

Dependent self-employment: workers between employment and self-employment in the UK

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Abstract Analysing the British Labour Force Survey, we highlight that dependent self-employed workers constitute a group distinct from both employees and independent self-employed workers in the labour market group. Dependent self-employed workers show characteristics of a more volatile labour market attachment than employed or self-employed workers. We provide empirical evidence that dependent self-employed workers are rather pushed than pulled into this labour market status, making dependent self-employment an example of “necessity” rather than “opportunity” entrepreneurship. Although data limitations only allow a limited longitudinal analysis, we provide evidence that the majority of dependent self-employed workers remain in the labour market in the short run – either as self-employed or employed – and that only few leave the labour market. In addition, dependent self-employment does not create jobs for others; in our data, dependent self-employed individuals stop being dependent and self-employed because they increase their customer base or return to paid employment.

Keywords Self-employment · Dependency · Outsourcing

JEL classification K31 · J21 · J22

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Abhängige Selbständigkeit: Arbeitskräfte im Graubereich zwischen Beschäftigung und Selbständigkeit

Zusammenfassung Mit einer Analyse der britischen Arbeitskräfteerhebung zeigen wir, dass abhängig Selbständige neben den Beschäftigten und den „normalen“ Selbständigen eine eigenständige Kategorie im Arbeitsmarkt begründen. Abhängig Selbständige haben ein volatileres Arbeitsmarktverhalten als Beschäftigte und normal Selbständige. Wir zeigen empirisch, dass abhängig Selbständige eher in diesen Arbeitsmarktstatus gedrängt, als davon angezogen werden, was abhängige Selbständigkeit zu einem Beispiel des „necessity entrepreneurship“ (im Gegensatz zum „opportunity entrepreneurship“) macht. Obwohl die Daten nur eine beschränkte Längsschnittanalyse erlauben, können wir dennoch zeigen, dass die Mehrheit der abhängig Selbständigen am Arbeitsmarkt bleiben – entweder als Selbständige oder Beschäftigte – und nur wenige innerhalb eines Jahres den Arbeitsmarkt verlassen. Abhängig Selbständige schaffen kaum Arbeitsplätze für andere Personen und sie hören meist dann auf abhängig selbständig zu sein, wenn sie für mehrere Auftraggeber zu arbeiten beginnen oder in eine Beschäftigung wechseln.

1 Introduction

The employment relationship between an employer and an employee is typically hierarchical, while relationships between firms are in comparison of a more equal nature. Over the last few decades, we have seen an increase in outsourcing and subcontracting activities that have appeared to replace the hierarchy in firms with market forms of governance. There is, however, evidence that an increasing share of outsourcing activities leads outsourced workers

to be both economically dependent on and hierarchically subordinate to the firms they contract with (ILO 2003; EIRO 2002; OECD 2000). Such relationships have been termed “dependent self-employment”.¹

The ILO (2003) defines dependent self-employed workers as “workers who provide work or perform services to other persons within the legal framework of a civil or commercial contract, but who in fact are dependent on or integrated into the firm for which they perform the work or provide the service in question” (p. 9). In a report on the future of work and labour law for the European Commission, Supiot (2001) looks at self-employed workers that are “economically dependent on a principal” (p. 3) and who are in “permanent legal subordination” (p. 6) to their principal. The OECD (2000) claims that there has been an increase of jobs that “lie on the borders of wage and salary employment and self-employment”, including contractors who work “in a dependent relationship with just one enterprise” and who have only “little or no more autonomy than employees, even when classified as self-employed” (p. 162). In a comparative study at the EU level, EIRO (2002) describes these workers as “economically dependent workers [...] who are formally self-employed but depend on a single employer for their income” (p. 1).

These workers, who are between independent self-employment and dependent employment, may face two forms of dependence. The first dependence is economic in nature, implying that workers carry some or all of the entrepreneurial risk. Because such workers have only one contractor, they generate their whole income from this business relationship. If the two parties do not usually agree on a constant quantity of orders, instead – and quite contrarily – basing the amount of business the dependent self-employed worker receives on the economic situation of the firm the worker contracts with, the dependent self-employed worker obviously takes on the short-term risk of demand fluctuations. The second form of dependence relates to time, place, and content of work. Whether a dependent self-employed worker is more similar to employees or to independent self-employed persons is determined by the degree of these two forms of dependency.

Many governments have increased their efforts to foster self-employment. However, not all self-employment can be considered entrepreneurial in nature – a fact that is sometimes neglected in policy statements in this field. Consequently, concerns about dependent self-employment have been raised in several European countries. Germany, Greece, Belgium, Italy and Austria have introduced policies

to regulate dependent self-employment (OECD 2000). It is argued that the self-employed typically lose their rights under labour law, receive less favourable benefits from social security protection, and are not eligible for trade union representation or collective bargaining. Recognising the lack of labour protection for dependent self-employed workers, there is an active legal and political debate on possible reforms across Europe. In a seminal contribution, the “Supiot Report” (Supiot 2001) stresses that “those workers who cannot be regarded as employed persons, but are in a situation of economic dependence vis-à-vis a principal, should be able to benefit from the social rights to which this dependence entitles them” (p. 220). Studies in management distinguish between “necessity entrepreneurship” – i. e., individuals who become entrepreneurs because they lack alternatives – and “opportunity entrepreneurship”, where individuals actively choose to become entrepreneurs to exploit business opportunities (Acs 2006).

Dependent self-employment enables firms to benefit from flexibility while simultaneously shifting risk to the worker. In that respect, this form of organising labour is similar to temporary or agency work, as it makes the employment of labour more flexible and makes it possible for firms to operate more profitably. For workers, dependent self-employment can be seen as a chance to learn more about their skills, increase their entrepreneurial knowledge, and determine their preferences and risk attitudes. Much like temporary agency work, dependent self-employment can thus be interpreted as a stepping stone towards “genuine” self-employment.

Tests of the stepping-stone hypothesis for temporary agency workers or those on temporary contracts yield various results. For the UK, Booth et al. (2002) show that male workers who started their careers in temporary jobs suffer a permanent wage penalty, while female workers fully catch up with women who started in permanent work. For the Netherlands, De Graaf-Zijl et al. (2004) find that temporary jobs serve as stepping stones towards regular employment. Results for Spain highlight that the probability of obtaining a permanent contract decreases after having held several atypical contracts (Amuedo-Dorantes 2000). Similar results have been found for Italy (Gagliarducci 2005). In Germany and Italy, the negative effects on subsequent careers are also due to the higher risk of unemployment later in the careers of workers who previously worked on the basis of temporary contracts (Scherer 2004).

Empirical literature on the motives for dependent self-employment shows that dependent self-employed workers seem to be recruited from, both those who voluntarily choose this form of work, and those who feel that they have no other employment option (Mühlberger 2007; Mühlberger and Bertolini 2008). Dependent self-employed workers in the UK, Austria, and Italy stress that – unlike

¹ See, for example, Burchell et al. (1999) and Collins (1990) for the UK; Dietrich (1996) for Germany; Lyon-Caen (1990) for France. For international aspects see OECD (2000) and ILO (2003); Supiot (2001), EIRO (2002), Perulli (2003), and Sciarra (2004) provide a European perspective.

employed workers – they enjoy more time flexibility and autonomy (Mühlberger 2007). In contrast to genuine self-employment, they highlight that the organisation of the work process is simple because they work for only one client, typically in close coordination. Furthermore, dependent self-employment seems to be a possibility for women to work part-time and to balance their careers and private lives better than they could in traditional job settings (Mühlberger and Pasqua 2009). However, there are also workers who describe themselves as involuntarily involved in dependent self-employment. These individuals report that they could not find work as an employee or that their sole customer only offered the job on the basis of a business arrangement rather than a work contract. As a consequence, most of these dependent self-employed workers see their position as a temporary means of avoiding unemployment (Mühlberger 2007).

Despite the political debate on dependent self-employment, we know little about dependent self-employed workers due to a lack of corresponding data. The British Labour Force Survey was the first to include variables that aid in identifying dependent self-employed workers. It is the only dataset that facilitates analysis over a longer period of time. The UK is also an interesting case because of its low level of labour market regulation and supposedly few incentives to circumvent regulations (Nickell and Quintini, 2002). Our first aim is to illustrate the prevalence and characteristics of dependent self-employed workers. Second, we analyse the characteristics of dependent self-employed workers with data from the British Labour Force Survey, investigating whether and how dependent self-employed workers differ from employees and (independent) self-employed workers. Third, we examine whether dependent self-employed workers are rather pushed than pulled into this labour market state by analysing the associations of “good” and “bad” characteristics. Fourth, we consider whether dependent self-employment provides the chance to exploit business opportunities (“opportunity entrepreneurship”) or if such workers lack alternatives (“necessity entrepreneurship”). Finally, although data limitations prevent us from testing the stepping-stone hypothesis, we analyse the short-term labour market behaviour of dependent self-employed workers. Prior to these analyses, we briefly discuss the legal context of dependent self-employment in the UK.

2 Dependent self-employment and British labour law

Observers have argued that the traditional scope of labour law and parts of social security law no longer reflect the organization of work in today’s society (Sciarrà 2004; Freedland 2003; Perulli 2003; Supiot 2001; Burchell

et al. 1999). British labour law distinguishes self-employed workers from employees using criteria such as subordination, allocation of risk, and degree of independence. Burchell et al. (1999) claim that this distinction is becoming increasingly difficult to apply. Labour law is thought to protect employees who are regarded as the weaker party in their employment contracts. Self-employed persons, on the other hand, are seen as equal to the parties they contract with and are directly subject to market forces (Perulli 2003: 6f.). New forms of work organisation underline the fuzzy nature of the two concepts.

The employment status under which a person carries out work matters because of the associated employment rights. Employment protection, social security, and taxation vary with employment status. For instance, self-employed persons are widely excluded from employment protection (e. g. paid holidays, social security laws, unemployment insurance and benefits). On the other hand, the self-employed may profit from the tax system, which makes it possible for them to claim a wider range of expenses against tax than workers in paid employment can and may offer greater opportunities for tax evasion. The classification of employment status is therefore important not only from a legal, but also from a social point of view.

In the UK, there is a high degree of uncertainty about the legal and social criteria by which workers are classified, and which leads certain groups of workers to be excluded from both the social security system and the protection of employment legislation (Freedland 2003; Davies and Freedland 2000; Burchell et al. 1999; Freedman and Chamberlain 1997).

In an empirical study on the classification of employment relationships in the UK, Burchell et al. (1999) estimate that around 30 per cent of those in employment hold an unclear employment status. They suggest that using the wider concept of “worker” rather than that of “employee” would increase the number of persons covered by employment rights by 5 per cent of all those in employment. More specifically, using a broader definition in labour law would include individuals who contract their own personal services to an employer without an employment contract and who are (to some degree) economically dependent on the employer, because they derive a substantial part of their income from said employer.

While British case law provides enough legal material to draw the line between an employee and a self-employed person, there are few decisions on the distinction between a dependent “worker” and an independent self-employed person (Burchell et al. 1999). Legal definitions of employment status differ across legislation fields. The employment status of a dependent self-employed worker may be defined one way in employment protection legislation, another for tax purposes, and still another in social security legisla-

tion. The consequence of such differences could result in a worker neither profiting from (potential) tax advantages for the self-employed, nor qualifying for employment protection from unfair dismissal, nor being eligible for redundancy compensation, statutory sick pay, or statutory maternity pay (Burchell et al. 1999; Freedman and Chamberlain 1997).

British legislation distinguishes between three different categories of the scope of labour law. First, an “employee” – as defined in the Employment Rights Act 1996 – is an individual who works under a “contract of employment”. Second, in the 1970s, British legislation expanded some employment protection acts to the newly created category of “employed persons” introduced in the Equal Pay Act 1970, in parts of the Sex Discrimination Act 1975, and in the Race Relations Act 1976. “Employed persons” are individuals with “any other contract personally to execute any work or labour” (Freedland 2003, p. 23), going clearly beyond the definition of a “contract of employment”. Third, recent British legislation has attempted to classify dependent self-employed workers to some extent by establishing the category of “worker” (Freedland 2003, pp. 22–26). For instance, legislation on working time, minimum wage levels, disability discrimination, part-time work, and protection from unauthorised wage deductions apply not only to employees, but to all contracts in which an individual agrees to personally carry out work without running a genuine business of his or her own (Freedland 2003; Davies and Freedland 2000). The Employment Relations Act 1999 empowers the Secretary of State to confer some or all employment rights to categories of workers who do not or cannot presently benefit from them (EIRO 2002).

Although the idea of an employee-like category of workers has not historically been part of British labour law (as, for instance, in Germany or Italy), these recent attempts give employee-like workers more labour law protection (Davies and Freedland 2000). However, as Burchell et al. (1999) point out, many aspects of the growing adoption in legislation of the concept of the “worker” remain unclear, which reflects the fact that it is not yet apparent which criteria the courts will apply in determining where the line between a dependent worker and a genuinely independent self-employed is to be drawn.

3 Identifying dependent self-employed workers

As discussed above, both labour courts and legislation find it difficult to define dependent self-employed workers. In addition, survey data only recently began to facilitate the identification of such workers; the British Quarterly Labour Force Survey (BLFS) of spring 1999 was the first European sur-

vey to include the corresponding variables (ONS 1999). We use data from the spring surveys of the BLFS between the years 1999 and 2005 to analyse the characteristics of dependent self-employed workers, defining these individuals as self-employed workers who have no employees and only one customer.²

We wish to stress that the BLFS relies on self-reporting of employment status, which does not necessarily correspond to the legal classification. Burchell et al.’s (1999) survey of a representative sample of 4,000 workers found that 30 per cent had an ambiguous employment status, and that 8 per cent were legally classified as “self-employed”. Another classification problem could arise from the fact that some individuals may be classified as employees for tax purposes, but as self-employed in employment issues (or vice versa); it is not clear which labour market status these individuals report in the BLFS. In addition, we might classify some “genuinely” self-employed workers as dependent self-employed because of temporary fluctuations in number employed, number of customers, or both. We return to classification problems below.

We identify some 4,680 dependent self-employed workers in the seven years under review, or about 1.5 per cent of workers, by combining information on whether or not the workers are self-employed, have one single customer, and have no employees (see Table 1). The comparison groups consist of 262,542 employees and 44,756 self-employed individuals who have at least one employee, more than one customer, or both. Table 1 shows that the relative extent of dependent self-employment was stable over the seven years.

The sample characteristics, presented in Table 2, show that the dependent self-employed are more similar to the self-employed than to employees for most of the observed characteristics. For example, 73 per cent of the dependent self-employed are men, compared to 74 per cent of the self-employed and about 58 per cent of employees. On average, the dependent self-employed are 43 years old, the self-employed 44 years, and employees 39 years of age. The distributions of highest educational attainment are also more similar between the dependent self-employed and the self-employed than between the dependent self-employed and employees.³ Similarly, the distributions across occupations and sectors are more comparable between the dependent self-employed and the self-employed than between the dependent self-employed and employees.

In certain aspects, however, the dependent self-employed are more like employees than the self-employed – such as in the distribution of residential and job tenures. The depen-

² The questions pertaining to dependently self-employed workers were only asked in the spring surveys (ONS 1999–2005).

³ On average, female dependently self-employed workers are better educated than their male counterparts.

Table 1 Workers by employment status, 1999–2005

Economic activity	Year 1999	2000	2001	2002	2003	2004	2005	Total
Employee	40,348	39,420	38,356	38,910	36,751	34,585	34,172	262,542
%	84.41	84.72	84.61	84.65	83.81	83.27	83.42	84.15
Self-employed	6,667	6,445	6,333	6,421	6,437	6,298	6,155	44,756
%	13.95	13.85	13.97	13.97	14.68	15.16	15.03	14.35
Dependently self-employed	786	664	645	633	664	652	636	4,680
%	1.64	1.43	1.42	1.38	1.51	1.57	1.55	1.50
Total	47,801	46,529	45,334	45,964	43,852	41,535	40,963	311,978

Note: Data from the March Surveys of the British Labour Force Survey. Economic activity is self-reported. Dependently self-employed are self-employed, with one customer and no employee

dent self-employed exhibit the same level of occupational mobility as employees: in both groups, around 64 per cent reported the same occupation as in the previous year. Meanwhile, the self-employed demonstrated slightly less occupational mobility, with 68 per cent remaining in the same occupational category from year to year. Amongst the dependent self-employed, some 26 per cent reported working part-time; the part-time rate for employees and the self-employed were 21 and 18 per cent, respectively.

Nevertheless, there are characteristics where the dependent self-employed are between the self-employed and employees: marital status and number of children, as well as number of regular working hours. About 76 per cent of the dependent self-employed reporting living with their spouse, a rate recorded at 82 per cent for the self-employed and 69 per cent for employees. On average, the dependent self-employed work 36 hours per week on a regular basis; the self-employed average five hours more per week, whereas employees work slightly less at an average of 34 hours per week. The relatively low average hours per week of the dependent self-employed and employees are driven in part by the greater number of part-time workers in these two groups.

Most dependent self-employed workers are in a skilled trade, while comparatively few work in clerical occupations or sales and other customer services. They mainly work in the construction and the financial services industries, as also documented in Harvey (2003) and Mühlberger (2007).

Economic theory suggests that workers who face worse working conditions earn higher wages than otherwise equal workers. Although the BLFS has started to collect wage information in the first and the fifth (last) interviews of its panel members rather than only elicit such information in the last interview (as was its previous practice), we currently do not have enough data to test for the compensating wage differential hypothesis.⁴

⁴In particular, last year's mean gross weekly pay is available for only 58 dependently self-employed workers. However, they earned £437 (SD 320)

3.1 Multivariate analysis

We estimate multi-nomial logit models to compare the three groups of workers, which will then enable us to evaluate the associations of certain variables with the observed employment status while holding all other characteristics constant. These multi-nomial logit models estimate the odds of being a dependently self-employed worker versus the odds of being an employee; the odds of being an employee versus being self-employed; and indirectly, the odds of being dependent and self-employed versus being self-employed. In order to determine the model, one group has to serve as the comparison group; we chose the largest group, employees.⁵ All results are presented in relative risk ratios, RRR (the exponentiated coefficients). The RRRs give the odds of being in one group versus the odds of being an employee. An RRR greater (less) than one indicates that the risk of being in a group is greater (smaller) for higher values of a variable. The results are presented in Table 3.

The first of our models, which serves as a benchmark for the other specifications below, uses only contemporaneous variables to explain employment status. The underlying assumption in such empirical models is that labour market status is a choice variable with associated expected utility. Expected utility is a function of available capital, personal characteristics including entrepreneurial ability, expected income from profits or wages, and the level of demand in the economy (Taylor 1999). In such a framework, a worker will become dependently self-employed if he or she expects to receive a higher income from being dependently self-

on average, in contrast to an average of £348 (SD 303) for the 22,219 other workers.

⁵The estimates are not changed by the choice of comparison group; see Böheim and Mühlberger (2006), in which estimation results are presented from a probit estimation of the probability of being dependently self-employed versus that of being independently self-employed. We also present the RRRs of dependent self-employment from the multi-nomial estimation when the independently self-employed are chosen as the reference group.

Table 2 Summary statistics by employment status

	Employee Mean	(SD)	Self-employed Mean	(SD)	Dependently self-employed Mean	(SD)
Male	0.572	–	0.738	–	0.730	–
Age	38.981	11.863	44.911	10.395	43.107	11.502
White	0.794	–	0.797	–	0.796	–
Lives with spouse	0.695	–	0.816	–	0.763	–
Kids under 19 years (#)	0.760	1.020	0.881	1.140	0.828	1.100
Kids under 5 years (#)	0.176	0.462	0.185	0.484	0.203	0.497
Kids 5–9 years (#)	0.199	0.492	0.245	0.551	0.230	0.532
Highest qualification						
Degree or equivalent	0.141	–	0.190	–	0.157	–
Higher education	0.081	–	0.080	–	0.082	–
GCE A level or equiv.	0.269	–	0.329	–	0.324	–
GCSE A-C level or equiv.	0.244	–	0.158	–	0.154	–
Other qualification	0.145	–	0.113	–	0.144	–
No qualification	0.120	–	0.130	–	0.138	–
Residential tenure						
< 1 year	0.100	–	0.069	–	0.089	–
1–2 years	0.104	–	0.082	–	0.101	–
2–3 years	0.080	–	0.070	–	0.074	–
3–5 years	0.123	–	0.119	–	0.120	–
5–10 years	0.186	–	0.196	–	0.181	–
>= 10 years	0.406	–	0.463	–	0.435	–
Job characteristics:						
Regular working hours ^a	34.019	11.522	41.337	18.063	36.180	17.933
Job tenure						
< 3 months	0.042	–	0.018	–	0.061	–
3–6 months	0.038	–	0.018	–	0.042	–
6–12 months	0.072	–	0.037	–	0.069	–
1–2 years	0.145	–	0.079	–	0.131	–
2–5 years	0.248	–	0.170	–	0.207	–
5–10 years	0.166	–	0.172	–	0.156	–
10–20 years	0.191	–	0.286	–	0.195	–
>= 20 years	0.098	–	0.220	–	0.138	–
Occupation						
Managers and senior officials	0.177	–	0.202	–	0.069	–
Professionals	0.079	–	0.128	–	0.136	–
Associate professionals and technicians	0.105	–	0.139	–	0.126	–
Clerical occupation	0.131	–	0.029	–	0.044	–
Skilled trade	0.119	–	0.302	–	0.336	–
Personal service	0.053	–	0.055	–	0.073	–
Sales and customer services	0.104	–	0.025	–	0.011	–
Operatives	0.116	–	0.073	–	0.107	–
Elementary	0.107	–	0.043	–	0.097	–
Same occupation as $t - 1$	0.642	–	0.679	–	0.642	–
Sector						
Agriculture	0.010	–	0.058	–	0.056	–
Energy	0.017	–	0.002	–	0.010	–
Manufacturing	0.245	–	0.069	–	0.096	–
Construction	0.069	–	0.213	–	0.307	–
Distribution	0.250	–	0.189	–	0.055	–
Transport	0.084	–	0.067	–	0.087	–
Banking and finance	0.195	–	0.0192	–	0.197	–
Public administration	0.086	–	0.098	–	0.104	–
Other services	0.044	–	0.112	–	0.088	–

employed than from being a directly hired employee. In this case, we expect characteristics that are generally associated with better (labour) market outcomes – better education, for example – to be associated with both dependent and

independent self-employment relative to being employed. If, in contrast, workers are being pushed into dependent self-employment because of weak bargaining power, the statistical associations of our estimates will be reversed.

Table 2 Continued

	Employee Mean	(SD)	Self-employed Mean	(SD)	Dependently self-employed Mean	(SD)
Other services	0.044	–	0.112	–	0.088	–
Employment at $t - 1$						
Self-employed. w/o employees	0.007	–	0.656	–	0.805	–
Part-time	0.211	–	0.184	–	0.256	–
Supervisory	0.307	–	0.034	–	0.052	–
Occupation						
Managers and senior officials	0.174	–	0.226	–	0.089	–
Professionals	0.075	–	0.129	–	0.121	–
Associate prof. and technicians	0.095	–	0.133	–	0.133	–
Clerical occupations	0.141	–	0.031	–	0.048	–
Skilled trade	0.125	–	0.284	–	0.312	–
Personal services	0.061	–	0.049	–	0.073	–
Sales and customer services	0.105	–	0.031	–	0.020	–
Operatives	0.116	–	0.073	–	0.107	–
Elementary	0.107	–	0.043	–	0.097	–
N	217,331		38,565		4,146	

^a # of observations: employee (200,151), self-employed (34,522), dependently self-employed (3,671)

In other words, depending on the estimated associations of “good” and “bad” characteristics with dependent self-employment, we may discriminate between a pull vs. a push theory of dependent self-employment.

The estimation reveals that men are more likely to be self-employed, both dependently and independently, than women. The probability of a man being dependently self-employed rather than an employee is more than twice that of a woman. This result is often found in empirical analyses (e. g. Taylor 2001), but it is not clear whether it is driven by entrepreneurial spirit, an affinity for risk-taking, or other, unobserved factors. Taylor (1999) reports that men terminate self-employment more often than women due to bankruptcy (18 vs. 10 per cent), but that women are much more likely than men to terminate self-employment to care for their families (some 20 per cent of women’s self-employment spells end for this reason, compared to less than 4 per cent for men).

We also estimate that the odds of being self-employed are greater the older the worker is, but at a declining rate (RRRs of more (less) than one for age (age squared)). The same is true, although to a lesser degree, when comparing the dependently self-employed with employees. The odds of being dependently self-employed are greater the older the worker is, at a slightly declining rate. Interpretation of this result is difficult because age could be a proxy for both experience and outdated skills. Cowling and Taylor (2001) interpret their findings to mean that the self-employed with employees are older than those without employees, arguing that older males with more life experience have “accumulated a valuable store of human capital, which is essential for business survival and subsequent growth” (p. 174).

Flexibility in working time is often quoted as an important reason for being self-employed. Lombard (2001), for example, finds that married women are more likely to choose self-employment over being an employee, and that the likelihood of being self-employed increases with the demand for non-standard working hours and flexibility. Our estimates show that workers who are married or cohabiting are less likely to be dependently self-employed than employees, and that those with a pre-school-age child are more likely to work either as self-employed or dependently self-employed workers than as employees. We interpret this result as an indication that dependent self-employment offers more flexibility than being an employee; however, self-employment seems to offer the most flexibility.

The association between duration of residential tenure and employment status points to a positive association of tenures for the independently self-employed. Those who have relatively short tenures are more likely to work as dependently self-employed workers than in either of the two other categories. The causal relationship is uncertain, as it is probable that a change in employment and the expected change in living income may lead to a change in a worker’s choice of residence.

Ethnic minorities are typically disproportionately self-employed in OECD countries, so any analysis of self-employment needs to take ethnic background into consideration.⁶ Since sample sizes do not provide a detailed

⁶ See Clark and Drinkwater (2000) for a detailed analysis of self-employment amongst ethnic minorities in England and Wales.

view of different ethnic backgrounds, we use a dichotomous distinction between white and non-white workers. We estimate that workers from non-white ethnic backgrounds are more likely to be self-employed and less likely to be dependently self-employed than whites.⁷ We can only speculate on the underlying reasons for these empirical associations. Clark and Drinkwater (2000) suggest that discriminatory wages may push ethnic minorities into self-employment and that (informal) loan arrangements may lower their entry costs. Dustmann and Fabbri (2005) stress that comparative advantages of certain groups of immigrants (e.g. speciality restaurants) may ease their becoming self-employed. This interpretation corresponds well with the concentration of non-white British workers in the restaurant sector, where dependent self-employment is unlikely. Thus, although independent self-employment in the UK has an ethnic component to it, the same does not seem to apply to dependent self-employment.

When we consider formal education and the odds of being dependently self-employed versus being an employee, we estimate that workers with more formal education are equally likely to be dependently self-employed or work as employees (the estimated RRRs are not different from 1 at conventional statistical levels). However, the estimation does show a strong positive association between high levels of formal education and being self-employed, in comparison to being an employee. A positive correlation between educational achievement and self-employment status is found by most studies. Henley (2005) finds that formal education is also associated with the creation of jobs by the self-employed, and suggests that higher education provides “soft skills” such as self-confidence and self-reliance, which may determine an entrepreneur’s success. We interpret these associations first and foremost as evidence that dependently self-employed workers are different from the “genuinely” self-employed. In addition, formal education may serve as a proxy for financial wealth (Cressy 1996), and thus the ability to set up a business – in other words, as evidence of opportunity-driven entrepreneurship.

How statistically significant are these findings? A Wald test of the differences among the dependently self-employed, the self-employed, and employees confirms that these differences are indeed statistically significant (p-value of less than 0.00).

The BLFS also provides variables that gauge the respondent’s labour market status from the previous year. While such retrospective data may be afflicted with non-random errors, it does come closest to longitudinal data, which would facilitate the analysis of workers over time. We use these

additional variables in Model 2, also presented in Table 3. These additional variables describe the job situation a year before the current interview in terms of the standard occupational category (SOC) of the job. We first note that most estimated odds do change a little when we include the additional variables in our model. Changes occur in the association between formal education and the probability of being in a particular employment category. This is an expected result, as formal education and choice of occupation are correlated. The results now show more clearly that all but one level of formal education (“other qualification”) are not associated with a different probability of being a dependently self-employed worker than an employee. A high level of formal education (i.e. a university degree) is associated with a significantly greater probability of being self-employed than being an employee.⁸ The estimates show that workers who worked as professionals, associate professionals and technicians, or in a skilled trade one year prior to a particular interview are more likely to be independently or dependently self-employed workers than employees at the time of the interview. In contrast, those who worked in a clerical occupation or in sales and customer services one year prior to the interview are less likely to be independent or dependently self-employed than employees. However, workers in low-skilled occupations such as personal services, operatives, and elementary occupations in the previous year had a greater probability of being dependently self-employed than employees, but a lower probability of being independently self-employed than employees. Thus, those in low-skilled jobs are more likely to move on to dependent self-employment.

In a third model, we perform estimations that include information on part-time status, supervisory roles, and job tenure from the previous year as additional variables in the regressions. Part-time status might indicate a relative demand for flexible working-time arrangements, and we expect a positive association between the previous year’s part-time status and the current year’s self-employment status. Time spent as a supervisor in a worker’s previous job is a proxy for firm-specific human capital and management skill; we expect that these workers are less likely to work in self-employment, and amongst the self-employed, to be more likely than not to have their own employees. Tenure is used as an additional indicator of human capital, where longer tenures are an indicator of firm-specific human capital. We expect that workers with short tenures are those who have little bargaining power: their relative productivity is low due to their comparative lack of experience, making them more likely to work in dependent self-employment.

⁷Note, however, that this result is not statistically significant in the first specification; this is related to the crudity of the measure of ethnicity, as the estimation results are more precise in the other models.

⁸Including interaction terms between gender and education in the regressions do not change this result.

We see that those who worked part-time in the previous year are more likely to be dependently or independently self-employed workers than employees. Those who had a job that included supervision of other workers are found to have rather low odds of being dependently (or independently) self-employed. We find that workers who started a new job are more likely to be dependently self-employed (but less likely to be independently self-employed) than employees.

3.2 Robustness checks

The UK-LFS is a rotating panel survey which replaces one-fifth of the respondents every quarter, enabling us to observe about one-fifth of respondents after one year. Since the questions we use to construct whether a worker is dependently self-employed or not are only asked in the spring quarters, we can follow only about one-fifth of workers from year to year. We use this reduced sample, with possible sample selection problems stemming from differential attrition, to shed some light on how robust our definition of dependent self-employment is. Table 4 provides a transition matrix of workers who were interviewed in two subsequent spring quarters. In this sample, dependent self-employment is not a stable employment category: about two-thirds of the dependently self-employed cease to be dependently self-employed in the course of a year. In contrast, only about 0.8 per cent of other workers become dependently self-employed.⁹

Finally, we turn to see which of the variables that were used to construct dependent self-employment have changed in order to analyse whether changing demand (number of customers) or an increase in employees was responsible for the termination of dependent self-employment. Table 5 shows that most of those who entered dependent self-employment were previously self-employed and had more than one customer. Those who left dependent self-employment started doing business with more than one customer.

Consequently, on both sides we see that the reason for entering or leaving the status of dependent self-employment was mainly due to changes in customer numbers and certainly not to a changing number of employees. This is comparable to the results of Henley (2005), who, using data from the British Household Panel Survey (BHPS), finds that some 80 per cent of the self-employed workers who reported having no employees in one interview are also self-employed with no employees in the next year.¹⁰ We find that of those who stopped working as dependently

Table 4 Dependent self-employment year-on-year

Dependently self-employed, $t - 1$	Dependently self-employed, t		Total
	No	Yes	
No	33,333	283	33,616
%	99.16	0.84	100.00
Yes	422	199	621
%	67.95	32.05	100.00
Total	33,755	482	34,237
	98.59	1.41	100.00

Note: Sample limited to workers who were interviewed in the March survey of the BLFS in two subsequent years – approximately one fifth of respondents are interviewed in the fifth quarter after their first interview. Of the 422 who stopped working as dependently self-employed, 104 (17%) worked as employees, 318 (51%) worked as self-employed, and 4 left the labour force between $t - 1$ and t

Table 5 Dependent self-employment, by changes in characteristics, year-on-year

	DSE Entrants $t - 1$	DSE Leavers t
Self-employed, Employees	199, 82	318, 104
Number of customers		
One	4	1
More than one	189	262
Do not know	6	29
Employees		
None	190	302
One, or more	9	16
N	199	422

Note: Sample limited to workers who were interviewed in the March survey of the BLFS in two subsequent years – approximately one fifth of respondents are interviewed in the fifth quarter after their first interview

self-employed, 17% started to work as employees and 51% worked as self-employed. Less than 1% left the labour force between $t - 1$ and t .

4 Conclusions

The entrepreneurial nature of self-employed workers has been the focus of several studies (Mühlberger 2007; Sciarra 2004; ILO 2003; EIRO 2002; Supiot 2001; OECD 2000). These studies suggest that a growing number of the self-employed cannot be considered entrepreneurial, as they are tightly bound to a sole contractor. In consequence, some legal scholars are calling for an extension of traditional labour law to grant dependently self-employed workers a similar level of employment rights as employees (Sciarra 2004; Freedland 2003; Supiot 2001).

Our analyses show that dependently self-employed individuals are those with more volatile labour market connec-

⁹In comparison, Henley (2005) finds that nearly 11 per cent of the self-employed revert to paid employment year-on-year.

¹⁰The BHPS has no information on customer numbers.

tions. We find that those who worked part-time one year ago have a higher chance of being dependently self-employed than employees in the current period, and that those who had a supervisory role one year ago are less likely to be dependently self-employed. Married or cohabiting individuals are less likely to be dependently self-employed than those who are single, whereas workers who have long residential tenures are similarly less likely to be dependently self-employed than those with short tenures.

The comparison of dependently self-employed workers over time stresses that dependent self-employment is not an absorbing labour market state. We find that from year to year, only a third remain dependently self-employed, with the remaining individuals changing to a different labour market state. The majority (52 per cent) move into “genuine” self-employment and 17 per cent become employees. Moreover, those who leave or enter dependent self-employment do so mostly because of changes in customer, rather than employee, numbers. This finding should caution those calling for an unconditional extension of employees’ rights to the dependently self-employed, as some workers only appear temporarily in this category.

There are, however, indications that dependently self-employed workers are pushed rather than pulled into this labour market status. First, we find dependent self-employment to be a highly volatile labour market status, suggesting that this status is seen and used as a transitional one. Second, the year-on-year analysis shows that it is rather low-skilled workers – probably those with little bargaining power – that enter dependent self-employment.

Correspondingly, we also find evidence that dependent self-employment is an example of entrepreneurship out of necessity. The reason for entering or leaving the status of dependent self-employment is due to changes in customer rather than employee numbers, meaning that we do not observe growing businesses that are able to exploit business opportunities.

Finally, although our data only facilitates a highly limited year-on-year analysis, we nevertheless provide evidence that the majority of dependently self-employed workers stay in the labour market (in the short run) either in self-employment or as employees. However, determining whether dependent self-employment provides a stepping stone or dependently self-employed workers suffer long-term career and wage penalties is beyond the possible scope of our analysis due to data limitations. Since our data does not allow us to address the question of whether (or to what extent) dependently self-employed workers are dependent on their sole contractors, this is an issue for further research, possibly involving other research methodologies.

Although our analysis is limited due to data restrictions – for instance, we cannot test for compensating wage differ-

entials because there are too few observations with wage information, nor can we address the issue of self-selection into dependent self-employment due to higher innate productivity – we have shown that dependently self-employed workers are statistically significantly different from both employees and the (genuinely) self-employed. Based on our results, we also argue that dependent self-employment is volatile, but the categorisation may suffer from measurement error if customer and employee numbers change rapidly over time.

In our view, the implications for policy first point to a need to establish clear criteria for how different types of workers are to be treated by labour law and other legislation. As we have shown in our analyses, the distinctions are fluid and characterisations may change quickly. With regard to job creation, we have doubts that outsourced, dependently self-employed workers will be a potential engine of economic growth; few of those in our sample had begun to employ others in the course of a year. Indeed, most inflows into and outflows from dependent self-employment were caused by fluctuations in customer numbers and not driven by the hiring of employees. In this light, the promotion of self-employment to increase overall employment needs to be observed with caution because current entrepreneurs are self-selected and will differ from those who become self-employed because of governmental policy (e. g. Fölster 2000).

We believe that the distinction between the dependently self-employed and the “genuinely” self-employed is worthy of further investigation. Comparisons of different national labour markets and the investigation of how institutions such as labour laws influence the emergence (or suppression) of dependently self-employment, or even other types of self-employment, are certainly aspects that should generate research. In addition, qualitative research may provide insights into the considerations, feelings, motivations, and experiences of the dependently self-employed. Dependent self-employment may serve these workers best, but even with the best data currently available, we are unfortunately unable to answer all these questions.

Executive summary

Several studies on the self-employed suggest that many are tightly bound to a sole contractor and, in consequence, cannot be considered entrepreneurial. Legal scholars are calling for an extension of traditional labour law to grant these “dependently self-employed” workers a similar level of employment rights as employees. Dependent self-employment refers to self-employed workers who have no employees and only one customer.

Using data from the British Labour Force Survey, we illustrate the extent of dependent self-employment, analyse

the characteristics of the dependently self-employed, and investigate whether and how they differ from employees and the “genuinely” self-employed. Further, we examine whether dependently self-employed workers are pushed or pulled into this labour market state by analysing the associations of “good” and “bad” characteristics. We also look into whether dependent self-employment provides an opportunity to exploit business opportunities (“opportunity entrepreneurship”) or if the absence of alternatives is the reason for choosing this particular type of labour market status (“necessity entrepreneurship”). Finally, we analyse the short-term labour market behaviour of dependently self-employed workers to investigate the amount of in- and outflow in dependent self-employment, as well as the primary changes in the defining variables.

We show that dependently self-employed workers are statistically significantly different from both employees and the (genuinely) self-employed. Our analyses highlight that dependently self-employed workers exhibit more volatile labour market attachment; for example, we find that those who worked part-time in the previous year have a higher chance of being dependently self-employed than employees in the current period. The comparison of dependently self-employed workers over time stresses that dependent self-employment is not an absorbing labour market state. We find that from year to year, only one-third remain dependent self-employed, with the other two-thirds changing to a different labour market state. The majority (52 per cent) move into “genuine” self-employment, while 17 per cent become employees. Moreover, those who leave or enter dependent self-employment do so mostly because of changes in customer, rather than employee, numbers. This result should caution those calling for an unconditional extension of employees’ rights to the dependently self-employed, as some of them will only temporarily appear in this category.

There are, however, indications that workers are rather pushed than pulled into dependent self-employment. First, we find that dependent self-employment is transitional. Second, the year-on-year analysis shows that it is rather low-skilled workers – probably those with little bargaining power – that enter dependent self-employment. We also find evidence that dependent self-employment is an example of entrepreneurship out of necessity. The main reason for entering or leaving dependent self-employment is due to changes in customer numbers – in other words, we do not observe these self-employed individuals evolving into “genuine” businesses.

The implications for policy first point to a need to establish clear criteria for how different types of workers are to be treated by labour law and other legislation. As we have shown in our analyses, the distinctions are fluid and char-

acterisations may change quickly. With regard to job creation, we have doubts that the outsourced, dependently self-employed workers will be a potential engine of economic growth, as few of those in our sample had begun to employ others in the course of the year. Indeed, most inflows into and outflows from dependent self-employment were caused by fluctuations in customer numbers and not by the hiring of employees. In this light, the promotion of self-employment to increase overall employment needs to be observed with caution because current entrepreneurs are self-selected and will differ from those who become self-employed because of governmental policy.

Kurzfassung

Zahlreiche Studien zu Selbständigkeit legen den Schluss nahe, dass viele Selbständige an einen einzigen Auftraggeber gebunden sind und deshalb nicht als Unternehmer gesehen werden können. Juristen und Juristinnen plädieren für eine Erweiterung des traditionellen Arbeitsrechts, um auch diesen „abhängig Selbständigen“ ähnliche Arbeitsrechte wie den abhängig Beschäftigten zu gewähren. Selbständige Arbeitskräfte, die keine Beschäftigten haben und nur für einen Auftraggeber arbeiten, werden als abhängige Selbständige bezeichnet.

Wir illustrieren das Ausmaß abhängiger Selbständigkeit mit Daten der britischen Arbeitskräfteerhebung, analysieren deren Merkmale, und untersuchen, ob und wie sie sich von Beschäftigten und „normal“ Selbständigen unterscheiden. Weiters untersuchen wir anhand von „guten“ und „schlechten“ Merkmalen, ob abhängig Selbständige in diesen Arbeitsmarktstatus gedrängt oder davon angelockt werden. Wir analysieren auch, ob abhängige Selbständigkeit eine Chance bietet, Geschäftsmöglichkeiten zu verfolgen („opportunity entrepreneurship“) oder ob das Fehlen von Alternativen der Grund für die Wahl dieses Arbeitsmarktstatus ist („necessity entrepreneurship“). Außerdem analysieren wir das kurzfristige Arbeitsmarktverhalten von abhängig Selbständigen auf Basis von Zugängen und Austritten.

Wir zeigen, dass sich abhängig Selbständige statistisch signifikant sowohl von der Gruppe der Beschäftigten als auch von der Gruppe der normalen Selbständigen unterscheiden. Unsere Analyse hebt hervor, dass abhängig Selbständige ein volatileres Arbeitsmarktverhalten aufweisen. So zeigen wir z. B., dass jene, die im vorangegangenen Jahr in einer Teilzeitbeschäftigung waren, ein höheres Risiko aufweisen, im untersuchten Jahr abhängig Selbständig zu sein. Der Vergleich von abhängig Selbständigen über eine längere Periode hinweg zeigt, dass es sich um keinen absorbierenden Arbeitsmarktstatus handelt. In einem Vergleich abhängig Selbständiger zu zwei verschiedenen

Zeitpunkten sehen wir, dass nur ein Drittel länger als ein Jahr abhängig selbständig bleibt, und zwei Drittel in einen anderen Arbeitsmarktstatus wechseln. Die Mehrheit (53 Prozent) wird innerhalb eines Jahres zu „normalen“ Selbständigen, während 17 Prozent in eine Beschäftigung wechseln. Das Verlassen bzw. der Neueintritt in den Status der abhängigen Beschäftigung ist meist durch eine Änderung der Zahl der Auftraggeber – und nicht der Beschäftigten – begründet. Dieses Ergebnis sollte jene zur Vorsicht mahnen, die für eine bedingungslose Erweiterung des Arbeitsrechts zugunsten von abhängig Selbständigen eintreten, da viele nur vorübergehend in diese Kategorie sind.

Es gibt jedoch auch empirische Evidenz dafür, dass abhängig Selbständige eher in diesen Status gedrängt als davon angelockt werden. Erstens finden wir, dass abhängige Selbständigkeit relativ kurzfristig ist. Zweitens werden eher gering qualifizierte Beschäftigte – also eher jene mit geringer Verhandlungsmacht – abhängig selbständig. Wir finden auch Belege dafür, dass abhängige Selbständigkeit eher aufgrund des Fehlens von Alternativen entsteht. Der wesentliche Grund für das Verlassen oder das Eintreten in diesen Arbeitsmarktstatus ist die Veränderung der Anzahl von Auftraggebern – wir beobachten also kaum einen Übergang von abhängiger zu normaler Selbständigkeit.

Die wirtschaftspolitischen Implikationen deuten auf eine Notwendigkeit hin, klare Kriterien für die unterschiedlichen Arbeitsmarktstatus für das Arbeitsrecht und andere Gesetze zu entwickeln. Wir haben mit unseren Untersuchungen gezeigt, dass die Unterscheidungen nicht starr sind und sich die Merkmale ständig verändern. Wir haben Zweifel, ob die ausgelagerten abhängig Selbständigen ein wesentlicher Motor für ein Wirtschaftswachstum sein können, da nur wenige von ihnen auch andere beschäftigen. Die meisten Zu- oder Abgänge waren durch eine Veränderung der Anzahl der Auftraggeber – und nicht durch die Beschäftigung von Arbeitskräften – begründet. Eine Förderung von abhängiger Selbständigkeit um eine Erhöhung der allgemeinen Beschäftigung zu bewirken, muss mit Vorbehalten betrachtet werden, da jene, die sich bereits für die Selbständigkeit entschlossen haben, sich von denjenigen unterscheiden werden, die diesen Schritt auf Grund von Aktivitäten der Regierung wagen werden.

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References

- Acs, Z.: How is Entrepreneurship Good for Economic Growth? *Innov. Technol. Gov. Glob.* **1**(1), 97–107 (2006)
- Amuedo-Dorantes, C.: Work Transitions Into and Out of Involuntary Temporary Employment in a Segmented Market: Evidence from Spain. *Ind. Labor Relat. Rev.* **53**(2), 309–325 (2000)
- Böheim, R., Mühlberger, U.: Dependent Forms of Self-employment in the UK: Identifying Workers on the Border between Employment and Self-employment. IZA Discussion Paper No. 1963. IZA, Bonn (2006)
- Booth, A.L., Francescon, M., Frank, L.: Temporary Jobs: Stepping Stones or Dead Ends? *Econ. J.* **112**, F189–F213 (2002)
- Burchell, B., Deakin, S., Honey, S.: The Employment Status of Individuals in Non-standard Employment. Department of Trade and Industry, London. <http://www.dti.gov.uk/files/file11628.pdf> (1999). Accessed 29 Sept 2004
- Clark, K., Drinkwater, S.: Pushed out or pulled in? Self-employment among ethnic minorities in England and Wales. *Labour Econ.* **7**, 603–628 (2000)
- Collins, H.: Independent Contractors and the Challenge of Vertical Integration to Employment Protection Laws. *Oxf. J. Leg. Stud.* **10**, 353–380 (1990)
- Cowling, M., Taylor, M.: Entrepreneurial women and men: Two different species? *Small Bus. Econ.* **16**(3), 167–175 (2001)
- Cressy, R.: Are Business Start-ups Debt-rationed? *Econ. J.* **106**(438), 1253–70 (1996)
- Davies, P., Freedland, M.: Employees, Workers and the Autonomy of Labour Law. In: Simon, D., Weiss, M. (eds.) *Zur Autonomie des Individuums. Liber Americum Spiros Simitis. Nomos, Baden-Baden* (2000)
- De Graaf-Zijl, M., Van den Berg, G.J., Heyma, A.: Stepping Stones for the Unemployed: The Effect of Temporary Jobs on the Duration until Regular Work. IZA Discuss. Pap. No. 1241, Bonn (2004)
- Dietrich, H.: Empirische Befunde zur Scheinselbständigkeit, Ergebnisse des IAB-Projekts 4–448V ‚Freie Mitarbeiter und selbständige Einzelunternehmer mit persönlicher und wirtschaftlicher Abhängigkeit‘, edited by the German Federal Ministry of Labour and Social Order, Bonn (1996)
- Dustmann, C., Fabbri, F.: Immigrants in the British Labour Market. *Fisc. Stud.* **26**(4), 423–470 (2005)
- EIRO (European Industrial Relations Observatory on-line): Economically Dependent Workers, Employment Law and Industrial Relations. EU countries. <http://www.eiro.eurofound.eu.int/2002/05/study/tn0205101s.html> (2002). Accessed 28 Sept 2004
- Fölster, S.: Do entrepreneurs create jobs? *Small Bus Econ* **14**(2), 137–148 (2000)
- Freedland, M.: *The Personal Employment Contract*. Oxford University Press, Oxford (2003)
- Freedman, J., Chamberlain, E.: Horizontal Equity and the Taxation of Employed and Self-Employed Workers. *Fisc. Stud.* **18**, 87–118 (1997)
- Gagliarducci S.: The Dynamics of Repeated Temporary Jobs. *Labor Econ.* **12**(4), 429–448 (2005)
- Harvey, M.: The United Kingdom. Privatization, Fragmentation, and Inflexible Flexibilization in the UK Construction Industry. In: Bosch, G., Philips, P. (eds.) *Building Chaos. An International Comparison of Deregulation in the Construction Industry*, pp. 188–209. Routledge, London, New York (2003)
- Henley, A.: Job creation by the self-employed: The roles of entrepreneurial and financial capital. *Small Bus. Econ.* **25**, 175–196 (2005)
- ILO: The Scope of the Employment Relationship. Report V. International Labour Conference. 91st Session, Geneva. <http://www.ilo.org/public/english/standards/reln/ilc/ilc91/pdf/rep-v.pdf> (2003). Accessed 22 Oct 2004

- Lombard, K.V.: Female self-employment and demand for flexible, non-standard work schedules. *Econ. Inq.* **39**(2), 214–237 (2001)
- Lyon Caen, G.: *Le droit du travail non-salarié*, Report for the Commissariat général du Plan. Ed. Sirey, Paris (1990)
- Mühlberger, U.: *Dependent Self-employment. Workers on the Border Between Employment and Self-employment*. Palgrave Macmillan, Houndmills (2007)
- Mühlberger, U., Bertolini, S.: The Organizational Governance of Work Relationships Between Employment and Self-employment. *Socio-Econ. Rev.* **6**(3), 449–472 (2008)
- Mühlberger, U., Pasqua, S.: *Workers on the Border between Employment and Self-employment*. *Rev. Social Econ.* (2009, in press)
- Nickell, S., Quintini G.: The Recent Performance of the UK Labour Market. *Oxf. Rev. Econ. Policy* **18**, 202–220 (2002).
- OECD: *Employment Outlook 2000*. Paris (2000)
- ONS (Office for National Statistics): *Quarterly Labour Force Survey, March–May, 1999* (computer file). 5th edn. Colchester, Essex: UK Data Archive (distributor), May 2004. SN 4012 (1999)
- ONS (Office for National Statistics): *Quarterly Labour Force Survey, March–May, 2000* (computer file). 3rd edn. Colchester, Essex: UK Data Archive (distributor), June 2004. SN 4173 (2000)
- ONS (Office for National Statistics): *Quarterly Labour Force Survey, March–May, 2001* (computer file). 4th edn. Colchester, Essex: UK Data Archive (distributor), May 2004. SN 4416 (2001)
- ONS (Office for National Statistics): *Quarterly Labour Force Survey, March–May, 2002* (computer file). 3rd edn. Colchester, Essex: UK Data Archive (distributor), May 2004. SN 4547 (2002)
- ONS (Office for National Statistics): *Quarterly Labour Force Survey, March–May, 2003* (computer file). 3rd edn. Colchester, Essex: UK Data Archive (distributor), June 2005. SN 4712 (2003)
- ONS (Office for National Statistics): *Quarterly Labour Force Survey, March–May, 2004* (computer file). 2nd edn. Colchester, Essex: UK Data Archive (distributor), Nov 2005. SN 4998 (2004)
- ONS (Office for National Statistics): *Quarterly Labour Force Survey, March–May, 2005* (computer file). Colchester, Essex: UK Data Archive (distributor), July 2005. SN 5211 (2005)
- Perulli, A.: *Economically Dependent/Quasi-subordinate (Parasubordinate) Employment. Legal, Social and Economic Aspects*. Study for the European Commission. http://europa.eu.int/comm/employment_social/labour_law/docs/parasubordination_report_en.pdf (2003). Accessed 6 Oct 2004
- Scherer S.: *Stepping-Stones or Traps? The Consequences of Labor Market Entry Positions on Future Career in West Germany, Great Britain and Italy*. *Work Employ. Soc.* **18**(2), 369–394 (2004)
- Sciarra, S.: *The Evolution of Labour Law (1992–2004)*. General Report. Project for the European Commission. http://www.europa.eu.int/comm/employment_social/labour_law/docs/generalreport_en.pdf (2004). Accessed 8 Oct 2004
- Supiot, A.: *Beyond Employment. Changes in Work and the Future of Labour Law in Europe*. Oxford University Press, Oxford (2001)
- Taylor, M.P.: *Survival of the Fittest? An Analysis of Self-employment Duration in Britain*. *Econ. J.* **109**(454), C140–C155 (1999)
- Taylor, M.P.: *Self-employment and windfall gains in Britain: Evidence from panel data*. *Econ.* **68**, 539–565 (2001)
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