Temporary Layoffs: New Issue for Social and Employment Policy?

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In the debate on heterogeneous employment relationships, a strategy for handling fluctuations in labor requirements is often ignored: the temporary layoff of employees and their subsequent re-employment by the same employer. These so called “recalls” can be described as a specific discontinuous employment relationship, which is characterized by an interrupted membership in the same employing organization. Additionally, temporary layoffs can be seen as a specific mixture of external-numerical and external-monetary flexibilization of labor. This new conceptual perspective on recalls shows promise regarding new insights into flexibilization of labor markets and conditions, longitudinal forms of atypical work, its determinants, and outcomes. The focus of this article is on analyzing why firms make use of recalls and on explaining the underlying mechanisms. By doing so, three mechanisms are identified: “exclusion”, “inclusion”, and “exploitation”. The article will firstly show how these mechanisms interact to generate recalls. Secondly, transaction cost theory will explain why this is the case, so that operational determinants of recalls, based on these theoretical considerations, are derived and tested empirically. In respect to labor market research, this aims to identify and explain flexibility strategies that result in special discontinuous employment relationships – and to examine their consequences in further research. In respect to research in social stratification, this analysis is done within the broader framework of a four-year research project at the Collaborative Research Center (SFB) “From Heterogeneities to Inequalities” at Bielefeld University and is the start of subsequent research to identify mechanisms for inequality production.

In empirical research addressing recalls up to now, the focus has been in analyzing unemployment duration (see e.g. Katz/Meyer 1990; Nivorozhkin 2008; Böheim 2006; Jensen/Svarer 2003). Articles mainly deal with the question about whether unemployment
duration differs for employees who return to their former employer in contrast to those who join a new employing organization – sometimes people who leave the labor market are seen as a third or alternative comparison group. Although this research shows that recalls are important quantitatively, these findings did not encourage work and labor relation sociologists to analyze recalls as an employment relationship or a specific flexibility strategy. If recalls are considered in that way, they offer more than just one means of exiting unemployment that can be analyzed in a competing risk model. Seeing recalls as a special form of atypical or flexible work initially trigger the research question why do employers and employees enter into such an employment relationship? Secondly, questions about the consequences of recalls for employees, their families and the employing organization arise. Thirdly, this perception of recalls encourages theoretical and empirical comparisons with different types of employment relationships or flexibility strategies that could contribute substantially to our knowledge about contemporary changes in the labor market. By accentuating recalls as a form of discontinuous employment, I expect to expand the way in which researchers examine recalls and, therefore, to discover mechanisms that drive discontinuous employment and flexible work or explain their consequences – e.g. for individual lives, living arrangements, employment policies, working conditions, operational profits, and security systems. Neglecting this discontinuous employment relationship could mean that our view of internal labor markets is limited, that external flexibility is misleadingly only associated with exclusion from employing organizations and operational networks, and that important interactions between the labor market and social security policies or between mechanisms for inequality production are not investigated.

Referring to this broader research agenda, the focus of this article is on analyzing why firms make use of recalls and explaining the underlying mechanisms. From the employers’ perspective, recalls can be characterized as a specific mixture of external-numerical and external-monetary flexibility strategies: employees are excluded and re-employed after some time during which they received unemployment benefits, which can be interpreted as an implicit type of employment subsidy. To explain the occurrence of temporary layoffs, they firstly have to be located within the context of different flexibility strategies discussed in current labor market research. According to transaction costs theory, it will then be argued why employers use recalls corresponding to their flexibility and stability demands and their scope of action. Finally, these hypotheses will be tested empirically.
1. Recalls as external-numerical and external-monetary flexibility strategy

Firms are confronted with a fundamental problem: on the one hand, they must strive to be stable and cooperative (see Williamson 1975; Osterman 2000: 182f.). To provide products and services, companies rely on a sufficiently stable workforce. According to discussions in organizational research, a workforce is increasingly expected to feature a profile of skills and experience that is specific to the business for which they work. Therefore, employing organizations have a certain need for stability as regards human capital. On the other hand, firms must be flexible enough to handle fluctuations of labor requirements efficiently (see Kalleberg 2001, 2003; Houseman 2000). Due to cyclical demands, increased global competition, and shortening product cycles, resource management becomes one of the core tasks that operational employment policies have to deal with. It confronts them with the fundamental problem of deciding how to balance their needs for stability and flexibility in a cost-efficient way.

Basically, strategies pursued by firms can be distinguished in two respects (see figure 1): firstly, whether internal or external forms are implemented, and secondly, whether they aim for numerical, functional or monetary flexibility (see OECD 1986, 1989; Keller/Seifert 2006, 2007).

Figure 1: Classification of flexibility strategies

<table>
<thead>
<tr>
<th>internal flexibility</th>
<th>external flexibility</th>
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<tr>
<td>working time accounts, flexi time, overtime work, short-time work, part-time jobs, marginal employment</td>
<td>hire and fire, fixed-term contracts, temporary employment, traineeships, recalls</td>
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<tr>
<td>relocation between workplaces and sites, further education/vocational training</td>
<td>outsourcing, freelancer</td>
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<tr>
<td>performance or profit-related pay, alliances for work, opening clauses in collective agreements</td>
<td>wage subsidies, recalls</td>
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Internal flexibility strategies are carried out within an enterprise; they maintain a firm’s personnel and modify structural aspects of employment relationships. These concern working time (numerical flexibility), division of labor (functional flexibility) and wages (monetary flexibility). Internal-numerical flexibility can be implemented by working time accounts, flexi-time programs, overtime work, or short-time work. Additionally, reduced or flexible working hours can be contractually laid down from the start of the employment period (e.g. part-time work or marginal employment). While these instruments meet fluctuations of labor demands by adjusting working time in some way, functional flexibility changes the deployment of personnel. This can be achieved by relocating employees to other workplaces and sites or by further vocational training that adapts staff members’ technical and vocational potential. Internal ways to make wages more flexible are performance or profit-related wages. Furthermore, “alliances for work” or opening clauses in collective agreements may allow wage payments below the rate provided for in collective agreements, elimination of overtime pay or special operational benefits.

In contrast to internal strategies, external strategies involve an interaction with the external labor market or financial assistance from public funds. Instruments either aim at some kind of temporary employment/contract or the use of public subsidies and services. These external resources will be used for an internal adjustment of labor demands and related costs. External-numerical flexibility meets fluctuations of labor requirements with ways of adjusting the size of the workforce. It limits the tenure or the time someone stays with a company via layoffs or temporary contracts. Fixed-term contracts, contracts with a temporary employment agency, and traineeships fix termination of employment in contracts and facilitate staff reduction. Outsourcing is typical for external-functional flexibility, so that either freelancers or other companies are contracted. In doing so, the division of labor is adjusted with the help of external resources. Finally, external-monetary flexibility is achieved by using public services and subsidies to reduce labor costs.

After this short overview of different flexibility strategies, recalls will be located within them in order to accentuate their relevance as an external flexibility strategy and a longitudinal employment-relationship. Firstly, recalls represent an instrument of external-numerical flexibility: using layoffs or termination of employment contracts the workforce is adapted to the actual demand of labor, and labor costs are immediately reduced. After a certain period of time during which labor requirements change people are re-employed again. In other words,
recalls effect a reduction in wage expenditure according to cyclical labor demands. Secondly, recalls can be characterized as an instrument of external-monetary flexibility: labor costs are externalized, as dismissed workers will temporarily be remunerated by the welfare state’s social security system or familial social support. In this sense, recalls can represent a particular - and less obvious way - of benefiting from public funds for wage subsidies. Overall, recalls achieve external-numerical flexibility via temporary employment and simultaneously external-monetary flexibility via externalization of labor costs (see Alt et al. 1999). As a result of this external flexibility strategy, a discontinuous employment relationship occurs that is characterized by an interrupted membership in the same employing organization. Whether returning to a former employer has a different effect on rewards, labor market transitions, and social inequality than other types of discontinuous employment is an open empirical question that our project will analyze in future research.

Decisions regarding the extent and the type of flexibility depend on various conditions, such as legal regulations, operational aspects, and specific needs for flexibility. For example due to labor laws, the use of external-numerical flexibility strategies is more restricted in Germany than in Anglo-Saxon countries (see Houseman/Abraham 1995; Samek Lodovici 2000: 37; Fuchs/Schettkat 2000: 233). Correspondingly, international comparisons show that German companies prefer internal flexibility strategies to handle fluctuations in labor demands (see Keller/Seifert 2004: 233ff; Fuchs/Schettkat 2000: 233; European Commission 2001). Additionally, internal instruments are of greater importance if the company is interested in keeping firm-specific human capital and in building up stronger retention of employees (see Wallenborn 2010). Recalls expand companies’ flexibility options in a decisive manner, because they combine maintenance of human capital with external flexibility. By re-employing former members of staff, a central disadvantage normally associated with external-numerical flexibility is avoided: loss of firm-specific human capital. In a similar way to internal strategies, employers can resort to people they know, who have firm-specific qualifications, and whose performance is already known before hiring. Using recalls offers a solution which balances demand for flexibility of labor costs and the need for stability of human capital. To discover the underlying mechanisms that explain why firms make use of recalls in more detail, theoretical arguments regarding employers’ rationalities are needed.
2. Transaction cost theory and firms’ decisions on recalls

A recall is generated by exclusion from an employing organization and later re-inclusion, which will be called “excluding inclusion”. Based on transaction cost theory hypotheses about employers’ rationalities and operational aspects are derived, that influence the recall-generating mechanism. According to transaction costs theory (see Williamson 1981, 1985, 1991; Picot/Dietl 1990; Nicita/Rizzolli 2012: 162), there are three main reasons why companies make use of recalls: firstly, this employment relationship adapts labor costs to labor demands and is useful if a firm needs to optimize its wage expenditures. Secondly, employers who strongly rely on human capital and therefore have a need for stability can make use of their transaction specific investments in human capital in spite of external flexibility. Thirdly, recalls may result from hold-up strategies (exploitation) when firms use their bargaining power to make employment relations more flexible and individual employment prospects less secure.

2.1 Recalls and the mechanism of “excluding inclusion”

Exclusion divides outsider from insider, stands for membership boundaries and closure (see Therborn 2006: 12ff.). This means preventing access to non-members or debarring former members from the in-group. In French and wider European discussions, exclusion is often addressed as a question of participation, e.g. participation in the labor market, in prosperity, in certain organizations or groups (see Castel 1991; Paugam 1996). Looking at social inequality in terms of “exclusion” implies a dichotomous logic, whereby graded differences are not considered: either people are members or not, are in or out. While Therborn describes “exclusion” as an inequality mechanism, he sees “inclusion” as an equality mechanism that gives entitlements to former outsiders. In contrast to exclusion, in my view inclusion could be seen to be gradually differentiated if the in-group is structured hierarchically. In this case, members have different positions, rights, and rewards. By including staff, an employer does not only decide on membership in general, but also decides on different kinds of membership that do not provide equal access to opportunity structures. In my view, inclusion in such an organizational context can be characterized as a mechanism that gives equality in respect to membership but may generate inequality relating to different membership’s entitlements or characteristics.

In the context of recalls, both exclusion and inclusion takes place successively: In the first instance, staff members are excluded from an employing organization via layoffs or
termination of contractual entitlements regarding continuing employment. Afterwards, excluded members are included again and regain membership rights and benefits. Owing to this interaction of exclusion and further inclusion, I name this process “excluding inclusion”. This means that people are finally included, but former exclusion signals that they are not as irreplaceable as employees who have been continuous members. Referring to the aforementioned arguments, inclusion in a hierarchically structured organization like a firm generates inequality, makes it visible (e.g. via different positions and rewards) and addressable for other actions and decisions. Theoretically, it can only be supposed that a former exclusion may function as a signal or a stigma seen by others or the recalled person themselves. Whether this or other effects on social inequality actually occur is an open empirical question that will be analyzed in further research.

**Need for flexibility in wage expenditures and its effect on “excluding inclusion”**

The focus of this article is on operational determinants that drive excluding inclusion and thereby generate recalls. Examining this underlying mechanism that explains temporary layoffs in more detail, the companies’ need for more flexibility regarding their wage expenditure is the first aspect that is assumed to determine recalls. It is obvious that layoffs or terminations of temporary employment relationships immediately reduce labor costs. This is not specific to recalls. The great benefit of recalls becomes apparent when re-employment and transaction costs are considered. While excluding employees means cost reduction, the opposite is true if people are hired. Compared to matching processes that recruit people who are personally unknown to the employer, re-employing former employees reduces ex-ante and ex-post transaction costs.

To begin with, placement is less risky and less costly as employers have reliable information about employees’ abilities, performance, and personality. Thus, the problem of hidden characteristics of job applicants, which is discussed in principal-agent-approaches (see Spremann 1987), does not occur or is diminished, because the employer (principal) is informed about the former employee (agent) before contracting him/her again. Consequently, screening costs fall to zero and the problem of adverse selection is nevertheless alleviated. Furthermore, searching for suitable staff and contacting people is considerably easier if contact information is directly available. In addition, negotiations on contractual relations are facilitated because both contracting partners are well informed and resume cooperation on the basis of their past experiences with one another. In a sense their willingness to return to their
former employment relationship can also be interpreted in favor of cooperation instead of opportunism – especially if both have not detected opportunistic behavior from the other when previously in a working relationship. Indeed, the employer (principal) could assume that the job applicant’s (agent’s) self-selected return decision signals his/her hidden interests are in support of cooperation. Thereby, further agency costs for monitoring can be lowered. In summary, both ex-ante transaction costs (search and information costs, bargaining costs) and ex-post transaction costs (enforcement costs, cost of re-negotiation) are reduced considerably in comparison to vacancies that are filled with completely new and therefore unknown individuals. It is assumed that re-employment limits asymmetric information concerning hidden characteristics and hidden actions of employees, opportunism, and thereby uncertainty. Hence, both employers and employees decide on re-contracting in less complex and less uncertain situations.

In conclusion, the effect of recalls on wage expenditures can be summarized as follows: companies save expenses immediately due to layoffs and terminations of employment contracts; re-employment lowers follow-up costs of dismissals that arise when labor demands increase and new appointments become necessary. The specific characteristic of recalls as an instrument of numerical flexibility is a reduction in wage-related expenditure in cases of decreasing and increasing labor requirements. It can be assumed that both aspects facilitate firms’ willingness to dismiss and to re-employ the same personnel. Therefore, cost reducing effects on labor costs or a respective need for flexibility can be seen to drive the mechanism of excluding inclusion that generates recalls.

**Need for stability in human capital and its effect on “inclusion”**

External-numerical flexibility normally corresponds with the loss of human capital and transaction specific investments that had been made before employees were excluded from the organizational context. Again re-employing former staff appears advantageous, because it combines external-numerical flexibility with maintenance of human capital.

Transaction cost theory refers to human capital in general and also in particular. The concept of “human asset specificity”, that derives from transaction cost theory (see Williamson 1975, 1981: 555, 1985), deals with the specificity or transferability of all sorts of human capital (e.g. cognitive and practical skills, knowledge, social and personality attributes, and experience) that enables a person to perform labor. If human asset specificity is high, dependency between
contractual partners increases. This means that investments which have been made in favor of a particular transaction lose value if they are used in another transaction. Therefore, employment relationships that are characterized by high human asset specificity benefit from a continuing relationship that at least reduces sunk costs for employers and employees.

From the employers' perspective, transaction cost theory suggests that recalling former staff is beneficial if a company has a certain need for stability due to reliance on human capital in general and former investments in human asset specificity. Benefits that derive from re-employment can be shown in various ways: former employees possess general human capital that is needed in the company and have also gained firm-specific knowledge via former on-the-job training or other vocational education. In other words, they are familiar with the work processes, social context, and implicit requirements regarding their job performance. Uncertainty with respect to their abilities and performance is lessened. However, it must be taken into account, that this cost reducing effect may decrease if the time between the two employment relationships increases and deskilling arises (see Mohr 2001). Moreover, employers save time and the financial costs of new investment that would be necessary if unknown people are contracted instead of former personnel. Finally, in the case of re-employment transaction-specific investments made previously remain in the company and cannot benefit competing companies.

In summary, via re-inclusion recalls help to maintain some human capital in spite of external-numerical flexibilization. This reduces follow-up costs that result from excluding human capital which is needed in the company – independent of its asset specificity. Although saving general human capital is of interest to employers who have a need for personnel stability, human asset specificity can increase a firm’s and an employee’s interest in re-inclusion to a higher degree. In this respect, recalls provide an alternative to internal flexibility strategies, because outsourcing of personnel is only temporary. The cost reducing effects of recalls on future investments in human capital, on amortization of former investments, while maintaining the stability of human capital are assumed to affect the mechanism of excluding inclusion that generates recalls. However, it is important to note that these aspects drive inclusion: they increase an employer’s interest in re-inclusion. Additionally, they protect people to a degree against exclusion – an effect that will be explored in more detail later on when changing conditions of asymmetric dependence are discussed. In contrast, the need for flexibility in wage expenditures affects the excluding and re-including side of the recall-
generating mechanism in a similar way because it makes both more likely. In other words: exclusion is assumed to be driven by demands for the reduction of labor costs and prevented by the relevance of human capital, whereas re-inclusion is intensified by the need for a reduction in labor expenditure plus the need for stability of human capital.

2.2 Recalls and the mechanism of “exploitation”

Tilly defines exploitation as an inequality-generating mechanism when “… persons who control a resource a) enlist the effort of others in production of value by means of that resource, but b) exclude others from the full value added by their effort.” (Tilly 2000: 782; see also Tilly 1998). Similarly, this mechanism is characterized by Therborn (2006: 12): “… A derives his inequality over B because of the valuable items that B provides him with. (…) Exploitation involves a categorical division between some superior and some inferior people, whereby the former unilaterally or asymmetrically extract values from the latter.” Additionally, Therborn (2006: 14) states that exploitation has to do with polarized power relations and asymmetric dependence and assumes that the corresponding equality mechanism is “redistribution”.

In respect to employment relationships, employers and employees may not be equally powerful regarding contract negotiations. Transaction cost theory deals with these power relations in terms of bargaining power and hold-up strategies (see Klein 1980). The hold-up problem means that someone gains bargaining power via other people’s investments and decides to demand more profit than the other. Therefore, the party with the greater bargaining power asymmetrically divides the costs and benefits of transactions. Furthermore, it is assumed that increased asymmetric dependence improves the incentive to secure quasi rents through opportunististic behavior. Although the name is different this is exactly what exploitation is. To analyze firms’ bargaining power in more detail, it is first necessary to characterize it and describe its effect on exploitation as a mechanism to generate recalls. Then, further determinants will be considered that may alter companies’ bargaining power and so change asymmetric dependence and its effect on exploitation and recalls.

Employer’s bargaining power and its effect on exploitation regarding recalls

Firms’ bargaining power rests upon their potential to offer jobs and the related rewards which a dependent working population needs. On the basis of the preceding theoretical considerations, firms’ decisions concerning their need for flexibility and adequate strategies
determine whether dismissals or placements are necessary and how people will be rewarded. The fact that a work force depends on companies’ providing employment means firms may be in a position to convince or “oblige” employees to wait for re-employment. In other words, employers may use their bargaining power in favor of their interests and animate people to make investments that might never pay off. For example, employees and their families invest time and money waiting for re-employment; unemployment benefits, if received, being less than wages previously earned, so that people in real terms have less money than when they were employed. Furthermore, they bear the financial risk of not being re-employed and of having waited too long to find another job. In the case of recalls, exploitation means that employers use peoples’ dependency and investments during unemployment to reduce labor-related costs without offering them adequate compensation. To reformulate it using Therborn’s equality mechanism: if the risks the employee bears and the advantages the firm has via reduction of labor costs are not redistributed equally, the latter is understood to exploit the former.

The special characteristic of recalls that makes this kind of exploitation easy is established via incomplete contracts – or to be more precise, via the lack of a contract that gives legal rights to former employees during unemployment. As former personnel loses legally binding claims at the termination of an employment contract, it may only rely on the employer’s prestige, cooperative interests, or good will and additionally on changing labor market situations. If one of these presumptions does not apply, people who are encouraged or have to wait for re-employment for other reasons, are being exploited. The same is true if employees are included in the organizational context again, but compensation is under the level of costs they invested during unemployment or lost in respect to future opportunity structures. Putting these arguments together, it is very likely that employees are exploited in some way and that recalls are generated by exploitation. However, waiting also depends on employees’ and their families’ decision to do so, which in turn may be related to other causes (see Hense 2012), but is to some extent freely selected. Moreover, opportunistic behavior of firms and exploitation is set to zero if former staff is rewarded adequately. Although, empirical research shows that people are rewarded for having waited via positive discrimination in respect of placement and income benefits (see Burda/Mertens 2001), it has not been examined yet whether this fully compensates their costs and risk.
Determinants of changing asymmetric dependence and its effect on recalls

While an employer may often be the superior partner who decides on exclusion, inclusion, and distribution of rewards, employees do have bargaining power as well. Firms rely on workers’ cooperation and their human capital; and apart from that labor regulations and work councils also protect the work force. Thus, asymmetric dependence in favor of an employer can be reduced by these factors. Besides which the general or local labor market situation changes asymmetric dependence: if there is an oversupply of labor, this gives bargaining power to employers; if the reverse is true, this strengthens employees’ bargaining power. This will be explained in more detail.

Firstly, exploitation is limited via lack of total control of employees’ behavior. If firms increasingly misuse asymmetric dependence and behave too opportunistically, this improves the employee’s incentive to behave opportunistically as well. As far as he/she is re-included he/she may adjust performance to what he/she assumes to be fair. People who remain excluded may also ruin the prestige of their former employer. Hence, overly opportunistic behavior can be risky for a firm – even if asymmetric dependence makes it possible in principle.

Secondly, employees’ bargaining power is increased by their importance as human capital. Referring to the preceding theoretical considerations on human capital, it may be too costly for the firm to dismiss people with high human asset specificity as former investments may not pay off. Furthermore, people with high human capital that is asset unspecific can often easily find alternative jobs with another company. Consequently, it is riskier to lay them off than others with lower human capital as it is less likely that they will wait for re-employment. Thus, it becomes more likely that employers cannot profit from these workers’ cost-efficient return to their organization. Looked at all together, increasing human capital – whether asset-specific or not – gives bargaining power to employees as long as its firm-specific relevance grows. Based on these considerations, people with necessary human capital are less likely to be laid off which consequentially implies lower recall rates as the excluding precondition of recalls is prevented. In contrast, people with low human capital may be more likely to be dismissed but equally to be dispensable completely. Accordingly, an inverted U-shaped effect of human capital on recalls can be expected. This leads to the assumption that recalls are mostly offered to people with medium human capital. The underlying reason can be seen in employees’ bargaining power that protects people with highly valued human capital to a
degree against exclusion and increases the opportunities of being included for people with middle human capital. Accordingly, the risk of being exploited by a company is reduced via increasing firm-specific relevance of human capital. This is because asymmetric dependence changes in favor of employees so that firms have less reason to act opportunistically.

Thirdly, labor regulations restrict the ability to fire people, thereby reducing employers’ power. Nevertheless, German labor legislation has changed since the 1980s and one of its effects has been an increase in fixed-term contracts (see Hagen 2004: 23; Keller/Seifert 2004: 242f). As they facilitate termination of employment relationships they give bargaining power to employers and increase asymmetric dependence in favor of them. Accordingly, it can be assumed that firms with a higher proportion of fixed-term contracts, legally, have more possibility to use recalls and to exploit workers’ investments during periods of unemployment. In contrast, the existence of a works council is assumed to hinder exploitation, layoffs, and therefore recalls.

Fourthly, labor market conditions determine asymmetric dependence profoundly. If there is an oversupply of labor, it is less risky for a firm to dismiss people because it is more likely that they will have to wait for re-employment under these conditions. This may even function as an incentive to lay personnel off as risks and corresponding costs resulting from potential loss of human capital are reduced. The same is true if the local labor market is small and companies monopolize it. Therefore, opportunistic behavior or exploitation may be cost-efficient if employees’ alternatives are restricted. The opposite is then also true: in a situation characterized by a high demand of labor, it is less likely that employers will dismiss people because asymmetric dependence is reduced and transaction costs increase.

2.3 Hypotheses
Based on the preceding theoretical considerations, the following hypotheses have been derived and tested empirically:

(1) The mechanism of “excluding inclusion” that generates recalls is driven by the companies’ need for flexibility in wage expenditure: firms with higher labor costs and a need to make them more flexible will use recalls more often than others as an instrument for external-numerical and external-monetary flexibility.
(2) The re-including part of the recall-generating mechanism is reinforced by an employer’s need for stability in human capital: firms with a higher demand for qualified labor and higher investments in human asset specificity will use recalls more often in order to maintain human capital despite external flexibilization and to economize expenditures on human capital.

(3) As asymmetric dependence in favor of an employer is reduced by the firm-specific relevance of employees’ human capital, the excluding part of the recall-generating mechanism is restricted by this: firms refrain from excluding personnel when human capital becomes more important for them. Therefore, the effect of human capital on recalls is not linear; instead it is inverted if it becomes more valuable for a firm. It then prevents the excluding precondition of recalls.

(4) In contrast, employers’ bargaining power is intensified if labor regulations make terminations of employment contracts – and thereby exclusion – easier: on the one hand, firms in which a labor force is characterized by an increasing number of fixed-term contracts, will use recalls more often as the excluding precondition of recalls is facilitated. On the other hand, work councils are presumably attempting to prevent this and consequently can have the reverse effect on recalls.

(5) Labor market conditions affect asymmetric dependence on the side of both employer and employee, and may prevent or encourage exclusion depending on whether firms are located in regions with an under- or oversupply of necessary human capital: firms use recalls more often if there is an oversupply of qualified labor or if a firm’s predominance in the regional labor market makes external flexibility less risky.

3. Data, Methods, and Variables

The hypotheses are tested empirically using the linked employer-employee data set (LIAB) of the IAB (Institute for Employment Research, the research institute of the federal employment agency) in its longitudinal version 1 (LM1-2005) (see Jacobebbinghaus 2008). The LIAB links the IAB Establishment Panel data with individual data from the IAB, thus providing a linked data set which comprises data from a representative annual establishment survey (reference date: 30th June) as well as personal data generated in labor administration and social security data processing. Personal data refer to both employees covered by social security and benefit recipients, thus combining two data sets of process-generated employment biographies on a day-to-day basis. The LIAB is restricted to firms that participated in the IAB Establishment Panel from 1999 through 2001 without gap. Personal
information on employment and receipt of benefits refer to individuals who were employed in one of the selected companies between January 1996 and December 2001 for at least one day and provide data from 1990 to 2006. Due to data limitations in the establishment panel the relevant independent variables refer to the period from 1999 to 2001 so that multivariate analysis is restricted to these years.

As the focus of this article is analyzing recalls as an operational strategy to balance firms’ need for flexibility in wage expenditure and their need for stability in human capital, the dependent variable has to be identified on the firm level. In order to construct the dependent variable for each firm, information is used as follows: at first, recalls are identified on an individual level. This implies that an employee is laid off and re-employed again by his/her former employer. In order to identify a recall the interval between the two registrations of employment contracts has to amount to at least 30 days. A shorter interval might in fact not indicate an interruption of employment at all, but could instead result from late registration with the social insurance commission. An exact definition of recalls has not yet been agreed on. There are studies that differentiate between seasonal and cyclical recalls (see Mavromaras/Rudolph 1995). In the case of seasonal recalls employees have to be re-employed after three months, while for cyclical recalls employees are recalled later. This distinction is purely set by definition attempting to approach seasonal and cyclical fluctuations of labor requirements. Other studies distinguish between people receiving unemployment benefits and those receiving unemployment assistance (see Alba et al. 2012.). In this study, the timing of re-inclusion is no criterion for identification. However, a recall by this study's definition implies that re-employed individuals received unemployment benefits for at least some time during unemployment. Additionally, the individuals in question were unemployed and not under contract at other companies while waiting for re-employment. This is because for this study's purposes recalls are conceptualized as an external-monetary strategy that relies on public funds and subsidies. After the identification of recalls on the personal level, these individually identified recalls are summed up for each firm and for each year. The result is a firm-specific count variable for each examined year, which indicates the total number of recalls of each firm.

To analyze count data, one can generally use poisson regression (PR), negative-binomial regression (NBR) or zero-inflated variants of the PR and NBR. Provided that the empirical data is affected by overdispersion, i.e. there is more variability around the model's fitted
values than is consistent with a poisson distribution, NBR must be used instead of PR. Zero-inflated variants improve the underprediction of zeros that usually are higher in the empirical data than in the theoretically predicted values. This is accomplished by distinguishing between two processes for the generation of zero values, the results of which are then listed separately. In our case, zero values can first of all be generated from firms that never perform recalls. Additionally, they can occur in firms that potentially use recalls but just did not conduct any. As the choice of the appropriate analytical model first of all requires a decision for the PR or the NBR, testing on dispersion reveals the latter to be the more adequate for the empirical data. Given that it is theoretically appropriate to discriminate between firms that potentially use recalls and those that never use them, it can also be decided statistically whether the zero-inflated NBR or the NBR is preferable by using the vuong test. In this analysis the theoretical and the statistical argument are in favor of the zero-inflated version. This has an additional advantage: on the one hand, the reasons for which some firms do not perform any recalls at all can be analyzed. On the other hand, for companies that potentially use recalls, the factors influencing the number of recalls are identified. In sum, the following three models are presented: Model 1 is a NBR with robust standard errors based on the pooled data. Model 3 differs from the first only in terms of the application of a zero-inflated NBR. Model 2 is a negative binomial panel regression with random effects, which is here preferred to a model with fixed effects model because of their temporal constancy.

To analyze the first hypothesis, the companies’ need for flexibility in wage expenditure is measured by a firm’s logarithmized gross labor costs per employee (in €) and the number of wage-subsidized employees in the company. Especially the latter is seen as an indicator for the need for flexibility in labor costs. It is expected that increasing expenditure and increasing use of wage subsidies will both result in a higher number of recalls. The second hypothesis refers to the employers’ need for stability in human capital, which is tested by the firm’s amount of qualified employees. In order to construct this variable, the number of skilled workers and employees in high-skilled jobs are related to the total number of employees. To estimate investments in human capital, also a 0/1-coded variable is added indicating whether the company has offered training for its employees in a particular year or not. Theory assumes that both variables will increase the number of recalls. As a growing firm-specific relevance of employees’ human capital is assumed to restrict exclusion, thereby reducing recalls, the third hypothesis relies on a variable that measures the increasing importance of human capital.
Thus, an interaction term is added to the model, constructed by the logarithmized labor costs and the amount of skilled workers. If the third hypothesis holds true, the effect of human capital on recalls is not linear; instead it is inverted when human capital becomes more valuable for a firm. Therefore, the effect of the interaction term should be negative and decrease the number of recalls. The amount of fixed-term contracts in a company is used to test the fourth hypothesis and is expected to increase recalls. Additionally, a dichotomous variable is added to the model, indicating whether a workers’ or staff’s council exists in the firm. For this variable a negative effect on recalls is expected. The fifth hypothesis refers to regional labor market conditions. On the one hand, regional unemployment rates for different skill levels measure an oversupply of labor if unemployment rates are increasing. This information is derived from unemployment statistics and refers to the administrative district in which the establishment is located. It is expected that an oversupply of skilled labor increases the number of recalls. On the other hand, a firm’s predominance in the regional labor market that is, additionally, assumed to increase recalls is measured by the size of the community in which the firm is located. An increase in community size is expected to decrease the monopoly of the firm and thus the number of recalls. In addition to these explanatory variables two control variables are added to the model: the logarithmized number of a firm’s employees and the sector of the company. Since the dependent variable is a count variable, larger companies obviously will have more recalls because of a higher overall number of positions. To control for this effect the firm size is added. Even considering recalls driven by firm-specific decisions, sector-specific effects are expected. To control for these, sector is included in the model with the public sector as reference category.

4. Results

4.1 Descriptive Results

Descriptive results show that about 50% of the companies do not use any recalls in the period 1996 through 2001 (see figure 2). About 25% of the companies conduct one or two recalls per year, about 10% have three to five, additional 5% reemploy six to nine employees, and about 10% use more than 10 recalls per year. As the charts in figure 2 show, the basic distributional pattern of recalls can be considered as largely stable.
Industries characterized by seasonal labor demand traditionally use recalls as an instrument for numerical flexibility. As figure 3 shows, this is particularly true for construction and agriculture in which about one in five recruitments is a recall. Nevertheless, in manufacturing and in the service sector one in ten recruitments is a recall.

4.2 Multivariate Results

Table 1 shows the results for the multivariate analysis. Recalls increase when the number of wage-subsidized employees in the company increases, but this effect is slowed down with increasing numbers as can be seen by the negative effect of the squared variable of the wage-subsidized staff. A firm’s logarithmized gross labor costs per employee do not have a significant effect on recalls. This implies that labor costs do not influence recalls in general;
instead it’s the need to make them more flexible – as stated in theory and measured more precisely with the first indicator. Consequently, it holds true that “excluding inclusion” is driven by the companies’ need for flexibility in wage expenditure and as a consequence generates recalls as a discontinuous employment relationship. The second hypothesis refers to the employers’ need for stability in human capital that is tested by the firm’s amount of qualified employees. As recalls increase with an increasing amount of qualified employees this assumption holds. The theoretical interpretation of this effect is that an employer’s need for stability in human capital reinforces the including part of the recall-generating mechanism. Additionally, this finding suggests that recalls are used as a flexibility strategy to maintain operational skills of the workforce. Unfortunately, firms’ investments in human capital do not show a clear picture: some results are not significant. Additionally, the empirically derived effect is contrary to what is assumed theoretically. The explanation might be that investments in human capital may not reinforce the including part of the mechanism that generates recalls. Instead, the theoretical argument for the third hypothesis may adequately interpret the effect of investments in vocational training. As human capital becomes more valuable for a firm by investments in further education these investments may prevent the excluding precondition of recalls. The interaction term of human capital and labor costs that is added to the model to test this third hypothesis is in line with these theoretical assumptions: as human capital becomes more valuable for a firm the number of recalls is reduced – presumably because exclusion is too expensive. If the amount of fixed-term contracts in a company increases, the number of recalls increases accordingly. Thus, the fourth hypothesis is confirmed that an increasing bargaining power of employers increases the use of recalls. This is supported by the results in the inflate-part of model 2: an increasing amount of fixed-term contracts decrease the likelihood that no recalls are used. It is interesting to note that the expected effect of a work council has to be specified: As can be seen in the zero-inflated model, a work council only influences the general use of recalls, but does not have an effect on the number of recalls when this strategy is potentially applicable. The theoretical argument for this empirical finding might be that a work council may prevent exclusion and therefore positively affects the likelihood that no recalls are used – the effect can be seen in the inflated part of the model. The lack of its influence on the amount of recalls can be explained by the complex mechanism that generates recalls: while a work council is not interested in exclusion, it is definitely interested in re-inclusion. These contrary effects may be the reason why a work council’s effect on the number of recalls cannot be detected empirically. The fifth hypothesis refers to the regional labor market conditions. As expected, an oversupply of skilled labor
increases the number of recalls. Thus, firms use recalls more often if there is an oversupply of qualified labor because under these conditions it is less risky to lay skilled people off and to re-employ them again after some time. Additionally, predominance in the regional labor market has the same effect.

Table 1: Firms' determinants of the use of recalls

<table>
<thead>
<tr>
<th>Need for flexibility in wage expenditure</th>
<th>Number of recalls per year</th>
</tr>
</thead>
<tbody>
<tr>
<td>number of wage-subsidized employees</td>
<td>0.018*** (0.004)</td>
</tr>
<tr>
<td>number of wage-subsidized employees (squared, x .0001)</td>
<td>-0.0064*** (0.0000)</td>
</tr>
<tr>
<td>gross labor costs per employee (logarithmized)</td>
<td>0.192 (1.709)</td>
</tr>
<tr>
<td>Need for stability in human capital</td>
<td></td>
</tr>
<tr>
<td>amount of qualified employees</td>
<td>0.0644*** (0.0180)</td>
</tr>
<tr>
<td>labor costs x amount of qualified employees</td>
<td>-0.090*** (0.0025)</td>
</tr>
<tr>
<td>education (ref: no)</td>
<td>-1.1824 (0.0794)</td>
</tr>
<tr>
<td>Asymmetric dependence</td>
<td></td>
</tr>
<tr>
<td>number of fixed-term contracts</td>
<td>0.256 (0.0017)</td>
</tr>
<tr>
<td>work council (ref: no)</td>
<td>0.24 (0.1095)</td>
</tr>
<tr>
<td>unemployement rate: unskilled labor</td>
<td>-0.0195 (0.0068)</td>
</tr>
<tr>
<td>unemployement rate: skilled labor</td>
<td>0.559 (0.0093)</td>
</tr>
<tr>
<td>unemployement rate: university degree</td>
<td>-0.0066 (0.0133)</td>
</tr>
<tr>
<td>community size</td>
<td>-0.1049 (0.0190)</td>
</tr>
<tr>
<td>Control variables</td>
<td></td>
</tr>
<tr>
<td>number of employees (logarithmized)</td>
<td>0.6963*** (0.0336)</td>
</tr>
<tr>
<td>sector (ref: public sector)</td>
<td></td>
</tr>
<tr>
<td>construction</td>
<td>0.6480*** (0.1577)</td>
</tr>
<tr>
<td>agriculture, mining, energy</td>
<td>0.0317 (0.1727)</td>
</tr>
<tr>
<td>manufacturing</td>
<td>-6.718*** (1.198)</td>
</tr>
<tr>
<td>transport, news industry</td>
<td>1.0693*** (1.551)</td>
</tr>
<tr>
<td>catering industry, hotel</td>
<td>-3.898*** (0.1363)</td>
</tr>
<tr>
<td>trade, repair</td>
<td>-0.451 (0.3083)</td>
</tr>
<tr>
<td>other services</td>
<td>-0.766*** (0.1823)</td>
</tr>
<tr>
<td>industry-related services</td>
<td>-0.3393 (0.1833)</td>
</tr>
<tr>
<td>research, education</td>
<td>-0.3099 (0.1639)</td>
</tr>
<tr>
<td>metal and electrical industry</td>
<td>-0.471*** (0.1437)</td>
</tr>
<tr>
<td>fiannaces and insurances</td>
<td>0.2130 (2.082)</td>
</tr>
<tr>
<td>health care, social sector</td>
<td>-0.7489 (1.109)</td>
</tr>
<tr>
<td>constant</td>
<td>-3.615 (1.2304)</td>
</tr>
</tbody>
</table>

| no recalls (inflate)                     |                            |
| Asymmetric dependence                   |                            |
| number of fixed-term contracts          | -0.716*** (1.1887)        |
| work council (ref: no)                  | 1.2147 (5.014)            |
| control variables                       |                            |
| number of employees (logarithmized)     | -2.195 (0.0983)           |
| constant                                | -1.0920 (3.831)           |

| α                                      | 1.936 .0466 1.6470 .0872 |

Pseudo R² 0.145 0.149
Log (Pseudo)likelihood -1450.378 -15300.837 -14498.03
Wald Chi² (df) 2354.87 (25) 2329.93 (25) 2889.71 (25)
Number of observations 8451 8451 8451

5. Summary, Discussion, and Outlook

Analyzing recalls as a specific flexibility strategy proved to be beneficial as it could be shown that a company’s need for flexibility in wage expenditure, its need for stability in human capital, and its bargaining power explain why firms make use of recalls. A recall is generated by exclusion from an employing organization and later re-inclusion, which is called “exclusion including”. Whether the former exclusion is seen as a stigma has to be analyzed in future research. This article focused on operational determinants of recalls and tested...
hypotheses derived from transaction cost theory: the specific characteristic of recalls as an instrument of numerical flexibility is a reduction in wage-related expenditure in cases of decreasing and increasing labor requirements. In the latter case, both ex-ante and ex-post transaction costs are reduced considerably in comparison to vacancies that are filled with completely unknown individuals. Additionally, recalls help to maintain human capital via re-inclusion in spite of external-numerical flexibilization and reduce follow-up costs that result from excluding human capital. The need for stability in human capital increases an employer’s interest in re-inclusion and prevents exclusion if human asset specificity is high. Therefore, exclusion is assumed to be enforced by demands for the reduction of labor costs and averted by the relevance of human capital. Re-inclusion is intensified by the need for a reduction in labor expenditure plus the need for stability of human capital. If asymmetric dependence changes in favor of employers due to labor regulations, predominance in the local labor market or in the firm (due to the absence of a work council), and an oversupply of skilled labor recalls are used more often. In the case of recalls, hold-up (exploitation) means that employers use people’s dependency and investments during unemployment to reduce labor-related costs without offering them adequate compensation. The special characteristic of recalls that makes this kind of exploitation possible is established via the lack of a contract during unemployment. Whether this exploitation takes place will be analyzed in future research. Moreover, consequences of recalls on rewards, individual lives, and living arrangements will be examined in the following years using a mixed-method design. Additionally, we are studying employees’ rationalities and conditions that determine their decisions on recalls.

Further research questions can be derived: Determinants that increase the number of recalls such as an oversupply of labor, demands for flexibility in wage expenditure, and fixed-term contracts encourage the expansion of firm-specific labor markets. Therefore, research about internal labor markets might profit by paying attention to recalls. As recalls are more likely in regions with a high unemployment rate, a self-perpetuating process is possible – especially in economically underdeveloped regions. Moreover, it can be assumed that an increasing number of recalls intensifies asymmetries between employers and employees and affects the social security system. Currently, these potential effects of recalls on local economies or on the welfare state have not yet been analyzed. Although recalls are used to maintain human capital, the standard solution implies internal flexibility strategies. Comparative research
regarding interactions of recalls with other flexibility strategies or differences between certain types of discontinuous employment is still required.

References