



The Economic Value of Different Types of Solo Self-Employed: A Review

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Abstract. We review the literature on solo self-employment focusing on prevalence, characteristics and economic contributions. Besides providing explanations for the upward trend in solo self-employment observed in many Western economies, we shed light on the heterogeneity within the population of solo self-employed with respect to demographic characteristics and start-up motives. Moreover, we review the literature on the contributions of the solo self-employed to economic value creation, including income, innovativeness, and ambitions.

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1. Introduction

From the 19th Century onwards, an increased importance of capital intensity and scale economies in the production process led to ever decreasing rates of business ownership in Western economies (Wennekers et al., 2010). However, from the 1970s onwards, the trend toward lower business ownership rates reversed due to technological developments and globalization. In particular, the production factor knowledge became more important relative to capital, providing more room for small and new firms. In many countries, the increase of the number of business owners was accompanied by a disproportionate increase in the number of solo self-employed. For example, between 1992 and 2008, the share of solo self-employed in the total number of self-employed (i.e., including those holding employees) increased by more than 10 percentage points in the United States, Canada and Germany. In 2008, for a selection of 26 OECD countries, the share of solo self-employed in total self-employment was highest in the United Kingdom (78%; see Van Stel et al., 2014).

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The solo self-employed comprise a very heterogeneous category of labour force participants with varying productivity levels. On one side of the spectrum, there are the highly skilled freelancers who provide professional services to existing businesses, enabling the latter to be: innovative, flexible and agile, able to manage entrepreneurial risk, and capable of prospering despite greater market uncertainty (Burke, 2012, p. 6). On the other side of the spectrum, there are relatively less productive solo self-employed who turned to self-employment for a lack of alternative employment options. Although in modern economies, the latter group is likely to be smaller in size (De Vries et al. 2013b), official statistics often disguise this heterogeneity in the population of solo self-employed.

Two drivers of the general trend towards higher levels of solo self-employment in modern economies may be distinguished (Van Stel et al., 2014; Wennekens et al., 2010). First, in many Western countries there is a trend of increased outsourcing to freelancers by established firms, enabling the latter to be more flexible and agile (Burke, 2011, 2012). Second, for higher levels of economic development, different human motivations may have become important. In particular, rather than basic material and social needs which already tend to be fulfilled in developed societies, a need for autonomy and self-realization emerges (Maslow, 1970). Solo self-employment is a way of working which allows for a lot of freedom and autonomy, thereby fulfilling these higher needs from the Maslow pyramid. These two explanations primarily relate to the group of highly skilled freelancers mentioned above.

On the contrary, we can also identify a socio-economic trend implying *fewer* solo self-employed. This is the larger supply of paid jobs and more stable wages which is associated with higher levels of economic development (Lucas, 1978). These increased possibilities to find wage-employment reduce the need to enter solo self-employment out of a necessity motive, i.e., the inability to find a paid job. The increased numbers of solo self-employed observed in many Western economies suggest that the former two (positive) drivers dominate the last (negative) one.

The current paper reviews the literature as regards the heterogeneity of the solo self-employed as well as the contributions of the solo self-employed to the economy.

2. Prevalence and Characteristics of the Solo Self-Employed

2.1. Broad and Narrow Definitions of Solo Self-Employment

When talking about solo self-employment, by and large two statistical definitions prevail. The broad definition includes all self-employed working on their own account. In 2011 there were over 23 million own-account workers in the EU-27

which corresponds to 71 percent of all self-employed (i.e., with and without personnel), see Rapelli (2012). Besides this broad definition, several narrower definitions prevail, based on additional criteria such as the entrepreneurs' offering of only their own labour (knowledge and skills) instead of selling goods (De Vries et al., 2013b), or the entrepreneurs' engagement "... in a service activity and/or intellectual service not in the farming, craft or retail sectors" (Rapelli, 2012, p. 11). Rapelli labels this latter group 'I-pros' (independent professionals) and he estimates that this group comprises 37% of all solo self-employed. This comes down to 8.6 million I-pros in the EU-27 in 2011.

2.2. Exploring the Heterogeneity among the Solo Self-Employed

In the literature on (solo) self-employment, it is generally acknowledged that there is much heterogeneity within this group of entrepreneurs (Blanchflower, 2000; Bosch and Van Vuuren, 2010). The solo self-employed consist of a diverse group of individuals varying from shopkeepers, craftsmen, ICT specialists, artists and entertainers to doctors and nurses. They are active in almost all economic sectors, to a high or lesser extent. Due to the observed heterogeneity, it is difficult to clearly demarcate the group. However, two important dimensions along which the solo self-employed may be characterized are their demographic characteristics and their start-up motivations.

Demographic characteristics

Rapelli (2012) reports that 46 percent of I-pros (his narrow definition of solo self-employed, see above) in Europe in 2011 are women. However, there are considerable country differences with the share estimated in the range of 40 to 58 percent. For the Netherlands, for instance, the share of female I-pros is estimated to lie between 50 and 58 percent. Note that the definition of I-pros excludes the construction sector, a sector dominated by male solo self-employed.

Regarding age, Rapelli reports that 62 percent of European I-pros are between 25 and 49 years of age, while female I-pros are slightly younger than male ones. Regarding education, Rapelli reports that 53 percent of European I-pros are highly educated. There are considerable sector differences though, ranging from over 70 percent in the human health and social work sector to below 30 percent for administrative and support service activities. Also note that some sectors where education levels are lower, such as construction, are excluded from the I-pros definition.

Start-up motives

A distinction can be made between solo self-employment out of necessity and out of opportunity. In the latter case, the individual started a business because he or she saw a profitable business opportunity. In the former case, the person became

self-employed because of a lack of alternative employment options. De Vries et al. (2013b) estimate the share of solo self-employment with a necessity motive to lie around 25 percent in the Netherlands. Turnover of these entrepreneurs is significantly lower than for opportunity-based solo self-employed, yet on average annual turnover of necessity entrepreneurs is still found to be sufficient to make a living, thereby contributing to subsistence.

A specific group of necessity solo self-employed are the so-called dependent self-employed, defined as self-employed workers who carry out the same tasks for their client firm as they did before when they worked for the same firm as an employee. Their job has not essentially changed but their employment protection is lower than before when they were employees. An additional advantage for the client firms (former employers) is that they do not pay social security contributions. The size of the group of dependent self-employed is likely to be small though (Román et al., 2011).

3. The Economic Contributions of the Solo Self-Employed

3.1. Contributions at the Macro Level

The main contribution of solo self-employed to the economy is their provision of flexibility to the labour market, facilitating job dynamics (SEO, 2010). They also provide flexibility to large firms, enabling the latter to reduce the risk of worker downtime for (specialist) workers whose skills are required only during parts of the year (Burke, 2011). On average, the productivity of solo self-employed is not lower than that of employees (SEO, 2010). The solo self-employed also contribute to innovations, not only by themselves, but also innovations in the firms that hire their services (De Vries, 2011). Quantitative macro-level research on solo self-employed is limited. One exception is Van Stel et al. (2014) who provide harmonized data on rates of solo self-employment across OECD countries over a considerable period of time.

3.2. Contributions at the Micro Level

When it comes to quantifying the economic contributions of the solo self-employed at the level of individuals, the literature focuses on incomes, innovativeness, ambitions, and job creation. Regarding the contribution of solo self-employed to job creation (i.e., the transition from solo self-employed to employer), we refer to the overview study of Millán et al. (2015). The literature on incomes, innovativeness and ambitions is summarized below.

Income

Solo self-employed can be driven by pecuniary and non-pecuniary motives. Using data for paid employees, solo self-employed and employers in Germany in 2009, Sorgner et al. (2014) show that, controlling for education level and other individual characteristics, solo self-employment is associated with *higher* incomes than paid employees for individuals with a university entrance degree (similar to a high school diploma) but no further professional qualification, but with *lower* incomes for individuals with a vocational or tertiary degree (i.e., higher education). Individuals with higher education can exploit their education better in a position of paid employee or self-employed with employees (employer). So, in general, highly educated solo self-employed will not be driven by pecuniary motivations. Instead, non-pecuniary motivations such as autonomy in the job are likely to play a role. Individuals with a university entrance degree but no further education are likely to be relatively intelligent but the lack of formal higher education makes it difficult for them to earn a high income as a paid employee. Solo self-employment is then a better option for this group. Sorgner et al. (2014) also show that for individuals with lower education, there are no significant income differences between paid employees and solo self-employed.

So, for higher educated solo self-employed, incomes are lower than what they could earn as an employee while for lower educated individuals, incomes from solo self-employment are similar to those from wage-work. For both these groups solo self-employment thus contributes to subsistence, i.e., a way to make a living. Only for the medium educated group (university entrance degree), solo self-employment actually pays off in pecuniary terms, i.e., a higher income compared to wage-work.

Of course, for some (lower educated) solo self-employed, working as an employee may not be a realistic labour market alternative as they miss the required human capital. However, Sorgner et al. (2014) also show that it is mainly the higher qualified labor market participants (those who were in the higher parts of the wage distribution prior to becoming self-employed) who select into (solo) entrepreneurship. These findings are in line with De Vries et al. (2013b) who show that even for solo self-employed who started out of a necessity motive, earnings are still high enough to make a living. They are also in line with De Vries and Dekker (2015) who show that only a small fraction of the group of solo self-employed in the Netherlands is subject to a precarious financial position.

Innovativeness

As the innovation process of solo self-employed is different from that of bigger firms, not much empirical measurement has taken place yet regarding the innovativeness of solo self-employed. The study by De Vries and Koster (2013) forms an exception. They have held a survey among solo self-employed and small and medium-sized enterprises (SMEs) in the Netherlands in 2013, and compare their levels of innovativeness. They show that, by and large, solo self-employed

are as innovative as SMEs. In particular, they find that one out of four solo self-employed (SMEs) had engaged in some form of product innovation over the last three years while one out of two solo self-employed had engaged in some form of process innovation. The latter score was even slightly higher than for SMEs. De Vries and Koster (2013) also find that the level of innovativeness is higher among solo self-employed with a higher level of education.

Ambitions

De Vries et al. (2013a) investigate ambitions of solo self-employed individuals in the Netherlands in 2012. They find that *personal* ambitions such as personal development and making the contents of their work more challenging, are important ambitions of solo self-employed. However, the *growth* ambitions of the solo self-employed are found to be considerably smaller than their personal ambitions, particularly when it comes to employing personnel (job creation) and engaging in export. Many solo self-employed do have an ambition to grow their level of turnover and their number of clients though.

4. Summary and Policy Implications

The number of solo self-employed has increased considerably in many (but not all) Western countries over the last two decades. Explanations are the trend of increased outsourcing and a higher need for autonomy and self-realisation, for which solo self-employment may be a vehicle. Broad and narrow definitions of solo self-employment prevail in the literature, where the narrow definitions tend to be limited to service and knowledge activities. The population of solo self-employed is characterized by a high degree of heterogeneity, in terms of gender, age, education and start-up motives. Regarding these motives, about one quarter of solo self-employed may be characterized as necessity entrepreneurs (at least in the Netherlands) in the sense that they started their business for lack of alternative employment options.

Economic contributions of the solo self-employed include their provision of flexibility to larger firms and to the labour market in general. They also contribute to innovation, both for themselves and for their client firms. Regarding incomes, an inverse U-shaped relation between solo self-employment and incomes has been found, where solo self-employment is an appropriate vehicle to earn higher incomes (than paid employees) for medium educated individuals, but less so for higher and lower educated individuals. For these latter groups solo self-employment does contribute to subsistence though. Regarding innovativeness, it is found that the solo self-employed are found to be as innovative as small and medium-sized enterprises (SMEs). Regarding ambitions, solo self-employed seem to have high personal ambitions but lower growth ambitions for their businesses.

Policy implications

Although our review shows that in general, solo self-employed contribute positively to the economy, policy makers will also be interested to know to what extent these labour force participants have the potential to (directly) create jobs for others, i.e., whether they could make the step towards employer (Millán et al., 2015). In this respect, the earlier-mentioned study by Sorgner et al. (2014) suggests that employership may be particularly beneficial (at least in a pecuniary sense) for higher educated individuals, as they could earn more as an employer than as a solo self-employed. Higher educated entrepreneurs may also create more jobs (Unger et al., 2011). Finally, research by Burke et al. (2011) shows that employers who initially started out as solo self-employed perform particularly well as an employer, as they have been able to test the performance potential of their venture before committing resources.

Another implication of our review is that, although there is considerable heterogeneity among the group of solo self-employed, most of them start up from a relatively high wage income (Sorgner et al., 2014). Furthermore, even among the necessity solo self-employed, the majority are still able to make a living (De Vries et al. 2013b; De Vries and Dekker, 2015). Hence, there does not seem to be much empirical evidence for the sometimes heard notion that solo self-employment is a form of hidden unemployment.

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