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Ownership Structure Impact on Enterprise Behaviour – The Case of Albanian Privatised Enterprises

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1

Introduction

The Albanian economy is undergoing a transition process, which essentially is similar to that of other transition countries. This research is based on the recent developments in the economic theory of corporate governance, theory of privatisation and the experiences of other Central and East European countries, and the aims to investigate and to explain the Albanian privatised enterprises behaviour. The theoretical and empirical evidence is used to investigate the specific features of the privatisation process in Albania and its impact on corporate governance, restructuring and performance of privatised Albanian enterprises - during the transition. An appropriate methodology was employed in the fieldwork to obtain the evidence, which enable us to explore manager's behaviour and the change of ownership structures of privatised enterprises in Albania. A multivariate analysis is used to elaborate the quantitative and qualitative information obtained from enterprises level data of our survey and case studies.

The paper contains seven sections. The first section deals with a brief description of features of Albanian transition, analysing specific features of micro-macroeconomic development. A general discussion of the privatisation process in Albania is presented in section two. In the third section, some methodological issues related to the modelling the enterprises restructuring in transition are discussed. The methodology employed during primary and secondary research and the data limitation are presented in the section four. The section five indicates some statistical examination of the sample focusing on the ownership structure and other performance indicators and develops a composite "index of restructuring". The sixth section deals with the issues of modelling the enterprise behaviour in Albania. The paper ends by giving some conclusions and recommendations to policy-makers.

1. The Economic Environment in Albania

In spite of large differences from country to country, after decades of central planning all transition economies suffered from massive problems. The nature of manager's

behaviour and extent of enterprise restructuring is largely dependent on the history of economic development and the present features of the macroeconomic and microeconomic environment of a given country. This research work focuses on Albania and obviously the historical and economic features of this country must be taken into consideration. Considering those aspects, which influence the nature and extent of restructuring, our discussion initially concerns the main features of Albanian economic environment

1.1 Macroeconomic Environment

After 1993, the economic programme mainly aimed at the reduction of macroeconomic imbalances and necessary institutional changes. The main instrument used to realise the stabilisation programme was a tight monetary policy, supported by a fiscal policy, which had as its main objective the elimination of the budget deficit. An overall view of the main macroeconomic indicators over the period 1991- 2003 is presented in Table 1.1.

Table 1.1.
Main Macroeconomic Indicators in Albania, 1991-2003

	1991	*1992*	*1993*	*1994*	*1995*	*1996*	*1997*	*1998*	*1999*	*2000*	*2001*	*2002*	*2003[1]*
GDP Growth (%)	-27.7	-7.2	9.6	9.4	8.9	9.1	-7.0	8.0	7.3	7.8	6.5	4.7	6.0
Inflation[2]	104.1	236.6	30.9	15.8	6.0	17.4	42.1	8.7	-1.0	4.2	3.5	2.1	3.6
Exchange rate (Leks per USD) [3]	14.6	88.66	105.6	95.4	93.0	104.8	149.6	151.2	137.7	143.7	143.5		
General government balance[4]	-31.0	-20.3	-14.4	-12.4	-10.3	-12.1	-12.6	-10.4	-11.3	-9.1	-8.6	-6.2	
Labour force (annual average growth)	-2,6	-8,4	-1,8	-3,0	2,2	-7,5	2,1	1,5	-1,1	-1,8	-3,0		
Employment (annual average growth)	0,0	-28,9	-3,2	9,7	5,7	-2,5	-0,8	-2,0	-1,8	0,3	-0,5	-13.4	
Unemployment[5]	8.9	27.9	21.7	19.5	12.4	12.4	14.9	17.8	18.4	16.9	14.6	15.8	
Current account (millions of USD)	-249	-434	-365	-279	-176	-245	-276	-195	-272	-274	-263	-440	-471
Exports (millions of USD)	73	70	112	141	205	229	167	205	275	255	305		
Imports (millions of USD)	281	524	602	601	679	921	685	826	938	1076	1332		
Trade balance (millions of USD)	-208	-454	-490	-460	-474	-692	-519	-621	-663	-821	-1027	-1155	-1292
Foreign direct investment (millions of USD)	8	32	45	65	89	97	42	45	51	143	204	264[1]	

[1] Estimated
[2] Change in year-end retail/consumer price level
[3] Annual averages
[4] In percent of GDP
[5] In percentage of domestic labour force at the end of the year. Figures do not account for emigrant workers abroad.
Source: EBRD, Transition Report 1999, 2000; IMF Country Report 2003.

At the beginning of the 1990s the Albanian economy was characterised by an economic crisis. The recovery of the economy started in 1993, associated with an annual growth of the GDP at 9-10 percent until 1997. Output is estimated to have grown by 8 percent in 1998 and a further 7 - 8 percent in 1999 and 2000 after a decline of 7 percent in 1997 caused by losses related to the 1997 disturbances. While, during 2002-2003 economic growth appears to have fallen below the 7 percent.

Annual inflation was reduced from triple to single digits within three years. This was due to tight fiscal and monetary polices, an incomes policy without wage indexation, which restrained public sector wages, and the downward pressure on domestic prices from lower import prices. Reducing inflation quickly was important because it contributed to the early, rapid resumption of growth in Albania.

The experience of 1997 confirmed that rapid growth in the macroeconomic environment couldn't be sustained when this process is not associated with a consolidation of the structures and institutions of a market economy. There are features of the Albanian economy that make reform difficult, and which will remain as obstacles to transition for some time yet. Long-term emigration can be very costly despite its short-term benefits, as it is concentrated among younger, often highly educated people (Kule *et al.*, 1999). Illegal activities such as the smuggling of drugs, weapons and refugees to Italy and onwards diverts resources and deprives the state of its potential revenue. Farming is handicapped by the prevalence of subsistence methods on small plots of land. Tourism, which is an area of great potential for the Albanian economy, has remained almost undeveloped because of the lack of infrastructure network, uncertain property ownership and other law and order concerns.

1.2 Microeconomic Environment

The liberalisation of prices and foreign trade completely revolutionised the microeconomic environment to which firms had been subjected for over forty years. For example, quotas and tariff barriers for imports were completely abolished in order to increase competition and stimulate the efficiency of domestic production.

Furthermore, in terms of administrative measures for imported goods, standard specification and certification were revised in line with international regulations and according to EU directives. In this respect, state-owned enterprises faced a new economic environment, which forced them to react in order to survive. In many cases, they were totally unprepared for competition with imported goods that flooded the market, which forced the enterprise managers to think of the quality of their products. At the same time, there was a partially implemented hard budget constraint policy (such as the elimination of most subsidies), which aimed at improving managers' incentives to survive and to restructure their enterprises.

Forms of Business

An important feature of the Albanian microeconomic environment deals with legal forms of business. The 'sole proprietor', form of business is the predominant form of business, accounting for 41,817 out of 56,300 registered businesses in 1999 (INSTAT, 2000).

There are two ways of transforming an economy dominated by the public sector: through privatisation of the existing state assets and through the entry of new private businesses. According to INSTAT (1997b), 26 percent of Albanian private enterprises were privatised in their present form; 67 percent are new entrants and 7 percent changed their legal form (unbundled or re-merged). According to the structural survey conducted by INSTAT (2003)[1], there were 61,859 active enterprises in 2001. Trade activity predominates with 52 percent while agriculture and construction have the smallest share of respectively 1 and 3 percent, and other sector shares range between 11-20 percent. The distribution of private firms according to the sector is presented in Table 1.2.

Table 1.2 Private Firms as 'Legal Entities' Grouped by Sectors

Economic activity	Number of firms	Share, in %	Number of employed	Share, in %
Agriculture	735	1	4680	2
Industry	6073	10	75865	40
Construction	2011	3	15691	8
Transport	9494	15	24339	13

[1] The survey results, conducted in 2001, were published in 2003.

Trade	31947	52	45844	24
Service	11599	19	23867	13
Total	**61859**	**100**	**190286**	**100**

Source: INSTAT, 2003.

Another important feature of Albanian enterprises is their size distribution. Currently, around 98 percent of Albanian enterprises employ ten or fewer workers, with the majority comprising just one person or a family. These account for about 40 percent of employees in the enterprise sector INSTAT (2003).

Legal Framework

An important aspect of the microenvironment is the operation of bankruptcy constraint and the exit process, which have both indirect and direct impacts on enterprise behaviour. Despite the adoption by Parliament of a bankruptcy law in 1992, no bankruptcies took place until late in 1996. The non-implementation of this law has affected the incentives of managers to restructure. While a new and more comprehensive bankruptcy law is approved by parliament in 2001, abolishing the previous one and offering an improved framework for bankruptcy implementation procedures. The threat of bankruptcy may change the expectation of managers and employees and encourage them to adopt various restructuring measures, including the scaling down of production and employment, to avoid insolvency.

According to the EBRD's evaluation of the legal framework in transition countries, Albania is classified as a country where legal rules concerning contract, bankruptcy and company law are limited in scope and is subject to conflicting interpretations (EBRD, 1998). Legislation may have been amended but the new laws do not necessarily approximate to those in more developed countries. Specifically, the registration and enforcement of security over movable assets has not been adequately addressed, leading to uncertainty with respect to the registration and enforcement of contracts. As Xhillari (1998) points out, in Albania, even when good laws exist, their enforcement is slow. This fact is closely related to the weak institutional framework and people's culture and mentality. Muent *et al.* (2000) in a 1999 survey of more than 100 Albanian enterprises provide evidence that registered businesses still face unfair

competition from the informal sector, which has a significant advantage in evading the relatively high tax burden. This again supports the need to establish and utilise the institutional structure and legal framework, which will enable a further improvement of the microenvironment.

As we have noted above, Albania is small by the standards of most other transitional economies. Several other distinctive features of development in the Albanian economy are apparent. Its unique cultural and social background is reflected in the population's mentality concerning the market system, property rights, and legal and institutional enforcement. This mentality can explain the political uncertainty, which prevents the implementation of a consistent economic policy and distorts foreign investor's incentives. These factors have also stimulated the relatively high level of emigration of the domestic labour force, though this provides a considerable source of income for the domestic population. The lack of consistent macroeconomic and microeconomic policy is another key feature. Furthermore, macroeconomic policy has not been co-ordinated with microeconomic policy, and particularly there is uncertainty regarding industrial and tourism development and privatisation policy. Regarding sector development, it is obvious that the Albanian economy is heavily dominated by the trade and agriculture sectors. In addition, as the result of uneven economic development and weaknesses in the legal, institutional and financial frameworks, the informal financial market remains dominant. The pyramid schemes, which reflected these weaknesses, led to social and economic consequences, which influenced the environment within which this research was conducted. Finally, the weak enforcement of bankruptcy legislation, the lack of action to strengthen competition and corporate governance and the uncertainties concerning the privatisation of large state-owned enterprises remain weaknesses.

2. Privatisation in Albania

The privatisation process reflects the specific features of a particular country. In some respects Albanian privatisation has similarities with that of most other Central and Eastern European countries while, in others, it has retained its particular Albanian

features. Of course, being a complex process, it has been affected by historical, cultural, socio-economic and political features of the Albanian environment too. Given that the degree of restructuring reflects the incentive systems of both principals and agents, which are linked to privatisation methods, we need to analyse these methods and their implications for restructuring. Therefore, this section focuses on the development of, and methods used in, Albanian privatisation, focusing on its specific-features.

Albania was one of the most thoroughly socialised economies with almost all private property eradicated. For this reason, privatisation is not considered just a transfer of ownership rights but mainly as a way of restoring to the people rights denied them for half a century. Most Albanians were impoverished in the previous period, and, therefore, did not own much financial capital during the early transformation process. Hence, a largely free distribution of state assets to the population had to be employed during the privatisation process. Another feature was the use of state bonds for the compensation of former-politically persecuted persons.[2] These bonds, called 'privatisation Leks', were given to victims of the former regime in the form of bank accounts which could be used to buy shares of companies during the privatisation process. An undeveloped legal and institutional framework and a limited administrative capacity affected the speed and method of privatisation. Furthermore, the lack of a property rights culture required methods of privatisation, which were simple and easy to implement.

The privatisation process past through:

- *direct restitution and compensation* (giving back to former owners their property)

- *land reform*, which consisted of its distribution to the members of former-co-operatives. The privatisation of state-owned farms consisted of first giving to the employees of these farms the right of use, converted later into right of ownership without remuneration.

- *housing in urban areas* included all state-owned houses in urban areas. The method of privatisation of houses in urban areas consisted of direct sales of

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[2] Former politically prosecuted persons are the political opposition and victims of the Hoxha's regime who, together with their family had been persecuted under the previous regime.

apartments at very low prices to former tenants. Now, 10 years after the end of this process, housing markets in urban areas are well established and very active.

- *Small privatisation* was taking place all over country, and in all commercial services such as retail shops, repair shops, taxi system, interurban transport, small vehicles, vehicle repair workshops, barbers, tailors, shoemakers, bar-restaurants, agricultural machines. About 12,000 shops, 5,000 small units of commercial services and 2,000 vehicles, fishing boats, items of agricultural equipment, were privatised during 1991-1992.

- According to the data from the GTZ (1998), at the beginning of the *large-size privatisation* process in 1991, there were at least 2,434 state-owned enterprises, distributed between 18 different economic sectors. Of these, more than half (1,280 enterprises) were in the Services, Trade, Agriculture and Food Processing sectors.

Mass Privatisation Method

The legal basis for the implementation of the mass privatisation method was laid down in 1995, followed by changes in the legal framework of state-owned enterprises. Thus, before privatisation, all state-owned enterprises are transformed into commercial companies in the form of Public Joint-Stock Companies. In addition, in this process, changes have been introduced to the role of the National Agency of Privatisation. Later in 1996, the Ministry of Privatisation became responsible for identifying the commercial companies that were to be privatised and the privatisation method that would be used, and the National Agency of Privatisation would execute the sale procedures.

A specific feature of the implementation of the mass privatisation programme follows from the character of the capital market. It is a fact that investment funds have not played any role in the privatisation process in Albania. In order to offer to investors the opportunity to take part in stock market without having the necessary detailed knowledge, investment funds[3] were set up in 1996. There were three investment funds

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[3] According to the Albanian Law, an "Investment Fund" is a private legal entity which accumulates

12

established in Albania: 'Anglo-Adriatic', 'New Albania' and 'Nobel'. The 'Anglo-Adriatic' Investment Fund is the only fund still in operation. These were supposed to play the role of financial intermediaries by exchanging privatisation vouchers collected from the population for shares of companies to be privatised in the mass privatisation programme. They aimed at investing in the so-called strategic sectors. However, because of the lack of a supportive legal and institutional framework and experience, the practical involvement of Investment Funds in the privatisation process was delayed. Another reason was the existence of a free market for vouchers, which introduced unfair competition between Investment Funds and individuals. The individuals had no restrictions in the collection and use of privatisation vouchers. Also, the procedure for share transfer without a pre-determined price made investment funds hesitate to be involved because they could not define the number of shares that they would acquire from any bid (the law limited them to 40% of the share of each company). Recently, the 'Anglo-Adriatic' Investment Fund has been looking to participate in the privatisation process but it has been effectively barred from doing so because the government has, since 1998, decided not to allow vouchers as means of payment in privatisation (except for employees, who can use only their own allocated vouchers).

The mass privatisation programme was applied to 97 Albanian enterprises. This method initially had the following features in Albania: voucher holders could use vouchers to bid for shares of enterprises directly; vouchers were freely tradable in the market, and foreigners could not participate in this process. The voucher market, practically excluded the direct use of cash for privatisation of enterprises in mass privatisation. Although, the vouchers in the market were traded far below their nominal value, they have been used to invest in shares of companies privatised in the mass privatisation programme at their nominal value. Another feature concerned the 'voucher overhang', a gap between the value of distributed vouchers on the one hand and the value of enterprises in the programme on the other. Mema (1998, p.44) reports that the potential total value of vouchers was about 72 billions Leks of which 57 billion Leks had been distributed. However, the book value of enterprises in the mass privatisation scheme until the end of 1996 only just exceeded 11 billion Leks

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financial resources of individuals or other legal entities.

(Hashi and Xhillari, 1999, p.123).

Up to the beginning of 1997, the privatisation of companies through the mass privatisation method was completed through 5 rounds or packages. The first round was conducted between 11 September and 25 October 1995; the second round between 20 November and 20 December 1995; the third round between 29 December and 30 January 1996; the fourth round between 21 February and 21 March 1996; and the fifth round between June and 8 July 1996. At the end of 1996 another 20 companies were ready to be offered in a sixth round but the unfolding of events in early 1997 disrupted this process. Table 2.1 shows the details of this process.

Table 2.1 **Number of Companies and Shares in the Mass Privatisation Scheme (1995-1996)**

	Round I	Round II	Round III	Round IV	Round V	Total
Number of firms fully privatised	19	25	12	9	14	79
Number of firms partially privatised	1	5	6	4	1	17
Total number of shares (1000)	2,195	4,336	1,360	1,215	2,005	11,112
Number of share privatised (1000)	2,106	3,228	1,071	982	1,179	8,565
% of shares privatised	96	74	79	81	59	77

Source: Hashi and Xhillari (1999), p.115

The number of enterprises privatised by the mass privatisation programme represents only 4% of the total number of the state-owned enterprises recorded in 1991 (see Table 3.4) but they are the much bigger companies. The small number of firms privatised by this method is likely to be directly related to the very weak publicity campaign for the mass privatisation method, a lack of information on the economic situation of the companies to be privatised, and also limited experience in such processes as well. The situation changed in the fourth and fifth privatisation rounds when people had gained more knowledge and information on the mass privatisation programme. In addition, the time to use the distributed vouchers was elapsing. For this programme to be successful, both the supply side (enterprises ready to be privatised) and the emergence of a new share owning mentality should be present.

As discussed above, the number of state-owned enterprises has been falling over time as more and more moved into the private sector. However, it is difficult to define the

14

number of privatised Albanian enterprises because the official data refers to "privatised objects" and there is no record referring to "enterprises". However, according to the estimates made by EBRD (1999, p.32) up to 25% of the assets of state-owned enterprises have been privatised in Albania. Also, management-employee buyout is identified as the primary privatisation method and vouchers as the secondary method. Recently, the government announced its intention to transform the state monopolies in transport, telecommunication, energy, mining and water into joint stock companies. Their privatisation is envisaged on a case-by-case basis, primarily through international tenders. The mining sector will be particularly attractive as Albania boasts substantial deposits of copper and chromium. In December 1997, copper exploration rights for one site were sold to Canadian investors. Production by the state-owned copper monopoly Albaker resumed in March 1998, after a one-year stoppage resulting from the civil unrest. The state-owned Oil Company, Albpetrol, is engaged in some joint ventures, but is plagued by financial difficulties.

Albanian government did not have a strategic privatisation programme, which specified the framework and the method of implementation. The investigation of the privatisation process and the methods used, in this section, identify some of the specific features of the privatisation in Albania, which are expected to affect managers' and owners' behaviour post-privatisation. The processes employed suggest that giving priority to insider buyouts, and in particular, the mass privatisation used in 1997, would result in dispersed ownership. This observation is expected to have consequences for the principals' and agents' incentives and the efficiency of the corporate governance mechanism. Furthermore, the policy-makers in Albania did not pay attention to who would be the new owners, a factor which also influences the efficiency of the corporate governance mechanisms. This analysis will help to provide a background for our discussion of the impact of the specific features of ownership structure on enterprise behaviour in Albania.

3. Modelling of Enterprise Restructuring

The empirical research on enterprise restructuring has been focused on two main areas. On the one hand a number of authors have been concerned with finding and

specifying indicators of the restructuring process. On the other hand, research has also been concerned with measuring the impact of restructuring and the influence of various factors and policies. Looking at the literature on indicators of restructuring in transition, it is observed that there are a number of measures used to identify the type and the extent of restructuring. Barberis *et al.* (1996), in their study of the privatisation of Russian shops, used a number of measures of strategic importance such as: capital renovation, change in suppliers, increases in the opening hours of the store, and management and employee layoffs. Other researchers (see Djankov and Pohl, 1997; Djankov, 1999; Djankov and Murrell, 2002) have used indicators such as management turnover, labour reduction, finding new markets, new products, sales of assets and renovations at factory level aimed at improving working conditions. An alternative measure is presented by Estrin and Rosevear (1999), who developed an "index of restructuring" calculated as a multidimensional index to assess the extent of restructuring activity as measures of enterprise performance. The index of restructuring is measured by aggregating several indices detailing restructuring behaviour in areas such as product market restructuring, employment changes, unbundling of assets, changes in the wage and compensation system, and investment (more details provided in Section 5.4).

Literature of enterprise restructuring emphasis that restructuring activities increase the ability of firms to improve their performance. In this respect, a number of important issues concerning the relationship between restructuring and performance have been analysed by various researchers such as Earle and Estrin (1997), Djankov and Pohl (1997), Claessens *et al.* (1997), Djankov (1999). They observe that restructuring leads to improvement in firm performance measured by profitability and productivity. Typically, it is considered that improvements in firm performance would be reflected in increased profitability, efficiency improvements, and possibly increased output, whilst restructuring in the long term would be reflected in such factors as investment spending. These researchers have used alternative indicators of profitability such as Tobin's Q, operating profitability, and accounting profits in their work. At the same time, labour productivity level and total factor productivity growth have also been used as indicators of productivity improvement. However, except total factor productivity growth and Tobin's Q, most of the performance indicators, mentioned

above, are measured and employed for statistical analysis rather than econometric analysis.

In addition to the indicators of restructuring, another issue concerns the identification of the determinants of enterprise restructuring. In this respect, the econometric modelling of enterprise restructuring presented by Barberis *et al.* (1996) was developed further by Claessens *et al.* (1997). The last authors utilised a Cobb-Douglas production function for modelling of restructuring in medium and large enterprises to identify the firm-specific factors (including size, sector, ownership form and length of privatisation period), and government policies (such as financial discipline) that most encouraged firms to restructure. Other researchers (such as Weiss and Nikitin, 1998; Djankov, 1999; Frydman *et al.,* 1999, Angelucci *et al.*, 2002; Koncenda and Svejnar, 2003; etc.) have used a similar model to focus on the relationship between ownership structure, restructuring and performance. A selection of the literature dealing with these issues and a summary of the literature with relevant details is presented in Appendix 1 (Some Recent Studies on the Effects of Privatisation on Enterprise Performance in Transition).

Given that enterprise restructuring is expected to raise efficiency, notably by reducing labour, energy and material intensities of production, without offsetting increases in capital intensity (Estrin and Earle 1996, Claessens *et al.* 1997, Pohl *et al.* 1997, Djankov and Murrell 2002), a large number of researchers have employed a Cobb-Douglas production function framework to investigate this relationship - and in particular to estimate total factor productivity growth as a measure of performance. The measurement of the variables of production function poses a variety of difficulties. For labour, the obvious choice is number of hours of labour input used in the production process. This assumes that employees are homogeneous. However, through time or between different firms this variable may not be homogeneous. Even within firms there are different types of labour and the question arises of how to aggregate them. Walters (1968) suggested that weighting by a base year's marginal products (represented by wages) is the most appropriate method but most empirical studies use an unweighted sum. Claessens *et al.* (1997) does not ignore this particular problem. They used as weights the share of the total wage expenditures averaged for

each firm over the sample period. (Similarly, they used share of material input expenditures, and capital and energy expenditures respectively as weights for the other two inputs.)

As for the capital variable, problems of measurement are even greater. This measure depends, on the accounting methods used to evaluate fixed assets and their depreciation. Its use is particularly problematic in transition economies, which have experienced high inflationary periods. Also, in these economies book values of fixed assets are grossly inaccurate as they are affected by the distorted historical price inherited from the previous systems, and introducing significant noise in any estimation. On the other hand, the exclusion of capital as a factor of production would lead to biased estimates of productivity. For these reasons, based on the methodology developed by Burnside *et al.* (1995), Claessens *et al.* (1997) used energy consumption as a proxy for capital utilisation, supposing that electricity consumption per machine is proportional to its workweek. Despite the advantage from an empirical standpoint, this proxy has some shortcomings, which are related to the existence of overhead capital. Another disadvantage is that it imposes a restriction that elasticity of electricity use with respect to capital is equal to one.

The indicator of productivity growth for firm *i* over *t* years and is used as indicator of firm performance. In order to identify the determinants of the extent of the restructuring, various explanatory variables such as firms-specific factors, the length of privatisation period, form of ownership, financial discipline, maintaining debt obligations and bank ownership are employed in econometric analysis. The total factor productivity estimated for the first year can be used as a proxy to estimate the effect of initial conditions on the extent of restructuring. Similar to the above model, Weiss and Nikitin (1998) employ a Solow residual technique to measure the contribution of management expertise to firm performance. They measure changes in Solow residuals by first estimating a Cobb-Douglas production function, computing the error term for each firm, and then using the change in this error term as a measure of the change in the Solow residuals. This change in the Solow residual is measured in the same way as total productivity growth in the model described above, and is used further to estimate the impact of other explanatory variables.

An alternative approaches to estimate the firms' efficiency and its determinants are the stochastic frontier model introduced by Farrelly (1957) and developed further from various researches (especially Battese and Coelli and others). This model measures technical (in)efficiency using a stochastic frontiers production function that allows each firm to have different level of efficiency in different years. For a given level of output and common technology, inefficiency is the distance between each firms and the "best-practice" frontier function. The stochastic frontier function involves two random components, one associated with the presence of technical inefficiency and the other being a traditional random error, with one-side error term measuring inefficiency including deterministic components. This model use simultaneously determines the causes of inefficiency, rather than using a second-step procedures whereby efficiency estimates (obtain form step-one) are then regressed on a set of determinants.

The above econometric models have been used to estimate the effects of various variables on the firm performance. Obviously, the process of estimation of these factors and their impact on enterprise restructuring has been facilitated by the use of econometric techniques. The previous discussion illustrates that there is no consensus on a single performance indicator. As Bevan *et al.* (1999) observe, the analysis of performance indicators during transition is commonly criticised for applying benchmark measures, which would typically be expected to be utilised in mature market economies.

However, in addition to the problems of measurement of the variables of production function discussed above, various researchers in developed and transition economies have highlighted the problems associated with the measurement of performance in applied studies. Various researchers (such as Filer and Hanousek, 2002; Kocenda and Svejnar, 2003; etc.) note that firm-level data suffer from missing values and outlier observations. On other hand, Bevan *et al.* (1999), referring to Megginson *et al.* (1994) and Boardman and Vining (1989), indicate some of the problems that are faced in research on developed economies. Thus, the measurement of capital stock (measured by the book value of capital) can be inaccurate because of the historical cost

accounting conventions, which do not consider the impact of inflation and changes in relative prices. Such difficulties are likely to be even more pronounced in transition economies. Thus, Tobin's Q which is based on the value of firm's assets, is very problematic in transition countries when the capital market does not exist or does not function properly (Mygind, 2000). Also, profit is an unreliable measure of short-term performance because the accounting systems changed in the early stage of transition, and profits are likely to be misreported for tax purposes. In respect of the use of labour productivity level as a measure of restructuring, it can be misleading since a substantial improvement in labour productivity level is likely to be accompanied by a substantial drop in output, in the earlier stages of transition. Also, the reliability of labour force data can be questionable, as enterprises may attempt to lower their expenditure on social security contribution by underreporting their number of employment.

Furthermore, this distorted information is likely to reflect the level of the wage bill. Since, the level of labour productivity depends on both reductions in employees (as 'defensive' restructuring) and increase in sales (as 'active' restructuring), the factors that have caused its improvement need to be identified. Furthermore, influenced by the systematic change during transition, the interpretation and identification of enterprise performance is frequently hampered by the problems of endogeneity and sample selection bias. A typical endogeneity occurs in the analysis of the effects of privatisation on firm performance as it is known that firms who perform better are often privatised first (Jones *et al.* 2003). Firms, which are selected for restructuring and privatisation are typically not selected randomly, and the researchers should provide information on the sample selection method, utilised.

To sum up, various researchers have used econometric work to estimate the impact of the restructuring on firm's performance measured by profitability and productivity. Considering the problems of measurement of these variables, various researchers have used total factor productivity growth, estimated from a Cobb-Douglas production functions, as an indicator of performance in their econometric analysis. To overcome the problems related to the accuracy of the variables used to measure the profitability and productivity indicators, other authors have used an alternative indicator named '

index of restructuring' in their econometric work. It was also attempted to calculate an index and using it in our empirical work to investigate the extent of restructuring in Albanian firms.

4. Methodological Issues

This research work aimed at adding the evidence from Albanian fieldwork to that provided by previous research on the process of enterprise behaviour in transition. Primary research included data collection through both the survey and case studies of 97 privatised Albanian enterprises. To increase the general applicability of the results, primary research focused on the performance of privatised firms selected from several economic regions and industrial sectors, over the period of 1997-2002. Those enterprises included in the sample, which are 97 of them, are privatised through mass privatisation method.

The sector composition of 97 enterprises of the sample is presented in Figure 1. As the table indicates the largest number of mass privatised enterprises belongs to sectors of construction (15%), food industry (14%), agriculture (13%), mechanical industry (11%) and light industry (9%).

Figure 1.
Distribution of population firms by industrial sector
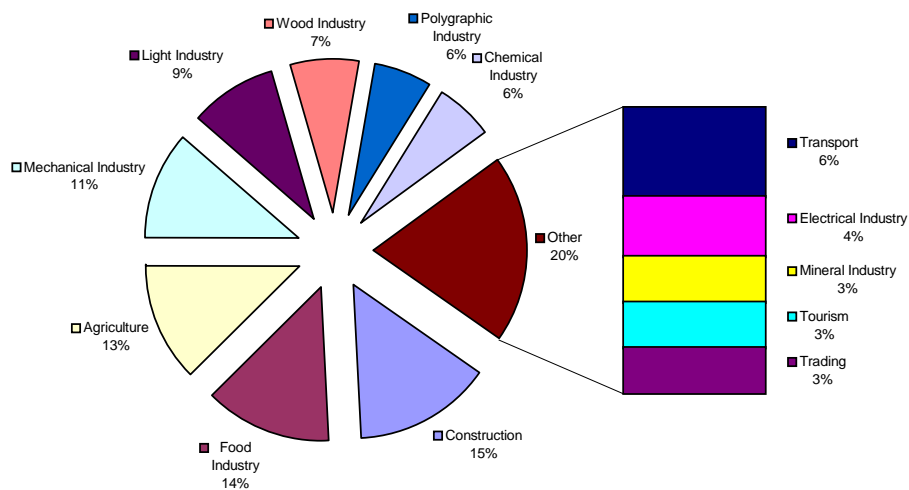
As for the geographical distribution of the sample, that is presented in Figure 2. The sampled firms came from 17 districts of Republic, representing 47.2% of the total number of district. The Capital Tirana was represented with the largest number of enterprises 39 (or 40.2% of the total), while 6 districts were represented with 1 enterprise each, showing of a weak geographical structure of mass privatisation programme.

Figurë 3.2.
Geographical distribution of population
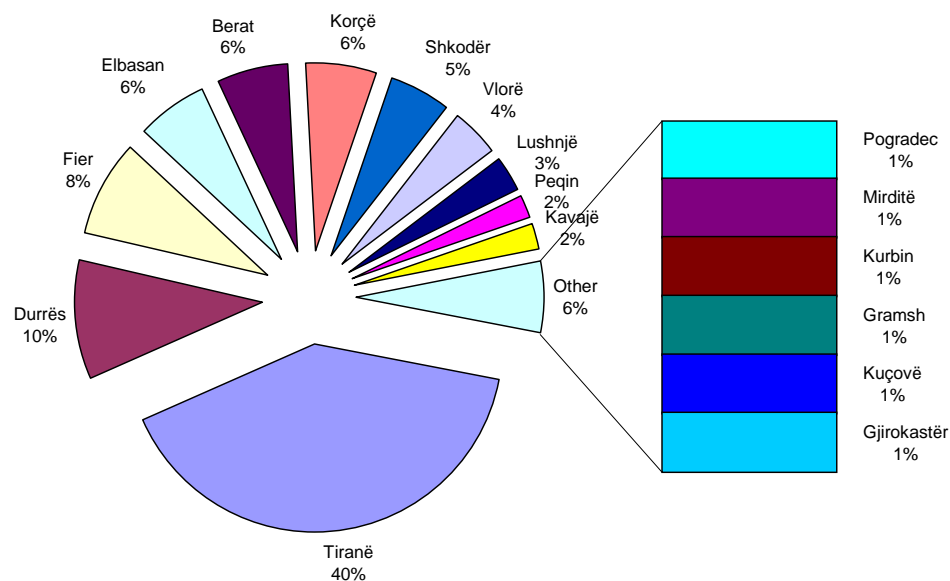
4.1 The Data

In order to obtain reliable and valid data, several sources were used in the empirical work employed in Albania. The financial data would be collected from the balance sheets and profit and loss statements of the enterprises and from other reliable sources (such as the Institute of Statistics and various ministries).

In order to decide what kind of data should be collected the question of 'how enterprise behaviour can be measured' was taken into consideration. According to the literature enterprise behaviour is supposing to be reflected in the extent of restructuring actions undertaken by the managers. From this point of view, enterprise restructuring is usually measured by firm-level productivity growth because the long-term objective of restructuring is to improve the level of the performance of firms to a

level similar to that found in mature market economies. In this context, the collected data must produce a set of variables, which are necessary to investigate the restructuring process. At the firm level we planed to collect data on: labour input; share of capital, material and labour expenditure in total expenditure; other expenditure (such as cost of energy, net financial charges, and income tax); investments as well as the receivables and payables for the 1997- 2002 period. Also, we use models of enterprise restructuring based on Claessens *et al.* (1997), Pohl *et al.* (1997), Estrin *et al.* (1998a) and Estrin and Rosevear. (1999), which are developed and applied to the Albanian enterprise restructuring process (more details in the following section). The data are annual observations at firm-level including total sales revenues, number of employees (both part-time and full-time), total hours worked, total value of production and exports as well as loss and profit. Also, information was collected concerning the current legal status of each enterprise, their ownership form, the percentage of shares held by the different groups of shareholders and its dynamics over the years, the privatisation method used, time when privatised, their main products' share of the Albanian market, managerial and organisational changes, marketing department size and marketing budget in total cost, unsuccessful plants or unprofitable lines of production. Most of the qualitative data provided by the interviews and questionnaire of the survey are utilised to produce an index of restructuring based on Estrin *et al.*'s (1998a) methodology.

4.2 Problems in Collecting Data in Albania

The data on ownership structure and enterprise restructuring in Albania that was actually collected was of an uneven quality, similar in this respect to the evidence available from other Central and East European countries, highlighted by Carlin *et al.* (1994), Frydman *et al.* (1997), Bevan *et al.* (1999), Recanatini *et al.* (2000), Filer and Hanousek (2002), and Kocenda and Svejnar (200). Furthermore, Belkindas *et al.* (1999), in their survey conducted to assess the quality of statistics in a number of transition countries, found that Albania has the lowest rank in social and economic quality indicators among transition countries (including Tajikistan, Turkmenistan, Moldova, and Bosnia). They particularly warned of the distortions caused by using the financial performance indicators as measures of enterprise restructuring in a

transition economy, particularly those depending on measurements of: capital; the value of the firms' assets; profit and wage bills. In addition, some other problems related to the data, which are brought out in this section, constrained the scope of the empirical work. It is important that these distortions and constraints are taken into consideration in the following empirical work and particularly when drawing conclusions.

In some cases the quantitative performance data was likely to be questionable because many enterprises appear to produce distorted data to reduce their tax-liabilities. Considering this weakness, this research work does not rely on profit data alone, but also utilises other measures of such as the index of restructuring, which also takes into account qualitative data. In order to provide accurate data, financial information was collected directly from the financial statements by the authors. Sample firms were visited several times, and several managers were interviewed in order to provide information on different issues. Furthermore, care was taken to triangulate their responses by cross checking responses during interviews.

Another specific problem observed during the primary research concerned the measurement of energy consumption at the firm level. It was observed that in some cases the electricity bill did not reflect the actual consumption of energy used for production. The interviewed managers reported that local inhabitants sometimes stole their electricity supply. In these enterprises the data on electricity consumption have been corrected using the information provided by the production department (for example Uzina Partizani, Tirane). Also, the electricity bills were obtained from two sources: firms, and the local office of the Albanian Energy Supply Co. (Korporata Energjitike Shqipetare).

The method of valuation of inputs and outputs was another problem, affecting financial data at firm level in Albania. According to general accounting principles this is based upon current cost, which is subject to an inflationary effect. As is noted in section one, the rate of inflation in Albania has changed during the period under consideration. This brings about a lot of fluctuations of input cost and output value. Therefore, it is important to take this into account and to use price indices (price

deflators) to deflate the financial data. We attempted to use different deflators for different product groups and industries but it was impossible as we could not find published information by the Institute of Statistics. Given the lack of the appropriate information, the consumer price index was used as price deflator in our further analysis.

This research project was planned to employ questionnaires over the all privatised enterprises through mass-privatisation method. But, we have faced a hard reality in which was impossible to find some former state-owned enterprises operating or named in the same way as during pre-privatisation period. Also, some of the privatised visited enterprises are found closed or split off in some very small units.

Overall, in spite of these problems, the collected data appears to be the best available for the purpose of this research. Care has been taken to collect the most credible data and to ensure its consistency across establishments and time. The evidence collected has been crosschecked using multiple sources to avoid a biased view and to capture a sense of reality in Albania.

5. Statistical Examination of the Sample

Before identifying the determinants of post-privatisation restructuring process of Albanian enterprises and its impact on firm's performance, let present some general properties of the sample first. As is mentioned in the section three, because of the problems faced, the fieldwork consisted of collecting data through survey in 80 out 97 companies. Even the Share Register Centre did not have any information on the whereabouts of remaining 17 companies. Mema (1998) argues that many of these companies have been object of immediate resale and change of activity after privatisation.

The first data collected from the interviews are those about the current situation of these companies. The first results are a bit shocking: Only 45 (or 56.3%) out of 80 enterprises that were contacted for an interview are still in operation. The rest of them

do not continue to run anymore their original activity. As we can see from Table 5.1, 19 (or 23.8%) enterprises were closed due to economic reasons; 9 (or 11.3%) were destroyed during the unrest of 1997; 4 (or 5.1%) were rented or converted to stores; 2 (or 2.5%) were split due to disagreements between owners; and 1 (or 1.3%) was returned to state.

Table **5.1 Current situation of mass privatised enterprises**

Current Status	Number	Percent
Operating	45	56.3%
Destroyed	9	11.3%
Closed	19	23.8%
Converted to Store	1	1.3%
Given for rent	3	3.8%
Split (not in operation)	2	2.5%
Returned to state	1	1.3%
Total	**80**	**100.0%**

Although the new privatised enterprises had to deal with very difficult political, economic and security conditions during and after the civil unrest of 1997, the rate of failure is large enough to let us think of a potential poor management and performance of these enterprises after privatisation. Therefore, the interview's data are complete only for these 45 enterprises that are still in 'business' at the moment and the further analysis will be based on the answers taken from these firms.

5.1 Ownership structure

As is mention before, one of the most important objectives of this research work was to study the ownership structure of enterprises and its evolution in the post privatisation years aiming to identify the potential impact of the ownership structure on the enterprises performance and on the process of restructuring during the post-privatisation period. As far as ownership is concerned, enterprises were classified in categories according to two main criteria: number of shareholders and the ownership share of the major shareholder, respectively presented in Tables 5.2 and Tables 5.3.

The data refer only to two years: the moment of privatisation and the moment of interviewing.

Table 5.2 Ownership structure at the moment of privatisation and today

Number of enterprises	Number of shareholders					
	≤ 20	20 – 50	50 - 100	>100	Unknown	Total
Moment of privatisation	1	5	6	32	1	45
%	2.2%	11.1%	13.3%	71.1%	2.2%	100%
Now	10	4	7	21	3	45
%	22.2%	8.9%	15.6%	46.7%	6.7%	100%

As the Table 5.2 and the respective Figure indicate, at the moment of privatisation the ownership structure of enterprises to some extent was dispersed considering the fact that almost 89% of the enterprises were middle size, and only 11% large size. Thus, more than 71% of the enterprises had more than 100 shareholders at the moment of privatisation; 13.3% of enterprises had from 50 to 100 shareholders; 11.1% of

Ownership structure at the moment of privatisation and today
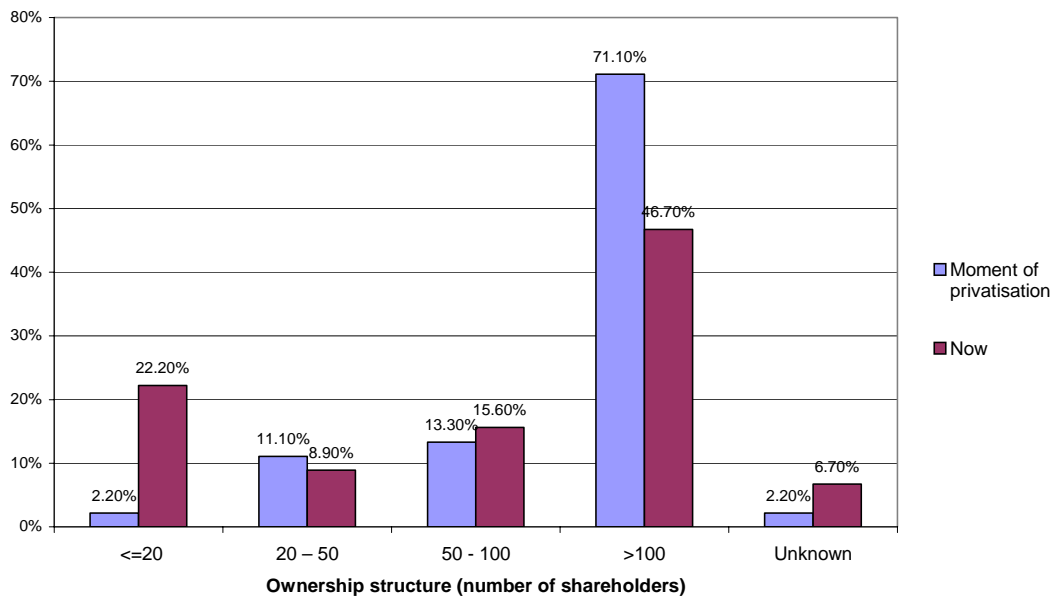
enterprises had from 20 to 50 shareholders; and only 2.2% (or only one enterprise) had less than 20 shareholders.

Whilst now at the moment of interviewing or approximately 5-6 years after privatisation a shift of enterprises from both edges of the ownership structure is

presented. Thus, there was an increase with 20% in the number of enterprises with less than 20 shareholders, while the number of enterprises with more than 100 shareholders has declined with about 25%. Whereas the groups, with over then average level of shares, show a slightly changes as a whole. The figures indicate that in the post-privatisation years a certain concentration of the ownership was likely to happen amongst the enterprises with a large number of shareholders (although the number of enterprises with more than 100 shareholders is still large, 46.7%). One reason for this trend might be related to the fact that the mass privatisation programme in Albania gave priority to the employees, managers rather then other individuals to buy shares of the enterprises. During 1995-1996 many of these owners who possessed small proportions of shares and had little or no voice in the decision-making, being also attracted form the high interests of informal financial institutions or conditioned from their poor economic situation, have sold their share of ownership looking for other investment or consumption opportunities. This concentration can also be observed in the data of Table 5.3, which represent the change in the share of top shareholders in two moments: at the moment of privatisation, and now at the moment when fieldwork was undertaken.

Table 5.3 Distribution of enterprises according to top shareholder's share

	Share of ownership					
Number of enterprises at:	**≤ 5%**	**5% - 25%**	**25% - 50%**	**> 50%**	**Unknown**	**Total**
Moment of privatisation	6	17	7	9	6	45
Percent	13.3%	37.8%	15.6%	20.0%	13.3%	100%
Now	1	9	6	23	6	45
Percent	2.2%	20.0%	13.3%	51.1%	13.3%	100%

As the above table indicates, at the moment of privatisation in the majority of the enterprises (37.8% of them) the top shareholder owned from 5% to 25% of the shares in his/her company; the other major group is the one of shareholders who own more than 50% of their enterprises' shares and that are present in 9 (or 20%) enterprises of the whole sample; and in only 13.3% of enterprises the top shareholder owned less than 5% of shares.

Distribution of enterprises according to major shareholder's share
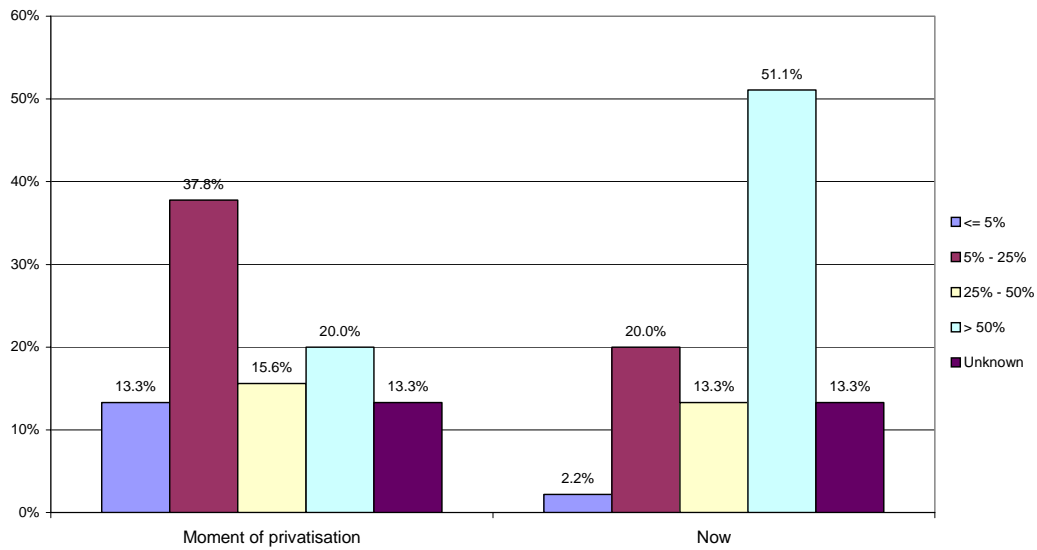
If we move 5 years ahead, now at the moment of this research we can see some reasonable changes in the share of the top shareholders. More than 51% of interviewed enterprises the top shareholder owns more than 50% of shares, which represent an increase with 13.3% (51.1%-37.8%) from the moment of privatisation. At the same time the group of enterprises, for which the top shareholder owns less than 5% of total shares has almost disappeared (now representing only 2.2% or one enterprise from the whole sample of 45 enterprises). Once again these developments in the structure of the top shareholders' share have likely indicated the concentration of ownership in their hands during these years of post-privatisation.

As far as the ownership is concerned, these 45 enterprises are classified into 8 categories, depending on their ownership groups. The respective information is presented in Table 5.4 and the following Figure.

Table 5.4 Shareholders' groups and their share in enterprise ownership

Participants	Share in the Enterprises				Total	Percent
	≤ 10%	10% - 25%	25% - 50%	>50%		
Government	0	0	2	8	10	22.2%
Banks, Investment funds, other financial intermediaries	0	0	0	0	0	0%

Domestic firms	0	0	0	2	2	4.4%
Foreign firms	0	0	0	1	1	2.2%
Employees & ex-employees	7	12	8	9	36	80%
Individual investors	6	10	4	10	30	66.6%
Managers of company	11	0	2	9	22	48.9%
Others	1	1	2	3	7	15.5%

As the above table shows, the ownership composition is dominated by the employees and ex-employees in 80%, individual investors in 66.6% and managers 48.9% of enterprises, while the financial institutions don not have any presence at all and domestic and foreign firms in a very few discrete cases. As far as the dominant[4] owner is concerned, we see almost to the same extent dominance of individual investors, employees, managers and government respectively in 11, 9, 9 and 8 enterprises.

5.2. Ownership structure and firm performance

Let's turn now to our main questions addressed in this research, which is whether there has been any change in the performance of enterprises under investigation and whether the enterprises of different ownership groups have experienced different performance. In order to give an overview of the changes that have taken place, we need to identify a number of performance indicators and trace their changes over the period under consideration. Initially some performance indicators have been calculated. Those are related to the profit, investments, employment and wages, and some quality indicators as well, which are considered in relationship with ownership structure.

Firstly let's have a look at the distribution of profit margin for the enterprises under investigation. In the Table 5.5 the enterprises are classified according to their profit margin on the following years after privatisation.

Table 5.5 The distribution of enterprises according to profit margin[5] on sales

Profit margin on sales

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[4] Dominant owner will be considered those who own more than 50% of shares in a company.
[5] This indicator refers to the is calculated by dividing the net profit/sales.

Number of enterprise at year:	≤ 0%	0 – 15%	> 15%	Unknown
1997	13	13	9	10
1998	9	17	9	10
1999	9	19	7	10
2000	6	23	6	10
Annual change	*-21%*	*13%*	*-3%*	

As we can see from the first column of the table (the one indicating enterprises with profit margin greater than or equal to 0%, or which are making losses) the number of enterprises from 1997 to 2000 is declining, which means that fewer enterprises are making with losses at the end of each year. On the other side if we look at the next column (the one representing enterprises with profit margin from 0-15%) the number of enterprises, which are making profit for each year, is increasing, whilst the number of enterprises making a profit above 15% per year is almost stable through the studying period. Although it is important to consider the quality of the data, we can emphasise that exists a general trend of increasing profits for the enterprises under investigation. We can examine also this phenomenon in relation to the various ownership structures (see Table 5.6).

Table 5.6 Average Profit Margin for various ownership structures and its growth rate

The distribution of enterprises according to profit margin on sales

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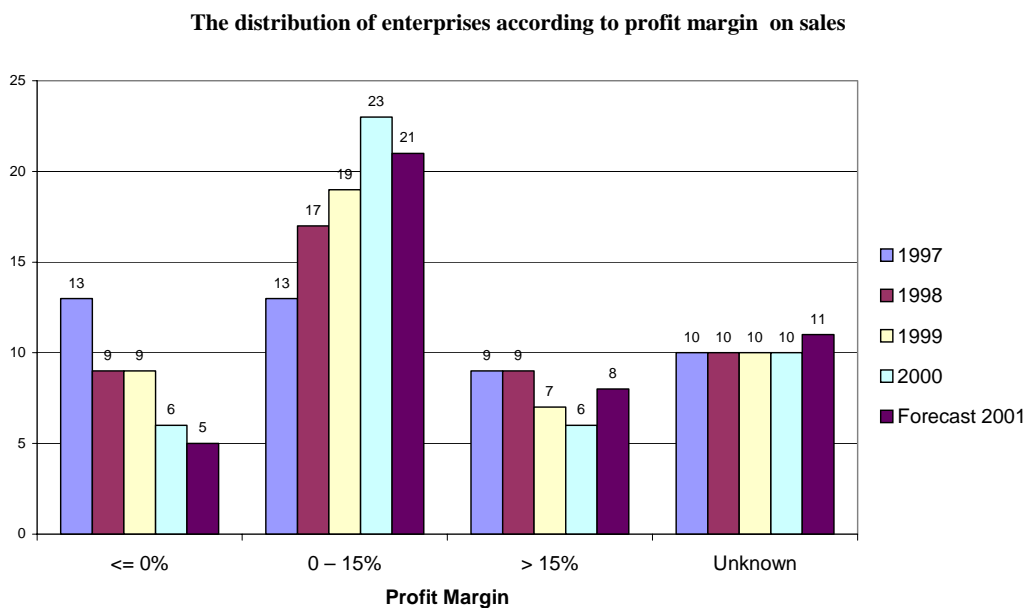
Year	Number of shareholders							
	≤ 20		20 – 50		50 - 100		>100	
	Margin	Growth[6]	Margin	Growth	Margin	Growth	Margin	Growth
P$_0$	2.00%	-	8.75%	-	-	-	9.47%	
1997	2.99%	7.34%	8.25%	-47.81%	3.42%	-	8.08%	-56.75%
1998	3.44%	6.54%	11.00%	24.63%	3.83%	3.50%	9.29%	6.23%
1999	5.81%	69.71%	10.75%	-1.27%	3.42%	-9.87%	7.03%	-23.26%
2000	6.38%	5.50%	12.25%	9.75%	3.83%	8.00%	7.29%	-0.50%
Annual growth		22.27%		-3.68%		0.54%		-18.57%

As the above table shows, the profit margins of all enterprises classified have an increase during all the period under investigation. But while for the enterprises with less than 20 owners is likely to be a continuous increase of average profit margin, for the other ownership structures the increases are interrupted by decreases in particular years. Also for the first ownership structure, which has the largest concentration of ownership, we notice that the annual growth rate of profit margin (22.27%) at average level is larger than the other structures (respectively –3.68%, 0.54%, and –18.57%). Therefore it is likely that the more concentrated the ownership structure is, the greater is the annual growth rate of profit margin and vice versa: for the more dispersed the ownership structures, the smaller is annual growth rate of profit margin. A reason of this fact might be that the enterprises where the ownership and management is concentrated in fewer hands there are some more opportunities and greater incentives for managers to speed up restructuring and perform better and that's mainly because there are fewer delays and disagreement amongst the various interest groups. However, this fact has to be with caution, because the profit margin as indicator of performance had some problems, which are discussed, in the previous section.

In order to assess the effectiveness of the restructuring process, at least in its initial stages after privatisation, it is important to consider changes in employment levels during 1997-2000. One of the key variables is the number of redundancies. The layoff phenomenon is caused by two main reasons. As is discussed in the first section, during the first years of Albanian economic transition there was a decline in demand,

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[6] The growth figures are expressed in real term, which means that those are regulated with the respective inflation rate for each year

which affected sales and production levels as well the level of employment. Secondly, many firms in socialist economies suffered from over-employment and had to reduce their employment levels under the new market conditions. In Table 5.7 is represented information on employment and profit margins, which characterises the enterprises under investigation during the years 1997-2000 according to different ownership structures. It can be seen that the level of employment declined more notable in 1997 than in the other years. This fact may be explained with two main reasons that are: firstly the political and economic crisis of 1997 affected all the businesses causing the sales, production and therefore the employment to go down as well. The second reason might be the fact that 1997 is just after the privatisation of these enterprises, and therefore the management might have taken some restructuring measures causing the lay offs in the over-employed sectors of activity.

Table 5.7 Annual percentage changes in employment and profit margin according to various ownership structures, 1997-2000.

Ownership Structure	Annual Employment change					Annual Profit Margin Change				
	1997	*1998*	*1999*	*2000*	*Averag.*	*1997*	*1998*	*1999*	*2000*	*Averag.*
≤ 20	-34.20%	-19.40%	3.20%	-15.10%	*-16.38%*	7.34%	6.54%	69.71%	5.50%	*22.27%*
20 - 50	-31.50%	-5.20%	-9.00%	0.00%	*-11.43%*	-47.81%	24.63%	-1.27%	9.75%	*-3.68%*
50 - 100	-53.40%	-19.10%	-21.00%	4.10%	*-22.35%*	-	3.50%	-9.87%	8.00%	*0.54%*
>100	-44.40%	-7.80%	-6.70%	-36.40%	*-23.83%*	-56.75%	6.23%	-23.26%	-0.50%	*-18.57%*
Average	-40.88%	-12.88%	-8.38%	-11.85%		-32.41%	10.23%	8.83%	5.69%	

Looking at the data we can observe that the annual changes in employment do not move in the same direction to the annual changes in profit margin. Contrary, in 1998 for example, although there are some increases in profit margin for each of the ownership structures, the number of employees declined. Similar phenomenon, although of a smaller extent, appear to be to other years as well, for example in the years 1997, 1999 and 2000 for the first ownership structure (≤ 20 shareholders per enterprise). The same dynamics offers also the average changes for each year in employment and profit margin. These average changes are totally correlated negatively. Another important observation from the Table 5.6 is related with the fact that while the ownership structure becomes more disperse: as the average reduction in employment increases (from -16.38% to -23.83%), the average growth in profit

margin decreases (from 22.27% to –18.57%). This may be explained with by the fact that the actions undertaken by the managers of the enterprises with more concentrated ownership structure to restructure by reducing the employment have been more effective in terms of profit margin growth than the actions undertaken from the managers of enterprises with a more dispersed ownership structure. Thus, changes in profit margins are associated with changes in the number of employees, but their level and direction appear to vary across different ownership structures.

5.3 Quality indicators of firm performance

The actions that managers of mass privatised enterprises have undertaken in order to restructure their enterprises to survive in the new market economy are likely to affect profitability and other measures of firm performance. Considering the fact that due to lack of data, the financial evidence on firm performance was limited, it is important to consider some additional qualitative indicators giving evidence on firm performance. In order to identify the patterns of behaviour which characterise these enterprises, the interviews collected evidence on organisational, managerial and behavioural transformations after privatisation.

From this point of view, the enterprise survey also included questions on changes in the managerial structure after privatisation. Accordingly, the evidence shows that about 67% of enterprises (30 out of 45) had experienced some changes in their managerial structure. These changes were related to several managerial functions. So 68% of enterprises had introduced some managerial changes in the both structures of financial management and operations and production management; 62% of enterprises had introduced some changes in the both structures of marketing management and quality management and control. Only 33% of enterprises had not experienced any significant changes in their managerial structure. The evidence shows that most of the enterprises that did not experience changes in the managerial structure had a more dispersed ownership structure. So more than 60% of these enterprises had more than 50 owners, and only 6.7% of them had less than 20 owners. To some extent it was expected that enterprises with a dispersed ownership would not introduce strategic-deep restructuring because managers was likely to have lack of

sufficient incentives and some difficulties might exist to achieve an agreement amongst a relatively large number of shareholders.

According to Lati (2001) the incentive system and managerial behaviour, which are closely related to the corporate governance issues, are found to have a strong impact on the speed of the restructuring process of Albanian enterprises. From this point of view, some qualitative information concerning the degree of financial autonomy of the top and middle managers was collected. The aim was to observe the level of independence of senior managers on various aspects of decision-making. So to point out the ability an incentives of managers to restructure they were asked whether they had ever tried to closed unproductive lines of production. 53% of them (or 24 out of 45) answered positively to this question: 25% were managers of enterprises with less than 20 owners, 12% from enterprises with 20-100 owners and 58% were managers of enterprises with more than 100 owners. Although these actions should be indicators of deep strategic restructuring, they were found to be relatively rare and most of them were undertaken on a small scale rather than as a part of a clear strategic programme for enterprise development.

5.4 The Index of Restructuring

The literature has broadly argued that restructuring is a process of overall change. In this respect, the extent of restructuring cannot be captured by any one variable but requires the construction of an aggregate measure of simultaneous changes across several dimensions. In order to provide a more complete study of the extent of restructuring in Albanian privatised enterprises, we attempt to construct an alternative indicator of restructuring and report on the measurement of such an indicator at an aggregate level and also for all sample enterprises.

As is noted above, in interviews with senior managers they were asked about aspects of their operations relevant to restructuring: changes in ownership form, market share, financial issues (including input costs, outputs, investment, receivables and payables), improvement in managerial and organisational structure, and arrangements for social and other surplus assets, all reflecting the enterprises' reaction to the new market

environment. Following the methodology used by Estrin *et al.* (1998a), we have attempted to measure the scale of restructuring in five main areas. The restructuring in each area is based on the extent of changes in a number of variables for which information was sought in the interviews. The extent of change in each of these variables is ranked on a 1-5 scale (with 1 indicating no changes, 2- a small amount of change, 3- moderate change, 4- large change and 5- very large change). In general, to determine the range of the changes in the variables for each rank, it was decided to apply the methodology adopted by other researchers (in order to make these indices comparable to those of other countries). However, the characteristics of the selected Albanian enterprises (reflecting the specific features of the Albanian privatised enterprises) have also been taken into account for some particular ranks (e.g. to define the ranking for changes in the share of the cost of marketing department in total cost). The 'index of restructuring' for each area is then calculated as the average of the rankings given to variables representing that area. The five areas are discussed below.

Restructuring index: assets aspect. The literature, noted that new investment is often considered as the main indicator of a 'strategic-active-deep' restructuring. In order to improve firms' economic and financial performance in the long run, new investment is needed to adapt and to improve production technology. This index demonstrates the extent to which the assets of the enterprise have undergone any change. It is based on changes in the investment-sales ratio. Although it would have been better to include investment in R&D and training, which are associated with long-run growth, it was not possible to do so because this data was not available. Restructuring of assets is also closely linked to the ability of the firm to dispose of its social and other surplus assets. But the available data did not allow the calculation of a scale for the extent of the disposal of social and other surplus assets, as the interviewees could not provide quantitative information on this issue. Therefore, this variable is not included in the index of the restructuring of assets. Instead the measure uses the data collected on the new investment undertaken by sample enterprises.

Restructuring index: product market aspect. The restructuring process leads to changes in output mix and firms' share of the market. New products were introduced in 25 out of the 43 sample enterprises; these new products accounted for 44.5% of the

sales revenue in these enterprises by 2002. Liberalisation of the economy has resulted in another major change, the reorientation of the consumer to other domestic and international suppliers, which has forced firms to change their products. Also, liberalisation of the market imposed a competitive environment, which caused the reorientation of the firms' production to consumer demand. The extent of product market restructuring may therefore be identified by the role of new products, and changes in market share and exports. The product aspect of the index of restructuring was then calculated as the average of the rankings of these three variables.

Restructuring index: financial aspect. Financial restructuring is another important aspect of the enterprise restructuring process. The extent of financial restructuring can be identified through changes in bad loans and in outstanding receivables and payables. The interviewees were asked about changes in bad loans but they were unable or reluctant to respond fully to this question. In some cases, their response reflected the fact that the accounting system could not always provide detailed information on bad loans. In other cases, respondents were unwilling to categorise bad debts. Thus, restricted by the evidence provided by sample firms, it was not possible to provide a ranking for the first area of financial restructuring. However, sample enterprises have mostly provided information on receivables and payables, which is used as the indicator of financial restructuring.

Restructuring index: labour and management aspect. Labour shedding is considered by the previous studies (Carlin *et al.,* 1995; Claessens *et al.,* 1997; Djankov *et al.,* 1997; etc.) as a short run adjustment or defensive restructuring. Following Estrin *et al*. (1997), who point out that many restructuring changes can be measured directly in terms of organisational (managerial) and employment changes, we have calculated an index of the restructuring of labour and management based on changes in both labour and management variables. The specific variables related to this aspect of restructuring are the number of workers laid off and the scale of changes in managerial structure, particularly in the financial and marketing departments (including the share of budget allocated to the marketing department).

Restructuring index: inputs aspect. The restructuring process induces an efficiency improvement in the use of inputs. The extent of the restructuring in this area can be measured by the reduction in material costs and savings on energy per unit of output. The changes in each of the specific variables were allocated ranking on a 1 - 5 scale and the index of restructuring of inputs was then calculated as the average of the ranking of the two variables.

The restructuring indices in each of the five areas were also averaged to produce an overall index of restructuring for each firm to be used in our investigation. These indices indicate that, on average, the extent of restructuring in Albanian enterprises in our sample has been fairly low when compared to those found in other countries (see Estrin *et al*., 1998).

Table 4.8 Index of restructuring

Restructuring aspects	Index
Assets aspect	2.33
Product market aspect	2.70
Financial aspect	1.42
Labour and Management aspect	2.39
Inputs aspect	2.83
Index of restructuring	*2.33*

The indices reveal that managers have taken measure to restructure their enterprises and these measures mainly were related to the reduction of wastage of raw materials and improvement of management and employment issues. It should be mentioned that the least efforts have been made towards the restructuring of loans. To have a clearer picture of how these indices might be related to different ownership concentration structures, which are presented in the above figure

Indices of Restructuring for various Ownership Structures
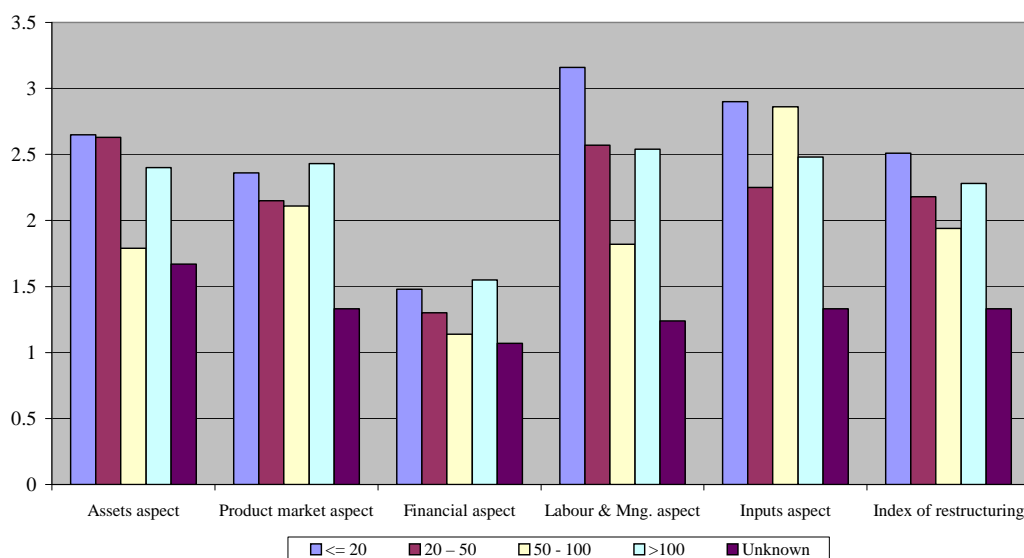
As the Figure indicates the average score for each area of restructuring and for each ownership group is less 3.0 (moderate transformation or change), with the exception of labour and management aspect of restructuring for the group of companies with less than or equal to 20 shareholders. For the sample as a whole we can see that the index of restructuring is less than 2.5, demonstrating of insufficient efforts to change. It is interesting to notice the fact that for each of the restructuring aspects we can see a potential trend that as the ownership becomes more and more dispersed, the restructuring index decreases, with the exception of the restructuring indices for the group of enterprises with more than 100 shareholders. This characteristic of restructuring indices can be explained with the fact that it might be easier to come to an agreement when fewer shareholders of different interest groups are involved in the process. Therefore the decision making process it is easier and faster in the companies with concentrated ownership and their managers can implement more deep and strategic restructuring measures. In addition to this observation, the author notices that for each of the ownership groups the highest indices values are those related to the input and labour and management aspect, demonstrating for higher efforts are made from managers for the structural transformation of their companies and a more efficient use of raw materials and energy. The more problematic issues and disregarded from managers seem to be those related to the restructuring of loans, for which the level of transformation index is the lowest (related to financial aspect of

restructuring index). Fewer actions have been undertaken to prolonging the maturities or revitalising the loans of the company. From the point of view of ownership, there are significant observable differences between the groups in the surveyed companies, thus the enterprises dominated by a relatively small number of owners seem to have done marginally better in all the aspects of restructuring.

However it has to be emphasised that given the nature of the data, these indices have to be used with caution as they may produce misleading results if they are relied upon as the only measure of restructuring. Additional information is required to supplement the knowledge conveyed by the index of restructuring if we are to make a definitive judgement on the state of enterprises.

6. Econometric Results

In the previous sections, we presented the main characteristics of the sample and an overview of changes in various performance indicators, as well as an initial examination of a range of bivariate relationships between performance on the one hand, and ownership form on the other. In order to identify the factors that contribute to the restructuring process and to quantify the importance of each particular factor, a model of enterprise restructuring based upon the similar research work in other East and Central Europe has been developed and applied to the Albanian enterprise sample. It is expected that this investigation will shed light on various general and specific factors relevant to Albania, and also allow a comparison of empirical results for Albania with those of other Central and East European countries.

The measurements of productivity and profitability analysed in the previous section provide a general view of the changes in performance indicators for various sectors and dominant ownership forms throughout the sample period. The distribution of labour productivity, TFPG and average operating profit were presented according to the main manufacturing sectors and main ownership types as these were believed to reflect the impacts and determinants of enterprise restructuring. The model used in

this study assumes that enterprise restructuring results in improved performance at enterprise level, with performance being measured by labour productivity growth, total factor productivity growth, sales revenue growth and profitability. Performance is assumed to be influenced by several other factors including:

Form of ownership. Theoretical and empirical literature documented the influence of ownership upon enterprise performance. Privatised enterprises are expected to have better performance than those still owned by the state. Furthermore, the privatised enterprises with a concentrated ownership structure and dominated by outsider-owners, both foreign and Albanian, are expected to perform better than enterprises dominated by insider owners.

Length of privatisation period. The longer the enterprise has been under private ownership, the greater is the expected positive impact on performance. Changes in the ownership form through privatisation cannot be reflected instantly in the firms' performance; the new owners need some time to undertake action toward restructuring and to achieve the expected resulting benefits.

Initial conditions. The existing empirical evidence is mixed on the relationship between initial levels of productivity and productivity growth. Some studies find that low initial levels of productivity have positive effects on subsequent productivity growth (catching-up effect). Other studies find a positive correlation between the initial level of productivity and productivity growth. Better firms are more likely to continue improving, because they are better at "learning while doing", or because they have better access to capital and external know-how (Claessens *et al.,* 1997).

Size. Larger enterprises may respond less quickly than smaller enterprises to restructuring efforts of the managers, but they, on other hand, may have preferential access to financing, which may enhance their capacity to restructure. Empirically, this point is still unresolved. Some studies (Pinto *et al.,* 1993; and Djankov and Pohl, 1997) find a positive correlation between firm size and restructuring, while others (Estrin and Takla, 1995) come to the opposite conclusion.

Sector. Sectors are affected differently in the transition process and subject to separate exogenous shocks. The sector origin of enterprises will therefore have some effect on their restructuring. Some sectors (such as Textiles, Cements and Concrete) may be adjusting more quickly than some other sectors (such as Primary Metals and Metal

Manufacturing, and Energy). In view of market conditions, enterprises of the first group are operating in a more stable market than others. Furthermore, enterprises in the second group typically possessed a vertically integrated form of organisation inherited from the previous period.

Accordingly, given this summary of the factors which are expected to influence enterprise performance and restructuring, we build a general model represented by the following equation:

$P_i = P_i (I_i, O_i, T_i, S_i, C_i, e_i)$

Where: **i** denote individual enterprises; **P** refers to performance; **I** refers to initial conditions; **O** to ownership type; **T** to years since privatisation; **S** to size; **C** to sector; and **e** is a vector of other factors affecting individual enterprise performance.

Based on the collected dataset, regression analysis is used to estimate the impact of various factors on the restructuring process. Several econometric models have been used to estimate the impact of independent variables on measures of performance. In particular, the above model was used to develop five econometric models which vary either in terms of the performance indicators used as dependent variables, or in terms of measures for independent variables as described later in this section. For the dependent variables we have tested total factor productivity growth, labour productivity growth, sales revenue growth, average operating profit growth, and our index of restructuring. Only to some extent may these be considered as substitutes for each other (e.g. labour productivity growth is only one element of TFPG). With the exception of the models with TFPG and index of restructuring as dependent variables, other models generated results, which did not contain any statistically significant independent variable. Thus, we largely focus on the models based on TFPG and index of restructuring as dependent variables in our econometric analysis.

Firstly, since we aim at first replicating the work of Claessens *et al.* (1997) and to compare estimated coefficients for Albania with those of seven other East and Central European countries,[7] the first two econometric models are similar to those used in Claessens *et al.*'s (1997) study. The similarity consists of the variables and their

measurement, and the econometric technique (random effects) used in these models. The first one has TFPG as the dependent variable and size quartile, sector dummies and 1998 TFPG quartile as a proxy for initial conditions of productivity.

Model 1(a): Estimation of the impact of initial conditions

$$TFPG_{it} = \alpha_i + \sum_{q=1}^{4} \beta_{1q} I_{i'98q} + \sum_{q=1}^{4} \beta_{2q} S_{i'98q} + \sum_{d=1}^{7} \beta_{3,d} C_{id} + e_{it}$$

Where: i, t denote firm and year respectively; α and β's are coefficients of constant and of each of the explanatory variables respectively; I denotes initial condition; S denotes size of the enterprise; C is used for sector.

In terms of what determines firms' performance, a common approach has been to estimate the TFPG[i] and then regress the estimated values of TFPG on a vector of hypothesised explanatory variables. However, such a two-step procedure is econometrically inefficient, a problem which has not been identified by others despite their frequent use of this procedure. An alternative approach is the stochastic frontier production function, which uses a one-step rather than two-step estimation procedure. We have employed the two-step procedure in order to be able to compare the estimation results of our sample with those of other transition countries presented in Claessens *et al.* (1997). However, the stochastic frontier production function would be an alternative approach estimating the determinants of performance in our sample. The frontier technique has been consider but the data size do not allow to produce the meaningful results

Our first attempt is to replicate for Albania Claessens *et al.* (1997) model. This model has been widely used in the literature on transition and will enable us to compare the determinants of the restructuring process in Albania with those in those transition economies studied by Claessens *et al.* (1997). We would than develop other models using alternative formulations, with different independent variables and different indicators of restructuring.

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[7] These countries are Bulgaria, Czech Republic, Hungary, Poland, Romania, Slovakia and Slovenia.

The level of total factor productivity in 1998 should be used to indicate the effect of the initial conditions on the performance. However, it is not possible to use the actual value of TFPG as an independent variable, because of the difficulties in measuring accurately the output and input levels in inflationary conditions. Also, the estimated values of the TFPG in 1998 cannot be used as these are included in the dependent variable. Instead, following Claessens *et al.* (1997), we used total factor productivity growth in 1998, which has been divided into quartiles with dummy variables representing each quartile. The four divisions have respectively total factor productivity growth levels, up to -1% in the first quartile, -1% to 0% in the second quartile, 0% to 1% in the third quartile and over 1% fourth quartile.

Enterprise size is also included in the model, measured in the same way as by Claessens *et al.* (1997) to enable comparison of our econometric results with theirs. This indicator was based on the number of employees in 1998 divided into quartiles with dummy variables used for each quartile. The four groups include firms with employment levels, respectively, up to 78 employees in the first quartile, from 78 to 151 employees in the second quartile, from 151 to 397 employees the third quartile and over 397 employees in the last quartile.

Dummy variables are also used to indicate the sector origin of each enterprise for six sectors. These variables are control variables as well.

Model 1(b): Estimation of the impact of initial conditions and privatisation
This variant of the model has, in addition to the above variables, dummy variables for years since privatisation as independent variables. The number of the years since privatisation is suggested as another factor that influences the extent of restructuring. We introduce dummies for years since privatisation to test whether the length of time since privatisation, rather than privatisation itself, has an impact on performance.

$$TFPG_{it} = \alpha_i + \sum_{q=1}^{4} \beta_{1q} I_{i'98q} + \sum_{q=1}^{4} \beta_{2q} S_{i'98q} + \sum_{d=1}^{7} \beta_{3,d} C_{id} + \sum_{p=1}^{4} \beta_{4p} T_{itp} + e_{it}$$

Where: *T* denotes years since privatisation as a dummy variable.

The estimation results of the both versions of the first model are presented in the Table 1. The econometric issues arising from this estimation are discussed in the next subsection. As the above table shows, the only significant variable at the 95 percent level in the first model is the dummy for largest size (i.e. those with over 397 employees). Also, a positive correlation at 90 percent level is found between initial level of productivity and total factor productivity growth, which is likely to be explained by the access to capital and external know-how.

Table 1   **Estimation Results on Initial Condition (Model 1a)**
Estimation Results on Initial Condition and Privatisation (Model 1b)
(Dependent variable: TFP-Growth; Panel Data, Random Effects)

EXPLANATORY VARIABLES	Model 1(a)	Model 1(b)
Constant	0.029(0.321)	0.005(0.062)
2nd Quartile of Total Factor Productivity	0.053(1.454)	0.045(1.233)
3rd Quartile of Total Factor Productivity	-0.027(0.480)	-0.041(0.693)
4th Quartile of Total Factor Productivity	0.077(1.835)*	0.070(1.691)*
2nd Quartile of Size	0.057(1.214)	0.048(1.071)
3rd Quartile of Size	0.073(1.447)	0.080(1.604)
4th Quartile of Size	0.121(2.157)**	0.128(2.286)**
Chemical	-0.102(0.992)	-0.071(0.768)
Energy	-0.187(1.733)*	-0.156(1.631)*
Food & Tobacco	-0.043(0.436)	0.025(0.282)
Textile & Furniture	-0.126(1.321)	-0.126(1.401)
Primary & Metal Manufacturing	-0.119(1.210)	-0.093(1.085)
Cement & Concrete	-0.113(1.044)	-0.106(1.044)
3nd Year since Privatisation		0.106(2.272)**
4rd Year since Privatisation		0.011(0.200)
5th Year since Privatisation		0.004(0.069)
No. of Observations	129	129
R-squared	0.114	0.153
D-W statistic	1.95	1.97

t - Statistics shown in bracket. ** Significant at the 95 percent level. * Significant at the 90 percent level.
The estimates are heteroscedacity consistent.

A negative effect at 90 percent level is indicated for enterprises selected from energy sector, which is likely to be explained by their monopolistic position and they being state-owned. In general, these are fairly poor results with few significant explanatory variables and low explanatory power. This is likely to be explained by a small heterogeneous sample and the uneven quality of data. However, comparing the econometric results of our sample, presented in Table 1 (Models 1(a) and (b)), with those discussed by Claessens *et al.* (1997) we find some similarity in terms of the impact of the largest size dummy, with those in Poland and the Slovak Republic (see Appendix 2: Estimation of the Impact of Initial Condition in Seven Transition Economies). These results indicate that, ceteris paribus, larger firms perform better,

which may be explained by the access to financing or in our sample by the revenues provided by assets sold or the ease with which larger firms can shed labour.

In the study by Claessens *et al.* (1997), the total explanatory power is between 8 percent and 15 percent, which is broadly comparable with that in the Albanian sample. The level of this indicator shows that there is a significant component of unexplained variation in enterprise performance measured by TFPG, presumably due to management qualities and skills, their incentives to restructure as well as the quality of data across enterprises. Furthermore an important factor that should influence the TFPG is technology changes. In respect to this, we note that there is little technology change in our sample over the surveyed period as evidenced by the low level of new investments.

The estimation results of the second model show that in addition to the significant influence of the larger firms, an important factor that may help to explain the variation in firm performance is privatisation and in particular the length of time since privatisation. Following Claessens *et al.* (1997), this variable is used in the second model as dummy variables (years since privatisation), indicating the time path of privatisation effects. As Table 1, Model 1(b) shows, the estimation results indicate a significant (at the 95 percent level) positive coefficient for the firms in second year since privatisation, which is somewhat similar to Claessens's findings presented in the Appendix 2 (Estimation for Initial Condition and Privatisation in Seven Transition Economies) and in particular to Polish results. This finding is consistent with those from the other seven transition countries and suggests that privatisation is more likely to lead to changes in the second year, and the effects seem to slow down in later years. Another explanation is likely to be that firms with good prospects were privatised first.

On the whole, though based on the same econometric technique and variables as Claessens *et al*. (1997), Models 1(a) and (b) do not produce 95 percent significant coefficients (except in two cases), i.e. the listed variables fail to explain the impact of explanatory variables on TFPG. The reason may be the number of observations which is small (129) compared to the number of observations in Claessens *et al.* (1997)

(over 2600 on average). Under these conditions, using a large number of dummy variables relative to the number of observations available affects the estimators' properties, as discussed in detail in the next subsection. To overcome this problem, we have tried to replace some of the dummy variables used in Models 1(a) and 1(b) with alternative continuous variables. As an alternative to dummies for size and years since privatisation, we have used the number of employees in 1998 and the actual number of years since privatisation in further econometric work, thus reducing the number of dummies by six. However, this alternative model did not show any improvement. Furthermore the effects of the particular size and the years of privatisation were hidden. Thus, our further econometric analysis utilised the same variables discussed in the above models.

Earlier research on restructuring refers to the positive impact of ownership form on firm's performance. Enterprises have performed differently by ownership types indicating that different extents of restructuring have been undertaken. The form of ownership and its concentration influence the corporate governance mechanism and the managers' incentive to restructure their firms in order to improve productivity and profitability. Thus the impact of two other factors (type and concentration of ownership) on total factor productivity growth are then estimated in the Model 2.

Model 2: Estimation of the impact of initial conditions, privatisation, and ownership type and share of dominant ownership.

We now consider the impact of different ownership types as well as share of the dominant ownership group on the restructuring process. We would also use two different indicators of the progress of restructuring.

(a)
$$TFPG_{it} = \alpha_i + \sum_{q=1}^{4} \beta_{1q} I_{i'98q} + \sum_{q=1}^{4} \beta_{2q} S_{i'98q} + \sum_{d=1}^{7} \beta_{3,d} C_{id} + \sum_{p=1}^{4} \beta_{4p} T_{itp} + \beta_5 IO_{it}$$
$$+ \beta_6 AO_{it} + \beta_7 FO_{it} + \beta_8 Sh_{i'2002} + e_{it}$$

(b)
$$LPG_{it} = \alpha_i + \sum_{q=1}^{4} \beta_{1q} I_{i'98q} + \sum_{q=1}^{4} \beta_{2q} S_{i'98q} + \sum_{d=1}^{7} \beta_{3,d} C_{id} + \sum_{p=1}^{4} \beta_{4p} T_{itp} + \beta_5 IO_{it}$$
$$+ \beta_6 AO_{it} + \beta_7 FO_{it} + \beta_8 Sh_{i'2002} + e_{it}$$

Where $LPG_{i,t}$ denotes labour productivity growth of firm i in the year t; *IO, AO,* and *FO* represents the ownership type, represented by dummies for each type of ownership; and *Sh* refers to the share of dominant ownership group in 2002.

Model 1(b) can be considered as nested within Model 2 (a). This model is used to estimate total factor productivity growth utilising a dummy for dominant ownership type and the shares of dominant ownership group in 2002 (to indicate the effects of the share of dominant ownership type) in addition to other variables used in Model 1(b).

The estimation results produced from Model 2(a) and (b) are presented in Table 2.

Table 2 **Estimation Results for Initial Conditions, Privatisation and Ownership Type and Concentration**
(Dependent variable: TFP-Growth; Panel Data, Random Effects)

EXPLANATORY VARIABLES	TFPG 2(a)	Labour Productivity Growth 2(b)
Constant	-0.057(0.039)	0.031(0.245)
2nd Quartile of Total Factor Productivity	0.042(1.107)	-0.010(0.164)
3rd Quartile of Total Factor Productivity	-0.044(0.771)	0.147(2.005)**
4th Quartile of Total Factor Productivity	0.062(1.525)	0.006(0.103)
2nd Quartile of Size	0.062(1.165)	-0.019(0.255)
3rd Quartile of Size	0.08(1.486)	-0.144(2.682)**
4th Quartile of Size	0.140(2.408)**	-0.077(1.449)
Chemical	-0.009(0.091)	0.086(1.094)
Energy	-0.075(0.690)	0.126(1.160)
Food & Tobacco	0.034(0.342)	0.042(0.556)
Textile & Furniture	-0.018(0.166)	0.120(1.641)*
Primary & Metal Manufacturing	-0.026(0.266)	0.035(0.410)
Cement & Concrete	0.029(0.244)	0.133(1.601)
3nd Year since Privatisation	0.096(2.174)**	0.105(0.193)
4rd Year since Privatisation	0.021(0.414)	-0.036(0.697)
5th Year since Privatisation	0.072(1.018)	-0.019(0.269)
Insider-Owned	0.036(0.738)	0.049(0.898)
Outsider (Albanian)-Owned	0.130(2.784)**	0.039(0.605)
Outsider (Foreign)-Owned	-0.073(1.378)	-0.052(1.181)
Share of Dominant Owners	-0.024(0.289)	-0.072(0.605)
No. of Observations	129	129
R-squared	0.231	0.180
D-W Statistic	2.02	2.47

t - Statistics shown in bracket. ** Significant at the 95 percent level. * Significant at the 90 percent level.
The estimates are heteroscedacity consistent.

As discussed above, Model 2(a) is used to capture the impact of the ownership form and the ownership concentration on the firm's performance. In addition to the significant explanatory variables of size indicted in the Models 1(a) and (b), the above

table indicates that being an outsider (Albanian)-owned has a significant (at the 95 percent level) positive effect on performance. A conventional interpretation of this result is that managers in outsider (Albanian)-owned enterprises are more likely to undertake actions to restructure their enterprises. An alternative explanation could be that outsider domestic owners are more able to acquire better firms than other owners, or they have better access to new capital and managerial skills than potential insider-owners.

Concerning the magnitude of the effect of the significant variables in the Model 2(a), the above table shows that on the average the total factor productivity growth has been increasing at the rate of 13 percent per enterprises dominated by the domestic outsiders owners. Also, larger enterprises are like to cause an increase on the average level of total factor productivity growth by 14 percent, and the third year of privatisation affects by 10 percent the average the dependent variable. However, several alternative specifications have been tested dropping various variables, but these confirmed that the variables which influenced total factor productivity growth were those already identified in the Model 2(a), Table 2.

In addition to the TFPG, an alternative indicator of firm productivity (labour productivity growth) is used in Model 2(b). As Table 2 indicates, the estimated results of Model 2(b) show a significant negative relationship between firms' initial size (measured by the employment level in range from 151 to 397 employees) and labour productivity growth. The pressure of the politicians can explain this result on the managers of these enterprises (which are usually located in main cities) not to reduce the number of employees in order to improve their re-election prospects. The estimated results indicate a significant positive relationship between firms with a good initial level of the productivity and labour productivity growth. This finding is similar to those presented by Claessens *et al.* (1997) suggesting that better firms are more likely to continue improving because they have better access to capital and external know-how. Also, a positive correlation (at the 90 percent level) is found between labour productivity growth and enterprises selected from textile and furniture sectors. This finding is likely to be explained by the impact of privatisation process because two-third of sample enterprises from these sectors are privatised. As Table 2

indicates, those enterprises with a good initial level of productivity have been increasing, on average, the labour productivity growth at the rate of 14 percent.

However, comparing Models 2(a) and 2(b), we note that the same variables have affected TFPG and LPG differently. This can be explained by the differences between those dependent variables as indicators of the firm productivity. TFPG indicates the economic and technical efficiency (taking into account both labour and capital) and it is measured using the estimated values of the coefficients and residuals for each firm. On other hand LPG indicates technical efficiency relating to labour, and is also calculated using the collected data which have limitations and problems which have been already discussed.

Alternative indicators of firm performance (and restructuring), such as sales revenue growth (denoted by *SRG*) and operating profitability growth (*OPG*) as dependent variables, have also been tested in the estimation procedure.

$$\text{(c)} \quad SRG_{it} = \alpha_i + \sum_{q=1}^{4} \beta_{1q} I_{i'98q} + \sum_{q=1}^{4} \beta_{2q} S_{i'98q} + \sum_{d=1}^{7} \beta_{3,d} C_{id} + \sum_{p=1}^{4} \beta_{4p} T_{itp} + \beta_5 IO_{it}$$
$$+ \beta_6 AO_{it} + \beta_7 FO_{it} + \beta_8 Sh_{i'2002} + e_{it}$$

$$\text{(d).} \quad OPG_{it} = \alpha_i + \sum_{q=1}^{4} \beta_{1q} I_{i'98q} + \sum_{q=1}^{4} \beta_{2q} S_{i'98q} + \sum_{d=1}^{7} \beta_{3,d} C_{id} + \sum_{p=1}^{4} \beta_{4p} T_{itp} + \beta_5 IO_{it}$$
$$+ \beta_6 AO_{it} + \beta_7 FO_{it} + \beta_8 Sh_{i'2002} + e_{it}$$

The estimated results of these two models are presented in the Table 3.

Table 3 **Estimation Results for Initial Conditions, Privatisation
and Ownership Type and Concentration**
(Dependent variable: Sales Revenue Growth; Panel Data, Random Effects)
(Dependent variable: Operating Profitability Growth; Panel Data, OLS- Regression)

EXPLANATORY VARIABLES	*Sales Revenue Growth 2(c)*	*Operating Profitability Growth 2(d)*
Constant	0.150(1.009)	3.763(0.953)
2nd Quartile of Total Factor Productivity	0.066(0.795)	2.736(1.386)
3rd Quartile of Total Factor Productivity	-0.087(1.094)	2.450(1.132)
4th Quartile of Total Factor Productivity	0.025(0.342)	0.892(0.568)
2nd Quartile of Size	-0.087(1.206)	1.198(0.638)
3rd Quartile of Size	-0.088(1.027)	0.609(0.278)
4th Quartile of Size	-0.058(0.640)	2.096(1.016)
Chemical	-0.092(0.982)	-5.369(1.066)
Energy	-0.049(0.396)	-4.559(1.199)
Food & Tobacco	-0.032(0.347)	-2.245(0.783)

```
Textile & Furniture                              0.161(1.407)      -2.151(0.839)
Primary & Metal Manufacturing                   -0.037(0.398)      -1.94(0.818)
Cement & Concrete                               -0.161(1.097)      -4.821(1.249)
3rd Year since Privatisation                     0.138(1.829)*      0.705(0.473)
4th Year since Privatisation                    -0.075(0.811)       3.88(1.010)
5th Year since Privatisation                    -0.144(1.123)       0.987(0.449)
Insider-Owned                                   -0.121(1.967)      -1.518(0.918)
Outsider (Albanian)-Owned                        0.009(0.146)      -3.372(1.384)
Outsider (Foreign)-Owned                         0.105(1.020)       0.904(0.657)
Share of Dominant Owners                        -0.035(0.242)      -2.855(0.584)
No. of Observations                                  129                129
R-squared                                          0.222              0.134
D-W Statistic                                      2.234              2.217
```

t - Statistics shown in bracket. ** Significant at the 95 percent level. * Significant at the 90 percent level.

The estimates are heteroscedacity consistent.

As the table below indicates, Models 2(c) and 2(d) with sales revenue growth and operating profitability growth as dependent variables, generated low explanatory power and contained no 95 percent significant independent variables except (in the case of *SRG*, second year since privatisation.

Model 3: Estimation of the impact of initial conditions, privatisation, ownership type, and concentration on the index of restructuring.

Our last econometric model aims at exploring the impact of the explanatory variables used in the previous models on the restructuring process using the index of restructuring (the average of restructuring indices in the 5 areas mentioned in the previous section). This model estimates the impact of the explanatory variables (sector dummies, size, initial level of productivity dummies, years since privatisation and ownership type) on the index of restructuring, the dependent variable.

Our empirical works aiming initially at replicating Claessens's work first and extended beyond that, is now using the index of restructuring, measured according to Estrin's methodology, in the econometric work. The index of restructuring has been previously used (in Estrin and Rosevear, 1999) as the dependent variable and in place of firm performance.

$$R_i = \alpha_i + \sum_{q=1}^{4} \beta_{1q} I_{i'98q} + \sum_{q=1}^{4} \beta_{2q} S_{i'98q} + \sum_{d=1}^{7} \beta_{3,d} C_{id} + \sum_{p=1}^{4} \beta_{4p} T_{ip} + \beta_5 IO_t + \beta_6 AO_t + \beta_7 FO_t + \beta_8 Sh_i + e_i$$

Where *R* denotes the index of restructuring in 2002.

The estimation results are presented in Table 4.

Table 4 **Estimation Results on Initial Condition, Privatisation, and Ownership**
(Dependent variable: Index of Restructuring, OLS Regressions)

EXPLANATORY VARIABLES	Index of Restructuring
Constant	2.1(12.313) **
2nd Quartile of Total Factor Productivity	0.133(1.589) **
3rd Quartile of Total Factor Productivity	-0.006(0.059)
4th Quartile of Total Factor Productivity	-0.086(0.848)
2nd Quartile of Size	0.422(0.367)
3rd Quartile of Size	0.038(0.415)
4th Quartile of Size	0.133(1.130)
Chemical	-0.405(4.200) **
Energy	-0.394(2.585) **
Food & Tobacco	-0.196(2.187) **
Textile & Furniture	-0.206(1.892) *
Primary & Metal Manufacturing	-0.378(3.332) **
Cement & Concrete	-0.285(1.283)
3rd Year since Privatisation	-0.052(0.542)
4th Year since Privatisation	-0.181(1.676)*
5th Year since Privatisation	-0.089(0.741)
Insider-Owned	0.050(0.328)
Outsider (Albanian)-Owned	0.018(0.137)
Outsider (Foreign)-Owned	0.083(0.724)
Share of dominant owner	-0.055(0.306)
No. of Observations	129
R-squared	0.34
D-W statistic	1.82

t - Statistics shown in bracket. ** Significant at the 95 percent level. * Significant at the 90 percent level.
The estimates are heteroscedacity consistent.

The estimation results presented in the above table, show that 6 out of 19 independent variables used in this model are significant at the 95 percent level and another 2 variables are significant at the 90 percent level.

The overall explanatory power of this model is better than those of other models. As the explanatory variables, size, sector, ownership type and concentration, years since privatisation can explain at most 34 percent of variation in the index of restructuring. However, there are some unexplained variations in the index of restructuring, presumably as managers' incentives have varied across the sample enterprises. In terms of the impact of the ownership type and size variables, these estimated results are not consistent with those provided by the model discussed above.

In summary, the bivariate analyses discussed in the two previous sections have been followed by a multivariate analysis developed in this section. We examined the

empirical relationship between various factors (ownership types, years since privatisation, initial level of productivity, size, sector, index of restructuring) and enterprise performance for a cross-section of 43 privatised firms in Albania. Several models have been used to test the hypothesis on the influence of the factors presented as independent variables. In respect of estimators' properties we can say that the explanatory variables such as the ownership type, size and initial conditions, can to some extent explain the variations in productivity and profitability growth. Significant and positive results were found concerning the impact of domestic outsider ownership, firm size and better initial conditions (as indicated by initial growth in total factor productivity).

6.2 Some Econometric Issues

The previous subsection focused on the presentation and interpretation of the econometric results. In this subsection a number of econometric issues related to these results are discussed.

Estimation of Total Factor Productivity Growth

It was pointed out in Section 2, and in the previous subsection, that the total factor productivity growth is calculated based on the sum of the constant term and residuals (equation 3) estimated using the fixed effects approach. This approach assumes α_i (in equation 3) to be a firm specific constant terms in the regression model. Looking at differences across firms, we can test the hypothesis that the constant terms are all equal by performing an *F*-test. This is a simple Chow test with the restricted residual sums of squares (RRSS) being that of ordinary least squares (OLS) on the pooled model and the unrestricted residual sums of squares (URSS) being that of the least squares dummy variable (LSDV) regression (Baltagi, 1995). Also, the R^2 of the unrestricted model and pooled or restricted model may be used (Green 1998) for this purpose (Appendix 3(a)). The *F* ratio used for this test is $F(42, 85) \sim 0.7$. The 1 percent critical value from *F*-table is 1.85, so the null hypothesis that firm specific effects are the same is not rejected at the 1 percent significance value.

Referring to the table of 'Test statistics for the classical model' produced by the LIMDEP (Version 7.0) programme, we note that the null hypothesis, i.e. that there are no firm specific effects on the mean of *y*, cannot be rejected (at 5 percent level). The intercept coefficients are estimated using a Fixed Effects technique, which assume that these coefficients are likely to pick up the differences in management ability and structures, efficiency etc. across the sample firms. This result in general is acceptable as the short period of investigation (three years) and the features of the Albanian transition (a slow one) could explain the lack of the variation across the sample firms regarding to the changes in firm-specific effects. However, looking at the *t*-ratio of the estimated fixed effects coefficients, some are significant. The *t*-statistics for the intercepts, indicates that the most significant one belongs to a firm, which was in the process of closing down.

Also, a statistically significant result was found, thus rejecting the null hypothesis, 'no fit in the regression of output on an input vector'. In this respect the correlation matrix indicates that the linear dependence of output and input vector is 0.79.

Estimation of Model 2 (a)

As mentioned in the previous subsection, Models 1(a) and 1(b) are similar to those estimated by Claessens *et al.* (1997) and aim at comparing the estimated results of the Albanian sample with those of other countries. These models have been followed by Model 2(a) can be considered as a general version of Model 1(b). Using the R^2 as criteria for model specification, it is obvious that the explanatory power of the Model 2(a) is greater than that of Model 1(b). But it is not so obvious referring to the adjusted R^2 and Akaike's Information Criterion exactly (Appendix 3(b) and 3(c)). Alternatively, it is possible to test whether the increase in R^2 is statistically significant. This test is the same as testing whether the coefficients of each ownership type and concentration are all equal to zero. Calculating an appropriate F-test as Verbeek (2000) describes:

$$ f = \frac{(R_1^2 - R_0^2) / J}{(1 - R_1^2) / (N - K)} \approx F(4,107) \approx 2.71 $$

where R_1^2 and R_0^2 denote R^2 in the Model 2(a) and Model 1(b) respectively, and *J* is the number of variables added in Model 2(a). The null hypothesis, that the ownership

54

types and share of dominant owners have zero coefficients, is rejected at the 5 percent significance level (the 5 percent critical value from *F*-table is 2.48).

Diagnostic Tests

Other researchers who have used the panel-data approach provide little information about diagnostic testing which can be technically difficult. We have, however, conducted diagnostic tests and will discuss them here.

The correlation matrix of variables shows a low level of correlation indicating a low possibility of pair wise for multicolliniarity. Despite this, in some stages (as is discussed above) the corrected model indicates multicolliniarity caused by the number of the dummy variable used in our model and the relatively small number of observations. Furthermore, the structure of our model does not allow us to perform most of the diagnostic tests currently favoured by researchers.

In order to perform the test for structural stability, we tried to use the Chow-test for pool ability. This test would be obtained by summing the squares of residuals from 43 individual regressions across the firms. The Chow-test cannot be performed across the firms because of insufficient degrees of freedom (the number of observations per firm is smaller than number of the regressors). An alternative test for stability based on the Chow-test may be undertaken from 3 individual regressions across the three years. But the Chow-test as a pooling technique assumes homoscedacity, which means that this test cannot be applied in our initial model where the Breusch – Pagan chi-squared indicates heteroscedasticity. In practice, it is not possible to perform a CUSUM-test for stability for our size of sample because this test is asymptotic.

Thus, the next step could be to estimate the model with heteroscedacity and corrected Chow-test. However, thus must take into consideration the number of observations because most of the procedures recommended to correct the panel-dataset are asymptotic (Baltagi, 1995, p.53). Because of the relatively small number of observation, it was decided to try to correct for heteroscedacity then apply the standard Chow-test. A graphical method was used to identify the systematic pattern of heteroscesticity. According to this method the residuals are plotted against the

dependent variable (TFPG). The approach indicates a proportional pattern of heteroscesticity. This means that a weighted least squares estimator can be utilised to estimate Model 2(a), which would allow us to employ Chow-test. Although, a corrected model was estimated, the Chow statistic test could still not be performed by the econometric programme because of the problem of multicolliniarity, which is likely caused by the number of the dummy variables and our small sample size.

According to the econometric results, which are presented in Appendix 3(d) (Econometric Results), there is no indication of first-order autocorrelation (referring to Durbin – Watson statistic = 2.01 (the 5 percent critical value are 1.229 and 2.164) and the Rho = 0.01). The sample size does not allow the use of the LM test and Box–Pierce statistic for testing higher order of autocorrelation. The diagnostic tests of Model 2(a) described above, have also been attempted for Model 2 (b, c, d) and they all have been subject to the same limitations.

Most of the indicators of performance are "growth rates" (with positive and negative signs) and the use of the logarithmic form would not have been appropriate. Moreover, there is strong support for the use of "growth rates" form as this would help to reduce the sample selection biased. Also, the method used to estimate the main dependent variable in our econometric work (TFPG) does allow employing a linear functional form. Another reason for the linear form is closely related to the discrete nature of the dummies used for most independent variable in the models.

6.1 Conclusions

In order to explore the extent and features of the restructuring process in the state-owned and privatised enterprises in Albania, a combination of methodologies used by previous researchers have been employed here. Initially, a statistical examination of the sample with three main indicators of performance was undertaken. Also the responses to a number of qualitative questions were analysed in the first section of this chapter. Furthermore, some of the quantitative and qualitative data, which lend themselves to ranking, have been used to calculate the indices of restructuring in five main areas. The measures analysed in the first two sections have been used as

variables in several econometric models estimated in the third section. The statistical and econometric results provide information explaining the specific features and the impact of several factors on the restructuring process in privatised Albanian enterprises. Some conclusions drawn from these results are discussed in this section.

During the transition period, firms in Albania have faced rapid changes in their general economic environment, requiring them to react. The kind (and extent) of reaction has depended on several factors such as: the previous market position, management's ability and incentives, the initial financial position, the wider microeconomic and macroeconomic environment and government policies. Firms have had either to adjust and restructure or to exit. In this respect, our surveyed sample has focused only on firms that survived the early stage after privatisation process until 2002.

The literature on enterprises restructuring in transition economies identifies two different types of enterprise adjustment processes, referred to as 'defensive-reactive-shallow' on the one hand and 'strategic-deep-active' on the other. Looking at the evidence provided in this chapter, we were able to identify the type of restructuring that has been common in Albania. Sample enterprises as a whole show an improvement in the measures of productivity over the sample period, and of profitability only in 1997. Considering the factors that influenced the productivity indicators, the evidence on changes in the employment level suggests that the improvement in productivity reflected the effect of labour shedding. In this respect, the establishment of a hard budget constraint in these firms was probably the single most important reason for the reduction in labour force. Furthermore, the downsizing process, which has continued throughout the whole period, reflects the over-employment levels inherited from the previous period and the gradual adjustment undertaken by managers. In addition to changes in the employment level, we attempted to provide evidence on other factors such as capital investment and technology changes that may influence the productivity level. We did not find sufficient evidence of significant new capital investment and the data did not suggest any major technological improvements. Furthermore, what were included in

investment were mostly partial substitutes for existing assets, rather than fundamental changes in production technology.

The evidence provided here suggests that some enterprises tried to adjust to the new market pressure. They reduced their work force, closed unprofitable facilities and sold or leased non-productive assets. Furthermore, evidence was found concerning the implementation of a performance related pay system. Some actions were also undertaken in connection with establishment of marketing departments (however these usually were poorly financed and attracted less professionally qualified staff) and changes in the product mix. The collected evidence, as a whole, shows that most of the actions undertaken are likely to be interpreted as defensive reactions rather then deep-strategic ones. Moreover, managers in firms with all types of ownership have undertaken such actions.

The evidence demonstrates a range of restructuring undertaken by sample enterprises. These changes are reported and discussed mainly according to ownership types, since the literature in this area as well as our own research, suggests that ownership structure and restructuring are closely related (both empirically and theoretically). We found that as the ownership became more dispersed, the managers had fewer incentives to restructure their enterprises. Furthermore, looking at the index of restructuring, which provides additional information on the extent of restructuring in these enterprises. An alternative explanation for the passive adjustments is that managers of enterprises with concentrated ownership might try to ensure the safety of their own positions. They hope to show their managerial skills and to provide a long term-contract with shareholders. Also, they may have been threatened with unemployment.

The econometric and statistical results do not indicate strong improvements in performance of the privatised enterprises dominated by insiders in comparison to state-owned. These results are also consistent with the index of restructuring for insider-owned firms, which stands at a fairly low level (1.7) throughout the period. The lack of restructuring actions may explain the decline in productivity measures. An explanation of managers' behaviour may be that they may not find the decision-

making process easy, particularly on issues related to redundancy and investment, because of the diffusion of ownership amongst a considerable number of employees. In other words, corporate governance mechanisms could not function properly in these enterprises, affecting the incentive structure of managers. An interesting aspect of managers' behaviour concerns the way in which they were concentrating their firms' shares in their own hands. The managers in some firms performed fairly badly in order to frighten other shareholders, and create an impression that the future of their investment was unsafe. Their aim was to influence the share price downwards and buy other shareholders' stakes.[8]

Some evidence is provided concerning the total factor productivity growth and the profitability level of the enterprises with Albanian outsider-owners. Furthermore, these enterprises show one of the highest levels among the ownership types of the indices of restructuring: at level 2 (on a 1-5 scale), except for the index of product restructuring. Also, using econometric techniques, consistent evidence was provided indicating the positive relationship of this type of ownership with a firm's performance. It was expected that the enterprises dominated by domestic outsiders would restructure faster than others as the managers have more managerial autonomy and are more effective in the decision-making process, particularly in a concentrated ownership structure (although there was no strong relationship with concentration of ownership shown by econometric techniques in our sample). Furthermore, a well-functioning corporate governance mechanism requires an appropriate degree of ownership concentration. One factor that influences this degree is the method of privatisation. However, an assessment of the impact of privatisation methods and the type and concentration of ownership on corporate governance, restructuring and performance will have to wait for future research (when there is more evidence of the results of the mass privatisation process).

An interesting result was related to the performance of the sample enterprises dominated by foreign-owners, which were expected to show some evidence of deep-strategic restructuring (such as investment with new capital and managerial skills). The statistical results indicate an improvement in labour productivity in 1995 and a

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[8] An argument put to the author during interviews in some enterprises, e.g. Gozhd Bullona, Kavaj.

general deterioration in other productivity and profitability measures over the sample period. Also the index of restructuring only shows an average level of 1.9 for these enterprises. The econometric results did not indicate any significant influence of this ownership type. The explanation may lie in the method of privatisation used for half of this sub-sample, the so-called 'agreement' method. This form may not provide sufficient incentive for owners to undertake actions to restructure and to invest in new technology. Also, some of enterprises dominated by foreign owners have been heavily influenced by the turmoil of 1997. Furthermore, the lack of significant results may reflect the small number of foreign-owned firms in the sample. The relatively inconclusive empirical results probably reflect two main issues; firstly, the small size of the sample surveyed for this study and, secondly, the poor quality and limited nature of data in Albania.

7. CONCLUSIONS and RECOMMENDATIONS

Restructuring is a multidimensional and dynamic process, which is highly affected by the incentive mechanisms that encourage owners and managers to restructure and improve efficiency. In our investigation of the literature on transition, it was found that the initial question raised by various researchers was whether to restructure before privatisation or after. Recently researchers have focused on investigating and identifying the factors that affect the performance of privatised enterprises with different ownership types. A third question concerns the specific features and differences in the transition process between different countries. To address enterprise restructuring one does not solely refer to the question of when the restructuring action needs to be undertaken. One also needs to examine the determinants and patterns of restructuring which lead to improvements in efficiency. These latter issues regarding restructuring are still being explored in the transition literature.

We have undertaken a study, which is broadly similar in conception and method to those for other transition economies. The approach was to employ a methodology utilising a survey a sample of 97 enterprises, which are privatised through large

privatisation method in various industrial sectors, ownership forms and structure, and locations over the 1997-2002 period. The primary research aimed at obtaining valid and reliable data for the quantitative and qualitative analysis of the determinants, patterns and actual features of the restructuring in Albania. This research work employed a similar approach to that of previous studies on enterprise restructuring in transition. We intended d to utilise the frontier methods to estimate the sample firms' efficiency but the results were not good enough.

The empirical part of this research work has been affected by the limitations of detailed firm-level data. The initial list of the 97 enterprises included in the sample was reduced to 45 because some of those originally chosen were closed due to economic reasons or were destroyed during the unrest of 1997 or were rented or converted to stores (more details in Section 5).

As described in Section 4, in order to obtain accurate and reliable data, an appropriate approach has been taken to gather both primary and secondary evidence, which were both qualitative and quantitative in nature. Thus, financial data and other information were collected directly from financial statements and other sources by the author. Also, sample firms were each visited in each several times, and several managers were interviewed on different issues. Care was taken to collect credible data and to ensure its consistency across establishments and time, using different information sources at firm level and from various institutions. In addition to various problems on the quality of data in Albania, numerous measurement problems were encountered in the empirical analysis. In particular, these included the measurements of capital stock; value of firm's assets; profit (which is likely to be misreported for tax purposes), and distorted information on the labour-force.

Considering the above problems and given that restructuring is a multidimensional process, a combination of bivariate analysis and multivariate analysis was employed in our empirical work. The initial statistical summary was followed by further bivariate analysis using the index of restructuring, and these measures were then employed in the multivariate analysis. We examined the empirical relationship between various factors (initial level of productivity, size, sector, ownership

structures and types, years since privatisation, and share of ownership of dominant group) and enterprise performance (measured by productivity and profitability indicators), and the extent of restructuring (measured by the index of restructuring) for a cross-section of 45 privatised firms in Albania over the 1997-2002 period. Our econometric analysis started by employing Claessens *et al*. (1997) models and was followed by testing five alternative specifications. These alternative specifications were employed to try to further identify the factors that influence firm's performance and index of restructuring. However, given the data and econometric problems discussed in this e have been cautious in the interpretation of the results.

7.1 Final Remarks

We now summarise the main findings in terms of the key questions, which this research addressed.

First, the question of *how the macroeconomic and microeconomic environment influence the behaviour of state-owned and privatised enterprises.* Our analysis considered the initial conditions of the Albanian transition and its development features. As is presented in Section 1, the initial phase of transition in Albania was characterised by a deep economic recession, an inefficient and often paralysed industry, and poor microeconomic developments. The near complete collapse of the Albanian economy during the 1990-1993 period, had a major influence on the extent of the restructuring process in later years. Although, the transition programme has involved macroeconomic stabilisation, price and trade liberalisation, the establishing of market-based institutions and laws, and privatisation, the progress in macroeconomic and microeconomic conditions has been mixed. Thus, macroeconomic policy has not been co-ordinated with microeconomic policy; uncertainty regarding industrial development and privatisation of large state-owned enterprises has continued; weaknesses in the legal, institutional and financial frameworks have remained; the enforcement of bankruptcy legislation has been weak; and actions to strengthen competition and corporate governance have been limited. These features of the new economic environment have discouraged and constrained managers' willingness and ability to restructure their enterprises. Our research confirms the findings of Estrin *et al.* (1998b) and Gedeshi (1999) that the

restructuring process in Albania has been slower than in other transition economies because of worse initial conditions and inconsistent microeconomic policy.

Managers' behaviour is likely to be influenced not only by the macroeconomic and microeconomic environment but also by firm-level conditions, which are mainly influenced by ownership structure and type, and effectiveness of the corporate mechanisms as well. These issues are explored in the answers to our further questions.

Our second question concerns whether *there is any difference in the performance of different forms of private ownership*. Using bivariate and multivariate analysis, evidence was found which indicated the positive impact of the domestic outsider type of ownership on firm performance. It was expected that the enterprises dominated by outsiders would restructure faster than others as the managers have more managerial autonomy and are more effective in the decision-making process, particularly in a concentrated ownership structure (although econometric work found only a weak relationship with concentration of ownership in our sample). The empirical evidence from the Albanian sample indicates that privatised enterprises dominated by insider owners have performed worse than other ownership types. This poor performance may be caused by the more passive behaviour of the managers in restructuring their enterprises. The analysed evidence suggests that the incentives of managers of insider-controlled enterprises are typically insufficient to engage them in restructuring. This behaviour can be explained by the diffusion of ownership amongst a considerable number of employees. In turn, this affects the corporate governance mechanism, which cannot function properly in these enterprises, affecting the incentive structure of managers. In addition, some of these enterprises, where managers are shareholders (but not dominant), have eventually moved to a more concentrated form of ownership. The opportunistic behaviour of managers is to be found in some of these enterprises. These managers are performing poorly with the aim of causing a fall in the price of shares for their enterprises and threatening the other shareholders with losses. In this way, they encourage other shareholders to sell their shares to existing block holders. In some cases this has resulted in outsiders becoming the dominant owners, as seemed to the case of Nail Plant, Kavaj (Gozhd Bullona Kavaj).

Interesting results were found about the degree of restructuring in those sample enterprises dominated by foreign owners. The evidence shows that the calculated and estimated indicators of restructuring for these enterprises are lower on the whole than in enterprises dominated by Albanian outsiders and state owners. The reason for this finding may be in the method of privatisation to foreign owners. Half of the sample of enterprises dominated by foreign owners was privatised through "agreements" arranged in 1992. In these agreements, foreign owners often acquired these enterprises for nothing, merely agreeing to invest in new technology. This kind of agreement was useful in the early stage of transition, keeping these enterprises in operation and replacing the highly depreciated equipment. Some of these foreign owners did not realise any profits on their business. Others were looking for only short-term returns. In either case, they have not delivered the promised introduction of new technology or undertaken the actions necessary for deep restructuring. However, the size of this sub-sample is small and we should not draw definitive conclusions on the behaviour and incentive mechanisms of managers in these enterprises.

Our fourth question concerns whether *different privatisation methods and resulting changes in corporate governance have affected managerial behaviour.* As is discussed in Section 2, the privatisation process in Albania was a slow process. Starting in 1993, it initially included the small and medium enterprises of manufacturing and service sectors through auctions. After 1995, the privatisation process included medium and large enterprises and was based on mass privatisation techniques. It was found that mass privatisation and other methods of privatisation involving vouchers as a means of payment are not likely to induce a strong motivation amongst the owners to introduce deep-strategic and long term restructuring. Furthermore, this privatisation method was mostly based on insider (both worker and manager) buyouts, and in particular the mass privatisation methods resulted in a dispersed ownership.

As was expected the ownership forms associated with these methods of privatisation influence the principals' and agents' incentives and hence the efficiency of the corporate governance mechanisms. In this respect, the extent of enterprise

restructuring in Albania is rather limited because of the lower level of development of corporate governance mechanisms, property rights institutions, and financial and managerial labour markets. Given these, a tendency to move towards a more concentrated ownership was observed. This fieldwork indicates the opportunistic behaviour of the major shareholders against minority shareholders. Furthermore, since the legal and institutional framework does not yet fully support the separation of ownership from control, corporate governance mechanisms are not yet efficient, and consequently a concentration of ownership is likely to be beneficial to efficiency in Albania. Appropriate functioning of these institutions influences the extent of firm restructuring by enhancing managers' incentives to restructure. Another issue, which was observed in the primary research, was related to which agents exercise property rights and control rights. In this respect, it was found that control rights have not been totally exercised by managers.

7.3 Recommendations

Our research was not designed as policy-oriented research but explored the influence of the microeconomic and macroeconomic environment on the extent of restructuring in Albania. Consequently, the main findings generated enable us to develop only broad guidelines for designing future policy.

The *first* guideline, given the experiences of the transition process in Albania, is that the government should strengthen the reputation for achieving a sustainable improvement in the macroeconomic environment. Consistent and co-ordinated macroeconomic and microeconomic policies are necessary to generate a stable economic environment and to create conditions for sustained economic development.

Secondly, we observed an absence of law enforcement and of supportive legal infrastructure and financial institutions, which are essential in the development of a market economy. In this respect the government should ensure an understandable and enforceable legal and institutional structure. To encourage the incentives of owners and managers to introduce deep-strategic restructuring, policy makers should ensure the implementation of the rules of game, foster competition and limit the informal

market. Also, the bankruptcy legislation should be improved and enforced in order to ensure that unsuccessful enterprises can exit easily.

In order to encourage managers' incentives, the government institutions should strengthen the hard budget constraints for current state-owned enterprises. In addition, some improvement of the Commercial Law should be introduced to increase managerial discretion and clarify the control rights in order to decrease the interference of politicians in decision making (particularly concerning employment issues).

Our *third* guideline concerns the corporate governance mechanisms in Albania. Where markets (particularly capital and managerial labour markets) are not well developed, government should also utilise the active shareholders to establish, monitor and enforce the statutory regulations and institutional structures. In addition, strengthening creditor protection should be considered, as this appears to be a crucial factor in increasing the availability of external finance to firms.

BIBLIOGRAPHY

Angeluncci, M., Estrin, S., Konings, J. and Zolkiewwski, Z. (2002) 'The Effect of ownership and Competitive Pressure on Firm Performance in Transition Countries: Micro Evidence from Bulgaria Romania and Poland', Williamson Davidson Institute Working Paper No.434.

Baltagi, B. H. (1995) *Econometric Analysis of Panel Data*, Chichester, Jon Wiley & Sons Ltd.

Barberis, N., Boycko, M., Shleifer, A. and Tsukanova, N. (1995) 'How Does Privatisation Work? Evidence From the Russian Shops', Harvard University Discussion Paper No 1721, Cambridge, Massachusetts.

Basu, S. and Fernald, J. G. (1995) 'Aggregate Productivity and the Productivity of Aggregates', NBER Working Paper No.5382, Cambridge, Massachusetts.

Battese, G.E., Coelli, T. and Prasada. Rao D.S. (1998) *An Introduction to Efficiency and Productivity Analysis*, Kluwer Academic Publishers

Belkindas, M., Dinc, M. and Ivanova, O. (1999) 'Statistical System Need Overhaul in Transition Economies', *Transition*, August, The World Bank/The Williamson Davidson Institute.

Bevan, A. A., Estrin, S. and Schaffer, M. E. (1999) 'Determinants of Enterprise Performance during Transition', Heriot-Watt University CERT, Discussion Paper No.99/03, Edinburgh.

Blanchard, O. (1997) *The Economics of Post-Communist Transition*, Oxford, Oxford Unversity Press.

Bridge, J. L. (1971) *Applied Econometrics*, Amsterdam, North-Holland Publishing Company.

Burnside, C., Eichenbaum, M. and Rebelo, S. (1995) 'Capital Utilisation and Returns to Scale', NBER Working paper No.5125, Cambridge Massachusetts.

Carlin, W. and Landesmann, M. (1997) 'From Theory into Practice? Restructuring and Dynamism in Transition Economies', *Oxford Review Economic Policy*, 13:2, 77-105.

Claessens, S. and Djankov, S. (1997) 'Enterprise Performance and Managers' Profile', *paper presented at the Conference on Labour Markets in Transition Economies*, The Davidson Institute Michigan, 17-19 October.

Claessens, S. and Djankov, S. (1998) 'Politicians and Firms in Seven Central and Eastern European Countries', The World Bank Working paper No.1954, Washington D.C., The World Bank.

Claessens, S. and Djankov, S. (1999a) 'Ownership Concentration and Corporate Performance in the Czech Republic', Centre for Economic Policy Research Discussion Paper No. 2145, London.

Claessens, S. and Djankov, S. (1999b) 'Enterprise Performance and Management Turnover in the Czech Republic', *European Economic Review*, 43, 1115-1124.

Claessens, S., Djankov, S. and Pohl, G. (1997) 'Determinants of Performance of Manufacturing Firms in Seven European Transition Economies', The World Bank, Mimeo.

Clunies-Ross, A. and Sudar, P. (1998) *Albania's Economy in Transition and Turmoil, 1990-1997*, Aldershot, Ashgate.

Demsetz, H. and Lehn, K. (1988) 'The Structure of Corporate Ownership: Causes and Consequences' *in* Demsetz, H. (eds), *Ownership Control, and the Firm: The organisation of economic activity*, Volume I, Oxford, Basil Blackwell Ltd, pp.202-222.

Djankov, S. (1999a) 'The Restructuring of Insider-Dominated Firms - A Comparative Analysis', *Economics of Transition*, 7:2, 467-479.

Djankov, S. (1999b) 'Ownership Structure and Enterprise Restructuring in Six Newly Independent States', The World Bank, Policy Research Working paper No.2047, The World Bank.

Djankov, S. (1999c) 'The Enterprise Isolation Programme in Romania', *Journal of Comparative Economics*, 27, 281-293.

Djankov, S. and Murrell, P. (2002 'Enterprise Restructuring in Transition: A Quantitative Survey', *Journal of Economic Literature*, XL (3) 739-792.

Djankov, S. and Pohl, G. (1997) 'The Restructuring of Large Firms in Slovakia', The World Bank, Policy Research Working paper No.1758, Washington D.C., The World Bank.

Estrin, S. and Rosevear, A. (1999) 'Enterprise Performance and Corporate Governance in Ukraine', *Journal of Comparative Economics*, 27, 442-458.

Estrin, S., Dimitrov, M. and Richet, X. (1998b) 'State Enterprise Restructuring in Bulgaria, Albania and Romania' *Economic Analysis*, 1:3, 239-255.

Estrin, S., Rosevear, A. and Hare, P. (1998a) 'Company Restructuring and Privatisation in Ukraine', Leuven Institute for Central and East European Studies, Discussion Paper on the Economic Transformation: Policy, Institutions and Structure, Working Paper No.70

European Bank for Reconstruction and Development (1999) 'Albania: 1999 Country Profile', Business Forum *held on the occasion of the EBRD Annual Meeting*, 17-20 April, London.

European Bank for Reconstruction and Development (2001) 'Albania: Investment Profile 2001', Business Forum *held on the occasion of the EBRD Annual Meeting*, 22-24 April, London.

European Bank for Reconstruction and Development, '*Transition Report*' (various issues from 1994 to 2003).

Filatotchev, I., Wright, M. and Bleaney, M. (1999) 'Privatisation, Insider Control and Managerial Entrenchment in Russia', *Economics of Transition*, 7:2, 481-504.

Filer, R.K. and Hanousek, J. (2002) 'Data Watch: Research Data form Transition Economies', *Journal of Economic Perspectives* 16(1): 225-240

Frydman, R. and Rapaczynski, A. (1992) 'Markets Institutions in Large Scale privatisation: An Approach to Economic and Social Transformation in Eastern Europe', *in* Corbo, V., Coricelli, F. and Bossak, J. (eds), *Reforming Central and Eastern European Economies: Initial Results and Challenges*, Washington, D.C., The World, Mimeo.

Frydman, R., Gray, C. G., Hessel, M. and Rapaczynski, A. (1997) 'Private Ownership and Corporate Performance: Some Lessons from Transition Economies', Economic Research Report, New York University

Frydman, R., Gray, C. G., Hessel, M. and Rapaczynski, A. (1999) 'When Does Privatisation Work? The Impact of Private Ownership on Corporate Performance in the Transition Economies' *Quarterly Journal of Economics*, November, 1151-1191.

Gedeshi, I. (1999) 'Albania' *in* Peev, E. (eds), S*eparation of Ownership and Control in Southeast Europe - A Comparison of Bulgaria, Romania and Albania, 1990-1996*, Bulgaria, KOTA plc, pp.169-195.

Gibbs, P. A. (1993) 'Determinants of Corporate Restructuring: The relative importance of corporate governance, take-over threat, and free cash flow', *Strategic Management Journal*, 14:S, 51-68.

Green, W. H. (1991) *LIMDEP Version 6.0: User's Manual and Reference Guide*, new York, Econometric Software, Inc.

Green, W. H. (1998) *Econometric Analysis* (3rd edn), New Jersey, Prentice-Hall International, Inc.

Grigorian, D. and Manole, V. (2002) 'Determinants of Commercial Bank Performance in Transition: An Application of Data Envelopment Analysis', The World Bank Policy Research Working Paper 2850, Washington D.C.

Grosfeld, I. (1998) 'Why Does Exit Matter? Exit, Growth and Other Economic Processes in Transition Economies' *in* Balcerowicz, L., Gray, C. W. and Hoshi, I. (eds), *Enterprise Exit Processes in Transition Economies*, Budapest, CEU Press, pp.277-300.

Grosfeld, I. and Roland, G. (1995) 'Defensive and Strategic Restructuring in Central European Enterprises', The London School of Economics Centre for Economic Policy Research, Discussion Paper No.1135, London.

GTZ (Deutsche Gesellschaft fur Technische Zusammenarbeit) (1998) *Report on Privatisation Process in Albania 1991-1997*, Tirana, GTZ.

Gujarati, D. N. (1995) *Basic Econometrics* (3rd edn), Singapore, McGraw-Hill Inc.

Gupta, N., Ham, J. C. and Svejnar, J. (2000) 'Priorities and Sequencing in Privatisation: Theory and Evidence from the Czech Republic', Williamson Davidson Institute Working paper No.323.

Gurkov, I. (1998) 'Ownership and Control in Russian Privatised Companies: New Evidence from a repeated Survey', *Communist Economics & Economic Transformation*, 10:2, 259-270.

Hashi, I. and Xhillari, L. (1999) 'Privatisation and Transition in Albania', *Post-Communist Economies*, 11:1, 99-125.

Havrylyshyn, O. and McGettigan, D. (1999) 'Privatisation in Transition Countries: A Sampling of the Literature', International Monetary Fund Working Paper No.6, Washington D.C., IMF.

Hemming, R. and Mansoor, A. M. (1988) 'Privatisation and Public Enterprises', International Monetary Fund Occasional Paper No. 56, Washington, D.C. IMF.

Hildebrand, G. H. and Liu, T. C. (1965) *Manufacturing Production Functions in the United States, 1957: An interindustry and interstate comparison of productivity*, New York, Cornell University.

INSTAT (The Institute of Statistics) (1997a) *Shqipëria në Shifra (Albania in Figures)*, Tirana, The Institute of Statistics.

INSTAT (The Institute of Statistics) (1997b) *Tregues mbi Ecurinë e Ndërmarrjeve Private në Shqipëri. (Indicators on the Development of Private Enterprises in Albania)*", Tirana, The Institute of Statistics.

INSTAT (The Institute of Statistics) (1999) *Tregues të Pergjithshëm të Ndërmarrjeve Ekonomike 1994-1997 (General Indicators of Enterprises, 1994-1997)*, Tirana, The Institute of Statistics.

INSTAT (The Institute of Statistics) (2000) *Repertori i Ndërmarrjeve Ekonomike (Sipas Prefekturave) 1999 (Reporter on Enterprises according to the counties, 1999)*, Tirana, The Institute of Statistics.

INSTAT (The Institute of Statistics) (2003) *Repertori i Ndërmarrjeve Ekonomike (Sipas Prefekturave) 2001 (Reporter on Enterprises according to the counties, 2001)*, Tirana, The Institute of Statistics.

International Monetary Fund (1999) *Albania: Recent Economic Development and Statistical Appendix,* International Monetary Fund Staff Country Report No.99/69, Washington, D.C., IMF.

International Monetary Fund (2000a, and 2003) *Albania: Statistical Appendix*, International Monetary Fund Staff Country Report, Washington, D.C., IMF.

International Monetary Fund (2000b) *Former Yugoslav Republic of Macedonia: Recent economic development*, International Monetary Fund Staff Country Report No.00/72, Washington, D.C., IMF

Jarvis, C. (2000) 'The Rise and Fall of the Pyramid Schemes in Albania', *Finance & Development,* 37:1.

Jensen, M. C. and Meckling, W. H. (1976) 'Theory of the firm: Managerial behaviour, agency costs and ownership structure', *Journal of Financial Economics*, 3, 305-360.

Jones, D.C., Kalmi, P. and Mygind, N. (2003) 'Choice of Ownership Structure and Firm Performance: Evidence from Estonia', Williamson Davidson Institute Working Paper No.560.

Kocenda, E. and Svejnar, J. (2003) 'Ownership and Firm Performance after Large-Scale Privatisation' Williamson Davidson Institute Working Paper No.471a.

Kule, Dh., Mancellari, A., Papapanagos, H., Qirici, S. and Sanfey, P. (1999) 'The Causes and Consequences of Albanian Emigration During Transition: Evidence from Micro-data', European Bank for Reconstruction and Development, Working paper No.46, London, EBRD.

Linz, S. J and Krueger, G. (1998) 'Enterprise Restructuring in Russia's Transition Economy: Formal and Informal Mechanisms', *Comparative Economic Studies*, 40:2, 5-52.

Mema, F. (1998) *Privatisation in Albania: Achievements*, *Failures, and Futures*, Tirana, Toena.

Muco, M. and Salko, D. (1996) 'Some Issues on the Development of Informal Financial Sector in Albania', *Unpublished paper produced for the Albanian Centre for economic Research*, Mimeo.

Muco, M., Papapanagos, H. and Sanfey, P. (1999) 'The Determinants of Official and Free-Market Exchange Rates in Albania During Transition', *Journal of Comparative Economics,* 27, 534-552.

Muent, H., Pissarides, F. and Sanfey, P. (2000) 'Taxes, Competition and Finance for Albanian enterprises: Evidence from a Field Study' European Bank for Reconstruction and Development Working paper No.54, London, EBRD.

Pinto, B., Belka, M. and Krajewski, S. (1993) 'Transforming State Enterprises in Poland: Evidence on Adjustment by Manufacturing Firms'*, Brooking Papers on Economic Activity*, 1, 213-270.

Pohl, G., Anderson, R. E., Claessens, S. and Djankov, S. (1997) 'Privatisation and Restructuring in Central and Eastern Europe. Evidence and Policy Options', The World Bank, Mimeo.

Pohl, G., Djankov, S. and Anderson, R. E. (1996) 'Restructuring Large Industrial Firms in Central and Eastern Europe - A Empirical Analysis', The World Bank Technical paper No.332, Washington D.C, The World Bank, Mimeo.

Recanatini, F, Wallsten, S. J. and Xu, L. C. (2000) 'Surveying Surveys and Questioning Questions: Learning from the World Bank Experience', The World Bank Working paper No.2307, Washington D.C., The World Bank.

Shleifer, A. and Vishny, R. W. (1997) 'A Survey of Corporate Governance', *The Journal of Finance*, 52:2, 737-783.

Solow, R. M. (1957) 'Technical Change and the Aggregate Production Function', *Review of Economics and Statistics*, 390, 312-320.

Verbeek, M. (2000) *A Guide to Modern Econometrics*, Chichester, John Wiley & Sons, LTD.

Vickers, J. and Yarrow, G. (1988) *Privatisation-An Economic Analysis*, Cambridge Massachusetts, MIT Press.

Walters, A. A. (1968) *An Introduction to Econometrics*, London, Macmillan.

Wiess, A. and Nikitin, G. (1998) 'Performance of Czech Companies by Ownership Structure', *paper presented at the International Workshop In transition Economies*, CEPR/WDI Workshop, Prague, 9-12 July.

Williamson, O. E. (1981) 'The Modern Corporation: Origins, Evolution, Attributes', *Journal of Economic Literature,* 19, 1537-1568.

Xhillari, L. (1998) 'Barriers to Entry and Growth of Private Companies in Albania', Report of Phare ACE Project No.P95-2047-R, Mimeo.

$$Y_{i,t} = AM_{i,t}{}^{\alpha_i} L_{i,t}{}^{\beta_i} K_{i,t}{}^{\gamma_i} \qquad (1)$$

Where $Y_{i,t}$ represent the value of output of the firm i at the time t; A is a constant, an efficiency parameter; M, L and K are respectively material inputs, number of hours of labour input and capital; and α, β and γ are positive fractions. The exponent of each variable input indicates the relative share of that input in the total product. Looking at it another way, the exponent of each variable input is the partial elasticity of output with respect to that input. Furthermore $(\alpha + \beta + \gamma)$ is a measure of economies of scale, where $\alpha + \beta + \gamma = 1$ reflects constant returns to scale.

The Cobb-Douglas production function is used to estimate total factor productivity growth as a measure of performance. Total factor productivity growth represents both movements towards the most efficient combination of means of production with current technology and improvements in technology over time. The following equation is used to as basis to estimate total factor productivity growth.

$$Y_{i,t} = T_{i,t} \left[L_{i,t}{}^{s_{L_i}} M_{i,t}{}^{s_{M_i}} K_{i,t}{}^{s_{K_i}} \right]^{\gamma_i} \qquad (2)$$

Where, in additional to equation 1, s_L, s_M and s_K are shares of expenditure on labour, material and capital inputs in total expenditure for firm i; γ_i is the returns-to scale parameter; and T is the total factor productivity function.

Changes in total factor productivity (TFPG) are calculated using a two-step procedure.
Estimating from equation 2 the log-difference of the total sale revenue $Y_{t,i}$, material inputs $M_{t,i}$, number of hours worked $L_{t,i}$ and capital $K_{t,i}$, will lead to following form:

$$\Delta y_{i,t} = \hat{a}_i + a_{i,t}(\beta_L \Delta l_{i,t} + \beta_M \Delta m_{i,t} + \beta_K \Delta k_{i,t}) + \hat{\varepsilon}_{i,t} \qquad (3)$$

Where $\Delta y_{i,t} = (\ln Y_{i,t} - \ln Y_{i,t-1})$ is the log-difference in total revenues, $\Delta l_{i,t}$ is the log-difference in number of working hours, $\Delta m_{i,t}$ is the log-difference in material inputs, $\Delta k_{i,t}$ is the log-difference in energy usage (the proxy for capital utilisation). Later in 1998 the authors aggregated the production factors on a sector basis.

Having estimated equation 3, TFPG is calculated as the sum of the regression residuals $(\varepsilon_{i,t})$ and coefficient (a_i) which are estimated based on the each individual firm's effect (fixed effects model).

$$\Delta t_{i,t} = \hat{a}_i + \hat{\varepsilon}_{i,t} \qquad (2.4)$$

This is the indicator of productivity growth for firm i over t years and is used as indicator of firm performance.