The Economics of Imperfect Labor Markets

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Chapter 10. Employment Protection Legislation

EPL – What are we talking about?

- Set of norms and procedures followed in case of dismissal of redundant workers.
- Act as deterrent: protect workers with permanent contracts from the risk of early termination of their employment contract
- Decisions involve also third parties: legitimacy of a lay-off ultimately depends on court ruling
- EPL protects employed workers, not unemployed

EPL – Measures

- Surveys of employers (possibly personnel managers of multinational firms) and workers (perceptions of security)
- Expert evaluations
- Country rankings of Employment Protection compiled by OECD

Individual dismissals of Regular workers

- A. Regular procedural inconveniences
    1. Notification procedures (0-3): 0 = oral statement, 1 = written statement, 2 = notify third party, 3 = permission from third party
    2. Delay to start of notice: some countries 1 day; others 1 month
- B. Difficulty of dismissal
    1. Definition unfair dismissal (0-3): 0 = capability of worker or redundancy of job – 3 = capability cannot be the ground
    2. Trial period before eligibility: 0 – 1 year
    3. Compensation after 20 years (if unfair dismissal – months of pay; 0 - 18 months)
    4. Extent of reinstatement (if unfair dismissal, right to return to job)
- C. Notice period and severance pay

EPL indicator regular employment

- Higher = more strict

I = (A+B+C)

|	1980s	1990s	2003	2008
Denmark	1.5	1.5	1.5	1.5
France	2.3	2.3	2.5	2.6
Germany	2.6	2.7	2.7	2.9
Italy	1.8	1.8	1.8	1.7
Netherlands	3.1	3.1	3.1	2.7
Spain	3.9	2.9	2.9	2.4
UK	0.9	0.9	1.1	1.2
US	0.2	0.2	0.2	0.6

Individual dismissals of Temporary employment

1. Fixed term contracts
   1. When is it possible
   2. Maximum number of successive contracts
   3. Maximum cumulated duration
2. Temporary work agencies
   1. Types of work for which TWA is legal
   2. Restrictions on number of renewals
   3. Maximum cumulative duration of TWA contracts

EPL indicator temporary employment

|	1980s	1990s	2003	2008
Denmark	3.1	1.4	1.4	1.8
France	3.1	3.6	3.6	3.8
Germany	3.8	2.3	1.8	2.0
Italy	5.4	3.6	2.1	2.5
Netherlands	2.4	1.2	1.2	1.4
Spain	3.8	3.3	3.5	3.8
UK	0.3	0.3	0.4	0.3
US	0.3	0.3	0.3	0.3

EPL indicator: Regular and Temporary employment
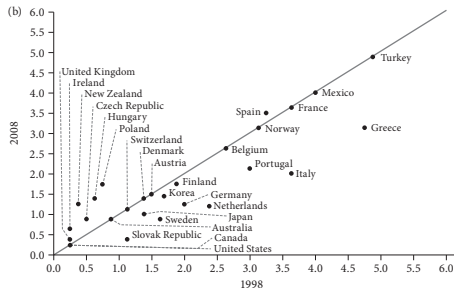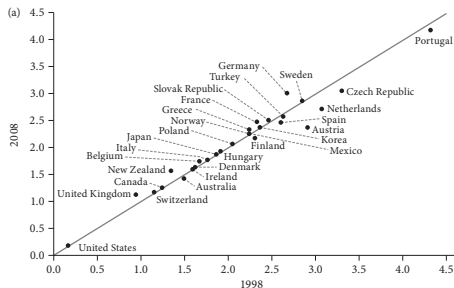
Collective dismissals

1. Definition of collective dismissal (number of workers involved)
2. Additional notification requirements
3. Additional delays
4. Other special costs to employers (social compensation plans)

III. EPL indicator collective dismissals

	1980s	1990s	2003	2008
Denmark	-	3.9	3.9	3.1
France	-	2.1	2.1	2.1
Germany	-	3.5	3.8	3.8
Italy	-	4.9	4.9	4.9
Netherlands	-	3.0	3.0	3.0
Spain	-	3.1	3.1	3.1
UK	-	2.9	2.9	2.9
US	-	2.9	2.9	2.9

EPL index 2008 and male temporary employment 2008
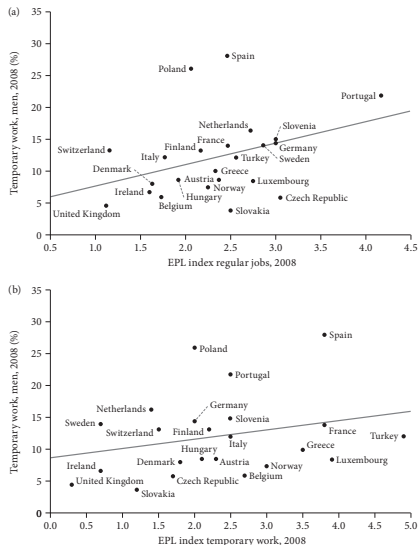
Shortcomings of this index

- Arbitrary weighting of the different components of employment protection
- Interactions among features: e.g., stricter EPL for regular contracts involves more use of temporary contracts
- Nothing on enforcement
    - Conciliation practices, length of the judicial procedure, percentage of rulings favorable to workers act as a threat to dismissals
    - We measure at best EPL, Employment Protection *Legislation*

Stylized facts about reforms

- Some convergence in overall EPL
- Driven almost entirely by reforms of temporary contracts
- Dual track reforms: reforms at the margin – for new hires – while position of incumbent workers remains unchanged
- However inertia in country rankings

Economically relevant distinction

- 2 components of the EPL tax: Transfers (TR) from employers to employees and Deadweight Costs (C) to third parties, such as legal and procedural costs, jurisprudence, etc.
- T=TR+C
- TR can be negotiated, and hence incorporated (discounted) ex-ante in wage contracts
- while deadweight costs, C, cannot

A neutrality result if EPL is transfer (only)

- competitive product market (w=MP)
- competitive labor market (no unions)
- flexible wages (no wage floors)
- risk-neutral agents (u(w)=w), interested only in average wages over the period

EPL has no effect on employment and wages. Contracted away.

BOX 1: Example of 2 period contract

- Suppose jobs last 2 periods and have marginal productivities *MP* in both periods
- Without EPL, in competitive labor market
  $w + \frac{w}{1+i} = MP(1 + \frac{1}{1+i})$
- Introducing TR at 2, this can be offset by lowering entry wage by a bond B such that the following condition is satisfied
  $w - B + \frac{w+TR}{1+i} = w + \frac{w}{1+i}$

EPL has no effect on employment and wages. Contracted away.

BOX 1: Intuition

- A mandated transfer from the employer to the worker can be undone by a voluntary transfer of the same size from the worker to the employer.
- Ex-ante same cost for the firm with and without EPL
- This works only if the employer succeeds in extracting a payment from the worker when the contract begins (the worker must be willing to pay the fee upon signing the contract)

BOX 1: Removing risk neutrality

- With risk averse workers: $u(w) > 0.5 * [u(w - B) + u(w + B)]$
- EPL will cause a welfare loss for workers
- Utility losses associated with income fluctuations
- Workers will ask for monetary compensations for this loss. Costs increase for the employers

With Rigid Wages

- Two countries both with rigid wages, but EPL only in Rigidland (R), not in Flexiland (F)
- Same technologies: $Y = A^i \log(L)$
- A^i can be A^H (good times)$> A^L$ (bad times)
- Probability p and $(1 - p)$ respectively
- Wages fixed at w

BOX 3: Flexiland

- Choose L that maximizes $\pi^F = A^i \log(L) - wL$
- Implying $w = \frac{A^i}{L}$ or $L = \frac{A^i}{w}$ thus under good times higher employment
- Employment variations
- $\Delta L = \frac{(A^H - A^L)}{w}$ when from bad to good
- $\Delta L = -\frac{(A^H - A^L)}{w}$ when from good to bad
- Average $L^F = \frac{(pA^H + (1-p)A^L)}{w}$

BOX 3: Rigidland

- Adjustment of *L* too costly; firms choose average *L* and stick to it
- L maximizes $\pi^R = (pA^H + (1-p)A^L)\log(L) - wL$
- Implying $L^R = \frac{(pA^H + (1-p)A^L)}{w}$
- So: $L^R = L^F$
- Optimal employment is not affected by EPL
- Numerical example:
  - $A^H = 2000, A^L = 1000, w = 10, p = 0.5$
  - Then:
  - $L^H = 200, L^L = 100, L^R = 150$
  - But:
  - $\pi^F = 1801, \pi^R = 1764$
  - Profits in Flexiland 2.1% higher than in Rigidland

Thus

- Average employment levels are the same
- More fluctuations in Flexiland than in Rigidland
- With risk-neutral agents, Flexiland is more efficient as under any state of the world, firms make higher profits
- But if workers are not risk-neutral, they are better off in Rigidland

EPL as a tax

- Payment to a third party, say a lawyer
- Cannot be undone by bonding agreements
- Effects on both job creation and destruction as employers anticipate these costs when issuing a vacancy
- In general expected decline in both hiring and separations (flows) with ambiguous effects on employment/unemployment (stocks)

Two-tier systems

- Flexibility only at the margin
- A "buffer stock" of temporary contracts is created
- This has a transient and positive "honeymoon" effect on employment
- The effect fades away as permanent contracts can be fully replaced (e.g. via attrition) by temporary contracts

The Honeymoon Effect
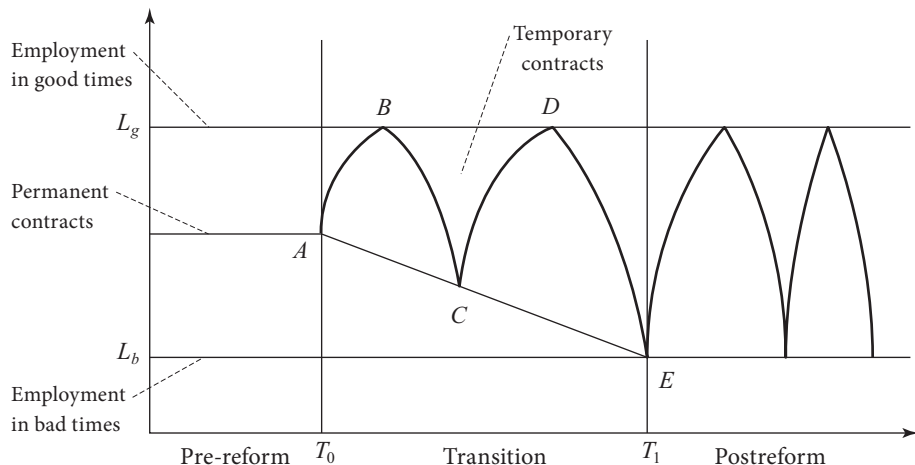
Evidence from cross country studies

Evidence from cross country studies (I)

Author(s)	Stocks		Flows	
	Employ.	Unemploy.	Employ.	Unemploy.
Emmerson(1988)	?	?	-	-
Bertola(1990)	?	?	?	-
Lazear(1990)	-	+		
Grubb and Wells(1993)	-			
Garibaldi, Koening, and Pissarides(1994)	?	?	?	-
Addison and Grosso(1996)	?	?		
Jackman, Layard, Nickell (1996)	?	?	-	-
Gregg and Manning(1997)	?	?		-
Boeri(1999)	?	?	+	-
Di Tella and McCulloch(1998)	-	+		
OECD(1998)	?	?	?	-
Krugler and StPaul(2000)			+	-
Belot and van Ours(2001)		-		
Nickell, Nunziata, and Ochel(2005)	?	?		

Exploiting within-country variation

- Wide empirical literature on EPL is only cross-sectional
- While theory points to institutional interactions (e.g., EPL and wage bargaining) and within-country heterogeneity in coverage (e.g., EPL for regular and temporary employment)
- Need to exploit natural experiments
- Recent literature exploiting exemptions conditioned on firm size

"Natural experiment" in Italy – Boeri - Jimeno (2004)

- EPL conditional on firm size
- Thresholds scale below which the most restrictive regulations are not applied
- Italian firms with less than 15 employees are exempted for Art. 18 of the Statuto dei Lavoratori
- Research:
- Quarterly Labor Force Surveys (1994-6)
- Longitudinal and retrospective information (on employment levels and on dismissals): 80,000 individuals
- Size of firms declared by individuals

BOX 4: Difference in differences

Boeri - Jimeno (2004)

- Temporary vs permanent workers
- Firms: Above/below 15 employees.

Firm size	Probability of being dismissed (%)	
	Permanent workers	Temporary workers
Fewer than 15 employees	1.7	0.8
More than 15 employees	0.9	2.2
Δ	0.8	-1.4
ΔΔ	2.2	

▸ EPL & Temporary Employment

BOX 5: "Natural Experiment" in France – Behaghel et al. (2008)

- France: Tax for laying off workers aged 50+ (Delelande Tax)
- Because of the increase in firing costs, firms will refrain from hiring these workers
- July 1992: firms exempted from the tax for workers hired after age 50

BOX 5: Difference in differences

Behaghel et al. (2008)

- Workers aged 50 vs aged 49
- Before vs after policy intervention (July 1992)

Monthly transition from unemployment to employment

|	Men		Women	
Age workers	50	49	50	49
Before July 1992	1.21	1.43	0.88	1.13
After July 1992	1.25	0.93	0.99	0.93
Δ	0.04	-0.50	0.11	-0.20
ΔΔ	+0.54		+0.31	

Ichino & Riphahn (2005)

- Effect on EPL on worker effort: absenteeism during and after probation
- Italian Bank: for 12 weeks, workers can be fired at will, after that protection from EPL
- EPL: if not sustained by "just cause" firm has to pay wage + penalty of 200%
- 545 men, 1993-1995 observed for 12 months

After 12 weeks: absence more than triples

1. Learning about social norms
2. Disincentive from EPL

Absenteeism during and after probation
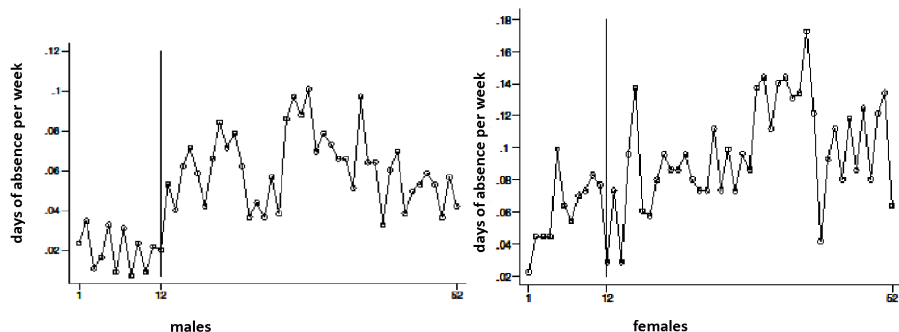
Possible endogeneity of EPL

- Many studies EPL↑ → unemployment↑
- Also possible unemployment↑ → EPL↑

Note:

- Enforcement of EPL is found to be correlated with unemployment
- Generally judges more protective of workers in depressed labor markets
- Part of the effects of EPL on employment/unemployment may capture reverse causality

Policy issue – How much protection should EPL provide?

- Trade-offs in provision. Costs for job seekers and firms. Costs in terms of moral hazard-productivity. Also benefits:
- (privately) for the worker:
  reduce income fluctuations protecting against un-insurable labor market risk; prevent wage underbidding by outsiders
- (privately) for the firm:
  build-up of loyalty, trust and co-operation, induces workers to invest in specific technologies and reduces their resistance to new technologies (workers do not feel threatened)
- (socially) deterrent to opportunistic behavior:
  firms: internalization of costs of bad management

Policy issue – Should there be a single employment contract?

- To the extent there is a substantial flow from temporary jobs to permanent jobs, the dual labor market doesn't have long-lasting consequences for temporary workers.
- But it is possible that duality $\equiv$ segmentation ...
- ... that is when there is a small probability to flow from temporary to permanent jobs.
- To reduce segmentation, single contracts have been advocated, in which EPL gradually increases with tenure.
- The idea is that there is no longer a distinction between temporary and permanent jobs; all jobs are quasi-permanent with EPL increasing with tenure.

Why does EPL exist?

1. EPL is a strongly redistributive institution. It protects those who already have a job, notably a permanent contract in the formal sector.

2. Unemployed individuals and workers with temporary contracts suffer in the presence of strict EPL for permanent contracts. The former experience longer unemployment spells, while the latter are caught in a secondary labor market of temporary contracts.

3. Employers suffer a loss in profits in the presence of EPL, notably when they do not succeed in making workers pay (through lower wages) for the costs of providing this insurance.

Review Questions

1. What are the main drawbacks of available measures of the strictness of EPL?
2. Why is there a non-monotonic relationship between EPL and unemployment?
3. What are the efficiency arguments in favor of employment protection?
4. Why do workers in countries with strict EPL feel less secure than workers in flexible labor markets?
5. Why are third parties (e.g., judges) involved in the enforcement of EPL?

Exercise 11 p. 304 (I)

Consider a country in which firms produce output (assumed to be the numeraire good) using labor L as the only production factor, with the technology $Y = f(A^i, L)$, where A^i is a parameter that fluctuates with the economy. It can take the value $A^b = 100$ in bad times, which occur with probability $2/3$, and the value $A^g = 300$ in good times, which occur with probability $1/3$. In the labor market wages are rigid and fixed to be $w = 10$. Assume no type of employment protection is in place in the country, so that firms can adjust their stock of labor at any time by hiring and firing workers at will.

Exercise 11 p. 304 (II)

Compute the equilibrium levels of employment, wages, and profits in good and bad times, and their averages, for each of the following specifications for the production function:

- $Y = A^i \log L$ Assume that employment protection is introduced: it is now unboundedly costly, for firms, to adjust the stock of labor.
- How do employment and wages change?
- Which of the two scenarios (no EPL versus EPL) is more profitable for firms?
- And by how much?
- Interpret these results.

ADDITIONAL MATERIAL:

Compensation in different cases of dismissal

Country	Severance Economic at20y,Fair	Severance Disciplinary at20y,Fair	Typical Compens. at20y,Unfair	Maximum Notice, months	Reinstatem. Option	lenght of trial, first instance, months	Burden of Proof
Austria	0.00	0.00	6.00	4.00	3	4.29	e
Belgium	0.00	0.00	10.30	21.00	0	7.78	e
Denmark	3.00	0.00	6.60	6.00	1	6.63	w
France	5.40	0.00	16.00	2.00	0.5	9.12	w
Germany	10.00	0.00	15.50	7.00	1.5	6.65	e
Greece	8.00	0.00	Court	4.00	2	5.17	e
Italy	0.00	0.00	21.00	6.00	1	18.81	e
Netherlands	0.00	0.00	7.00	4.00	1	10.17	e
Portugal	12.00	0.00	20.00	2.50	2.5	14.15	e
Spain	12.00	0.00	24.00	0.50	0	9.07	e
Sweden	0.00	0.00	32.00	6.00	0	6.20	e
Switzerland	0.00	0.00	6.00	3.00	0	4.36	w
Turkey	20.00	0.00	10.00	2.00	0	7.05	e
UnitedKingdom	4.60	0.00	5.50	3.00	1	8.34	e
United States	0.00	0.00	Court	0.00	0.5	-	e

Sources: [a] EPLex; OECD (2008); Venn (2009); [b]CEPEJ (2012). Notes: Months. When notice period differs between categories of workers the longest period is chosen; Length of trial: Data from CEPEJ (2012) represent the average length of proceedings for employment dismissal cases at first instance courts for the latest year available; (OECD, 2008) represent the maximum legal length for this type of proceeding. π: probability that, in case of unfair dismissal, the judge opts for reinstatement (0.75 frequent, 0.25 rare, 0.5 intermediate cases);

EPL & Temporary Employment

Strictness of EPL for Permanent Contracts and share of Temporary Contracts on Total Employment