1. Understanding the drivers of an 'entrepreneurial' economy: lessons from Japan and the Netherlands*

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1. INTRODUCTION

Many developed economies have now experienced a transition from a more *managed* to a more *entrepreneurial* economy (Thurik et al., 2013). An entrepreneurial-type economy is characterized by a high importance of entrepreneurship in terms of small and, in particular, new ventures for creating innovative activity and boosting macro-economic performance. Anglo-Saxon countries, including the United States, Canada and Australia, were the first to show such a 'regime' switch. Already in the 1970s these countries experienced a considerable increase in the share of entrepreneurs (self-employed) in the labor force. Other developed countries in Western Europe later followed their example. In the Netherlands the rate of entrepreneurship has been increasing relatively fast since the mid-1980s.

At the same time, the Japanese economy appears to have switched from an entrepreneurial economy to a more managed economy. The business ownership rate has been decreasing since the 1980s (see Figure 1.1). Hence, the Japanese economy shows a trend contrary to other developed economies. During 'the lost decades' starting with the collapse of the *bubble economy* at the beginning of the 1990s, various public policy measures have been introduced to maintain and reactivate the entrepreneurial economy, so far without remarkable effects (according to official statistics). However, there are recent signals from other sources that these efforts have paid off: the number of new entrepreneurs in Japan as measured by the Global Entrepreneurship Monitor (GEM's) Total Early-Stage Entrepreneurial Activity (TEA) rate is now at a structurally higher level as compared to the beginning of the twenty-first century (see Figure 1.2).

In the present chapter we aim to create more insight into the underlying factors of both the current level and the historical development of

entrepreneurial activity in two developed but otherwise dissimilar countries. Whereas the Netherlands is seen as an example of a more entrepreneurial economy, Japan can be regarded as a more managed economy that could be on the verge of a regime switch. Indeed, there are some interesting contradictions in terms of entrepreneurial activity in the two countries that demand further investigation, such as the contradictory developments of the business ownership rate. Besides examining the factors that explain the differences in entrepreneurial activity between the two countries, we also attempt to derive some specific policy recommendations for the two countries under study.

We base our analysis on a comprehensive study by Hartog et al. (2010), who investigate a wide range of factors determining entrepreneurship at different stages—namely nascent entrepreneurship, young business (YB) entrepreneurship, established entrepreneurship—for twenty developed countries. Building on their empirical analysis, we apply a decomposition analysis to better understand the country differences in entrepreneurial activity. On the basis of regression outcomes and the underlying data of the study by Hartog et al. we analyze the fitted values for Japan and the Netherlands to find out which factors are most important for explaining the lower entrepreneurial activity rates witnessed in Japan and the higher entrepreneurship rates witnessed in the Netherlands in the period 2002–2006. In our analysis we benchmark the results for Japan and the Netherlands against the results for the group of twenty developed countries used in Hartog et al.

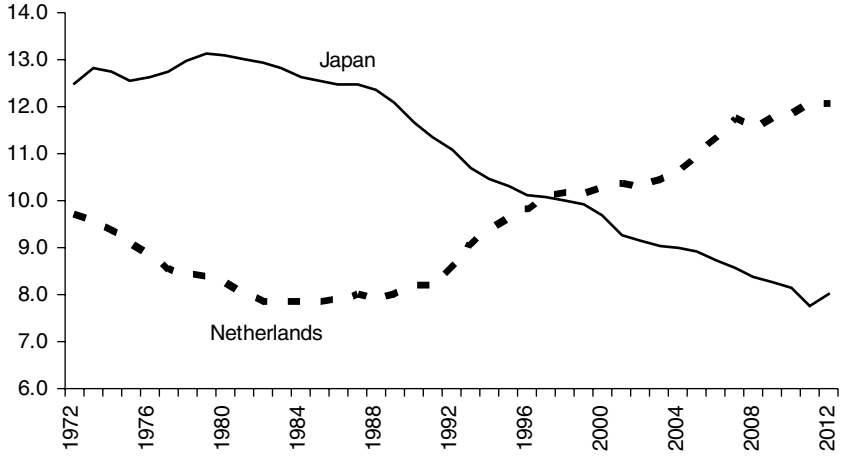
A more general contribution of our analysis lies in the identification of factors that facilitate or hinder the transformation process from a managed to an entrepreneurial economy. This is helpful for decision makers designing and implementing government policies aimed at stimulating entrepreneurial activity. Moreover, since contributions of individual variables are expressed relative to a benchmark (i.e., the average for twenty developed countries), we can easily assess whether specific targets in terms of required changes in determining factors are realistic. For instance, when a factor contributes negatively to entrepreneurship in a country *relative to other countries*, it should be feasible to improve the performance of this factor since other countries apparently are able to do so as well.

The remainder of this chapter is structured as follows. In the next section we will illustrate the level and developments in entrepreneurial activity in Japan and the Netherlands. Subsequently, we discuss five groups of determinants of entrepreneurship as used in this study, based on Verheul et al. (2002). In Section 4 we explain the decomposition method and provide a description of the variables included in the model of Hartog et al. (2010). We present and discuss the results in Section 5, and conclude with Section 6.

2. HISTORICAL DEVELOPMENT AND CURRENT STATE OF ENTREPRENEURSHIP: A COMPARISON OF JAPAN AND THE NETHERLANDS

In this section we give a brief overview of the developments over time for two main entrepreneurship indicators at the aggregate level: the business ownership rate and GEM's TEA rate. Figure 1.1 shows the development in *established* entrepreneurial activity, as measured by the non-agricultural business ownership rate, for the period 1972–2012. Here we see clear differences between Japan and the Netherlands. Whereas in Japan the business ownership rate has been constantly decreasing since the beginning of the 1980s, business ownership in the Netherlands shows a U-shaped development, with the lowest point in the mid-1980s. There are several reasons for the re-emergence of self-employment in the Netherlands (and several other developed economies), including:

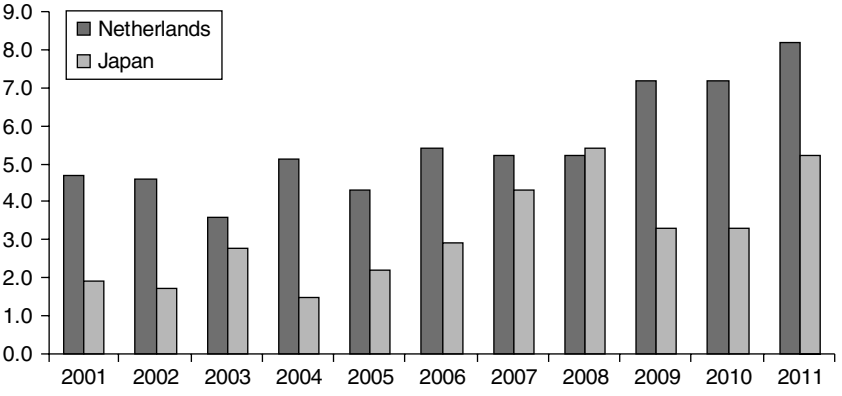
> the rapidly growing services sector with its smaller scale and lower entry barriers, an increasing differentiation of consumer preferences, declining transactions



Note: The non-agricultural business ownership rate is defined as the number of owner-managers of unincorporated and incorporated businesses (excluding businesses in agriculture, hunting, forestry and fishing), expressed as a percentage of the total labor force.

Source: COMPENDIA database, version 2011.1.

Figure 1.1 Business ownership rate (non-agriculture) in Japan and the Netherlands, 1972–2012



Source: GEM Adult Population Surveys.

Figure 1.2 TEA rates in Japan and the Netherlands, 2001–2011

> costs, and a trend in occupational preferences toward more autonomy and self-realization. Additionally, globalization in concert with the spread of ICT (information and communication technologies) enables solo entrepreneurs and small firms to reap the fruits of scale economies through loosely organized networks. And last but not least new technologies create opportunities for new technology-based business start-ups. (Wennekers et al., 2010, p. 169)

One of the main reasons for the declining self-employment rate in Japan in the 1990s is the decline in real income of self-employed workers relative to employees, especially in the segment of workers older than 35 years (Genda and Kambayashi, 2002).

Figure 1.2 presents the TEA rate, GEM's most well-known measure. It is a measure of *new* entrepreneurial activity, expressing the percentage of people in the adult population who are actively taking steps to start a new business or are owner-managers of YBs (< 3.5 years). At the beginning of the twenty-first century new-firm activity in Japan was relatively low. However, between 2004 and 2008, Japan's TEA rate has been catching up fast, corresponding with a period of high economic growth rates. The crisis seems to have caused a temporary setback of TEA rates, but in 2011 Japan's rate was back at the level of 2008. Hence, new entrepreneurship activity in Japan seems to lie at a structurally higher level compared to the beginning of the century. The Netherlands traditionally has an average level of start-up activity, but since 2009 it has been among the top industrialized countries in terms of early-stage entrepreneurial activity.

To be able to draw conclusions about factors that inhibit or promote

entrepreneurial activity in Japan and the Netherlands, it is essential to develop a better understanding of the current state and the historical development of entrepreneurship in these two countries. Besides the entrepreneurship indicators above, we have also compared Japan and the Netherlands (with the United States as a benchmark country) on a wide range of indicators representing entrepreneurial activity at different stages (future and nascent entrepreneurial and intrapreneurial activity, entry of firms, YB activity, established business owners, business growth, and exit activity); specific types of entrepreneurship (female versus male, opportunity versus necessity, ambitious versus non-ambitious entrepreneurship); and entrepreneurial climate indicators (opportunity perception, fear of failure, entrepreneurial self-efficacy, role models and informal investor rates). For these comparisons we refer to Okamuro et al. (2011). In summary, the Netherlands scores higher than Japan on most of the indicators considered, suggesting that the Dutch economy is closer to 'entrepreneurial economy' on the 'managed economy/entrepreneurial economy' spectrum. In the empirical analysis of this chapter we will investigate the causes of these differences.

3. DETERMINANTS OF ENTREPRENEURSHIP

A broad range of factors have been proposed to explain levels of entrepreneurship, including economic and social factors. Moreover, it is generally accepted that policy measures can influence the level of entrepreneurship in a country or region (Storey, 1994, 1999). Several models have been developed to create insight into the origin of entrepreneurship and its consequences. Examples of such models include the GEM conceptual model by Reynolds et al. (1999, 2000); the framework of entrepreneurship policy measures and policy typology as proposed by Stevenson and Lundström (2007); the country institutional profiles by Busenitz et al. (2000); and the eclectic framework as proposed by Verheul et al. (2002). Despite substantial differences, these models have in common that they integrate factors from different disciplines to create a more complete understanding of the origin of the complex phenomenon of entrepreneurship. Indeed, the study of entrepreneurship cannot be confined to one discipline:

- Psychology studies have focused on motives and character traits of (potential) entrepreneurs.
- Sociological studies have focused on the (collective) background of entrepreneurs (margination theory).
- Economic studies have focused on the interaction of entrepreneurship

with the economic climate, including scarcity and opportunity costs, and technological development.
- The demographic perspective focuses largely on the impact of the demographic composition on entrepreneurship.
- Finally, from a policy perspective, governments can influence entrepreneurship through direct assistance and through reducing impediments to entrepreneurship, such as the administrative burden (Dennis, 2004).

To investigate the determinants of entrepreneurial activity in the Netherlands and Japan we will use five groups of factors as derived from the eclectic framework (Verheul et al., 2002). These include macro-economic conditions, technological factors, socio-demographics, the institutional environment, and cultural factors. In the eclectic framework these factors are captured by the demand side of entrepreneurship (creating opportunities for entrepreneurship), the supply side (generating potential individuals from the population who can perceive of and seize these opportunities), and government policies, respectively. For a detailed discussion of how each of these factors influence entrepreneurship, we refer to Okamuro et al. (2011). The focus is on the factors included in the study by Hartog et al. (2010).

4. METHODOLOGY

We build on the empirical analysis by Hartog et al. who, on the basis of data for twenty developed countries over the period 2002–2006, investigate a range of determining factors of entrepreneurship at three different stages: nascent, YB and established entrepreneurship.[1] Their estimation results can be found in Appendix 1.1. We apply a decomposition analysis to better understand the differences in entrepreneurial activity between Japan and the Netherlands. More specifically, the fitted (predicted) values of the levels of nascent, YB, and established entrepreneurship of the two countries (averaged over 2002–2006) are decomposed into individual contributions of explanatory variables by multiplying the estimated coefficient by the country value of the variable. Furthermore, by grouping similar explanatory variables, we are able to assess the contribution to entrepreneurial activity of five groups of explanatory factors: macro-economic conditions, technological factors, socio-demographics, institutional environment, and cultural factors.

In our decomposition analysis we compute the contribution of each explanatory variable in deviation from the variable's overall sample average. In this way we can identify which variables contribute positively

and negatively to entrepreneurship levels in Japan and the Netherlands. The twenty countries in the data set of Hartog et al. serve as a benchmark for assessing entrepreneurship determinants in Japan and the Netherlands. As a second benchmark, we also compare the results of the two countries with those of the United States.

Table 1.1 describes both the dependent and independent variables in this study, based on Hartog et al. (2010). Data on nascent and YB entrepreneurship are taken from GEM, while data on established entrepreneurship (non-agricultural business ownership) are taken from the COMPENDIA database (Van Stel, 2005; Van Stel et al., 2010). Information on macro-economic, technological, socio-demographic and institutional factors is derived from several Organisation for Economic Co-operation and Development (OECD) and World Bank sources, whereas the cultural indicators are taken from Hofstede (2001). Table 1.2 describes the dependent and independent variables for Japan, the Netherlands and the United States. Okamuro et al. (2011) also presents the entrepreneurship rates for the three countries in comparison with the other 17 countries included in Hartog et al. (2010).

Table 1.3 presents the results of the decomposition analysis for YB entrepreneurship. Due to space limitations we are not able to include the corresponding results for nascent and established entrepreneurship, but we refer the reader to Okamuro et al. (2011) for results relating to these indicators. Though we include only data for YB entrepreneurship in the present chapter, the results relating to all three entrepreneurship indicators are still discussed below. The first data column in Table 1.3 shows the average contribution of the determining factor to entrepreneurship (the coefficient times the value of the variable), averaged over all sample observations (all countries and years in the Hartog et al. sample). The second column provides the contribution for Japan (average 2002–2006). For instance, we can see that, for the all-country sample, the contribution of the female labor share to the YB entrepreneurship rate is 2.29. For Japan this contribution is 2.11, i.e. lower than average. The third column indicates the deviation (2.11−2.29 = −0.18), expressed as a percentage of the overall sample average of the YB rate (2.97). Hence, the deviation is −0.18/2.97 = −6.30 percent.[2] In this way, the deviation of the Japanese YB rate from the overall country average can be decomposed into contributions per variable. So, as can be seen from the last row of the table, the YB rate for Japan (averaged over 2002–2006) is 1.14, while the overall country average is 2.97. Hence, the YB rate for Japan is 61.53 percent lower than the overall average YB rate. The 61.53 percent difference is composed of 57.66 percent for the explanatory variables in Hartog et al.'s model and 3.86 percent for the residual (the unexplained part). In turn, the 57.66 percent can be

Table 1.1 Measurement of dependent and independent variables in Hartog et al. (2010)

Variable	Measure	Source
Nascent entrepreneurship rate	Percentage of the adult population (18–64 years of age) actively involved in setting up a business	GEM (Reynolds et al., 2005)
YB entrepreneurship rate	Percentage of adult population (18–64) currently owning and managing a business that is less than 42 months old	GEM (Reynolds et al., 2005)
Business ownership rate	Total number of unincorporated and incorporated self-employed (excluding agriculture) as a share of the total labor force	Compendia (Van Stel, 2005)
Share service sector	Share of service sector in total (non-agricultural) employment	OECD Labour Force Statistics
Unemployment rate	Number of unemployed as % of total labor force	OECD Main Economic Indicators
Per capita income	GDP p.c. in thousands of ppp per US$ at 1990 prices	OECD National Accounts, OECD LFS
R&D expenditures	R&D expenditures as % of GDP	OECD Science and Technology (R&D) OECD Economic Outlook (GDP)
Enrollment secondary education	Gross enrollment rate in secondary education	World Bank EdStats
Enrollment tertiary education	Gross enrollment rate in tertiary education	World Bank EdStats
Age composition	Population aged 25–39 years as share of population aged 25–64	OECD Demographic and Labour Force database, US Census Bureau International database, and UNStats
Female labor share	Female labor force as a share of the total labor force	OECD LFS
Social security	Unemployment gross replacement rate	OECD Benefits and Wages stats
Taxes	Total tax revenue as % of GDP	OECD Revenue stats
Corporate tax rate	Tax rate of corporate and capital income	OECD Tax database
Employment protection	Strictness of employment protection (Nickell, 2006)	CEP-OECD Institutions data set
'Rule of Law'	'Perceptions of the extent to which agents have confidence in and abide by the rules of society' (Kaufmann et al., 2009, p. 6)	World Bank Worldwide Governance Indicators
Power distance index	Power distance index (PDI) (Hofstede, 2001, p. 98)	Hofstede's cultural dimensions
Individualism	Individualism (IDV) – versus collectivism (Hofstede, 2001, p. 225)	
Masculinity	Masculinity (MAS) – versus femininity (Hofstede, 2001, p. 297)	
Uncertainty avoidance index	Uncertainty avoidance index (UAI) (Hofstede, 2001, p. 161)	

Table 1.2 Descriptive statistics, average values 2002–2006

	All-country average	Japan	Netherlands	United States
Entrepreneurship variables				
Nascent entrepreneurship rate	3.91	0.99	2.68	7.78
YB entrepreneurship rate	2.97	1.14	2.00	4.55
Business ownership rate	10.85	9.03	10.80	10.02
Macro-economic conditions				
Share service sector	56.27	60.45	67.17	78.53
Unemployment rate	6.37	4.65	3.98	5.40
Per capita income	21.22	20.85	20.82	28.16
Technological factors				
R&D expenditure (% of GDP)	2.12	3.27	1.74	2.62
Socio-demographics				
Enrollment secondary education	113.62	101.76	119.78	94.43
Enrollment tertiary education	67.31	54.22	59.48	82.86
Age composition	40.25	38.28	39.80	40.70
Female labor share	44.86	41.20	44.16	46.16
Institutional environment				
Social security	29.73	7.78	43.50	13.64
Taxes (% of GDP)	37.75	26.83	38.08	26.77
Corporate tax rate	31.60	39.87	32.92	39.30
Employment protection	1.94	2.44	3.05	0.17
'Rule of Law'	1.61	1.35	1.73	1.54
Cultural factors				
Power distance	39.77	54.00	38.00	40.00
Individualism	72.40	46.00	80.00	91.00
Masculinity	47.69	95.00	14.00	62.00
Uncertainty avoidance	57.81	92.00	53.00	46.00

decomposed into contributions of individual variables and contributions of groups of variables. For instance we can see that, as a group, the cultural factors in Japan contribute particularly negatively to YB entrepreneurship: out of a 61.53 percent lower YB rate (compared to the all-country average), the cultural factors are responsible for 46.56 percent.

While Table 1.3 focuses on the contributions of individual variables for three specific countries, Okamuro et al. (2011) also show the contributions of the five groups of explanatory factors for all countries in Hartog et al.'s database, in deviation from the overall average of the entrepreneurship variable under consideration. For example, here it can be seen that

Table 1.3 Contribution of individual determinants to explanation of YB entrepreneurial activity rate, average values 2002–2006

	All-country average contribution	Japan		Netherlands		United States	
		Contribution	% Deviation (relative to YB rate)	Contribution	% Deviation (relative to YB rate)	Contribution	% Deviation (relative to YB rate)
Share service sector	−1.09	−1.17	−2.71	−1.30	−7.09	−1.52	−14.47
Unemployment rate	−1.31	−0.96	11.88	−0.82	16.52	−1.11	6.69
Per capita income	−4.03	−3.96	2.35	−3.96	2.53	−5.35	−44.38
Macro-economic conditions	**−6.43**	**−6.09**	**11.52**	**−6.07**	**11.96**	**−7.98**	**−52.17**
R&D expenditure (% of GDP)	−1.00	−1.54	−18.28	−0.82	5.98	−1.24	−7.99
Technological factors	**−1.00**	**−1.54**	**−18.28**	**−0.82**	**5.98**	**−1.24**	**−7.99**
Enrollment secondary education	0.58	0.52	−2.03	0.61	1.05	0.48	−3.28
Enrollment tertiary education	2.68	2.16	−17.55	2.37	−10.49	3.30	20.83
Age composition	9.83	9.35	−16.27	9.72	−3.74	9.94	3.66
Female labor share	2.29	2.11	−6.30	2.26	−1.21	2.36	2.23
Socio-demographics	**15.39**	**14.13**	**−42.15**	**14.96**	**−14.38**	**16.08**	**23.45**
Social security	−1.34	−0.35	33.22	−1.96	−20.84	−0.61	24.35
Taxes (% of GDP)	−2.64	−1.87	25.68	−2.66	−0.77	−1.87	25.82
Corporate tax rate	−0.46	−0.58	−4.01	−0.47	−0.64	−0.57	−3.74
Employment protection	−1.40	−1.76	−12.19	−2.20	−27.02	−0.12	42.99

'Rule of Law'	1.49	1.24	−8.31	1.60	3.71	1.42	−2.30
Institutional environment	**−4.34**	**−3.32**	**34.39**	**−5.70**	**−45.55**	**−1.75**	**87.12**
Power distance	−1.84	−2.50	−22.19	−1.76	2.76	−1.85	−0.35
Individualism	2.86	1.82	−35.10	3.16	10.11	3.60	24.74
Masculinity	−0.80	−1.59	−26.57	−0.23	18.93	−1.04	−8.04
Uncertainty avoidance	1.87	2.98	37.31	1.72	−5.24	1.49	−12.88
Cultural factors	**2.10**	**0.71**	**−46.56**	**2.89**	**26.56**	**2.20**	**3.46**
Constant term plus year dummies	**−2.74**	**−2.64**	**3.42**	**−2.75**	**−0.29**	**−2.75**	**−0.29**
Fitted value	**2.97**	**1.26**	**−57.66**	**2.50**	**−15.73**	**4.56**	**53.58**
Residual	**0.00**	**−0.11**	**−3.86**	**−0.51**	**−17.00**	**−0.01**	**−0.34**
YB entr. act. rate	**2.97**	**1.14**	**−61.53**	**2.00**	**−32.73**	**4.55**	**53.24**

Note: The contributions of the individual variables (including the constant term and the year dummies) add up to the fitted value. The fitted value and the residual add up to the dependent variable (i.e., the YB entrepreneurial activity rate).

the 46.56 percent negative deviation for the cultural variables for Japan is indeed extreme: for this group of explanatory variables, Japan has the lowest contribution to the YB entrepreneurship rate of all countries.

5. RESULTS

In this section we describe the results of the decomposition analysis, as shown in Table 1.3 for the YB rate and in Okamuro et al. (2011) for the nascent rate and business ownership rate. It is important to mention that we will analyze the contributions of certain variables to entrepreneurship levels in the three countries *relative* to the sample averages of the 20 countries in the Hartog et al. study, which thus serve as a benchmark. This means, for instance, that we will sometimes speak of a positive contribution for a certain variable for a certain country, even if the sign in the estimation, as shown in Appendix 1.1, is negative. A positive contribution then means that the negative effect is smaller than average, so that, *compared to the all-country average*, the contribution to entrepreneurship is positive.

5.1 Macro-Economic Conditions

The decomposition results show that, as a whole, the macro-economic climate does not have a large effect on the three types of entrepreneurship (nascent, YB and established entrepreneurial activity), either in Japan or the Netherlands.

5.2 Technology

We find that the high R&D intensity in Japan (see Table 1.2) contributes relatively strongly to lower rates of nascent and YB entrepreneurship rates in Japan. *Ceteris paribus*, the high R&D intensity in Japan explains 19.36 and 18.28 percentage points of the total gap between the Japanese entrepreneurship rates and the overall sample averages. This negative association reflects that formal R&D investments are dominated by large firms. Indeed, according to the OECD (2008), the share of business R&D expenditure of SMEs is only 8 percent in Japan (27 percent in the Netherlands and 14 percent in the United States).

5.3 Socio-Demographics

From the decomposition analysis we can derive that socio-demographics in both Japan and the Netherlands negatively contribute to nascent and

YB activity (relative to the all-country average), where the contribution for Japan is even extremely low (again, relative to the benchmark). For nascent entrepreneurship this can mainly be attributed to the relatively low female labor share in Japan over the period 2002–2006 (as compared to other countries). In fact, with a relatively low share of women in the labor force, there are effectively fewer people to undertake steps to start a company and pursue an entrepreneurial career. Nevertheless, according to the Employment Status Survey by the Ministry of Internal Affairs and Communications (MIC), the labor participation ratio of Japanese women increased between 1997 and 2007, especially for the 25–34 age group on which the burden of childcare falls.

Furthermore, both in Japan and the Netherlands, the relatively low enrollment rates in tertiary education (which is lower than the US rate and the country average) seem to contribute to lower nascent and young entrepreneurial activity rates. In fact, new entrepreneurship energy often comes from young and highly educated people.[3]

5.4 Institutional Environment

The decomposition analysis shows that, whereas for Japan (and the United States) the institutional environment positively affects entrepreneurship compared to the all-country average (the overall negative effects are relatively weak for these countries), for the Netherlands institutions are particularly harmful, especially for YB and established entrepreneurial activity. It appears that the largest part of the relatively strong negative effect for the Netherlands can be ascribed to the high levels of social security entitlements and employment protection that find their origin in the Dutch Polder Model which represents the consensus model in the Netherlands, introduced after the economic recessions of the 1970s and early 1980s. Obviously, high levels of social security discourage people from leaving secure waged jobs to start their own entrepreneurial career. Furthermore, stringent employment protection complicates hiring and firing, which could discourage potential entrepreneurs from starting new businesses. Although the Netherlands has recently reduced employment protection (for regular employment), it is still among the highest of all OECD countries (Ochel and Rohwer, 2009).[4] In addition, social contributions still account for a large part of Dutch government revenues (Auer, 2000).

The relative weakness of the negative effect (positive deviation) for Japan can be ascribed to a relatively low level of social security combined with relatively low taxes. In fact, in terms of taxes Japan seems to be on a par with the United States, a country that traditionally is characterized by low tax rates (see Table 1.2). Note that, as opposed to tax as a percentage

of GDP, the corporate tax rate in Japan is relatively high, which has a negative contribution to the business ownership rate (see Okamuro et al., 2011).

5.5 Culture

Investigating the decomposition results for the cultural factors, we see again a striking difference for our two countries under investigation. Whereas cultural factors have overall positive effects on young and established entrepreneurial activity, these effects are considerably weaker in Japan than in the Netherlands. More specifically, we find that in Japan the high scores on Hofstede's (2001) power distance and masculinity indices, and the low score on the individualism index, strongly contribute to lower rates of young and established entrepreneurial activity in Japan, compared to the all-country average rates. Similar to Hofstede, Kashima et al. (1995) find that Japanese people scored higher on collectivism than Americans and Australians. The traditional collectivistic nature of Japanese people is not in line with the essentially individualistic nature of entrepreneurial activity, which explains the negative deviation.

6. CONCLUSIONS

Globalization and an increasing importance of knowledge in the production process have caused many developed countries to move from a more 'managed' to a more 'entrepreneurial' economy in recent decades. In the former type of economy, large and incumbent firms play a dominant role, exploiting economies of scale in a relatively certain economic environment. In the latter type, small and new firms play an increasingly important role, introducing new products and services in highly uncertain economic environments while quickly adapting to rapidly changing consumer preferences. The speed of adjustment in this transition process from a managed to an entrepreneurial economy varies by country. In this chapter we investigated the differences between a more 'managed' economy, Japan, characterized by relatively low levels of entrepreneurial activity, and a more 'entrepreneurial' economy, the Netherlands.

Building on earlier work by Hartog et al. (2010), who explain cross-country differences in three measures of entrepreneurial activity using five broad groups of explanatory variables, we applied a decomposition analysis to better understand the differences in entrepreneurial activity between Japan and the Netherlands. Our analysis offers a large array of interesting results. First, the contribution of individual explanatory factors varies across nascent, YB, and established entrepreneurship. This suggests

that entrepreneurship in different stages of the entrepreneurial process is stimulated by different factors.

Second, we find that, in spite of higher levels of YB entrepreneurial activity and business ownership in the Netherlands, the country's institutional framework (in particular high levels of social security and employment protection) is considerably *less* favorable to entrepreneurship compared to Japan. On the other hand, cultural differences between the Netherlands and Japan explain a substantial part of the difference in entrepreneurship rates between the two countries.

Third, in terms of socio-demographics we have found that in Japan, the relatively low female labor force participation rate negatively contributes to the level of nascent entrepreneurial activity (relative to the all-country average). The low participation by women implies that the supply of potential (female) entrepreneurs is smaller than in other countries, resulting in fewer female entrepreneurs.

Our findings have implications for policy in the two selected countries. To the extent that governments want to (further) increase rates of entrepreneurship, policy in the Netherlands could consider altering incentive structures for labor market participants in favor of self-employment (relative to wage-employment), while Japan could consider stimulating an enterprising culture focusing more on, for example, rewarding individual achievement. Furthermore, encouraging more women to enter the labor force may also increase (nascent) entrepreneurship rates in Japan (Okamuro and Ikeuchi, 2017). Although our empirical analysis provides guidance on how to raise national entrepreneurship rates, policy makers should understand that more entrepreneurs is not always better from an economic perspective. Just promoting new and small firms may be too simplistic a policy response (Thurik et al., 2013). Our analysis did not take into consideration the quality (skills and education level) of these entrepreneurs (Shane, 2009; Van Praag and Van Stel, 2013). Although focusing on the quality of entrepreneurship is naturally desirable for any economy, it may be particularly appropriate for the Netherlands, given the current high rates of entrepreneurship (see Figures 1.1 and 1.2). Thus, it is reassuring that altering incentive structures in favor of self-employment (in particular, lowering employment protection) is likely to stimulate particularly high-aspiration entrepreneurs and opportunity entrepreneurs (Autio, 2011; Van Stel et al., 2007).

In terms of research implications, the method applied in this chapter can also easily be applied to investigate and compare the entrepreneurial climate in other countries. Furthermore, it can also be used to study the conditions for particular types of entrepreneurship, such as high-growth, female and minority entrepreneurship.

NOTES

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1. The 20 countries are: Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, the Netherlands, Portugal, Spain, Sweden, the United Kingdom, Norway, Switzerland, the USA, Japan, Canada, Australia, and New Zealand.
2. Actually, −0.18/2.97 = −6.06 percent. However, the number in the table (−6.30 percent) is computed based on more decimals for the contribution variables, and the overall average of YB entrepreneurial activity.
3. For Japan this is not straightforward, however, as highly educated individuals tend to opt less often for self-employment, possibly because of higher risk and opportunity costs (Okamuro, 2008).
4. Note that employment protection for temporary workers in the Netherlands is less strict as compared to other OECD countries.

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APPENDIX

Table 1A.1 presents the estimation results of the Hartog et al. (2010) study which forms the basis of our empirical analysis.

Table 1A.1 Explaining entrepreneurial activity across countries

	Nascent entrepreneurship rate		YB entrepreneurship rate		Business ownership rate	
Constant	−28.122***	(−3.75)	−2.609	(−0.49)	44.796***	(6.55)
Demography						
Enrollment in secondary education	0.0050	(0.51)	0.0051	(0.73)	0.032***	(3.61)
Enrollment in tertiary education	0.041**	(2.20)	0.040***	(3.02)	0.011	(0.67)
Age composition	0.187**	(2.06)	0.244***	(3.82)	−0.204**	(−2.46)
Female labor share	0.461***	(4.32)	0.051	(0.68)	−0.247**	(−2.54)
Macro-economic conditions						
Service share	0.041	(1.32)	−0.019	(−0.88)	0.078***	(2.73)
Unemployment rate	0.157	(1.41)	−0.206***	(−2.62)	0.313***	(3.07)
Per capita income	0.066	(0.88)	−0.190***	(−3.59)	−0.390***	(−5.68)
Institutions						
Social security	0.020	(0.77)	−0.045**	(−2.44)	−0.119***	(−4.97)
Taxes as % GDP	−0.100**	(−2.34)	−0.070**	(−2.31)	−0.014	(−0.36)
Corporate tax rate	0.025	(0.79)	−0.014	(−0.65)	−0.187***	(−6.47)
Employment protection	−0.325	(−0.96)	−0.722***	(−3.03)	−0.091	(−0.29)
'Rule of Law'	−0.549	(−0.65)	0.923	(1.54)	−8.162***	(−10.53)

Attitudes/culture						
Power distance index	−0.087***	(−3.03)	−0.046**	(−2.30)	−0.184***	(−7.04)
Individualism	0.024	(0.79)	0.040*	(1.87)	0.144***	(5.28)
Masculinity	0.0048	(0.29)	−0.017	(−1.41)	−0.051***	(−3.33)
Uncertainty avoidance index	0.046**	(2.04)	0.032**	(2.05)	0.116***	(5.68)
Innovation						
R&D	−0.659**	(−2.34)	−0.473**	(−2.39)	−0.564**	(−2.20)
Log-likelihood	−128.260		−97.426		−120.189	
R^2	0.752		0.806		0.925	
Adjusted R^2	0.674		0.744		0.901	
Periods included	5 (2002−2006)		5 (2002−2006)		5 (2002−2006)	
Countries included	20		20		20	
N	88		88		88	

Notes: * Significant at 10% level; ** significant at 5% level; *** significant at 1% level; t-values in brackets; year dummies included but not reported. Results obtained through seemingly unrelated regression (SUR) estimation.