The Economics of Imperfect Labor Markets

Tito Boeri and Jan van Ours

Princeton University Press
Princeton and Oxford
## Preface

## Symbols and Acronyms

### 1 Overview

#### 1.1 A Few Key Definitions

#### 1.2 A Competitive Labor Market

1.2.1 Labor Supply and the Reservation Wage without Hours Restrictions

1.2.2 Aggregate Labor Supply

1.2.3 Labor Demand and Wage Determination

1.2.4 Equilibrium

#### 1.3 Labor Market Institutions

1.3.1 Acting on Prices

1.3.2 Acting on Quantities

1.3.3 Institutional Interactions

1.3.4 Why Do Labor Market Institutions Exist?

1.3.5 Product Market Competition and Institutional Reforms

#### 1.4 Technical Annex: A Simple Static Framework

1.4.1 A Competitive Labor Market

1.4.2 Labor Market Institutions

1.4.3 The Wedge

1.4.4 Product Market Competition and the Employment Bias of Institutions

### 2 Minimum Wages

#### 2.1 Cross-Country Comparisons

#### 2.2 Theory

2.2.1 A Competitive Labor Market

2.2.2 A Noncompetitive Labor Market

#### 2.3 Empirical Evidence

2.3.1 Studies Based on Firm-Level Data

2.3.2 Studies Based on Natural Experiments

2.3.3 Studies Based on Workers' Histories

#### 2.4 Policy Issues

2.4.1 Should the Minimum Wage Be Reduced or Increased?

2.4.2 Is the Minimum Wage Effective in Reducing Earnings Inequality and Poverty?

#### 2.5 Why Does a Minimum Wage Exist?
2.6 Suggestions for Further Reading 47
2.7 Review Questions 47
2.8 Technical Annex: Fine-Tuning of the Minimum Wage 48

3 Unions and Collective Bargaining 51
3.1 Measures and Cross-Country Comparisons 52
3.1.1 Union Density 52
3.1.2 Coverage and Excess Coverage 54
3.1.3 Coordination 56
3.2 Theory 56
3.2.1 Collective Bargaining 57
3.2.2 Endogenous Membership 61
3.3 Empirical Evidence 66
3.3.1 Effects of Unions on Wages 67
3.3.2 Bargaining Coordination, Union Density, and Unemployment 71
3.4 Policy Issues 72
3.4.1 Do Unions Increase Efficiency? 72
3.4.2 Should Collective Bargaining Be Decentralized? 74
3.5 Why Do Unions Exist? 75
3.6 Suggestions for Further Reading 76
3.7 Review Questions 76
3.8 Technical Annex: How Strong Should Unions Be in Order to Be Efficient? 77

4 Payroll Taxes 81
4.1 Measures and Cross-Country Comparisons 82
4.2 Theory 86
4.3 Empirical Evidence 90
4.4 Policy Issues 92
4.4.1 Negative Income Taxes or In-Work Benefits? 92
4.4.2 Tax Credits or Wage Subsidies? 96
4.5 Why Do Payroll Taxes Exist? 97
4.6 Suggestions for Further Reading 98
4.7 Review Questions 98
4.8 Technical Annex: Taxes and Benefits in a Competitive Labor Market 98

5 Regulation of Working Hours 101
5.1 Measures and Cross-Country Comparisons 101
5.2 Theory 102
5.2.1 Regulating Weekly Working Hours 104
5.2.2 Part-Time Work 107
5.3 Empirical Evidence 109
5.3.1 Working Hours 109
5.3.2 Part-Time Work 113
5.4 Policy Issues 116
5.4.1 Should Governments Regulate Working Hours? 116
5.4.2 Should Governments Stimulate Part-Time Labor? 117
5.5 Why Does Regulation of Working Hours Exist? 117
5.6 Suggestions for Further Reading 118
5.7 Review Questions 118
5.8 Technical Annex: Reduction of Standard Working Hours 119
## 6 Retirement Programs 121

6.1 Measures and Cross-Country Comparisons 122
6.2 Theory 124
6.3 Empirical Evidence 125
   6.3.1 Age and Employment 125
   6.3.2 Age and Productivity 132
6.4 Policy Issues 134
   6.4.1 Should the Mandatory Retirement Age Be Increased? 134
   6.4.2 Should Early Retirement Programs Be Phased Out? 135
6.5 Why Do Early Retirement Programs Exist? 136
6.6 Suggestions for Further Reading 136
6.7 Review Questions 136
6.8 Technical Annex: Optimal Retirement Age 137

## 7 Family Policies 139

7.1 Measures and Cross-Country Comparisons 140
7.2 Theory 142
   7.2.1 Child Care Facilities 142
   7.2.2 Parental Leave 142
7.3 Empirical Evidence 144
7.4 Policy Issues 150
   7.4.1 Can Work and Family Life Be Balanced? 150
   7.4.2 Is There a Trade-off between Fertility and Employment? 151
7.5 Why Do Family Policies Exist? 153
7.6 Suggestions for Further Reading 153
7.7 Review Questions 154
7.8 Technical Annex: Child Care Facilities and Hours of Work 154

## 8 Education and Training 157

8.1 Measures and Cross-Country Comparisons 158
8.2 Theory 160
   8.2.1 Schooling 160
   8.2.2 Training 163
8.3 Empirical Evidence 165
   8.3.1 Returns to Schooling 165
   8.3.2 On-the-Job Training 169
8.4 Policy Issues 170
   8.4.1 Should Governments Subsidize In-Company Training? 170
   8.4.2 Should There Be a Compulsory Schooling Age? 171
8.5 Why Do Governments Provide Education and Training? 171
8.6 Suggestions for Further Reading 172
8.7 Review Questions 172
8.8 Technical Annex: Schooling and Training 172
   8.8.1 Optimal Years of Schooling 172
   8.8.2 Who Pays for General Training? 174

## 9 Migration Policies 175

9.1 Measures and Cross-Country Comparisons 176
9.2 Theory 178
## 9 Labor Market Policy

9.2 A Competitive Labor Market
9.2.1 A Competitive Labor Market 179
9.2.2 An Economy with Wage Rigidities 180
9.2.3 Wage Rigidities and Unemployment Benefits 181
9.2.4 What Drives Migration Decisions? 182
9.2.5 Effects on Income Distribution of Skill-Biased Migration 183

9.3 Empirical Evidence
9.3.1 The Labor Market Performance of Migrants 189
9.3.2 Fiscal Effects 190

9.4 Policy Issues
9.4.1 Closing the Welfare Door? 192
9.4.2 Adopting a Points System? 193

9.5 Why Do Migration Policies Exist?
9.6 Suggestions for Further Reading
9.7 Review Questions
9.8 Technical Annex: Net Gains from Migration and the Option Value of Waiting

## 10 Employment Protection Legislation

10.1 Measures and Cross-Country Comparisons 200
10.2 Theory
10.2.1 A Neutrality Result 204
10.2.2 Removing Risk Neutrality 206
10.2.3 EPL with Rigid Wages 206
10.2.4 EPL as a Tax 209
10.2.5 Two-Tier Regimes 210

10.3 Empirical Evidence
10.3.1 Cross-Country Analyses 211
10.3.2 Within-Country Studies 213
10.3.3 Endogeneity of EPL 214

10.4 Policy Issues
10.4.1 How Much Protection Should EPL Provide? 215
10.4.2 Whom Should EPL Be Protecting? 218

10.5 Why Does Employment Protection Legislation Exist?
10.6 Suggestions for Further Reading
10.7 Review Questions
10.8 Technical Annex: EPL in a Search-Matching Model
10.8.1 A Simple Dynamic Framework 221
10.8.2 Present Discounted and Flow Values 221
10.8.3 Behavior of Workers 222
10.8.4 Matching 222
10.8.5 Firms 223
10.8.6 Wage Bargaining 223
10.8.7 Introducing EPL 223
10.8.8 Baseline Parameters 224

## 11 Unemployment Benefits

11.1 Measures and Cross-Country Comparisons 226
11.2 Theory
11.2.1 A Competitive Labor Market 230
11.2.2 An Imperfect Labor Market 234