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**PARTIAL DEREGULATION IN SPAIN:
MORE CONS THAN PROS**

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Abstract

The paper takes issue with demand-based interpretations of the consequences of deregulation through temporary employment in Spain. According to demand-based accounts, partial deregulation has helped to generate and maintain a secondary segment in the Spanish labour market, in which specific product market conditions generate a need for highly flexible contracts to perform low-skilled tasks. In contrast to this view, the paper argues that partial deregulation has also had important segmenting consequences amongst Spanish professionals, despite the high levels of asset specificity and monitoring costs involved in their job tasks. Drawing on the analysis of the Spanish Labour Force Survey for the period 1987-1997, the paper presents empirical evidence that shows how, when introduced in a context of high unemployment and high dismissal costs for the permanent workforce, temporary contracts can generate a process of polarisation of employment chances within both manual and professional occupations. The segmenting consequences of partial deregulation have, therefore, been more severe, pervasive and pernicious than is acknowledged by demand-based accounts.

Introduction¹

The flexibilisation policy implemented in Spain in 1984 has been assigned different labels. Some economists have referred to it as “*flexibilisation at the margin*” (Bentolila and Dolado 1994; Toharia and Malo 2000), others as “*partial deregulation*” (Adam and Canziani 2000), whilst, within the sociological camp, Esping-Andersen (2000) has considered it as a paradigmatic example of what he calls “*two-tier selective labour market policies*”. All these different labels point, however, in the same direction. The flexibilisation reform implemented in 1984 was characterised by deregulating conditions for some workers, but not for others. The 1984 reform targeted new entrants in employment, while the employment security of workers on permanent contracts continued untouched.

The levels of employment security for permanent workers in Spain are amongst the highest within OECD countries—at least until the labour market reform of 1997. In very sharp contrast to dismissal costs for permanent workers, temporary contracts introduced in 1984 entailed very low termination costs. Moreover, most of them included a termination date, after which the employer was legally obliged either to convert the temporary contract into a permanent one or to put an end to the employment relationship. It is the combination of high employment security for workers on permanent contracts and the removal of all hitherto barriers for the use of flexible temporary contracts that characterises the Spanish approach to labour market flexibilisation inaugurated in 1984. The Spanish experiment amounts *de facto* to the institutionalisation of a two-tier system of employment rights.

Between 1984 and the early 1990s, the Spanish labour market saw the rapid expansion of a flexible segment of temporary contracts—an expansion greatly favoured by the economic boom experienced in that period. Temporary contracts soon became both the principal means of entry into employment and the principal means of exit from employment into unemployment. Already by 1991, one-third of all employed wage-earners had a temporary

¹ An earlier version of this paper was presented at the seminar *Risk and Insecurity in Flexible Economies*, held in the Warwick Institute for Employment Research as part of the *European Study of Precarious Employment* project. The author wishes to thank all the seminar participants and, in particular, Miguel A. Malo for his insightful comments and helpful criticisms. The usual disclaimer applies.

contract, whilst more than 80 per cent of all new entries into employment and of all new exits into unemployment took place in the flexible segment of temporary work² (see figures 1 and 2). Since the early 1990s, the rate of temporary employment in Spain has more than doubled the average for the OECD.

Throughout the 1990s, the Spanish flexibilisation strategy was subjected to evaluation by various labour market experts (see e.g.: Alba 1991; 1994; 1996; 1997; Bentolila and Dolado 1993; 1994; Bentolila and Saint-Paul 1992; Bentolila *et al.* 1991; Garrido 1996; Jimeno and Toharia 1992; 1994: ch. IV; Segura *et al.* 1991). Yet it is the very passing of time which provides researchers with the best viewpoint for the analysis of the consequences that partial deregulation has had on the Spanish labour market and, thereof, on the opportunities and obstacles that Spanish employees face in it. Therefore, the latest evaluations of the Spanish experience of deregulation should receive special attention.

One of the latest and most authoritative of such evaluations has been provided by Toharia and Malo (2000). In their review of the *'pros and cons of flexibilisation at the margin'* the authors argue that *'the Spanish labour market has evolved into a dual structure, with two-thirds of employees retaining permanent status and the rest in a highly mobile market'*, yet they also conclude *'that the secondary sector probably responds to specific product market conditions which require more flexible labour market conditions, probably because of their inherent instability'* (2000: 326). This demand-based view of the segmentation process triggered by partial deregulation in Spain leads Toharia and Malo to offer a rather positive evaluation of the Spanish experience. In their concluding remarks, the authors write:

To sum up, the 'experiment' has probably been beneficial to the economy as a whole because it allowed the more permanent existence of this secondary sector, one of whose roles is precisely that of providing the economy with a flexible fringe. (Toharia and Malo 2000: 330).

² During the economic crisis of 1992-1994 more than 1 million jobs were lost in Spain, yet, despite this massive destruction of employment, only 17% of those who became unemployed in 1993 came from permanent employment.

Figure 1:

Percentage of temporary contracts among the newly employed and the newly unemployed⁽¹⁾ (LFS)

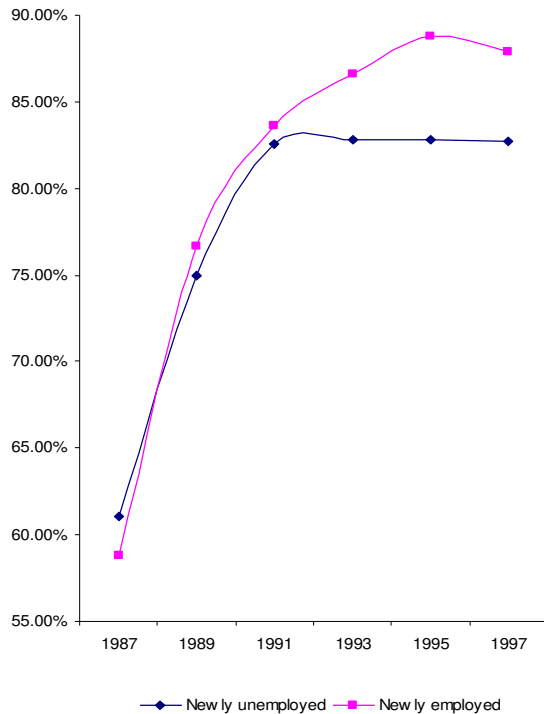
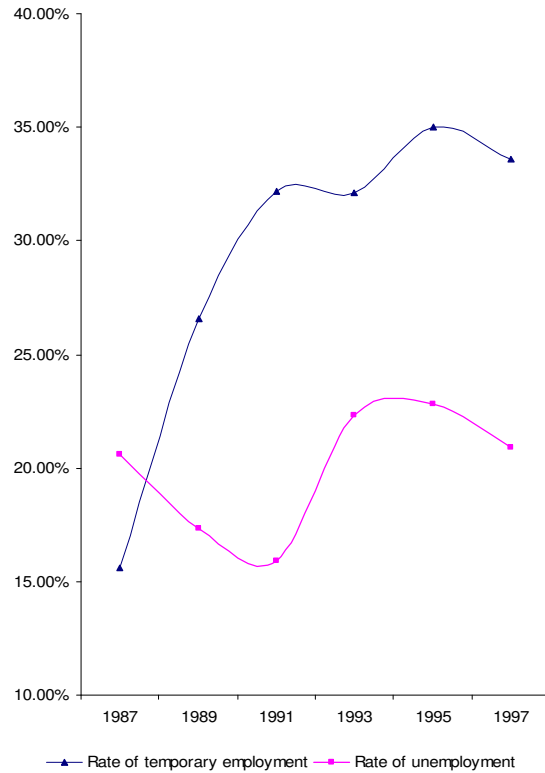


Figure 2:

Rates of temporary employment and unemployment by year (LFS)



⁽¹⁾ New entries into employment in the LFS are given by the number of employed respondents who claim that they were not employed the previous year, whilst new exits from employment into unemployment are given by the number of unemployed respondents who claim that they were employed.

Source: Polavieja (2003a, forthcoming) based on LFS (second quarters).

Note that implicit in this argument is the idea that partial deregulation has removed the hitherto prevailing institutional obstacles for employment creation in the 'secondary sector' thus facilitating its more permanent existence. This is where Toharia and Malo's argument connects with standard segmentation theories.

According to the segmentation theories, the secondary sector is identified simultaneously with small peripheral firms targeting the volatile component of demand (see e.g.: Doeringer and Piore 1971; Piore 1975; 1978; 1983) and with low-skilled, poorly paid and fundamentally insecure jobs (see e.g.: Edwards 1979; Edwards, Reich and Gordon 1975;

Gordon, Edwards and Reich 1982; for a review see: Polavieja 2001: ch. I). Both the sectorial and occupational dimensions of the secondary sector are often coupled in segmentation theories and this has generated a considerable degree of confusion and debate over the years (for an early review see: Kalleberg and Sorensen 1979; Baron 1984; see also: Fine 1998). Toharia and Malo's argument seems to be, however, based primarily on an occupational definition of the secondary sector, that is, a definition in terms of the characteristics of the jobs involved (ibid. 2000: 326). According to the authors, partial deregulation has helped to generate and maintain a stock of low-skilled jobs, where the very characteristics of the job task (i.e. its '*inherent instability*') require flexible forms of employment. What seems to be assumed in Toharia and Malo's demand-based evaluation is, therefore, the existence of a largely unproblematic overlapping between contractual forms and "types of jobs" in the Spanish labour market.

The idea that partial deregulation has mainly helped to enlarge the 'secondary sector' of low-skilled jobs is certainly not new in the literature. In the early 1990s, researchers working in the fields of industrial sociology and sociology of work provided a description of the labour market segments in Spain that also assumed a relation of identification between temporary employment and low-skilled jobs (see, e.g.: Bilbao 1993; Prieto 1989; Recio 1991). According to this description, the primary sector of the Spanish labour market was identified simultaneously with highly qualified professionals and with permanent contracts, while the secondary sector was viewed as consisting of unskilled workers and fixed-term contracts (see e.g.: Recio 1991: 99 and also: Miguélez 1995: ft.1; Rivero 1985: 34-7).

This overlapping of contractual forms and occupational classes was also reproduced in stratification analysis through the work of González (1992). González's description of the Spanish class structure assumes, in his own words:

a significant connection between the dualist perspective and the class structure, according to which: a) the upper-segment of the primary sector constitutes the theoretical equivalent of the middle class, b) the lower-segment [of the primary sector] corresponds to categories of qualified employees; and c) the secondary market corresponds to the categories of unskilled workers and/or workers with limited capacity of control over their job. (González 1992: 70-71).

In short, according to these demand-based interpretations, the rapid expansion of temporary contracts in Spain should reflect the growth of a secondary segment made of unskilled jobs. Types of contract and occupational classes are thus treated as mainly overlapping concepts.

The occupation-specific-demand-based approach constitutes the dominant explanation within the sociological camp of the employment consequences of temporary work in Spain. This paper takes issue with this dominant view by providing evidence that shows how the polarisation of employment opportunities triggered by labour market reform has indeed occurred *inside* different occupational classes with various degrees of task-inherent instability. By showing that partial deregulation has had a segmenting impact on both low-skilled and high-skilled jobs, the paper offers a less positive evaluation of the Spanish experience of flexibilisation than the one provided by Toharia and Malo (2000). Partial deregulation has generated important inequalities amongst workers of equivalent productivity acting as powerful factor of labour market stratification.

The paper is organised as follows. *Section One* provides a theoretical framework for the discussion of the relationship between task-specificity factors influencing labour market opportunities and the segmentation process triggered by labour market deregulation in Spain. The logic of segmentation is spelled out by referring to two mechanisms unleashed by labour market reform: the so-called *incentive* and *buffer* effects of temporary contracts. *Section Two* provides empirical evidence that partial deregulation has indeed triggered a process of employment polarisation in all main occupational categories. This evidence is obtained by drawing on original analysis of both the cross-sectional and the matched files of the Spanish Labour Force Survey (LFS) for a ten-year period ranging from 1987 (first point in which information on type of contract was provided) to 1997 (the year in which a further labour market reform not treated in this paper was introduced). The evidence shows that task-specificity factors have influenced the *intensity* of this process but not the existence of the process itself. The paper ends with a concluding section that takes stock of the Spanish route to flexibilisation.

I. Theoretical considerations: task-specificity and the mechanisms of type-of-contract polarisation

It is obvious that employees' rewards and opportunities in the labour market depend greatly on the characteristics of the jobs they perform or, in other words, on the degree of task-specificity that their jobs imply³. Two dimensions of task-specificity are crucial 1) the degree of firm-specific human capital required in the job and 2) the costs involved in monitoring workers' productivity, which depend on technological factors. As explained in Polavieja (2001; 2003a, forthcoming), the higher the monitoring costs and the higher the specific human capital required for the performance of the task, the higher the incentives are for both employers and employees to 'close' the employment relationship from outside competition. This is typically achieved through long-term open-ended contracts.

The closure of employment relationships poses, however, an important organisational problem for employers, namely, that of how to best induce high levels of productivity to their protected workforce—in particular, when monitoring workers is costly for the firm. Several economic and sociological theories of the employment contract seem to converge in this point (see, e.g.: Goldthorpe 2000: ch. X; Lazear 1995: ch. IV; Marsden 1999; Sorensen 1994; 2000; Williamson 1985; 1994; 1996). According to these theories, rational employers will seek to induce effort and deter shirking by designing an incentive structure based on the wage system. Thus it is the very form that monetary compensation takes as the employee's career evolves which acts in itself as the main incentive mechanism in long-term employment relations.

This incentive structure is what Goldthorpe (2000: ch. X) calls the "service contract". Service or 'professional' contracts secure the employment relationship on a long-term basis, whilst offering productivity incentives to their employees through a payment system based on a fixed wage—or salary—that is not directly linked to current performance. Salary-based compensation typically takes the form of seniority wages. Seniority wages allow employers to link employees' future rewards to their current performance (even if the latter cannot be

³ For a more detailed discussion, see: Polavieja (2001: ch. II).

cheaply measured) by offering tenure-dependent wages that are always above the clearing-market level. The possibility of achieving such high wages in the future acts as an incentive for current performance on the job. In sum, according to this model, tasks that require high investments in specific human capital and where monitoring costs are high will be better dealt with professional contracts characterised by employment security and wage-compensation schemes.

Employers do not need to design these types of incentive-compatible contracts for those tasks that require negligible investments in firm-specific human capital and/or tasks that are easy (i.e. cheap) to monitor. In these instances, employers will tend to offer simple “labour contracts” to their employees. As Goldthorpe explains, labour contracts will tend to take the form of discrete and short-term exchanges of money for effort and come *‘as close as is possible to a simple spot contract –albeit perhaps of a recurrent kind- for the purchase of a quantity of a commodity’* (Kay 1993: ch. IV in Goldthorpe 2000: 214).

It follows from Toharia and Malo’s argument that the introduction of temporary contracts in Spain should have facilitated employers’ options for offering flexible contracts in those tasks where monitoring costs and asset specificity are both low. This is why the authors seem to interpret the rapid increase in the rate of temporary employment experienced in Spain as signifying the growth of a “secondary segment” made of poorly-paid and insecure low-skilled jobs. Temporary contracts should be, according to this view, and using sociological terminology, mainly a working-class phenomenon. But is this necessarily the case?

There is no denying that temporary contracts should be more beneficial to employers for tasks that involve low levels of specific human capital and monitoring costs. Yet partial deregulation could have altered the functioning of task-specificity factors allowing employers to use short-duration contracts even for jobs with high levels of task-specificity. If the use of temporary contracts allows employers to extract greater levels of output from their professional workers than standard incentive schemes in long-term employment relationships, then there is no reason why temporary employment should be confined to low-skilled jobs. The use of temporary contacts in a context characterised by high levels of unemployment and

high security in permanent employment can prove an efficient effort-eliciting mechanism in all types of jobs.

The incentive effect of temporary contracts

The Spanish labour market prior to the 1984 reform was characterised by high levels of unemployment —by 1984 unemployment had risen to 20 per cent of the active population— combined with high levels of legally-granted employment security for permanent workers. In this context, employers can use the possibility of conversion of temporary contracts into permanent ones as an efficient effort-eliciting tool, even in those instances where monitoring workers' productivity proves problematic⁴. Temporary workers are compelled to work hard in order to get their contracts converted and hence avoid unemployment. This is the *incentive effect* of temporary employment (see: Güell-Rotllan 2000; Polavieja 2003a, forthcoming).

By using the conversion rate of temporary employment into permanent employment strategically, employers can extract a considerable amount of productive effort from their temporary workforce. Note that the costs of this form of incentive system are equal to the firm-specific investments made on the temporary workers that will not be converted plus the costs of converting the 'wrong' type of workers —i.e. those who are not the most productive within the temporary stock—. These latter costs depend, in turn, on the available monitoring technology.

This implies that the higher the firm-specific investments and the higher the monitoring costs required for the optimum performance of any given task, the less efficient the incentive effect of temporary employment will be relative to those provided by closed employment relationships and their associated incentive schemes. Hence it follows that the

⁴ The conversion rate could have, therefore, played an equivalent role to that of efficiency wages in the classic model of Shapiro and Stiglitz (1984). See: Güell-Rotllan (2000).

rate of conversion into permanent employment will increase with task-specificity factors. Yet as Polavieja, has argued:

even in those instances where task-specificity is high, employers might choose to resort to this sort of incentive mechanism rather than investing in long-term employment relationships and their usual incentive schemes as long as an appropriate rate of conversion into permanent employment succeeds in eliciting greater average output than the incentive costs the firm. Polavieja (2003a, forthcoming).

In other words, in a context of high unemployment and high dismissal costs for permanent contracts (both of which exercise high pressure on workers' productive effort), employers might find it more economical to lose the returns to the firm-specific investments made on their temporary employees than to invest in the costs associated with long-term employment relationships.

In sum, the efficiency of the incentive effect of temporary contracts, in a context of high unemployment, will depend on the following three factors:

1) The cost for employers to measure workers' productivity, since in those instances where productivity is easily measurable there are little incentives for employers to offer permanent contracts (Goldthorpe 2002, ch. X). Also when monitoring productivity is very costly for firms, conversions into permanent employment are more likely to be unrelated to workers' output, which, as explained in Lazear's tournament model, will lead to lower levels of effort-exertion (see: Lazear 1995: ch. III). The costs of measuring workers' productivity (denoted MC) will obviously depend on the available monitoring technology.

2) The amount of firm-specific human capital required for the performance of the task (denoted SK), since the greater the investments made in SK, the greater the incentives for closing the employment relation will be for employers. High specific-human-capital requirements should, therefore, lead to high conversion rates.

3) The difference in the empirical employment protection of workers on permanent contracts vis-à-vis that of workers on temporary ones, since the larger this difference (denoted D), the higher the incentives to exert effort will be for temporary workers —and

consequently, the lower the conversion rate will need to be in order to extract the same levels of output from the temporary workforce.

The conversion rate of temporary contracts into permanent ones (CR), which is the incentive mechanism in this model, can be, therefore, expressed as follows:

$$CR = f(+SK, +MC, -D) \quad [1]$$

As explained above, professional occupations are characterised by high monitoring costs and high levels of specific human capital, whilst working class occupations show the lowest levels of SK and MC. Hence, it follows that the CR will be higher amongst professionals and lower amongst labourers.

Note also that the term D in the equation is defined as the difference in the *empirical* levels of employment security of workers employed on different contracts —permanent *versus* temporary. Of course, the most important determinant of this difference is the regulatory framework —in particular, the costs of dismissal. Yet this might not be the only factor affecting D.

The buffer effect of temporary employment

Bentolila and Dolado (1994) and Rodríguez (1996) have provided company-level evidence showing a causal relationship between the proportion of temporary workers employed in Spanish firms, and the rents obtained by permanent workers in their collective agreements. Polavieja (2001: ch. IV; 2003a, forthcoming) has obtained similar results using individual-level data. Polavieja's analysis also suggests that the employment security levels of those employed on permanent contracts increased relative to temporary workers as the proportion of the latter expanded in the Spanish labour market. In other words, the existing evidence seems to suggest that D increased with the rate of temporary employment.

This evidence showing a correlation between permanent workers' employment security and the rate of temporary employment in Spain is consistent with the idea that temporary workers act as a *buffer* that protects permanent workers from the risk of unemployment. Temporary workers could have provided permanent workers with a protecting shield because they are cheaply dismissible. Hence employers needing to shed labour will *ceteris paribus* always choose to dismiss temporary workers over permanent ones. This means that the larger the proportion of temporary workers employed in any given firm, the greater the employment security of their permanently employed counterparts will be (see: Bentolila and Dolado 1994).

From this argument it follows that D could indeed be a positive function of the rate of temporary employment (TC), which introduces an interesting loop in model [1]⁵. The dependence of D on TC implies that the buffer effect of temporary employment can augment the efficiency of the incentive effect.

The reason for this is simple. Everything else constant, the greater the employment security of workers on permanent contracts, the greater the price of achieving a permanent contract will be for temporary workers. The increase in permanent workers' employment security associated to the increase of the temporary stock should, therefore, improve the incentive effect of the conversion rate. Employers will now be able to extract the same levels of effort from temporary workers with a lower conversion rate.

Note that from this argument it follows that incentive and buffer effects should be less intense in high asset-specificity tasks, yet it does not by any means follow that these effects should be non-existent. Incentive and buffer effects triggered by labour market reform seem to have their own micro-level logic and, therefore, could have played an important polarising role not only within the ranks of the so-called secondary-sector but also amongst highly skilled professionals. If this was the case, the demand-based interpretation of the effects of partial deregulation in Spain would be fundamentally challenged.

⁵ This loop can provide an explanation of the endogenous dynamics of the segmentation process in Spain (see: Polavieja 2003a, forthcoming).

II. Task-specificity and polarisation of employment: empirical evidence from the LFS (1987-1997)

In order to examine the relationship between task-specificity factors and temporary employment in the Spanish labour market, an attempt to compute an extended version of the EGP class schema (see: Erikson, Goldthorpe and Portocarrero 1979) using Labour Force Survey (LFS) data has been undertaken. Unfortunately, the LFS data does not allow for an *exact* replication of the EGP for all the years under investigation. This is due to two types of coding limitations. The first limitation is that respondents' occupation is coded in two digits in the unmatched files of the LFS and only in one digit in the matched files —the latter being a crucial source for the analysis of conversions into permanent employment. The second limitation is due to a methodological break occurred in the coding system in 1994. That year, the Spanish National Coding of Occupations (CNO) —which is based on the ISCO— changed. This change introduces problems in the comparability of the series under investigation.

Notwithstanding these methodological difficulties, it is possible to differentiate clearly between professionals and labourers in all the analyses carried out as well as to observe the evolution over time of different employment indicators within these two occupational groups, keeping in mind that changes observed after 1994 could have a purely methodological origin. To remind readers of this latter problem, the graphs presented below leave a gap in that particular year.

Two conclusions can be drawn at first glance from the occupational-class-based analysis of temporary employment using the cross-sectional LFS survey files for every other year within the period 1987 to 1997: 1) that the distribution of temporary contracts does follow a clear class pattern, and 2) that the rate of temporary employment experienced a very significant growth throughout the analysed period in all the occupational classes considered. In figures 3 and 4 these processes are presented graphically for both employees belonging to the professional class (i.e. classes I and II of the Goldthorpe class schema) as well as for those belonging to the 'labour' class (classes VI and VII).

As expected, given task-specificity factors, in any of the observed points in time along the analysed 1987-1997 period temporary contracts are much more frequent in ‘labour’ occupations than in professional ones. For instance, in 1997, the rate of temporary employment amongst manual workers was 45 per cent, whilst it was ‘only’ 20 per cent amongst professionals. These rates were respectively 3.7 and 2.5 higher than the rates found 10 years earlier. Note also that the growth of temporary employment in both classes takes place mostly between 1987 and 1991, following the general trend observed for the Spanish workforce as a whole (see figure 4).

Figure 3:

Percentage of temporary contracts among the newly employed and the newly unemployed⁽¹⁾ for selected occupational classes (LFS)

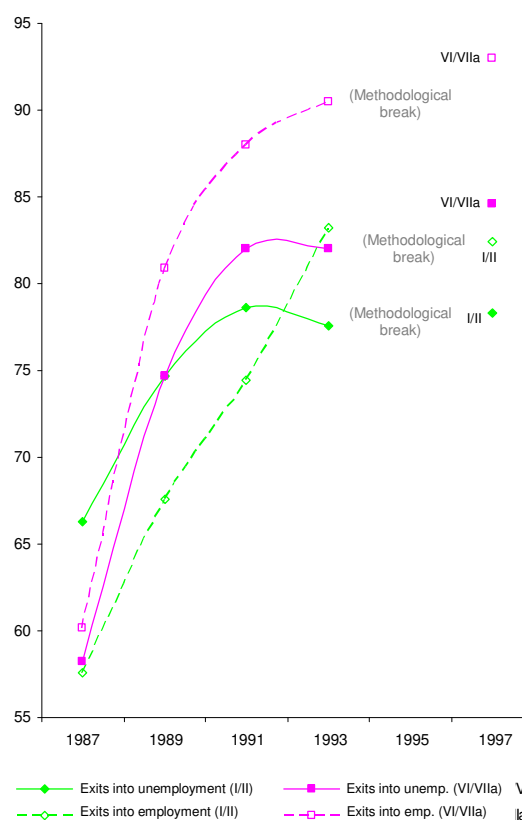
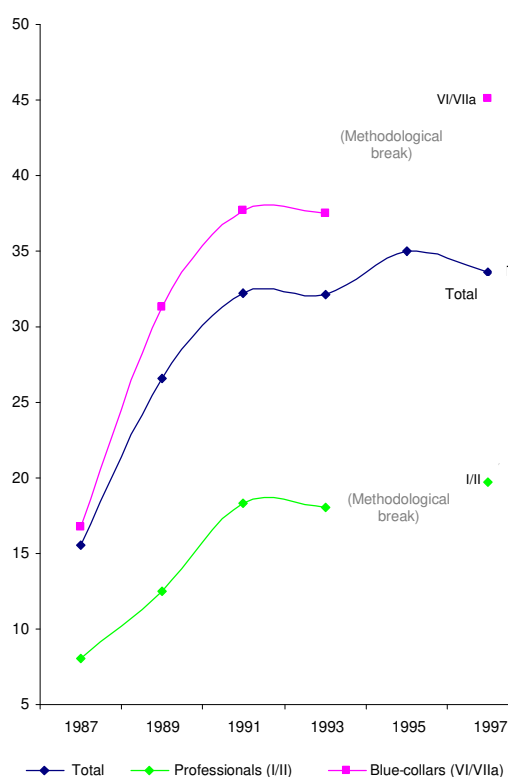


Figure 4:

Rates of temporary employment by year and selected occupational classes (LFS)



⁽¹⁾ New entries into employment in the LFS are given by the number of employed respondents who claim that they were not employed the previous year, whilst new exits from employment into unemployment are given by the number of unemployed respondents who claim that they were employed.

This growth in temporary employment in all classes is parallel to the increase observed in the proportion of new entrants into employment on temporary contracts. Figure 3 shows how temporary employment became the principal means of entry into employment in occupational classes which entail very different levels of task-specificity. By 1997, 93 per cent of the newly employed manual workers and as much as 82 per cent of the newly employed professionals had a temporary contract. Figure 3 also shows how the termination of temporary contracts also became the principal means of exit from employment into unemployment for both occupational categories over time. The growth in the proportion of exits that originate in the flexible segment of temporary employment was particularly acute in both classes between 1987 and 1991, a point after which across-the-board stabilisation seems to be observed.

Did the expansion of the temporary segment observed in both occupational groups increase permanent workers' employment security relative to temporary workers as predicted by the buffer effect hypothesis? In order to test for the existence of a buffer effect, Polavieja (2003a, forthcoming) has proposed an indicator that accounts for the relative weights of permanent and temporary contracts among the employed population. This indicator (represented by the symbol Ω_a) measures permanent workers' job security *vis-à-vis* temporary ones and it is obtained by applying the following formula:

$$\Omega_a = 1 - \left[\frac{PNU^{PC_t}}{PPC_{t-1}} \right] \times 100 \quad [2]$$

where PNU^{PC_t} is the proportion of newly unemployed workers observed in year t that come from permanent employment and $PPC_{in\ t-1}$ is the proportion of employed workers on permanent contracts in the previous year. Note that, since only wage earners are considered, there are only two types of contracts, permanent (PC) and temporary (TC). Therefore, $PNU^{PC_t} = 1 - PNU^{TC_t}$, and $PPC_{t-1} = 1 - PTC_{t-1}$. Hence Ω_a can be interpreted as an indicator of the gap between the job security levels of workers on different contracts or, in other words, a measure of the term D in equation [1].

Ω_a represents this distance in percentage points. A value of 0 per cent would indicate no differences in unemployment risks by type of contract (i.e. both types of workers will be equally represented in employment and in unemployment), whereas a value of 100 per cent would indicate maximum contractual differences in unemployment risks (i.e. not a single permanent worker would become unemployed)⁶. One particular advantage of Ω_a is that it is not affected by changes in the active population, which makes it possible to assess the evolution of permanent workers' security vis-à-vis temporary ones over long periods of time even if the rate of activity changes. Another advantage is that it can be calculated for different socio-demographic groups.

Figure 5 shows the evolution of permanent workers' job security relative to temporary workers (i.e. the evolution of the Ω_a indicator) for both the total Spanish workforce, professionals and labourers for every other year over the 1987-1997 period. It is apparent that the trends are identical irrespective of the occupational class. The enhancement of permanent workers' employment security vis-à-vis temporary ones (i.e. the increase in D) occurs not only among labourers, but also amongst professionals.

Note that the increase in Ω_a is more pronounced within the former occupational group—the indicator Ω_a for labourers increased from 50 per cent in 1987 to 70 per cent in 1997—than within the latter— Ω_a for professionals increased from 63 per cent to 73 per cent in the same period. Note also that the increase in the indicator Ω_a is parallel to the increase observed in the rate of temporary employment in each class (see figure 4). Both findings are fully consistent with the buffer effect hypothesis.

⁶ In other words, if the proportion of newly unemployed permanent workers observed in any given year equalled the proportion of employed permanent workers observed the previous year, permanent workers would not be underrepresented in unemployment and hence Ω_a would be 0% (i.e. minimum relative job security for insiders). If, on the contrary, all entries into unemployment in any given year were made from fixed-term contracts and, therefore, PNU^{PC} equalled 0, then Ω_a would be 100% (i.e. maximum relative job security for insiders).

Figure 5:

Permanent workers' survival probability relative to temporary workers (Ω_a) by class and year (LFS)

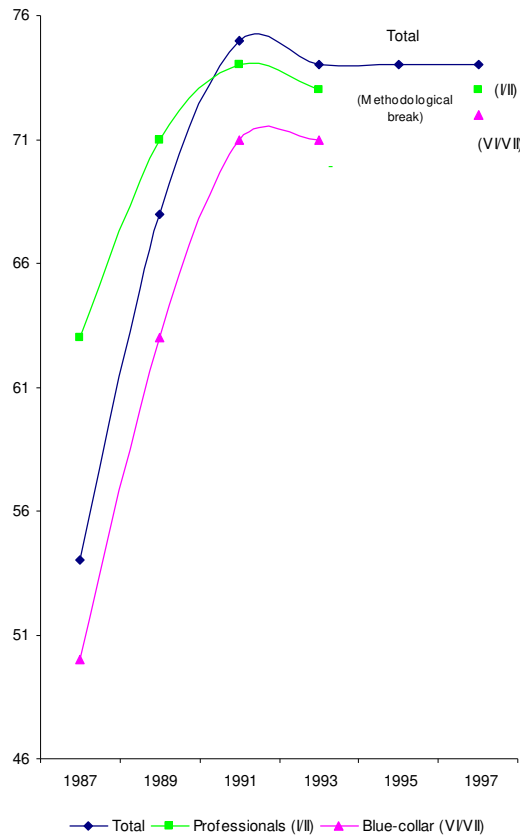
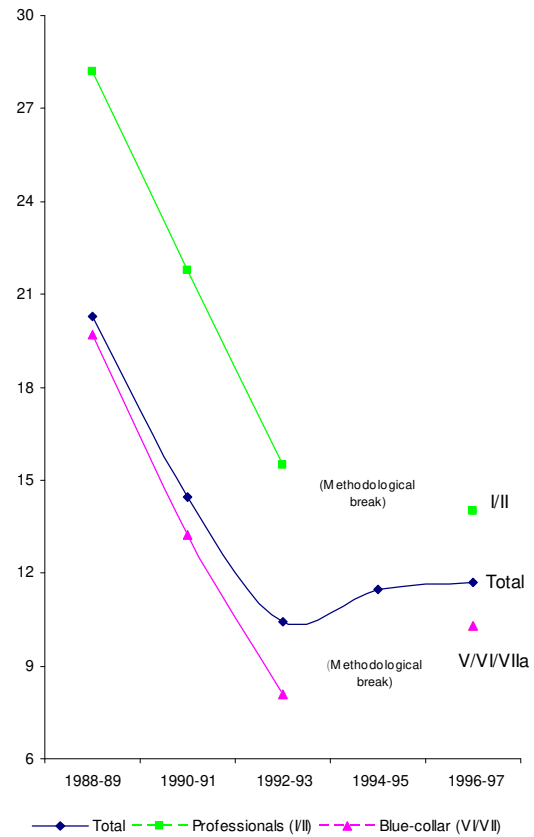


Figure 6:

Conversion rate as percentage of temporary workers who held a permanent contract 12 months later by class and year (LFS)



Source: LFS (second quarters), smoothed (calculated by the author).

According to the incentive-buffer model outlined in the preceding section, an increasing buffer effect should improve the efficiency of the incentive mechanism and, therefore, allow employers to extract the same output from their temporary workers with a lower conversion rate (i.e. at a lower cost). Figure 6 shows the evolution of the conversion rate into permanent employment calculated as the proportion of temporary workers in any given year that held a permanent contract 12 months later. These calculations are based on the LFS matched files.

Note that, as expected, the conversion rate, which has always been very low in Spain in comparative terms⁷, did in fact decrease sharply in the 1987-1993 period—which is the period of rapid growth in temporary employment—and then flattened out to remain basically constant⁸. The observed drop in conversions is by no means modest: the transition rate between 1987 and 1988, the highest ever recorded in Spain, was around 20 per cent (i.e. 20 per cent of the temporary workers employed in 1987 had achieved a permanent contract 12 months later); between 1992 and 1993 it was only around 10 per cent.

Crucially, the data also shows that the notable drop in conversion rates did indeed occur both amongst labourers and professionals. The conversion rate for Spanish professionals decreased from 28 per cent in 1987-1988 to 15 per cent in 1992-1993; whilst for labourers, it dropped from 20 per cent to only 8 per cent during the same period (see figure 6). Achieving a permanent contract in Spain became increasingly difficult for all types of workers, irrespectively of the specificity of the tasks they were employed to perform. This constitutes a crucial piece of evidence against demand-based explanations of temporary employment in Spain.

Parametric analyses

Parametric analyses suggest that this process of segmentation identified within different occupational classes cannot be interpreted as an artefact of compositional effects unaccounted for by bivariate analysis. Using data obtained by pooling together the second-quarter matched files of the Spanish labour force surveys for every year between 1987 and 1993 (the only period for which a common coding of occupations is available), it has been possible to investigate the determinants of the transitions into permanent employment over

⁷ The transition rate from temporary employment into permanent employment for the British case is approximately 45 per cent (Gallie 2000: 301), while for the U.S. it is more than 50 per cent (Amuedo-Dorantes 2000: 315).

⁸ The evolution of the transition rate for the total workforce presented in figure 6 is fully consistent with previous calculations made by labour economists (see e.g.: Alba 1997: 13-9; Amuedo-Dorantes 2000; Güell-Rotllan and Petrongolo 1998: 13; Toharia 1996: 51).

time within a multivariate framework. This approach constitutes a more robust test of the incentive effect model.

Two different output variables have been model: 1) the probability expressed as an odds ratio that temporary employees in year t have achieved a permanent contract 12 months later instead of finding themselves in any other labour market situation (including being still employed on temporary contract and being non employed), which can be expressed as $[P_{pc}]_{t+1}/[1-P_{pc}]_{t+1}$; and 2) the probability that temporary employees in year t have achieved a permanent contract 12 months later instead of finding themselves out of employment, denoted $[P_{pc}]_{t+1}/[P_{ne}]_{t+1}$. Two logit models have been fitted to each of these output variables.

The first logit model (model A) takes the following form:

$$\left. \begin{array}{l} \text{Log}([P_{pc}]_{t+1}/[1-P_{pc}]_{t+1}) \\ \text{or} \\ \text{Log}([P_{pc}]_{t+1}/[P_{ne}]_{t+1}) \end{array} \right\} = [\alpha + \beta_{ji}Class_{ji} + \chi_{ji}Year_{ji} + \delta_{ki}C_{ki} + \varepsilon_i]_{t-1} \text{ (model A) [3]}$$

where, α is a constant parameter, $Class_{ji}$ represents a vector of the occupational classes introduced in the equation as dummy variables ($j = 1$ - number of class categories); $Year_{ji}$ is a vector of dummies representing each of the years of the pool ($j = 1$ - number of years); C_{ki} represents a vector of control variables (including sex, age and age squared, respondents' education, firms' ownership and respondents' industry); and ε_i is the error term. All these variables are measured in time $t-1$, that is, the first year of each pair of matched files that form the pooled sample (Pooled Sample= LFS₁₉₈₇₋₁₉₈₈ + LFS₁₉₈₈₋₁₉₈₉ + LFS₁₉₈₉₋₁₉₉₀ + LFS₁₉₉₀₋₁₉₉₁ + LFS₁₉₉₁₋₁₉₉₂ + LFS₁₉₉₂₋₁₉₉₃).

When fitted to the data, model A shows that, for both definitions of the output variable, achieving a permanent contract was affected by respondents' gender, age, occupational class, level of education, firms' industry and, crucially, by time. After controlling for all the former variables, achieving a PC became increasingly more difficult each year. Possible interaction effects between time and class have been tested and rejected. These results do indeed suggest that the observed decline in conversion rates over time is not

an artefact of compositional effects. Entering into the core of permanent employment between 1987 and 1993 did indeed become increasingly difficult for workers of all characteristics⁹ (see Table 1).

It follows from the incentive-buffer model that the observed effect of time over the response variable should actually be the result of an increasing gap between the employment security levels of temporary and permanent workers. In other words, it is D which should be doing the explanatory work, as it follows from expression [1]. Therefore:

$$\left. \begin{array}{l} \text{Log}([P_{pc}]_{t+1}/[1-P_{pc}]_{t+1}) \\ \text{or} \\ \text{Log}([P_{pc}]_{t+1}/[P_{ne}]_{t+1}) \end{array} \right\} = [\alpha + \beta_{ji}Class_{ji} + \chi_i D_i + \delta_{ki} C_{ki} + \varepsilon_i]_{t-1} \quad (\text{model B}) \quad [4]$$

where D_i is 6-interval macro-level variable calculated for each year using the values of Ω_a (see expression [2]).

As expected the effect of D on each of the output variables is negative and statistically significant. The larger the gap between the employment-security levels of permanent workers vis-à-vis temporary ones, the lower the observed transition rates¹⁰ (see Table 1).

⁹ These findings are fully consistent with those reported by Güell-Rotllan and Petrongolo (1998), who also showed that the observed decline in the conversion rates of temporary contracts into permanent ones could not be attributed to personal characteristics, household characteristics or firm characteristics (nor to changes in the business-cycle) since the non-monotonic downward trend was confirmed after controlling for all these factors.

¹⁰ Note that the year dummies and D cannot be entered in the same equation at the same time, since they are highly correlated (Pearson $r = .95$). Model B seems a more accurate statistical representation of expression [1] than model A.

Table 1: Pooled Logit Regressions on the Chances that Temporary Workers (in time 1) Achieve a Permanent Contract (12 Months Later) for the Period 1987-1993 using Two Different Definitions of Positive Transition (LFS, matched files)

Parameters	$\text{Log}([P_{pc}]_{t+1}/[1-P_{pc}]_{t+1})$				$\text{Log}([P_{pc}]_{t+1}/[P_{ne}]_{t+1})$			
	0=Not permanent worker 1=Permanent worker (pc)				0=Not employed (ne) 1=Permanent worker (pc)			
	Model A Coeff. Sig.		Model B Coeff. Sig.		Model A Coeff. Sig.		Model B Coeff. Sig.	
Constant	-.90		1.50		.54		3.67	
Female	-.05	****	-.05	****	-.13	****	-.12	****
Age	.01	n.s.	.01	n.s.	-.02	n.s.	-.02	n.s.
Age ²	-.045	****	-.05	****	-.058	****	-.058	****
Class (LFSCS1)								
Professionals (ref.)								
White collars	.06	n.s.	.06	n.s.	.073	n.s.	.061	n.s.
Salesmen & others	-.22	n.s.	-.22	n.s.	-.30	n.s.	-.31	n.s.
Labourers	-.34	**	-.34	**	-.47	**	-.46	**
Education								
Incomplete (ref.)								
General Elementary	.21	*	.21	*	.34	****	.33	****
Intermediate	.29	**	.28	**	.54	****	.51	****
Intermediate vocational	.53	****	.52	****	.90	****	.86	****
Tertiary	.52	****	.54	****	1.12	****	1.09	****
Firms' Ownership								
Private (ref.)								
Public	.16	n.s.	.17	n.s.	-.17	n.s.	-.15	n.s.
Industry								
Farming & Fishing (ref.)								
Light Industry	.48	****	.48	****	.61	****	.62	****
Extractive	.45	****	.46	****	.55	****	.57	****
Heavy industry	.44	****	.45	****	.46	**	.50	**
Construction	-.16	n.s.	-.16	n.s.	-.15	n.s.	-.14	n.s.
Commerce & Catering	.28	**	.28	**	.34	**	.36	**
Transports & Comm.	.36	*	.37	*	.34	n.s.	.34	n.s.
Finances	.36	**	.35	**	.34	*	.35	*
Public administration	.34	*	.34	*	.53	**	.53	**
Other Services	.62	****	.62	****	.62	****	.64	****
Year								
1987 (ref.)								
1988	-.28	**			-.09	n.s.	-.09	
1989	-.43	****			-.27	**	-.27	
1990	-.69	****			-.48	****	-.48	
1991	-.77	****			-.80	****	-.80	
1992	-1.05	****			-1.26	****	-1.26	
D (Ω_a value for each year)			-.041	****			-.054	****
N	10,218		10,218		3,867		3,867	
LR χ^2	(25) 385.74		(21) 370.89		(25) 442.72		(21) 396.96	
Prob > χ^2	0.0000		0.0000		0.0000		0.0000	
Pseudo R ²	0.0451		0.0433		0.0856		0.0767	

Note: In the matched version of the Spanish LFS age is coded as an ordinal variable in eleven 5-year groups. In order to avoid collinearity when testing for a quadratic effect, age has been centred.

****significance ≤ 0.001 ***significance ≤ 0.01 **significance ≤ 0.05 *significance ≤ 0.10

Source: Random Sub-sample of Pool of matched files, LFSs, second quarters (calculated by the author)

The evidence reviewed in this section is even more compelling if one takes into consideration that the observed decline in conversion rates took place in the face of very high levels of economic growth, experienced in Spain in the second half of the 1980s. This coincidence of a falling conversion rate and rapid economic growth should appear as puzzling for most standard theories of contracting, which tend to assume that employers are more likely to invest in long-term employment relationship the greater firms' profits are, yet it is perfectly consistent with the incentive-buffer model outlined in the previous section. A greater buffer could have indeed improved the efficiency of the incentive effect of temporary contracts thus allowing for an incentive-compatible reduction in conversion rates.

As Goldthorpe (2000: ch. X) explains, the 'service' (i.e. professional) employment relationship is characterised by high asset specificity and productivity measurement costs, whereas these costs are low in labour employment relationships. Yet, regardless of these task-specificity factors, we observe the same trends amongst professionals and labourers with respect to both the rate of temporary employment (TC), the evolution of permanent workers' employment security vis-à-vis temporary ones (D), and the conversion rate of temporary contracts into permanent employment (CR). These trends suggest the existence of a polarisation of employment conditions, whereby employment security was enhanced for permanent workers in both classes, whilst employment insecurity increased for those on temporary contracts. Both labour and professional workers on temporary contracts found it increasingly difficult to enter into the permanent core and, consequently, became increasingly locked in their insecure employment situation. The evidence reviewed here is, therefore, at odds with demand-based interpretations of the segmenting impact of temporary employment in Spain.

III. Discussion: more cons than pros

As a result of the segmentation process, the Spanish labour market showed by 1997 a very intense differentiation of opportunities for stable employment by type of contract. That year, 34% of the employed wage-earners in Spain had a temporary contract, whilst the

unemployment rate was 21%, exactly the same figure that 13 years earlier had led the Socialist government to implement partial deregulation. Approximately 90% of all entries into employment as well as of all exits from employment into unemployment that took place in 1997 occurred in the flexible segment of temporary contracts. The average tenure of temporary workers was only 12 months, a figure that stood in sharp contrast to the average tenure in employment for permanent workers, which was 12 years. The segment-specific unemployment rate in 1997 was 34% for temporary workers, yet only 5% among permanent ones. The two segments had little permeability as shown by an annual transition rate between temporary and permanent employment of only around 11%.

The observed relationship between temporary contracts and employment instability has had a clear impact on workers' awareness of their own survival probability in the job. According to the survey on *Attitudes towards Employment and Work* (ATEW) carried out in 1997 by the Spanish Centre for Sociological Research (*Centro de Investigaciones Sociológicas*) of a representative sample of 2,500 respondents, 47 per cent of all employed respondents on temporary contracts considered it possible or very possible that they would become unemployed within twelve months after the date of the interview. Only 6 per cent of permanent workers expressed the same fear (Polavieja 2001: 110).

Given the precarious character of fixed-term employment in Spain, it is not surprising either that as many as 91 per cent of all the temporary workers surveyed by the LFS in 1997 declared that they were holding a temporary contract due to their inability to find a permanent one, while only 0.4 per cent claimed to be temporally employed on a voluntary basis¹¹. Temporary employment has clearly an involuntary character, as almost no one in Spain wants to be precariously employed.

As all these data for 1997 show, the employment consequences of partial deregulation have been severe in Spain. The evaluation of the consequences in terms of polarisation of

¹¹ The proportion of involuntary temporary workers in Spain can be compared to the figures for UK (28 per cent), Denmark (38 per cent), Portugal (68 per cent) and Greece (77 per cent) (see: OECD 1993; Bentolila and Dolado 1994: 61).

employment could perhaps be more benevolent had partial deregulation produced a significant and durable reduction in unemployment levels. But this was not the case, as has been shown in figure 2. Buffer and incentive mechanisms offer a plausible explanation as to why partial deregulation might generate employment polarisation without reducing the long-run levels of unemployment (Güell-Rotllan 2000; Polavieja 2003a, forthcoming).

The negligible impact that partial deregulation had on the long-run unemployment rate should come as no surprise in the field of labour-market studies. Esping-Andersen and Regini (2000) have already argued that various forms of regulation may have an impact on the *structure* of unemployment –i.e. which socio-demographic groups are most likely to experience it— but not on the overall unemployment levels. Esping-Andersen (2000) has provided sound empirical evidence to support this argument. The flexibilisation policy inaugurated in 1984 was, however, explicitly targeted to reducing overall unemployment levels. One must, therefore, conclude that, judged by its own standards, partial deregulation was a failure.

Neither has partial deregulation been particularly beneficial for distributing the risks of unemployment more evenly across the population. Instead, by enhancing insider-outsider tendencies in the labour market, it has made it even more difficult for all new entrants into employment (mostly young and women) to obtain permanent employment. In other words, greater opportunities for access into temporary employment seem to have been paid at the price of lower chances of finding a permanent job. And this, as it has been shown, seems to have happened in occupations that entail very different levels of task-specificity. The segmenting consequences of partial deregulation seem to have been more pervasive than usually recognised by demand-side interpretations.

If what Toharia and Malo (2000) have called the ‘*Spanish experiment*’ of flexibilisation has not produced a great deal of social exclusion, this is mainly because Spanish families have provided outsiders with what Esping-Andersen and Regini (2000) call ‘*derived welfare*’. The sharp division between insiders and outsiders in the labour market dissolves within the four walls of the Spanish typical household, usually headed by a male-permanent employee. Labour market polarisation has put, however, considerable strain on

Spanish families, retarding the formation of new households and exacerbating the trade-off between women's integration into stable employment careers and fertility (Polavieja 2003b). On the whole, the Spanish 'experiment' of partial deregulation seems to convey more cons than pros.

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