

Dimara, Efthalia; Tzelepis, Dimitris; Skuras, Dimitris

Conference Paper

Regional Development Incentives And Firm Survival: A Case Study Of The Greek Food Sector

40th Congress of the European Regional Science Association: "European Monetary Union and Regional Policy", August 29 - September 1, 2000, Barcelona, Spain

Provided in Cooperation with:

European Regional Science Association (ERSA)

Suggested Citation: Dimara, Efthalia; Tzelepis, Dimitris; Skuras, Dimitris (2000) : Regional Development Incentives And Firm Survival: A Case Study Of The Greek Food Sector, 40th Congress of the European Regional Science Association: "European Monetary Union and Regional Policy", August 29 - September 1, 2000, Barcelona, Spain, European Regional Science Association (ERSA), Louvain-la-Neuve

This Version is available at:

<https://hdl.handle.net/10419/114840>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

European Regional Science Association
40th European Congress
‘European Monetary Union and Regional Policy’
Barcelona 2000

Regional Development Incentives and Firm Survival:
A Case Study of the Greek Food Sector

by

Efthalia Dimara, Dimitris Skuras and Dimitris Tzelepis

Department of Economics

University of Patras

University Campus – Rio, P.O. Box 1391

Patras 26500

Greece

Fax: + 30 61 996161, E-mail:dimara@econ.upatras.gr

Abstract

Greek regional development policy has a long history in the provision of financial incentives to firms. In 1982 the Greek law 1262/82 provided a coherent framework for the financial support of firms comprised of a combination of grant-aid incentives and interest rate subsidization or tax allowances and increased depreciation rates. In 1990, Greek law 1982/90 replaced the previous regional development framework by completing and amending the provided incentives. Thus, the operation of financial incentives to firms may be regarded as almost smoothly continuous up to date. Research on the impacts of financial aid provision to firm survival is not well developed in the regional economics literature. However, it is ascertained that financial aid may have significant impacts on firm survival per se, as well as on quantitative and qualitative attributes of firm death such as the time length to failure, and the type of failure. Firm failure to survive in its current form and structure may be due to three

distinct reasons of exit, namely simple business dissolution, bankruptcy and been acquired. The present paper examines the impact of financial assistance on firm survival by utilizing a database of financial data of Greek food industries for the period 1982-97. The transition probabilities to exit are found and a survival model is employed to examine the survival and risk for each transition state. Results reveal that the impact of grant-aid is an important factor determining firm survival.

1. Introduction

Employment creation has become the prime target of regional development policy in many European Union (EU) states and the main objective of current EU policies under the 3rd Common Support Framework (CSF). Financial support to businesses in the form of capital grants (grant-aid) and interest rate subsidization have been traditionally used to support existing and new enterprises in lagging regions. Financial support to businesses has been viewed as a tool for job creation and employment growth as well as a tool for sustaining old jobs among supported enterprises. The effects of financial aid to job creation have been extensively researched in the regional economics literature. However, the literature has paid less attention to the effects of financial support on firm survival and firm growth. Scientists in the field of industrial organization have traditionally researched these topics but such approaches consistently neglect the effects of regional policy and especially the effects of grant aid on business survival and performance. As is shown latter on in this paper, a significant number of businesses received grant-aid under the regional development frameworks that had obvious impacts on competition and performance and it may have easily influenced the survival rate of firms.

A second aspect of great importance is the conditions under which firms exit operation. Usually exit is associate to the cessation of business operation irrespective of the conditions under which this happened. However, all businesses do not exit in the same way. In this work we distinguish between three distinct types of exit, namely mere business closer, bankruptcy, and exit due to acquisition (the business being taken over by another business. It may be assumed that financial support to business has acted differently on these three distinct exit types.

The objective of this paper is twofold: first, to examine the impact of financial aid on firm survival and second to model firm survival as a multi-state event incorporating business closure, bankruptcy and acquisition. The paper proceeds as follows: first, it reviews the operation of regional development policy in Greece since the early 80's to the late 90's. Second, it reviews existing literature on firm survival and places particular importance on research concerning exit due to bankruptcy and acquisition. Third, the particular database utilized for the present analysis is described. The analysis part contains results on the transition probabilities to the three exit states and basic survival analysis using the semi-parametric Cox regression model. Finally, the impacts of our analysis on policy design and the limitations of the employed methods are discussed and directions for future research are derived.

2. Regional Development in Greece

Right after World War II, the Greek economy faced two major problems. First, a destroyed manufacturing industry and agricultural sector and second, a large and wide regional inequality in development and growth rates. Different governments since 1949 attempted to solve the problem of unbalanced regional growth. In 1949, tax incentives aiming to strengthen the industry in provinces and rural areas, were adopted by the state. In 1952 a law named 'Law for the Protection of Provincial Industry' further strengthened and broadened these incentives. This framework stated the first 'regional' differentiation of industry by defining 'provincial industry' as every industry established or transferred in every province and region except Athens. In 1955, the first industrial zones were established in different towns and regions of Greece while tax reductions for manufacturing industries were further supported and reached 80% in the lagging areas of the country.

In the period 1961-67, the country was divided into seven planning regions. This was eventually the first measure of decentralization of the central government, albeit the fact that the created administrative mechanisms had no statutory rights. The first pure regional development framework was introduced in 1971. In this framework, Greece was divided in three regions where various quantitatively differentiated incentives held. The first incentives concerned with tax reductions but consecutive alterations to this basic regional framework provided subsidies for the establishment of new firms and extended the incentives besides the manufacturing industry to the mining industry and

the primary sector. In the period to 1981, various amendments to the previously established regional development framework extended incentive provision and support to the tertiary sector and especially the tourism industry of the country.

In the period to 1982, the targets of the Greek regional policy as these appear from the previously reviewed laws and as these are summarised by CPER (1976, p.84) and the OECD (1981) were:

- The reduction of the differences in income among the different regions of the country and more specifically between Greater Athens Area and the rest of the country
- Decentralization from Athens of certain economic, social and administrative activities
- Curtailment of internal migration from the less developed areas to the major cities and particularly to Greater Athens Area
- Creation of employment opportunities in less developed regions by promoting industrial, tourist and other economic activities
- The rational utilization of the resources of all regions
- The provision of the proper economic environment for the self-powered development of different economic activities
- Improvement of the standard of living in the less developed regions by expanding basic infrastructure and social services
- The improvement of the economic structure of rural areas

In 1982, the first integrated and coherent framework for regional development was introduced by Law 1262/82. In 1990 the regional development Law 1892/90 as amended by Law 2234/90 corrected and completed the regional development framework held up to 1998. Under these frameworks, four types of incentives were provided to all industries: Capital subsidies in the form of free capital provision differentiated among the different regions of the country; Interest rate subsidy on the bank loans received for servicing the investment; Tax free discounts on the firms net profits, if new investments are realized; Increased depreciation on the firm's fixed assets. Law 1262/82 supported a total of 22,394 investment plans of which 13,662 or 61% in the manufacturing sector. Law 1892/90 supported 9,218 investment plans to the end of 1997, of which 6,828 or 74.1% in the manufacturing sector.

3. Firm Survival: A Theoretical Framework

Firm closure has been the subject of analysis in many fields of economics. In strategic management and industrial organization, exit barriers have been identified as the major factors influencing exit decisions, while other factors including technological heterogeneity on plant exit and the role of size in exit decisions have been considered (Harrigan, 1980, 1988; Ghemawat and Nalebuff, 1985, 1990; Reynolds, 1988; Whinston, 1988; Dunne et. al., 1989; Baldwin and Gorecki, 1991; Lieberman, 1987). The firm's age is the most widely accepted factor influencing business dissolution (Nucci, 1999). The second most widely reported finding relates business dissolution with business size, where size is determined by the number of business employees (Nucci, 1999; Dunne, et. al., 1989; Mata and Portugal, 1994). Other factors include industry effects, locational and geographical effects as well as affiliation status. Industry effects have shown that businesses operating in manufacturing and wholesale are less likely to close than those operating in mining, construction and financial services. As regards locational and geographical effects differing dissolution rates have been reported for establishments in regions of the US, while many studies report that autonomous establishments have higher dissolution rates than affiliated establishments.

Firm exit is usually regarded as the disappearance of a company from a specific database. Dissolution is usually not assigned to a specific state. Very often, businesses disappear from databases due to various reasons the most important of which are: simple dissolution (closure), bankruptcy in the sense that the firm is unable to serve its commitments to lenders and employees and a specific procedure depending on the bankruptcy law is followed, and finally acquisition where a business is acquired by another business, loses its entity and is completely absorbed by another firm. The literature accounts for a range of factors determining whether a firm is likely to be acquired (Dickerson et al., 1997, 1998). Business size is expected to have a negative effect on acquisition while low profitability is less likely to make a company vulnerable to takeover. Low leverage ratios and high levels of liquidity are likely to signal vulnerability to acquisition provided that liquidity is not due to a lack of investment opportunities. The factors leading businesses to dissolution, or even worse to bankruptcy, include all those incidences that lead to poor profitability. Smaller, younger and less-well established firms may face higher risks of dissolution and bankruptcy. A lack of liquidity may signal cashflow problems and high leveraged companies may be

more vulnerable to debt-servicing problems. Both these factors may lead to business dissolution (Dickerson et al., 1999).

The likely effect of financial aid to firms has not been modeled in a survival framework. Grant aid increases the firm's leverage and size and assists a firm to get established. Thus, if a firm has been granted aid it is more likely to have higher leverage and size and less likely to be in risk of dissolution. In the same fashion, grant aid may reduce the risk of acquisition but at the same time may signal a profitable operation and call larger firms with high liquidity to attempt and take over the aided firm. On the other hand, grant-aid increases the firm's debts and reduces liquidity. Grant-aided firms may be more vulnerable to debt servicing and thus in risk of business dissolution and bankruptcy.

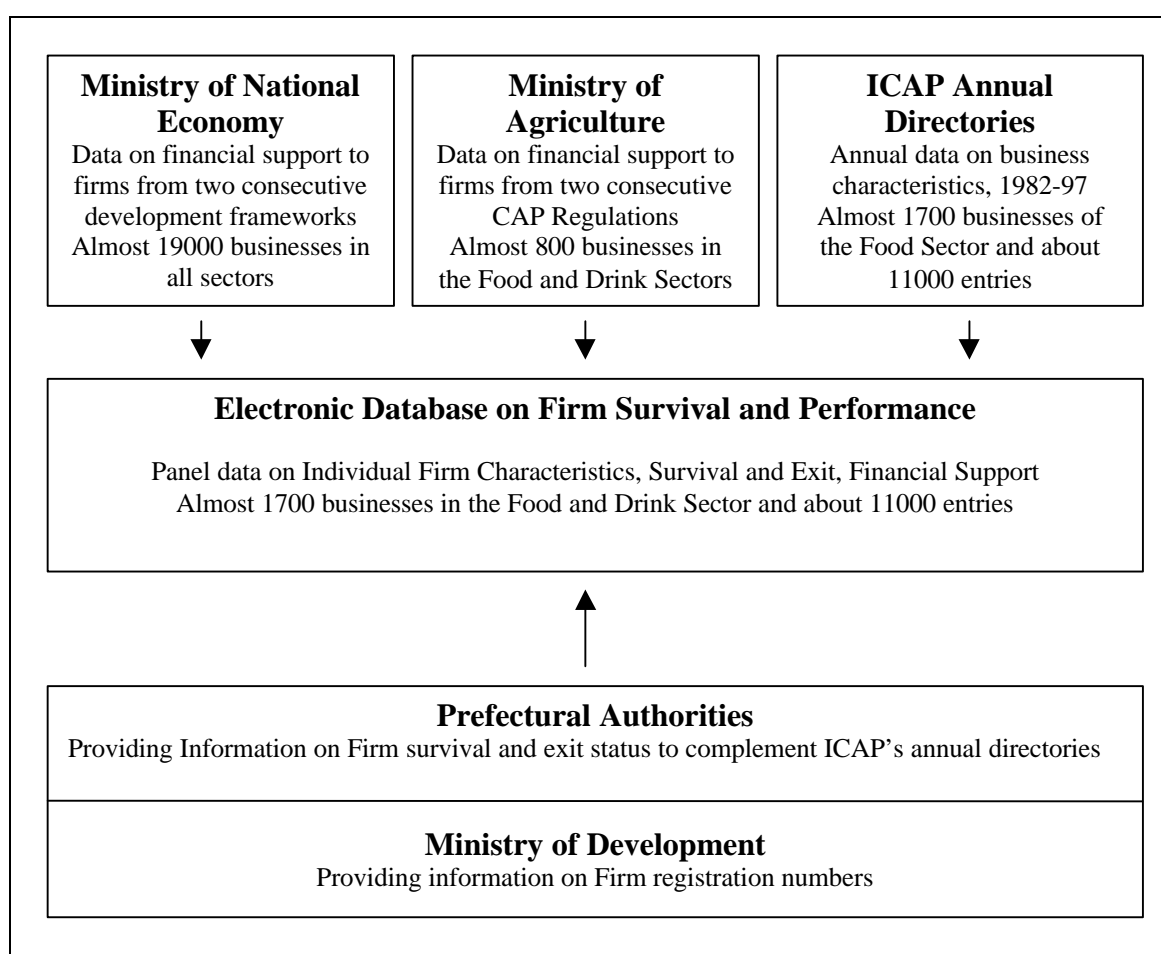
4. Data

Data for this work come from three different databases. Data on individual firm characteristics are derived from the business database maintained by the private company ICAP in Greece. The annual ICAP directories provide key elements from the published balance sheets of almost all Plc and L.t.d firms operating in all sectors of economic activity in Greece. From the annual directories of ICAP we devised a panel database of firms operating in the food and drinks sector of the Greek economy. Almost 1700 firms are recorded in this database (Skuras and Tzelepis, 1999). And a panel of existing companies may be devised. However, entry and exit form of a company from ICAP's annual directories is, by no means, associated to death and entry. Our personal investigation confirmed that exclusion of a company might be due to various reasons including the fact that the firm does not conform to the criteria set up by ICAP for entering its database. Thus, for a number of companies (almost 500) that disappear from the database we held an individual investigation. We attended the Ministry of Development and obtained the registration numbers of all missing companies. Then, we approached all prefectural authorities where these companies are registered and obtained information on their survival and, if dead, on the reasons of exit (simple business dissolution, bankruptcy, acquisition).

The database on business characteristics and exit status was complemented by information derived on firm subsidization. Firms in the food sector were subsidized by

the regional development frameworks and the Common Agricultural Policy (CAP) support to the food sector. Thus we created two databases, one from the Ministry of National Economy concerning firm financial support from the national development framework and one from the Ministry of Agriculture concerning firm financial support from CAP. Figure 1 presents the information and databases utilized in order to derive the database used in the present work.

Figure 1. The construction of the Current Database.



The database is still under construction in the sense that several firms have not been identified and there is still missing information on survival times and exit status. Thus, the work reported in this paper is provisional and as more information is entered, results are subject to change. The current database consists of 1,317 firms of which 1031 are reported as operating (alive) in 1997 and 286 have exit (dead) the database in various years between 1982 and 1997. Table 1 summarizes various indicative features of businesses by type of exit status.

Table 1. Sample Description by Exit Status

	Mean Employment	Debt/Total Assets (%)	Percentage of Supported Firms	Number of Firms
All Firms	62.2	67.4	21.7	1,317
Firms in Operation	61.9	60.1	24.0	1,020
All Exits	63.4	92.4	13.8	297
Simple Dissolution	47.9	92.4	13.2	205
Bankruptcy	93.3	95.2	16.7	60
Acquisition	106.1	87.1	12.5	32

Due to the fact that exit occurs in various years within the 1982-97 time interval and thus is subject to very strong cohort influences we decided to divide the sample into three homogenous cohorts with respect to the macroeconomic situation prevailing the Greek economy.

Table 2. Exit Status by Cohort

Exit Status	Cohorts			
	1982-87	1988-92	1993-97	All
Simple Dissolution	58	93	54	205
Bankruptcy	13	32	15	60
Acquisition	14	7	11	32
All Exits	85	132	80	297

5. Results

Our analysis concerns with the two distinct objectives of the present work. First to identify the transition probabilities to exit in the three exit status namely simple

dissolution, bankruptcy and acquisition, and second to identify whether support to businesses has an important effect on the transition probabilities as well as the risk of exiting. Thus, the present part of the paper is divided into two parts each one attempting to address each of the two aforementioned research questions.

Transition Probabilities to Exit

In order to identify transition probabilities to exit we run a logit model (exit vs. censored) for each cohort and for all observations pooled in one sample and a multinomial logit model with four classes of transition (censored-dissolution-bankruptcy-acquisition) for each cohort and for all observations pooled in one sample. The explanatory (independent) variables include in all estimates the size of the business in terms of employment, the debt to assets ratio and a dummy variable indicating whether the firm received financial support. Table 3 shows coefficient estimates for the simple logit model (censored versus exit).

Table 3. Coefficient Estimates for Exit by Cohort

Coefficient Estimates	Cohorts			
	1982-87	1988-92	1993-97	Pooled
Constant	-3.194**	-2.423**	-2.977	-1.720**
Size (Employment)	0.001	-0.001	0.001	-0.003
Debt/Assets	0.002**	-0.002**	0.007**	-0.008**
Financial Support	-0.939**	-0.657**	-0.288	-0.712**
Log-L	-288.84	-401.40	-282.44	-673.41
χ^2	40.65**	32.61**	8.51**	59.19**
% correct predictions	91.73	88.41	92.82	77.98

Note: Double asterisks indicate significance at the 5% level.

Table 4 shows coefficient estimates for the multinomial logit model of transition to the three exit states.

Table 4. Coefficient Estimates Exit by Status and Cohort

Coefficient Estimates	Simple Business Dissolution			
	1982-87	1988-92	1993-97	Pooled
Constant	-3.278**	0.359*	-3.368**	-2.185**
Size (Employment)	-0.002	-0.001	-0.004	-0.001
Debt/Assets	0.010**	0.001**	0.008**	0.011**
Financial Support	-0.651*	-0.038	-0.327	-0.685**
	Bankruptcy			
	1982-87	1988-92	1993-97	Pooled
Constant	-5.696**	-4.759**	-4.863	-2.779**
Size (Employment)	0.003**	0.001	0.001	0.001**
Debt/Assets	0.017**	-0.001	0.008**	-0.001
Financial Support	-1.633	-0.015	-0.010	-0.596*
	Acquisition			
	1982-87	1988-92	1993-97	Pooled
Constant	-5.469**	0.479	-4.357	-4.106**
Size (Employment)	0.003**	-0.001	0.001	0.002**
Debt/Assets	0.016**	0.001	-0.003	0.009**
Financial Support	-1.791*	0.002	-0.460	-0.991*
Log-L	-355.61	-443.73	-349.11	-904.93
χ^2	53.74**	12.56	11.49	82.67**
% correct predictions	91.7	89.75	90.90	77.6

Note: Double and single asterisks indicate significance at the 5% and 10% levels.

From table 3 is evident that the impact of financial support to businesses has a significant impact on the probability that the business survives in all three time period cohorts and in the pooled sample estimates. The size of the business does not appear to significantly affect the probability of survival in any of the three time period cohorts.

The debt to assets ratio shows a contradictory effect. For the periods 1982-87 and 1993-97, the higher the debt to assets ratio the higher the probability that the business exits. However, for the period 1988-92, a period of high inflation in the Greek economy, higher debt to assets ratio indicates higher probability that the business survives. The same is shown from the pooled sample estimates. However, when the three exit states are examined the situation is more complex. The higher the size of the business in employment terms the higher the probability that the business will bankrupt or been acquired (for the period 1982-87) but there is no effect on simple business dissolution. The debt to assets ratio has an impact on all cohorts as concern business dissolution and for 1982-87 and 1993-97 as concern bankruptcy and only for 1982-87 as concern acquisition. The dummy indicating financial support has an impact for the period 1982-87 as concern business dissolution and business acquisition but it does not have any impact on the probability of bankruptcy.

Business Survival

Survival analysis is carried out using the simple discrete equivalent of the Cox regression model.

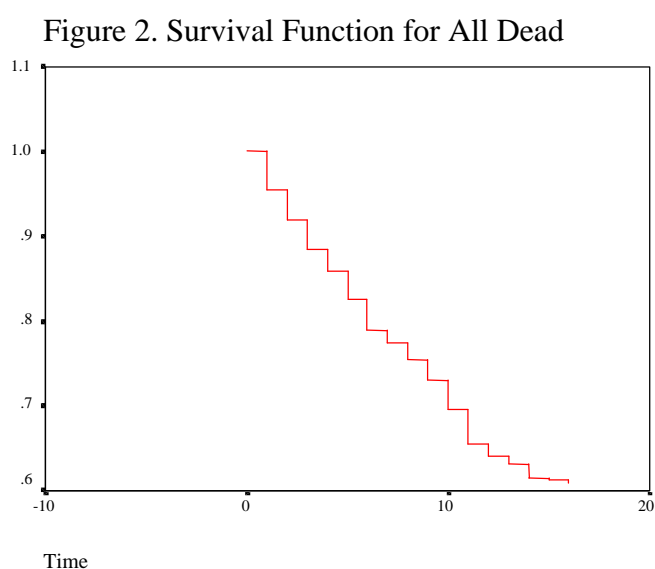


Figure 3. Survival Function for Dissolution

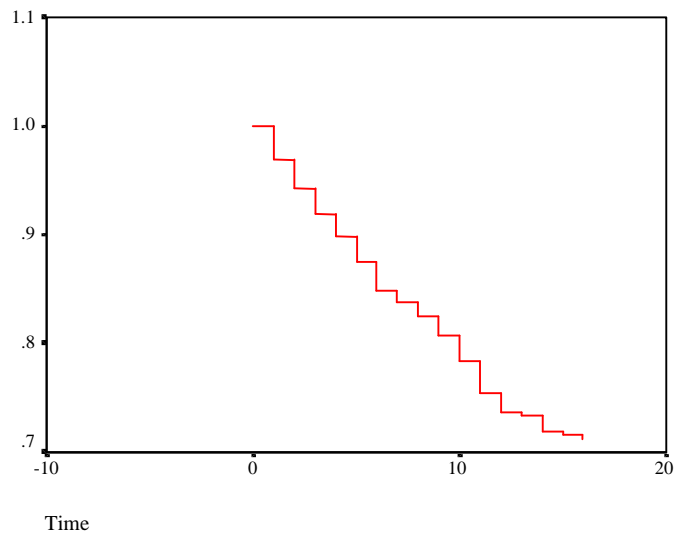


Figure 4. Survival Function for Bankruptcy

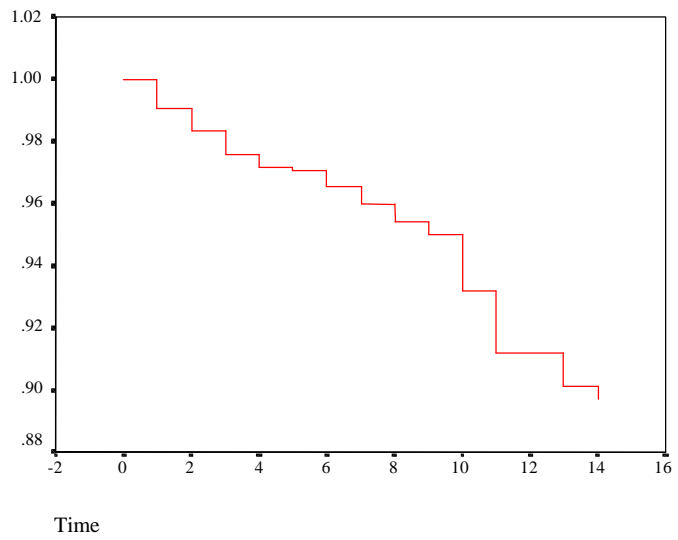
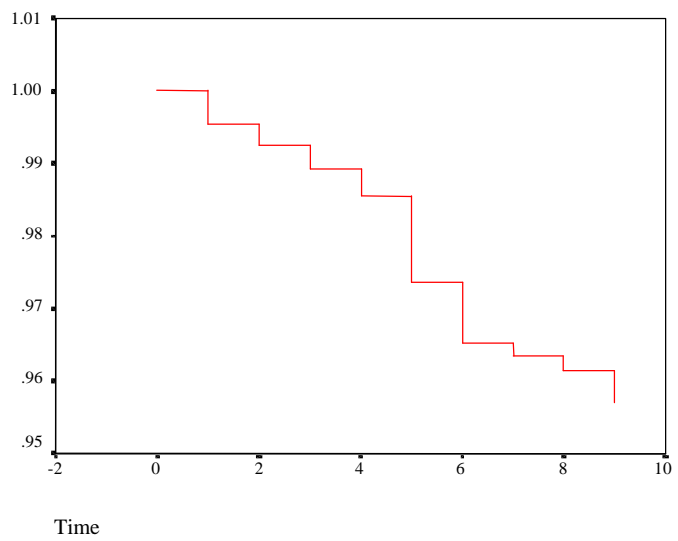


Figure 5. Survival Function for Acquisition



Figures 2, 3, 4, and 5 show the survival functions plotted by simple Cox regression analysis without using covariates. The various patterns of the survival function are illuminating for the four distinct states of exit. The risk of exit for those firms closing down follows a downward smooth trend. However, for the businesses exiting due to bankruptcy the hazard increases very much after the 10th year of their life. On the contrary the hazard to be acquired increases very early in a firm's life and around the 4th to 6th year of the firm's life most acquisitions have taken place.

Table 5 shows the estimation of Cox regression models using covariates. Surprisingly enough, the debt to assets ratio was not significant to any of the fitted models and thus was excluded from the finally estimated models. This indicates that the debt to assets ratio may be a very good indicator for the transition probabilities but does not adequately explain the behaviour of business survival. In the Cox regression models the cohort effects were included as independent dummy variables, the last cohort excluded to avoid multicollinearity.

Table 5. Cox-regression Coefficient Estimates

Coefficient Estimates	All	Dissolution	Bankruptcy	Acquisition
Size (Employment)	-0.011**	-0.003*	0.001	0.001
Financial Support	-0.399**	-0.378**	-0.315	-0.637
1982-87 Cohort	-3.695**	-3.747	-3.766**	-3.390**
1988-92 Cohort	-2.935**	-3.003	-3.389**	-1.614**
-2Log-L	3,253	2,227	636	364
Chi-square	1076.61**	750,32**	236.43**	143.34**

Note: Double and single asterisks indicate significance at the 5% and 10% levels.

Financial support has a significant impact on the hazard of business closure in general and on business dissolution but is not statistically significant for the models concerning bankruptcy and acquisition. Evidently, cohort effects dominate these two exit states. The firm's size in employment terms has mixed effects. The size exercises a statistically

significant effect on the hazards of business closure (all businesses) and on business dissolution.

6. Discussion and Policy Implications

The analysis carried out in this paper has provided evidence that financial support to businesses through the regional development frameworks applied in Greece in the period 1982-97 had significant effects on business survival. More specifically, support to businesses has an impact on the probability that a firm will exit as well as on the state of exit. In this work we attempted to examine firm death according to three distinct states namely simple business dissolution, bankruptcy and acquisition. Taking into account the time period when these happened (cohort effects), the provision of financial support decreased the probability of business dissolution and bankruptcy. Support to business increases the size and leverage of a firm and assists the firm to get well established by providing grant aid and interest rate subsidization.

Almost the same effects were observed when the hazards to exit were estimated through a simple Cox-regression model. Furthermore, it was apparent from the analysis, that firm exit is not, by any means, a uniform process in the sense that the survival and hazards rates of firms differ according to the exit state. The survival function of firms simply closing down is much different from the corresponding process of businesses going bankrupt or businesses been acquired. It is thus a significant research drawback to treat all exits in the same way without differentiating between different states of exit.

Findings suggest that financial support to businesses has been beneficial as regards business survival and, consequently, business growth. Thus, it may be argued that financial support assists businesses to survive and get established and thus, indirectly affects employment growth. However, an issue, of outmost importance, is whether support to certain businesses has affected the survival rate of the non-supported businesses. Our analysis was confined in one sector of the Greek manufacturing economy, this of the Food and Drink industry. One could argue that support to businesses was actually running against the free enterprise competition by reducing the operational cost for certain enterprises while others had to compete within a hard economic environment. This is supported by the fact that financial support did not significantly affect either the transition probabilities to exit or the hazards function for the 1988-92 time period cohort. This time period was marked by an extremely high

inflation (running up to 24%) and very high long and short terms interest rates to the manufacturing industry (more than 30%).

Financial support to businesses may also be regarded as a proxy indicating those firms that are dynamic and innovating and apply for grants while those that do not apply or are not granted financial assistance may be the more static and more in risk of dissolution and/or bankruptcy. Thus, it seems that financial support to businesses may act as a selection mechanism where the firms more likely to have longer survival horizon and growth are granted financial assistance while others are not. In that sense, the selection mechanism determines firm survival and growth and not the financial assistance per se.

The analysis presented so far has certain known drawbacks and future research with this database should attempt and provide adequate research solutions. The first main drawback of our research refers to the use of multinomial logit models for the specification of transition probabilities. The main restriction when using multinomial logit models is the Independence from Irrelevant Alternatives IIA hypothesis stating that the odds of two probabilities for two exit states is independent of the probabilities of the remaining exit states. This restriction is relaxed when an heteroscedastic extreme value model is employed which allows differential cross elasticities among all pairs of alternatives. Furthermore, the incorporation of macroeconomic and sector time varying covariates may eliminate the cohort effect and allow the estimation of the pooled sample without time biases.

The second problem in the present analysis concerns with the estimation of Cox-regressions for the hazards and survival functions. We should attempt to fit a competing risks model that would be able to overcome the problem of heavy left and right censoring in the sample of firms. Competing risks are not often used in econometric analysis of survival data due to the fact that latent failure times are not meaningful in this context of analysis. Furthermore one may utilise extended Cox-regression models to allow for a Weibull distribution for the survival and hazards function. Another possible extension may incorporate time varying covariates based on the unequally balanced panel set of firms in our sample. The use of time varying covariates would allow the use of macroeconomic variables and sector specific time dependent covariates. Thus, the use of cohort specific variables will not be compulsory and pooled sample estimates without time period biases may be possible.

Acknowledgements

This publication arises out of the 'KARATHEODORIS' programme 1946, financed and administered by the University's of Patras Research Committee. The authors would like to acknowledge the assistance and helpful comments received by E. Daskalopoulou, N.Petrou, and T. Roussos of the Department of Economics at the University of Patras.

References

- Baldwin, John R. and Paul K. Gorecki (1991), "Firm entry and exit in the Canadian manufacturing sector, 1970-1982", *Canadian Journal of Economics*, May: 300-323.
- Centre of Planning and Economic Research, (1976). *Regional Development Plan, 1976-80*. CPER: Athens (in Greek).
- Dickerson, A. P., Gibson, H.D., and Tsakalotos, E. (1997a), "The impact of acquisitions on company performance: evidence from a large panel of U.K. firms", *Oxford Economic Papers*, 49:334-61.
- Dickerson, A. P., Gibson, H.D., and Tsakalotos, E. (1997b), "Deterring takeover: evidence from a large panel of U.K. firms", Department of Economics, University of Kent, no.97/7.
- Dickerson, A. P., Gibson, H.D., and Tsakalotos, E. (1998a), "Takeover risk and dividend strategy: a study of U.K. firms", *Journal of industrial Economics*, XLVI, 3: 281-300.
- Dickerson, A. P., Gibson, H.D., and Tsakalotos, E. (1998b), "Takeover risk and the market for corporate control: the experience of British firms in the 1970s and 1980s", Department of Economics, University of Kent, no.98/3.
- Dickerson, A. P., Gibson, H.D., and Tsakalotos, E. (1999), 'It Attack the Best Form of defence? A Competing Risks Analysis of Acquisition Activity in the U.K.', Department of Economics, University of Kent, ISSN 1466-0814.
- Dunne, Timothy, Mark J. Roberts, Larry Samuelson (1989), "The growth and failure of U.S. manufacturing plants", *Quarterly Journal of Economics*, Nov.: 671-698.

- Ghemawat, Pankaj and Barry Nalebuff (1985) "Exit", *Rand Journal of Economics*, 16:184-194
- Ghemawat, Pankaj and Barry Nalebuff (1990) "The devolution of declining industries", *Quarterly Journal of Economics*, 105 : 184-167-186.
- Harrigan, Kathryn R. (1980), "The effect of exit barriers upon strategic flexibility" *Strategic Management Journal*, 1: 165-176.
- Harrigan, Kathryn R. (1988), "Strategies for declining businesses" Lexington Books, Lexington, Mass.
- Kovenock, D. and Phillips, G. (1995), 'Capital Structure and Product Market Behavior: An Examination of Plant Exit and Investment Decisions', Discussion Paper CES 95-4, Centre for Economic Studies, U.S. Bureau of the Census, Washington D.C.
- Lieberman, Marvin (1990), 'Exit from declining industries: "shakeout" or "stakeout"?'', *Rand Journal of Economics*, 21:538-554.
- Mata, Jose and Portugal Pedro (1994), "Life duration of New firms", *The Journal of Industrial Economics* XLII, 227-245.
- Nucci, A. (1999), 'The Demography of Business Closings', *Small Business Economics*, 12: 25-39.
- OECD (1981). *Regional Problems and Policies in Greece*. OECD: Paris.
- Reynolds, S. (1988), "Plant closing and exit behavior in declining industries", *Economica*, 55:493-503.
- Skuras, D. and Tzelepis, D. (1999), 'The Effects of Regional Policy Incentives on Firm Profitability and Survival:A Case Study of the Greek Food Industry', Paper presented to the 39th European Congress of the European Regional Science Association, University College, Dublin, 23rd – 27th August.
- Winston, Michael D. (1988), "Exit with Multiplan firms", *And Journal of Economics*, 19: 568-588.