

Economic structure and self-employment during the twentieth century

Paper 8th EBHA conference

16-18 September 2004

Barcelona

Spain

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SESSION 2 A: FRIDAY, 14.30-16.00

The Development of Services in Europe

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Introduction

In early-modern Europe, self-employment levels may have reached well over 50 per cent of the labour force and agricultural self-employment must have been even higher, since about 90 per cent of the population lived in the countryside. There is no census from this period, so this is only a 'guestimate', but self-employment in agricultural societies is usually very high.¹ During and after the Industrial Revolution, the division of labour became more important in raising output and the rate of self-employment began to decline. In the twentieth century, the trend in the self-employment rate was still downward until during the last quarter of the century it remarkably reversed. In the 1980s, some countries experienced a sort of revival ('renaissance' according to the OECD) in self-employment. "This reversal, though quantitatively modest and possibly of a temporary nature, has now been manifest for more than 30 years in countries like the UK and the USA, and for about two decades in several other advanced economies. It is the more remarkable as it marks the end or at least the discontinuation of an historical development spanning at least two centuries."²

The self-employment rate differs between countries, across time and even among sectors.³ This is in itself a fascinating observation for a business historian that stimulates further research. The aim of this paper is to investigate the rate of self-employment in several, mainly Western, industrialized countries and the possible relationship with the changing economic structure of these countries. More specifically, the paper will discuss the effect of the growing importance of the service sector on the rate of self-employment. The fastest growth in self-employment in the 1980s occurred in specific economic branches related to the service sector, including business-to-business, financial intermediation, real estate, personal and community services.⁴ Several theories try to explain this trend, but so far, none is able to offer a comprehensive explanation. Self-employment and small (and medium) sized business are

¹ Fernand Braudel, *Civilization and capitalism 15th – 18th century* (London, 1982) Volume 2, 52-54; Fernand Braudel, *A history of civilizations* (New York, 1995, originally published in French in 1963). The first British census was held in 1801.

² Sander Wenekers and Mickey Folkeringa, *The development of the self-employment rate in the Netherlands 1899-1997* (Zoetermeer, 2002) 3.

³ Patricia Leighton and Alan Felstead (eds.) *The new entrepreneurs: self-employment and small business in Europe* (London, 1992) 41-69. Self-employment rates in The Netherlands are high for retail trade, business services and financial intermediation, lower in transport and construction. EIM, *Dutch SMEs in European perspective* (Zoetermeer, 1999) 102.

⁴ OECD, *Employment outlook* (Paris, 2000) 157.

closely related, since most owners of small enterprises are self-employed. Therefore, we shall briefly discuss the development of the small and medium sized enterprises in the twentieth century.

The central question of this paper is as follows: Is there a relationship between the economic structure of a country and the rate of self-employment? In their study on self-employment in The Netherlands between 1899 and 1997, Wennekers and Folkeringa used a shift-share method to explain the recent rise in self-employment.⁵ They rejected the idea of sector changes as major factor in explaining the rise in self-employment. Instead, their research points towards the importance of within-sector trends: the downscaling of large enterprises after the 1970s.⁶ This paper extends their research in time and geography, although without the econometrics, because there are simply too many irregularities in the existing statistics on self-employment. For reasons of space and practicality, we shall further limit our research to ten OECD countries.

In the first section, we will discuss the literature on self-employment. Scholarly interest in self-employment (and small business) has grown immensely since the 1980s, resulting in an array of studies dealing with the self-employed. This, however, does not apply to the community of business historians. Section 2 discusses the sources and data used to compile the figures and tables. Because there is no agreement on how to measure self-employment, the officially available statistics are often unreliable and incompatible. Section 3 covers some of the theories on the rise and decline of self-employment. We then confront the theory on economic structure and self-employment with a series of figures and tables on the rate of self-employment in ten countries during the twentieth century (section 4). Section 5 contains the main conclusions.

I. The forgotten hero in business history

Business historians have so far neglected small and medium sized enterprises (SMEs) in their research.⁷ Although we all agree on the (relative) importance of the SMEs and the need to include them in our books and articles, very little research in this field is actually done.⁸ This is

⁵ Wennekers and Folkeringa, *Self-employment rate in the Netherlands*.

⁶ Wennekers and Folkeringa, *Self-employment rate in the Netherlands*.

⁷ See the country reports in Franco Amatori and Geoffrey Jones (eds.) *Business history around the World* (Cambridge, 2003).

⁸ Notable exceptions are Mansel G. Blackford, *Pioneering a modern small business: Wakefield Seafoods and the Alaskan frontier* (Greenwich 1979); Mansel G. Blackford, *A history of small business in America* (New York 1991); Philip Scranton, *Proprietary capitalism* (New York, 1983); John Benson, *The penny capitalists : a study of nineteenth-century working-class entrepreneurs* (New Brunswick, 1983). See also: Konosuke Odaka and Minoru Sawai (eds.) *Small firms*,

somewhat strange because the entrepreneur is the central figure in business history⁹ and he is probably most clearly present in the typical small company. In 1992, half of all SMEs in the then 15 EU member states were one-man businesses; 43 per cent employed fewer than 10 people.¹⁰ Nevertheless, business historians prefer big business, for which there are several explanations.¹¹ Business historians normally use company archives and most SMEs do not keep their records. This sector is also known for its dynamism: numerous new companies are founded every month; however, most of these are gone in two or five years leaving no trace.¹² Another reason for the focus on big companies is simply the very large number of SMEs. However defined, between 85 and 95 per cent of all companies are small- and medium sized. This is true even for the USA, since self-employed individuals in the USA operate approximately 86.1 per cent of all businesses.¹³ More importantly, from our research on the Netherlands, it seems that since the start of the twentieth century, the percentage of SMEs remained fairly constant. A final reason for neglecting the SMEs stems from the large disparity of this group. The SME sector consists of shopkeepers, artisans, lawyers, engineers, professionals, and etcetera.

In the early twentieth century most economists thought ‘the shopkeeper’ and small business in general, would disappear because he was not able to compete with the large, vertically integrated and highly efficient companies. Large companies could use economies of scale to mass produce consumer goods at very low prices. In a perfect market economy, small business simply could not survive and this led governments to stimulate big business, because as it turned out, large companies created vast amounts of new jobs.¹⁴ In the 1950s and 1960s the attention paid by governments to big business reached its ultimate high (after the phrase ‘big is beautiful’), but the 1970s proved them wrong. During the economic crisis of the 1970s, big business sacked thousands of their employees. Massive unemployment and rising welfare costs forced governments to reconsider their interest for big business in the 1980s. At same

large concerns. The development of small business in comparative perspective (Oxford, 1999).

⁹ T.A.B. Corley, ‘The entrepreneur: the central issue in business history?’ in Jonathan Brown and Mary B. Rose (eds.) *Entrepreneurship, networks and modern business* (Manchester, 1993); see also Robert Cuff on the rise of ‘managerial business history’ and the decline of entrepreneurial history in the USA: Robert D. Cuff, ‘Notes for a panel on entrepreneurship in business history’, *Business history review* 76:1 (Spring 2002) 123-133.

¹⁰ Eurostat, *Enterprises in Europe. Fourth report* (Luxembourg 1996) 26.

¹¹ Business historians are not the only ones to do so. To quote David Storey: ‘In its coverage of enterprises, more than 95 percent of column space in the Financial Times is devoted to large firms, whereas in the European economy more than 95 percent of firms are in fact small, and these small firms provide more than half of all jobs in the EC’. David J. Storey, *Understanding the Small Business Sector* (London & New York 1994) 7.

¹² ‘Approximately 80% of new firms exist after the first year but after three years only about 65% are still in business, followed by only 50% after five years’. Eurostat, *Enterprises in Europe. Fourth report* (Luxembourg 1996) 62.

¹³ Zoltán J. Acs, David B. Audretsch and David S. Evans, *Why does the self-employment rate vary across countries and over time?* (London 1994) 3.

¹⁴ Roy Thurik, ‘Small firms, entrepreneurship and economic growth’, in P.H. Admiraal (ed.) *Small business in the modern economy* (Oxford, 1996) 131.

time, scientific research confirmed the importance of the SMEs for the economy and this stimulated a shift in government policy. According to the highly influential study by David Birch (1979), SMEs were disproportionately responsible for the creation of new jobs and additional research suggested high levels of innovations from SMEs.¹⁵ These results came as a shock to most observers (especially economists), because it contradicted their earlier theories on 'economies of scale'. Apparently, the perfect market economy did not exist, something they could have picked up simply from reading company histories.

While big business was still struggling to survive and continued to downscale their workforce, governments wanted and needed to stimulate employment. The SME sector was branded as 'job creator' and the self-employed became the new hero in economic policy. 'For many commentators this is the era of the entrepreneur. After years of neglect, those who start and manage their own businesses are viewed as popular heroes'.¹⁶ During the 1980s and 1990s, most Western countries developed special funds, agencies and programs to stimulate self-employment.¹⁷ According to policy makers, self-employment would stimulate employment, inventions and innovations. It would strengthen competition in the product market and eventually consumers would profit from lower prices.¹⁸ In the end, high levels of self-employment would stimulate economic growth and economic development.¹⁹ New groups of self-employed received special attention such as women entrepreneurs and ethnic entrepreneurs.²⁰

The effects of this policy change are hard to measure, but somehow self-employment rates did begin to rise in most Western countries. In some cases, as will be shown in the following section, this was a major trend breach in the history of self-employment. The perseverance of small enterprises in the economy and the ascribed positive features stimulated research including the establishment of numerous new journals on entrepreneurship and small business.

However, this new research soon started to question the claims made earlier by Birch and others, on the importance of the SMEs regarding job creation and innovation. Small firms

¹⁵ David Birch, *The job generation process* (Cambridge 1979). For a more general treatment: Simon Bridge, Ken O'Neill and Stan Cromie (eds.) *Understanding enterprise, entrepreneurship and small business* (Basingstoke 2003, 2nd edition).

¹⁶ Robert Goffee and Richard Scase (eds.), *Entrepreneurship in Europe. The social processes* (London, 1987) 2-5.

¹⁷ An overview is provided by Lois Stevenson and Anders Lundström, *Patterns and trends in entrepreneurship/ sme policy and practice in ten economies* (Stockholm 2001).

¹⁸ Goffee and Scase, *Entrepreneurship*, 1.

¹⁹ David G. Blanchflower, *Self-employment in OECD countries* (Cambridge 2000) 1. NBER Working paper 7486.

²⁰ Robin Ward, 'Ethnic entrepreneurs in Britain and Europe', in Robert Goffee and Richard Scase (eds.), *Entrepreneurship in Europe. The social processes* (London, 1987) 83-105; Jeremy Boissevain and Hanneke Grotenbreg, 'Ethnic Enterprise in the Netherlands: the Surinamese of Amsterdam', in: Robert Goffee and Richard Scase (eds.), *Entrepreneurship in Europe. The social processes* (London, 1987) 105-131; Robert Goffee and Richard Scase (eds.) *Women in charge. The experience of female entrepreneurs* (London, 1985).

do create a disproportionately number of new jobs, but are also responsible for a large destruction of jobs. The net results are perhaps less positive for the economy and large companies seem to offer employment that is more permanent, although not necessary for the same person! Research on the innovative capabilities of small business produced rather inconclusive results. Small companies are best at introducing new technologies en spreading new products, while large companies have more resources available for research and development, laboratories and product development.²¹

From this necessarily brief discussion of the literature on self-employment and small business, it is clear that there are still numerous unsolved issues. In the next sections of this paper, we shall focus on the historical development of self-employment and the theories that explain the rise and decline of the self-employment rate.

II. Sources and data on self-employment rates

According to David Blanchflower, 'self-employment is the simplest kind of entrepreneurship'.²² However, there is no agreement on the definition of self-employment, nor is there on how to measure the rate of self-employment. The self-employed are usually considered working on their own-account and they often own and control their own business.²³ Some scholars, e.g. Frank Knight (1921), consider them the archetypical entrepreneur.

According to the International Labour Office (ILO), 130 million individuals worldwide were self-employed in 1991. This number does not include agricultural self-employed. Because there is no consensus on what actually constitutes a self-employed, there is also no agreed method for calculating the number of self-employed. The publicized statistics depend on what is used as denominator and numerator. In the USA, self-employed of large incorporated companies are not included because they are regarded as employees; while in most European countries they are seen as self-employed. Sometimes only full-time self-employed are included, while others accept part-time self-employed. This is particularly important when considering women entrepreneurs, because they often mingle entrepreneurship and domestic activities. There is no agreement on whether self-employed in agriculture should be included or not. In most statistics, this is not the case, but sometimes they are. This can lead to quite confusing results, especially for countries with large numbers of farmers (see table 1). Some statistics

²¹ The literature is reviewed by Blanchflower, *Self-employment: more may not be better*.

²² David G. Blanchflower, *Self-employment in OECD countries* (Cambridge 2000) 3.

²³ Storey, *Understanding the Small Business Sector*, 17.

count unpaid family workers as self-employed, while others exclude them. Finally, the denominator can include either: all employees, total workforce, working labour force (unemployed are not included), the total population between age 16 and 65, and sometimes simply total population. These are just some of the problems that confront a scholar when compiling cross-country time series on self-employment.²⁴

Table 1: Self-employment rates (1996)

Country	Portugal	Spain	UK	USA	NL	Italy	Sweden
1)	28.7	25.0	13.6	8.4	12.5	28.9	11.0
2)	20.8	17.4	11.3	6.8	9.6	20.8	8.5

1) As a percentage of all employment

2) As a percentage all non-agricultural employment

Source: David G. Blanchflower, *Self-employment in OECD countries* (Cambridge 2000) NBER Working paper 7486. Blanchflower uses OECD figures.

Large organisations, e.g. ILO, UN, OECD, EC, and almost all Western countries have their own statistical bureaus and they fabricate different time series on self-employment. There is no easy technique to construct compatible, harmonized time-series because background information on the collection and processing of the statistics is not always at hand. In The Netherlands, for instance, ‘field workers’ collected information for the national population and occupation censuses on standardized forms. They recorded what information the residents gave to them. Verification of whether a person was self-employed or not did not happen and some shoemakers or cigar makers could easily report being self-employed although in reality, they had very little control over production factors.²⁵

After a quick scan of the available time series, the decision reached was to use only OECD statistics, since they are constantly updated and have a relatively high degree of reliability. They also exclude agricultural self-employment. Problems remain, however, and we must be very careful in making use of these figures and not jump to conclusions.²⁶

²⁴ A fuller treatment of the hazards of cross national series is discussed in André van Stel, *Compendia 2000.2: a harmonized data set on of business ownership rates in 23 OECD countries* (Zoetermeer, 2003). EIM Research Report H200302.

²⁵ Kees Mandemakers, ‘De sociale structuur in Nederland rond 1900’, in J.G.S.J. van Maarseveen en P.K. Doorn (red.) *Nederland een eeuw geleden geteld. Een terugblik op de samenleving rond 1900* (Amsterdam, 2001) 193.

²⁶ See also: Van Stel, *Compendia 2000.2*; David M. Blau, ‘A time-series analysis of self-employment in the United States’, *Journal of Political Economy* 95:3 (1987) 445-468; David S. Evans and Linda S. Leighton, ‘Some empirical aspects of entrepreneurship’, *The American Economic Review* 79:3 (June 1989) 519-535.

III. Explaining the rise and decline of self-employment

In the last two decades various studies try to explain the rise of self-employment since the 1980s, but each author uses different variables and theories, resulting in quite different explanations. There is absolutely no consensus on what factors contribute to the recent rise the rate of self-employment. In his book on small business, David Storey provides the following summary of possible explanations of the differences in the rate of self-employment between countries and across time (table 2).²⁷

Table 2: Factors influencing the rate of self-employment

	1	2	3	4	5	6
Technology		+				+
Fragmentation costs						
Demography:						
Gender		-				x
Age						x
Unemployment		+	+	+	+	+
Government:						
Schemes			(+)	+	+	
Taxes						-/+
Benefits				-	-	
Economic stage		-				
Left-wing politics					-	
Attitudes to risk		+				
Time trend	+/-		+	-		

Studies:

1. Bögenhold and Staber (1991)
2. Acs, Audretsch and Evans (1991)
3. Johnson, Lindley and Boukalis (1988)
4. Meager (1992)
5. Bögenhold and Staber (1992)
6. Blau (1987)

Key:

- + : positive relationship
- : negative relationship
- x : no relationship observed
- () : weak relationship

This table is provided here only as a first reconnaissance of different theories. Storey compiled the table from six (recent) studies on self-employment and small business and it is immediately clear that the authors do not include all factors in their research (these are the blanks in the table). ‘Technology’ does seem to influence the rate of self-employment, while ‘gender’ can have a positive or negative effect on self-employment. No relationship was observed between age and self-employment, however, other studies do report a significant correlation (see below). Apparently unemployment and self-employment rates are connected, but how exactly is not

²⁷ Storey, *Understanding*, 44.

clear. Government policy (e.g. schemes) can have a positive impact on the rate of self-employment, but other policy measures (e.g. unemployment benefits) might have a negative impact.

In the remainder of this section, we shall discuss some of these and other theories more extensively before presenting statistical information on self-employment rates. From this discussion it will become clear that there are still many unanswered questions regarding self-employment. Following Storey, we have grouped the theories under several headings.

Demography

According to some research, there is a correlation between age and self-employment. As age increases, the probability of becoming self-employed will also rise. Most self-employed are men and the chances of women becoming self-employed are low, although this has changed since the 1980s. Taken together, these two factors explain why an ageing population will have more self-employed, while societies with a large share of women in the working population have lower rates of self-employment.

Another demographical factor is immigrant groups. Immigrants are more likely self-employed than native groups. Ethnic entrepreneurship has been a key feature of the 1980s and 1990s, and although immigrant entrepreneurship is often associated with important innovations, it is hard to test these ideas because the group of immigrants is usually not a random selection. The more active or entrepreneurial are often the first to leave their home country to try their luck somewhere else. Not all immigrants are as entrepreneurial and there are interesting differences between groups (e.g. Indians, Africans, Chinese, and Surinamese). From historical research, we know that immigrants played an important role in the British economy since the 1880s.²⁸ To conclude: variations in demographic characteristics may explain part of the variations the rate of self-employment in time and across countries.

Unemployment

Unemployed will stimulate self-employment according to some research, because it reduces the opportunity costs. On the other hand, it may block self-employment because the chances of success in business are lower during an economic crisis. The precise effect of unemployment on entrepreneurship is still unclear and it seems both effects are true but not at the same time. During the 1930s, high levels of unemployment stimulated many to start a business and in the 1990s, during the ICT-bubble, low levels of unemployment led to the start-up of numerous

²⁸ Leslie Hannah, 'Entrepreneurs and the Social Sciences', *Economica* 51:203 (August 1984) 219-234.

companies. Other factors also influence the supply of entrepreneurs, such as status and social mobility.

Culture

Cultural factors can have an effect on the rate of self-employment in several ways. Countries with an entrepreneurial spirit or business culture (e.g. USA) often attribute a high level of social status to self-employment resulting in a high rate of self-employment (this is not conformed in the statistics: see section 4). These countries also tend to accept business failure without difficulty. Business failure does not result in stigmatizing an individual that may inhibit him or her of ever trying again. Certain national laws (e.g. on business failures) can also hamper self-employment.

The best-known theory on culture and economic effects is Geert Hofstede's indexes on individualism, masculinity, power distance, and risk taking. According to Hofstede, some countries have higher levels of risk taking and therefore they will produce more self-employed than countries with low levels of risk taking.²⁹ In addition, countries with high levels of individualism will have more entrepreneurs.³⁰ Thus far, the existing empirical work on Hofstede's indexes is inconclusive and contradicting.

Institutions

The nature and extend of the welfare system can influence self-employment. Countries with elaborate systems of unemployment benefits are likely to have less self-employed. Sweden's welfare system is all-embracing, and the country has indeed very low rates of self-employment. Yet, the USA has, by European standards, a very modest welfare system but the rate of self-employment during the twentieth century fell.

Other institutions that may also influence the rate of self-employment are the tax system or the level of privatization. In some countries (e.g. UK and USA), it is very easy to lay off redundant employees and this may create a different work attitude, because when a regular paid job is not so secure, taking a chance as a self-employed becomes less risky. Specific laws may require skills or financial securities and this can prevent people from setting up their own business.

²⁹ Geert Hofstede, *Culture's consequences: International differences in work-related values* (Beverly Hills, 1980); Geert Hofstede, *Cultures and organizations: intercultural cooperation and its importance for survival* (London, 1994).

³⁰ See also Ralph E. Wildeman et al, *Self-employment in 23 OECD countries. The role of cultural and economic factors* (Zoetermeer/Tilburg, 1999).

Technology

Some scholars point towards the impact of the fifth Kondratieff cycle. During the early phases of the cycle, small businesses develop and diffuse new technologies, while large businesses become important in later phases. Information and communication technologies characterise the fifth Kondratieff and these require a high level of personal and business-to-business contacts. This may explain the establishment of new companies in the 1980s and the fast growth of this part of the service sector.

Using transaction cost theory one can explain the recent rise in the rate of self-employment. New technologies can lower transactions costs (e.g. the personal computer) and self-employed then becomes a viable alternative to generate income.

Some observers point towards new business strategies of large companies, such as outsourcing, downscaling, de-concentration and subcontracting labour-intensive, service related jobs. All of these strategies will stimulate self-employment. According to this theory, the optimal firm used to be large and vertically integrated, but the new technologies foster small-scale, regionally dispersed units and companies.

Stage of economic development and economic structure

The most interesting explanation of the different rates of self-employment, at least from a historical point of view, is the level or stage of economic development and changing economic structures. According to this argument, a correlation exists between the rate of self-employment and the economic structure of a country (the number of workers in the agricultural, industry and service sector). This theory may explain why the rate of self-employment fell during the period of industrialization and rose during the following period of de-industrialization. Setting up a factory requires far more capital than a small office in consultancy, making it more difficult for people to start their own business. De-industrialization and the growth of the service economy from the 1970s reversed this trend creating a U-shaped development of self-employment in many developed countries. Economic development is not only related to industrialization but also refers to other factors, such as education, health care, urbanization, system of transport and communication, and etcetera. Some of these may stimulate self-employment, but others are more likely to benefit large companies. A good system of transport and communication favours big companies because they can exploit the economic advantages of scale of scope.

Other factors

Many more factors can explain the different rates of self-employment. We will only mention some of them, without going into details: government employment (privatization); the level of immigration; international competition; the size distribution of companies, the level of education and training.

IV. Trends in self-employment

In this section, we will present statistics on the rate of self-employment and economic structure in various Western countries during the 20th century. The ten chosen countries are Sweden, the Netherlands, Belgium, Germany, France, Italy, Spain, UK, USA and Japan. These are all OECD countries and therefore OECD statistics are used. This sample aims to represent different types of countries. Sweden is chosen for of its high level of welfare system, the UK and Belgium because they are the early industrializers. Germany, France, The Netherlands and the USA are early-adopters of the industrial revolution, while Japan adopted industrialization after the Meiji revolution of 1868. Italy and Spain are included the represent the Southern European countries with high levels of agriculture.

The figures below present time series for these countries and it is important to note that we do not have continuous, year-by-year series, but only separate observations. In some cases large gaps between two or more observations exists. Therefore, we use columns, except in series on self-employment because a line graph is easier to understand. Included in the graphs are linear trends and polynomial (curved) trends to interpolate between missing observations. All series exclude agricultural self-employment.

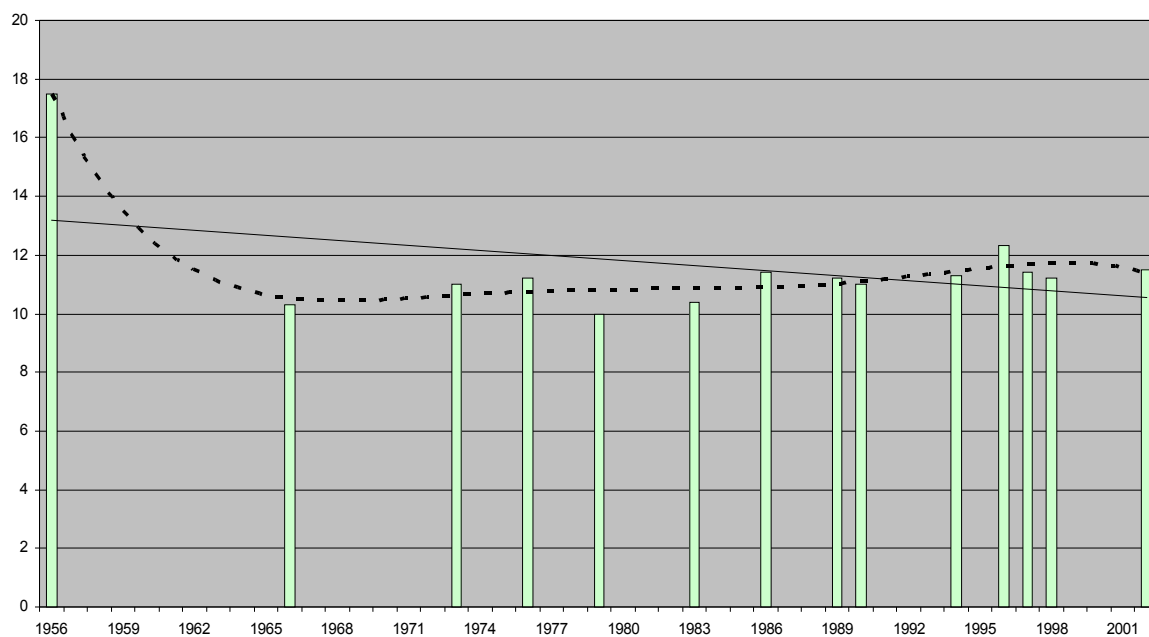
Figure 1 shows the average level of self-employment in this sample of countries between 1956 and 2002. The trend during the second half of 20th century is clearly downward, although after 1980 the average rate of self-employment went up. This is consistent with the current literature on self-employment. In figure 2, the individual country rates of self-employment between 1956 and 2002 are displayed. High rates of self-employment are found in Spain and Italy, the lowest rate in Sweden. Low rates of self-employment are also found in the UK, Germany, The Netherlands and USA. What is remarkable is the fact that countries with high rates of self-employment and those with low rates remain largely the same and there is hardly any sign of

convergence between these countries. Apparently, entrepreneurial cultures between countries vary and globalization does not seem to have a major impact on this.

A closer look at these countries reveals striking differences in the time-series and this reveals important differences in economic phases between countries. For convenience, the ten countries are placed in different groups. Starting with the USA, UK, Germany and Japan, figure 3 presents the rate of self-employment between 1956 and 2002. The rate of self-employment in the UK began to increase in the mid-1960s continued to do so until the 1990s. The German rate of self-employment on the other hand, decreases till the mid-1970s and starts to rise from the 1990s. This is more or less the opposite pattern of the observed UK trend. Self-employment in the USA declined until the 1980s, then slightly recovered until the early 1990s and decreased again. Overall, the rate of self-employment in the USA is decreasing. This is even more obvious in Japan, where the self-employment rate continually fell during the second half of twentieth century, though it must be pointed out that Japan started from much higher levels

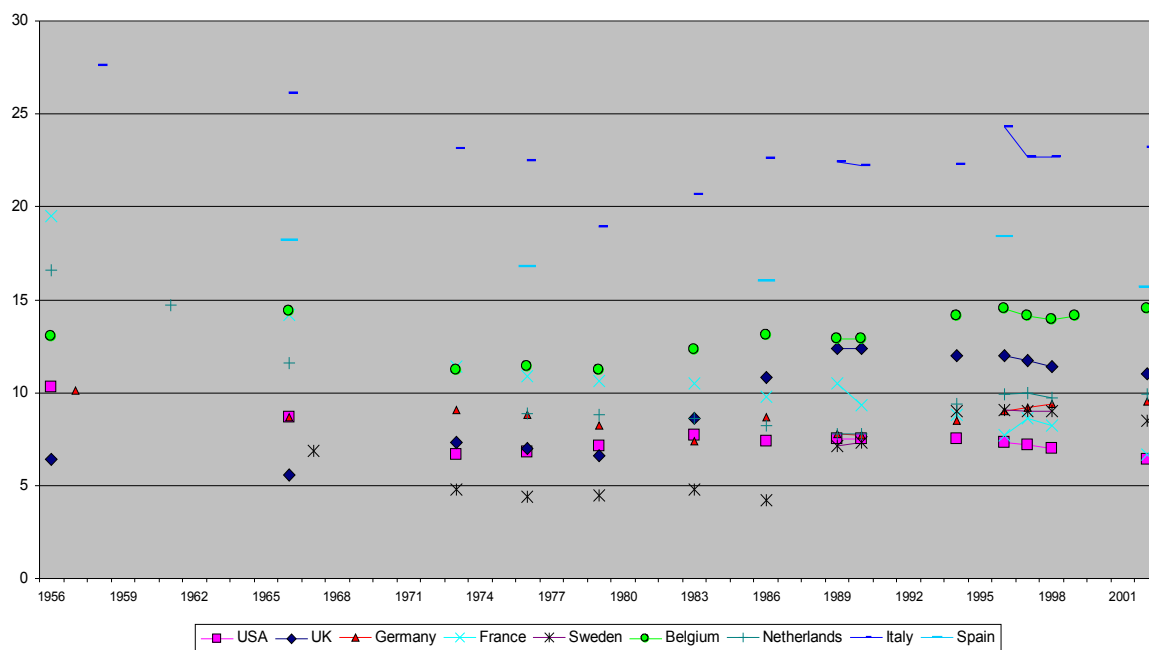
The rate of self-employment in Italy, Spain and France, countries with a comparatively large agricultural sector, is different from the UK, USA, Japan and Germany. Figure 4 plots the rate of self-employment in these countries between 1956 and 2002. In France, self-employment is constantly falling (like in Japan), while Italy and Spain display a U-shape development in the rate of self-employment. In these two countries self-employment increased almost simultaneously from the 1980s. France and Japan are the only two countries where the rate of self-employment fell during the whole period 1956-2002.

Figure 1: Average rate of self-employment in sample of countries, 1956-2002 (%)



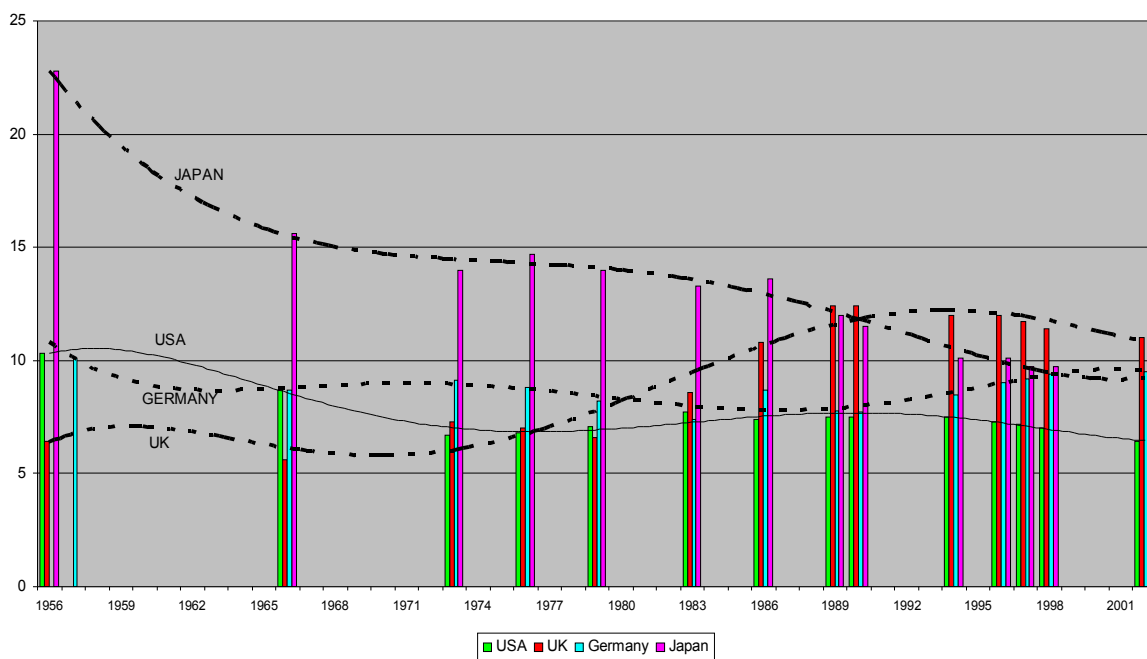
Source: OECD statistics

Figure 2: Self-employment in ten OECD countries, 1956-2002 (%)



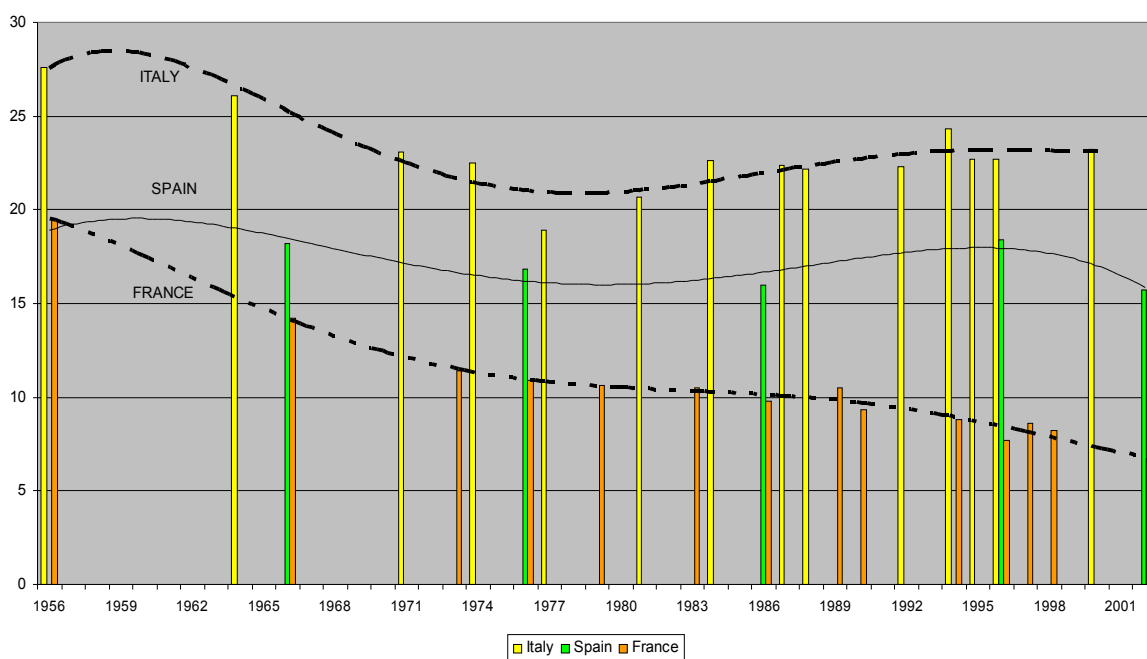
Source: OECD Statistics

Figure 3: Self-employment USA, UK, Germany and Japan, 1956-2002 (%)



Source: OECD Statistics

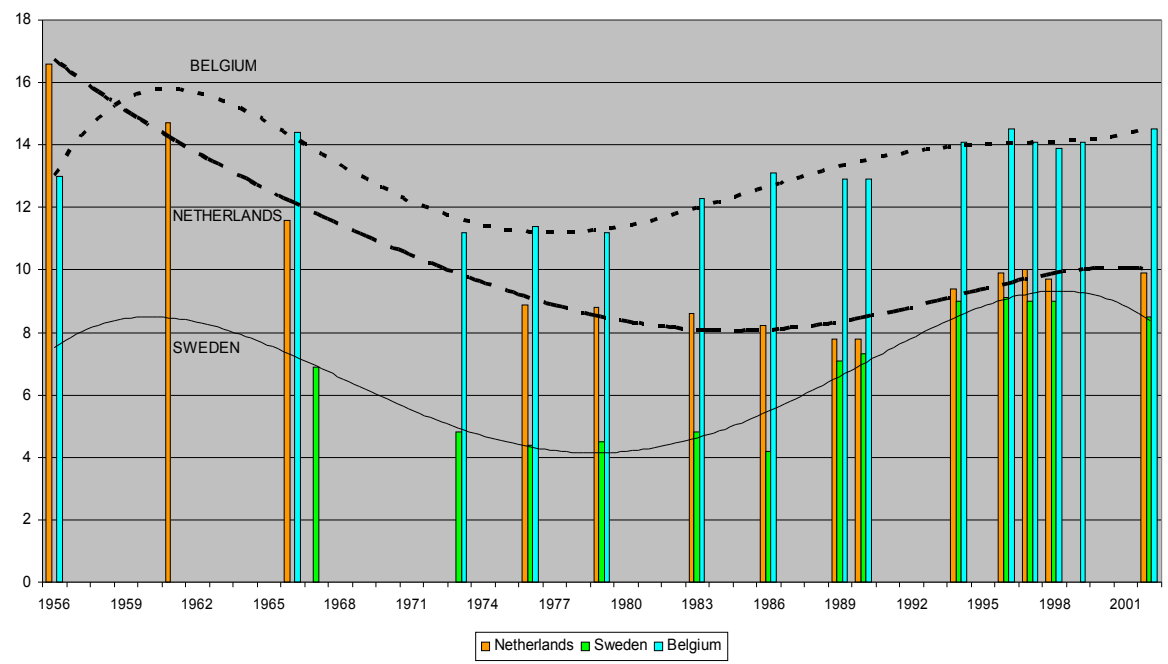
Figure 4: Self-employment Italy, Spain and France, 1956-2002 (%)



Source: OECD Statistics

Figure 5 displays the rate of self-employment in The Netherlands, Sweden and Belgium. Their pattern is quite similar: a decreasing rate until the 1980s followed by a reversal of the trend. However, the trend breach happened slightly earlier in Sweden and Belgium compared to The Netherlands. The rate of self-employment in The Netherlands did not increase until the 1990s.

Figure 5: Self-employment Netherlands, Sweden and Belgium, 1956-2002 (%)



Source: OECD Statistics

The low rates of self-employment in Sweden, UK and USA (see figure 1) suggest a small service sector (or a large industry sector), but if we compare the economic structure of our sample, the differences are only marginal. Table 3 presents the economic structure as a percentage of the labour force about the year 2000. Unfortunately, USA statistics are not compatible with those of other countries in the sample.

Table 3: Economic structure: labour force by occupation (%)

	Agriculture	Industry	Services
Sweden	2	24	74 (2000)
Netherlands	4	23	73 (1998)
Belgium	2	25	73 (1999)
Germany	3	34	64 (1998)
France	5	26	69 (1995)
Italy	5	32	63 (2001)
Spain	7	29	64 (2001)
UK	1	25	74 (1999)
Japan	5	30	65 (2000)
USA	farming, forestry, and fishing 2.4% manufacturing, mining, transportation, and crafts 24.1%, managerial and professional 31% technical, sales and administrative support 28.9% services 13.6% (2001)		

Source: CIA World Fact Book

Looking at GDP-composition by sector (table 4), however, shows again very little differences between these countries. High levels of self-employment in Spain and Italy point towards the importance of the agricultural sector, but that would not explain the low rate of self-employment in France. Apparently, the rate of self-employment correlates only partially with the economic structure.

Table 4: Economic structure: composition of GDP (%)

	Agriculture	Industry	Services
Sweden	2.2	30.5	67.3 (1997)
Netherlands	3.5	26.8	69.7 (1998)
Belgium	1.4	27	71.6 (1999)
Germany	1.2	30.4	68.4 (1999)
France	3.3	26.1	70.6 (1998)
Italy	2.6	31.6	65.8 (1998)
Spain	3.2	33.6	63.2 (1998)
UK	1.7	25.3	73 (1998)
Japan	2	36	62 (2000)
USA	2	18	80 (1999)

Source: CIA World Fact Book

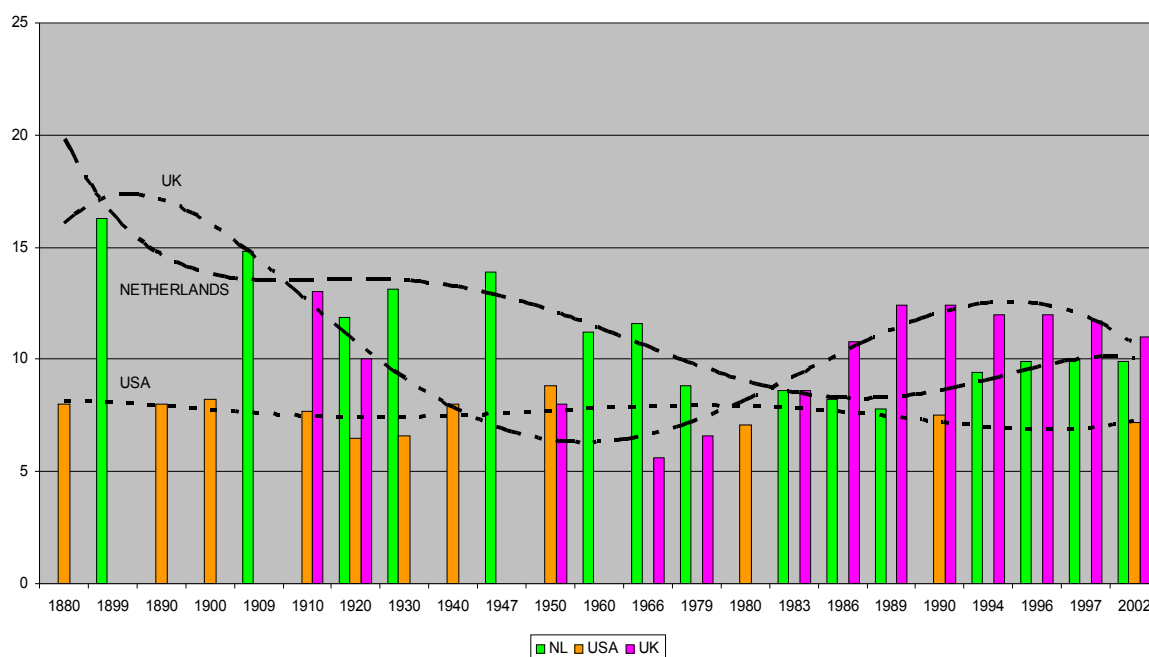
The trend in the self-employment rate in our sample of countries shows that despite globalization, countries retain their economic ‘rhythm’. In addition, at face value there is no straightforward correlation between economic structure and self-employment. Other factors, mentioned earlier in the paper (section 2), influence the rate of self-employment. Most publications notice the rise in self-employment in the 1980s and 1990s, and this has led some

authors to conclude that there is an important reversal of the trend. However, this is perhaps a little optimistic because the picture changes when a longer time series is used.

The construction of time series is a difficult task and can have important effects on the final results. For instance the length of the series, the number of years included, can produce a very different picture. Self-employment in the UK, for example, shows a steady rise between 1966 and 1990, but if we take a longer time period (e.g. 1911-2000) the picture changes. The choice of the time period is crucial for our understanding of the development of self-employment.

We have therefore reconstructed the rate of self-employment in the UK, USA and The Netherlands between c. 1880 and 2002 (see figure 6). Allowing for statistical irregularities, incompatibilities and mistakes, the following observations can be made. In the UK a U-shape development is visible, while the self-employment rates in The Netherlands and USA decreased during the twentieth century; however, this decline was much sharper in The Netherlands than in the USA. Interestingly, self-employment rates in The Netherlands are higher than the USA, a country that claims to be the most business minded of all countries in the world. The self-employment rate in the UK shows more dynamics than the USA rate, although these countries are often compared as having the same kind of culture and institutions.

Figure 6: Self-employment NL, USA and UK, 1880-2002 (%)



Source: NL see figure 10; USA see note figure 9; UK see figure 7.

United Kingdom

Self-employment in the UK shows a U-shape development during the twentieth century (see figure 7), but we need to be very cautious here, because prior to 1956 there are very few observations.³¹ Between 1911 and 1956, there are precisely two observations (1921 and 1951), and the actual pattern could be much more complicated than what is presented in the figure. Halsey and Webb provide the following percentages for ‘employers and proprietors’: 1911 – 6.7; 1921 – 6.8; 1931 – 6.7; 1951 – 5.0; 1971 – 4.2; 1981 – 3.6; 1991 – 3.3. Between 1911 and 1981 the number of ‘employers and proprietors’ declined from 1.2 million to about 900,000, while the occupied population in Great Britain increased from 18.4 million to about 25.4 million. Halsey/Webb use percentages calculated by Guy Routh for *Great Britain* (!) from the censuses held since 1911. These percentages are deducted from occupational class 2A and almost certainly include agricultural (self-)employment, while in our figures agriculture is excluded.³² On the other hand, group 2A also includes employers of incorporated and non-incorporated businesses (the own account workers or self-employed), but does not include the professional self-employed (architects, lawyers, accountants, journalists, engineers, doctors).

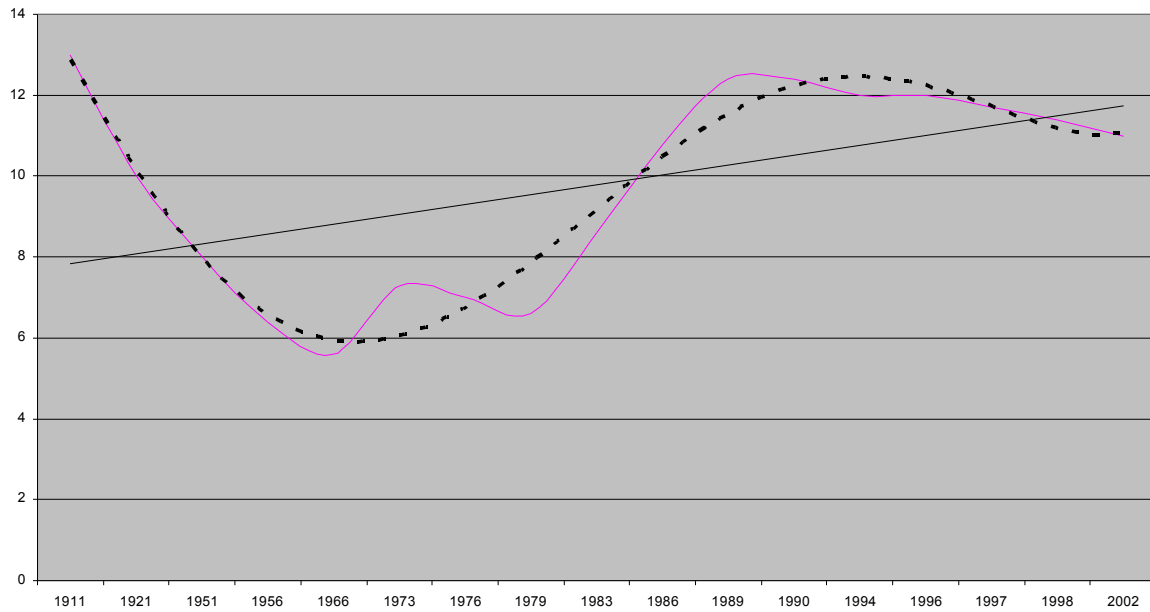
After 1994 the self-employment rate declined slightly, but this might be a momentary set back. As we have noted before, the rate of self-employment in the UK began to rise rather soon and certainly much earlier than in other countries. There is so far no convincing explanation for this phenomenon. Is there perhaps any relationship with the economic structure of the UK?

Being the first country to experience an Industrial Revolution, it should come as no surprise to find high levels of employment in manufacturing and low levels in agriculture (compare with the USA and The Netherlands below). Industrial employment remained at a relatively high level during the twentieth century and only declined after the 1960s. The service sector stayed well below industrial employment until the 1960s and then experienced two growth accelerations, between 1961-1981 and 1991-2001. At first glance there seems to be some correlation between economic structure and self-employment (figure 8), but while the service sector continued to grow after 1990, the self-employment rate dropped.

³¹ UK statistics on self-employment are hard to find and seem rather unreliable. See Benson, *The penny capitalists*; Storey, *Understanding*; A.H. Halsey and J. Webb (eds.) *Twentieth-century British social trends* (Basingstoke/London, 2000) 288.

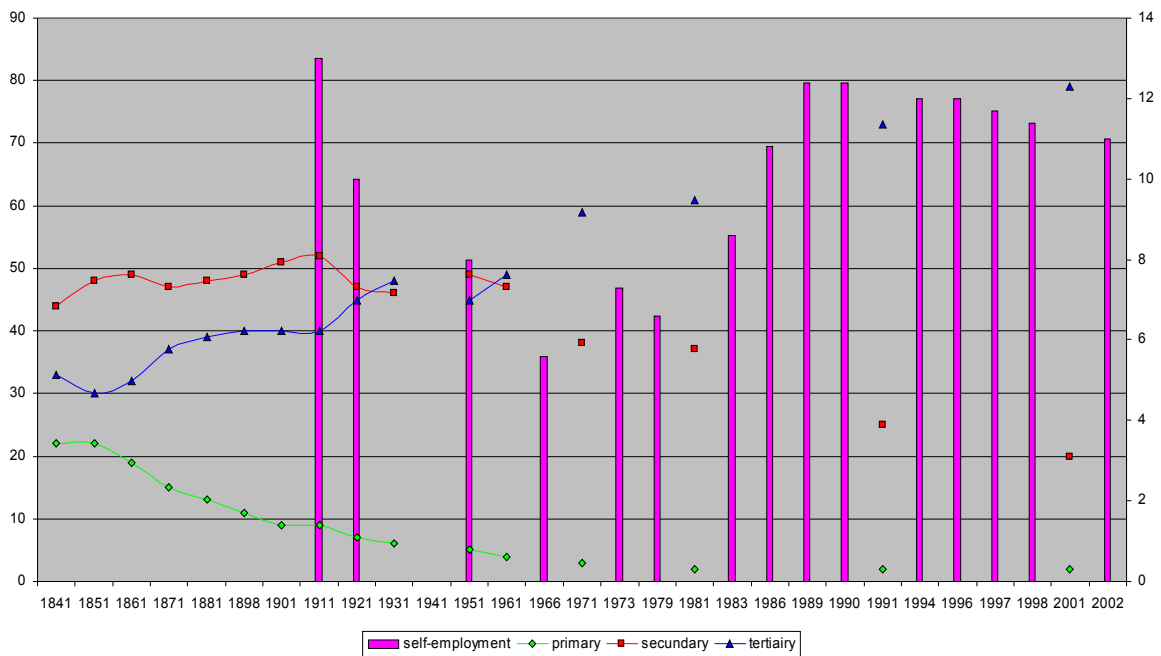
³² Guy Routh, *Occupation and pay in Great Britain 1906-1979* (Basingstoke 1980, 2nd edition) and Guy Routh, *Occupations of the people of Great Britain, 1801-1981* (Basingstoke, 1987).

Figure 7: UK self-employment, 1911-2002 (%)



Source: 1911-1951: taken from D.J. Storey, *Understanding the Small Business Sector* (London & New York 1994) 26; 1956-2002: OECD.

Figure 8: UK economic structure (left scale) and self-employment (right scale), 1841-2002 (%)



Source: (economic structure): 1841-1981 calculated from B.R. Mitchell, *Historical statistics: Europe 1750-1988* (New York, 1993); 1981-2001: National statistics, *Social trends* (Colegate, 2002); (self-employment) 1910-1950 taken from D.J. Storey, *Understanding the Small Business Sector* (London & New York 1994)26; 1956-2002: OECD.

United States of America

Self-employment in the USA, as depicted in figure 9, fluctuated during the twentieth century, although the trend is still clearly downward. During the economic crisis of the 1930s, the Second World War, until the 1950s and again, although much less striking, during the 1980s self-employment increased. Perhaps the low level of unemployment benefits in the USA has a stronger impact on the rate of self-employment than in other countries.

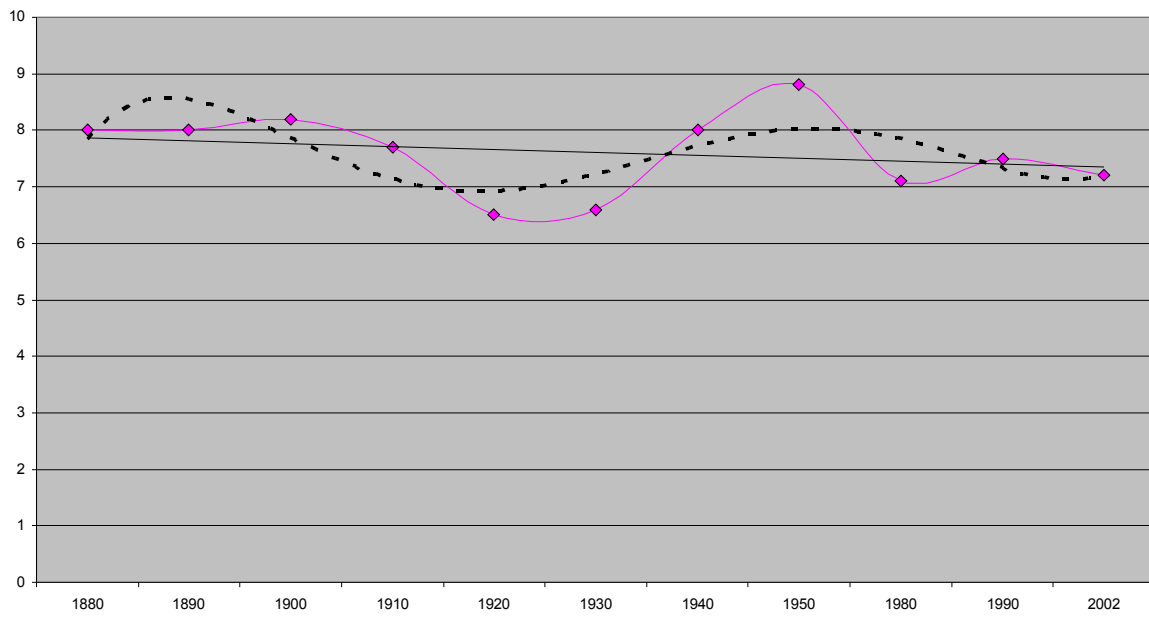
The statistics prior to 1950 are however not very reliable. Phillips calculated all 'gainful workers' (paid workers), separating 'self-employed enterprisers' from 'employees'. The 'self-employed enterprisers' included farmers, business enterprisers and professional practitioners (e.g. lawyers, engineers, health services). Included in figure 9 are only business enterprisers and excluded are the professional practitioners (and agriculture). As a percentage of all gainful workers, the professional practitioners counted between 0.9 and 1.2 per cent.³³

Similar to other Western countries, the economic structure of USA changed drastically, as can be seen in figure 10. Employment in agriculture declined sharp from about 70% in 1820 to 2% in 2000, while industrial labour increased until the mid-twentieth century and then declined slowly.³⁴ The service sector on the other hand, continued to increase during much of the twentieth century and followed industrial employment until about 1900 when it 'broke loose' and accelerated. United with our figures on self-employment in the USA, there does not appear to be any relationship with the economic structure. Overall the rate of self-employment remained relatively constant and changes are only marginal.

³³ Joseph D. Phillips, *Little business in the American Economy* (Urbana 1958) 4-5.

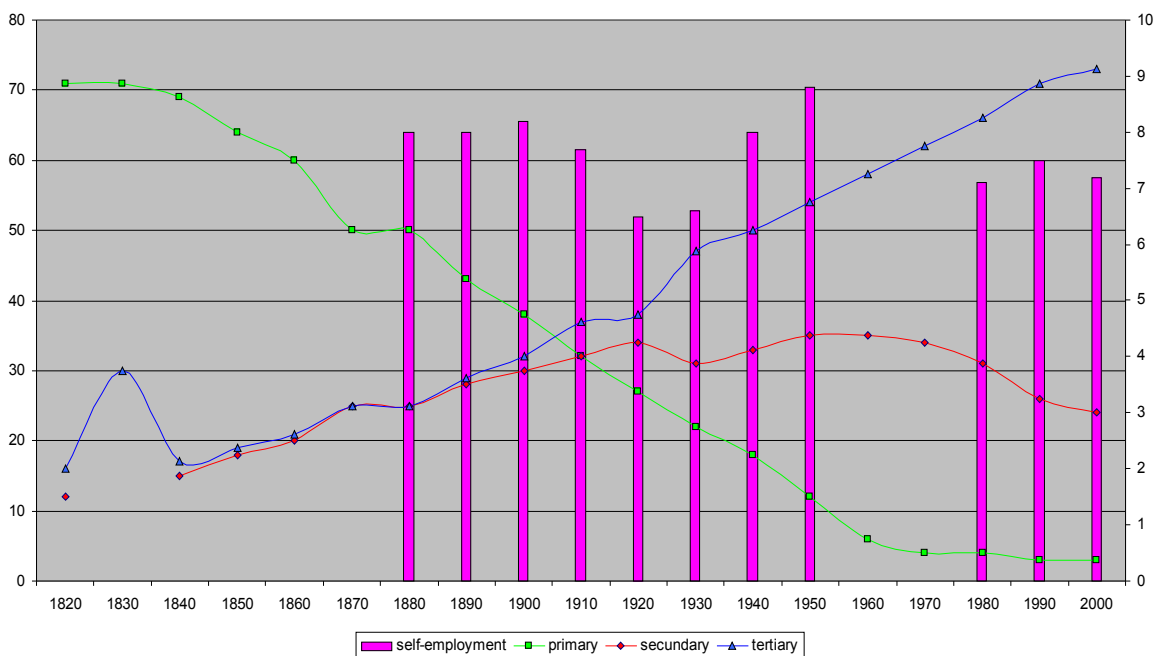
³⁴ Primary sector: agriculture, forestry and fishing; secondary sector: mining, extractive industries, manufacturing and construction; tertiary sector: commerce, trade and financial services, transport and communication, services and other.

Figure 9: USA self-employment, 1880-2002 (%)



Source: 1880-1950: Joseph D. Phillips, *Little business in the American Economy* (Urbana 1958); 1950-2002: OECD

Figure 10: USA economic structure (left scale) and self-employment (right scale), 1820-2000 (%)



Source: calculated from (1820-1990): B.R. Mitchell, *International historical statistics: The Americas 1750-1988* (New York, 1993, 2nd edition); (1990 and 2000) US Department of Commerce, *Statistical Abstracts of the United States 2003* (Washington, 2003).

The Netherlands

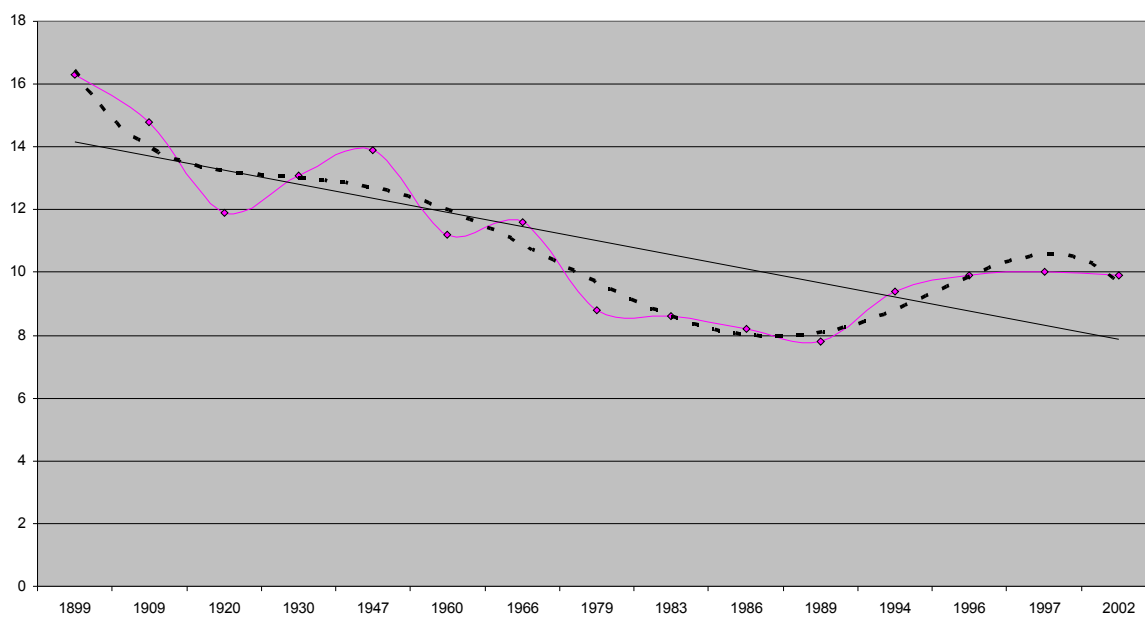
Self-employment in The Netherlands strongly declined during the twentieth century (see figure 11). This trend reversed, however, during the period between 1910-1930, after the Second World War and in the 1990s.³⁵ The rate of self-employment stabilized after 1994 until 2002. The sharpest decrease in self-employment occurred during the post-war era between 1960 until c. 1990. During these years the government produced several industrialization programmes (White Papers) and employment in the industrial sector increased. At the same time government spending on unemployment benefits rose and following the post-war reconstruction era and the subsequent phase of industrialization, average firm size further increased. The share of enterprises with 50 or more employees in total employment increased from 48% to 55% between 1950 and 1960, while at the same time the share of micro-enterprises (1-5 employees) decreased from 86% to 80%.³⁶

Figure 12 presents the Dutch economic structure (labour force by major sector) and the rate of self-employment between 1807 and 1998. The Netherlands had a different kind of Industrial Revolution, more slowly and gradually than the UK. Industrial employment did not increase until after mid-nineteenth century. In fact, the service sector was and remained an important economic sector of The Netherlands during the last two centuries. Employment in the service sector rose sharp, especially after the 1970s, however self-employment hardly changed. As we have seen in figure 11, the self-employment rate in The Netherlands did increase after 1986, but only very modest and after 1995 the increase seems to have come to a standstill. From these figures there does not seem to be a strong correlation between economic structure and self-employment in The Netherlands.

³⁵ cf. Wennekers and Folkeringa, *Self-employment rate in the Netherlands*, 1.

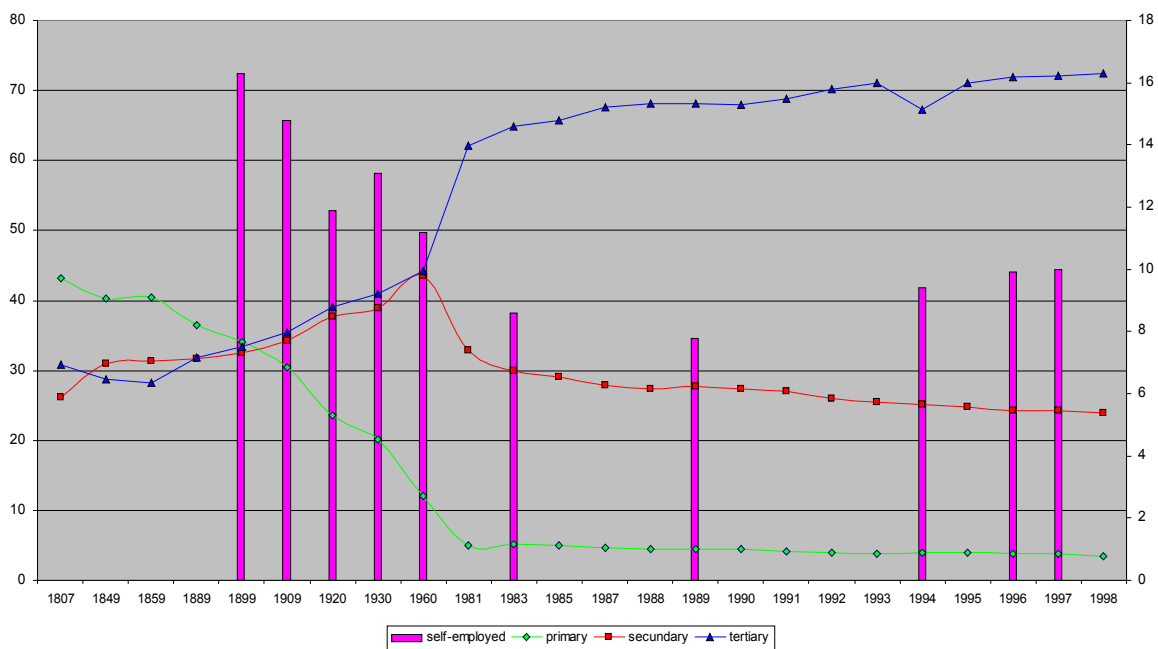
³⁶ Dutch national census of 1950 and 1963.

Figure 11: NL self-employment, 1889 – 2002. (%)



Source: 1899-1960 Statistics Netherlands (CBS); 1960-2002 OECD

Figure 12: NL economic structure (left scale) and self-employment (right scale), 1807-1998 (%)



Source: calculated from (structure 1807-1909) Edwin Horlings, *Werkgelegenheid en economische modernisering. De structuur van de beroepsbevolking*, in J.G.S.J. van Maarseveen en P.K. Doorn (red.) *Nederland een eeuw geleden geteld*. (Amsterdam, 2001) 227-249; (structure 1899-1994) R.J. van der Bie en J.P. Smits (samenstelling), *Tweehonderd jaar statistiek in tijdreeksen, 1800-1999* (Den Haag, 2001); (self-employment) 1899-1960 CBS; 1960-2002 OECD.

V. Conclusions

The rise in the rate of self-employment since the 1980s, although not at the same pace in all countries, fascinated a lot of scholars and so far produced a large number of explanations. However, the precise reason(s) for the rise in self-employment is still a mystery. Authors use different sets of variables and the same variable can even produce contradictory results. This is in part the effect of using different samples, research methods and poor statistics on self-employment. This paper focussed on just one of these theories. It investigated the possible relationship between self-employment and stage of economic development.

The rise in the self-employment rate observed in some countries during the 1990s, in some cases starting in the 1970s, marked a reversal of the downward trend in the twentieth century. According to some authors, this development depended on the continued de-industrialization and growth of the service sector in Western countries. Self-employment rates dropped during the industrialization because setting up a business required large amounts of capital. This blocked many potential new entrepreneurs, because at the same time employment opportunities in industry grew. In the 1950s and 1960s, de-industrialization started and the service sector became more important. Structural changes in the economy at firm-level, e.g. outsourcing, downscaling, and the increasing importance of personal (face-to-face) relations, stimulated many workers to start their own business in the service sector. This required far less capital when compared to factories. High levels of unemployment, schooling and increasing age further stimulated this process.

The statistics presented in this paper do not support this theory. The self-employment rates differ between countries, even though their economic structure is very much alike. The service sector increased during the twentieth century; however, the self-employment rate observed in our sample did not rise continuously. The time-series produced in this paper also show striking differences between countries. Some display an almost continuous decline in self-employment rates (e.g. France and Japan), while other countries experienced an increase in the rate of self-employment (e.g. UK). Most countries tend to have a U-shape development in the rate of self-employment between 1956 and 2002. There are also remarkable differences in the timing between these countries. In some countries self-employment rose, while at the same time it declined in other countries.

We must be careful when drawing conclusions from these time-series especially if they are they cover a few decades, because using longer time-series (e.g. USA and Netherlands) sometimes reveals quite a different pattern. The self-employment rate has gone up and down during the twentieth century and the recent trend breach might simply just be another wave and perhaps not a reflection of some structural change in the economy.