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Abstract

All economies are heterogeneous. The behaviour of the economic agents will differ in important aspects. However, in a stable environment usually strong forces shape a typical behaviour, thus many agents act similarly. On the one hand, the behaviour of agents will be much less uniform in an unstable transitional environment. On the other hand, transition also meant very strong pressures and narrow constraints for Hungarian enterprises, resulting in different, but typical behavioural patterns.

The objective of this paper is to investigate these patterns through the phases of the transition process. We analyse relevant segments of the economy and follow through behavioral changes. We investigate the behaviour of both the newly created firms and the disappearing large former socialist corporations. We also analyse the behaviour of foreign owned companies. Strong import competition and competition from de novo firms shaped the behaviour of former oligopolists, and the response to these competitive pressures varied over groups of firms. We employ production functions for exploring differences among these groups of firms, and the typical adjustment process of each group separately throughout the transition period until 1996.

The estimated production functions indicate gradual improvement in efficiency and a shift from decreasing to increasing returns to scale. Market share can be explained by the degree of internal and external competition and by the efficiency of the firm. There is little apparent relationship between efficiency and profit or investment.

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1. Introduction

Hungarian firms went through different periods of economic transformation since the liberalization of prices and imports in 1989. In 1990-1 the majority of firms were waiting and were not adjusting their capacities to the fall in internal and external demand; privatization just started. The adoption of tough bankruptcy law in 1992 has contributed to the acceleration of restructuring, enhanced by the inflow of foreign capital and privatization. The March 1995 measures intended to reestablish the macroeconomic equilibrium in current account and in the general government budget and also to shift revenues to the corporate sector. As the privatization helped by the inflow of foreign capital progressed well it created an environment for better corporate performance.

This paper tries to assess the development of corporate performance between 1990 and 1996. For this purpose balance sheet and profit and loss account data of a sample of several thousands of firms were used. Static and dynamic Cobb-Douglas average and frontier production functions were estimated. The estimation results were subsequently used to explain the development of market share with the help of import penetration and concentration. Different subsamples were defined and analyzed along sectors, ownership, entry and exit. Finally, some tentative conclusions are drawn.

2. Corporate performance

The analytical framework of this analysis was set out in papers by Hay and Liu (1997), Nickell (1996), Nickell et al. (1997). According to this approach corporate efficiency is closely related to the structure of the market, prices, firms' costs, hence profit may depend on the degree of competition. In this respect one can distinguish two approaches. In the first one, corporate cost level is outside the control of the firm. Their survival depends on the degree of competition and on the cost level of the rivals. According to the second interpretation cost level is a negative function of efforts, managerial and investment activities. Adopting the second approach the results of the effort of each firm can be compared with that of the best-practice firm and the relative efficiency can be assessed. According to the assumptions this (in)efficiency affects the market share and can be related to other performance indicators. The relation between efficiency and

profitability, investment activity is simultaneous, it is an empirical issue which direction of causality dominates.

The development of markets in transition economies is influenced by the speed and degree of price and foreign trade liberalization, the rules and costs of entry and exit for domestic and foreign participants. They are quite different accross countries. However, low capacity utilization, the increasingly large number of market participants, the lack of legal, behavioural and institutional stability and transparency can be regarded as common characteristics of transition economies, which is different of mature market economies.

Hungarian corporate sector attracted large amount of foreign direct investment compared to other transition economies. Large number of new firms were created, partly as spin-offs of liquidated firms. New domestic and foreign firms are assumed to be leaders of the competition. to be more efficient than the others. These assumptions will be investigated.

Similar computations were made by Brada et al. (1997) for Hungary for 1991 and for Czechoslovakia for 1990, and by Konings and Repkin (1998) for Bulgaria for 1993-5 and Romania for 1994-5. Our results are not directly comparable to these studies. There are major differences in the sample period, and in the model specification.

3. Data

The database for this empirical study consists of the profit and loss account and balance sheet data of the main Hungarian firms between 1989 and 1996.[1] This dataset is linked to another database: A labour market survey database, although the later is not used in the present study.[2]

The corporate dataset covers those firms which were present in the labour survey. The survey theoretically covers all firms with at least 20 employees, but the actual compliance is far from complete, especially among smaller firms. On the other hand, some smaller firms, employing fewer people, also are in the sample.[3] However, the corporate dataset also includes data in the 'neigbouring' years, if the firm could be identified for those years. That is, if a firm only participated in the labour survey in 1993, our dataset should include the balance sheet of the firm in years 1992-94, provided that following up the firm was possible.

Firms are identified by their tax-file number in the dataset. If a firm was reorganized: broken up, merged with another firm, or, sometimes, it simply changed name, relocated headquarters, etc.. it got a new tax-file number. As our sample covers the

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[1] We would like to express our gratitude to Mr. József Becsei and his collaborators for their help in compiling the data base.

[2] We plan to extend the analysis by resolving the labour homogeneity assumption. In the labour market survey employment is differentiated by occupational categories and educational attainment.

[3] Before 1992 agriculture and some service sectors were excluded from the survey.

period, when former state-owned enterprises (SOE's) were corporatized, frequently re-organized. and later privatized, there were many such changes, when a new tax-file number had to be assigned to the firm. Thus, in some cases, existing firms disappear from our sample, because their tax-file number was changed for some reason, and 'new' firms enter the dataset where the tax-file number is the only novelty. Unfortunately, we cannot distinguish de novo firms from the reorganized ones, or those split off from existing firms. In some cases existing firms did not participate in the labour survey for the entire sample period, thus, the firm may have been incorrectly classified as new or disappearing. Firm creation and destruction is overreported in our database, and thus in our analysis for all these reasons.

As the corporate dataset is a mirror image of the labour survey, sample selection is biased towards large firms. Only those firms are covered which have to comply with double-entry accounting rules, thus family firms and individual entrepreneurs are excluded. unless their turnover exceeds a rather high limit. The dataset covers approximately 10-13% of these firms in each year, although the coverage varies a lot from sector to sector. The sample included 2682 firms out of 23314 in 1990 and 9666 firms out of 105643 in 1996. The coverage varied a lot over sectors: while only 5-7% of trading firms are included. coverage is over 50% in mining in all years. The sample almost always covers at least 20% of the firms in all broad industrial sectors.

The coverage is, however, much higher with respect to sales volume. It is more than 50% even in the trade sector. In other sectors, including services and agriculture, more than 70% of the sales was at firms included in our sample. There are sectors, like mining, or energy generation, where the coverage is well over 90%.

Many observations, however, had to be excluded due to data problems. *e.g.,* missing observations, so the actual sample size of the estimations is smaller, but the coverage, measured by sales, is still high in all years. There was one important characteristic feature of the sample which has a strong systematic influence on our results: There are many firms with negative (or zero) value added. As the dependent variable of the reported production functions is the logarithm of the value added, these firms had to be excluded from estimation. These firms represented more than 5% of our sample in all years. peaking with 20% of the covered firms in 1991. These firms are the heavy loss makers. frequently bankrupt or at least approaching insolvancy. Some resurface in later years. but most of them was closed down. This characteristically different group of firms was excluded from the current analysis, although we plan to study them later.[4]

Capital is a key variable of production functions. It is always difficult to measure capital stock appropriately. It is a probably even more problematic task in a transition economy. The assets of practically all pre-existing firms were revalued at least once (frequently for several times) during the process of commercialisation and privatization. The asset value could change substantially without any change in the physical composition of the capital, and the timing of the revaluation(s) is unknown. For example. in the 1992 sample some firms will have capital stock recently revalued, and it is supposed to reflect the actual market value of the assets. Other firms, where no reorganization

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[4]   Those production functions, where the dependent variable was sales, were severely influenced by these observations corresponding to firms with negative value added.

occured, reported assets as depreciated past investments. That certainly influences our results, however, we cannot assess its importance.

Definitional changes also caused some problems. Some definitions changed with the introduction of new accounting standards in 1992, but those changes could be followed through. Sectoral classification also changed in 1992. We aggregated the sectoral classification to a level where it is reasonably homogeneous, but some inconsistencies are inevitable. The sectoral classification used in this study is: Agriculture, Food industry, Light industry, Chemical industry, Engineering, Other industries, Construction, Trade, and Services.

4. Estimated Models

The starting point of our analysis is the traditional Cobb–Douglas production function in its linearized form:

$$\log(Y) = c + \alpha \log(L) + \beta \log(K) + \epsilon$$

However, we augment the production function in several ways. First, we estimate both the standard static production function, and a dynamic production function also incuding the lagged dependent variable. y_{t-1} captures the fact that with substantial changes in factor input or in circumstances adjustment to the new long-run production level may take a relatively long time.

The traditional production function is also augmented by variables reflecting the competition firms have to face. Three variables are used to describe this pressure: import penetration, concentration and (lagged) market share. The rational behind is that stronger competition may force the company to become more efficient. Market share is lagged in order to avoid possible simultaneity: More efficient firms may increase their market share, thus leading to a possible reverse causality.

The next important step in augmenting the production function is the use of frontier rather than average production function. We follow the traditional approach first suggested by Aigner et al. (1977):

$$y = f(x_1, x_2, \ldots, x_k) + v - u \ ,$$

where v is the usual disturbance term (assumed to be $v \sim \mathcal{N}(0, \sigma_v)$), while u is assumed to have truncated normal distribution (for $u > 0$), representing firm specific inefficiencies, compared to the 'best-practice' firm in the sample. There are a couple of cases where the estimation fails to converge under this distributional assumption, and the estimated inefficiency becomes positive. This obviously indicates severe specification error in those cases, however, we were unable to find a better specification.[5]

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[5] Other distributions were also attempted, however, all attempted distributions lead to very questionable estimates, c.f., Greene (1993) for further details.

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Both static an dynamic frontier functions were estimated in two forms: First, similarly to the average production functions the functions were augmented by the above variables reflecting the strength of the competition. Second, a 'simple' production function was coupled with a second equation, describing the market share of the firm which included the same indicators of competitive pressure and also the residual $\hat{u}$ of the production equation, representing the efficiency of the productive process. The underlying assumption is that efficient firms will gain market share.

We also check the hypothesis that profitability may be related to efficiency and that investments may influence efficiency. Simple linear correlation is used for this purpose.

The models used throughout this paper are best applied for manufacturing. One important feature of the Hungarian corporate sector is that the sectoral classification may be biased, the principal activity of the time of registration may be totally different of the actual one and firms are following quite distant and heterogeneous activities. That is why results for non-manufacturing sectors were also analyzed.

Although we have an unbalanced panel dataset, we estimate the model for each year separately. Even though coefficient vectors, estimated from the later years, are not far from each other, there are significant structural breaks between consecutive years.

5. Estimation results

5.1. Static Production Functions

The estimated coefficients revealed different shifts in time, the elasticity of labour increased until 1992-3. remained quite stable afterwards. The coefficient of capital first decreased, the lowest value was in 1992 and steadily increased in the following years. The slope of the annual increase was much smaller than that of the decline, the value in 1996 was still below the initial value in 1990. In all estimations the hypothesis of constant return to scale was rejected, the coefficient was gradually increasing and was getting very close to unity in 1996.

Three variables were used to represent the market environment of a firm: import penetration, market share and concentration. When the GDP was the dependent variable only market share became significant with appropriate sign for the coefficient, while in case of sales to be explained all of them entered significantly with good signs as well.

Sectoral production functions reveal important heterogeneity, in spite of some similarities. Constant return to scale became dominant especially by the end of the period in Agriculture. Food industry, Chemical industry, Engineering (in 1996), Other industries and in Services. Contrary to the aggregate coefficient. the elasticity of capital became larger in 1996 compared to the value in 1991 in Food industry, Chemical industry, Engineering and Trade.

Market share was always significant, Chemical industry excepted. Import penetration was significant with negative sign in Agriculture (1996 excepted), in Food industry in 1991-2, in Engineering in 1996 and for majority foreign owned firms. The concentration was significant with negative sign in Agriculture, Light industry, in Construction (only for total sales!), in Trade, and in Services.

Disappearing firms always had higher returns to scale than new firms, 1993 is excepted, and they had higher elasticity of labour and smaller elasticity of capital.

Firms with foreign ownership had significantly lower labour and higher capital elasticity than state or private firms.

5.2. Dynamic Production Functions

The most interesting feature of the dynamic production function is that the elasticity of labour became stable. The coefficients of the lagged dependent variable and the fixed assets were increasing with an important interruption in 1992-3. A possible interpretation of this interruption is the deep microeconomic restructuring during which period the role of inertial factor—the lagged dependent variable—had significantly diminished. The long run return to scale was increasing and qualitatively different results were obtained as compared with that of static production functions, from the decreasing return to scale regime by the end of the period increasing return to scale regime became dominant in almost every sector.

Lagged market share was significant with positive sign for the entire sample, sectoral disaggregation provided some differences: It was only significant for Agriculture, Food industry, Other industries. and Construction.

Import penetration was significant for the entire sample with positive sign in 1995-6. There is much less evidence of this effect on sectoral level: Agriculture, Food industry, Engineering. Other industries had significant coefficients with different signs.·

Concentration had significant positive effect on value added in 1990-1. The sectoral landscape is quite different: Agriculture had different signs in 1992-3, Food industry had positive effect in 1993-4 and 1996. Light industry in 1992 with positive sign, Chemical industry in 1990 with positive sign, Other industries with changing signs in 1990 and 1994. Trade with positive signs in 1990-1 and 1995 and services with different signs in 1991 and 1996.

5.3. Static Frontier Production Functions

Two forms of static frontier production functions were estimated. In the first versions import penetration, market share and concentration were incorporated as explanatory variables in explaining production. In the second version two equations were estimated, first the static frontier production function without using these variables, then the market share was explained by its lagged value, import penetration, concentration, and by the error of the production function. which is interpreted as the efficiency of the firm. Both versions can be accepted. however, due to a clearer concept of simultaneity

the estimation of separate equations was preferred. In addition, the import penetration proved to be significant explanatory variable in the second version.

The ratio of the two standard errors in the equation was always above unity. These estimates are significantly larger than the usual estimates for developed countries. It may reflect higher inefficiency of firms in Hungary, compared to developed market economy, although direct comparision is influenced by the variance of the traditional disturbance term.

The mean inefficiency (or the average capacity underutilization) was the smallest in 1990 followed by 1994-6 and much larger 1991-2. The large deviation of the average firm from the frontier one provides room for the increase of efficiency, but it may reflect the shift of the frontier production function, as well. Our results reflect higher average efficiency than obtained by Brada et al. (1997) for Hungary for 1991 or for Czechoslovakia in 1990. The average Hungarian seems to be much more efficient than firms in Bulgaria (1993-5) and in Romania (1994-5) as reported in Konings and Repkin (1998) which may reflect a more stable and uniform environment for the Hungarian firms.

The returns to scale of frontier was always marginally larger than that of the average production function. The tendency of the return to scale was increasing similarly to the OLS equation. There was, however, one important difference: It became constant in 1996. The same was true in Agriculture, Food industry (since 1993), Chemical industry (since 1993), Engineering (since 1995), Other industries (since 1991), Construction (since 1994), Trade and Services (since 1995).

Market share was explained by its lagged value, by the efficiency, import penetration and by the concentration. The higher the efficiency, the higher the market share and it was so both on sectoral and aggregate levels. The effect of import penetration was negative between 1991-3 and positive in 1994-6. Larger import penetration has to decrease the market share. The opposite effect during 1994-6 needs further investigation, as it was not supported by sectoral estimations. It was always negative in Light industry, for foreign majority owned firms and for new firms, but was not really significant otherwise. The concentration had almost always positive effect on market share on aggregate and sectoral levels, which is more or less obvious since less players ensure larger share in the market, if it is competitive.

Finally, the correlation between the relative efficiency and profit and investment rate was examined. We found very few correlations significantly different from zero: Food industry, Light industry were the exceptions and especially in case of foreign majority owned Engineering firms had persistent and high positive correlation between efficiency and rate of profit margin since 1992.

5.4. Dynamic Frontier Production Functions

Two forms were estimated similarly to the static version and the results of the estimation of separate equations will be presented.

The elasticity of capital was quite stable, it varied between 0.08 and 0.11. The labour elasticity behaved similarly as in the OLS estimation.

Previous results concerning the returns to scale were confirmed. They were steadily increasing: Shifting from decreasing returns to scale regime in 1990-1 to constant returns to scale in 1992-3, and to increasing returns to scale afterwards. Sectoral results usually reinforced this tendency, most obviously in Engineering.

The ratio of the two standard errors was even higher than in the static version, its minimum value was well above unity, the maximum value went above two. The average inefficiency was the highest in 1991-3, the smallest in 1994-5.

The market share was again explained significantly by its lagged value and by the efficiency. The other two explanatory factors, the import penetration and the industrial concentration entered the equation less frequently, both were significant in 1992 and 1996 only.

5.5. Efficiency and other performance indicators

The correlation between the relative error of the frontier production function and the profit or investment rate was rarely significant: Agriculture (1994, 1996), Food industry (1993, 1995), Chemical industry (1995-6), Engineering (1991, 1994), Other industries (1990-2), Construction (1990-1, 1995), Services (1991-5). As these results illustrate we were not able to find persistent relation between efficiency and profitability or investment.

5.6. Efficiency and Ownership

Four ownership groups were defined: private, state, important foreign (between 25 and 50%) and majority foreign. All firms not classified by ownership were put into the other category which includes mixed and indirect ownership.

The average inefficiency was more or less comparable for private, state and foreign owned companies between 1993 and 1996 as compared to their respective frontier. There was a significant increase in efficiency after 1993. There was no change for the other ownership, where the swings were much smaller, and the average inefficiency ended as high as it began. There were 174 majority foreign owned firms in the 1993 sample. The average inefficiency was below 1%. Later this group became more heterogeneous as their number increased by three times in 1994 and above 1000 in 1995. The average distance from the frontier in the first year went above 10% and decreased to one digit in the second year after the significant increase in their number. The return to scale was not differentiated according to the ownership, each group had constant return to scale with few exceptions.

6. Conclusions

Our results do not confirm the results obtained by Brada et al. (1997) and by Konings and Repkin (1998), referring to a hypothesis of B. Ickes and R. Ryterman presented in an unpublished paper, namely, the larger the firm the higher the allocative efficiency prior to transition. Our results rather support the idea of decreasing returns to scale in the beginning of transition and a gradual increase to arrive to the realm of increasing returns to scale not only for the best, but also for the average firms.

The assumption of dynamic production function leads to different regime of returns to scale as compared with the static function. Capacity underutilization is very large in the early years of transition, mainly because of the fall of overall demand and the high cost of supply reaction to the changing pattern of demand. The results for the Hungarian corporate sector between 1990 and 1996 confirm the positive development of the performance after a painful and deep microeconomic restructuring and macroeconomic adjustment.

Market characteristics play changing role during transition. Import competition, sectoral concentration and efficiency explain the development of market share of a firm. Heterogeneity can be observed accross sectors, according to ownership and entry and exit. The differences, however, are not that large and were diminishing, what makes the hypothesis of the importance of market environment in the determination of corporate performance plausible.

The link between efficiency from one side and investment and profit from the other side proved to be rather weak. There are many potential explanations, creative accounting may have impact on profit, according to these results foreign ownership has positive effect on efficiency, while we were not able to find link between profit and foreign ownership (Halpern and Kőrösi, 1998a, b). Hungarian specialities may play role, or this link will be strengthened in a more mature phase of market economy.

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Appendix A: Definitions

All variables (except employment) were deflated, usually with 4 digit sectoral producer price indices. There were some—usually small—sectors, where the price index was only available at a higher level of aggregation (2 or 3 digit sectors). Variables are measured in million Forints at 1991 prices. The variables are:

Valued added: Sales less broadly defined material costs. Its logarithm is the dependent variable of all production functions.

Labour (L): Annual average employment at the firm.

Capital (K): Fixed assets. See data section for qualifications.

Market share: Sales of the firm divided by the market size, where market size is the sectoral production plus exports minus competing imports, all measured at the four digit sectoral level. The sectoral classification of imports is based on the four digit product classification.

Import penetration: The ratio of the sectoral imports to the above defined market size.

Concentration: The reciprocal of the number of firms in the four digit sector.

Efficiency: The error term u of the frontier production function.

Profit margin: Pre-tax profits relative to sales.

Investment ratio: Change of capital value plus depreciation divided by the current capital value.

New firm: A firm with an identifier (tax-file number) which was not in the sample in an earlier year.

Disappearing firm: A firm with an identifier (tax-file number) which was not in the sample in a later year.

Private firm: A firm where named persons (investors, employees and managers) owned more than 50% of the equity capital. Firms owned indirectly (by domestic firms) are excluded, as the parent company can be a SOE.

State owned firm: A firm where the central and local governments together owned more than 50% of the equity capital.

Foreign owned firm: Foreign investors owned more than 50% of the equity capital.

Important foreign ownership: Foreign investors owned 25-50% of the equity capital. This category may include firms which are present at other ownership categories.

Legend to the tables: All standard linear regressions were estimated by OLS using White heteroscedasticity consistent standard errors. Frontier production functions were estimated by maximum likelihood. Asterisks after the coefficients and test statistics indicate that the test is significant at 0.05 level (∗) or at 0.01 level (∗∗). The null for returns to scale (ν) is that $\nu = 1$. σ denotes the standard error of the compound disturbance term ($\sigma^2 = \sigma_u^2 + \sigma_v^2$), while σ_u/σ_v stands for the ratio of the two standard errors (often denoted by λ). Mean inefficiency is normalized by the mean of the dependent variable. Abbreviations: Nob: number of observations; SEE: standard error of the estimation; JB-normality: Jarque–Bera test for normality; Reset y^2: Ramsey's Reset test using the squared fitted values; Reset y^2, y^3 the same using both the squares and the cubes of the fitted values.

Appendix B: Selected estimation results

Table 1: Estimated static production functions: entire sample

Variable	1990	1991	1992	1993	1994	1995	1996
Constant	0.63 **	0.45 **	-0.30 **	-0.46 **	-0.23 **	-0.37 **	-0.47 **
log(L)	0.42 **	0.50 **	0.74 **	0.77 **	0.73 **	0.73 **	0.74 **
log(K)	0.28 **	0.12 **	0.11 **	0.14 **	0.18 **	0.22 **	0.24 **
import penetration	0.82	0.12	-0.03	-0.01	-0.01	0.02	0.03 **
market share	0.91 **	1.63 **	1.56 **	1.13 **	1.28 **	1.05 **	0.75 **
concentration	0.68	-0.03	-1.61 *	-0.84	-0.79 *	-0.16	0.11
returns to scale	0.71 **	0.62 **	0.85 **	0.92 **	0.91 **	0.95 **	0.98 *
Nob	2280	4159	7292	7369	8872	9610	8454
Mean of dep.var	4.23	3.42	3.46	3.47	3.43	3.26	3.30
S.dev of dep.var	1.34	1.33	1.36	1.40	1.38	1.45	1.48
SEE	0.84	1.04	0.83	0.82	0.78	0.79	0.79
R^2	0.61	0.39	0.63	0.66	0.68	0.70	0.71
White-hetero	102 **	234 **	763 **	483 **	666 **	660 **	472 **
JB normality	1511 **	535 **	1700 **	2625 **	4676 **	2858 **	3043 **
Reset y^2	32.66 **	96.14 **	30.97 **	28.07 **	0.78	0.11	1.01
Reset $y^2.y^3$	23.13 **	69.35 **	107.84 **	42.33 **	46.80 **	24.77 **	35.40 **

Table 2: Estimated dynamic production functions: entire sample

Variable	1990	1991	1992	1993	1994	1995	1996
Constant	-0.18	-0.79 **	-0.62 **	-0.35 **	-0.32 **	-0.41 **	-0.40 **
y_{t-1}	0.68 **	0.67 **	0.24 **	0.56 **	0.69 **	0.70 **	0.75 **
log(L)	0.18 **	0.26 **	0.66 **	0.38 **	0.28 **	0.26 **	0.23 **
log(K)	0.08 **	0.07 **	0.08 **	0.06 **	0.06 **	0.08 **	0.06 **
import penetration	0.36	-0.10 **	0.01	-0.01	0.00	0.05 **	0.03 **
market share$_{t-1}$	-0.15	-0.93 *	1.30 **	0.31 *	0.12	0.18 **	0.14 **
concentration	1.59 **	2.27 *	0.78	0.52	-0.29	0.10	0.26
short-run ret. to scale	0.26 **	0.33 **	0.74 **	0.44 **	0.35 **	0.34 **	0.29 **
long-run ret. to scale	0.81 **	1.01	0.97 *	1.00	1.11 **	1.13 **	1.17 **
Nob	2156	1396	3474	6319	5721	8093	8127
Mean of dep.var	4.22	3.85	3.60	3.43	3.68	3.37	3.32
S.dev of dep.var	1.31	1.34	1.29	1.35	1.37	1.45	1.46
SEE	0.62	0.69	0.66	0.66	0.51	0.55	0.55
R^2	0.77	0.74	0.74	0.76	0.86	0.85	0.86
White-hetero	102 **	144 **	159 **	474 **	634 **	1150 **	1028 **
JB normality	11465 **	2128 **	1021 **	8679 **	17975 **	20622 **	37902 **
Reset y^2	5.02 *	33.24 **	18.94 **	24.74 **	2.90	2.68	4.90 *
Reset $y^2.y^3$	2.69	19.14 **	38.48 **	20.05 **	7.48 **	16.85 **	17.35 **

Table 3: Static frontier production functions: entire sample

Variable	1990	1991	1992	1993	1994	1995	1996
Constant	1.44 **	1.33 **	0.58 **	0.29 **	0.49 **	0.31 **	0.19 **
log(L)	0.40 **	0.48 **	0.69 **	0.74 **	0.70 **	0.70 **	0.71 **
log(K)	0.29 **	0.12 **	0.13 **	0.16 **	0.19 **	0.23 **	0.25 **
import penetration	1.13 **	0.11	-0.02	-0.01	-0.01	0.02	0.02
market share	1.25 **	1.96 **	1.97 **	1.40 **	1.62 **	1.30 **	0.90 **
concentration	0.47	0.17	-1.67 **	-1.01 **	-1.01 **	-0.31	0.03
σ	1.08 **	1.31 **	1.11 **	1.05 **	1.00 **	0.99 **	0.99 **
σ_u/σ_v	1.35 **	1.17 **	1.56 **	1.29 **	1.28 **	1.16 **	1.13 **
returns to scale	0.68 **	0.60 **	0.82 **	0.90 **	0.89 **	0.93 **	0.96 **
Nob	2280	4159	7292	7369	8872	9610	8454
Mean of dep.var	4.23	3.42	3.46	3.47	3.43	3.26	3.30
S.dev of dep.var	1.34	1.33	1.36	1.40	1.38	1.45	1.48
R^2	0.61	0.39	0.63	0.66	0.68	0.70	0.71
Mean inefficiency (%)	-16.23	-23.02	-21.42	-18.80	-18.05	-18.17	-17.71

Table 4: Static frontier production functions: entire sample

Variable	1990	1991	1992	1993	1994	1995	1996
Production function							
Constant	1.21 **	1.07 **	0.37 **	0.14 **	0.33 **	0.17 **	0.10 *
log(L)	0.42 **	0.52 **	0.73 **	0.77 **	0.73 **	0.72 **	0.73 **
log(K)	0.31 **	0.13 **	0.14 **	0.16 **	0.20 **	0.24 **	0.26 **
σ	1.06 **	1.27 **	1.10 **	1.03 **	0.98 **	0.97 **	0.98 **
σ_u/σ_v	1.19 **	1.03 **	1.45 **	1.18 **	1.15 **	1.05 **	1.07 **
returns to scale	0.73 **	0.65 **	0.86 **	0.93 **	0.93 **	0.96 **	0.99
Nob	2280	4153	6913	7368	8871	9610	8454
Mean of dep.var	4.23	3.42	3.45	3.47	3.43	3.26	3.30
S.dev of dep.var	1.34	1.33	1.36	1.40	1.38	1.45	1.48
R^2	0.60	0.38	0.62	0.65	0.68	0.70	0.71
Mean inefficiency (%)	-15.14	-21.20	-20.84	-17.99	-17.09	-17.10	-17.20
Market share equation							
Constant	0.00	0.00 *	0.02 **	0.00 **	0.01 *	0.00 **	0.01
market share$_{t-1}$	0.86 **	0.51 **	0.17	0.71 **	0.63 **	0.88 **	0.77 **
efficiency	0.07	0.28 **	1.41 **	0.52 **	0.61 **	0.39 **	0.68
import penetration	0.01	-0.04 **	-0.02 **	-0.01 **	0.00 **	0.00 **	0.00 **
concentration	0.22 **	1.30 **	2.10 **	1.09 **	0.77 **	0.15	0.59 **
Mean of dep.var	0.04	0.02	0.02	0.02	0.02	0.02	0.02
S.dev of dep.var	0.11	0.08	0.11	0.11	0.09	0.10	0.13
SEE	0.04	0.05	0.08	0.06	0.05	0.06	0.10
R^2	0.88	0.54	0.42	0.68	0.67	0.69	0.45
White-hetero	140 **	2652 **	3838 **	643 **	2254 **	287 **	74 **
Reset y^2	94.82 **	1.82	444.09 **	16.53 **	46.06 **	0.26	7.28 *
Reset y^2, y^3	47.64 **	1.22	621.47 **	8.36 **	71.71 **	0.13	25.98 *
Corr of rel. efficiency							
profit margin investment rate	0.19	0.44					

Table 5: Dynamic frontier production functions: entire sample

Variable	1990	1991	1992	1993	1994	1995	1996
Constant	0.55 **	0.04	0.07	0.28 **	0.23 **	0.10 **	0.13 **
y_{t-1}	0.68 **	0.63 **	0.23 **	0.54 **	0.67 **	0.68 **	0.73 **
log(L)	0.13 **	0.24 **	0.62 **	0.36 **	0.26 **	0.24 **	0.21 **
log(K)	0.10 **	0.10 **	0.09 **	0.08 **	0.08 **	0.09 **	0.08 **
import penetration	0.54	-0.08	0.01	-0.01	0.00	0.05 **	0.02 *
market share$_{t-1}$	0.03	-0.34 **	1.69 **	0.36 **	0.22 **	0.26 **	0.18 **
concentration	1.66 **	1.62	0.76	0.63	-0.36	0.08	0.41
σ	0.85 **	0.97 **	0.87 **	0.85 **	0.67 **	0.71 **	0.71 **
σ_u/σ_v	1.85 **	2.22 **	1.48 **	1.34 **	1.53 **	1.28 **	1.40 **
short-run ret. to scale	0.23 **	0.34 **	0.71 **	0.44 **	0.34 **	0.34 **	0.30 **
long-run ret. to scale	0.73 **	0.92	0.93 **	0.96 *	1.03	1.06 **	1.08 **
Nob	2156	1396	3474	6319	5721	8093	8127
Mean of dep.var	4.22	3.85	3.60	3.43	3.68	3.37	3.32
S.dev of dep.var	1.31	1.34	1.29	1.35	1.37	1.45	1.46
R^2	0.77	0.74	0.74	0.76	0.86	0.85	0.86
Mean inefficiency (%)	-13.55	-17.71	-15.79	-15.66	-11.90	-12.96	-13.50

Table 6: Dynamic frontier production functions: entire sample

Variable	1990	1991	1992	1993	1994	1995	1996
Production function							
Constant	0.51 **	0.08	-0.13 *	0.24 **	0.21 **	0.08 **	0.12 **
y_{t-1}	0.69 **	0.62 **	0.25 **	0.55 **	0.68 **	0.68 **	0.73 **
log(L)	0.13 **	0.24 **	0.66 **	0.36 **	0.26 **	0.25 **	0.22 **
log(K)	0.11 **	0.10 **	0.09 **	0.08 **	0.08 **	0.10 **	0.08 **
σ	0.84 **	0.98 **	0.86 **	0.85 **	0.67 **	0.71 **	0.71 **
σ_u/σ_v	1.80 **	2.27 **	1.32 **	1.33 **	1.51 **	1.27 **	1.39 **
short-run ret. to scale	0.24 **	0.34 **	0.75 **	0.44 **	0.34 **	0.35 **	0.30 **
long-run ret. to scale	0.77 **	0.91 *	0.99	0.98	1.05 *	1.09 **	1.11 **
Nob	2156	1396	3474	6319	5721	8093	8127
Mean of dep.var	4.22	3.85	3.60	3.43	3.68	3.37	3.32
S.dev of dep.var	1.31	1.34	1.29	1.35	1.37	1.45	1.46
R^2	0.77	0.73	0.74	0.76	0.86	0.85	0.86
Mean inefficiency (%)	-13.46	-17.91	-15.01	-15.61	-11.84	-12.90	-13.49
Market share equation							
Constant	0.00	0.00	0.01 **	0.00 **	0.01 **	0.00 **	0.01
market share$_{t-1}$	0.89 **	0.97 **	0.53 **	0.83 **	0.79 **	0.97 **	0.80 **
efficiency	0.36 **	0.79 *	0.92 **	0.52 **	0.93 **	0.69 **	2.53
import penetration	-0.02	0.00	-0.02 **	-0.01	0.00 **	0.00	0.00 **
concentration	0.17 *	0.15	1.26 **	0.67	0.21	-0.07	0.48 *
Mean of dep.var	0.03	0.03	0.02	0.02	0.02	0.02	0.02
S.dev of dep.var	0.10	0.11	0.08	0.11	0.11	0.11	0.13
SEE	0.03	0.04	0.05	0.05	0.04	0.05	0.10
R^2	0.94	0.89	0.55	0.78	0.87	0.76	0.47
White-hetero	341 **	864 **	950 **	466 **	3685 **	419 **	1763 *
Reset y^2	117.83 **	181.56 **	98.32 **	0.47	223.70 **	87.59 **	21.53 **
Reset y^2, y^3	59.40 **	176.13 **	49.33 **	0.76	317.06 **	54.06 **	55.22 **
Corr of rel. efficiency							
profit margin	0.19	0.51					
investment rate							

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Variable	1991	1992	1993	1994	1995	1996
Production function						
Constant	0.69 **	-0.09	-0.21 *	-0.08	-0.04	-0.16
log(L)	0.29 **	0.82 **	0.84 **	0.88 **	0.82 **	0.78 **
log(K)	0.44 **	0.06 **	0.10 **	0.08 **	0.13 **	0.21 **
σ	1.29 **	1.04 **	1.03 **	0.89 **	0.86 **	0.92 **
σ_u/σ_v	2.49 **	2.29 **	2.53 **	2.25 **	1.82 **	2.19 **
returns to scale	0.73 **	0.38 **	0.94 **	0.96 *	0.95 **	0.98
Nob	922	1249	1286	1456	1540	1386
Mean of dep.var	3.30	3.41	3.27	3.34	3.21	3.13
S.dev of dep.var	1.09	1.13	1.14	1.12	1.13	1.16
R^2	0.35	0.58	0.62	0.69	0.69	0.69
Mean inefficiency (%)	-28.45	-21.34	-22.32	-18.86	-18.43	-20.85
Market share equation						
Constant	0.00	0.00	0.00	0.00	-0.01	0.00
market share$_{t-1}$	0.04	0.00	0.30 **	0.09	0.74 **	0.30
efficiency	0.17	0.23 **	0.20 **	0.25 **	0.17	0.13 **
import penetration	0.10	0.01 **	0.01 *	0.01 *	0.02	0.00
concentration	1.23 *	4.10 **	3.11 **	4.39 **	4.82	2.93
Mean of dep.var	0.00	0.00	0.00	0.00	0.00	0.00
S.dev of dep.var	0.01	0.02	0.01	0.01	0.02	0.01
SEE	0.01	0.01	0.01	0.01	0.01	0.01
R^2	0.26	0.40	0.48	0.38	0.58	0.53
White-hetero	830 **	687 **	303 **	898 **	1228 **	1295 **
Reset y^2	406.05 **	0.41	25.66 **	0.21	196.47 **	659.93 **
Reset y^2. y^3	205.16 **	43.33 **	33.89 **	45.81 **	127.02 **	679.32 **
Corr of rel. efficiency						
profit margin	0.38	0.17		0.31		-0.18
investment rate				0.15		

Table 8: Dynamic frontier production functions: agriculture

Variable	1992	1993	1994	1995	1996
Production function					
Constant	-0.23 *	0.04	-0.06	0.04	0.16 *
y_{t-1}	0.19 **	0.31 **	0.43 **	0.58 **	0.62 **
log(L)	0.68 **	0.57 **	0.55 **	0.37 **	0.25 **
log(K)	0.08 **	0.05 **	0.02 *	0.04 **	0.11 **
σ	0.81 **	0.88 **	0.62 **	0.63 **	0.74 **
σ_u/σ_v	2.55 **	2.39 **	1.92 **	1.61 **	2.34 **
short-run ret. to scale	0.76 **	0.62 **	0.58 **	0.41 **	0.36 **
long-run ret. to scale	0.95 *	0.91 **	1.02	0.97	0.95
Nob	799	1072	1107	1396	1363
Mean of dep.var	3.65	3.26	3.54	3.29	3.14
S.dev of dep.var	0.96	1.04	1.04	1.10	1.15
R^2	0.66	0.65	0.81	0.81	0.79
Mean inefficiency (%)	-16.06	-19.35	-12.18	-12.62	-16.57
Market share equation					
Constant	0.00	0.00	0.00	0.00 *	0.00
market share$_{t-1}$	0.57 **	0.31 **	0.35 **	1.08 **	0.31
efficiency	0.15 **	0.07 **	0.17 *	0.05 **	0.16 **
import penetration	0.01	0.00 **	0.00	0.00 *	0.00
concentration	3.14 *	0.38 *	1.66	0.49 *	2.91
Mean of dep.var	0.00	0.00	0.00	0.00	0.00
S.dev of dep.var	0.01	0.01	0.01	0.01	0.01
SEE	0.01	0.00	0.01	0.00	0.01
R^2	0.65	0.92	0.77	0.95	0.54
White-hetero	490 **	484 **	549 **	908 **	1294 **
Reset y^2	88.34 **	39.48 **	24.87 **	622.26 **	666.22 **
Reset y^2. y^3	44.52 **	23.77 **	32.16 **	447.68 **	720.69 **
Corr of rel. efficiency					
profit margin			0.33		-0.18
investment rate			0.16		

Variable	1990	1991	1992	1993	1994	1995	1996
Production function							
Constant	0.16	1.30 **	0.43 **	0.02	0.02	0.03	-0.18
$\log(L)$	0.85 **	0.52 **	0.71 **	0.75 **	0.70 **	0.66 **	0.67 **
$\log(K)$	0.05	0.20 **	0.22 **	0.24 **	0.30 **	0.33 **	0.37 **
σ	1.05 **	1.34 **	1.17 **	1.07 **	1.01 **	0.90 **	0.98 **
σ_u/σ_v	4.01 *	2.25 **	3.33 **	2.58 **	2.19 **	1.79 **	1.84 **
returns to scale	0.90	0.72 **	0.93 **	0.99	0.99	0.99	1.04
Nob	102	155	347	373	516	542	469
Mean of dep.var	5.03	4.18	4.28	4.11	3.71	3.55	3.52
S.dev of dep.var	1.11	1.43	1.63	1.61	1.64	1.66	1.73
R^2	0.59	0.58	0.77	0.79	0.81	0.84	0.83
Mean inefficiency (%)	-15.39	-23.21	-20.39	-18.60	-19.18	-17.45	-19.30
Market share equation							
Constant	-0.01	0.01	0.02 *	0.01	0.00	0.00	0.00
market share$_{t-1}$	0.77 **	0.45 *	0.32	0.81 **	0.90 **	1.00 **	0.98 **
efficiency	-0.31	0.32	1.93 **	1.06 **	0.33 **	0.09	0.04
import penetration		-0.13	0.10	0.09	0.02	-0.01	-0.02
concentration	0.53 *	1.09 **	1.48 **	0.09	0.22 *	0.25	0.11
Mean of dep.var	0.07	0.03	0.05	0.04	0.03	0.03	0.03
S.dev of dep.var	0.15	0.05	0.10	0.09	0.08	0.08	0.08
SEE	0.04	0.04	0.08	0.04	0.03	0.02	0.02
R^2	0.94	0.53	0.32	0.78	0.86	0.96	0.96
White-hetero	69 **	28 **	104 **	28 *	48 **	143 **	100 **
Reset y^2	35.94 **	3.54	33.69 **	0.58	36.47 **	0.51	23.09 **
Reset y^2. y^3	26.84 **	5.85 **	42.60 **	5.03 **	18.20 **	2.06	12.58 **
Corr of rel. efficiency							
profit margin	0.15	0.26	0.50			0.38	
investment rate	0.26			-0.47			

Table 10: **Dynamic frontier production functions: food industry**

Variable	1990	1991	1992	1993	1994	1995	1996
Production function							
Constant	-0.28	-0.03	0.11	0.41 *	0.06	0.21 *	-0.01
y_{t-1}	0.44 **	0.49 **	0.18 **	0.33 **	0.51 **	0.59 **	0.74 **
$\log(L)$	0.64 **	0.66 *	0.63 **	0.42 **	0.36 **	0.24 **	0.17 **
$\log(K)$	-0.06	-0.20	0.20 **	0.21 **	0.16 **	0.16 **	0.14 **
σ	0.84 **	0.92 **	0.78 **	0.91 **	0.82 **	0.68 **	0.65 **
σ_u/σ_v	4.49	3.49	2.35 **	2.64 **	2.62 **	1.68 **	1.96 **
short-run ret. to scale	0.58 **	0.46 **	0.83 **	0.63 **	0.52 **	0.40 **	0.30 **
long-run ret. to scale	1.03	0.90	1.00	0.94	1.06	0.99	1.16 *
Nob	97	65	129	274	304	460	454
Mean of dep.var	5.08	4.87	4.56	4.08	4.19	3.70	3.56
S.dev of dep.var	1.05	1.09	1.48	1.59	1.61	1.68	1.73
R^2	0.69	0.66	0.87	0.84	0.87	0.91	0.93
Mean inefficiency (%)	-11.85	-13.22	-12.33	-15.75	-13.82	-12.17	-12.67
Market share equation							
Constant	-0.01	0.00	0.00	0.00	0.00	0.00 *	0.00 *
market share$_{t-1}$	0.79 **	1.00 **	0.88 **	0.84 **	0.98 **	1.02 **	0.98 **
efficiency	0.04	0.12	0.52	1.04 **	0.67 **	0.37 **	0.34 *
import penetration		0.00	0.15 *	0.12	-0.01	0.00	-0.02
concentration	0.48 *	0.27	0.18	0.04	0.04	0.10	0.11
Mean of dep.var	0.07	0.05	0.03	0.04	0.04	0.03	0.03
S.dev of dep.var	0.15	0.06	0.05	0.10	0.10	0.09	0.08
SEE	0.03	0.01	0.04	0.03	0.02	0.01	0.02
R^2	0.96	0.97	0.52	0.91	0.97	0.98	0.96
White-hetero	69 **	26 **	17	189 **	148 **	156 **	97 **
Reset y^2	36.73 **	16.95 **	0.06	0.49	8.83 **	0.26	22.22 **
Reset y^2. y^3	36.80 **	13.69 **	0.67	3.43 *	8.21 **	0.20	12.19 **
Corr of rel. efficiency							
profit margin		0.18	0.54			0.34	
investment rate	0.25	-0.21		-0.55			

Variable	1990	1991	1992	1993	1994	1995	1996
Production function							
Constant	0.92 **	0.80 **	0.36 **	0.32 **	0.31 **	0.29 **	0.15
log(L)	0.37 **	0.45 **	0.62 **	0.61 **	0.62 **	0.62 **	0.64 **
log(K)	0.38 **	0.30 **	0.23 **	0.29 **	0.29 **	0.33 **	0.32 **
σ	0.93 **	1.28 **	0.98 **	0.99 **	0.93 **	0.98 **	0.89 **
σ_u/σ_v	1.39 **	2.36 **	1.68 **	1.38 **	1.32 **	1.60 **	1.19 **
returns to scale	0.74 **	0.75 **	0.85 **	0.90 **	0.92 **	0.95 **	0.96 *
Nob	560	583	911	961	1087	1157	1043
Mean of dep.var	3.54	3.05	3.29	3.34	3.28	3.13	3.21
S.dev of dep.var	1.11	1.24	1.21	1.31	1.30	1.38	1.38
R^2	0.58	0.49	0.65	0.66	0.69	0.72	0.74
Mean inefficiency (%)	-16.89	-30.26	-20.21	-19.09	-17.90	-20.81	-16.78
Market share equation							
Constant	0.00 **	0.01	0.02 **	0.01 **	0.01 **	0.01 **	0.01 **
market share$_{t-1}$	0.83 **	0.43 **	0.17 **	0.61 **	0.35 **	0.59 **	0.58 **
efficiency	0.04	0.65 **	1.09 **	0.69 **	1.10 **	0.75 **	0.84 **
import penetration		0.31	-0.02 **	-0.01 **	-0.01 **	-0.01 **	-0.02 **
concentration	-0.07	1.89 **	1.65 **	1.38 **	1.15 **	0.92 **	3.00 **
Mean of dep.var	0.03	0.02	0.02	0.02	0.02	0.02	0.02
S.dev of dep.var	0.06	0.06	0.05	0.05	0.05	0.05	0.08
SEE	0.01	0.04	0.04	0.03	0.04	0.03	0.05
R^2	0.94	0.59	0.37	0.59	0.37	0.63	0.61
White-hetero	192 **	56 **	217 **	325 **	285 **	1108 **	481 **
Reset y^2	10.21 **	11.76 **	17.87 **	43.14 **	12.86 **	5.55 *	154.67 **
Reset $y^2. y^3$	11.43 **	9.41 **	9.16 **	21.87 **	25.40 **	60.65 **	92.49 **
Corr of rel. efficiency							
profit margin investment rate	0.27	0.43		-0.16	0.21	0.18	

Table 12: **Dynamic frontier production functions: light industry**

Variable	1990	1991	1992	1993	1994	1995	1996
Production function							
Constant	0.37 **	-0.06	0.05	0.35 **	0.28 **	0.09	0.12 *
y_{t-1}	0.69 **	0.53 **	0.22 **	0.60 **	0.77 **	0.66 **	0.70 **
log(L)	0.10 **	0.33 **	0.57 **	0.23 **	0.12 **	0.24 **	0.23 **
log(K)	0.15 **	0.12 **	0.20 **	0.16 **	0.10 **	0.12 **	0.09 **
σ	0.68 **	0.97 **	0.83 **	0.80 **	0.53 **	0.64 **	0.61 **
σ_u/σ_v	1.57 **	2.74 **	2.03 **	1.73 **	1.52 **	1.54 **	1.34 **
short-run ret. to scale	0.25 **	0.45 **	0.77 **	0.39 **	0.23 **	0.36 **	0.32 **
long-run ret. to scale	0.80 **	0.95	0.98	0.99	0.98	1.06	1.05
Nob	537	309	483	843	764	988	1007
Mean of dep.var	3.51	3.29	3.43	3.29	3.54	3.27	3.24
S.dev of dep.var	1.07	1.14	1.19	1.29	1.26	1.36	1.37
R^2	0.77	0.65	0.76	0.79	0.90	0.87	0.88
Mean inefficiency (%)	-12.71	-21.23	-17.09	-16.31	-9.72	-12.73	-11.88
Market share equation							
Constant	0.00 *	0.01	0.02 **	0.00 **	0.01	0.00 **	0.01 **
market share$_{t-1}$	0.84 **	0.49 **	0.49 **	0.95 **	0.82 **	1.00 **	0.64 **
efficiency	0.16	0.73 *	0.74 **	0.76 **	0.98 *	0.50 **	0.81 **
import penetration		-0.04	-0.03 **	0.00	0.00	0.00	-0.02 **
concentration	-0.05	1.69 *	2.00 **	0.21	0.42	0.03	2.94 **
Mean of dep.var	0.02	0.02	0.02	0.02	0.02	0.02	0.02
S.dev of dep.var	0.05	0.04	0.07	0.04	0.06	0.05	0.08
SEE	0.01	0.03	0.05	0.02	0.04	0.02	0.05
R^2	0.94	0.58	0.51	0.82	0.60	0.92	0.62
White-hetero	180 **	226 **	137 **	248 **	211 **	351 **	379 **
Reset y^2	16.76 **	309.16 **	27.33 **	0.92	58.81 **	33.31 **	93.23 **
Reset $y^2. y^3$	12.19 **	250.98 **	18.86 **	1.72	84.82 **	20.52 **	71.70 **
Corr of rel. efficiency							
profit margin investment rate	0.23	0.42			0.17	0.15	

Variable	1990	1991	1992	1993	1994	1995	1996
Production function							
Constant	1.72 **	0.72	0.79 **	0.21	0.55 *	0.46 **	0.48 *
$\log(L)$	0.20	0.54 **	0.59 **	0.66 **	0.60 **	0.57 **	0.53 **
$\log(K)$	0.50 **	0.22 **	0.32 **	0.33 **	0.38 **	0.42 **	0.45 **
σ	1.15 **	1.18 **	1.41 **	0.93 **	0.99 **	0.98 **	0.91 **
σ_u/σ_v	1.38 *	1.42	2.72 **	1.24 *	1.63 **	1.86 **	1.52 **
returns to scale	0.70 **	0.76 **	0.01 *	0.99	0.98	1.00	0.98
Nob	76	111	188	207	262	284	260
Mean of dep.var	4.99	3.72	3.95	4.15	4.17	3.90	3.96
S.dev of dep.var	1.69	1.51	1.72	1.65	1.62	1.68	1.69
R^2	0.72	0.65	0.70	0.80	0.79	0.82	0.84
Mean inefficiency (%)	-14.77	-20.60	-26.22	-13.93	-15.82	-17.26	-15.22
Market share equation							
Constant	0.01	-0.03 **	0.00	-0.01	0.00	0.00	0.00
market share$_{t-1}$	0.88 **	1.15 **	0.47 **	0.72 **	0.86 **	0.99 **	0.93 **
efficiency	0.13	-0.26	0.52	-0.44	0.43	0.32	0.08
import penetration		0.76 **	-0.01	0.00	0.00	0.00	0.00
concentration	0.04	3.92 **	2.06 **	1.45 *	0.24 **	0.00	0.03 *
Mean of dep.var	0.12	0.07	0.05	0.04	0.03	0.03	0.03
S.dev of dep.var	0.25	0.25	0.16	0.13	0.11	0.11	0.11
SEE	0.09	0.07	0.10	0.06	0.03	0.04	0.01
R^2	0.87	0.92	0.63	0.79	0.93	0.89	0.98
White-hetero	16	81 **	33 **	187 **	33 **	27 *	180 **
Reset y^2	12.14 **	81.65 **	0.12	11.85 **	10.45 **	3.59	3.33
Reset y^2, y^3	6.17 **	69.39 **	11.17 **	7.62 **	6.52 **	4.20 *	11.65 **
Corr of rel. efficiency							
profit margin	0.22	0.56	-0.60	0.26		0.34	
investment rate							-0.15

Table 14: Dynamic frontier production functions: chemical industry

Variable	1990	1991	1992	1993	1994	1995	1996
Production function							
Constant	0.68	0.48 **	-0.09	0.54 *	0.40 **	0.22	0.11
y_{t-1}	0.69 **	0.63 **	0.21 **	0.43 **	0.79 **	0.67 **	0.69 **
$\log(L)$	0.14	-0.01	0.65 **	0.29 **	0.10 *	0.15 **	0.17 **
$\log(K)$	0.12	0.30 **	0.22 **	0.25 **	0.10 **	0.19 **	0.16 **
σ	1.00 **	0.85 **	0.74 **	0.77 **	0.53 **	0.70 **	0.51 **
σ_u/σ_v	2.07 *	246.50	1.41	1.56 **	1.19 **	1.41 **	0.83 *
short-run ret. to scale	0.26 **	0.29 **	0.87 *	0.54 **	0.20 **	0.34 **	0.33 **
long-run ret. to scale	0.83	0.77 **	1.10	0.96	0.95	1.05	1.06
Nob	72	43	88	174	173	243	252
Mean of dep.var	4.97	4.31	4.28	4.18	4.47	4.09	3.99
S.dev of dep.var	1.70	1.35	1.70	1.65	1.63	1.71	1.67
R^2	0.83	0.85	0.89	0.88	0.93	0.90	0.93
Mean inefficiency (%)	-14.24	-14.31	-11.31	-12.31	-7.09	-10.87	-6.52
Market share equation							
Constant	0.00	-0.02	0.00	0.00	0.00	0.01 *	0.00
market share$_{t-1}$	0.90 **	1.30 **	0.43 **	0.86 **	0.92 **	1.03 **	0.93 **
efficiency	0.48	-0.60	2.10 *	0.22	0.71 *	0.78	0.64
import penetration		0.00	-0.01 **	0.00	0.00	0.00	0.00
concentration	-0.01	0.11	2.49 **	0.39	-0.08	-0.03	0.03 *
Mean of dep.var	0.11	0.12	0.05	0.04	0.04	0.04	0.04
S.dev of dep.var	0.25	0.36	0.16	0.12	0.13	0.12	0.11
SEE	0.08	0.05	0.04	0.03	0.02	0.03	0.01
R^2	0.91	0.99	0.92	0.95	0.98	0.92	0.98
White-hetero	15	38 **	76 **	74 **	121 **	36 **	185 **
Reset y^2	12.95 **	6.93 *	10.15 **	4.05 *	4.49 *	0.48	4.55 *
Reset y^2, y^3	7.04 **	132.33 **	8.25 **	2.45	5.34 **	8.00 **	12.33 **
Corr of rel. efficiency							
profit margin	0.26	0.55	-0.63	0.25		0.39	0.38
investment rate							

Variable	1990	1991	1992	1993	1994	1995	1996
Production function							
Constant	1.89 **	0.76 **	0.73 **	0.47 **	0.56 **	0.39 **	0.49 **
log(L)	0.40 **	0.65 **	0.70 **	0.75 **	0.72 **	0.73 **	0.68 **
log(K)	0.21 **	0.08 *	0.11 **	0.16 **	0.19 **	0.23 **	0.29 **
σ	1.20 **	1.43 **	1.23 **	1.11 **	1.02 **	0.91 **	0.89 **
σ_u/σ_v	1.96 **	1.92 **	2.15 **	1.69 **	1.54 **	1.19 **	1.18 **
returns to scale	0.61 **	0.73 **	0.81 **	0.90 **	0.91 **	0.97	0.97
Nob	424	511	903	877	1056	1178	1041
Mean of dep.var	4.08	3.11	3.31	3.50	3.52	3.50	3.65
S.dev of dep.var	1.17	1.36	1.28	1.36	1.37	1.43	1.46
R^2	0.46	0.43	0.55	0.64	0.69	0.74	0.77
Mean inefficiency (%)	-20.44	-32.13	-26.52	-21.41	-19.09	-15.86	-14.72
Market share equation							
Constant	0.00	0.01	0.02 **	0.01 *	0.00	0.01	0.03
market share$_{t-1}$	0.76 **	0.08	1.18 *	0.94 **	0.88 **	1.01 **	0.76 **
efficiency	0.29 *	0.35 **	2.01 **	0.52 *	0.90 **	0.40	3.92
import penetration	0.03	-0.02	-0.01 **	0.00 **	0.00	0.00	-0.01
concentration	1.85	2.90 *	1.13 **	0.23 *	0.79 *	-0.35	1.75
Mean of dep.var	0.02	0.01	0.04	0.03	0.03	0.03	0.04
S.dev of dep.var	0.05	0.04	0.11	0.11	0.12	0.12	0.27
SEE	0.03	0.03	0.08	0.05	0.06	0.04	0.25
R^2	0.63	0.22	0.40	0.83	0.72	0.86	0.16
White-hetero	33 **	277 **	486 **	376 **	634 **	717 **	86 **
Reset y^2	18.64 **	0.00	66.48 **	112.74 **	334.26 **	72.91 **	3.35
Reset y^2, y^3	11.56 **	18.54 **	48.50 **	65.33 **	173.76 **	64.88 **	1.77
Corr of rel. efficiency							
profit margin	0.28	0.74					
investment rate							

Table 16: **Dynamic frontier production functions: engineering**

Variable	1990	1991	1992	1993	1994	1995	1996
Production function							
Constant	0.85 **	0.18	0.16	0.30 **	0.36 **	0.14	0.16 *
y_{t-1}	0.65 **	0.42 **	0.23 **	0.50 **	0.55 **	0.56 **	0.63 **
log(L)	0.17 **	0.37 **	0.68 **	0.42 **	0.32 **	0.33 **	0.27 **
log(K)	0.04	0.14 **	0.05	0.09 **	0.13 **	0.14 **	0.14 **
σ	0.97 **	1.26 **	0.88 **	0.90 **	0.75 **	0.66 **	0.62 **
σ_u/σ_v	2.51 **	3.03 **	1.76 **	1.98 **	1.51 **	0.77 **	0.94 **
short-run ret. to scale	0.21 **	0.51 **	0.72 **	0.52 **	0.44 **	0.47 **	0.41 **
long-run ret. to scale	0.60 **	0.88	0.94	1.04	0.98	1.06	1.10 *
Nob	392	179	425	753	662	985	1002
Mean of dep.var	4.02	3.50	3.39	3.46	3.75	3.61	3.67
S.dev of dep.var	1.10	1.41	1.17	1.33	1.36	1.45	1.45
R^2	0.61	0.62	0.70	0.76	0.82	0.84	0.87
Mean inefficiency (%)	-16.98	-26.25	-17.79	-17.99	-12.92	-8.85	-9.23
Market share equation							
Constant	0.00	0.00	0.01 **	0.01 **	0.00	0.01	0.06
market share$_{t-1}$	0.86 **	0.87 **	1.08 *	1.01 **	1.05 **	1.06 **	0.83 **
efficiency	0.28 **	0.17	1.61 **	1.23 **	1.34 **	0.71 **	15.26
import penetration	0.01	-0.04	-0.01 *	0.00	0.00	0.00	-0.01 *
concentration	0.01	-0.07	1.01 **	0.06	-0.12	-0.26	1.50 *
Mean of dep.var	0.01	0.02	0.03	0.03	0.04	0.03	0.04
S.dev of dep.var	0.04	0.05	0.07	0.12	0.14	0.13	0.28
SEE	0.01	0.01	0.05	0.03	0.04	0.04	0.24
R^2	0.97	0.95	0.44	0.92	0.91	0.92	0.23
White-hetero	222 **	106 **	340 **	327 **	331 **	697 **	708 **
Reset y^2	36.55 **	0.62	0.96	90.12 **	227.95 **	10.20 **	53.73 **
Reset y^2, y^3	18.34 **	2.08	20.74 **	48.43 **	205.62 **	59.40 **	285.41 **
Corr of rel. efficiency							
profit margin	0.28	0.75			0.42		
investment rate							

Variable	1990	1991	1992	1993	1994	1995	1996
Production function							
Constant	0.71	0.27	0.12	0.25	0.24	0.35 **	0.14
log(L)	0.27	0.68 **	0.79 **	0.74 **	0.75 **	0.71 **	0.73 **
log(K)	0.56 **	0.20 **	0.19 **	0.22 **	0.21 **	0.27 **	0.28 **
σ	1.38 **	1.29 **	1.21 **	0.96 **	0.89 **	1.06 **	1.00 **
σ_u/σ_v	0.89	2.70 *	3.32 **	2.03 **	1.96 **	1.95 **	2.00 **
returns to scale	0.83	0.88 *	0.98	0.95	0.96	0.97	1.01
Nob	107	147	285	313	407	432	430
Mean of dep.var	5.35	4.57	4.39	4.53	4.29	4.20	4.22
S.dev of dep.var	1.89	1.75	1.84	1.69	1.64	1.75	1.72
R^2	0.62	0.75	0.80	0.84	0.85	0.81	0.83
Mean inefficiency (%)	-13.57	-20.82	-20.31	-14.79	-14.49	-17.59	-16.49
Market share equation							
Constant	-0.01	-0.02	0.04 **	0.04 **	0.01 **	0.01	0.02 *
market share$_{t-1}$	0.91 **	0.77 **	0.39 **	0.38	0.83 **	0.81 **	0.63 **
efficiency	0.51	-1.86	1.90 **	2.37 **	1.14 *	-0.53	0.82
import penetration	0.03	-0.04 **	-0.02 **	-0.01 *	-0.01 *	0.00	0.00 *
concentration	0.20	1.28 **	0.81 **	0.66 *	0.30	-0.02	0.31 *
Mean of dep.var	0.11	0.08	0.07	0.06	0.05	0.05	0.04
S.dev of dep.var	0.19	0.17	0.12	0.12	0.12	0.11	0.09
SEE	0.07	0.09	0.09	0.09	0.06	0.06	0.05
R^2	0.88	0.73	0.40	0.46	0.75	0.70	0.76
White-hetero	30 **	14	18	261 **	106 **	141 **	283 **
Reset y^2	14.80 **	0.01	0.39	75.13 **	3.29	8.70 **	196.45 **
Reset y^2.y^3	3.19 **	5.37 **	0.20	67.54 **	4.06 *	5.38 **	149.35 **
Corr of rel. efficiency							
profit margin	0.31	0.60	0.22				
investment rate		0.26					

Table 18: Dynamic frontier production functions: other industries

Variable	1990	1991	1992	1993	1994	1995	1996
Production function							
Constant	0.58	0.24	0.21	0.67 **	0.28 *	0.25 **	0.13
y_{t-1}	0.73 **	0.37 **	0.21 **	0.37 **	0.56 **	0.65 **	0.64 **
log(L)	0.03	0.33	0.63 **	0.39 **	0.34 **	0.24 **	0.29 **
log(K)	0.20 *	0.21 *	0.13 **	0.17 **	0.10 **	0.12 **	0.09 **
σ	1.14 **	0.88 **	0.83 **	0.83 **	0.59 **	0.65 **	0.61 **
σ_u/σ_v	2.06 **	2.01	2.12 **	2.41 **	1.87 **	1.38 **	1.61 **
short-run ret. to scale	0.23 **	0.54 **	0.76 **	0.56 **	0.44 **	0.36 **	0.38 **
long-run ret. to scale	0.86	0.86	0.97	0.89 *	0.99	1.03	1.05
Nob	98	78	114	238	251	369	404
Mean of dep.var	5.44	5.50	4.91	4.51	4.72	4.39	4.24
S.dev of dep.var	1.78	1.40	1.66	1.72	1.64	1.71	1.73
R^2	0.79	0.80	0.88	0.88	0.93	0.92	0.93
Mean inefficiency (%)	-14.45	-11.11	-11.96	-13.18	-8.64	-9.98	-9.44
Market share equation							
Constant	0.00	0.01	0.04 **	0.01	0.01 *	0.02 *	0.02 **
market share$_{t-1}$	0.98 **	1.00 **	0.39 **	1.02 **	1.00 **	0.85 **	0.65 **
efficiency	1.07	1.47	1.79	1.47 *	2.05 **	1.53 *	1.68 *
import penetration	-0.02	0.00	-0.01 **	0.00	0.00 *	0.00	0.00 *
concentration	0.14	0.01	0.66 **	0.03	0.05	-0.08	0.27
Mean of dep.var	0.12	0.09	0.08	0.06	0.07	0.05	0.04
S.dev of dep.var	0.19	0.18	0.12	0.13	0.14	0.11	0.10
SEE	0.05	0.04	0.08	0.04	0.05	0.04	0.04
R^2	0.94	0.96	0.58	0.90	0.87	0.87	0.81
White-hetero	60 **	53 **	17	146 **	43 **	338 **	372 **
Reset y^2	13.62 **	16.79 **	0.89	29.28 **	4.00 *	40.34 **	318.16 **
Reset y^2.y^3	6.75 **	14.05 **	1.21	21.00 **	3.25 *	20.20 **	291.68 **
Corr of rel. efficiency							
profit margin	0.30	0.62	0.23				
investment rate							

Variable	1990	1991	1992	1993	1994	1995	1996
Production function							
Constant	2.11 **	1.67 **	0.21	-0.03	-0.04	-0.22 *	-0.01
log(L)	0.39 **	0.50 **	0.84 **	0.87 **	0.86 **	0.89 **	0.83 **
log(K)	0.19 **	0.07 *	0.01	0.06 **	0.14 **	0.11 **	0.17 **
σ	1.09 **	1.26 **	0.99 **	0.90 **	0.83 **	0.90 **	0.97 **
σ_u/σ_v	1.57 **	1.37 **	1.66 **	1.09 **	1.25 **	1.23 **	1.34 **
returns to scale	0.58 **	0.57 **	0.85 **	0.93 **	0.99	1.00	1.00
Nob	353	475	860	831	1010	1052	866
Mean of dep.var	3.97	3.21	3.07	3.08	3.05	2.73	2.77
S.dev of dep.var	1.10	1.15	1.09	1.16	1.16	1.22	1.24
R^2	0.44	0.29	0.56	0.60	0.68	0.66	0.63
Mean inefficiency (%)	-18.04	-25.13	-21.71	-17.13	-16.89	-20.36	-22.17
Market share equation							
Constant	0.00	0.00	0.00 **	0.00 *	0.00 **	0.00 *	0.00
market share$_{t-1}$	0.75 **	0.31	0.03	0.41 *	0.02 **	0.19	0.85 **
efficiency	-0.13	0.42	0.28 **	0.17 **	0.30 **	0.19 **	0.06 **
import penetration	-0.11	-0.64 *	0.00	0.00	0.00	0.00	0.00
concentration	1.32 *	4.02 *	1.52	1.37 *	1.55 *	2.15 **	0.69
Mean of dep.var	0.02	0.01	0.00	0.00	0.00	0.00	0.00
S.dev of dep.var	0.04	0.05	0.01	0.01	0.01	0.01	0.01
SEE	0.02	0.04	0.01	0.01	0.01	0.01	0.00
R^2	0.85	0.46	0.13	0.44	0.08	0.18	0.85
White-hetero	183 **	460 **	347 **	677 **	62 **	401 **	474 **
Reset y^2	0.00	253.51 **	32.05 **	275.75 **	8.17 **	301.24 **	2.24
Reset y^2, y^3	4.76 **	343.62 **	43.26 **	197.61 **	11.41 **	150.50 **	6.22 **
Corr of rel. efficiency							
profit margin	0.40	0.78	-0.32			0.34	
investment rate							

Table 20: **Dynamic frontier production functions: construction**

Variable	1990	1991	1992	1993	1994	1995	1996
Production function							
Constant	0.72 **	0.45	0.15	0.06	-0.16	-0.10	0.19 *
y_{t-1}	0.67 **	0.81 **	0.13 **	0.44 **	0.64 **	0.60 **	0.63 **
log(L)	0.14 *	0.08	0.73 **	0.53 **	0.39 **	0.40 **	0.32 **
log(K)	0.06	0.00	0.05 *	0.04 *	0.05 **	0.02	0.07 **
σ	0.81 **	0.94 **	0.97 **	0.87 **	0.59 **	0.81 **	0.82 **
σ_u/σ_v	1.42 **	2.40 **	1.81 **	1.49 **	1.60 **	1.84 **	1.86 **
short-run ret. to scale	0.20 **	0.08 **	0.78 **	0.57 **	0.43 **	0.43 **	0.38 **
long-run ret. to scale	0.59 **	0.44 *	0.90 *	1.01	1.20 **	1.07	1.04
Nob	341	153	416	763	586	896	844
Mean of dep.var	3.99	3.52	3.07	3.05	3.26	2.79	2.78
S.dev of dep.var	1.08	1.06	1.06	1.14	1.15	1.23	1.24
R^2	0.66	0.62	0.56	0.66	0.85	0.77	0.76
Mean inefficiency (%)	-12.93	-19.26	-21.78	-18.58	-11.99	-19.90	-20.14
Market share equation							
Constant	0.00	-0.01	0.00	0.00 *	0.00 **	0.00	0.00 *
market share$_{t-1}$	0.76 **	1.02 **	0.03	0.68 **	0.19	0.99 **	0.88 **
efficiency	0.17	0.57	0.17 **	0.13 **	0.25 **	0.12 **	0.09 **
import penetration	0.02	-0.72 *	0.00	0.00	0.00	0.00	0.00
concentration	0.93	3.94 *	2.99 **	0.89	1.37	0.33	0.37
Mean of dep.var	0.02	0.02	0.00	0.00	0.00	0.00	0.00
S.dev of dep.var	0.04	0.08	0.01	0.01	0.01	0.01	0.01
SEE	0.01	0.02	0.01	0.00	0.01	0.00	0.00
R^2	0.87	0.92	0.17	0.69	0.17	0.85	0.88
White-hetero	176 **	140 **	194 **	636 **	382 **	236 **	423 **
Reset y^2	0.19	449.11 **	172.14 **	125.34 **	2422.69 **	18.11 **	1.09
Reset y^2, y^3	10.99 **	238.00 **	91.84 **	221.33 **	1978.36 **	15.01 **	5.25 **
Corr of rel. efficiency							
profit margin	0.44	0.74	-0.33			0.38	
investment rate							

Variable	1990	1991	1992	1993	1994	1995	1996
Production function							
Constant	-0.04	1.28	0.56 **	0.25 **	0.63 **	0.28 **	0.09
log(L)	0.60 **	0.42 **	0.68 **	0.74 **	0.66 **	0.69 **	0.72 **
log(K)	0.24 **	0.10 **	0.17 **	0.18 **	0.23 **	0.26 **	0.27 **
σ	0.67	1.10	1.08 **	1.02 **	1.08 **	1.06 **	1.01 **
σ_u/σ_v	0.05	0.04	1.11 **	0.82 **	1.01 **	0.80 **	0.72 **
returns to scale	0.84 **	0.52 **	0.85 **	0.92 **	0.89 **	0.95 **	0.99
Nob	609	1122	1875	2141	2601	2896	2490
Mean of dep.var	4.61	3.63	3.44	3.45	3.37	3.12	3.17
S.dev of dep.var	1.14	1.27	1.35	1.39	1.38	1.45	1.46
R^2	0.57	0.25	0.58	0.60	0.59	0.60	0.62
Mean inefficiency (%)	-0.10	-1.14	-18.60	-14.96	-18.08	-16.84	-14.81
Market share equation							
Constant	0.00	0.01 **	0.01 **	-0.01	0.01 **	0.00 **	0.00
market share$_{t-1}$	0.79 **	0.35 **	0.20 *	0.33 *	0.37 **	0.58 **	0.81 **
efficiency	0.60	0.44 **	1.37 **	0.73 **	0.74 **	0.53 **	0.19 *
import penetration		-0.11 **	0.00	0.00	0.00	0.00	0.00
concentration	0.84 **	0.39	2.96 **	5.94 *	1.77 **	1.21 **	0.82
Mean of dep.var	0.03	0.02	0.02	0.02	0.02	0.02	0.02
S.dev of dep.var	0.08	0.04	0.06	0.10	0.06	0.05	0.05
SEE	0.04	0.03	0.05	0.07	0.04	0.03	0.02
R^2	0.77	0.38	0.35	0.58	0.66	0.70	0.81
White-hetero	15	853 **	751 **	1999 **	829 **	1532 **	1173 **
Reset y^2	11.20 **	0.45	1.43	3053.41 **	145.27 **	82.37 **	22.22 **
Reset y^2, y^3	5.71 **	0.25	8.14 **	2196.19 **	83.77 **	42.34 **	43.55 **
Corr of rel. efficiency							
profit margin	0.15	0.29					
investment rate							

Table 22: Dynamic frontier production functions: trade

Variable	1990	1991	1992	1993	1994	1995	1996
Production function							
Constant	0.05	-0.02	-0.14	0.20 *	0.26 **	0.14 **	0.13 **
y_{t-1}	0.64 **	0.73 **	0.22 **	0.63 **	0.77 **	0.74 **	0.76 **
log(L)	0.24 **	0.16 **	0.64 **	0.30 **	0.18 **	0.19 **	0.20 **
log(K)	0.11 **	0.08 **	0.15 **	0.07 **	0.07 **	0.10 **	0.07 **
σ	0.77 **	0.85 **	0.89 **	0.79 **	0.74 **	0.77 **	0.74 **
σ_u/σ_v	1.55 **	1.84 **	1.06 **	0.81 **	1.58 **	1.27 **	1.30 **
short-run ret. to scale	0.35 **	0.24 **	0.79 **	0.37 **	0.25 **	0.29 **	0.27 **
long-run ret. to scale	0.95	0.89	1.01	0.98	1.08	1.11 *	1.15 **
Nob	574	537	915	1886	1585	2315	2353
Mean of dep.var	4.63	3.89	3.57	3.44	3.62	3.23	3.18
S.dev of dep.var	1.12	1.09	1.34	1.37	1.40	1.45	1.43
R^2	0.73	0.67	0.71	0.75	0.84	0.83	0.84
Mean inefficiency (%)	-10.81	-14.94	-14.34	-11.46	-13.38	-14.64	-14.35
Market share equation							
Constant	0.00	0.00	0.00	-0.01	0.01 **	0.01 **	0.00
market share$_{t-1}$	0.82 **	0.65 **	0.89 **	0.33	0.57 **	0.77 **	0.83 **
efficiency	0.57 *	0.40	0.43 **	0.61 **	0.84 **	0.73 **	0.72 **
import penetration		-0.09 **	0.00	0.00	0.00	0.00	0.00
concentration	0.65	1.25 **	2.70 **	6.94 *	-0.11	0.46	0.71
Mean of dep.var	0.03	0.02	0.02	0.02	0.02	0.02	0.02
S.dev of dep.var	0.08	0.06	0.07	0.10	0.07	0.06	0.05
SEE	0.02	0.02	0.04	0.06	0.03	0.03	0.02
R^2	0.92	0.86	0.62	0.65	0.81	0.81	0.84
White-hetero	455 **	518 **	346 **	1863 **	858 **	766 **	1136 **
Reset y^2	20.03 **	5.09 *	0.74	9236.34 **	1608.38 **	391.33 **	23.80 **
Reset y^2, y^3	10.76 **	162.54 **	13.10 **	7524.35 **	808.90 **	195.78 **	45.92 **
Corr of rel. efficiency							
profit margin	0.18	0.37					
investment rate							

Variable	1990	1991	1992	1993	1994	1995	1996
Production function							
Constant	0.96 *	0.11	0.51 *	0.15	0.58 **	0.24	0.64 **
log(L)	0.17	0.71 **	0.64 **	0.77 **	0.75 **	0.76 **	0.69 **
log(K)	0.67 **	0.14 *	0.25 **	0.20 **	0.18 **	0.21 **	0.27 **
σ	1.02 **	1.23 **	0.96 **	0.88 **	1.01 **	0.83 **	1.12 **
σ_u/σ_v	247.69	0.79	1.22 **	1.02 **	1.40 **	0.78 *	1.79 **
returns to scale	0.84	0.86 *	0.90 **	0.97	0.93 *	0.97	0.97
Nob	49	127	295	379	476	529	469
Mean of dep.var	5.47	3.79	3.51	3.56	3.58	3.48	3.52
S.dev of dep.var	1.83	1.92	1.60	1.61	1.56	1.58	1.70
R^2	0.86	0.69	0.77	0.80	0.75	0.79	0.77
Mean inefficiency (%)	-14.54	-16.09	-16.90	-14.08	-18.13	-11.66	-21.83
Market share equation							
Constant	-0.01	0.01	0.00	0.00	0.00	0.01	0.00
market share$_{t-1}$	0.92 **	0.31 **	0.71 **	0.79 **	0.63 **	0.89 **	0.72 **
efficiency	-1.02	0.95	2.22	0.08	0.39	1.58	0.83 *
import penetration		0.03	342.94 **	14.29	49.78	13.36	0.00
concentration	0.14	0.63	2.58 **	0.76 **	1.77 **	0.50 *	1.43 **
Mean of dep.var	0.19	0.07	0.10	0.09	0.07	0.08	0.07
S.dev of dep.var	0.30	0.20	0.39	0.33	0.27	0.31	0.29
SEE	0.06	0.10	0.23	0.09	0.13	0.19	0.09
R^2	0.97	0.75	0.66	0.92	0.77	0.63	0.90
White-hetero	28 **	49 **	263 **	44 **	269 **	63 **	414 **
Reset y^2	4.57 *	0.04	177.44 **	1.92	19.39 **	12.72 **	2.04
Reset y^2. y^3	2.55	0.99	205.51 **	1.75	21.77 **	9.51 **	44.37 **
Corr of rel. efficiency							
profit margin		0.44	-0.19	0.49	0.47	0.46	
investment rate			-0.21				

Table 24: Dynamic frontier production functions: services

Variable	1990	1991	1992	1993	1994	1995	1996
Production function							
Constant	0.03	-0.68	0.39	-0.09	0.38 **	0.13	0.27 **
y_{t-1}	0.63 **	0.15	0.28 **	0.58 **	0.77 **	0.75 **	0.75 **
log(L)	0.08	0.57	0.36 **	0.39 **	0.19 **	0.17 **	0.16 **
log(K)	0.25 *	0.30	0.31 **	0.10 **	0.03	0.10 **	0.12 **
σ	0.87 **	1.36 **	0.59 **	0.60 **	0.66 **	0.52 **	0.69 **
σ_u/σ_v	444.42	541.45	0.83	0.91 *	1.97 **	0.87 **	1.68 **
short-run ret. to scale	0.33 **	0.87	0.67 **	0.49 **	0.22 **	0.27 **	0.28 **
long-run ret. to scale	0.89	1.02	0.93	1.17 *	0.97	1.06	1.10
Nob	45	32	105	316	289	441	448
Mean of dep.var	5.42	5.53	4.14	3.35	3.75	3.60	3.56
S.dev of dep.var	1.80	2.00	1.79	1.49	1.61	1.62	1.66
R^2	0.86	0.79	0.92	0.88	0.91	0.92	0.90
Mean inefficiency (%)	-8.21	-14.56	-7.24	-9.58	-11.95	-7.55	-12.79
Market share equation							
Constant	-0.01	0.00	0.02	0.00	0.01 *	0.02	0.00
market share$_{t-1}$	0.98 **	1.03 **	0.94 **	0.84 **	0.79 **	0.96 **	0.76 **
efficiency	0.23	2.33	3.35	0.92 *	2.44 **	4.47	1.32 **
import penetration		0.00	0.00	14.27	-27.35	9.04	0.00
concentration	0.07	0.04	0.92	0.51 **	0.51	0.04	1.09 *
Mean of dep.var	0.20	0.22	0.10	0.09	0.08	0.08	0.07
S.dev of dep.var	0.31	0.31	0.25	0.35	0.31	0.34	0.29
SEE	0.04	0.05	0.15	0.05	0.07	0.20	0.08
R^2	0.99	0.98	0.65	0.98	0.95	0.65	0.92
White-hetero	27 **	31 **	35 **	104 **	243 **	150 **	421 **
Reset y^2	1.34	1.87	12.86 **	8.54 **	41.72 **	14.15 **	6.93 **
Reset y^2. y^3	1.19	2.08	7.11 **	19.42 **	159.46 **	9.52 **	161.90 **
Corr of rel. efficiency							
profit margin		0.52	0.47	0.51	0.48	0.49	
investment rate	0.17						

Variable	1990	1991	1992	1993	1994	1995	1996
Production function							
Constant	0.77	1.56 **	0.71 **	-0.02	0.78 **	0.83 **	0.41
log(L)	0.62 **	0.42 **	0.66 **	0.78 **	0.64 **	0.56 **	0.68 **
log(K)	0.20 **	0.10 **	0.15 **	0.19 **	0.21 **	0.27 **	0.21 **
σ	1.37 **	1.29 **	1.22 **	1.04 **	1.12 **	1.10 **	1.18 **
σ_u/σ_v	3.13	0.86 **	1.49 **	1.64 **	1.34 **	1.17 **	1.18 **
returns to scale	0.83	0.52 **	0.81 **	0.97	0.85 **	0.83 **	0.88
Nob	57	2704	2671	783	3042	1345	192
Mean of dep.var	5.18	3.19	3.26	4.03	2.99	2.72	3.37
S.dev of dep.var	1.62	1.27	1.37	1.54	1.28	1.22	1.52
R^2	0.69	0.24	0.55	0.75	0.54	0.48	0.62
Mean inefficiency (%)	-19.83	-21.05	-24.62	-17.29	-23.61	-24.40	-21.33
Market share equation							
Constant	0.11 *	0.01 **	0.02 **	0.03 **	0.01 **	0.01 **	0.01 **
market share$_{t-1}$	0.15	0.02	0.02	0.02	0.01	0.03	0.17
efficiency	4.86	0.49 **	1.65 **	1.65 **	0.62 **	0.37	1.18 *
import penetration	0.09	-0.05 **	-0.03 *	-0.03 **	0.00	-0.01 **	-0.02 **
concentration	1.35 *	1.66 **	2.57 **	2.16 **	1.13 *	1.48 **	2.75 **
Mean of dep.var	0.09	0.01	0.02	0.04	0.01	0.01	0.03
S.dev of dep.var	0.15	0.05	0.12	0.10	0.07	0.05	0.10
SEE	0.14	0.04	0.09	0.09	0.06	0.04	0.06
R^2	0.21	0.44	0.51	0.29	0.21	0.21	0.64
White-hetero	18	683 **	2297 **	274 **	1089 **	242 **	131 **
Reset y^2	0.22	157.62 **	1320.11 **	3.32	400.98 **	49.19 **	1.09
Reset y^2. y^3	0.89	256.25 **	838.47 **	40.29 **	223.10 **	47.46 **	0.70
Corr of rel. efficiency							
profit margin		0.34	0.16	-0.47	-0.32	-0.26	-0.22
investment rate				0.15		0.24	

Table 26: **Static frontier production functions: disappearing firms**

Variable	1990	1991	1992	1993	1994	1995
Production function						
Constant	1.59 **	1.25 **	-0.31 *	0.41 **	-0.12	0.31 **
log(L)	0.37 **	0.44 **	0.84 **	0.73 **	0.83 **	0.68 **
log(K)	0.33 **	0.30 **	0.16 **	0.12 **	0.16 **	0.23 **
σ	1.31 **	1.40 **	1.20 **	1.28 **	1.27 **	1.17 **
σ_u/σ_v	1.11 **	1.91 **	2.18 **	1.47 **	1.95 **	1.21 **
returns to scale	0.70 **	0.74 **	1.01	0.85 **	0.98	0.91 **
Nob	569	340	640	1199	310	1178
Mean of dep.var	3.95	4.04	3.97	2.79	3.07	2.37
S.dev of dep.var	1.55	1.44	1.69	1.43	1.46	1.47
R^2	0.53	0.50	0.75	0.55	0.61	0.61
Mean inefficiency (%)	-19.60	-23.96	-21.52	-30.00	-28.97	-30.14
Market share equation						
Constant	0.00	0.00	0.02 **	0.00	0.00	0.00 *
market share$_{t-1}$	0.82 **	0.92 **	0.45 **	0.78 **	0.62 **	0.76 **
efficiency	-0.07	-0.05	0.71 *	0.17 *	0.31 *	0.33 *
import penetration	-0.01	-0.02	-0.01 *	-0.01 **	0.00	0.00
concentration	0.26 *	0.66 *	1.60 **	0.64 **	0.18	0.01
Mean of dep.var	0.04	0.04	0.05	0.02	0.02	0.01
S.dev of dep.var	0.12	0.09	0.12	0.07	0.03	0.07
SEE	0.04	0.04	0.08	0.02	0.02	0.03
R^2	0.91	0.84	0.59	0.91	0.75	0.84
White-hetero	159 **	324 **	225 **	433 **	203 **	398 **
Reset y^2	11.66 **	9.48 **	32.31 **	17.51 **	9.35 **	53.76 **
Reset y^2. y^3	7.19 **	9.63 **	23.23 **	15.94 **	10.97 **	61.01 **
Corr of rel. efficiency						
profit margin	0.18	0.51				
investment rate						

Variable	1993	1994	1995	1996
Production function				
Constant	0.79 **	0.69 **	0.25	0.27 **
log(L)	0.65 **	0.68 **	0.70 **	0.75 **
log(K)	0.21 **	0.21 **	0.23 **	0.22 **
σ	1.10 **	1.02 **	0.86 **	1.01 **
σ_u/σ_v	1.34 **	1.31 **	0.58 *	1.07 **
returns to scale	0.86 **	0.89 **	0.93 **	0.96 *
Nob	1201	1642	1852	1696
Mean of dep.var	3.59	3.70	3.61	3.58
S.dev of dep.var	1.33	1.37	1.44	1.48
R^2	0.59	0.66	0.70	0.69
Mean inefficiency (%)	-19.39	-17.32	-9.49	-16.24
Market share equation				
Constant	0.01 **	0.01 *	0.01 **	0.00 *
market share$_{t-1}$	0.73 **	0.58 **	0.76 **	0.92 **
efficiency	0.46 *	0.37	0.39 *	0.23 *
import penetration	-0.01 **	-0.01 *	0.00 *	0.00
concentration	0.60 **	0.77 *	0.11	0.16
Mean of dep.var	0.03	0.03	0.03	0.03
S.dev of dep.var	0.08	0.10	0.08	0.09
SEE	0.04	0.07	0.04	0.03
R^2	0.81	0.43	0.78	0.84
White-hetero	581 **	699 **	648 **	387 **
Reset y^2	20.11 **	10.27 **	21.15 **	13.16 **
Reset y^2. v^3	10.12 **	6.05 **	25.76 **	21.71 **
Corr of rel. efficiency				
profit margin		0.22		
investment rate				

Table 28: **Dynamic frontier production functions: ownership: private**

Variable	1993	1994	1995	1996
Production function				
Constant	0.34 **	0.35 **	0.25 **	0.23 **
y_{t-1}	0.59 **	0.64 **	0.61 **	0.73 **
log(L)	0.31 **	0.27 **	0.27 **	0.22 **
log(K)	0.11 **	0.08 **	0.12 **	0.06 **
σ	0.81 **	0.70 **	0.71 **	0.77 **
σ_u/σ_v	1.30 **	1.43 **	1.08 **	1.72 **
short-run ret. to scale	0.42 **	0.35 **	0.39 **	0.28 **
long-run ret. to scale	1.02	0.97	1.00	1.06
Nob	1014	1081	1591	1615
Mean of dep.var	3.55	3.90	3.74	3.62
S.dev of dep.var	1.32	1.33	1.42	1.46
R^2	0.77	0.84	0.83	0.85
Mean inefficiency (%)	-14.19	-11.44	-11.07	-14.21
Market share equation				
Constant	0.00 *	0.01 *	0.01 **	0.01 **
market share$_{t-1}$	0.86 **	0.81 **	0.81 **	0.94 **
efficiency	0.66 **	1.14 *	0.86 **	0.73 **
import penetration	0.00 **	0.00	0.00	0.00
concentration	0.37 *	0.18	-0.07	0.13
Mean of dep.var	0.03	0.03	0.03	0.03
S.dev of dep.var	0.09	0.09	0.09	0.09
SEE	0.03	0.04	0.03	0.03
R^2	0.92	0.83	0.86	0.87
White-hetero	311 **	180 **	746 **	453 **
Reset y^2	0.72	1.41	74.04 **	9.55 **
Reset y^2. y^3	18.82 **	17.20 **	78.94 **	25.60 **
Corr of rel. efficiency				
profit margin		0.19		
investment rate				

Variable	1991	1992	1993	1994	1995	1996
Production function						
Constant	0.70 **	-0.08	-0.29 **	-0.06	-0.44 **	-0.28 **
log(L)	0.56 **	0.83 **	0.87 **	0.84 **	0.91 **	0.84 **
log(K)	0.25 **	0.14 **	0.14 **	0.15 **	0.15 **	0.18 **
σ	1.34 **	1.16 **	1.07 **	1.01 **	1.01 **	0.98 **
σ_u/σ_v	2.27 **	2.11 **	1.89 **	1.78 **	1.75 **	1.62 **
returns to scale	0.81 **	0.97 **	1.02	0.99	1.05 **	1.03
Nob	895	1756	1500	1184	941	718
Mean of dep.var	4.32	3.96	4.06	4.10	3.92	3.96
S.dev of dep.var	1.43	1.60	1.62	1.61	1.71	1.66
R^2	0.57	0.74	0.77	0.79	0.81	0.81
Mean inefficiency (%)	-22.07	-20.83	-18.03	-16.62	-17.38	-16.45
Market share equation						
Constant	0.00	0.01	0.01 **	0.01 *	0.00	0.00
market share$_{t-1}$	0.91 **	0.46 **	0.74 **	0.76 **	0.90 **	0.96 **
efficiency	0.34	0.98 **	1.11 **	0.69 **	-0.31	0.08
import penetration	-0.01	-0.04 **	-0.01 **	-0.01 *	0.00	-0.01
concentration	0.40	2.78 **	1.03 **	0.60 *	0.13	0.58
Mean of dep.var	0.05	0.05	0.05	0.04	0.05	0.05
S.dev of dep.var	0.13	0.18	0.18	0.17	0.17	0.20
SEE	0.06	0.11	0.07	0.06	0.05	0.06
R^2	0.82	0.59	0.84	0.89	0.92	0.91
White-hetero	361 **	1467 **	322 **	713 **	78 **	329 **
Reset y^2	76.95 **	606.33 **	5.02 *	60.49 **	7.74 **	135.90 **
Reset y^2, y^3	73.46 **	373.92 **	2.69	99.29 **	7.77 **	69.37 **
Corr of rel. efficiency						
profit margin	0.39			0.15	0.17	
investment rate						

Table 30: Dynamic frontier production functions: ownership: state

Variable	1992	1993	1994	1995	1996
Production function					
Constant	-0.09	-0.01	0.00	-0.17 *	0.12
y_{t-1}	0.19 **	0.42 **	0.57 **	0.60 **	0.67 **
log(L)	0.67 **	0.51 **	0.38 **	0.38 **	0.27 **
log(K)	0.16 **	0.09 **	0.08 **	0.07 **	0.07 **
σ	0.94 **	0.38 **	0.68 **	0.73 **	0.68 **
σ_u/σ_v	2.12 **	1.78 **	1.96 **	1.78 **	1.96 **
short-run ret. to scale	0.83 **	0.60 **	0.46 **	0.45 **	0.34 **
long-run ret. to scale	1.02	1.03	1.06	1.12 **	1.02
Nob	788	1072	317	348	667
Mean of dep.var	4.27	3.91	4.33	4.04	3.96
S.dev of dep.var	1.60	1.60	1.63	1.68	1.67
R^2	0.83	0.83	0.91	0.90	0.91
Mean inefficiency (%)	-15.65	-15.18	-10.72	-12.02	-11.61
Market share equation					
Constant	0.02 **	0.00 *	0.01 *	0.01 **	0.00
market share$_{t-1}$	0.49 **	0.86 **	0.81 **	0.92 **	1.03 **
efficiency	0.99 **	0.35 **	1.39 **	0.70 **	0.70 *
import penetration	-0.03 **	0.00	-0.01 **	0.00	-0.01
concentration	1.74 **	0.36	0.34 *	0.05	0.14
Mean of dep.var	0.05	0.05	0.05	0.05	0.05
S.dev of dep.var	0.13	0.19	0.20	0.18	0.21
SEE	0.08	0.03	0.05	0.03	0.04
R^2	0.61	0.97	0.95	0.98	0.95
White-hetero	239 **	569 **	658 **	37 **	155 **
Reset y^2	31.92 **	17.53 **	43.58 **	69.12 **	167.94 **
Reset y^2, y^3	24.67 **	62.10 **	193.45 **	35.91 **	83.84 **
Corr of rel. efficiency					
profit margin			0.17		
investment rate					

Variable	1991	1992	1993	1994	1995	1996
Production function						
Constant	1.21 *	1.29 **	0.90 **	0.94 **	0.90 **	0.85 **
log(L)	0.53 **	0.55 **	0.61 **	0.64 **	0.62 **	0.62 **
log(K)	0.16	0.28 **	0.30 **	0.28 **	0.31 **	0.32 **
σ	1.46 **	1.30 **	1.15 **	1.14 **	1.13 **	1.06 **
σ_u/σ_v	0.94 *	2.16 **	1.52 **	1.34 **	1.20 **	1.12 **
returns to scale	0.69 **	0.83 **	0.91 **	0.93 **	0.93 **	0.94 **
Nob	131	502	678	1046	1262	1170
Mean of dep.var	3.70	4.10	4.35	4.24	4.19	4.39
S.dev of dep.var	1.51	1.47	1.51	1.51	1.55	1.56
R^2	0.34	0.62	0.67	0.66	0.67	0.70
Mean inefficiency (%)	-21.49	-22.57	-17.33	-17.13	-16.40	-14.18
Market share equation						
Constant	0.03 **	0.04 **	0.01 *	0.01 *	0.01 **	0.03
market share$_{t-1}$	0.07 *	0.17 *	0.92 **	0.96 **	1.11 **	0.64 **
efficiency	0.74	2.34 **	0.42 *	0.66 **	0.84 **	2.39
import penetration	-0.10 **	-0.01 **	0.00	-0.01 *	0.00	-0.02 *
concentration	2.22 **	2.20 **	0.33	0.89 *	0.13	1.68 **
Mean of dep.var	0.04	0.05	0.06	0.05	0.05	0.06
S.dev of dep.var	0.09	0.11	0.14	0.14	0.19	0.28
SEE	0.06	0.08	0.06	0.07	0.12	0.24
R^2	0.58	0.37	0.82	0.75	0.60	0.25
White-hetero	31 **	65 **	75 **	269 **	144 **	46 **
Reset y^2	6.63 *	0.00	53.17 **	79.16 **	0.00	3.94 *
Reset y^2.v^3	6.45 **	0.01	42.56 **	42.19 **	0.38	3.24 *
Corr of rel. efficiency						
profit margin	0.75	0.50	0.23		0.16	
investment rate	-0.29					

Table 32: **Dynamic frontier production functions: ownership: foreign majority**

Variable	1992	1993	1994	1995	1996
Production function					
Constant	0.37	0.84 **	0.61 **	0.53 **	0.38 **
y_{t-1}	0.17 **	0.51 **	0.65 **	0.66 **	0.63 **
log(L)	0.46 **	0.25 **	0.21 **	0.18 **	0.24 **
log(K)	0.30 **	0.18 **	0.12 **	0.15 **	0.15 **
σ	0.55	0.85 **	0.67 **	0.75 **	0.71 **
σ_u/σ_v	0.04	1.34 **	1.36 **	1.22 **	1.02 **
short-run ret. to scale	0.76 **	0.43 **	0.33 **	0.32 **	0.38 **
long-run ret. to scale	0.91	0.89 *	0.96	0.96	1.03
Nob	174	614	603	1021	1119
Mean of dep.var	4.61	4.40	4.69	4.36	4.43
S.dev of dep.var	1.24	1.48	1.45	1.55	1.53
R^2	0.80	0.80	0.87	0.85	0.85
Mean inefficiency (%)	-0.41	-12.15	-8.91	-10.41	-8.96
Market share equation					
Constant	0.01 *	0.01 **	0.01 **	0.01 **	0.06
market share$_{t-1}$	0.47 *	0.94 **	1.12 **	1.15 **	0.64 **
efficiency	1.04	1.19 **	1.83 **	2.10 *	11.40
import penetration	-0.02 **	0.00	0.00	-0.01	-0.02 *
concentration	2.90 **	0.18	-0.18	0.20	1.53 **
Mean of dep.var	0.06	0.05	0.06	0.06	0.06
S.dev of dep.var	0.12	0.14	0.17	0.21	0.29
SEE	0.07	0.04	0.04	0.13	0.24
R^2	0.64	0.91	0.93	0.62	0.30
White-hetero	56 **	253 **	80 **	183 **	583 **
Reset y^2	4.92 *	85.56 **	20.54 **	0.83	0.00
Reset y^2.y^3	2.45	78.67 **	10.35 **	0.96	50.65 **
Corr of rel. efficiency					
profit margin	0.49	0.27		0.15	
investment rate	0.15				

Variable	1991	1992	1993	1994	1995	1996
Production function						
Constant	1.76 **	0.99 **	0.59 *	1.15 **	0.54 *	0.81 **
log(L)	0.45 **	0.61 **	0.61 **	0.54 **	0.62 **	0.57 **
log(K)	0.22 **	0.25 **	0.30 **	0.35 **	0.33 **	0.37 **
σ	1.66 **	1.19 **	0.90 **	1.20 **	0.89 **	1.08 **
σ_u/σ_v	1.94 **	1.58 **	0.83 *	1.71 **	0.86 *	1.41 **
returns to scale	0.67 **	0.85 **	0.92	0.89 **	0.95	0.94
Nob	152	278	298	386	368	307
Mean of dep.var	3.43	3.75	4.13	4.00	3.96	4.09
S.dev of dep.var	1.49	1.43	1.50	1.54	1.72	1.81
R^2	0.37	0.62	0.73	0.67	0.80	0.79
Mean inefficiency (%)	-33.96	-21.13	-11.17	-20.30	-11.74	-17.00
Market share equation						
Constant	0.02	0.01	0.00	0.01	0.01 **	-0.01 *
market share$_{t-1}$	0.06	0.42	-0.03	0.67 **	0.84 **	1.09 **
efficiency	0.27	1.39 **	0.39	0.86 *	0.75 *	-0.58 *
import penetration	-0.68 *	0.00	-0.04	0.00	0.00	0.00
concentration	2.45 **	1.62 **	5.23	0.54 *	0.07	-0.02
Mean of dep.var	0.03	0.04	0.07	0.05	0.05	0.06
S.dev of dep.var	0.08	0.11	0.37	0.25	0.23	0.27
SEE	0.07	0.07	0.17	0.09	0.04	0.04
R^2	0.13	0.57	0.78	0.88	0.96	0.98
White-hetero	48 **	121 **	295 **	375 **	187 **	110 **
Reset y^2	3.38	9.76 **	12.54 **	25.04 **	29.28 **	87.46 **
Reset y^2. y^3	1.73	5.29 **	882.23 **	274.54 **	40.50 **	44.12 **
Corr of rel. efficiency						
profit margin	0.61	0.57		0.44		-0.23
investment rate	-0.59	0.26				

Table 34: **Dynamic frontier production functions: ownership: important foreign**

Variable	1992	1993	1994	1995	1996
Production function					
Constant	0.46	0.59 **	0.59 **	0.32 *	0.32 *
y_{t-1}	0.17 *	0.52 **	0.68 **	0.67 **	0.76 **
log(L)	0.55 **	0.30 **	0.16 **	0.17 **	0.12 **
log(K)	0.25 **	0.16 **	0.13 **	0.16 **	0.13 **
σ	0.94 **	0.80 **	0.73 **	0.60 **	0.66 **
σ_u/σ_v	1.39 *	1.71 **	1.45 **	0.91 **	1.32 **
short-run ret. to scale	0.81 *	0.46 **	0.28 **	0.32 **	0.25 **
long-run ret. to scale	0.97	0.96	0.90	0.98	1.05
Nob	100	269	229	315	301
Mean of dep.var	3.83	4.09	4.39	4.15	4.11
S.dev of dep.var	1.41	1.52	1.53	1.71	1.80
R^2	0.74	0.85	0.86	0.91	0.92
Mean inefficiency (%)	-15.65	-13.22	-10.70	-7.68	-10.03
Market share equation					
Constant	0.01 **	0.00	0.01	0.01 **	0.00
market share$_{t-1}$	0.52 **	-0.07	0.66 **	0.86 **	1.09 **
efficiency	0.63 **	-0.27	1.16 **	1.23 **	0.29
import penetration	0.00 **	-0.04	0.00	0.00 *	0.00
concentration	0.80 **	5.44	0.79	0.03	-0.02
Mean of dep.var	0.02	0.07	0.07	0.06	0.06
S.dev of dep.var	0.04	0.39	0.32	0.25	0.27
SEE	0.02	0.18	0.10	0.04	0.04
R^2	0.79	0.78	0.91	0.98	0.98
White-hetero	34 **	267 **	227 **	230 **	119 **
Reset y^2	7.22 **	10.36 **	3.48	10.97 **	87.26 **
Reset y^2. y^3	4.81 *	887.77 **	803.99 **	172.93 **	44.13 **
Corr of rel. efficiency					
profit margin	0.58		0.38		-0.30
investment rate	0.30		0.27	0.24	