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History and Uncertainty:
A Dynamic Perspective on Human Resource Management**

1. Introduction
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Im folgenden Artikel wird in einer personalwirtschaftlichen Perspektive mit Blick auf Fluktuation auf dem Arbeitsmarkt zugunsten einer "dynamischen" Betrachtungsweise argumentiert, die eines entsprechenden methodologischen (Hintergrund-)Verständnisses bedarf. Dabei wird ein doppeltes Ziel verfolgt: Einerseits geht es grundsätzlich um organisationssoziologische Fragen von Statik und Dynamik, zum anderen erfolgt ein empirischer Bezug auf den Bereich der Bauwirtschaft, an dem exemplarisch Fragen von Beharrung und Prozeßhaftigkeit diskutiert werden. Bezüglich der empirischen Untersuchung nimmt der Artikel auf die US-amerikanische Untersuchung von Linder (1983) Bezug, die Ergebnisse über Veränderungen von Kleinunternehmern in der Bauindustrie in Abhängigkeit vom Konjunkturverlauf vorgelegt hatte.

Diese Ergebnisse über die Zyklizität der (selbständigen) Erwerbsspersonen und ihrer Unternehmen wurden für einen längeren Zeitraum und vergleichend für die USA, Großbritannien und (West-) Deutschland überprüft. Dabei ergeben sich ähnliche (kontrazyklische) Verlaufsmuster, die zwischen den Ländern freilich in Abhängigkeit verschiedener institutioneller Einflüsse divergieren. Der über die Branchenergebnisse hinausweisende Erkenntnisertrag liegt in der Dynamisierung der statisch-morphologischen Betrachtung von Sozial-, Berufs- und Wirtschaftsstrukturen durch die Einführung der zeitlichen Dimension und dem Aufzeigen der Verknüpfungsmöglichkeiten ansonsten fachwissenschaftlich separat abgehandelter Dimensionen der Unternehmensstruktur und des Arbeitsmarktes.

1. Introduction

Mainstream human resource management theorists have tended to proceed on the assumption that environmental contingencies are relatively static, observable, and predictable, and that functional efforts in a business organization can be matched "strategically" with these contingencies. This perspective has generally led to static correlation studies of environmental conditions and organization structures and processes. In practice, the approach has often been to generate a check list of conditions describing specific challenges (labor market, unionization, legal requirements, etc.) and to identify appropriate human resource management responses with respect to manpower planning, compensation, training, and so on. Furthermore, issues of management strategy and organizational adaptation to environmental change have usually been viewed from the perspective of the large firm, as in debates about "flexible specialization", where small firms figured mostly as a residual category.

It is only recently that the role of small businesses in dynamic environments is being addressed systematically and empirically, as in research on the dynamic diversity of organizational forms and size (e.g., Hannan and Freeman, 1989). That small firms and self-employed individuals can be an important source of innovation, job growth, and industrial dynamism is now commonly recognized, and the ramifications of this observation have become the subject of considerable debate in organization theory and industrial economics. Human resource management theorists, however, have been slow to take up the challenge, and have continued to focus their attention on large organizational units and thus overlooked significant changes in the population of business firms (for a summary of traditional approaches to human resource management, see Lengnick-Hall and Lengnick-Hall, 1988). Our view is that small firms are important in their own right, but they may also figure prominently in the rationalization strategies of large corporations which attempt to externalize the risks of manpower adjustment by subcontracting to small firms. Business environments have become increasingly turbulent in recent years, and heightened uncertainty has dramatically altered the composition of business populations.

Our analysis in this paper focuses on the dynamics of self-employment in construction. The construction sector is well-suited as an area for studying developments in self-employment, with implications for human resource management strategies in construction companies. The prevailing technology in construction, as well as the long-standing tradition of the Handwerk (especially in Germany), do not lend themselves to the implementation of Taylorist principles in the production process, thus providing opportunities for self-employment and small firms. The influence of fluctuations in aggregate demand, climatic and seasonal variations, the effect of local government policy, and the relatively competitive market for contracts are important sources of instability and uncertainty in construction and requires a high degree of organizational flexibility on the part of construction firms. At the same time, a high degree of environmental variability, coupled with a fragmented industrial structure that is caused by scattered and transitory production sites, implies opportunities for small units to grow and prosper.

We pursue two main objectives in this paper. First, we argue in favor of human resource management strategy, manpower flexibility, and labor mobility as dynamic concepts which require dynamic methodological approaches. Second, we present empirical data to extend previous studies of self-employment in construction which have tended to use ahistorical conceptions of change and stability. Unfortunately, the data available for this study do not permit us to measure and explain the dynamic diversity of self-employment as an employment status of individuals with diverse backgrounds, occupational qualifications, and organizational

intentions, nor do they reflect the dynamics of inflows and outflows of self-employment. Our empirical objectives are more modest, given data availability. Using time-series data on aggregate self-employment and unemployment in the construction sector in the United States, United Kingdom, and West Germany from 1950 to 1987, we show that the relationship between self-employment and labor market conditions is historically contingent. The evidence is consistent with the argument that the increase in the number of small firms and self-employed workers in the early 1970s was a response to the significant drop in demand coupled with the increased fragmentation of demand. Our findings challenge the results of previous studies by showing that the direction and magnitude of relationships is not necessarily stable over time.

2. Self-Employment and Organizational Flexibility

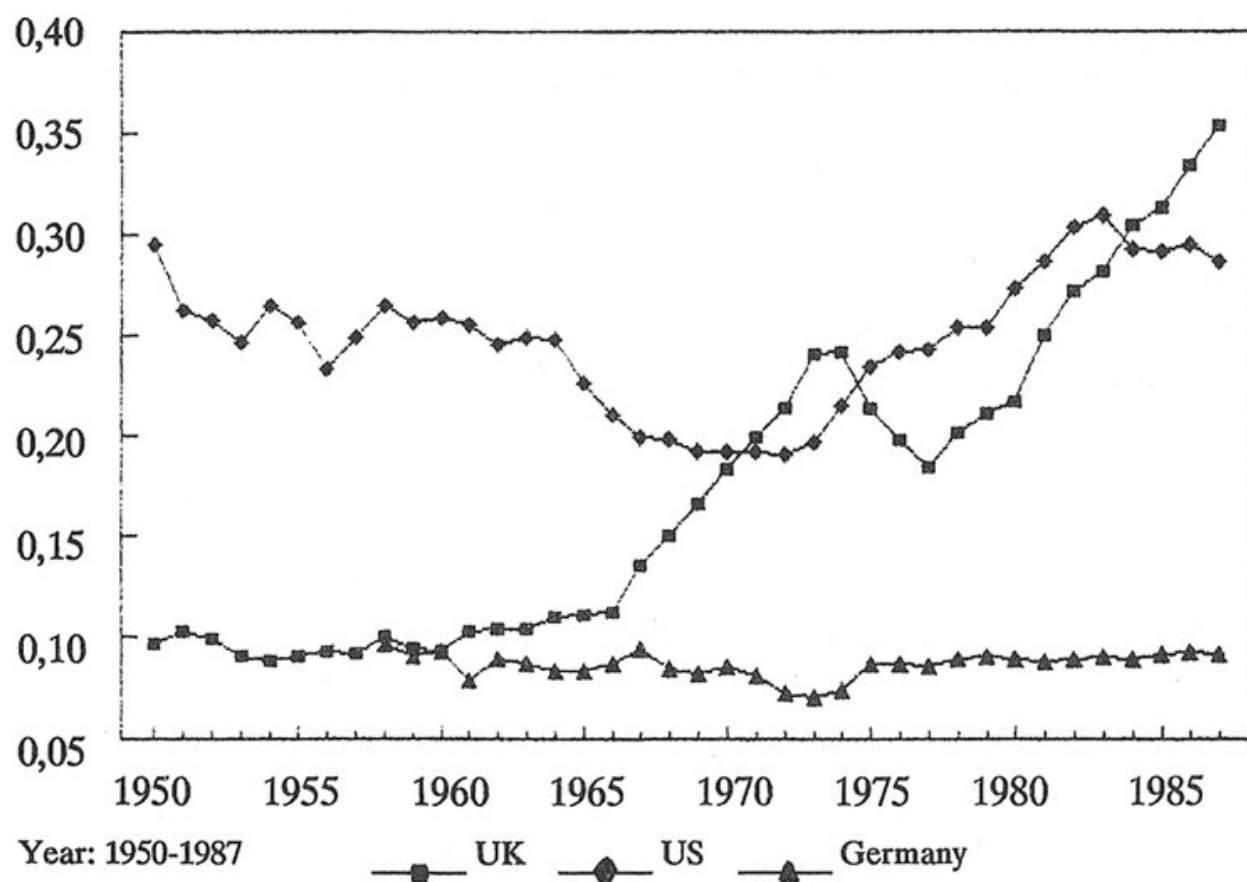
The data in Table 1 show some interesting contrasts in the changing size distribution of businesses in the West German construction and manufacturing sectors after World War II. The outstanding characteristic that is common to both sectors is the dominance of small enterprises with fewer than 50 employees. In both sectors, small firms account for about 95 percent of all businesses. The average establishment size in 1987 was 9.9 employees in construction, and in manufacturing 23.2 employees (Krüger-Hemmer and Veldues, 1989). In the United States, the average establishment size in construction in the late 1970s was around 8 employees, compared to about 60 employees in manufacturing (Granovetter, 1984). A significant difference between sectors in West Germany is the dramatic and continuous decline in the total number of firms in manufacturing, while the population of construction businesses declined after 1950 to about 1970, but then rose again to previous levels. Moreover, while in manufacturing the proportion of small firms declined continuously, in construction small firms grew disproportionately since 1970.

Year	1 - 49	50 - 499	500 +	Total
Manufacturing abs. (in 1.000)				
1950	--	--	--	712.9
1961	523.4	21.0	2.3	546.9
1970	386.4	20.3	2.5	409.0
1987	317.4	17.4	1.8	336.6
percent				
1950	--	--	--	100
1961	95.7	3.9	0.4	100
1970	94.5	5.0	0.6	100
1987	94.4	5.2	0.5	100
Construction abs. (in 1.000)				
1950	--	--	--	181.9
1961	156.6	7.2	0.2	164.0
1970	157.5	7.1	0.3	164.9
1987	177.2	4.4	0.1	181.6
percent				
1950	--	--	--	100
1961	95.5	4.4	0.10	100
1970	95.5	4.4	0.15	100
1987	97.7	2.4	0.05	100

Source: Own calculations from Statistisches Bundesamt, Arbeitsstättenzählungen, 1950-87.

Changes in the size structure of the construction sector can also be shown at the level of self-employment. Figure 1 shows a more or less significant increase in self-employment in all three countries (US, UK, W. Germany), which started around 1972 to 1974. This increase is common to all main EC economies (Margirier, 1988). In the U.S., the rate of self-employment had been falling steadily from the early 1950s, but turned upwards in 1972, and accelerated rapidly from 1973 onwards to 1983. Similarly, in West Germany, where data are only available from 1958 onwards, the rate fell slowly until 1972 and then shifted upwards to a new plateau which was sustained for the rest of the period of observation. The experience of the U.K. was different, in that the initial response to the recession in construction (to be discussed below) was a drop in the self-employment rate to 1977, before it turned sharply upwards in a remarkable growth that was sustained right through the 1980s.

Figure 1: Construction Self-Employment Rate, U.K., U.S., Germany



Our approach in this paper is to view differences between countries in the development of self-employment not from a static-comparative perspective, as is usually the case, but to study the effects of changing labor market conditions, as measured by levels and rates of unemployment. C. Wright Mills was among the first to suggest that apparent continuities in numbers (of organizations or self-employed individuals) at the aggregate level may obscure dynamic processes of entries and exits. "While, as an aggregate, small businesses persist and hold their own, the composition of this aggregate changes rapidly, and the economic well-being of its members undergoes shocking ups and downs. ... There is a great flow of entrepreneurs ... in and out of the small business stratum, as each year hundreds of thousands fail and others, some new to the game, some previous failures, start out again on the brave venture". (Mills, 1951: 23). In Britain, for example, the number of company births (in all sectors) increased dramatically, but not linearly, from 1950 to 1984. However, the level of company liquidations increased as well, fluctuating even more erratically than foundings (Hudson, 1987). The level of both business foundings and liquidations in the West German economy was relatively stable during the 1970s, but then more than doubled after 1980 (Albach and Hunsdick, 1987). Construction firms tend to have particularly high failure rates. One study of small businesses in the skilled trades in the Saarland, Germany, found that 16 percent of newly founded construction firms closed within the first three years, and 33 percent closed within ten years, failure rates that are considerably higher than in most other trades (HWK, 1987). A crucial question is: Why is there so much instability among the population of small firms in construction and what factors influence entry and exit rates, including the mobility of the self-employed? What are the conditions under which individuals set up on their own or switch between self-employment and wage employment? Given the uncertainties and variabilities in the construction sector, one would expect a high degree of mobility among the workforce, the self-employed, and the business population. The construction sector has two distinctive features which describe the context for labor market developments (Winch, 1991). Firstly, production is both site specific and follows a sequential batch assembly process. This means that the organization of production is on a temporary basis, and that the nature of the production process on the site continually varies as its different elements follow through from the groundworks to the superstructure to the finishing trades. In most manufacturing industries, by contrast, the production process is relatively fixed in space and unchanging in the short term. Materials and components come to workers in factories, while in construction, workers go to where the materials and components are to be assembled. Secondly, the industry is organized into what may be called a "contracting system". This system is characterized by the non-market allocation of design work to professional organizations on an appointment basis and the subsequent letting of contracts for the actual construction work on a competitive tender basis (Hillebrandt, 1984). This set of contingency factors has created a distinctive industrial structure in which barriers to entry are low because of the low working capital requirements due to the interim payments system; the low fixed capital requirements due to labor intensity and the non-specialist nature of plant which makes plant hire viable; the absence of a research and development function amongst contractors; and the absence of any other significant economies of scale. The result is a "fragmented industry" -- industrial concentration is low and competition is intense -- in which contractors compete mainly on a price basis. The ease of entry continually encourages new firms to enter the market, thereby providing many opportunities for entrepreneurship. Individual contracts tend to form a significant proportion of an average firm's total turnover, which generates lumpiness in demand. This means that, while aggregate demand in

construction is not necessarily more variable than in other sectors, the demand curves facing individual firms can fluctuate greatly (Winch, 1991), thereby placing a premium on flexibility and providing incentives for risk-shifting.

This is precisely the kind of environment in which one would expect those firms to flourish which compete well on the basis of flexibility. The conventional view is that small firms are more flexible than large firms, particularly in industries where barriers to entry are low, but small firms are also more vulnerable to variations in their environments, particularly when they are young. There is a general tendency for small firms, particularly small specialists, to outperform large and generalist firms, depending upon the environment in which they operate (Freeman and Hannan, 1983; Staber and Aldrich, 1989). Specialist organizations concentrate their efforts on a narrow segment of their environments, doing very well when conditions fall within their sphere of competence but being less fit under any other conditions. Generalists spread their efforts over many segments of their environments, not doing extremely well in any one segment but doing extremely well in most of them.

Ecological theory (Freeman and Hannan, 1983), for example, predicts that, in highly certain environments, specialists out-compete generalists because of their ability to respond to particular market conditions and that part of the environment they know best. In highly uncertain environments, generalists are favored, unless the various states of the environment differ radically. Specialists may be able to tolerate extremes, such as construction firms specializing in a particular trade or type of project, as long as they are not exposed to them for overly long periods. When conditions are changing unpredictably between very diverse states (such as types of construction projects) and then remaining in these states for long periods, specialists may encounter "their" state so infrequently that they fail, whereas generalists may have sufficient slack resources to survive such changes. From the perspective of the potential business founder, the choice of strategy is constrained by available resources and the historical conditions at the time of entry. Most entrants are probably forced into specialism, due to resource constraints, but the decision is also conditioned by the state of the market, government policy, and the competitive structure of the industry at the time of entry.

To our knowledge, Linder's (1983) analysis is the only systematic and empirical account of the influence of general economic change on the level of self-employment in construction. Other studies dealing with labor markets in construction have only considered wage-employees (e.g., Herzog and Schlottmann, 1988). Linder (1983) found a positive relationship between the rate of unemployment and the share of self-employment in U.S. construction for the period from 1948 to 1975. He interpreted this relationship as evidence that in times of economic stress many unemployed construction workers seek refuge in self-employment until new employment opportunities arise. He argued in favor of a high degree of mobility among the self-employed to changing circumstances in the construction sector, and suggested that such individuals could hardly be characterized as entrepreneurs (thriving on risk and innovation). Also Mayer and Paasch (1990: 130-131), in their study of self-employment in the German construction sector, argued that many self-employed workers view their status as merely temporary and would return to, or enter for the first time, wage-employment once conditions in the labor market improve. Self-employment represents for many, they found, a disguised form of dependent employment, but one without many of the benefits associated with standard employment contracts.

Other studies have been more general in their focus, considering all sectors or all nonagricultural industries. The data indicate that non-

farm self-employment rates tend to move counter-cyclically (for a review, see Bögenhold and Staber, 1990; 1991). The results of most studies are consistent with the hypothesis that depressed market conditions "push" individuals into self-employment. An interesting question is whether the effects of economic conditions are stable over time.

3. Self-Employment and Historical Contingencies

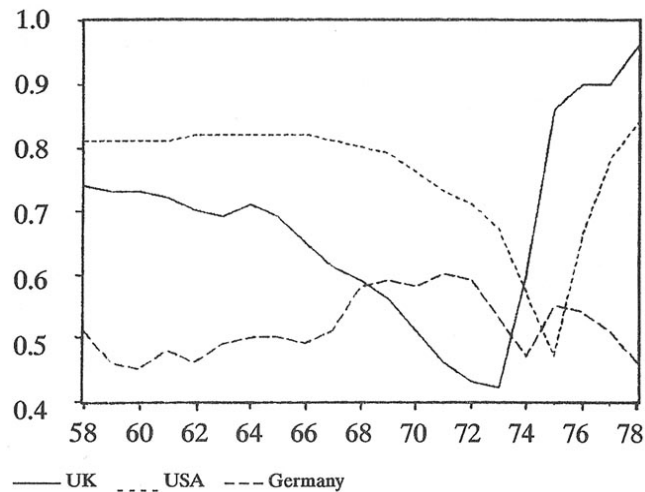
The authors of previous studies on self-employment have typically used ahistorical conceptions of time, as evidenced by their interpretations of estimated relationships. Bögenhold and Staber (1990), for example, suggested that self-employment has always played a safety valve function during times of high unemployment and slow economic growth, and Hudson (1987) implied that slack labor markets have always encouraged the unemployed to try their hand at entrepreneurial activity. Also Linder's (1983) analysis implies that self-employment has always served as a "refuge" from unemployment. Hence, the fact that the long-term decline of self-employment bottomed out or, in some countries, was even reversed during the 1970s, a period of economic stress, should not come as a surprise to researchers who view self-employment as a reaction to slack labor markets. Few researchers have given serious thought to the possibility that the effect of unemployment on self-employment is time-dependent. Instead, they based their estimations on the observed reversal in the long-term decline of the self-employment rate, rather than the relationship between self-employment and unemployment (e.g., Steinmetz and Wright, 1989). Also, they offer no theoretical rationale for choosing the particular year of the reversal on which they base their model. The estimated curvilinear time trend merely confirms that a reversal in the long-term decline of self-employment has in fact taken place, but the time trend itself is without any historical meaning.

The problem we address here is common to most time-ordered analyses of long-term social processes. Interpretations of estimated coefficients are often driven by the implicit assumption that the relationship between environmental conditions (unemployment, economic growth, capital cost, tax structure, etc.) and self-employment rates or company births is time-invariant. An implicit assumption in the literature on the cyclicity of self-employment is that workers have always reacted in the same way (e.g., by becoming self-employed) to fluctuations in the general economic climate. Isaac and Griffin (1989: 876) summarize the problem as follows: "The construction and estimation of such quantitative models thus understood lead to parsimonious causal generalizations implying that the coefficients attached to the exogenous or predetermined variables capture ... time-invariant relations which reflect some 'historically general' process".

In the case of cross-sectional evidence the assumption is that all relationships are in equilibrium. Eccles (1981b), for example, relied on correlational data to argue the "subcontracting [in construction] can be explained as a response to uncertainty" (p. 449). The essence of business strategy, mobility, and manpower flexibility, however, is disequilibrium, as advantages are gained when conditions are changing rapidly and the established order has been overturned (Staber and Aldrich, 1989). In systems of competing firms and persons seeking self-employment opportunities, when all actors are trying to anticipate one another's moves and modify their own, the system can be in continual flux with no apparent equilibrium. Concepts such as strategy and mobility are inherently dynamic, but many research designs do not fit the logic of the theory. Cross-sectional observations will catch organizations and self-employed workers at many different points in their adjustment to changing conditions, as well as missing those firms that did not survive previous disequilibria. The "logic-in-use" of most investigators seems to be that critical historical contingencies in observed relationships are either absent or can safely be ignored.

The question motivating our empirical analysis below is: Are there any theoretically meaningful historical discontinuities in the processes governing the mobility of construction workers into and out of self-employment? Micro-level data are necessary to estimate changes in the relative utility of self-employment (vs paid employment and unemployment) and to examine whether actors have translated their calculations of utilities into action at identical rates across differing historical contexts. In the absence of such data, we confine our analysis to an examination of macro-level relationships by studying the effect of conditions in the construction labor market, as measured by the level and rate of unemployment, on the self-employment rate.

Figure 2: Moving Correlation Between Self-Employment Rate and Unemployment Rate in Construction, 1985-1987



We employ the "moving correlation" procedure (Brown et al., 1975) to assess the temporal stability of time-series estimates and to search for possible "break" points in relationships. Figure 2 shows the plots of simple correlation coefficients between self-employment rate and unemployment rate estimated for the United States, United Kingdom, and West Germany. The procedure for obtaining the coefficients is straightforward. Using the "backward" strategy, we first estimate the correlation coefficient for the period 1950 to 1987. We then sequentially drop the first year of the series, so that the second coefficient shown in the graph pertains to 1951-87, and so on until the last coefficient is estimated for the period 1980-87. The statistical significance of the estimated coefficients is of no interest here. We are interested in exploring the existence of "break" points in time-series estimates (as evidenced by dramatic changes in the magnitude and direction of coefficients), to examine whether relationships are historically contingent.

4. Empirical Analysis

The "moving correlation" analysis indicates a positive relationship between self-employment and unemployment rates throughout the period of observation and in all three countries, but it also shows a dramatic break in the magnitude of that relationship. That is, the relationship under examination is not temporally invariant. It is interesting to note that the estimated historical discontinuity occurred roughly during the same period in all three countries. In the United Kingdom the "break" occurred in 1973, in the United States in 1975, and in West Germany in 1974.

The plots in Figure 2 thus provide information about a significant historical discontinuity that must be incorporated in any account of the long-term development of self-employment in construction in the post-war period. We use this "historical fact" to estimate a simple model of changes in self-employment rates as follows:

$$Y = a + b_1X_{1r} + b_2X_2 + e,$$

where Y is the rate of self-employment, measured as self-employed construction workers as a proportion of total employment in construction; X_{1r} is the rate of unemployment in construction; X_2 is a period dummy variable coded 1 in the year identified as the historical "break" (see

above) and zero otherwise; b1 and b2 are the coefficients of the independent variables; a is the constant; and e is the error term. Because the measures of self-employment rate and unemployment rate share a common denominator (total employment), the mathematical dependence between the variables may account for part of the estimated relationship. To control for this statistical artifact we also estimate the effects of the absolute level of unemployment in construction (X1) on the self-employment rate. In both model specifications we expect the coefficient of b1 to be positive, indicating that self-employment rates rise in times of slack labor markets.

To control for the underlying time trend in self-employment rates we first regress the self-employment rate on a linear time variable (measured in years) and then regress the residuals of that estimation on the independent variables. In all model estimations ordinary least squares (OLS) procedures showed evidence of significant autocorrelation. Thus, we re-estimated the model with generalized least squares (GLS) methods, using the iterative Cochrane-Orcutt procedure. The GLS estimates in Table 2 indicate that serial correlation remains a problem only in the case of the United Kingdom. Although the presence of autocorrelation does not bias the coefficient estimates, it understates the standard errors of estimates. Thus, the usual tests of significance are no longer valid, and the statistical significance of the coefficients is overstated.

The estimated coefficients in Table 2 are generally consistent with our expectations. The unemployment rate and the level of unemployment have strong and positive effects on the self-employment rate in the United States and West Germany. In the United Kingdom, the estimated effect of unemployment is positive but statistically weak (and probably inflated by the presence of serial correlation). Thus, with the exception of the United Kingdom, the evidence is consistent with previous research findings of a rise in self-employment in times of slack labor markets, as measured by high levels of unemployment.

Table 2: GLS Regressions of Self-Employment Rates in the Construction Sector of the U.K., U.S., and W. Germany		
<u>United Kingdom (1951-82)[#]</u>		
$Y = -.02 + .067 X_{1r} + .015 X_2^*$		D-W = 1.11
$Y = -.02 + .00004 X_1 + .015 X_2^*$		D-W = 1.10
<u>United States (1951-87)[#]</u>		
$Y = -.05^{***} + .272 X_{1r}^{***} - .014 X_2^{**}$		D-W = 1.51
$Y = -.06^{***} + .0001 X_1^{***} - .015 X_2^{**}$		D-W = 1.77
<u>West Germany (1959-87)[#]</u>		
$Y = -.003 + .065 X_{1r}^* - .006 X_2^*$		D-W = 1.96
$Y = -.003 + .00003 X_1^* - .006 X_2^*$		D-W = 1.97
* p < .10, ** p < .05; *** p .01 two-tailed		
# adjustment for first-order serial correlation means that the first observation in the series is lost.		
Y = self-employment rate		
X _{1r} = unemployment rate		
X ₁ = N unemployed (in thousands)		
X ₂ = year dummy (U.K. 1973; U.S. 1975; W. Germany 1974)		

The purpose of including in the model a period variable is to control for the effect of a particular year as an influential observation. Rather than deleting that observation (year), we choose to highlight the observation. An alternative approach would be to leave the observation in the time-series and do nothing, but this may produce a distorted picture of the relationship that characterizes most of the time-series. Table 2 shows that the coefficient of the period dummy variable is statistically significant for all three countries, but the direction of the estimated effect differs across the countries. In the U.S. and W. Germany, the negative sign indicates that in the year of the "break" the self-employment rate was lower than in other years, in Britain the effect is reversed. The question is: why does a particular year appear as a deviant and influential observation?

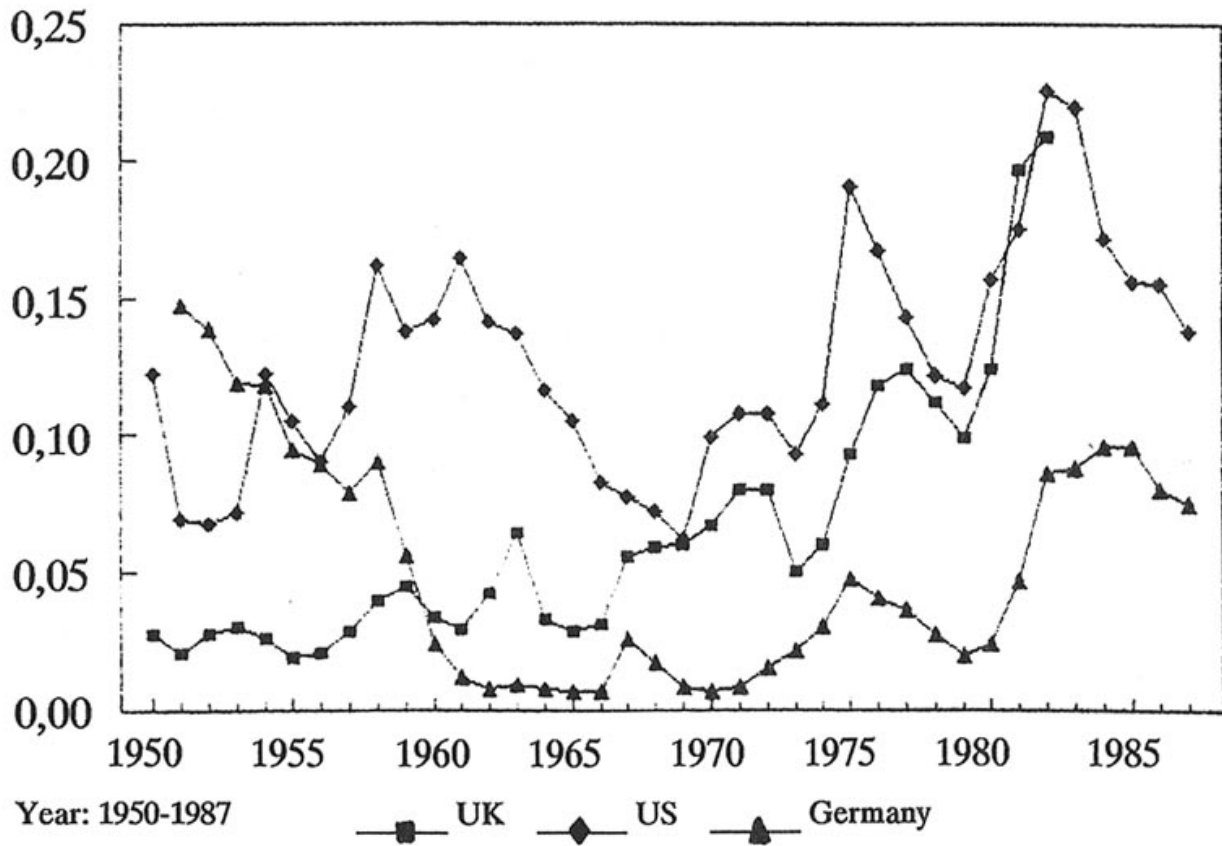
The early 1970s saw the end of the long post-war boom in all the western countries, and this trend affected construction as much as any other sector. However, the reaction within construction was a distinctive one which had common features as well as specific differences amongst the three countries under discussion here. By the late 1960s, the unprecedented period of growth from 1945 was faltering, but factors such as forthcoming elections in a number of OECD countries sustained growth into the early seventies supported by an expansion in the money supply which helped to stoke a property boom. A number of shocks to the world economy in the period from 1972 to 1974 -- most significantly the breakdown of pegged exchange rates, bad harvests, and the oil price boom -- brought the expansion to a halt (McCracken, 1977).

These developments had two implications for the construction sector, which experienced a fall in real output in all three countries under discussion here. Firstly, the property boom came to an end as the supply of office space exceeded demand, and the often unusual arrangements by which developments had been financed began to unwind in the harsher economic conditions after 1972. Secondly, the squeeze on state expenditure in an attempt to halt inflation meant that public sector construction demand also fell. The result in the U.K. was a 16.6 percent drop in net output between 1973 and 1977, with a further 8.5 percent drop to 1981 after a brief recovery. In Japan, this period is known as the "Ice Age" in construction (Hasagawa, 1988).

Not only did these changes in the overall economy lead to a drop in the volume of construction demand, but they also led to changes in the mix of demand away from relatively large new-build projects, particularly civil engineering projects, towards smaller projects, often consisting of repair and maintenance work. Thus, in the U.K. repair and maintenance projects rose both absolutely and as a proportion of total output after 1973, reaching 43 percent of the total by 1981 from 29 percent in 1973, and the number of large (> L2m in 1981 prices) projects fell by over half (Hillebrandt, 1984). In the United States, a shift to single-family housing from large public sector projects had a similar effect (Allen, 1985). The results were a significant drop in labor productivity in the industry and a rise in the number of small firms in all three countries (Allen, 1985; Margirier, 1988).

The effects on the labor market were largely those that would be expected -- the level of unemployment rose. It is this which largely accounts for the discontinuity in the correlation between self-employment and unemployment in the three countries (Figure 2). Particularly in the U.K. and the U.S., unemployment rates rose sharply after 1973 (see Figure 3). In the opinion of Margirier (1988), the effect on the West German unemployment rate was suppressed by the role of migrant labor in the construction industry, and, indeed, the number of immigrants in German construction fell by 55.5 percent between 1972 and 1977 after a rapid rise during the late 1960s (Eisenbach and Spannhake, 1982: Table 6). However, there was also a shift towards self-employment in all three countries (Figure 1). It was that increase in self-employment rates which allowed the correlation with growing unemployment rates to re-assert itself after about 1974/75. This correlation proves unsustainable only in West Germany where institutional constraints on the growth of self-employment despite rising unemployment meant that the correlation fell again after 1976 to previous levels.

Figure 3: Unemployment Rates in Construction, 1950-87



In accounting for these differences, it is tempting to look at the effects of the institutions of labor market regulation (Boyer, 1988). In the U.S., the self-employment rate has been higher than in the other two countries throughout most of the post-war period from 1950 to the early 1980s. The average rate for 1978-87 is only 18 percent above the rate for 1958-67. The system in the U.S. can be broadly divided into "union shop" and "open shop" construction. The former is mainly found in the older industrial areas and in California, while the latter is growing and found mainly in the south and west, and in housebuilding (Bourdon and Levitt, 1980). "Union shop" construction is relatively well regulated by collectively bargained institutions at the local level (Mills, 1972;

1980); in particular, trade unions play an important role in recruitment through hiring halls (Ross, 1972). "Open shop" construction is not externally regulated, and its proponents argue that its main advantage is the flexibility that it offers management in work organization (Northrup and Foster, 1975). The shift in market structure, in terms of both regional dispersion and demand composition after 1973 has strongly favored open shop construction and may well account for the significant increase in the level of self-employment.

In West Germany, the period after 1974 appears to be a re-assertion of earlier trends. The average self-employment rate from 1950 to 1967 is little different from that for 1978 to 1987. The remarkable stability of the rate in this country may be due to the strong regulation of the labor market at the national level. Industrial relations are far more regulated in West Germany, with the state, trade unions, and employer associations playing a central role, as well as labor market institutions offering a high degree of social security and a well-developed vocational training policy (Bayer et al., 1981). The legally binding national collective agreement is more frequently declared to be generally binding in construction than in any other German industry under the Collective Agreement Act, which means that it applies to firms outside the formal collective bargaining arrangement as well as member organizations. Moreover, since 1982 the use of temporary workers supplied by employment agencies on a for-hire basis has been explicitly banned in the industry (Brandes, 1988). However, the fact that this change has had no visible impact on the self-employment rate suggests that temporary workers were not a major source of self-employment in the industry. Still, there is some evidence that many firms in the German construction industry have attempted to achieve greater numerical employment flexibility -- as a response to increased uncertainty and reduced demand since the 1970s -- by subcontracting to small firms and "employing" more formally self-employed workers (Mayer and Paasch, 1990). Licensing requirements in the construction trades in Germany may be rather stringent, but there are plenty of opportunities for individuals to legally, and not so legally, circumvent those requirements and set up on their own. That the self-employment rate has not increased more significantly in recent years may be due to rising business failure rates.

In the U.K. the situation has been very different. Between the 1950s and 80s, the labor market in the U.K. construction industry shifted from a German type with low rates of self-employment at under 10 percent, to a U.S. type with very high rates of self-employment above 25 percent, to the extent that the rate in the U.K. was higher than that in the U.S. after 1984. The average rate for 1978 to 1987 was 156 percent higher than the rate for 1958 to 1967. Here the situation is that the arrangements for collective bargaining in the industry began to decay in the 50s, as trade union density began to decline and the national agreement, which was not legally binding, ceased to have any real relevance for the determination of pay and conditions at site level. A "hollow" industrial relations system began to emerge (Winch, 1987) where the decayed national system was not replaced by a second system "from below" as in other traditional U.K. industries such as engineering, but by the opportunistic determination of spot rates in the context of an increasingly casualized labor market.

However, an explanation limited to the labor market and the dynamics of wage/labor relations is inadequate. Winch (1991) has shown the way in which the shifts in employers' strategies towards the labor market in the U.K. are only part of a more profound strategic shift towards market transaction governance within the construction process. As well as increasingly contracting for labor on a spot rather than contingent claims basis (Willman, 1983), there has also been a shift towards contracting for capital inputs on a similar basis. In particular, the

U.K. industry has seen a shift towards the hire rather than purchase of productive assets such as plant, and a shift to specialist subcontracting for the supply of materials. These developments have reached their apotheosis in the "construction management" form of procurement (see Barrie and Paulson, 1983, for a review) in which all elements of the production process are subcontracted in "works packages", and construction firms become a form of merchant capital (Ball, 1988) purchasing and combining construction services on behalf of the client. Construction management, which was first imported from the U.S. to the U.K. in the late 1960s, grew rapidly during the 80s in the U.K., particularly in its "management contracting" variant. This form of procurement is now starting to spread through the rest of the EC, particularly on projects funded by international clients such as the large UK based property developers.

5. Conclusion

Industry studies can make a useful contribution to our understanding of the relationships between economic conditions and employer strategies, time-series data can give us a sense of the dynamics involved, and cross-country analyses are useful for exploring the influence of institutional factors. In this paper, we argued in favor of an historically sensitive approach to studying the cyclical nature of self-employment in construction. Our findings show that construction self-employment tends to move countercyclically, thus supporting the conclusions of previous studies, but they also indicate that cyclical effects are historically contingent.

While this finding may appear straightforward and lend itself to easy interpretation, the estimated relationships mask the underlying complexity of changes in self-employment. Aggregate data on self-employment hide the heterogeneity of this employment status and do not show the rate of movement between employment, inactivity, and self-employment. Questions such as whether individuals set up on their own because they are unemployed or are searching for more satisfying employment opportunities, whether self-employment is an episodic or stable characteristic of individual careers, whether self-employment is merely another form of dependent employment, etc. can only be addressed with data collected at the individual level, but such data are hard to come by (especially if they are to be comparable across countries). There is thus considerable room for further research in this area.

Two issues strike us as particularly worthy of further research. There is some circumstantial evidence that in recent years changes have occurred not only in the number of self-employed but also, and maybe even more significantly (given the policy implications), in the quality of self-employment. A growing proportion of the self-employed in construction are formally independent but, in practice, are tied to and dominated by the larger construction firms with which they trade (as subcontractors or otherwise). Thus, many of the self-employed are merely conventional workers on non-standard forms of employment contract (Mayer and Paasch, 1990; Winch, 1991). To characterize these individuals as entrepreneurial who choose self-employment voluntarily and in the presence of (better) wage-employment opportunities is largely mistaken, and the numerical growth of such people should not be interpreted as a source of renewed dynamism in construction.

A second issue, related to the first, concerns the dynamics of self-employment inflows and outflows. Theorizing about the persistence of small enterprises, the Swiss economist F. Marbach (1942) argued that "the development, apparent to anyone, but rarely noticed by theoreticians, has caused a continuous replacement of 'mittelständische' occupations, including the self-employed. ... We can therefore accept as given ... the existential persistence of the 'Mittelstand' in general and that of the self-employed in particular. But to be sure, it is the persistence of the

class, not the persistence of the individual existence" (Marbach, 1942: 265, 256). Marbach's argument is that a socio-economic category (such as the self-employed) can remain constant over time, while its composition of individual members is subject to continuous change. This dynamic perspective can also be found in the early writings of Schumpeter (1927) on the nature of social classes. Schumpeter described a class as resembling a bus or hotel over the course of its collective life, which is occupied continuously, but by an ever-changing group of persons. The question is: what is the composition of self-employment, and what factors influence its dynamics? While the "petty bourgeoisie" as a whole may be immobile when compared to other socio-economic strata (Kurz and Müller, 1987), relative mobility rates within this category may differ significantly and may be differentially affected by social and economic developments.

Research on self-employment dynamics can offer some useful insights for our understanding of social mobility patterns. The objective of social mobility studies is to investigate how positions in society, as reflected in the social and occupational structure and mediated by organizations, are reshuffled at the individual-personal level, that is, how positions are occupied by an everchanging group of persons. In contrast to static studies of stratification and class structure, a dynamic examination of self-employment and social mobility patterns can demonstrate to what extent social inequality is mediated and perpetuated inter-generationally via familial "inheritance effects" (such as small business owners transmitting ownership more often to sons than to daughters) and/or to what extent social and occupational up- or downward mobility takes place within the life course of individuals, that is intra-generationally. In that sense, a dynamic study of inflows into and outflows from self-employment can lead to a better understanding of structural developments in society and economy.

A dynamic perspective also has implications for human resource management strategies. Traditional approaches have taken a narrow, and mostly static contingency view of environmental conditions and organizational responses. By contrast, a truly dynamic view recognizes that the variability of elements in business environments is time-variant and that environmental conditions are rarely in equilibrium. Organizational responses themselves are an important source of disequilibrium, as the search for "fit" in a turbulent environment creates a constantly moving target. A firm's human resource policies may alter its market position, change the size and composition of available labor, and, thereby, transform the contingencies to which it must adjust.

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