

MEASURING JOB SECURITY OVER TIME:
IN SEARCH OF A HISTORICAL INDICATOR FOR EPL
(EMPLOYMENT PROTECTION LEGISLATION)

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Abstract:

All studies that have explored the impact that job-security legislation has had on labor-market performance have been handicapped by the lack of a good quantitative indicator covering a long enough historical period to reflect the drastic changes that have occurred in this area since World War II. This study has developed such an indicator in hopes of making a key tool available for labor-market research. The paper describes the reason that job security is important for labor market performance, and outlines the steps taken to develop this time-series indicator, which should help to deliver a more definitive verdict on how job-security laws have affected labor market performance in the developed countries since World War II.

Keywords:

employment protection legislation, labor market reform,
unemployment

Introduction: Employment Protection Legislation (EPL)

All OECD countries, and many outside the OECD, have laws that protect workers against arbitrary dismissal and restrict the terms on which companies can hire workers. The reasoning behind these laws is simple: the individual (the worker) needs protection against bigger economic agents (the corporation), and must be shielded against the uncertainty of changing labor-market situations. In particular, employment-protection laws and practices seek to promote worker welfare and more stable employment relationships, for the benefit of both the worker and the firm. The worker is compensated for geographic mobility, training and other incurred costs, while the firm can expect more human capital formation and willingness by workers to accept technological change and internal mobility, since jobs are not threatened. Proponents of job-security laws argue that the economy benefits from these laws, because employment fluctuations are smoothed across the cycle and frictional employment is reduced in two ways: firms resort to short-term working rather than dismissals when demand declinesⁱ; and when dismissals are inevitable, prenotification makes it more likely that dismissed workers will find new jobs before their previous jobs end.ⁱⁱ

All of these benefits, however, must be weighed against potential erosions of worker welfare and economic efficiency. EPL's protection is effective only for the less precariously employed, better paid members of the work force, who need government protection the leastⁱⁱⁱ; and overall worker welfare may actually be reduced if strict EPL raises unemployment, reduces employment and/or leads firms to hire more people on temporary contracts.^{iv} EPL also may make labor markets more "sclerotic", leading to low unemployment flows and higher unemployment duration.^v The benefits must also be weighed against the costs to the firm of reduced flexibility in moments of cyclical or structural crisis. Employment stability, if it is promoted by EPL, may also lead to immobilism because it limits the entry into a firm of new people, skills and ideas.^{vi} And if EPL eliminates desirable separations and adjustments in the labor market, it may have high efficiency costs for the economy.^{vii}

Countries have juggled in different ways the competing needs for worker security and company flexibility, and the outcome has been a wide variation across countries in job-security provisions and practices. For example, all OECD countries except the United States require notice periods for individual dismissals, but only two-thirds of them mandate severance pay for long-term employees. In general, countries with high severance pay requirements require shorter notice periods before firings, and vice-versa. Termination costs tend to be higher for white-collar workers and for redundancies.^{viii}

Countries also vary widely in the ways that they implement job security. European countries have leaned heavily on laws that specify precise terms and conditions. These laws regulate how companies can hire workers, with some prohibiting temporary work agencies and limiting the use of fixed-term contracts. They also regulate dismissals by law: some countries require (or have required) explicit government authorization for dismissals, and most stipulate trial periods, prenotification periods and severance payments for firings.

In contrast, countries which have little or no job-security legislation often protect their workers through other institutions. The United States is a country “outlier” with no legal restrictions on firing: a law regulating mass layoffs was passed only in 1989^x. U.S. employers’ decisions are constrained by seniority^x, contractual arrangements^{xi} and laws forbidding employment discrimination, which empower workers to obtain awards in court for unfair dismissals that can be many times higher than those provided by law in Europe.^{xii} Australia, like the United States, has little legislation providing uniform guarantees for job security^{xiii}, but workers have received relatively generous protection against unfair dismissal through the system of Federal and State awards.^{xiv} And in Japan, where job tenure is higher than in almost any other OECD country, “lifetime employment” practices are based not on law or labor contracts but on a tacit understanding between workers and management.

Discussion: The Search for an EPL Indicator

Many empirical studies have attempted to demonstrate that EPL does in fact affect the labor market in the ways described above. However, all of them have suffered from a common drawback: they have been handicapped by measurement problems. The impact of EPL is difficult to quantify, and no comprehensive index exists that reaches over time and across countries to reflect the strictness of employment-protection legislation as it changes and evolves. Edward Lazear’s landmark study in 1990 addressed the problem by using partial data as a sort of proxy for EPL: he used statutory entitlement to severance payments and notice periods for workers fired without fault, for economic reasons, to represent the restrictiveness of job-security legislation across countries and over time.^{xv} His measure was a good first approximation to the issue, but omitted many other aspects of EPL that constrain firms’ hiring and firing decisions.

Other studies after Lazear’s broadened the indicator that represented EPL. Grubb and Wells (1993)^{xvi} incorporated three elements of job-security legislation --1) restrictions on dismissals of workers with regular contracts; 2) restrictions on the use of temporary forms of employment contracts; and 3) restrictions on working hours— to construct a summary indicator for the strictness of EPL regulations in EC countries in the late 1980s. OECD researchers extended the indicator to the former EFTA countries and other non-European countries in the OECD *Jobs Study* (1994), with the legal situation in the late 1980s as their reference point. The scheme of their indicator, described in more detail below, is summarized in the following figure:

<Introduce Figure 1 here>

The OECD took a further stride in the late 1990s when it broadened the indicator to include collective dismissals, and evaluated the situation in all OECD countries in 1998. This gave researchers a quantitative index that embraced all the main aspects of job security, and offered two years and 21 countries for comparison.

To construct the 1998 indicator, OECD researchers surveyed existing laws and regulations in OECD countries and gave point “scores” for each aspect of EPL.^{xvii} (The scores were later

submitted to national governments, which reviewed and corrected them.^{xviii}) The scores covered 18 aspects of employment protection legislation grouped into three broad domains: laws protecting workers with regular contracts, those affecting workers with fixed-term (temporary) contracts or contracts with temporary work agencies, and regulations applying specifically to collective dismissals. The regulations on permanent employment cover:

1. procedural requirements –the process that has to be followed from the time a company decides to lay off a worker until the actual termination of the contract. These procedures include the delay before the notice of dismissal can start; whether a written statement of the reasons for dismissal must be supplied; whether a third party (such as a works council or the competent labor authority) must be notified or consulted; and whether dismissal requires the approval of a third party to proceed;
2. notice and severance pay requirements for no-fault, individual dismissal at three tenure periods (nine months, four years and 20 years);^{xix} and
3. Prevailing standards and penalties for “unfair” dismissals which include the fact that labor courts may require employers to reinstate a worker considered to be unfairly dismissed, or award high compensation payments above and beyond regular severance pay.

The indicator of the strictness of EPL for temporary contracts, including fixed-term contracts and contracts with temporary work agencies (TWAs), focused on regulations affecting the following aspects of these contracts:

1. “Objective” reasons under which a fixed-term (or a TWA) contract could be offered (e.g. business start-ups or workers in search of their first job).
2. The maximum permitted number of successive renewals.
3. The maximum permitted cumulated duration of the contracts.

The indicator for collective dismissals covered four elements:

1. The definition of collective dismissal,
2. Any additional notification requirements provided by law,
3. Any additional delays, and
4. Additional costs to employers.

To determine the score in each area, the OECD created a point system for each specific aspect of the law. For instance, with severance pay, the scoring procedure was as shown in Tables 1, 2 and 3 below:

<Introduce Table 1 here>

<Introduce Table 2 here>

<Introduce Table 3 here>

As the scoring procedure above shows, a higher score indicates stricter EPL (=stronger job security) and vice-versa. Each of the scores shown above was multiplied by a weight of 4/21 to yield an overall score for the subcategory of notice and severance pay, which was then multiplied by a weight of 1/3 to yield the overall score for the category of “regular contracts, individual no-fault dismissals.” This score in turn had a 5/12 weight in the final, overall EPL score.

In contrast to the earlier indicator, which simply ranked countries on the basis of EPL strictness, in the 1998 summary indicator the OECD reported a score for EPL strictness for each country. This was obtained by taking a weighted average of each aspect of employment protection. The regular contracts score described above was assigned a weight of 5/12, temporary employment another 5/12, and collective dismissals 1/6. The complete scheme used in the indicator is portrayed in Figure 2 below:

<Introduce Figure 2 here>

Even with this enormously detailed, comprehensive indicator in hand, econometric studies based on the indicator were still crippled by a paucity of observations –21 countries and two years— that basically limited studies to cross-country comparisons. The indicator is also far from perfect due to the many non-quantifiable aspects of EPL that were omitted.

Probably the most important omitted aspect of the OECD index is enforcement procedures, which may differ as much as or more than the legislation across countries. The fact that similar laws are enforced more or less stringently in different countries has a powerful impact on the “bite” of EPL. Bertola and Rogerson (1997) commented that the observed similarity of employment flows between the United States and Europe^{xx} “might be taken to indicate that Europe is not as rigid in practice as the letter of its institutions would make it, perhaps because firms and workers successfully work around laws and regulations.”^{xxi} One case that has been discussed in the literature is that of Spain and Portugal, which have roughly similar employment-protection legislation –in fact, Portugal’s EPL score is higher than Spain’s— but very different unemployment rates, with Spain’s often ranking as the EU’s highest and Portugal’s as one of its lowest. Bover et. al. (2000) suggested that the key difference was the more lax enforcement of EPL provisions in Portugal, which may have yielded the dramatically different results in unemployment.^{xxii} It should also be noted that some European countries exempt small firms from EPL requirements. An example is Italy, where small and medium-sized firms account for most economic activity. In cases like the Italian, the EPL index would overstate the constraints faced by employers, since most of them in reality have been affected very little by job-security legislation.^{xxiii}

A related problem is the fact that job security is not always implemented through legislation. Often, as noted above in the cases of the United States, Japan and Australia, it forms part of collective bargaining agreements or customary practice rather than legislation. In other countries like France, laws establish an absolute minimum standard while collective agreements may set standards that are significantly more generous. Hence the changes implemented in French employment-protection laws may have no real effect on the market if they only update legislation to reflect a situation that already applies to most workers. In all of these cases, an EPL score based solely on a review of the legislation omits important aspects of job security.

Another important problem in assessing the relative “bite” of EPL is the role of private litigation. Countries vary in the degree to which workers take their employers to court to challenge a dismissal, and this different intensity of litigation activity may contain an important message about how stringently EPL is being enforced. A strong correlation exists between the involvement of courts in disputes over labor contracts and the percentage of cases that are decided in favor of workers, which would suggest that higher litigation rates might reflect the stringency of EPL better than the OECD’s score.^{xxiv} Several studies have found strong links between law enforcement and labor market conditions in various countries.^{xxv} Additionally, there is the case of the United States, where workers who opt for litigation can potentially win enormous settlements even though no severance payments are set by law. The following passage highlights the situation:

In reviewing damages permitted under European laws during the first half of the 1980s, I found ceilings on compensatory awards ranging from \$2,200 (in Sweden) to normal earnings for a twelve-month period (in Germany). During the same period in the state of California, compensatory awards averaged \$344,000... The major difference between the potential monetary costs of dismissals in Europe and the United States, however, is the availability of punitive damages for certain categories of unjust dismissals in the US. These can be quite large, since they are meant to punish. (The standard instruction to juries is to “consider an amount that will make the defendant (firm) take notice”.) Punitive damage awards in California averaged \$557,300 during the first half of the 1980s. On balance, it seems that differences in dismissal incentives between the US and Europe have been overstated.^{xxvi}

Hence there is an argument for using some indicator of private litigation to measure the true strictness of EPL. However, as of yet no good litigation indicator has been proposed.^{xxvii}

Despite these drawbacks, the indicator developed by the OECD appears to be the best current option for evaluating in a systematic and unbiased way the available evidence on the relative strictness of EPL in different countries. Since the OECD’s exhaustive survey of legislation covered only two years, however, researchers could not easily use the econometric methods that were needed to address the interaction and endogeneity issues, and to relate changes in EPL over a long period of time to fluctuations in employment and unemployment rates. Consequently, their results were far from conclusive and many researchers came to the conclusion that EPL regulation had in fact had little or no impact on job markets.^{xxviii} To address the issue squarely, there was a glaring need to provide a longer time series indicator

that could be used as a research tool for empirical studies of EPL's impact on the labor market. This study proposes to fill the vacuum with a new historical indicator.

To give labor market researchers the key tool that they need to assess how job-security regulations have affected labor-market outcomes, the scheme developed by the OECD for its 1999 *Jobs Study* was chosen as the starting point, due to its comprehensiveness and objectivity. While alternative indicators such as litigation rates and employer surveys do exist, these were not homogeneously measured across countries and were not available over long time periods, and additionally involved much subjective judgment. Even with the drawbacks of the EPL scheme noted above, assigning scores to a series of written regulations involves less subjectivity than relying on surveys that reflect the feelings of mainly domestic employers about the constraints that exist in their country on hiring and firing decisions^{xxix}. Legislation, additionally, is probably the clearest available reflection of the prevailing national consensus, or informal constraint, over the need for job security, which is likely to be acted out in some way by economic agents.

To develop a long time series based on the OECD's indicator for use in this study, a number of important decisions had to be made. First, would the indicator be reproduced exactly as the OECD used it, or would it be simplified? Though the indicator is extremely complex, it was difficult to trim down the categories included without omitting some important aspect of EPL. Finally, only two minor categories were eliminated because little or no reference to them could be found in legislation. (Relative weights were adjusted accordingly.^{xxx}) The scoring and weighting procedures (described in the section above and detailed in the appendices to this paper) were otherwise left unchanged.

The next hurdle was obtaining accurate and homogenous information on legislative changes, so that an annual country score could be developed for the 21 countries and 50 years included in this study. To construct its indicator, the OECD sent surveys to member governments and tabulated the results, and then returned the final score to governments for their review and critique. In this study, such access to government experts was not guaranteed and in fact was often impossible. Specialized journal articles and books were not satisfactory sources, since they either made haphazard references by way of example, or referred to changes without giving the complicated legal details that were needed to assign scores for the 18 different aspects of EPL under consideration. In addition, they largely ignored the 1950-1970 period, when labor-market rigidities were not seen as an issue. Information on line was fragmentary for many countries, and no satisfactory data base covering all the OECD countries appeared to exist.

In the end, the ILO's *International Encyclopedia for Labour Law and Industrial Relations* was used as the most complete and reliable source of information on EPL for the postwar period, complemented by on line collections of legislation for some countries and the OECD *Jobs Study* and *Employment Outlook* publications and their annual *Country Reports* on specific countries. What remained was to trudge through volumes of legislation and dozens of other publications, and to attempt to answer the questions set out in the OECD's surveys so that a score could be obtained for every country and year included in the study.

Even once all (or nearly all) of the legislative texts for the 21 countries during the 1950-2003 period had been obtained, the review and scoring procedure (which was performed by the author) was complicated. In some cases, OECD scores or academic commentary indicated that general practice was different than what the laws specified, or collective agreements set other standards. It was decided that in cases of conflict, the letter of the law would have the final word in the scoring. When laws made no specifications, the score was (0) even if there were indications that general business practice was different. For instance, since no federal law in the United States requires severance payments or prenotification for individual dismissals, the score on this item is 0, even though a significant proportion of U.S. workers have severance payments or prenotification periods written into their contracts. Special complications arose when a law would state that it was up to a judge or the courts to set the exact amounts of compensation or notice in certain cases; or when the exact time periods used to assign scores in the OECD model were not used. Sometimes it was not possible to find in the legislation the changes that were referred to in journal articles.^{xxxii} To complete the project, contacts were made with national officials whenever possible, and inevitably some guesswork was necessary in the end to plug the holes in the indicator and prepare it for use in the regressions.

The result is an indicator that is not perfect. It does, however, succeed in coming closer than any previous indicator to telling a full story of trends in EPL in the postwar period. It also gives a fascinating historical picture of how different countries have juggled over time the equally pressing needs for worker security and company flexibility and efficiency.

Conclusion: A New Picture of Evolving Job Security Over Time

The picture that is yielded by the new indicator is one of fairly unregulated labor markets in the OECD overall during the 1950s and early 1960s^{xxxii}, with sharp increases in regulation clustered in the 1964-1978 period^{xxxiii}. The deregulation wave started immediately afterwards but gained momentum after 1985, lasting until 2000.^{xxxiv} Countries became more activist or interventionist in labor markets as time went on: there were 35 EPL changes in 1964-1978 and 41 in 1985-2000. Some groups of years showed particularly high legislative activity: whereas there were an average of two EPL changes per year across the OECD in 1960-2000, certain time periods (1968-1971, 1984-1986, 1988-1990 and 1994-1997) saw between three and five changes per year. Overall, measures that increased job security predominated over those that decreased it, with nearly two-thirds of all changes being in the direction of stricter EPL.

Another interesting pattern is in the job security model chosen by different groups of countries. Though no two countries were alike, there are striking differences in the average EPL score for European and non-European countries, and between English-speaking and non-English-speaking countries. The non-European, and especially the English-speaking, countries over the entire period opted for less regulated labor markets. Even their historical timing for regulation and deregulation was different: while Europe began deregulating after 1989, the non-European and English-speaking countries increased EPL slightly after that point.

The patterns that emerge from the new indicator point to some promising directions for research. They demonstrate that EPL is, indeed, a dynamic institution whose variations could have had a strong impact on labor market performance and on the differential performance noted between European and non-European countries, and among the European countries themselves. With the new indicator in hand, further research should be able to pinpoint exactly how significant a role EPL has played in employment and unemployment rates in the developing countries since World War II.

Tables and Figures

Figure 1: The OECD's Original EPL indicator

The OECD's Original EPL indicator

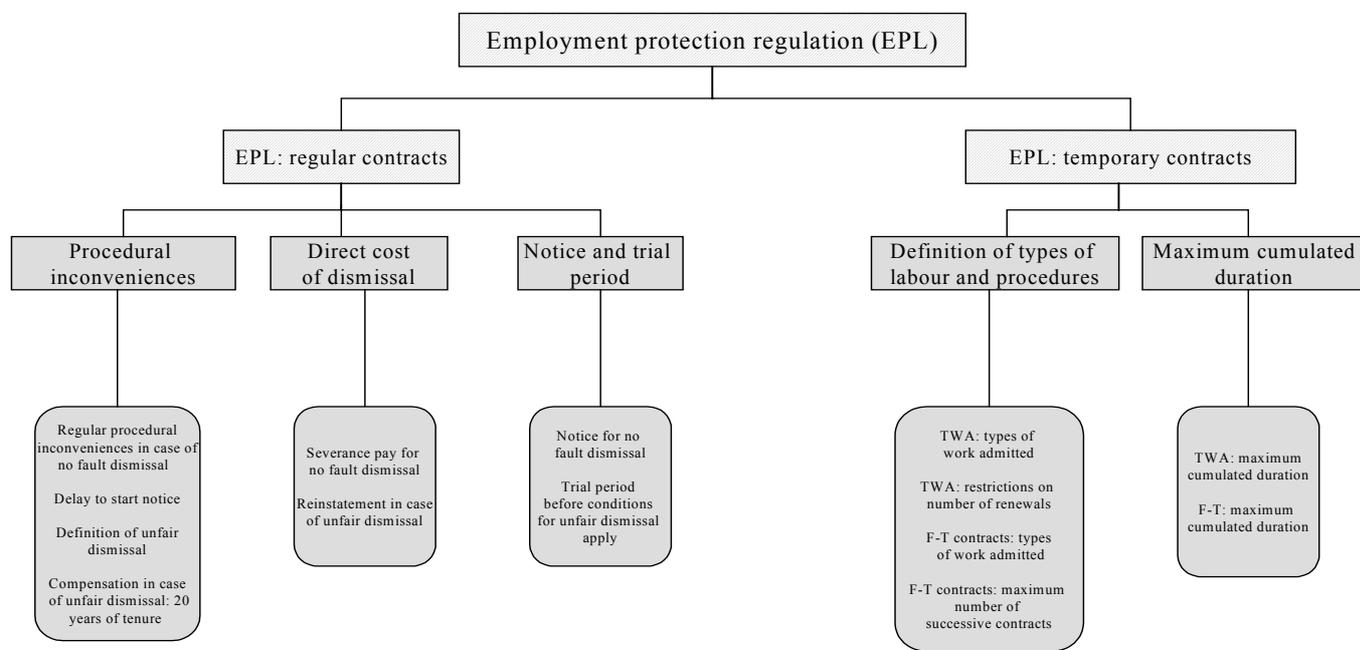


Figure 2: The OECD's EPL Indicator from 1994

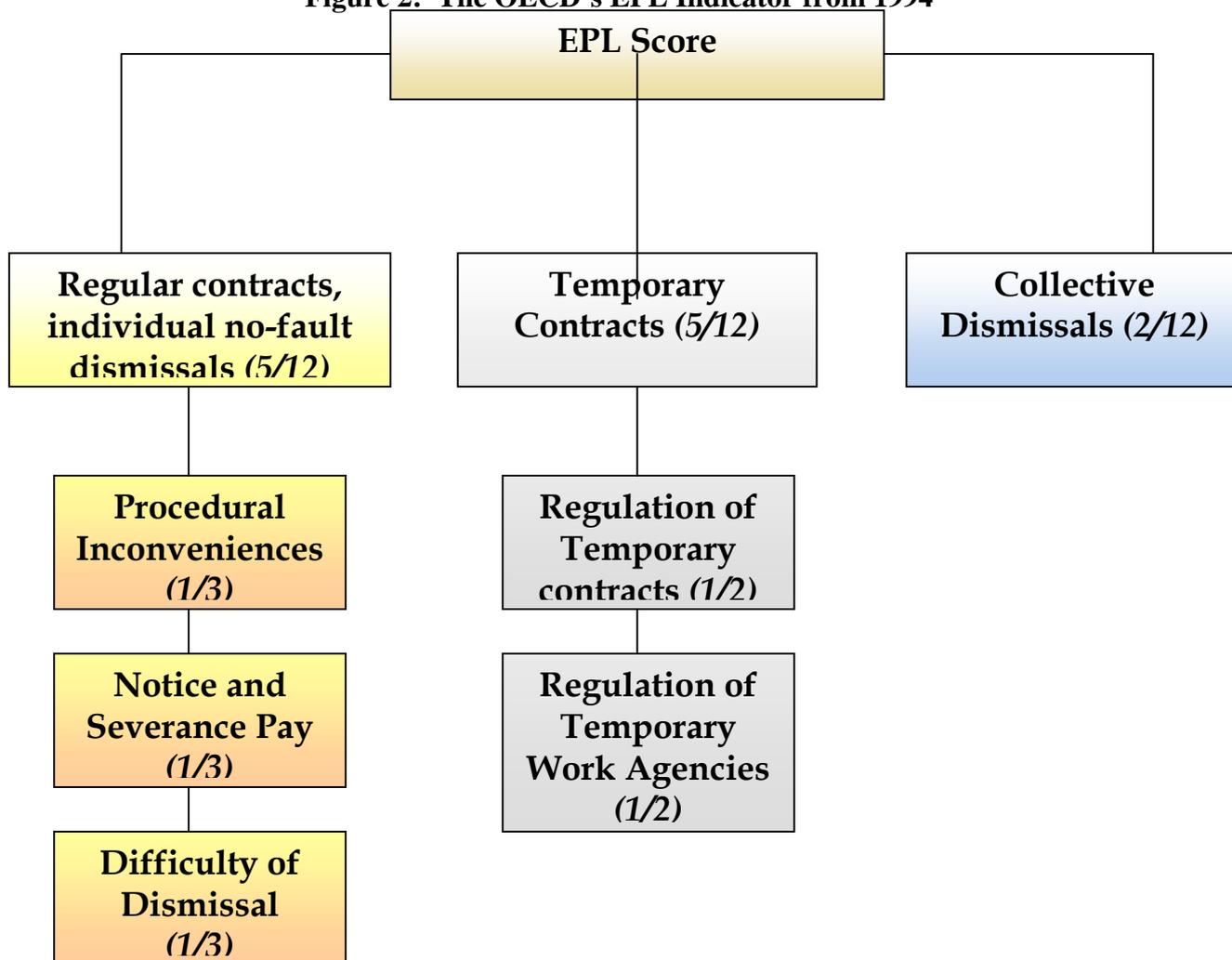


Table 1 (Sample scoring): Severance pay at nine months' tenure

Question	Answer	Score
When firms dismiss a worker after nine months' tenure, how many weeks' salary are firms required by law to pay?	Nothing	0
	Two weeks or less	1
	More than two weeks to four weeks	2
	More than four weeks to seven weeks	3
	More than seven weeks to 10 weeks	4
	More than 10 weeks to less than 12 weeks	5
	12 weeks or more	6

Table 2 (Sample scoring): Severance pay at four years' tenure

Question	Answer	Score
When firms dismiss a worker after four years' tenure, how many weeks' salary are firms required by law to pay?	Nothing	0
	Two weeks or less	1
	More than two weeks to four weeks	2
	More than four weeks to eight weeks	3
	More than eight weeks to 12 weeks	4
	More than 12 weeks to less than 16 weeks	5
	16 weeks or more	6

Table 3 (Sample scoring): Severance pay at 20 years' tenure

Question	Answer	Score
When firms dismiss a worker after 20 years' tenure, how many months' salary are firms required by law to pay?	Nothing	0
	Three months or less	1
	More than three months to six months	2
	More than six months to 10 months	3
	More than 10 months to 12 months	4
	More than 12 months to 18 months	5
	More than 18 months	6

Appendix 1: EPL Questionnaire

The questionnaire below lists (in bold face) the specific questions that were asked regarding each law approved during the period in the countries surveyed, to evaluate the strictness of employment-protection legislation. The scores assigned for each possible answer are given in plain type below the question.

Name of Law	Number	Date
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REGULAR CONTRACTS, INDIVIDUAL NO-FAULT DISMISSAL

Procedural inconveniences: When an employer wants to dismiss a worker, whom does he have to inform?

0-No requirements

1-He must inform only the employee, in writing

2-He must inform a third party, such as a union

3-He cannot fire a worker without authorization from the government

Notice: When an employer fires a worker, how much advance notice is he required to give to the worker when that worker has been employed by him for:

9 months?

0: no notice

1: ≤ 0.4 month

2: ≤ 0.8 month

3: ≤ 1.2 months

4: ≤ 1.6 months

5: < 2 months

6: ≥ 2 months

4 years?

0: no notice

1: ≤ 0.75 month

2: ≤ 1.25 months

3: < 2 months

4: < 2.5 months

5: < 3.5 months

6: ≥ 3.5 months

20 years?

0: no notice

1: < 1 month

2: ≤ 2.75 months

3: ≤ 5 months

4: ≤ 7 months

5: ≤ 9 months

6: > 11 months

Severance pay: when an employer fires a worker, how much severance pay is he required to give to the worker when the worker has been employed by him for:

9 months?

0: no payment

1: ≤ 0.5 month

2: ≤ 1 month

3: ≤ 1.75 months

4: ≤ 2.5 months

5: < 3 months

6: ≥ 3 months

4 years?:

0: no payment

1: ≤ 0.5 months

2: ≤ 1 month

- 3: ≤ 2 months
- 4: ≤ 3 months
- 5: < 4 months
- 6: ≥ 4 months
- 20 years?
- 0: no payment
- 1: ≤ 3 months
- 2: ≤ 6 months
- 3: ≤ 10 months
- 4: ≤ 12 months
- 5: ≤ 18 months
- 6: > 18 months

Difficulty of dismissal**Definition of unfair dismissal: When is a dismissal considered fair?**

- 0-worker capability or redundancy on job are adequate grounds for dismissal
- 1-social considerations, age or job tenure must be considered if possible
- 2-transfer and/or retraining must be attempted prior to dismissal
- 3-worker capability cannot be grounds for dismissal

How long is the trial period for a new worker?

- 0: ≥ 24 months
- 1: > 12 months
- 2: > 9 months
- 3: > 5 months
- 4: > 2.5 months
- 5: > 1.5 months
- 6: < 1.5 months

If a dismissal is found unfair by the courts, how much severance pay is the employer required to pay if the worker has been employed for 20 years?

- 0: ≤ 3 months
- 1: ≤ 8 months
- 2: ≤ 12 months
- 3: ≤ 18 months
- 4: ≤ 24 months
- 5: ≤ 30 months
- 6: > 30 months

If a dismissal is found unfair by the courts, is the employer required to reinstate the dismissed worker, even against the employer's wishes?

- 0: never
- 1: rarely
- 2: fairly often
- 3: always

TEMPORARY CONTRACTS**Regulation of temporary/fixed-term contracts****When are they considered valid?**

- 0: no restrictions on use fixed-term contracts
- 1: exemptions exist on both employer and employee side
- 2: specific exemptions for situations of employer need OR employee need
- 3: fixed-term contracts permitted only for "objective" or "material" reasons

What is the maximum number of successive temporary contracts that is permitted?

- 0: no limit
- 1: ≥ 5
- 2: ≥ 4
- 3: ≥ 3
- 4: ≥ 2
- 5: ≥ 1.5
- 6: < 1.5

What is the maximum cumulated duration of temporary contracts?

- 0: no limit
- 1: ≥ 36 months
- 2: ≥ 30 months
- 3: ≥ 24 months
- 4: ≥ 18 months
- 5: ≥ 12 months
- 6: > 12 months

Regulation of Temporary Work Agency employment

When is it considered valid?

- 0: no restrictions apply
- 1: permitted if limited to objective situations and of fixed duration
- 2: restricted to certain sectors, and to cover absences or labor shortages
- 3: permitted in certain sectors and where firms have not used collective dismissals in recent past
- 4: prohibited

Are there restrictions on the number of times a temporary work agency contract can be renewed?

- 2: no
- 4: yes or score immediately above=4

What is the maximum cumulative period during which a person can be employed by a temporary work agency?

- 0: no limit
- 1: ≥ 36 months
- 2: ≥ 24 months
- 3: ≥ 18 months
- 4: ≥ 12 months
- 5: > 6 months
- 6: ≤ 6 months or TWA employment prohibited.

COLLECTIVE DISMISSALS

What is defined as a "collective dismissal"?

- 0-no special regulations
- 1-if special regulations apply from 50 dismissals upward
- 2-if they apply from 20 upward
- 3-if they start at 10 dismissals
- 4-if regulations apply at fewer than 10 dismissals

Are there additional notification requirements besides those applying to individual dismissals?

- 0: none
- 1: one more actor must be notified
- 2: two more actors must be notified
- 1: one of the above applies in cases of collective dismissal
- 2: both of the above apply in cases of collective dismissal

Are any additional delays (in days) involved in these dismissals?

- 0: no

- 1: <25 days
- 2: ≤30 days
- 3: ≤50 days
- 4: ≤70 days
- 5: ≤90 days
- 6: >90 days

Are there any other special costs imposed on employers in the cases of collective dismissal (e.g., are additional severance pay requirements, social compensation plans detailing measures for redeployment, retraining, outplacement, severance pay obligatory or common practice)?

- 0: no
- 1: one of these applies
- 2: more than one of these applies

Appendix 2: Weighting Procedure for Final Indicator

The indicator has three main parts, which are weighted in the final score as follows:

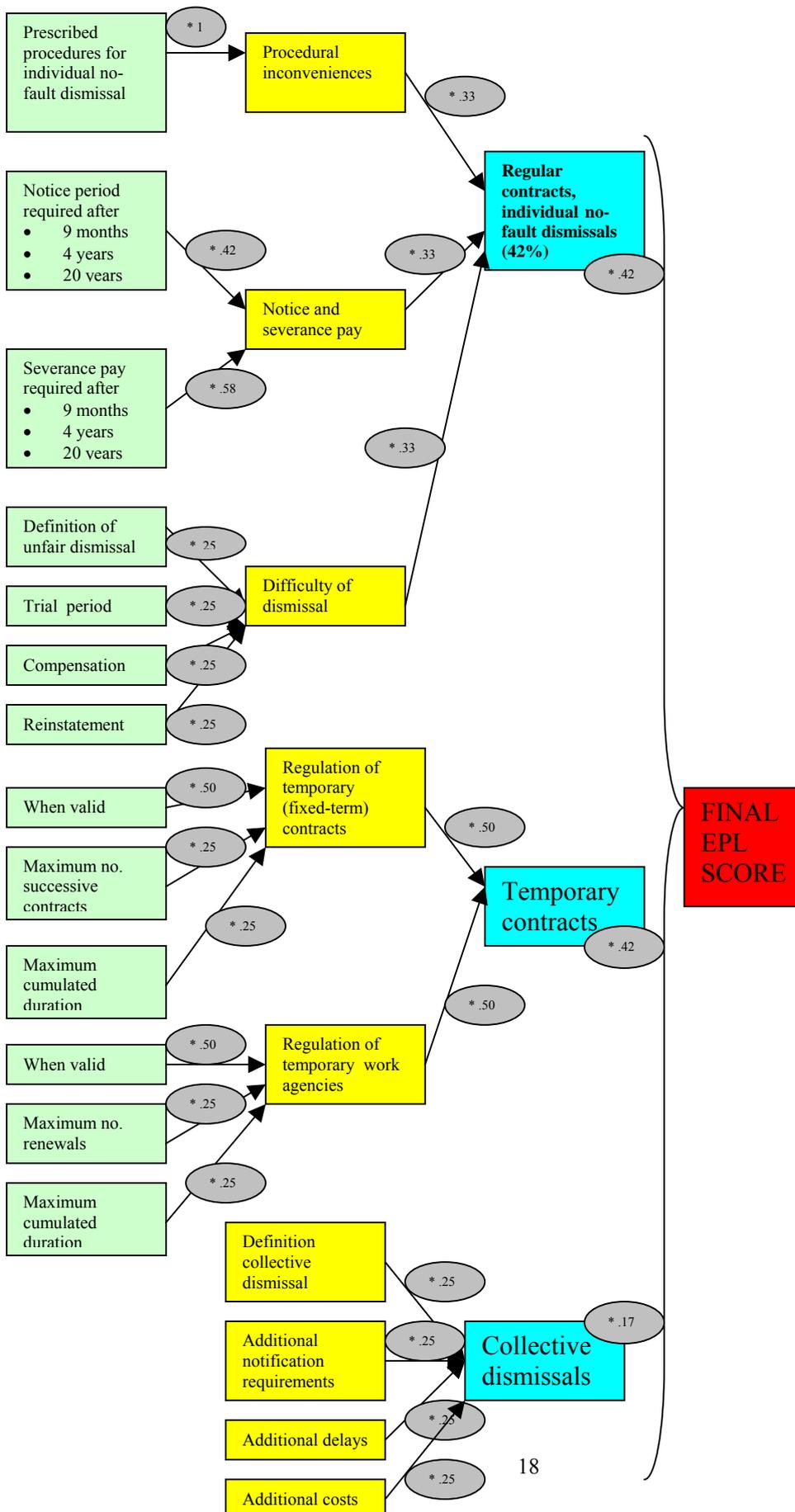
1. Regular contracts, individual no-fault dismissals (5/12 weight)
2. Temporary contracts (5/12 weight)
3. Collective dismissals (2/12 weight)

Within each of these categories, the individual items and weights in the score for each of the three categories are as follows:

- 1. Regular contracts, individual no-fault dismissals**
 - a. Procedural inconveniences (1/3 weight)
 - b. Notice and severance pay (1/3 weight)
Notice periods receive a weight of 1/7 (or 3/21) for each of the above categories in the overall “notice and severance pay” score; and severance payments receive a weight of 4/21 each.
 - c. Difficulty of dismissal (1/3 weight)
 - i. Definition of unfair dismissal (1/4 weight)
 - ii. Trial period (before dismissal can be challenged) (1/4 weight)
 - iii. Compensation required for unfair dismissal at 20 years tenure (1/4 weight)
 - iv. Reinstatement (1/4 weight)
- 2. Temporary contracts**
 - a. Regulation of temporary/fixed-term contracts (1/2 weight)
 - i. When are these contracts considered valid? (1/2 weight)
 - ii. Maximum permitted number of successive contracts (1/4 weight)
 - iii. Maximum cumulated duration of temporary contracts (1/4 weight)
 - b. Regulation of temporary work agencies (1/2 weight)
 - i. When is the use of temporary work agencies (TWAs) considered valid? (1/2 weight)
 - ii. Restrictions on number of renewals of TWA jobs (1/4 weight)
 - iii. Maximum cumulated duration of TWA employment permitted by law (1/4 weight)
- 3. Collective dismissals**
 - a. Definition of collective dismissal (1/4 weight)
 - b. Additional notification requirements (1/4 weight)
 - c. Additional delays involved (1/4 weight)
 - d. Other special costs to employers (1/4 weight)

When general practice was different than what the laws specified, or when collective agreements set other standards, this study adjusted the score to the letter of the law. When laws made no specifications, the score was (0).

The overall weighting scheme for the EPL indicator is depicted below (weights are given in gray circles):



Appendix 3: Country EPL scores, 1950-2003

	AUS	AUT	BEL	CAN	DEN	FIN	FRA	GER	GRE	IRE	IT	JAP	NTL	NZ	NOR	POR	SP	SWE	SWI	UK	US
1950	0.0	0.3	0.1	0.1	0.7	0.0	0.1	0.1	0.8	0.1	1.1	1.3	0.9	0.2	0.0	0.1	2.4	1.4	0.1	0.1	0.1
1951	0.0	0.3	0.1	0.1	0.7	0.0	0.1	1.2	0.8	0.1	1.1	1.3	0.9	0.2	0.0	0.1	2.4	1.4	0.1	0.1	0.1
1952	0.0	0.3	0.1	0.1	0.7	0.0	0.1	1.2	0.8	0.1	1.1	1.3	0.9	0.2	0.0	0.1	2.4	1.4	0.1	0.1	0.1
1953	0.0	0.3	0.1	0.1	0.7	0.0	0.1	1.2	1.1	0.1	1.1	1.3	0.9	0.2	0.0	0.1	2.4	1.4	0.1	0.1	0.1
1954	0.0	0.3	0.4	0.1	0.7	0.0	0.1	1.2	1.1	0.1	1.1	1.3	0.9	0.2	0.0	0.1	2.4	1.4	0.1	0.1	0.1
1955	0.0	0.3	0.4	0.1	0.7	0.0	0.1	1.2	1.7	0.1	1.1	1.3	0.9	0.2	0.0	0.1	2.4	1.4	0.1	0.1	0.1
1956	0.0	0.3	0.4	0.1	0.7	0.0	0.1	1.2	1.7	0.1	1.1	1.3	0.9	0.2	1.6	0.1	2.4	1.4	0.1	0.1	0.1
1957	0.0	0.3	0.4	0.1	0.7	0.0	0.1	1.2	1.7	0.1	1.1	1.3	0.9	0.2	1.6	0.1	2.4	1.4	0.1	0.1	0.1
1958	0.0	0.3	0.4	0.1	0.7	0.0	0.1	1.2	1.7	0.1	1.1	1.3	0.9	0.2	1.6	0.1	2.4	1.4	0.1	0.1	0.1
1959	0.0	0.3	0.4	0.1	0.7	0.1	0.1	1.2	1.7	0.1	1.1	1.3	0.9	0.2	1.6	0.1	2.4	1.4	0.1	0.1	0.1
1960	0.0	0.3	0.4	0.1	0.8	0.1	0.1	1.2	1.7	0.1	1.1	1.3	0.9	0.2	1.6	0.1	2.4	1.4	0.1	0.1	0.1
1961	0.0	0.3	0.4	0.1	0.8	0.1	0.1	1.2	1.7	0.1	1.1	1.3	0.9	0.2	1.6	0.1	2.4	1.4	0.1	0.1	0.1
1962	0.0	0.3	0.4	0.1	0.8	0.1	0.1	1.2	1.7	0.1	2.0	1.3	0.9	0.2	1.6	0.1	2.4	1.4	0.1	0.1	0.1
1963	0.0	0.3	0.6	0.1	0.8	0.1	0.1	1.2	1.7	0.1	2.0	1.3	1.7	0.2	1.6	0.1	2.4	1.4	0.1	0.1	0.1
1964	0.0	0.3	0.6	0.1	0.8	0.1	0.7	1.2	1.7	0.1	2.0	1.3	1.7	0.2	1.6	0.1	2.4	1.4	0.1	0.1	0.1
1965	0.0	0.3	0.6	0.1	0.8	0.1	0.7	1.2	1.7	0.1	2.3	1.3	1.7	0.2	1.6	0.1	2.4	1.4	0.1	0.5	0.1
1966	0.0	0.3	0.6	0.1	0.8	0.2	0.7	1.2	1.7	0.1	2.8	1.6	1.7	0.2	1.6	0.1	2.4	1.4	0.1	0.5	0.1
1967	0.0	0.3	0.6	0.1	0.8	0.2	0.8	1.2	1.7	0.1	2.8	1.6	1.7	0.2	1.6	0.1	2.4	1.4	0.1	0.5	0.1
1968	0.0	0.3	0.6	0.1	0.7	0.3	1.0	1.2	1.7	0.7	2.8	1.6	1.7	0.2	2.8	0.1	2.4	1.4	0.1	0.5	0.1
1969	0.0	0.8	0.7	0.1	0.7	0.3	1.0	1.4	1.7	0.7	2.9	1.6	1.7	0.2	2.8	1.8	2.4	1.4	0.1	0.5	0.1
1970	0.0	0.8	0.7	0.1	1.0	1.0	1.0	1.4	1.7	0.7	2.9	1.6	1.8	0.2	2.8	1.8	2.4	1.4	0.1	0.5	0.1
1971	0.0	0.8	0.7	0.1	1.0	1.0	1.0	1.4	1.7	0.7	2.9	1.6	1.8	0.2	2.8	1.8	2.4	1.6	0.5	0.6	0.1
1972	0.0	0.8	0.7	0.1	1.0	1.0	1.5	2.9	1.7	0.7	2.9	1.6	1.8	0.2	2.8	1.8	2.3	1.6	0.5	0.7	0.1
1973	0.0	2.0	0.7	0.1	1.0	1.0	1.5	2.9	1.7	0.7	2.9	1.6	1.8	0.7	2.8	1.8	2.3	1.6	0.5	0.7	0.1
1974	0.0	2.0	0.7	0.1	1.0	1.0	1.5	2.9	1.7	0.8	2.9	1.6	1.8	0.7	2.8	2.6	2.3	3.4	0.5	0.7	0.1
1975	0.4	2.0	0.7	0.1	1.0	1.0	1.7	2.9	1.7	0.8	3.6	1.6	1.8	0.7	2.8	3.7	2.3	3.4	0.5	1.5	0.1
1976	0.4	2.0	2.3	0.1	1.0	1.0	2.0	2.9	1.7	0.8	3.6	1.6	2.2	0.7	2.8	3.4	3.4	3.4	0.5	1.5	0.1

1977	0.4	2.0	2.3	0.1	1.6	1.0	2.0	2.9	1.7	0.8	3.6	1.6	2.2	0.7	2.8	3.4	3.6	3.4	0.5	1.5	0.1
1978	0.4	2.0	2.3	0.1	2.0	1.9	2.0	2.9	1.7	1.4	3.6	1.6	2.2	0.7	2.8	3.5	3.6	3.4	0.5	1.6	0.1
1979	0.4	2.1	2.2	0.1	2.3	1.9	2.2	2.9	1.7	1.4	3.6	1.6	2.2	0.7	2.8	3.5	3.6	3.4	0.5	1.6	0.1
1980	0.4	2.1	2.2	0.1	2.3	1.9	2.3	2.9	1.7	1.4	3.6	1.6	2.2	0.7	2.8	3.5	3.8	3.4	0.5	1.4	0.1
1981	0.4	2.1	2.2	0.1	2.3	1.9	2.3	2.9	1.7	1.4	3.6	1.6	2.2	0.7	2.8	3.5	3.8	3.4	0.5	1.4	0.1
1982	0.4	2.1	2.2	0.1	2.3	1.9	2.8	2.9	1.7	1.4	3.6	1.6	2.2	0.7	2.8	3.5	3.8	3.6	0.5	1.4	0.1
1983	0.4	2.1	2.2	0.1	2.3	1.9	2.8	2.9	3.7	1.4	3.6	1.6	2.6	0.7	2.8	3.5	3.8	3.6	0.5	1.4	0.1
1984	0.6	2.1	2.2	0.1	2.3	2.1	2.8	2.9	3.7	1.4	3.6	1.6	2.6	0.7	2.8	3.5	3.2	3.6	0.5	1.4	0.1
1985	0.6	2.1	2.2	1.2	2.3	2.1	2.8	2.9	3.7	1.4	3.6	2.2	2.6	0.7	2.8	3.5	3.2	3.6	0.5	1.3	0.1
1986	0.6	2.1	2.2	1.2	2.6	2.1	2.3	2.9	3.7	1.4	3.6	1.6	2.6	0.7	2.8	3.5	3.2	3.6	0.5	1.3	0.1
1987	0.6	2.1	2.2	1.2	2.3	2.2	2.3	2.9	3.7	1.4	3.6	1.6	2.6	0.7	2.8	3.5	3.2	3.6	0.5	1.3	0.1
1988	0.6	2.6	2.3	1.2	2.3	2.2	2.3	2.9	3.8	1.4	3.6	1.6	2.1	0.7	2.8	3.5	3.2	3.7	0.9	1.3	0.1
1989	0.7	2.6	2.3	1.2	2.3	2.3	2.7	2.9	3.8	1.4	3.6	1.6	2.1	0.7	2.8	4.1	3.2	3.7	0.9	1.3	0.6
1990	0.7	2.6	2.3	1.2	1.6	2.3	3.0	2.6	3.8	1.4	3.6	1.6	2.1	0.7	2.8	4.1	3.2	3.7	0.9	1.3	0.6
1991	0.7	2.6	2.1	1.2	1.6	2.3	3.0	2.6	3.8	1.4	3.7	1.6	2.1	0.7	2.8	3.7	3.2	3.7	0.9	1.3	0.6
1992	0.7	2.6	2.1	1.2	1.6	2.3	3.0	2.6	3.8	1.4	3.7	1.6	2.1	0.7	2.8	3.7	3.2	2.9	0.9	1.3	0.6
1993	1.3	2.6	2.1	1.2	1.6	2.3	3.0	2.6	3.8	1.4	3.7	1.6	2.1	0.7	2.8	3.7	3.2	2.9	0.9	1.3	0.6
1994	1.2	2.6	2.1	1.2	1.6	2.3	3.0	2.6	3.8	1.3	3.7	1.6	2.1	0.7	2.7	3.7	3.0	2.9	1.5	1.3	0.6
1995	1.2	2.6	2.1	1.2	1.6	2.3	3.0	2.6	3.8	1.3	3.7	1.6	2.3	0.7	2.7	3.7	2.4	2.9	1.5	1.3	0.6
1996	1.2	2.6	2.1	1.2	1.6	2.3	3.0	2.6	3.8	1.3	3.7	1.4	2.1	0.7	2.7	3.7	2.4	2.9	1.5	1.3	0.6
1997	1.2	2.6	2.1	1.2	1.6	2.3	3.0	2.0	3.8	1.3	3.2	1.4	2.1	0.7	2.7	3.7	2.4	2.7	1.5	1.3	0.6
1998	1.2	2.5	2.7	1.2	1.6	2.3	3.0	2.0	3.8	2.5	3.2	1.4	2.4	0.7	2.7	3.7	2.3	2.7	1.5	1.3	0.6
1999	1.2	2.5	2.7	1.2	1.6	2.3	3.0	2.1	3.8	1.3	3.2	1.3	2.4	0.7	2.7	3.7	2.3	2.7	1.5	1.4	0.6
2000	1.2	2.5	2.7	1.2	1.6	2.3	3.0	2.1	3.8	1.3	3.2	1.3	2.4	0.7	2.7	3.7	2.3	2.7	1.5	1.4	0.6
2001	1.2	2.5	2.7	1.2	1.6	2.3	3.0	2.1	3.8	1.3	3.3	1.3	2.4	0.8	2.7	3.7	2.3	2.7	1.5	1.4	0.6
2002	1.2	2.5	2.7	1.2	1.6	2.3	3.0	2.1	3.8	1.3	3.3	1.3	2.4	0.8	2.7	3.7	2.3	2.7	1.5	1.4	0.6
2003	1.2	2.5	2.7	1.2	1.6	2.3	3.0	2.1	3.8	1.4	3.4	1.4	2.4	0.8	2.7	3.7	2.3	2.7	1.5	1.4	0.6

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Notes

ⁱ There is evidence that in countries with high job security, firms tend to vary the number of hours worked rather than the number of employees, which induces a “work-sharing” that is socially advantageous. Katharine G. Abraham and Susan N. Houseman (1993), in Lindbeck, A., “The Welfare State and the Employment Problem”, *American Economic Review* 84 (2: 1994), p. 72.

ⁱⁱ *The OECD Jobs Study: Evidence and Explanations*, Paris, 1994, p. 75.

ⁱⁱⁱ One observation: “Our evidence suggests that job security provisions are an extremely inefficient and inequality-increasing mechanism for providing income security to workers. They are inefficient because they reduce the demand for labor; they are inequality-increasing because some workers benefit while many others are hurt. Their impact on inequality is multifaceted. Job security increases inequality because it reduces the employment prospects of young, female and unskilled workers. It also increases inequality because it segregates the labor market between workers with secure jobs and workers with very few prospects of becoming employed. Finally, job security provisions increase inequality if, as predicted by some theoretical studies and most of the available empirical evidence, they increase the size of the informal sector.” See James J. Heckman and Carmen Pagés, “The Cost of Job Security Regulation: Evidence from Latin American Labor Markets, *NBER Working Paper 7773*, June 2000.

^{iv} Strict EPL may stimulate the growth of an “intermediate” sector whose workers, though employed, receive much less protection than that provided to “insiders”: either they are hired on short-term contracts where obstacles to dismissal are small or non-existent; or they work on the informal economy with none of the benefits received by “formal” workers. Boeri (1999), who argues that legislation allowing short-term contracts as an intermediate state between unemployment and permanent employment is “the other side of the coin” of strict EPL, describes the impact of this situation on unemployment as follows: “...even the tightest labour market regulations cannot prevent the mobility of workers, but can only alter the characteristics of the job reallocation process. In particular, obstacles to dismissals reduce the role of unemployment turnover in gross job creation and destruction and create a large intermediate labour market status (in between employment and unemployment) of workers on jobs offering short tenures or “short-term” jobs. Insofar as quitters of these jobs are not replaced by employers (who indeed use such quits as a way to reduce their workforce), no vacancy chains (or “musical chair” effects) are set in motion which would end up creating other employment opportunities for the unemployed. Thus, large shifts of workers across short-term jobs or from short-term jobs to posts offering more security are in Europe associated with low unemployment inflows and outflows... Overall, stronger employment security increases the duration (if not the level) of unemployment and the fraction of the labour force under short-term contracts, hence the extent of job-to-job shifts, according to our model.” Boeri also finds that employment security is positively correlated with the duality of the tenure distribution: i.e., job tenure in countries with strict EPL tends to be polarized into very short and very long job tenures. Tito Boeri, “Enforcement of employment security regulations, on-the-job search and unemployment duration”, *European Economic Review* 43 (1999), pp. 66, 77, 85. Blanchard and Portugal find that in the U.S. and Portuguese cases, although the two countries’ unemployment rates are roughly similar, the duration of unemployment is more than three times longer in Portugal than in the United States, and the flows in and out of unemployment are more than three times lower in Portugal than in the United States. See Blanchard and Portugal (1998), p. 17.

^v See Tito Boeri, Pietro Garibaldi, Mario Macis and Mauro Maggioni, “Adaptability of labour markets: a tentative definition and a synthetic indicator”, Fondazione Rodolfo De Benedetti, Milan, June 2002 for one discussion

^{vi} *The OECD Jobs Study: Evidence and Explanations*, Paris, 1994, p. 80. A further efficiency (and equity) consideration is raised by the possibility that high legislated dismissal costs fall hardest on small and medium-sized firms. These companies may find that an overstaffing problem due to optimistic early hiring does not disappear as easily as it does in large firms; and that the labor “hoarding” they find themselves obligated to do during periods of low sales is too costly to finance out of their limited resources. As a result, smaller firms could be burdened more than the large corporations. This asymmetry raises an efficiency issue as well: EPL may discourage hiring by precisely the type of firm that is considered to be the backbone of the economy and the most likely source of higher aggregate employment. Most seriously, perhaps, EPL may result on a more sclerotic labor market that cannot make the rapid labor force adjustments that changing technologies and product market competition may require. See *OECD Employment Outlook 1999*, p. 70.

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- ^{vii} Blanchard and Portugal, 1998, p. 28.
- ^{viii} OECD *Employment Outlook* 1999, p. 58.
- ^{ix} The Worker Adjustment, Retraining and Notification Act (WARN).
- ^x Robert J. Flanagan, "The United States: Decentralized Heterogeneity", *Labour Market Contracts and Institutions*, J. Hartog and J. Theeuwes (eds), Elsevier Science Publishers B.V., 1993, pp. 66-67.
- ^{xi} About 15-35% of U.S. employees are covered by company severance pay plans. See OECD 1996^a.
- ^{xii} Robert J. Flanagan, "The United States: Decentralized Heterogeneity", *Labour Market Contracts and Institutions*, J. Hartog and J. Theeuwes, eds., Elsevier Science Publishers B.V., 1993, pp. 69-70.
- ^{xiii} In Australia, in fact, the Federal government's powers to make laws regulating labor are restricted to cases where there is an enumerated power in the Constitution, and the approach has been to allow arbitration tribunals to regulate employment conditions. See Richard Mitchell and Peter Scherer, "Australia: The Search for Fair Employment Contracts Through Tribunals," *Labour Market Contracts and Institutions*, J. Hartog and J. Theeuwes, eds., Elsevier Science Publishers B.V., 1993, pp. 108-109.
- ^{xiv} Richard Mitchell and Peter Scherer, "Australia: The Search for Fair Employment Contracts through Tribunals", *Labour Market Contracts and Institutions*, J. Hartog and J. Theeuwes, eds., Elsevier Science Publishers B.V., 1993, pp. 108-109.
- ^{xv} Lazear's original data set included 20 countries for the 1956-84 period. Addison and Grosso (1996) corrected the original database for errors and omissions.
- ^{xvi} D. Grubb and W. Wells (1993), "Employment regulation and patterns of work in EC countries", *OECD Economic Studies*, No. 21, Winter, pp. 7-58, Paris.
- ^{xvii} OECD *Employment Outlook* 1999, p. 62.
- ^{xviii} The OECD makes the following comment on the legislative review process: "As stressed by Grubb and Wells (1993), the documentation on employment protection regulations is multidimensional and not always easy to discern. Statutory legislation is sometimes not clear or difficult to compare with that of other countries. Administrative extension of sectoral (industry-wide) collective agreements may imply that certain provisions (e.g. notice period in case of no-fault dismissal) negotiated between employers and employees in a given sector are automatically be made legally binding on employers who were not involved in the negotiation. Moreover, regulations sometimes leave the courts the responsibility for deciding important matters."
- ^{xix} Notice and severance pay often differ for blue-collar and white-collar workers. In general both notice and severance payments tend to be higher for white-collar workers and for redundancies than for blue-collar workers. The OECD indicator considered an average of regulations affecting the two categories of workers.
- ^{xx} There is considerable debate over this issue. Some studies have supported the idea that both job creation and job destruction rates should be lower in countries and periods where EPL is restrictive. Guiseppe Bertola and Richard Rogerson, in "Institutions and labor reallocation", *European Economic Review* 41 (1997), p. 1149, found that the rate at which workers enter and leave unemployment was significantly greater in the United States than in Europe, where advance-notice laws are more stringent. However, others have found that annual rates of job creation and destruction were surprisingly similar in Europe and the United States. One study of Portugal and the United States provided a potential explanation for this phenomenon: while annual rates of job creation and destruction were slightly higher in Portugal than in the United States, quarterly rates were much lower in Portugal, suggesting that EPL acted primarily to reduce transitory employment variations. See O. Blanchard and P. Portugal, "What hides behind an unemployment rate: comparing Portuguese and US unemployment", National Bureau of Economic Research, *Working Paper* No. 6636 (1998), p. 5.
- ^{xxi} Guiseppe Bertola and Richard Rogerson, "Institutions and labor reallocation", *European Economic Review* 41 (1997), p. 1148.
- ^{xxii} See Olympia Bover, Pilar García-Perea, Pedro Portugal, "A Comparative Study of the Portuguese and Spanish Labour Markets", *Estudos e Documentos de Trabalho*, Banco de Portugal, March 1998, pp. 17-18. Blanchard and Portugal (1998) also discuss the case of Portugal where very tight regulations do not seem to significantly affect employment turnover.
- ^{xxiii} Gianni Geroldi, Marco Maello and Tiziano Treu, "Italy: Labour Relations", in *Labour Market contracts and Institutions*, J. Hartog and J. Theeuwes, eds., Elsevier Science Publishers B.V., 1993, p. 49.
- ^{xxiv} Tito Boeri and Pietro Garibaldi, Bocconi University and Fondazione Rodolfo De Benedetti, "The Concept and Measurement of European Labour Market Adaptability", *Issues Paper*.
- ^{xxv} See, for instance, Bertola, et. Al. (1999) and Macis (2000) for studies on Germany, Spain and Italy.

^{xxvi} Robert J. Flanagan, “The United States: Decentralized Heterogeneity”, *Labour Market Contracts and Institutions*, J. Hartog and J. Theeuwes, eds., Elsevier Science Publishers B.V., 1993, pp. 69-70 and 195-197.

^{xxvii} Suggestions for data on jurisprudence include number of unfair dismissal cases brought before tribunals, average delay between the start of the procedure and the verdict, and percentage of cases won by workers. However, country idiosyncracies may also be very relevant here, such as recourse to consultation and arbitration before going to court. See Tito Boeri and Pietro Garibaldi, “The Concept and Measurement of European Labour Market Adaptability”, EU Conference on Labour Market Flexibility, 2000.

^{xxviii} A regression in the OECD’s 1999 *Employment Outlook* which attempted to control for the effects of EPL on employment and unemployment across countries and over time –between the late 1980s and the late 1990s— found that EPL had little impact on employment rates once other factors were controlled for; and that overall EPL strictness had no significant effect on the overall share of temporary employment, and had at best a weak effect on youth employment. The OECD also concluded from its first-difference regressions that EPL “probably has not been a dominant explanation of international differences in changes in the levels of composition of employment and unemployment in recent years.” See also John T. Addison and Jean-Luc Grosso, “Job Security Provisions and Employment: Revised Estimates”, *Industrial Relations*, vol. 35, no. 4 (October 1996), pp. 585-586.

^{xxix} Some studies have used an index based on surveys conducted by the International Organisation of Employers (1985), which classifies regulatory constraints as insignificant, minor, serious or fundamental for both regular and fixed-term contracts. This has the benefit of incorporating implicitly the role of enforcement. The ranking was often very different from what the OECD’s indicator showed. The problem with these surveys is not only that they are not available for as long a time period as this study included, but also that domestic employers’ may express very subjective opinions without having any information about comparable conditions in other countries. U.S. employers, for instance, might complain loudly about the constraints on their hiring and firing decisions without having any idea of what it would be like to actually face stiff legal constraints.

^{xxx} The categories eliminated were delay to start a notice (RC1B in the OECD’s indicator) and compensation for unfair dismissal (RC3C). Collective dismissal requirements were initially left out since so little reference was made to them, but eventually they were reincorporated to the index. Otherwise, (adjusted) weights and scoring were exactly as used by the OECD in the 1999 study.

^{xxxi} As the study progressed, reasons were discovered for some of these omissions: in the Australian case, for instance, journals might state that EPL was made more strict, but the change occurred in an important national award and was not embodied in legislation.

^{xxxii} The index reflects only the job-security provisions that are included in legislation. Some countries may have had some form of job security in this period which was not embodied in national legislation.

^{xxxiii} France, the most volatile country in terms of EPL –according to Gilles Saint-Paul, France introduced 70 different EPL schemes during one 15-year period, although this study did not detect such numerous changes--, did take steps to deregulate during this period, as did Portugal, but they were the only exceptions to the trend.

^{xxxiv} Even though most countries were deregulating labor markets during this period, many raised EPL in 1985-2000: France, the Netherlands, Japan, Denmark, Finland, Austria, New Zealand, Spain, Switzerland, Australia and the United States.

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