
Chile	4.56	21.03	45.61	22.89	5.91	1,184	6.56
Ecuador	12.98	32.44	31.57	18.43	4.58	1,156	6.40
El Salvador	10.64	27.40	42.68	13.07	6.22	949	5.25
Guatemala	9.62	19.04	33.88	31.01	6.45	977	5.41
Honduras	15.03	21.02	38.17	19.70	6.09	985	5.45
Mexico	4.98	23.88	43.12	24.71	3.32	1,206	6.68
Nicaragua	16.53	14.72	35.18	27.02	6.55	992	5.49
Panama	16.14	15.21	33.20	27.75	7.71	973	5.39
Paraguay	2.68	15.89	48.49	26.42	6.52	598	3.31
Peru	5.04	27.88	45.59	12.26	9.24	1,191	6.60
Uruguay	3.67	11.94	37.34	34.78	12.28	1,173	6.50
Venezuela	14.11	26.64	35.58	18.93	4.73	1,141	6.32
Total	*8.71*	20.94	*38.72*	*24.59*	*7.04*	18,059	100.00

As far as individual information available, we possess information about gender, age, marital status, educational attainment, employment condition, ownership of durables goods (color TV, refrigerator, housing, computer, washing machine, telephone, car, second home, drinking water, hot water, sewage system). and self-assessed socio-economic status. Most of the information is summarised in this variable, as it can be grasped by table 3: a “very bad” socio-economic condition is typically associated with lack of proper housing (in the 42.2% of cases), drinking water at home (31.7% of cases), not to speak of car (93.4%) or computer (97.1%). At the opposite extreme, a “very good” condition is associated with ownership of color Tv set (95.7%), refrigerator (91.9%), drinking water (94.0%). Table A.2 in the Appendix analyses the correlation between the self-assessed socio-economic status and its potential determinants. Rather surprisingly, the perception of deprivation is highest in the absence of electric/electronic appliances (tv, refrigerator, washing machine, telephone, with the highest coefficient on computers!) and car; more basic services related to sanitation (water, sewage) score lower in the ranking. Even when we control for education of the interviewees (second and third columns) these perception are retained. Part of this finding can be explained by the characteristics of the non respondents, who are often the very poor. The socio-economic status improve with educational attainment, whereas it declines for unemployed and salaried in the private sector.

Table 3 – Socio-economic status and deprivation (%) – Latin America 2002

	socio economic level					
Lack of:	Very good	Good	Average	Bad	Very bad	*sample average*
color tv set	4.26	3.82	12.79	29.11	48.48	*13.36*
refrigerator/ice box/freezer	8.01	8.29	23.62	44.51	61.92	*22.41*
housing	16.58	20.76	29.72	35.12	42.24	*27.15*
computer	49.83	73.40	89.89	96.89	97.12	*82.73*
washing machine	31.10	42.55	64.49	75.39	84.85	*57.29*
telephone	19.07	28.87	56.19	72.63	84.45	*48.18*
car	37.72	60.74	81.18	90.46	93.41	*73.05*
second home for holiday	75.89	86.49	92.39	94.50	96.70	*89.67*
drink water	5.93	6.27	9.81	17.22	31.75	*10.48*
hot water	38.34	48.98	65.48	74.45	80.21	*60.00*
sewage system	15.14	16.92	28.46	43.50	65.74	*27.55*
How do you cover your health expenses?						
Private insurance	43.00	29.14	15.88	10.70	7.53	*21.23*
Public insurance	38.64	46.93	48.30	47.63	47.31	*46.90*
No insurance	18.36	23.93	35.82	41.67	45.16	*31.87*
Sample average	*7.97*	*30.97*	*39.59*	*17.22*	*4.25*	*100.00*

3.2 Determinants of attitudes

We now move to the analysis of individual determinants of the attitude towards privatization. We have coded our dependent variable (ATTITUDE) by assigning zero value to uncertain respondents, negative values to those expressing disagreement towards privatisation (-2 ‘strongly disagree’, -1 ‘somewhat agree’, and symmetric positive values for the supporters of privatisation. Table 4 presents some descriptive statistics of our variable set, whereas in table A.3 in the Appendix the same variables are presented by country. Descriptive statistics indicate that half of the sample is made of women, with average age around 40 (youngest samples in Nicaragua, Columbia and Paraguay). The respondents are head of family in _ of cases. It is interesting to note that a large fraction of the population has enrolled but not completed different levels of educational attainment.

Higher level of education are recorded in Argentina, Chile and Peru. The socio-economic level indicates the worst situations in Bolivia, Peru, Nicaragua and El Salvador.

Table 4 – Descriptive statistics of individual variables (sample weights) – Latin America 2002

Variable	*Obs*	*Mean*	*Std.Dev.*	*Min*	*Max*
attitude	18045	-0.501	1.292	-2	2
female	18045	0.516	0.499	0	1
age	18045	38.91	16.21	16	99
head of household	18045	0.502	0.500	0	1
years of education	18045	7.814	4.41	0	16
socio-economic status	18045	0.180	0.962	-2	2

respondent education	*Freq.*	*Percent*	*Cum.*
Illiterate	1,722	9.54	9.54
Uncompleted primary	3,811	21.12	30.67
Completed primary	3,645	20.20	50.87
Uncompleted secondary	3,269	18.12	68.99
Completed secondary	3,488	19.33	88.32
Uncompleted university	1,180	6.54	94.87
Complete University	926	5.13	100.00
Total	*18,045*	*100.00*	

Respondent actual occupation	*Freq.*	*Percent*	*Cum.*
Independent/selfemployed	5,485	30.40	30.40
Salary earner in public enterprise	1,461	8.10	38.50
Salary earner in private enterprise	2,825	15.66	54.16
Temporarily out of work	1,640	9.09	63.25
Retired	1,270	7.04	70.29
In charge of household	3,973	22.02	92.31
Student	1,387	7.69	100.00
Total	*18,045*	*100.00*	

By taking into account missing observations on some variables (mainly on employment conditions and/or marital status), we have 17.900 observations available. Table 5 reports our findings, using two alternative estimators, least square (first and second column) and ordered probit (third and fourth). Results are substantially identical in terms of sign and significance, and therefore we will comment least square estimates only.

Among demographic characteristics, age is the most significant, exhibiting a U-shaped pattern, with a computed age of minimum support equal to 61 (corresponding to the 89th percentile in age distribution). When looking at socio-economic condition, we notice that support declines with the worsening of the condition, but in a non-linear way, since those expressing against a beneficial effect of privatisation are those in a "bad" economic condition, while those in a "very bad" condition seem least affected. However coefficient estimates are less significant for the latter, and there is a high probability of non respondents and 'do-not-know' respondents among them. A similar non-linear pattern can be found with respect to education, which is measured in two alternative ways (using years of education in first and third columns, using educational attainment dummies in second and fourth columns): minimum support for privatisation emerges from respondents with some university education (corresponding to 10.6 years of education, from first column).

Employment status comes out statistically insignificant, even when taking into account the distinction between salaried in private and/or in public firms (since the latter were supposedly the

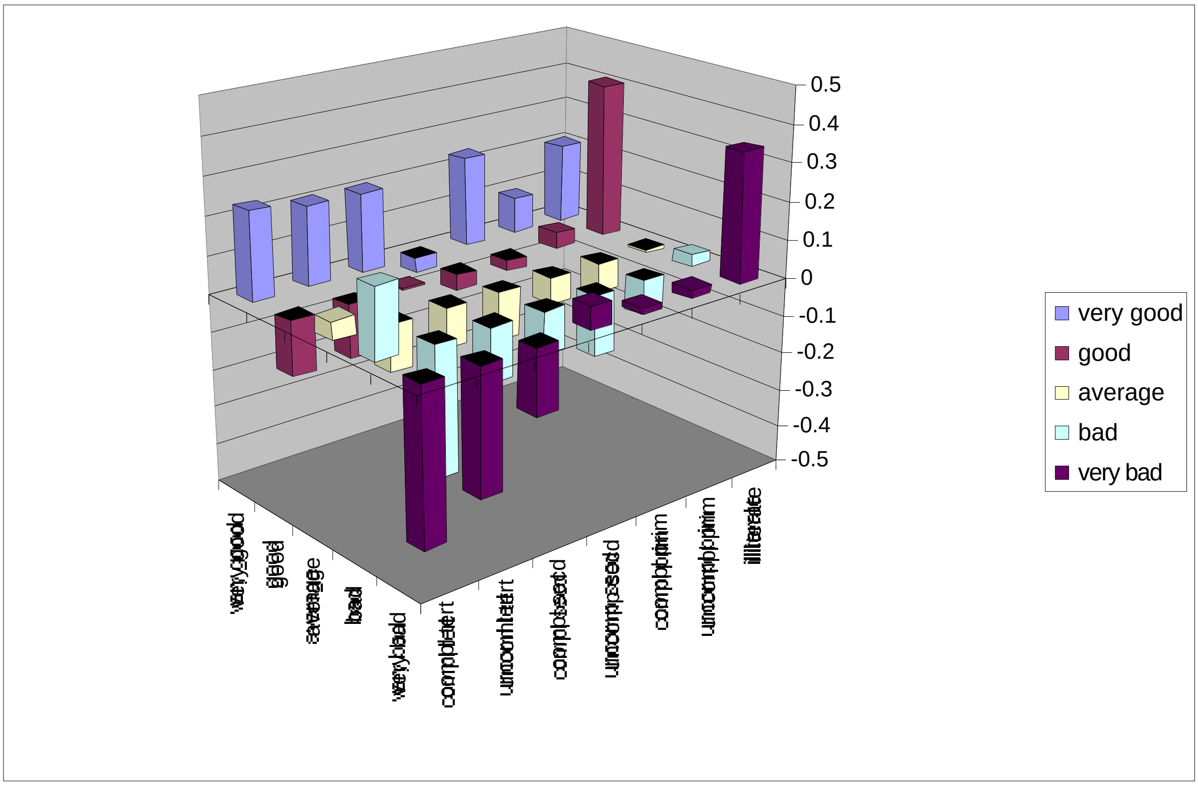
most hitten by employment reduction following the privatisation wave); only housewives seem supportive of privatisation. Since their statistical significance declines when education is better controlled, it is possible that even in the last case we are facing case of spurious correlations. Similarly, marital status are not particularly significant, except the case of single member families. In all regressions, we maintained as controls country fixed effect (still retain significance, indicating that something is missing), ethnicity (never significant), city size (some slight effect of living in the capital) and month of interview (April or May: in April significant less opposition).
We have explored the interaction between educational attainment and socio-economic level. In figure 2 we show the estimated impact of the interaction dummies (relative to the case of an illitterate in very good conditions, the excluded case): it can be seen that those who claim that privatisation of state enterprises have not been beneficial to the country are educated individuals in bad conditions. While in the case of illiterate persons we could always think of wrong perception, this conjecture is weaker when considering people who have entered and possibly completed university. It is also rather surprising that even among people in good economic condition, we still record a sufficiently low level of support.

Table 5 – Determinants of support for privatisation (sample weights) – Latin America 2002 (heteroskedasticity robust standard errors - t-statistics in parentheses)

Model :	ols	ols	ord.prob.	ord.prob.
# obs :	17900	17900	17900	17900
Depvar:	attitude	attitude	attitude	attitude
age	-0.013	-0.013	-0.013	-0.013
	(-3.18)	(-3.04)	(-3.41)	(-3.29)
age_	0.000	0.000	0.000	0.000
	(2.33)	(2.22)	(2.61)	(2.52)
sei	-0.180	-0.179	-0.156	-0.156
good	(-4.10)	(-4.10)	(-4.20)	(-4.21)
sei	-0.260	-0.259	-0.212	-0.211
average	(-5.94)	(-5.89)	(-5.68)	(-5.65)
sei	-0.294	-0.294	-0.253	-0.252
bad	(-5.84)	(-5.82)	(-5.82)	(-5.81)
sei	-0.136	-0.136	-0.115	-0.115
very bad	(-1.91)	(-1.91)	(-1.94)	(-1.95)
educt	-0.034		-0.028	
years	(-3.18)		(-3.00)	
educt	0.002		0.001	
years_	(2.59)		(2.32)	
uncomplt		-0.143		-0.115
primary		(-2.58)		(-2.41)
completd		-0.164		-0.138
primary		(-2.88)		(-2.82)
uncomplt		-0.197		-0.170
secondar		(-3.49)		(-3.47)
completd		-0.170		-0.143

secondar		(-2.99)		(-2.91)
uncomplt univrst		-0.237 (-3.57)		-0.209 (-3.62)
completd univrst		-0.175 (-2.47)		-0.158 (-2.61)
head family	0.052 (1.47)	0.052 (1.48)	0.053 (1.74)	0.053 (1.75)
single	0.132 (4.44)	0.132 (4.44)	0.101 (3.92)	0.101 (3.92)
divorced	0.044 (1.04)	0.043 (1.01)	0.034 (0.92)	0.033 (0.89)
self employed	0.102 (1.93)	0.086 (1.58)	0.071 (1.59)	0.056 (1.23)
public employee	0.011 (0.18)	-0.007 (-0.12)	0.001 (0.01)	-0.016 (-0.30)
private employee	0.051 (0.93)	0.033 (0.59)	0.030 (0.65)	0.014 (0.30)
unemployed	0.068 (1.19)	0.050 (0.87)	0.052 (1.09)	0.036 (0.74)
retired	0.138 (1.94)	0.123 (1.70)	0.106 (1.76)	0.092 (1.50)
houwife	0.166 (3.02)	0.149 (2.65)	0.124 (2.68)	0.109 (2.29)
Gender	Yes	Yes	Yes	Yes
Ethnicity	Yes	Yes	Yes	Yes
CitySize	Yes	Yes	Yes	Yes
Countries	Yes	Yes	Yes	Yes
MonthInterv	Yes	Yes	Yes	Yes
R_	0.175	0.175	0.019	0.019

Figure 1 – Estimates of the impact of education and socio-economic level on support to privatisation – Latin America 2002



Note: OLS weighed regression, including gender, age, age_, marital status, employment conditions, ethnicity, city size, countries and month of interview.

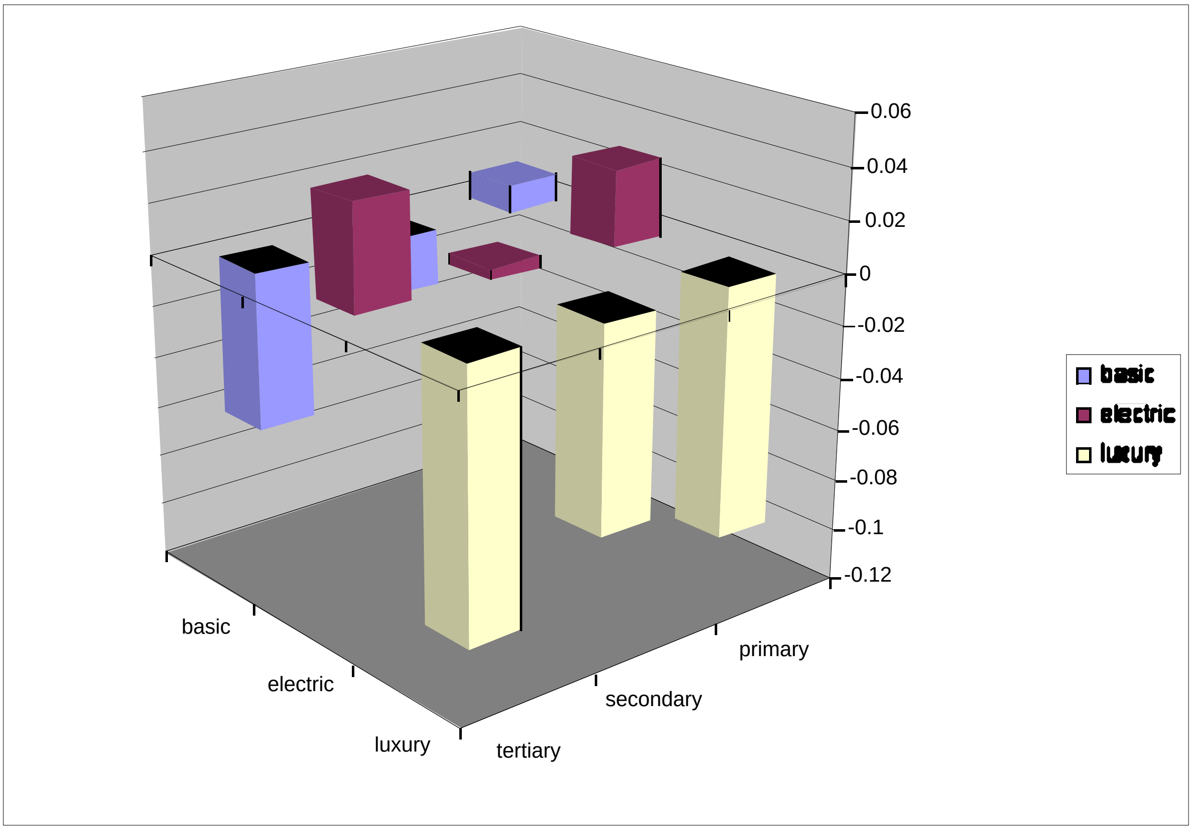
We have also exploited information about the ownership of durables to progress in the identification of people that hold the view that privatisation of state enterprise was detrimental to the country. By grouping and summing the indicators of basence of BASIC goods (items are housing, drinking water, hot water and sewage), ELECTRIC goods (color TV set, refrigerator, washing machine and telephone) and LUXURY goods (computer, car and second home), we can identify the extent of deprivation with respect to durables. Overall, only the 2.2% of the sample records a simultaneously zero value on all three groups of durables.

Table 6 – Cumulative deprivation (sample weights) – Latin America 2002

	basic durables		*electric durables*		*luxury durables*	
# of absences	values	%	values	%	values	%
0	4,510	25.04	5,494	30.04	537	2.96
1	6,509	36.14	4,417	24.15	1,821	10.04
2	4,397	24.41	3,947	21.59	3,787	20.88
3	2,081	11.55	2,394	13.10	11,997	66.12
4	513	2.85	2,033	11.12		

If we interact these measures of deprivation with grouped educational attainments and re-estimate a model analogous to those reported in table 5, we obtain the picture reported in figure 3: the heaviest judgment comes from either people who need basic durables (like water or housing) or lack of either car, computer or holiday house. In both cases, the negative opinion increases with education. Thus we infer that there is an element of real need and contemporaneously an element of social envy that underlie the judgment about privatisation. This matches with the estimates shown in figure 2: respondents in very bad conditions (i.e. lacking of basic durables) with university education probably suffer most deeply from deprivation, since they do not achieve a social role associated with their level of education. They have been unable to take advantage of potential benefits from privatisation, since they do not have electric appliances, they do not travel and they cannot afford a telephone bill. Since privatisation did not offer an improved economic prospect, they have a negative opinion about it. On the other side, there are a group that we would term as "middle class", who enjoy an average socio-economic condition, even if they still do not have access to luxury goods like a car, a computer or even a second house. They probably took advantage of different prices brought in by privatisation, but they could not participate to the capital gain associated to most privatisation. In their perception, privatisation was harmful to the country because instead of redistributing wealth to the rest of the country, retained the control in the hands of the "happy few".

Figure 2 – Estimates of the impact of education and ownership of durables on support to privatisation – Latin America 2002



Note: OLS weighed regression, including gender, age, age_, marital status, employment conditions, ethnicity, city size, countries and month of interview.

This is the picture that emerges using information available at individual level. However countries differ in their specific experience, as witnessed by the fact that, even when using individual controls, country fixed effect still retain significance for all countries, which implies that country specificity has still to be taken into account (see table 7). For this reason, in the sequel we introduce additional country control, that play the role of country fixed effect.

Table 7 – Country fixed effect in support for privatisation – Latin America 2002 weighed ols with clustered errors on countries

	no controls	*p-values*	*individual controls (2nd column)*	*p-values*
Argentina	-.9623434	*0.000*	-.9451854	*0.000*
Bolivia	-.4093696	*0.000*	-.3481196	*0.000*
Brazil	-.169997	*0.000*	-.5210051	*0.005*
Colombia	-.4619835	*0.000*	-.465908	*0.000*
CostaRica	-.0984337	*0.000*	-.1701037	*0.001*
Chile	-.4684888	*0.000*	-.4596771	*0.000*
Ecuador	reference case		reference case	
ElSalvador	-.0028664	*0.000*	-.0832958	*0.206*
Guatemala	-.4020342	*0.000*	-.4289499	*0.000*
Honduras	-.1277207	*0.000*	-.2320356	*0.000*
Mexico	-.4360243	*0.000*	-.4568175	*0.000*
Nicaragua	-.2308279	*0.000*	-.3102699	*0.000*
Panama	-.2286408	*0.000*	-.2919662	*0.000*
Paraguay	-.5980609	*0.000*	-.491628	*0.000*
Peru	-.1283017	*0.000*	-.0961989	*0.086*
Uruguay	-.6225714	*0.000*	-.567991	*0.000*
Venezuela	.005321	*0.000*	-.0235062	*0.535*

4.3 Country controls

We now introduce information on country-specific experiences of privatisation. These data come from aggregating existing information on around 340 event of privatisation occurred in Latin American countries.[5] From the timing of the process we were able to introduce information about the dynamics of privatisation: number of events, initial and final year, duration (in months), frequency (obtained as result of number of events/duration). We also computed the economic impact of privatisation (proxied by the average across years of the ratio between total proceedings from privatisation and gross domestic product) as well as the share of proceedings obtained from privatising public utilities (electricity, gas, water and sanitation)[6] in total proceedings from privatisation (here again taking the averages across years). Using these variables, we can test whether effectively the hostility towards privatisation is heavier in countries where people perceived it from basic items like electricity or water supplies. In addition we also add country macroeconomic controls: the growth rate of gross domestic product experienced by the country just immediately before the survey was conducted (covering the period 1999-2002), a measure of the role of government in the economy (proxied by the general government final consumption expenditure as percentage of the gdp), a measure of income inequality (the most recent Gini index on income distribution available), a measure of deprivation (the illiteracy rate in the adult population, which typically correlates with other measures like the child mortality rate).[7] Table 8 and figure 4 present evidence on these variables. Especially from this figure, it looks noticeable that the adversarial attitude toward privatisation declines with the increase in the growth rate of Gdp.

[5] This data-set draws from Fondazione ENI Enrico Mattei elaborations on Securities Data Corporations data, kindly made availabe to us by Bernardo Bortolotti (FEEM and University of Turin). Unfortunately, there were no data with respect to Nicaragua and Costa-Rica, and therefore we are forced to leave these countries out of the sample henceforth.

[6] Defined by SIC codes 4911-4922-4923-4924-4941-4959.

[7] All these control variables are obtained from World Tables.

Table 8 – Descriptive statistics of country features of privatisation – Latin America 2002

country	*attitude (mean)*	*number of event per month (FREQUENCY)*	*DURATION (number of months)*	*share of public utilities (SHUTI)*	*proceedings over GDP (INCIDENCE)*	*GROWTH rate of GDP (last 3 yrs)*	*GINI index on income inequality*	*ILLITERACY rate in adult population*	*share of public expendt over GDP (PUBEXP)*
Argentina	-1.14	0.72	107.00	0.59	0.84	-22.40	47.59	3.17	13.79
Bolivia	-0.62	0.16	89.00	0.08	1.79	-2.48	44.68	14.49	15.69
Brazil	-0.35	0.53	154.00	0.41	0.40	-4.80	60.70	14.76	18.20
Colombia	-0.63	0.18	97.00	0.98	0.45	-1.05	57.10	8.30	19.00
Chile	-0.61	0.26	99.00	0.76	0.39	-4.03	56.65	4.19	12.18
Ecuador	-0.10	1.00	1.00	0.00	0.02	-28.35	43.70	8.39	9.50
ElSalvador	-0.20	0.88	8.00	0.77	0.56	4.67	52.17	21.26	10.17
Guatemala	-0.58	0.19	21.00	0.79	0.59	8.31	55.80	31.36	6.64
Honduras	-0.26	1.00	1.00	0.00	0.00	6.76	56.30	25.39	12.71
Mexico	-0.59	0.44	159.00	0.00	0.33	10.14	53.11	8.59	10.98
Panama	-0.41	0.10	97.00	0.96	0.79	2.59	48.50	8.11	14.88
Paraguay	-0.80	0.05	38.00	0.00	0.05	-10.96	57.70	6.72	10.26
Peru	-0.32	0.58	119.00	0.54	0.79	3.33	46.20	10.11	11.17
Uruguay	-0.88	0.03	88.00	0.00	0.02	-15.05	42.30	2.26	12.99
Venezuela	-0.19	0.46	98.00	0.04	0.68	-1.27	49.53	7.42	7.04
Total	-0.50	0.45	81.28	0.40	0.54	-3.77	51.02	11.31	12.42

We present ordered probit estimates, weighed on sample weights and clustered errors by country in table 9. The first column replicates previous results, corresponding to the fourth column of table 5 with the exclusion of two countries (Costarica and Nicaragua) and the omission of country fixed effect. Opposition to privatisation is increasing with educational attainment and with worsening of the socio-economic status, despite some non-linearities (though non statistically significant) of these two effects. In the second column of table 9 we introduce macro-economic controls, recording greater opposition in more unequal countries and/or where the public sector is larger (as proxied by the share of public expenditure on Gdp). The third column introduces information about the features of the privatisation process, without any significant improvement in statistical performance. However, when we combine the elements of second and third column in fourth column, we get an interesting picture. While educational attainment loses explanatory power, the socio-economic condition still retains previous explanatory power (support to privatisation declines with the decline of individual socio-economic status). But we now observe that opposition increases with more unequal and/or more illiterate is a country, whereas opposition declines when a country has recently experienced output growth. Evidence of persistent attitudes can explain the negative correlation with public expenditure: populations who were accustomed to profound presence of the state in the economy are more reactive to the process of privatising state enterprises.

As far as the nature of the process, opposition is also higher when privatisation ended more recently and/or lasted more months and/or was less frequent. Some negative effect on support is recorded when the share of public utilities in proceedings from privatisation was high and/or the revenues were low. Finally the support is lower when the share of public utilities among privatised activities is higher, but this effect is attenuated in more inegalitarian countries (interaction term).

Overall, respondents seem quite short-memory: they tend to react to privatisation when it is a more recent and/or more unusual experience. Conversely, when privatisations are conducted in few months, selling several assets but leaving untouched the utilities, and a government is lucky enough to experience high growth, the opposition is limited. Thus, social opposition to privatisation seem to arise from two sets of factors: on the individual side, people with medium to high education and a low economic status perceive a damage coming up from privatisation, possibly because they suffer a reduction in accessing or using durable goods; on the aggregate side, opposition grows in countries that experienced a limited amount of recent episodes of privatisation, possibly involving the public utility sector; this impact is exacerbated by low growth and high income inequality (or deprivation). The interaction between individual factors and aggregate context is analysed in the final column, where we interact individual measures for socio-economic status and relative deprivation with the share of public utilities: we find that the opposition recorded in countries where a high share of public utilities was involved in the process of privatisation is more intense the worse is the individual situation of the respondent (in terms of both socio-economic status or in terms of relative deprivation of luxury commodities).

Table 9 –Determinants of support for privatisation (sample weights) – Latin America 2002 (weighed ordered probit model – clustered errors by country – p-value in italics)

	Coeff.	*p-value*	Coeff.	*p-value*	Coeff.	*p-value*	Coeff.	*p-value*	Coeff.	*p-value*
Uncompleted primary	-0.083	*0.20*	-0.065	*0.29*	-0.068	*0.31*	-0.064	*0.31*	-0.045	*0.49*
Completed primary	-0.190	*0.02*	-0.159	*0.04*	-0.168	*0.05*	-0.106	*0.18*	-0.088	*0.29*
Uncompleted secondary	-0.237	*0.00*	-0.196	*0.00*	-0.206	*0.00*	-0.155	*0.02*	-0.131	*0.06*
Completed secondary	-0.142	*0.04*	-0.130	*0.04*	-0.117	*0.08*	-0.085	*0.22*	-0.055	*0.44*
Uncompleted tertiary	-0.205	*0.05*	-0.190	*0.01*	-0.184	*0.04*	-0.142	*0.08*	-0.125	*0.14*
Completed tertiary	-0.143	*0.10*	-0.136	*0.10*	-0.115	*0.19*	-0.115	*0.15*	-0.102	*0.27*
Socio-economic index=good	-0.135	*0.03*	-0.132	*0.03*	-0.134	*0.02*	-0.139	*0.01*	-0.146	*0.00*
Socio-economic index=average	-0.180	*0.02*	-0.188	*0.01*	-0.180	*0.01*	-0.191	*0.00*	-0.226	*0.00*
Socio-economic index=bad	-0.224	*0.02*	-0.239	*0.00*	-0.220	*0.01*	-0.239	*0.00*	-0.310	*0.00*
Socio-economic index=very bad	-0.127	*0.27*	-0.150	*0.11*	-0.107	*0.30*	-0.145	*0.11*	-0.264	*0.02*
Growth rate in gdp 1998-2000			0.007	*0.34*			0.033	*0.00*	0.031	*0.00*
Gini index on income inequality			-0.011	*0.08*			-0.031	*0.00*	-0.029	*0.00*
Illiteracy rate			0.003	*0.72*			-0.034	*0.00*	-0.033	*0.00*
Public expenditure over gdp			-0.023	*0.03*			-0.020	*0.00*	-0.019	*0.00*
privatisation events per month					0.104	*0.57*	0.243	*0.00*	0.265	*0.00*
Duration (month)					-0.002	*0.16*	-0.004	*0.00*	-0.004	*0.00*
Proceedings form priv. over gdp					0.047	*0.47*	0.097	*0.05*	0.114	*0.02*
Date of last privatisation					0.017	*0.53*	-0.039	*0.02*	-0.039	*0.04*
Share of public utilities					-0.196	*0.88*	-1.944	*0.00*	-1.915	*0.00*
Share public utilities _ Gini					0.002	*0.94*	0.037	*0.00*	0.041	*0.00*
Share public utilities _ socio-economic index									-0.075	*0.15*
Share public utilities _ BASIC									0.025	*0.41*
Share public utilities _ELECTRIC									0.055	*0.03*
Share public utilities _ LUXURY									-0.129	*0.00*
Numb.obs	15929		15929		15929		15929		15420	
Pseudo R_	0.01		0.01		0.01		0.02		0.02	

Additional controls: gender, age, age_, marital status, employment conditions, ethnicity, city size.

5. Summary and conclusion

This paper has offered new findings on the available evidence on privatization discontent in Latin America.

Our research motivation was the disconnection between the mainstream empirical research on privatization and public attitudes . While most economists see privatization as socially beneficial, surveys reveal high and increasing disagreement.

In the introduction and in the following section we have outlined some reasons why in the social evaluation of privatization it is dangerous to focus exclusively on efficiency aspects. Privatization is basically a change of ownership of assets from taxpayers to private shareholders, it may redistribute well-being among taxpayers, consumers, shareholders and workers. There is potentially a welfare redistribution involved and one should consider this a socially sensitive issue. We do not try however to make these welfare calculations ourselves here, but we have turned to the assessment of individual agents. They offer, in a very crude and obviously biased way their own individual assessment of the change in the social welfare. We take this information seriously, not a substitute but as a complement to more traditional applied welfare economics evaluation, and we try to distill lessons from what respondents say, exploiting three data sets:

- a large sample of survey data comprising around 18500 individuals, for each of whom we know a wealth of individual characteristics
- a database on around 430 divestiture events in the countries we study
- selected macroeconomic variables.

In this way we have combined subjective evidence (attitudes) with more objective information at country level. Our results broadly confirm our working hypotheses or conjectures in section 2.

We can summarise our findings in a “recipe” for a successful privatisation: first of all, choose a country were the number of people self-assessing in a bad or very bad economic condition is kept to a minimum, thus implicating a limited amount of income inequality; second get people acquainted with privatisation as much as possible, following a gradual approach (better privatising in chunks than in a single event); third, choose an expansionary phase, where output growth compensates for a reduction in public expenditure over gdp; fourth, avoid privatisation of public utilities, especially where the deprivation of middle classes make the perception of the consequences of privatisation more acute; fifth, and last, hope that the proceedings from privatisation exert a positive impact in state revenues (as proxied by the ratio to gdp).

As an indication for further research we would also briefly comment on the impact the macroeconomic environment on social attitudes.

Most studies concentrate on the microeconomic effects of privatization and do not pay attention to macroeconomic interaction of that structural reform. Our findings however reveal an influence of the business cycle.

Privatization was one of the most prominent parts of the Washington Consensus. Without privatization, financial liberalization could not have reached the importance and velocity it did. As we have discussed it influenced the boom and the bust, which in turn had an effect on the social perception of privatization

It is likely that the initial welfare improvement has been attributed mainly to privatization by people (and governments). However, the society was actually enjoying the benefits of a substantive real exchange rate appreciation.

According to this explanation, privatization in some countries allowed the repetition of an old story dressed up in new clothes: a consumption boom based on non tradable goods that, at the beginning, brought great benefits but ended badly because there was an underlying dynamic inconsistency[8].

Probably, there was an inverse relationship between the countries that enjoyed the most pronounced boom and bust and the role of privatization. It means that in the early nineties we saw the biggest approval for privatization in the same countries when, conversely in late nineties, we saw the strongest disagreement. The differentiated capacity of managing the macroeconomic effect of privatization could contribute to explain why disagreement is different in a cross-country analysis.

It is therefore possible to understand the path which LA public opinion followed concerning the privatization process: from moderate acceptance at the beginning of the nineties to a strong rejection today. Perhaps, neither the approval when the process started nor the observed dislike at the present time could be explained only by privatization itself. Redistribution and interaction with macroeconomic environment may be the missing links in the Latin America puzzle about privatization social attitudes.

[8] See Calvo and Vegh (1993) for a formalization of previous process of unsustainable overvaluation.

Appendix – Additional tables

**Table 1 – Probability of non expression (either "non respondent" or "don't know")
Maximum likelihood probit model (weighed) with heteroskedasticity robust standard errors (standard errors in parentheses with p<0.05 = ~, p<0.01 = *)**

# obs :	18357
Depvar:	miss
female	0.197*
	(0.041)
age	-0.019*
	(0.007)
age_	0.000*
	(0.000)
head of	-0.094
family	(0.052)
uncomplt	-0.361*
primary	(0.064)
completd	-0.530*
primary	(0.071)
uncomplt	-0.720*
secondar	(0.073)
completd	-0.739*
secondar	(0.075)
uncomplt	-0.796*
univrst	(0.093)
completd	-0.994*
univrst	(0.102)
socioec	-0.059
good	(0.071)
socioec	0.024
average	(0.071)
socioec	0.256*
bad	(0.078)
socioec	0.415*
very bad	(0.094)
Const	Yes
Famst	Yes
Emplom	Yes
Ethnic	Yes
Month	Yes
Citysz	Yes
Countr	Yes
pseudoR_	0.108

Table 2 – Determinants of the socio-economic self-assessment weighed OLS with heteroskedasticity robust standard errors
(t-statistics in parentheses)

# obs :	17475	17475	17475
Depvar:	selevel	selevel	selevel
color tv	0.273	0.231	0.229
	(9.77)	(8.27)	(8.25)
refriger	0.227	0.20	0.198
	(9.40)	(8.30)	(8.23)
house	0.051	0.064	0.060
	(2.86)	(3.59)	(3.35)
comput	0.374	0.319	0.315
	(17.09)	(14.37)	(14.19)
washing	0.231	0.206	0.205
machine	(10.53)	(9.50)	(9.44)
telephone	0.241	0.205	0.203
	(13.12)	(11.32)	(11.20)
car	0.268	0.245	0.245
	(14.56)	(13.45)	(13.46)
second	0.078	0.069	0.065
house	(3.06)	(2.72)	(2.57)
drinking	0.116	0.091	0.090
water	(4.15)	(3.30)	(3.28)
hot	0.108	0.088	0.085
water	(5.00)	(4.26)	(4.13)
sewage	0.198	0.175	0.175
	(9.66)	(8.60)	(8.60)
health	0.120	0.10	0.096
insurance	(10.12)	(8.44)	(7.99)
female		-0.029	-0.033
		(-1.77)	(-1.93)
age		-0.005	-0.009
		(-2.10)	(-3.32)
age_		0.000	0.000
		(1.19)	(2.50)
head		0.035	0.044
		(1.89)	(2.05)
uncomplt		-0.161	-0.158
primary		(-4.43)	(-4.34)
completd		-0.253	-0.252
primary		(-6.74)	(-6.67)

uncomplt		-0.343	-0.332
secondar		(-8.89)	(-8.57)
completd		-0.412	-0.404
secondar		(-10.33)	(-10.05)
uncomplt		-0.513	-0.471
univrst		(-11.96)	(-10.75)
completd		-0.630	-0.620
univrst		(-14.26)	(-13.78)
self			0.107
employed			(3.16)
public			0.081
employee			(2.08)
private			0.108
employee			(3.08)
unemployed			0.160
			(4.24)
retired			0.044
			(1.01)
houwife			0.132
			(3.94)
Const	Yes	Yes	Yes
Countr	Yes	Yes	Yes
R_	0.326	0.344	0.345

Table 3– Descriptive statistics (mean and percentage) by country – Latin America 2002

country	attitude	female	age	head	edyrs	sei
Argentina	-1.15	0.52	42.37	0.47	10.08	0.59
Bolivia	-0.59	0.52	41.56	0.57	6.92	-0.19
Brazil	-0.35	0.51	37.15	0.46	6.09	0.37
Colombia	-0.65	0.53	35.85	0.47	6.98	0.46
Costa Rica	-0.28	0.51	37.27	0.44	7.69	0.52
Chile	-0.65	0.52	40.57	0.46	9.39	0.04
Ecuador	-0.18	0.54	41.42	0.55	7.61	0.12
El Salvador	-0.19	0.52	38.69	0.55	6.74	0.01
Guatemala	-0.59	0.52	37.11	0.45	7.65	0.30
Honduras	-0.31	0.51	37.65	0.54	5.79	0.30
Mexico	-0.62	0.51	36.33	0.59	7.75	0.08
Nicaragua	-0.41	0.50	34.57	0.43	6.93	-0.12
Panama	-0.41	0.49	38.28	0.54	8.26	0.24
Paraguay	-0.78	0.52	35.70	0.40	8.07	0.07
Peru	-0.31	0.50	38.86	0.50	9.84	-0.16
Uruguay	-0.81	0.56	44.96	0.52	8.01	0.21
Venezuela	-0.18	0.50	39.63	0.53	8.16	0.25
Total	-0.50	0.52	38.91	0.50	7.81	0.18

COUNTRY ID	Illiterat	Uncomplet	Complete	Uncomplet	Complete	Uncomplet	Complete
Argentina	0.85	7.27	25.68	23.15	25.34	12.34	5.37
Bolivia	25.07	22.62	7.15	20.78	18.92	4.02	1.42
Brazil	7.27	54.82	10.96	8.40	11.17	3.18	4.20
Colombia	5.00	23.32	17.75	30.84	12.05	4.60	6.44
Costa Rica	5.21	15.02	30.75	20.74	12.77	11.03	4.49
Chile	2.50	23.12	20.43	15.35	30.07	4.05	4.50
Ecuador	10.34	17.34	22.88	14.62	22.49	7.49	4.83
El Salvador	18.04	22.12	10.86	21.37	16.65	6.17	4.80
Guatemala	11.93	21.39	20.82	15.64	20.44	6.95	2.84
Honduras	18.46	26.87	25.02	11.49	12.95	3.43	1.78
Mexico	11.86	4.16	35.56	13.04	25.12	5.83	4.43
Nicaragua	18.45	24.40	15.73	19.86	9.98	7.46	4.13
Panama	10.48	15.11	14.39	19.12	25.90	9.35	5.65
Paraguay	0.64	19.55	31.68	19.40	20.70	4.76	3.26
Peru	5.15	9.44	12.13	19.45	36.16	7.33	10.33
Uruguay	1.53	14.08	35.39	29.64	6.21	5.38	7.77
Venezuela	8.51	44.61	9.15	4.15	17.27	7.25	9.06
Total	9.54	21.12	20.20	18.12	19.33	6.54	5.13

COUNTRY ID	Independe	Salary ea	Salary ea	Temporari	Retired	In charge	Student
Argentina	21.28	7.77	15.34	13.17	12.34	20.15	9.95
Bolivia	46.51	6.82	6.09	3.42	4.47	21.06	11.64
Brazil	35.76	6.45	19.57	8.40	9.53	13.73	6.56
Colombia	31.95	3.06	16.97	16.24	3.51	20.58	7.70
Costa Rica	19.92	7.66	21.86	8.27	6.13	28.80	7.35
Chile	19.15	4.75	26.33	8.27	10.51	25.44	5.54
Ecuador	32.24	6.69	14.37	2.76	5.16	32.74	6.04
El Salvador	36.26	6.30	12.07	7.56	6.32	25.15	6.34
Guatemala	29.50	10.88	17.69	6.18	4.75	25.75	5.24
Honduras	34.74	8.80	11.61	10.67	4.19	25.83	4.15
Mexico	26.75	19.85	22.13	7.06	3.11	9.36	11.74
Nicaragua	33.67	7.16	12.00	6.35	3.23	22.98	14.62
Panama	27.24	9.35	15.93	17.27	8.84	16.55	4.83
Paraguay	28.36	5.66	18.58	16.42	3.45	22.17	5.36
Peru	39.52	8.64	7.31	5.56	5.13	25.08	8.76
Uruguay	19.05	6.75	18.75	11.86	20.79	18.05	4.75
Venezuela	34.53	9.42	11.26	9.31	5.57	22.24	7.67
Total	30.40	8.10	15.66	9.09	7.04	22.02	7.69

Table 4 – Effects of education and socio-economic condition on support to privatisation by country -

Model i: ols argentina
Model j: ols Bolivia
Model k: ols Brazil
Model l: ols Colombia
Model m: ols CostaRica
Model n: ols Chile
Model o: ols Ecuador
Model p: ols ElSalvador
Model y: ols Venezuela
Model q: ols Guatemala
Model r: ols Honduras
Model s: ols Mexico
Model t: ols Nicaragua
Model u: ols Panama
Model v: ols Paraguay
Model w: ols Peru
Model x: ols Uruguay

Model :	i	j	k	l	m	n	o	
# obs :	1175	1218	975	1152	979	1179	1152	
Depvar:	attitude	attitude	attitude	attitude	attitude	attitude	attitude	at
edyrs	-0.001	0.025	-0.052	-0.061	-0.038	-0.089	-0.021	
edyrs2	0.001	-0.002	0.001	0.004	0.002	0.005	0.001	
segood	0.025	0.313	-0.461*	-0.065	-0.276	-0.623**	-0.083	
seavrg	0.109	0.146	-0.703**	-0.072	-0.209	-0.716**	-0.376*	
sebad	0.215	0.10	-0.458	-0.361	-0.012	-0.589**	-0.80**	
sevrba	0.583	0.234	-0.753	0.057	-0.079	-0.288	-1.271**	
R-sq	0.036	0.062	0.053	0.081	0.051	0.048	0.166	

Model :	q	r	s	t	u	v	w	
# obs :	945	970	1190	992	961	583	1187	
Depvar:	attitude	attitude	attitude	attitude	attitude	attitude	attitude	at
edyrs	-0.102**	0.000	-0.049	-0.112**	-0.036	0.129*	-0.053	
edyrs2	0.004	-0.001	0.002	0.007**	0.003	-0.006	0.002	
segood	-0.182	-0.155	-0.221	-0.151	-0.524**	0.117	-0.263	
seavrg	-0.495**	-0.422**	-0.173	0.014	-0.417*	-0.244	-0.421	
sebad	-0.429	-0.349	-0.424**	-0.071	-0.509*	0.020	-0.424	
sevrba	-0.126	-0.290	-0.481**	0.288	-0.036	0.221	-0.411	
R-sq	0.062	0.07	0.04	0.089	0.056	0.107	0.032	

Note: p-value<0.05 = *, p-value<0.01 = **. OLS weighed regression, including gender, age, age_, marital status, month of interview.

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