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

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ABSTRACT. This paper examines exit behaviour of small firms by using data from *The Survey of Retirement of Small Firm Managers*, which provides information on exit and post-exit behaviour of Japanese small firms and their managers. First, it is shown that small firm exits occur not just because of economic difficulties in their business ('economic-forced exit') but also for various other reasons ('non-economic-forced exit'). Logit estimates show that the probability of economic-forced exit is significantly higher if the manager is relatively young and male, the firm has loans from a financial institution, its sales are tending to decrease, and so on. It is also shown that a rather large proportion of managers continue to work after exit, and this proportion, especially that of employed workers, is higher in the case of economic-forced exits. These results indicate the potential importance of distinguishing these two classes of exits in exit studies.

KEYWORDS: small firm, exit, post-exit, Japan

JEL CLASSIFICATIONS: D21, J23, L11, L26, M13

1. Introduction

Most of the firms in Japan are small firms;[1] of the 4.7 million Japanese firms, 4.1 million are small firms and 3.1 million are individual proprietorships.[2] From the perspective of employment, 7.2 million of 38.3 million regular employees work in small firms in Japan and, if all jobs in individual proprietorships, such as the proprietors themselves and their unpaid family workers are included, 10.8 million of 42.7 million people work in small firms.

Moreover, the decline of firm entries and the falling of entry rate below exit rate have been important economic policy issues for more than a decade in Japan. On this point, of the 151,000 entries and 223,000 exits per year, 105,000 and 154,000, respectively, are individual proprietorships. Taking small corporate firms into account, most policy issues related to firm entries and exits can be considered those of small firms.

However, in general, it is 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, mainly because they have just 'exited'. The severity of this problem increases for smaller firms and, as a result, small firm exits have not been studied sufficiently, particularly in Japan. Therefore, this paper attempts to examine exit behaviour of small firms using the results of a recent large-scale questionnaire survey, *The Survey of Retirement of Small Firm Managers*. The survey provides rich information on exit and post-exit behaviour of small Japanese firms and their managers, including reasons for exits, economic status of firms before exit, and post-exit working situations of the managers. In particular, this study intends to focus on the variety and differences of exits. Although part of the questionnaire results has been quoted in the Small and Medium Enterprise Agency (2004), my analysis is based on the part that was not quoted in that government report.[3]

The paper is organized as follows. The next section provides a brief overview of related literature. The section focuses on the literature on firm exits, because to my knowledge there is not sufficient literature about post-exit behaviour of managers. Section 3 explains the data set. Section 4 examines the reasons for exits and differences between them, by preliminary analyses and logit estimates that distinguish between 'economic-forced exits' and 'non-economic-forced exits'. Section 5 investigates post-exit behaviour of managers, and Section 6 presents the conclusions.

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2. Related literature

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

Meanwhile, broader research fields relating to exit studies have been developed – fields such as bankruptcy, default, survival, duration, business failure, and business closure (Altman, 1968; Audretsch, 1991, 1995; Mata and Portugal, 1994; Wagner, 1994; Cressy, 1996; Audretsch et al., 1999; and see also Storey's [1994] survey). These studies have accumulated with partial overlaps. A remarkable feature of these studies is that they often use broad factors such as various financial indicators of the firm or human characteristics of the manager as explanatory variables in their empirical models. With regard to Japan, there is the bankruptcy analysis of Helwege and Packer (2003) and the study of business failure by Honjo (2000).[4]

Researchers have also explored details of exits, particularly in Europe and the United States. Harhoff et al. (1998) examined the probability of exits in German firms, distinguishing insolvency and voluntary liquidation. Taylor (1999) studied self-employment duration in the UK by estimating a hazard model and distinguishing between involuntary and voluntary termination.[5] Headd (2003) and Bates (2005) stressed the existence of successful closures as well as unsuccessful closures by using the *Characteristics of Business Owners* (CBO) database in the USA, which surveyed owners of closed businesses with regard to their subjective success status at closure.[6] Additionally, in Japan, Honjo's (1999b) exceptional study estimated a multi-nominal logit model for new Japanese firms in the software industry, which defined 'failure' as exit by bankruptcy and 'non-failure' as other cases of exit (except for merger). The underlying motivation of my study is close to these recent research streams.

3. Data

This paper uses the results of *The Survey of Retirement of Small Firm Managers*, which was conducted by the Japan Small and Medium Enterprise Corporation (JASMEC) in November 2003. The survey sample consisted of 15,000 people who had contracted to the Small Enterprise Mutual Aid System, and who had received mutual aid money by reason of the closure of an individual proprietorship or the dissolution of a corporation in the 2001 and 2002 fiscal years, or because of the handover of individual proprietorship in the 2000–2002 fiscal years.[7] Of the 15,000 individuals sampled, 3958 responses were received.

The Small Enterprise Mutual Aid System is a public and voluntary contract funding system intended to reserve some retirement benefit for small firm managers mainly in non-primary industries and is now conducted by the Organization for Small and Medium Enterprise and Regional Innovation, Japan (SMRJ).[8] Under the mutual aid system, contracted members pay monthly premiums and receive mutual aid money according to their accumulated premiums if one of the specified events such as closure of individual proprietorships, dissolution of corporation, or the death of manager occurs.[9] The system has two remarkable features: first, there are several tax benefits such as full deduction of monthly premiums from taxable income. Second, the system is substantially secured by the Japanese government, and its operating cost is fully borne by the government. It was established in 1965, and now (at the end of the 2004 fiscal year) has about 1.3 million members on contract and has total assets of about 7600 billion yen.[10]

As stated above, it is difficult to observe small firm exits and to track their managers. If firms

exit without debt (i.e., when the firm is not in bankruptcy) or, in Japan, if firms become bankrupt with a total debt of less than 10 million yen, it is generally hard for third parties to obtain information even about the occurrence of the exit. Therefore, the results of this survey of beneficiaries of the official and widespread aid system can provide a valuable alternative source of hard-to-obtain information.[11]

From the 3958 responses, I first decided to exclude cases of handover of individual proprietorship, because they were rather few and, most importantly, they were not the case of firm exits. Next, I excluded some cases where the firms had exceeded the small firm category at the point when the manager decided to exit (i.e., grown after joining the mutual aid system) in order to focus on the study of small firms. After further excluding cases in which questions required in the econometric analyses had not been answered, the sample size was 1743. This data set was utilized for the study below. In summary, the final data set comprises small firm managers who exited because of closure of individual proprietorships or dissolution of corporations in the 2001 and 2002 fiscal years.

4. Reasons for exits

4.1. *Preliminary analyses*

Table I (1) presents the results regarding the main reasons for exit. The largest is 'despairing perception for further business' (38%), next is 'aging of the manager' (20%), followed by 'illness or injury of the manager' (15%). We can see that exits also occasionally occur because of desire 'to take life easy' or 'to take a new job or start a new business'. The table shows that small firm exits are not only the result of economic difficulties for the business (such as despairing of the business or bankruptcy), but also largely occur for various other reasons. These exits for reasons other than economic difficulties seem to be cases that do not necessarily correspond to the central framework of exit studies. The small proportion of bankruptcies in the table (2%) would firstly mean that small firms are less likely to enter the (often somewhat costly) process of bankruptcy. In addition, it might be partially derived from a feature of the data set. For example, the data set does not include cases where the manager had withdrawn from the mutual aid system before exit, even if the firm subsequently became bankrupt.

Table I (2) shows more detail about respondents who reported a 'despairing perception of further business' or 'bankruptcy' as the main reason for exit.[12] 'Decline of sales or orders' accounts for 71%, followed by 'having a deficit' at only 9%. This indicates that reduction in sales plays a dominant role. Here, the small proportion accounted for by 'rejection or reduction of loan by financial institution' (3%) may be partially explained by the relatively small proportion of firms that originally needed loans.

Table I (1) (2) also present results divided into two subgroups according to the manager's age at exit: below 65 years of age, and 65 and over. The criterion for the division was chosen to follow a conventional statistical classification, which defines people in the 15–64 age group as the 'productive age population', and older people as the 'aged population'. Table I (1) shows that, in the group of 65 and over, 'despairing perception for further business' or 'bankruptcy' is reported about half as often as in the group below 65, but that the reporting of manager's aging or health issues is larger. Meanwhile, in Table I (2) similar distributions of the two age groups are presented. A summary of the results is that, although there are considerable age group differences in the proportion of exits caused by economic difficulties, there are no clear age group differences in economic difficulties.

Here, it is useful to classify exits into two main classes: exits because of economic difficulties of the business, i.e., 'despairing perception for further business' or 'bankruptcy'; and exits for various other reasons. Therefore, this paper hereafter defines the former as 'economic-forced exit' and the latter as 'non-economic-forced exit'. To be more exact, since Table I (2) shows small cases where the specified reason is 'manager's aging or health issue' in the case of 'despairing perception for further business' or 'bankruptcy', I separated these and redefined them as belonging to the group of non-economic-forced exit.

TABLE I
Reasons for exits of small firms

	Items	Total	By manager's age at exit	
			Under 65	65 and over
(1) Main reason for exit				
1	To take life easy	3.1	3.3	2.9
2	To take a new job or start a new business	3.1	4.9	0.8
3	Aging of the manager	20.0	5.4	38.7
4	Aging of employees	0.8	0.4	1.2
5	Illness or injury of the manager	14.5	13.0	16.4
6	Illness or injury of the manager's relatives	2.7	2.4	3.1
7	Family issues such as marriage or relocation (issues not covered by 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 of 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
	Total	100.0	100.0	100.0
	n	1743	979	764
			(%, Number)	
(2) Specified reason for 'Despairing Perception of Further Business' or 'Bankruptcy' (10 or 11 in Table I(1))				
1	Decline of sales or orders	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
	Total	100.0	100.0	100.0
	n	701	509	192
			(%, 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
Total	100.0	100.0	100.0
n	1743	979	764
		(%, Number)	

Notes: Economic-forced exit is defined as 10 or 11 in Table I (1) (except for 6 in Table I(2)).
Non-economic-forced exit is defined as being other than 10 or 11 in Table 1(1), and 6 in Table I(2).

In the data set, 692 economic-forced exits and 1051 non-economic-forced exits are shown (Table II). It should be noted that exits due to factors other than economic difficulties amount to 60% of the whole sample. Next, in the below 65 age group the proportions of these exit classes are about even, whereas, in the group aged 65 and over, non-economic-forced exits comprise three quarters of all exits. This result roughly implies that types of exit differ with the manager's age.

4.2. *Logit estimates*

This section examines differences between the two exit classes, including various factors other than the manager's age. Specifically, I estimate a logit model in which the dependent variable is a dummy that takes a value of one for economic-forced exit and zero for non-economic-forced exit. With this estimation, we can empirically evaluate the impact of various factors on the probability of the occurrence of an economic-forced exit. In general, a firm determines (or it is determined) whether to exit from the market. If the firm exits, a variety of reasons can be observed. This paper, however, focuses on the differences between exits, because of the impossibility of obtaining a data set of small firms that could be matched to the data. As explanatory variables for estimation, I use manager's personal characteristics including age (described as a vector X_1), the (exited) firm characteristics (as a vector X_2), and economic status of the business at the point that the manager decided to exit (as a vector X_3). These are chosen according to the policy of applying broad factors of the manager and the firm. This approach is similar to some recent research streams mentioned in Section 2.

The model is formally described as follows:

$$\text{Prob (economic-forced exists occur} \mid X_1, X_2, X_3) = \Lambda(\beta_0 + X_1'\beta_1 + X_2'\beta_2 + X_3'\beta_3),$$

where $\Lambda(\ )$ is the logistic cumulative distribution function, X_i ($i = 1, 2, 3$) are vectors of explanatory variables, and β_0 (a scalar) and β_i (vectors) are parameters to be estimated by the method of maximum likelihood.

For a manager's personal characteristics (X_1), four factors are applied as follows: his or her age at exit, gender, years of managing the firm, and whether the manager is the founder of the firm. The manager's age is firstly used only as a continuous variable (Model I in Table V), which implicitly assumes the continuous change of exit types with age. Moreover, considering the further possibility of a discontinuity between the two age subgroups mentioned above, I estimate the second formula additionally by using a dummy variable that distinguishes below-65 and over-65 age groups (Model II). Gender is applied as a dummy variable that takes one if female. The factor of years spent managing the firm is incorporated as a continuous variable. The founder dummy takes a value of one if the manager started the business. When the founder dummy takes one, the value of years spent managing the firm is conceptually equal to the lifetime of the firm.

Three factors are used as the characteristics of the (exited) firm (X_2): the organizational form, industrial sector, and the presence or absence of employees. The organizational form is captured as a dummy variable that distinguishes a corporate firm from an individual proprietorship. Based on the design of the questionnaire, seven industrial divisions are applied: manufacturing, construction, wholesale trade, retail trade, eating and drinking places, services, and the rest. The presence or absence of employees is incorporated as a dummy variable that takes one if the number of employees at the time when the manager decided to exit was zero (i.e., no employees). In the questionnaire, 'the number of employees' is defined as the sum of all regular workers, except for the proprietor and family members in the same household. As a result, firms in which the proprietor's household work are also included in the 'no employee' category.

As for the economic status of the firm (X_3), three factors are applied: whether the firm had loans from a financial institution, the state of sales, and the profit. The first factor is applied as a dummy variable that takes a value of one if the firm had loans for the business from a financial institution, and zero if there had been no borrowing. For the state of sales, we can capture information on whether sales tended to be

increasing, stable, or decreasing in comparison with the same time in the previous year. The state of profit describes whether the ordinary profit of the firm was in a surplus in the last period, a deficit in the last period, or had continual deficits in the last two periods. All these factors must be qualitative because of the limitations of the questionnaire. Meanwhile, it should be noted that they are the results of questions about the circumstances at the time when the manager decided to exit, not at actual exit. This feature enables us to base the analysis on the business situation at the manager's decision points, even if there is a time lag between the decision and actual exit.

Table III presents means of the variables for the total and subsamples of economic- and non-economic-forced exits. They do not merely express descriptive statistics of explanatory variables for econometric analysis, but also illustrate characteristics of the data set. We can first observe that the average manager's age at exit is 62 years after having managed the firm for an average of 26 years, which indicates that this data set consists mainly of managers who are of relatively advanced age and who have been engaged in management for a rather long term. Around 22% of managers are female, and a large majority (74%) are founders. For firm characteristics, about one third are corporate firms and the others are individual proprietorships. The 'no employee' case comprises 36% of the sample, and the manufacturing sector is the largest part (24%), followed by retail trade (19%). Further, only 29% had loans from a financial institution, which means that 71% engaged in business without loans. The cases of increasing sales are very few and decreasing sales are the great majority (84%), although the result might be partly derived from the general depressed economic situation at that time. In the analysis below, because there are too few examples of sales increasing, I only distinguish between decreasing sales and others (increasing and stable) by means of a dummy variable. Finally, although the majority (51%) were in continual deficit in the last two periods, 32% were in surplus in the last period. The latter case means that the exit was decided while the firm was in surplus.

Table IV presents the calculations of Cramer's V for categorical variables, which is an index based on the chi-square statistic, ranging

TABLE III
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 managing the firm	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 loans from a 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
Deficit in the last period	0.174	0.130	0.204
Deficits in the last two periods	0.510	0.697	0.387
n	1743	692	1051

TABLE IV
Cramer's V

		1	2	3	4	5	6	7	8	9	10
1	Types of exit (economic-forced exit = 1)	1.000									
2	65 and over	0.268	1.000								
3	Gender (female = 1)	0.098	0.141	1.000							
4	Founder	0.047	0.053	0.202	1.000						
5	Corporate firm	0.148	0.126	0.009	0.128	1.000					
6	No employee	0.057	0.076	0.001	0.055	0.322	1.000				
7	*Industrial sector*	0.201	0.114	0.165	0.157	0.264	0.162	1.000			
8	Having loans from a financial institution	0.205	0.136	0.043	0.036	0.189	0.158	0.172	1.000		
9	Sales decreasing	0.220	0.017	0.012	0.023	0.017	0.010	0.182	0.033	1.000	
10	*Profit situation*	0.307	0.034	0.009	0.079	0.267	0.047	0.138	0.192	0.396	1.000

Notes: $n = 1743$
The '*Industrial sector*' is a variable taking values zero to six where the sector is the manufacturing, construction, wholesale trade, retail trade, eating and drinking places, services, and others, respectively.
The '*Profit situation*' is a variable taking values zero to two where the profit is in a surplus in the last period, a deficit in the last period, and continual deficits in the last two periods, respectively.

from zero to one, and shows the strength of association between them. Although the index is fundamentally different from correlation coefficients, I believe that it is preferable to use the index here because many variables are categorical. The correlation coefficient for continuous variables, i.e., the manager's age and years of managing the firm, is 0.5634.

4.3. *Results*

The results of logit estimates are presented in Table V. The difference between Models I and II is whether the manager's age is applied only as a continuous variable, or further added as the dummy variable distinguishing two age subgroups. The table also shows the marginal effect of explanatory variables on the probability that the dependent variable takes one, which is a measure of the impact of each factor.[13]

First, a clear tendency is shown that the probability of economic-forced exit is higher when the manager is younger; i.e., the alternative probability is higher when the manager is older. Considering that all managers must retire from business at some point, the result is convincing. In Model II, the 65 and over dummy shows a significantly large and negative marginal effect (−0.19), demonstrating that there is a substantial difference between the two age subgroups.

Both results further show that the probability of economic-forced exit is significantly higher if the manager is male, with fewer years of experience of managing the firm. In particular, the negative marginal effects for females are rather large (e.g., −0.17, in Model II), being close to the effect of the 65 and over age dummy. Meanwhile, the differences in whether the manager is the founder, organizational forms, and the presence or absence of employees are not significant, which means that no clear effects are shown for these factors. Compared with the manufacturing sector, all remaining six sectors show negative results, and the retail trade, eating and drinking places, services, and 'others' sectors are significant. The marginal effects of eating and drinking places (−0.29) and services (−0.21) are particularly large, which indicates remarkable differences between these sectors and manufacturing. These results may firstly imply a relatively severe business environment in the manufacturing sector. Meanwhile, considering that states of sales and the profits of firms are controlled to some degree, they also could indicate that the manufacturing sector tends to be led by economic fluctuations to a greater extent than in other industries.

Finally, in both estimations, the probability of economic-forced exit is significantly higher in cases where the firm had loans from a financial institution; sales tended to decrease, and profit

TABLE V
Logit estimates

Dependent variable: economic-forced exit = 1, non-economic-forced exit = 0						
	[I]			[II]		
	Coefficient	Standard error	Marginal effect	Coefficient	Standard error	Marginal effect
Constant	2.4890	0.4855 **		0.7326	0.5932	
Manager's age	−0.0567	0.0079 **	−0.0130	−0.0218	0.0104 *	−0.0050
65 and over	–			−0.8722	0.1760 **	−0.1948
Gender (female = 1)	−0.7566	0.1496 **	−0.1608	−0.8062	0.1508 **	−0.1700
Years of managing the firm	−0.0256	0.0062 **	−0.0059	−0.0248	0.0062 **	−0.0057
Founder	−0.0904	0.1326	−0.0209	−0.0979	0.1339	−0.0226
Corporate firm	0.0230	0.1312	0.0053	−0.0305	0.1329	−0.0070
No employee	−0.0597	0.1255	−0.0137	−0.0355	0.1269	−0.0081
Manufacturing	–			–		
Construction	−0.2161	0.1811	−0.0531	−0.2514	0.1837	−0.0617
Wholesale trade	−0.2257	0.2503	−0.0554	−0.1706	0.2538	−0.0421
Retail trade	−0.4943	0.1727 **	−0.1183	−0.5326	0.1746 **	−0.1271
Eating and drinking places	−1.3893	0.2731 **	−0.2860	−1.4192	0.2745 **	−0.2911
Services	−0.9112	0.2060 **	−0.2055	−0.9374	0.2074 **	−0.2110
Others	−0.4700	0.1817 **	−0.1128	−0.4586	0.1831 **	−0.1104
Having loans from a financial institution	0.5944	0.1266 **	0.1402	0.5792	0.1279 **	0.1364
Sales increasing or stable	–			–		
Sales decreasing	1.2995	0.2055 **	0.2494	1.2416	0.2033 **	0.2401
Surplus in the last period	–			–		
Deficit in the last period	0.1033	0.1805	0.0195	0.1012	0.1812	0.0188
Deficits in the last two periods	1.0567	0.1466**	0.2368	1.1055	0.1478**	0.2470
Log likelihood	−943.3			−930.9		
McFadden R^2	0.1944			0.2050		
n	1743			1743		

Note: *significant at 5% level, **significant at 1% level.

was in continual deficit. Here, the results of the loans seem to be linked to the latitude of the manager's choice. That is, when the firm had loans to repay to financial institutions, it was more difficult for the manager to decide to exit for personal reasons.[14] Next, the marginal effects of decreasing sales (0.24 in II) and continual deficits (0.25 in II) are large, confirming that these economically depressive factors are strongly related to economic-forced exit. They also mean that these factors have a relatively small influence on non-economic-forced exit. In summary, the above results indicate that there are undeniable differences between the two types of exits.

5. Post-exit behaviour of managers

Firm exit does not directly mean the termination of the business career of the manager. In some situations, we could imagine that the (exited) manager decides to manage another business or to work as an employee in an existing firm. In such cases, their management experience and (occasionally quite valuable) accumulated skills can be expected to continue after the disappearance of the firm. Although it is generally difficult to track managers after a firm exits, the survey included questions about current working situations (i.e., one or two years after exit). This section uses these results to investigate the post-exit behaviour of managers.

Table VI shows the results for the total sample (VI (1)) and for the two age subgroups (VI (2) and (3)). Nine types of work, which were used in the questionnaire, can be further aggregated into three larger categories: 'manager' (individual proprietor and executive officer), 'employed worker' (regular, part-time, tempo-

TABLE VI
Post-exit behaviour of managers

	Items	Total	Economic-forced exit	Non-economic-forced exit	Disposal of liabilities	
					Complete	Incomplete
(1) Total						
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	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	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	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
	Total	100.0	100.0	100.0	100.0	100.0
	n	1743	692	1051	1277	148
	χ^2			107.5**		54.0**
	χ^2-aggregated version			98.6**		35.8**
					(%, Number)	
(2) Under 65						
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	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	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	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
	Total	100.0	100.0	100.0	100.0	100.0
	n	979	502	477	727	107
	χ^2			41.1**		32.9**
	χ^2-aggregated version			32.8**		18.7**
					(%, Number)	

TABLE VI
Continued

	Items	Total	Economic-forced exit	Non-economic-forced exit	Disposal of liabilities	
					Complete	Incomplete
(3) 65 and over						
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	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	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	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
	Total	100.0	100.0	100.0	100.0	100.0
	n	764	190	574	550	41
	χ^2			19.5*		48.8**
	χ^2-aggregated version			8.2*		30.2**
					(%, Number)	

Note: *significant at 5% level, **significant at 1% level.

rary, and contract employee), and 'other worker' (assistant for own family business, piecework at home, and others). Each table also shows the results divided into two types of exits, and two statuses of 'disposal of liabilities'. The latter is defined by the response to a question that asked whether the disposal of liabilities for the (exited) business was complete or incomplete (i.e., some liability remained), at the time of the survey. This and the questions about work status give valuable information on circumstances after exit.[15] In Table VI (1), we can see that 10% of exited firms (148 of 1425) retained some liability.[16] In addition, the tables present the results of chi-square tests of independence between types of exits and working situations after exit (nine types of work and non-work), and between statuses of disposal of liabilities and working situations. Because some cells have small samples, I also conduct tests with the types of work aggregated into three categories: manager, employed worker, and other worker. In the tables, all statistics reject the null hypotheses of independence, and so we can conclude that a pairwise relationship exists between them.

Table VI (1) first shows that a substantial proportion (44%) of exited managers did not retire with the firm's exit. The largest proportion, 14%, goes on to be individual proprietors and, if executive officers of corporations are included, a total of 17% work as managers. The proportion also seems to be large, particularly when compared with the finding that managers who exited 'to take a new job or start a new business' comprised 3% in Table I (1). Next, regular employees account for 5% and, by including non-regular (part-time, temporary, and contract) employees, employed workers total 17%. This is equal to the proportion working as managers after exit.

For age subgroups (Table VI (2) and (3)), a remarkable 59% of exited managers in the under 65 age subgroup continues to work, whereas 24% in the 65 and over group do so. The proportion of managers is 23% and that of employed workers is 27% in the under 65 group, compared with 11% and only 5%, respectively, in the 65 and over age group. The results imply that the manager's age is strongly related to post-exit behaviour, and not only to the exit decisions shown in Section 4.

Next, it is clearly shown that the proportion that continues to work is higher in the case of economic-forced exit than in the case of non-economic-forced exit. In Table IV (1), most (56%) continue to work after economic-forced exit, compared with 35% in the other group. The most noticeable point is that the proportion of employed workers in economic-forced exit dominates in each of the four categories. The difference for non-regular employees is particularly large (18% in economic-forced exit and 8% in the remainder), and this is the main cause of the difference in the proportion of managers working after exit. Further, in Table IV (2) and (3), we can see that the large differences for employed workers are mainly derived from those in the under 65 age subgroup.

A natural explanation for these differences by types of exits is that more (exited) managers in the case of economic-forced exit must work because of economic necessity. Indeed, such cases might also suggest that they desired to become employed workers, even as non-regular employees. Comparing the results of types of exits with those of the disposal of liabilities, those of economic-forced exit show a similar distribution to the incomplete disposal of liabilities, i.e., the proportion of managers working is much larger than that not working, and many are individual proprietors and non-regular employees, which tend to be relatively easy positions to obtain. We can naturally consider that, where some liability remains, managers tend to need to work after exit to repay the liability. The similarity then would indicate that more exited managers in economic-forced exits had to work because of economic necessity, rather than because of their own wishes.[17]

6. Concluding remarks

This paper examined small firm exit behaviours, based on the results of a recent large-scale questionnaire survey in Japan. It was first shown that small firm exits occurred not only because of economic difficulties of the business ('economic-forced exit'), but largely for a variety of reasons such as aging and health issues. Although not observed so frequently, exits occurred in order 'to take life easy' or 'to take a new job or start a new

business'. Reasons for exit other than economic difficulties ('non-economic-forced exit') comprised the majority (60%) of this data set. Next, I estimated the logit model to examine the differences between the two types of exits. The result showed that the probability of economic-forced exit was significantly higher if the manager was relatively young and male, and the firm had loans from a financial institution, its sales tended to decrease, and so on. Taking advantage of the data set, I further investigated the post-exit working behaviour of managers. Results showed that a rather large proportion of managers continued to work after exit and that this proportion, especially that of employed workers, was higher in the case of economic-forced exits. All these results indicate the potential importance of clearly distinguishing the two classes of exits in exit studies.

In Japan in particular, almost nine out of 10 of firms are small and the aging of managers of those firms is proceeding in tandem with the quite rapid aging of the population. A large number of such firms seem to be destined to exit in the not-so-distant future, regardless of whether the business succeeds or not. For instance, where the business is completely personal and inseparable from the manager, there is almost no alternative to exiting. It is becoming increasingly important in such situations to understand the variety of exits, in terms of fostering proper policy debates and fair potential entrepreneurial opportunities for the next generation, as well as for academic interest.

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Notes

[1] In this paper, firms are defined as 'small' if their regular employees number 20 or fewer (in the commerce and service industries, five or fewer), following the definition of *The Small and Medium Enterprise Basic Law* in Japan.

[2] Non-primary industry, *The 2001 Establishment and Enterprise Census,* the Statistics Bureau, Ministry of Internal Affairs and Communications.

[3] The Small and Medium Enterprise Agency (2004) presented part of the summarized features of the survey results, and three econometric analyses concerning the (exited) managers' level of satisfaction with their present life, their intention to start-up another business, and the rate at which their intention was realized. However, the report never referred to the reasons for exits, and econometric analyses provided only tables of estimation results as appendices.

[4] In general, studies of failure have a potential problem concerning the definition of the term 'failure' (Watson and Everett, 1993; Everett and Watson, 1998). For instance, Honjo (2000) defined failure as the occurrence of bankruptcy, and so his work can be also considered as a bankruptcy study.

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

[6] Earlier, Schary's (1991) pioneering work considered the differences between bankruptcy, voluntary liquidation, and merger by using data for 61 cotton textile firms in the New England region of the USA in 1924–1940. In addition, Kleijweg and Lever (1996) distinguished between general exit and exit by bankruptcy for Dutch manufacturing establishments, and Winter et al. (2004) studied different reasons for leaving businesses in the US family business sector.

[7] The 15,000 samples distribute as 10,145, 4000, and 855, respectively on the three events. Only the last event (handover of individual proprietorship) is a full-count survey, whereas the data relating to the other two events are obtained by a random sampling survey.

[8] The mutual aid system was conducted by JASMEC at the time of the questionnaire survey. JASMEC was reorganized to SMRJ on July 2004.

[9] Persons can arbitrarily determine the amount of monthly premium from 1000 yen to 70,000 yen when they join. Moreover, after the contract, they can increase the premium (up to 70,000 yen), reduce it (down to 1000 yen), or in some cases even stop the payment by request.

[10] This means that more than 20% of the people in non-primary industries who are eligible to join the mutual aid system actually join it.

[11] Nevertheless, it cannot be denied that the data possibly emerges through some selection process, even though the aid system is popular in Japan. However, it was impossible to specify the process without quite strong assumptions, and I was thus unable to incorporate them in this paper.

[12] In Table I (2), we can see that 'no response' cases, i.e., those who answered the question in Table I (1) but did not answer the question in Table I (2), are included in the data set. This is done because, if these cases are excluded, only

the cases of 'non-economic-forced exit' (stated below) are systematically dropped from the sample.

[13] The marginal effects of continuous variables are evaluated by means of all explanatory variables. In principle, the effects of dummy variables are evaluated using the differences between the probabilities that the dependent variable takes a value of one when the dummy variable is one minus the same probability when the dummy variable is zero, at the sample means of all other variables. However, the effects of industrial sectors and profit situations are evaluated strictly in relation to the suppressed variables, i.e., manufacturing sector and surplus in the last period, respectively. For example, the effect of the construction sector is calculated for the situation where all the remaining five sectoral dummies are zero.

[14] Further, the situation in which the manager must borrow for the business when the business faces an economically difficult situation can be considered, and may partly explain the result.

[15] The question generally asked about the liabilities for the business, conceptually including trade creditors, loans from relatives, and so on. Therefore, it fundamentally differs from the question about loans from financial institutions used in Section 4.

[16] Here, the total number of observations of disposal of liabilities is 1425, which is less than 1743. Because the result of this issue is mainly used for simple comparative analyses, the response to this question is not treated as one of the necessary conditions for constructing the general data set.

[17] Of the 148 cases of the incomplete disposal of liabilities, 84 are involved in economic-forced exit and 64 are involved in non-economic-forced exit. The similarity of the distributions is therefore not derived from the high degree of overlap between the samples.

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