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Which Firms Exit and Why? An Analysis of Small-Firm Exits in Japan

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Abstract

The objective of this paper is to investigate exit behaviour of small firms, using data from *The Survey on the Retirement of Small Firm Managers*, which provides detailed information on exit and post-exit behaviour of small firms and their managers. The survey shows that small-firm exits occur not only because of economic difficulties ('Economic-Forced Exit'), but also for various other important reasons ('Non-Economic-Forced Exit'). We estimate probit models to examine differences between these two exit classes, and it is shown that the probability of economic-forced exit is significantly higher if the manager is relatively young, male, if the firm has borrowings from a financial institution, and if its sales tend to decrease. It is also shown that many managers recommence work as managers or as employees after exit. The proportion of managers who work after exit, especially as employees, is higher in the case of economic-forced exit than for non-economic-forced exit. These results indicate the potential importance of distinguishing between these two types of exits in exit studies.

Keywords : Small Firm, Exit, Post-Exit, Japan

JEL Classification : D21, J23, L11

1. Introduction

The great majority of Japanese firms are small.¹ Of 4.7 million Japanese firms, 4.1 million are small, and 3.1 million are individual proprietorships (non-primary industry, *The 2001 Establishment and Enterprise Census*, the Statistics Bureau, Ministry of Internal Affairs and Communications).² In terms of numbers employed, 7.2 million of 38.3 million regular employees work in small firms, and if all other jobs of individual proprietorships are included, such as the roles of the proprietors themselves and unpaid family workers, 10.8 million of 42.7 million people work in small firms. There has been a longstanding fall in the entry rate of new firms in Japan, which in fact fell below the exit rate after the 1990s, and these trends have been an important economic policy issue for more than a decade. Of the 151,000 entries and 223,000 exits per year, 105,000 and 154,000 respectively are individual proprietorships.³ Hence, entries and exits in Japan can, to a significant extent, be examined in the context of small-firm behaviour.

It is usually difficult to obtain information on firm exits (especially in cases other than bankruptcy) and to conduct post-exit surveys on these firms and the managers. The severity of this problem increases for smaller firms, with the result that small-firm exits have not previously been studied in detail, particularly in Japan.

More detailed information has recently been provided by a large-scale questionnaire survey, *The Survey on the Retirement of Small Firm Managers*, which was carried out in November 2003. The survey provides detailed information, including reasons for exits of small firms; characteristics of managers and their firms; several categories of economic status of the firm's activities before exit; and post-exit working behaviour of the managers. The objective of this paper is to investigate small-firm exit behaviour using the results of the survey. Although

¹ In this paper, a firm (including individual proprietorships) is defined as 'small' if its regular employees are 20 or fewer (in the commerce and service industry, five or fewer), which follows the definition of *The Small and Medium Enterprise Basic Law* in Japan.

² More than 95 percent of Japanese individual proprietorships are categorized as small firms.

³ Non-primary industry, *The 2001 Establishment and Enterprise Census*.

part of the survey result has been analysed in the 2004 *White Paper on Small and Medium Enterprises in Japan* (Small and Medium Enterprise Agency, 2004), the current paper principally analyses the part of the survey that was not quoted in that report. We stress the importance of recognizing a variety of exits, and differences between them are examined by estimating probit models.

The remainder of this paper is structured as follows. Section 2 provides a brief overview of relevant previous literature. Section 3 describes the survey and dataset. Section 4 analyses exits of small firms and estimates probit models to investigate differences between exit categories. Section 5 examines post-exit behaviour of managers. Section 6 reports our conclusions.

2. Previous Research

Previous investigations of firm exits have taken a microeconomic, and industrial organization, perspective. The dominant framework presumes that each firm behaves with the objective of profit maximization, and exits from market occur when the profit (or expected/revealed profit) is below some threshold (Jovanovic, 1982; Ghemawat and Nalebuff, 1985; Frank, 1988; Klepper, 1996; Das and Das, 1996). Thus, in empirical studies, exits have firstly been supposed to be linked with economic variables such as the rate of growth or contraction rate of the market, the level or change of the price-cost margin (or other profit measures), strength of entry and exit barriers, and firm size (e.g., Mansfield, 1962; Shapiro and Khemani, 1987; Austin and Rosenbaum, 1990).⁴ There are several Japanese studies that follow this approach (Kusuda, Yokokura and Negoro, 1979; Morikawa and Tachibanaki, 1997; Honjo, 1999a; and Doi, 1999).

Other research fields are related to exit studies—fields such as bankruptcy, default,

⁴ One such relationship, that between exit and firm size, has also been studied in the context of Gibrat's Law.

survival, duration, business failure, and business closure (Altman, 1968; Audretsch, 1991, 1995; Mata and Portugal, 1994; Wagner, 1994; Cressy, 1996; and see also Storey's [1994] survey). These areas are partially overlapping but are, to some extent, independent. Representative Japanese studies in these fields include the bankruptcy analysis of Helwege and Packer (2003) and the study of business failure by Honjo (2000).⁵

Researchers have also recently studied details of exits, particularly in Europe and the United States. Harhoff, Stahl and Woywode (1998), using data for German firms, investigated the probability of exits distinguishing insolvency and voluntary liquidation. Taylor (1999) studied self-employment duration in the UK by estimating a hazard model, distinguishing between involuntary termination and voluntary termination.⁶ Headd (2003) and Bates (2005) stressed the existence of 'successful' closures in addition to 'unsuccessful' closures, using the results of the *Characteristics of Business Owners* (CBO) database in the US. This survey asked owners of closed businesses their subjective success status at closure.⁷ Also for Japan, Honjo's (1999b) exceptional study on new Japanese firms in the software industry estimated a multinomial logit model in which 'failure' was defined as exit by bankruptcy, and 'non-failure' as other cases of exit (except for merger). The underlying motivation of the present paper is considered to be close to these recent research streams.

⁵ Studies on failure almost always contain a potential problem relating to the definition of the term 'failure' (Watson and Everett, 1993; Everett and Watson, 1998). Honjo (2000) defined 'failure' as the occurrence of a bankruptcy flag, as determined by Tokyo Shoko Research, Ltd., so his study can be considered as a bankruptcy study.

⁶ Taylor (1999) defined 'involuntary termination' as exit by bankruptcy, and 'voluntary termination' as exit to better or different employment.

⁷ Earlier, Schary's (1991) pioneering work considered the differences between bankruptcy, voluntary liquidation, and merger, using data for 61 cotton textile firms in the New England region of the US in 1924-1940. Further, Kleijweg and Lever (1996) distinguished general exit and exit by bankruptcy for Dutch manufacturing establishments, and Winter *et al.* (2004) treated different reasons for leaving business in the US family business sector.

3. Data

This paper is based on the results of *The Survey on the Retirement of Small Firm Managers (Shokibo kigyo keieisyu no intai ni kansuru jittai cyosa)*, implemented by the Japan Small and Medium Enterprise Corporation (JASMEC; *Chusyo Kigyo Sogo Jigyo Dan*) in November 2003. The survey sample consists of 15,000 persons who had contracted the Small Enterprise Mutual Aid System (*Shokibo Kigyo Kyosai Seido*), and who had subsequently received mutual aid money because of 'closure of individual proprietorship' or 'dissolution of corporation' in the 2001-2002 fiscal years, or because of 'handover of individual proprietorship to spouse or child' in the 2000-2002 fiscal years.⁸ With regard to the last event, it should be noted that cases of handover of individual proprietorship to third persons other than spouse or child are included in a 'closure of individual proprietorship'. Of the 15,000 cases sampled, 3,958 valid responses were received, and response rate was 26.4 percent.

The Small Enterprise Mutual Aid System is a public mutual aid system, now operated by the Organization for Small and Medium Enterprise and Regional Innovation, Japan (SMRJ) (when the survey was conducted, it was operated by JASMEC. JASMEC was reorganized to the SMRJ on July 1, 2004). The system is designed to provide a public and voluntary-commitment funding system of retirement benefit for small-firm managers, mainly in non-primary industry. Under this system, contracted members pay monthly premiums (up to 70,000 yen per month), and receive mutual aid money according to their accumulated premiums when they meet specified conditions, such as closure of individual proprietorships, dissolution of corporation, or death of managers. The two most appealing features of the system are, first, that there are several considerable tax benefits, such as full deduction of monthly premiums from taxable income. Second, the system is fully backed and substantially secured by the Japanese government, and its operating cost is fully borne by the government. After its establishment in

⁸ The 15,000 sample observations are distributed as 10,145, 4,000 and 855, respectively on the 3 payout events. Only the last event—'handover of individual proprietorship'—is a full-count survey, while the data relating to the other two events are obtained by random sampling. This is because the number of occurrences of the last event is small relative to the first two.

1965, it now (at the end of the 2003 fiscal year) has about 1.3 million members on contract and it has total assets of about 7.7 thousand billion yen.⁹

It is difficult to observe small-firm exits and to track their managers. Where firms exit without debt (i.e. when the firm is not in bankruptcy) or, in Japan, where firms declare bankruptcy with a total debt at bankruptcy of less than ten million yen, it is generally hard for third persons even to obtain the simple information that such 'exits' have occurred. For this reason, the results of this survey on beneficiaries of the official mutual aid system provide a valuable alternative source of hard-to-obtain information.

Not all of the 3,958 valid responses were used in the present study. This paper analyses data related to two of the three surveyed payout events, namely 'closure of individual proprietorship' and 'dissolution of corporation'. Cases of 'handover of individual proprietorship to spouse or child' are excluded because they are rather few and, most importantly, these cases do not involve firm exits.¹⁰ Next, the mutual aid system allows firms to grow after the initial date of contract, and some firms larger than the small-firm category are included in the surveyed sample. These cases are excluded because of our attempt to focus on the study of small firms.¹¹ It should also be emphasized that the dataset only includes cases where the firm exits at the same time as the manager retires, and so it is not necessary to distinguish between the manager's retirement and firm exit. After also excluding respondents who did not complete all questions required in the analysis, the final sample size was 1,743 and it this sample of small-firm managers who exited because of the closure of individual proprietorships or dissolution of corporations in the 2001-2002 fiscal years which is the basis for the present paper.

⁹ This number of members represents more than 20 percent of eligible persons in non-primary industry.

¹⁰ The small number of cases of handover of individual proprietorships to third persons other than spouse or child that were included in the case of 'closure of individual proprietorship', were excluded based on other information provided by survey questions.

¹¹ That is, we excluded firms whose regular employees exceeded 20 (in the wholesale and retail trade, eating and drinking places, and service industry, exceeded 5) at the point that the manager decided to exit. However, the results are mostly not affected by whether these cases are included in the analysis.

4. Reasons for Exits

4. 1. Preliminary Analysis

Table I (1) presents the results of the question that asked the main reason for exit. In the table, the largest category is 'despairing perception for further business' (38 percent), next is 'aging of the manager' (20 percent) and following is 'illness or injury of the manager' (15 percent). We can immediately observe that small-firm exits are not only the result of economic difficulties (such as despairing situations of the business or bankruptcy), but also occur for a variety of other reasons (such as aging or health issues). Further, although less numerous, exits also occur in order 'to take life easy' or 'to take new job or start up new business'. We consider these various exits for reasons other than economic difficulties to be cases that do not necessarily correspond to the central framework of standard exit studies. The small proportion of bankruptcies reported in the table (two percent) is possibly a consequence of two features of the dataset. First, small firms are less likely to become bankrupt because many of them do not borrow from financial institutions and if they do borrow, the amount will tend to be small. Second, the sample does not include cases where the manager had withdrawn from the mutual aid system before bankruptcy and received some refund of money, even if the firm eventually became bankrupt.¹²

Table I (2) gives results from a question that asked for more detail from respondents who gave 'despairing perception for further business' or 'bankruptcy' as the main reason for exit.¹³ It shows that 71 percent of the total chose 'decline of sales or order', which indicates that

¹² One of the other limitations of the dataset is that managers who had not contracted with the mutual aid system from the beginning are excluded from the sample.

¹³ In Table I (2), we can see that 'no response' cases, i.e., those who answered the question on Table I (1) but who did not answer the question on Table I (2), are included in the dataset to be studied. This treatment is intended to avoid a bias that would arise if these cases are excluded, because then cases corresponding only to 'Non-Economic-Forced Exit' (stated below) would be systematically dropped from

shrinkage of sales plays an overwhelming role in these types of exits. Next important, at nine percent, is 'having a deficit'. Only three percent chose 'rejection or reduction of loan by financial institution', but this may be explained by the same underlying reasons as the low proportion of bankruptcy reported in Table I (1).

Further, Table I also presents results where the sample has been divided into two subgroups by the manager's age at exit (of under 65 years old, and 65 and over), together with results from the total sample. The main reason for this division is that in common statistical classifications, people in the 15-64 age group are defined as the 'productive age population', and older people fall into the 'aged population'. This implicitly assumes that people under 65 can be expected to be 'productive' workers, but that people 65 and over are necessarily not expected to work. We consider that it is appropriate to apply this age division to the current dataset. Moreover, using this criterion results in a rough balance between the numbers in the two sub-groups: persons aged under 65 comprise 56 percent of the total, while the group of 65 and over comprise 44 percent.

Table I (1) shows that, in the group of 65 and over, the proportion of 'despairing perception for further business' or 'bankruptcy' is less (about half, in fact) than in the group of under 65, but that the proportion citing managers' aging or health issues is larger for the former group. This suggests that distributions of reasons for exits differ by the manager's age. In turn, Table I (2) analyses these groups in more detail, and it shows a relatively similar distribution of reasons for exits between the two age groups. This leads to the conclusion that, while there are considerable age-group differences in the proportion of exits by reason of economic difficulties, there are no clear age-group differences as to the detailed reasons for the economic difficulties they experienced.

It is useful to classify exits into two main types: exits derived from economic difficulties for the business, i.e., 'despairing perception for further business' or 'bankruptcy'; and exits for various other reasons. This paper hereafter defines the former as 'Economic-Forced

the sample.

Exit' and the latter as 'Non-Economic-Forced Exit', and the main focus is on explaining the differences between them. However, Table I (2) shows that, in the case of 'despairing perception for further business' or 'bankruptcy', there is a small number of cases where the specified reason is 'manager's aging or health issue'. These cases are separated out and defined as being in the group of non-economic-forced exit.

As a result, our dataset includes 692 economic-forced exits and 1,051 non-economic-forced exits, so the latter category accounts for 60 percent of the whole sample (summarized in Table II). For the two age groups, it can be observed that in the under 65 group the proportions of the two types of exits are about equal, while in the group of 65 and over non-economic-forced exits comprise three quarters of the total.

Table III provides a more detailed distribution of manager's age at exit for the total sample, and for economic-forced exit and non-economic-forced exit. Of the total exits, 66 percent are 60 years or older, and 93 percent are 50 years or older. The 60-69 year age group accounts for 44 percent of the total, and 50-79 accounts for 90 percent. If the data are differentiated by reasons for exit, we observe differences between the shapes of the distributions. The peak of the distribution for 'non-economic-forced exit' occurs at a higher age group (65-69) than for the other group. Based on comparisons of detailed age distributions in Table III, it is also suggested that an age of about 65 years possibly represents a breakpoint in the nature of exit behaviour.

4.2. Estimation: Economic-Forced Exits and Non-Economic-Forced Exits

Heretofore, we have simply observed distributions of reasons for exits, focusing on the relationship between the manager's age and the difference between economic-forced exits and non-economic-forced exits. This section reports estimates of probability models that examine differences between two types of exits, simultaneously incorporating and controlling various factors other than the manager's age. To be more specific, we estimate probit models, using as a dependent variable a dummy that takes one for economic-forced exit and zero otherwise.

Explanatory variables include broad information on managers' human characteristics, their (exited) firm characteristics, and the economic status of the business at the time of exit. The object of the estimation is to evaluate empirically the impact of these factors on exit behaviour.

The model is formally described as follows:

$$\text{Prob}(\text{economic-forced exits occur} | x', \beta) = \Phi(x'\beta),$$

where $\Phi(\cdot)$ is the cumulative distribution function of the standard normal distribution, x is the vector of explanatory variables, and β is the vector of parameters to be estimated.

Four items extracted from the survey are used as explanatory variables describing managers' human characteristics. These are: manager's age; gender; years of operating the business as manager; and whether the manager is the founder of the firm. The manager's age is measured at exit and is defined in the same way as in the previous section. This information is firstly included as a continuous variable. Also, considering the possibility of a significant discontinuity of exit behaviour by age group as discussed above, it is included in the form of a dummy variable which distinguishes under-65 and over-65 age groups. Further, we also estimate separate models for each age-group sub-sample. The gender dummy takes the value one for female and zero otherwise. The result of the question that asked the number of years the respondent had worked as a manager in the firm is entered as a continuous variable. The founder dummy takes a value of one when the respondent is a founder of the firm and otherwise zero. When the founder dummy takes one, the result of years of operating the business as manager conceptually corresponds to the life of the firm.

Three variables are used to describe the characteristics of (exited) firms. These are the organizational form, industrial sector, and the presence or absence of employees. The organization-form variable is included as a dummy variable distinguishing a corporate firm from an individual proprietorship. The seven industrial sectors are based on the divisions included in the survey question, namely, manufacturing, construction, wholesale trade, retail

trade, eating and drinking places, services, and 'other'. Finally, the presence or absence of employees is a dummy variable which takes a value of one when, in the question regarding the number of employees (*jyu-gyo-in*) at the point that the manager decided to exit, the respondent answered the number was zero (i.e., no employees). It takes a zero value if the respondent answered that their firm had one or more employees. It might be thought that the number of employees could be used as a proxy for firm size, but since this paper studies small firms, the possible range of the number of employees is, by definition, limited. Therefore, this paper controls only for the presence or absence of employees by including a qualitative variable, considering the possible importance of a discontinuity in the nature of exits in the case of no employees and one or more employees. In the survey 'employee (*jyu-gyo-in*)' is defined to include paid executive officers and regular employees, but excluding a proprietor and his or her family in the same family budget. As a result, it should be noted that a firm which has workers sharing the family budget with the proprietor is included in the 'no employee' category.

Three factors, derived from the results of the survey, are used to describe the economic status of the firm at the point the manager decided to exit. These are whether the firm has borrowings from a financial institution, the 'tendency of sales', and 'the profit situation'. The first variable is a dummy with unit value if the firm has outstanding borrowings from a financial institution, and zero otherwise. The variable of tendency of sales provides information on whether sales were rising, stable, or falling in comparison with the same time of the previous year. The profit situation dummy depends on whether the ordinary profit recorded a surplus in the last period, a deficit in the last period, or consecutive deficits in the last two periods. All these 'economic status' variables are necessarily qualitative because of limitations in the design of the questionnaire. It is also important to note that each of the questions specifically relates to the time at which the manager decided to exit, not at exit. As a result, for example, even where there is a time lag between the manager's decision to exit and the actual occurrence of the exit, the survey conceptually guarantees that the analysis is based on the time point at which the manager made the decision to exit. This is a positive feature of the survey because it allows us

to analyse exits based on the business situation at managers' decision points.

Table IV presents the sample means of these variables for the total sample and for the sub-samples of economic-forced exit and non-economic-forced exit. These do not merely express descriptive statistics of explanatory variables for econometric analysis, but also illustrate characteristics of this data set. First, in the 'total' sample, the average of the managers' age at exit is 62 years, and 44 percent of them are more than 65 years old. Of these, 22 percent are female. In the total sample, managers have operated the business for an average of 26 years, which appears rather long. Considering this result together with that for the age of managers, we can say that this data set mainly comprises managers of a relatively advanced age who have been engaged in management for a rather long term. A large majority (74 percent) of managers are founders. In the case of organizational form, about two-thirds are individual proprietorships and one third is corporate firms. The 'no employee' case—where only the manager and perhaps family members operate the firm—comprises 36 percent of all firms. The most important of the 7 industry sectors is the manufacturing industry (24 percent), followed by retail trade (19 percent).

Regarding the economic status of the businesses, only 29 percent of all firms had borrowings from a financial institution, which means in parallel that 71 percent engaged in business without any borrowings from a financial institution. With regard to sales tendency, there are very few cases of increasing sales, with the majority (84 percent) of exiting firms reporting decreasing sales, probably the result, at least in part, of the general economic situation at that time. Data for the profit situation show that 32 percent of cases were in a surplus in the last period, while cases in consecutive deficits in the last two periods are in the majority (51 percent).

Estimation results of probit models are presented in Table V. Cases I and II are both results for the total sample, and the difference between them is whether information on the manager's age at exit is applied as a continuous variable in the estimation (case I), or further added as the dummy variable distinguishing between under 65 or 65 and over (case II). Cases III and IV are the results of estimations with divided samples (under 65 is case III; 65 and over

is case IV). Based on the estimated parameters, the table also shows the marginal effects of explanatory variables on the probability that the dependent variable takes a value of one. They are indices illustrating the degree of impact for each variable, which provides information that cannot be obtained from simple or aggregated data observations.¹⁴ In these estimations, for sales tendency, we only apply a dummy variable which takes a value of one where sales are falling, for the practical reason that there are very few instances of rising sales. As a result, the cases of 'rising' and 'stable' are not distinguished.

Consider first the effect of the manager's age. The table shows a clear tendency that the probability of economic-forced exit is significantly higher when the manager is younger, or, in other words, the probability of non-economic-forced exit is higher when the manager is older. Considering the fact that all managers must retire from business some day, the result seems to be convincing. In particular, observing case II, the estimated coefficient of the 65 and over dummy is significantly negative and its marginal effect is large (-0.19), so we can conclude that there is a noticeable difference between the under 65 and 65 and over groups. Estimation results concerning variables other than age are very similar for I and II, and no large differences appear even in the sample-divided cases of III and IV. In this sense, we can say that relatively robust estimation results are obtained for each factor.

We turn now to the results for the other variables related to managers' human characteristics and to firm characteristics. All estimations show that the probability of economic-forced exit is significantly higher in the case that the manager is male, and years of operating the business are fewer. The marginal effects of the female dummy appear rather large (e.g. -0.17, in case II), and in fact its impact is close to the effect of the 65 and over dummy for age. In contrast, the founder dummy, the corporation dummy and the no-employee dummy are insignificant, which means that clear effects are not presented about these factors. With regard

¹⁴ Here, the marginal effects of continuous variables are evaluated at the means of all explanatory variables. The marginal effects of dummy variables are evaluated by the differences between the probability that the dependent variable takes one when the dummy variable is one minus that probability when the dummy variable is zero, at the sample means of all other variables.

to the industry-sector variable, in comparison with the manufacturing industry, the estimated coefficients for the retail trade industry, eating and drinking places, services, and 'other' are significantly negative, and the construction and wholesale trade industries give insignificant but negative results. This implies that the manufacturing industry has the highest probability of economic-forced exit. The marginal effects of eating and drinking places and services are particularly large (respectively -0.25 and -0.19 in case II), indicating remarkable differences between these industries and the manufacturing sector. These results possibly indicate the substantial relative severity of the business environment of the manufacturing sector. However, given that variation of sales tendency and the profit situation are controlled in the estimations, it is also possible that these results indicate that the manufacturing sector tends to be more easily affected by economic fluctuations than other industries.

The results for the effect of the economic status of businesses are common across all estimations. The probability of economic-forced exit is significantly higher if the firm had borrowings from a financial institution, if its sales tended to decrease, and if negative profit was recorded in the last two periods. There is no significant effect of a loss recorded only in the last period, by comparison with a surplus in the last period. The results for the borrowing variable are possibly related to the freedom of exiting managers to make their own decisions about the future of the business. For firms with outstanding loans, it may be that the manager cannot unilaterally decide to exit (or remain in business). In the absence of debt, exit decisions seem to depend on the manager's own wishes, and hence exits for the manager's personal reasons tend to be more important in the latter case.¹⁵ For the 'tendency of decreasing sales' and 'profit in deficits in the last two periods', the marginal effects appear large (in case II, both are about 0.24), confirming that these factors are strongly related to economic-forced exit. Conversely, these results imply that factors such as the sales tendency or the profit situation exhibit a relatively

¹⁵ Alternatively, it might be considered that the manager borrowed to finance the business when the business faced an economically difficult situation. However, at all events, the results suggest that managers had better seek to avoid borrowing from financial institutions if they value freedom of action in relation to exit decisions.

small influence on non-economic-forced exit. Hence, the results can also be taken to indicate the importance of recognizing a variety of exit behaviours in this area of research.¹⁶

5. Post-Exit Behaviour of Managers

While the firm ceases to exist on the closure of an individual proprietorship or dissolution of a corporation, this does not necessarily imply the end of the business career of the manager. Under some circumstances, it is possible that the (exited) manager decides to manage another business, or to work as an employee in an existing firm. In these cases, we can expect that their management experience, their knowledge, and their accumulated skills (some of which may be irreplaceable) continue to be used, even after the extinction of the firm. However, it is, in general, particularly difficult to track managers' behaviour after their firms exit. Concerning this point, in *The Survey on the Retirement of Small Firm Managers*, a question is asked concerning their current working situation (i.e., one or two years after exit).¹⁷ We now investigate the post-exit behaviour of managers using this part of the survey.

Table VI (1) presents results for the total sample, and VI (2) and VI (3) present results for the under 65 and 65 and over age groups, respectively. We have retained the same nine categories of working status as in the survey question in order to retain as much detailed information as possible. These categories can be aggregated into the following three groups: 'manager' (individual proprietor and executive officer of corporation); 'employed worker' (regular employee, part-time employee, temporary employee contracting with a staffing service

¹⁶ The focus of this paper is on exiting firms, and it examines the differences between exiting firms. This approach is followed because of the limitations of the available data. If possible, it would have been desirable to explicitly analyse the choice problem, including other possible outcomes rather than exits, such as the firm remaining in business, or being taken over by another person. Such an analysis must be left to further research.

¹⁷ To be concrete, respondents are firstly asked whether they are now engaged in working for income or not. If they respond as 'working' they are further asked to indicate the kind of work from 9 categories shown in Table VI.

company, and contract employee); and 'other worker' (assistant for own family business, piecework at home, and others). In each table, results are presented for all firms, and for firms categorised by the two types of exits and by the status of disposal of liabilities. The 'status of disposal of liabilities' is defined in terms of responses to a survey question asking whether there are any remaining business liabilities at the time of the survey. Responses to this question provide worthwhile information concerning events some time after exit, as does the question related to post-exit working status.¹⁸ Of the responses, 90 percent indicate complete disposal of liabilities at the time of the survey (Table VI [1]).¹⁹

Results in Table VI (1) show that 44 percent of all managers recommence work after exit. Of the 9 divisions, the most important is individual proprietor of 14 percent, and if we include cases where they become the executive officer of a corporation, it is observed that 17 percent of the total re-engage in another business as a manager. The proportion is larger than might be expected, particularly considering that managers who exited 'to take new job or start up new business' make up only three percent in Table I (1). Of the 'employed worker' category, regular employees comprise five percent. After adding non-regular employed workers who are part-time employees (including *Arubait*), temporary employees contracting with a staffing service company, and contract employees (including *Shokutaku*), the proportion of employed workers also reaches 17 percent, which is equal to the proportion who recommence work as a manager.

Now we turn to the results for the two age groups in Tables VI (2) and VI (3). The proportion of managers working after exit is 59 percent for those under 65 and 24 percent for

¹⁸ The question asked about the general situation of 'liabilities concerning the business', and thus the term 'liability' in the question conceptually corresponds to broad kinds of liabilities including trade creditors and borrowings from relatives. In this sense, the content of this question is fundamentally different from the question for 'situation of borrowings from financial institution' presented in the earlier section.

¹⁹ In Table VI (1), there are only 1,425 responses to the 'disposal of liabilities' question, compared to the total sample size of 1,743. Since information regarding the disposal of liabilities is used only in this section and mainly for simple comparative references, the response to this question is not treated as one of the necessary conditions for constructing the general dataset.

those aged 65 and over, which shows a remarkably large proportion for those under 65. As can be expected, there are very few cases of regular employees in the 65 and over age group, while in the under 65 group, 9 percent take a work as regular employees. For non-regular employees, the proportion of managers working after exit is 18 percent for the under 65 group, but only four percent in the 65 and over group. Only 11 percent of the 65 and over group recommence work as a manager compared with 23 percent of those under 65. It is possible that the differences in employed workers by age group depend at least partly on employers' decisions, not just on the exited manager's intentions. However, considering that there are large differences in the proportions of those recommencing work as a manager, it is inferred that the manager's age has an important effect on the post-exit behaviour, not only on the exit decisions shown in the section 4.

It is clear that the type of exit influences the post-exit working behaviour of managers. For the economic-forced exit group the majority of managers (56 percent) recommence work after exit compared to less than 35 percent for the non-economic-forced exit group (Table IV [1]). In terms of detailed differences, the most noticeable point is that for economic-forced exit, the proportion of exited managers re-employed as employees is higher for each of the four categories of employed workers than in the corresponding cases for non-forced exit. While there is a difference in the case of regular employees (about 5 percent), the difference for non-regular employees is much larger (18 percent for the economic-forced exit; 8 percent for the non-economic-forced exit). Therefore, the greatest cause of the difference in the proportion of managers working after exit is accounted for by the difference in the proportion working after exit as non-regular employees. Analysing the differences by age groups (Tables IV [2] and IV [3]), we can see that the differences in the proportions of employed workers are most pronounced in the under 65 age group.

A natural explanation for the observed difference in post-exit work when categorised by type of exit is that, for managers subject to economic-forced exit, taking some work is a matter of economic necessity. Of course, it could also be assumed that they desired a shift from

a position as firm manager to an employee or even a non-regular employee in some instances. However, concerning this point, a comparison of the distribution of working status for the economic-forced-exit category with the results for 'disposal of liabilities' in the same table, indicates that the distribution for 'economic-forced exit' is similar to the distribution of 'not-completed'. That is, the proportion of managers working post-exit for the non-completed category is much larger than for the other category, and the proportions of individual proprietors and non-regular employees are large, as these types of work seem to be relatively easy to start or undertake. This result can be taken to indicate that, where the disposal of liabilities is incomplete, the managers tend to need to work after exit to repay liabilities. We infer that the similarity of the distributions between these two events implies that a greater proportion of the managers in economic-forced exits must take work after exit by reason of economic necessity than would be the case where there was a voluntary decision to exit and the manager shifted to become an employed worker.²⁰

6. Concluding Remarks

About nine out of ten Japanese firms are small firms, and two thirds are individual proprietorships. Issues related to entries and exits in Japan are also, therefore, largely issues relating to small firms. Exits of small firms have not yet been sufficiently studied, particularly in Japan, partly because of the problem of availability of data. Under such circumstances, this paper aimed to examine small-firm exit behaviour, using the results from *The Survey on the Retirement of Small Firm Managers* conducted in November 2003.

The survey results show that small-firm exits were not only directly caused by economic difficulties for business ('Economic-Forced Exit') but also, and importantly, by a

²⁰ Of the 148 cases where disposal of liabilities are 'not-completed', 84 are involved in economic-forced exit and 64 are involved in non-economic-forced exit. Therefore, the similarity of the distribution of working status between not-completed disposal of liabilities and economic-forced exit does not result directly from the high similarity of the samples.

variety of factors, such as aging or health issues. Further, although not observed so frequently, a number of exits occurred in order 'to take life easy' or 'to take new job or start up new business'. These various exits for reasons other than economic difficulties ('Non-Economic-Forced Exit') seem not to correspond to the central framework of standard exit studies and they occupy a majority (60 percent) in this dataset. We estimated probit models to further examine the reasons for exit. The estimation results showed that the probability of economic-forced exit was significantly higher if the manager was a relatively young male, if the firm had borrowings from a financial institution, and if its sales tended to decrease. Taking advantage of the dataset, this paper then investigated the post-exit working behaviour of managers, which has previously been difficult to track. The results indicate that a rather large proportion of managers recommence work as managers or as employed workers after exit, and that the proportion of those who do so, especially as employed workers, was higher in the case of economic-forced exits. These results indicate the potential importance of distinguishing clearly between these two types of exits in exit studies.

The Japanese population is aging very rapidly. Firm managers, many of whom are with small firms that were established before the beginning of the 1970s' high-growth period in Japan, are also aging. These firms are destined to exit in the not-so-distant future unless the firm or management is taken over by someone, regardless of whether the business succeeds or not. Of course, where the business is completely personal and inseparable from the manager, there is inarguably no choice other than to exit. In addition, it can be supposed that the exit of firms that have no further role in the economy leads to a gradual rise in the productivity of the whole economy (c.f. Nishimura, Nakajima, and Kiyota, 2005). Therefore, it is obviously misleading to advocate the avoidance of all business closures. Even so, at the individual level, the question of how the managers of exiting firms draw a curtain on their business, and whether it is suitable for the role that they had played, should be given due attention as another important issue. Above all, such an analysis will contribute to fostering the constructing of a 'healthy' potential entrepreneurship cluster to lead the next generation. We hope this research also makes a

contribution to this important issue.

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TABLE I
Reasons for Exits of Small Firms

(1) Main Reason for Exit

Items	Total	By Manager's Age at Exit	
		under 65	65 and over
1 To take life easy	3.1	3.3	2.9
2 To take new job or start up new business	3.1	4.9	0.8
3 Aging of the manager	20.0	5.4	38.7
4 Aging of employee	0.8	0.4	1.2
5 Illness or injury of the manager	14.5	13.0	16.4
6 Illness or injury of manager's relatives	2.7	2.4	3.1
7 Family issues including marriage or removal (except for 6)	0.9	1.4	0.1
8 Disaster (except for 5-7)	0.3	0.4	0.1
9 Diminished motivation for the business	6.9	8.6	4.7
10 Despairing perception for further business (except for 3-8)	37.9	49.2	23.4
11 Bankruptcy	2.3	2.8	1.7
12 Others	7.6	8.3	6.8
Sum	100.0	100.0	100.0
n	1743	979	764

(Percent, Number)

(2) Specified Reason for 'Despairing Perception for Further Business' or 'Bankruptcy'
(Relevant to 10 or 11 in Table 1(1))

Items	Total	By Manager's Age at Exit	
		under 65	65 and over
1 Decline of sales or order	70.5	71.1	68.8
2 Bankruptcy of client company	4.4	4.1	5.2
3 Bankruptcy of supplier	1.1	1.6	-
4 Having a deficit	9.1	8.1	12.0
5 Rejection or reduction of loan by financial institution	2.6	2.4	3.1
6 Manager's aging or health issue	1.3	1.4	1.0
7 Retirement of employee	0.1	0.2	-
8 Others	5.4	5.1	6.3
No response	5.4	6.1	3.6
Sum	100.0	100.0	100.0
n	701	509	192

(Percent, Number)

TABLE II
Economic-Forced Exit and Non-Economic-Forced Exit

	Total	By Manager's Age at Exit	
		under 65	65 and over
Economic-forced exit	39.7	51.3	24.9
Non-economic-forced exit	60.3	48.7	75.1
Sum	100.0	100.0	100.0
n	1743	979	764

(Percent, Number)

Notes) Economic-forced exit is defined as 10 or 11 in Table 1(1)
(except for 6 in Table 1(2))

Non-economic-forced exit is defined as other than 10 or 11
in Table1(1), and 6 in Table 1(2)

TABLE III
Distribution of Manager's Age

Age Group	Manager's Age at Exit		
	Total	Economic- Forced Exit	Non-Economic- Forced Exit
25-39	1.7	1.2	2.1
40-49	5.8	8.8	3.8
50-54	11.5	14.2	9.8
55-59	15.4	22.1	10.9
60-64	21.7	26.3	18.7
65-69	22.3	17.9	25.1
70-74	12.9	6.6	17.0
75-79	6.0	2.5	8.4
80-93	2.6	0.4	4.1
Sum	100.0	100.0	100.0
n	1743	692	1051

(Percent, Number)

TABLE IV
Means of Variables

	Total	Economic- Forced Exits	Non-Economic- Forced Exits
Manager's Age	62.39	59.53	64.28
65 and over	0.438	0.275	0.546
Gender (female=1)	0.215	0.165	0.247
Years of Operating as Manager	26.37	23.44	28.30
Founder	0.737	0.711	0.754
Corporate Firm	0.355	0.442	0.298
No Employee	0.362	0.328	0.384
Manufacturing	0.235	0.301	0.192
Construction	0.141	0.169	0.123
Wholesale Trade	0.057	0.077	0.045
Retail Trade	0.189	0.176	0.198
Eating and Drinking Places	0.068	0.038	0.088
Services	0.130	0.092	0.155
Others	0.178	0.147	0.199
Having Borrowings from Financial Institution	0.289	0.403	0.213
Sales Increasing	0.015	0.001	0.025
Sales Stable	0.145	0.059	0.201
Sales Decreasing	0.840	0.939	0.775
Surplus in the Last Period	0.316	0.173	0.409
Loss in the Last Period	0.174	0.130	0.204
Loss in the Last Two-Periods	0.510	0.697	0.387
n	1743	692	1051

TABLE V
Probit Estimates

Dependent variable: Economic-forced exit=1, Non-economic-forced exit=0

	[I] Total			[II] Total			[III] under 65			[IV] 65 and over		
	coefficient	t-value	marginal effect	coefficient	t-value	marginal effect	coefficient	t-value	marginal effect	coefficient	t-value	marginal effect
constant	1.4956	5.29 **		0.4567	1.31		-0.3570	-0.87		2.4189	2.54 *	
Manager's Age	-0.0334	-7.34 **	-0.0125	-0.0127	-2.08 *	-0.0048	-0.0016	-0.21	-0.0006	-0.0422	-3.16 **	-0.0112
65 and over	-			-0.5259	-5.03 **	-0.1929	-			-		
Gender (female=1)	-0.4570	-5.20 **	-0.1614	-0.4876	-5.51 **	-0.1711	-0.4432	-4.31 **	-0.1748	-0.4896	-2.70 **	-0.1097
Years of Operating as Manager	-0.0160	-4.36 **	-0.0060	-0.0154	-4.16 **	-0.0058	-0.0157	-3.04 **	-0.0063	-0.0174	-3.09 **	-0.0046
Founder	-0.0535	-0.68	-0.0201	-0.0615	-0.78	-0.0232	0.0233	0.23	0.0093	-0.2342	-1.78	-0.0655
Corporate Firm	0.0137	0.17	0.0051	-0.0211	-0.27	-0.0079	-0.0114	-0.12	-0.0046	-0.1227	-0.88	-0.0318
No Employee	-0.0354	-0.47	-0.0133	-0.0251	-0.33	-0.0094	0.1247	1.29	0.0497	-0.2408	-1.89	-0.0625
Manufacturing	-			-			-			-		
Construction	-0.1255	-1.15	-0.0463	-0.1482	-1.35	-0.0544	-0.0281	-0.20	-0.0112	-0.4096	-2.16 *	-0.0931
Wholesale Trade	-0.1287	-0.86	-0.0472	-0.0901	-0.60	-0.0333	-0.2246	-1.08	-0.0891	-0.0457	-0.21	-0.0119
Retail Trade	-0.2886	-2.81 **	-0.1043	-0.3067	-2.97 **	-0.1103	-0.3560	-2.60 **	-0.1407	-0.2758	-1.74	-0.0676
Eating and Drinking Places	-0.8102	-5.17 **	-0.2496	-0.8312	-5.24 **	-0.2538	-0.7573	-4.10 **	-0.2828	-1.0644	-3.09 **	-0.1704
Services	-0.5392	-4.42 **	-0.1835	-0.5522	-4.49 **	-0.1870	-0.4137	-2.75 **	-0.1625	-0.9002	-3.73 **	-0.1678
Others	-0.2818	-2.59 **	-0.1018	-0.2733	-2.50 *	-0.0987	-0.1175	-0.81	-0.0468	-0.4613	-2.67 **	-0.1076
Having Borrowings from Financial Institution	0.3631	4.80 **	0.1389	0.3498	4.60 **	0.1336	0.3895	4.06 **	0.1539	0.3147	2.41 *	0.0899
Sales Increasing or Stable	-			-			-			-		
Sales Decreasing	0.7411	6.50 **	0.2432	0.7125	6.24 **	0.2349	0.8121	6.02 **	0.3059	0.4915	2.20 *	0.1103
Surplus in the Last Period	-			-			-			-		
Loss in the Last Period	0.0641	0.61	0.0242	0.0636	0.60	0.0240	0.0344	0.26	0.0137	0.1213	0.61	0.0333
Loss in the Last Two-Periods	0.6368	7.35 **	0.2350	0.6654	7.61 **	0.2449	0.5169	4.76 **	0.2039	0.9209	5.83 **	0.2438
Log likelihood	-942.3			-929.6			-578.0			-334.6		
McFadden R ²	0.1952			0.2061			0.1478			0.2192		
n	1743			1743			979			764		

Notes) * significant at 5 percent level, ** significant at 1 percent level

TABLE VI
Post-Exit Behaviour of Managers

(1) Total

Items	Total	Non-		Disposal of Liabilities	
		Economic- Forced Exit	Economic- Forced Exit	Completed	Not Completed
1 Working for income	43.6	56.1	35.4	42.1	66.9
Individual proprietor	13.5	16.8	11.4	13.0	22.3
Executive officer of corporation	3.8	3.8	3.9	4.2	4.1
Regular employee	5.2	8.7	2.9	5.3	6.1
Part-time employee (including <i>Arubait</i>)	7.2	11.0	4.7	7.2	10.1
Temporary employee contracting with staffing service company	0.7	1.2	0.4	0.7	0.7
Contract employee (including <i>Shokutaku</i>)	4.1	5.9	2.9	3.8	7.4
Assistant for own family business	3.7	3.6	3.7	2.5	10.1
Piecework at home (<i>Naishoku</i>)	1.3	1.9	0.9	0.9	2.0
Others	4.1	3.3	4.6	4.4	4.1
2 Not working for income	56.4	43.9	64.6	57.9	33.1
Sum	100.0	100.0	100.0	100.0	100.0
n	1743	692	1051	1277	148

(Percent, Number)

(2) under 65

Items	Total	Non-		Disposal of Liabilities	
		Economic- Forced Exit	Economic- Forced Exit	Completed	Not Completed
1 Working for income	58.9	65.5	52.0	56.5	72.0
Individual proprietor	17.6	18.7	16.4	17.5	18.7
Executive officer of corporation	5.1	3.8	6.5	5.6	3.7
Regular employee	8.8	12.0	5.5	8.8	8.4
Part-time employee (including <i>Arubait</i>)	11.0	13.7	8.2	10.7	13.1
Temporary employee contracting with staffing service company	1.1	1.4	0.8	1.1	0.9
Contract employee (including <i>Shokutaku</i>)	6.2	7.6	4.8	5.6	9.3
Assistant for own family business	4.8	4.4	5.2	3.4	10.3
Piecework at home (<i>Naishoku</i>)	0.8	1.2	0.4	0.1	2.8
Others	3.5	2.8	4.2	3.6	4.7
2 Not working for income	41.1	34.5	48.0	43.5	28.0
Sum	100.0	100.0	100.0	100.0	100.0
n	979	502	477	727	107

(Percent, Number)

(3) 65 and over

Items	Total	Non-		Disposal of Liabilities	
		Economic- Forced Exit	Economic- Forced Exit	Completed	Not Completed
1 Working for income	24.0	31.1	21.6	22.9	53.7
Individual proprietor	8.5	11.6	7.3	7.1	31.7
Executive officer of corporation	2.1	3.7	1.7	2.4	4.9
Regular employee	0.7	-	0.9	0.7	-
Part-time employee (including <i>Arubait</i>)	2.3	3.7	1.7	2.5	2.4
Temporary employee contracting with staffing service company	0.1	0.5	-	0.2	-
Contract employee (including <i>Shokutaku</i>)	1.5	1.6	1.4	1.5	2.4
Assistant for own family business	2.3	1.6	2.4	1.3	9.8
Piecework at home (<i>Naishoku</i>)	1.7	3.7	1.2	1.8	-
Others	4.9	4.7	4.9	5.5	2.4
2 Not working for income	76.0	68.9	78.4	77.1	46.3
Sum	100.0	100.0	100.0	100.0	100.0
n	764	190	574	550	41

(Percent, Number)