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Unemployment Compensation Throughout the World: A Comparative Analysis

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UNEMPLOYMENT COMPENSATION THROUGHOUT THE WORLD

A COMPARATIVE ANALYSIS

Wayne Vroman and Vera Brusentsev

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1

Introduction

This book springs from the knowledge that many people are worried about unemployment, concerned about the attendant loss of income, and anxious about their ability to sustain the standard of living to which they have become accustomed. Public programs that provide temporary income support during periods of unemployment can ease the anxiety and concerns associated with joblessness. Yet, unemployment protection programs themselves lead to other worries: adequacy of program benefits, costs of administration, disincentive effects, the extent of coverage, and potential long-term dependency. This list is by no means comprehensive, but it does highlight various concerns about unemployment protection programs. It is understandable that such programs should conjure up these worries. The challenge is to find successful compromise between the competing sets of concerns. The responses to these concerns differ in individual countries, but the responses reflect deliberate policy choices.

This book examines unemployment compensation (UC) throughout the world. Unemployed workers in many countries receive cash payments from UC programs. Such benefits provide income support for temporary periods, replacing part of the loss of earnings caused by unemployment. Unemployment compensation is a long-established social protection program that is present in most of the world's major geographic areas. At the start of the twenty-first century, approximately 70 countries have UC programs.

While the subject has been discussed in a multitude of articles and books, several recent developments have led to institutional changes in the world economy, commonly described as globalization. With such changes comes new information and new insight. Three important developments call for a general assessment of the current state of international UC. First, the number of countries with UC increased sharply in the 1990s with the introduction of new programs in Central and Eastern Europe (CEE) and in the successor states of the former Soviet Union (FSU).

Second, the East Asian financial crisis saw a dramatic shift from a path of high growth to a sharp decline in economic activity, damaging both the economic and social fabric of countries in the region, particularly in Indonesia, Malaysia, the Philippines, Korea, and Thailand. Responses included the introduction of programs to provide income support for the unemployed as well as increasing caseloads for established programs.

Third, the structure and administration of UC programs have changed in a number of countries. For instance, some recently implemented changes in Bulgaria, Chile, Germany, and Korea have potential for adoption in other countries. In particular, the new unemployment insurance (UI) program in Chile presents a strong contrast not only with UI programs in its own immediate past but also with other programs from the region and elsewhere in the world. Because of its strong emphasis on individual accounts, its evolution will be watched with interest by many countries. In Bulgaria, matching information on benefit payments and covered earnings has resulted in improved benefit payment accuracy.

These recent developments in the global economy present an opportunity for reviewing and assessing the challenges facing UC programs. This volume provides a self-contained discussion of UC that requires no specific training in economics. While maintaining a rigorous style, it is readily accessible and provides extensive material from which to learn about developments, trends, issues, and problems related to UC. The broad coverage of topics makes it appropriate for a wide audience, including policymakers and administrators of UC programs.

As the title suggests, a study of UC throughout the world covers a wide range of issues. This book presents up-to-date treatment of the subject by highlighting selected topics. While the book provides a global perspective and reviews UC programs in a number of different countries throughout the world, the specific problems addressed in the final chapter are more relevant for developed countries.

The book has four principal objectives. The first is to establish the link between macroeconomic performance in the product market and the labor market and to argue for the necessary role of unemployment protection. In the long run, growth in employment is influenced by

growth in real output. This linkage shows that strong (or weak) performance in the product market is transmitted to the labor market. And when output growth slows, employment growth is adversely affected. For workers and families who experience unemployment, income decreases and it is difficult to sustain the standard of living to which one is accustomed. If self-protection, insurance, or coping mechanisms leave the unemployed unprotected, then there is a definite role for public programs of income support and other services. Strong real output growth raises employment, reduces unemployment, and decreases both the need for, and the costs of, unemployment protection.

The second objective is to provide an overview of UC programs throughout the world, supported by case studies of individual countries from four specific regions. The overview includes an accessible survey of the prevalence and growth of UC by geographic area. It also undertakes a statistical (regression) analysis of the determinants of UC in countries. This is a logical way of analyzing the developments and trends in international UC in the last 50 years.

The case studies are intended to help the reader understand the unique issues facing UC programs in each region. For instance, persistently high inflation is a particular problem in many South American countries. Most of the countries in this geographic area have more than one program that provides income security to the unemployed. Without effective indexation provisions, however, high inflation would quickly erode the real value of monthly UC benefits and benefits from other programs.

The third objective is to introduce the reader to the issues of actuarial costs of UC programs. Here the approach is quantitative and comparative, but the exposition is relatively nontechnical. The fitted equations are straightforward algebraic expressions that depict macroeconomic relationships. With data increasingly available from international organizations as well as individual country statistical agencies, one can secure a wealth of information on labor market indicators, UC program statutes, and quantitative data on UC program performance.¹ This volume utilizes several of these sources of information.

Finally, three important problem areas of UC are examined: coverage, continuing benefit eligibility, and the activation of the long-term unemployed. While these three problem areas extend across a broad

range of countries, they differ for high-income compared to low-income countries. The treatment of the issues is strongly oriented toward high-income countries of the developed world, an in-depth treatment that permits a more thorough discussion.

There are nine chapters in this book. Chapter 2 introduces several topics relating to macroeconomic performance and provides important background information for the rest of the book. First, it reviews key indicators of economic activity for a sample of 150 countries, each having a population of at least one million in 1999; the countries are grouped into eight major geographic regions. The macroeconomic indicators from the product markets of these economies include per-capita real gross domestic product (GDP), real GDP growth, and the inflation rate. This chapter highlights contrasts across the eight regions for these indicators in the years from 1970 to 1995. Second, the chapter reviews key labor market indicators, with attention on the measurement of unemployment and the unemployment rate, emphasizing data from labor force surveys. Finally, the chapter examines the linkage between changes in real GDP and changes in employment for selected Organisation for Economic Development and Co-operation (OECD) and Asian economies. It finds a smaller response of employment to changes in real GDP in Asian economies.

Chapter 3 briefly surveys several types of unemployment protection arrangements and then devotes primary attention to UC. It traces growth in the prevalence of UC programs from 1949 to 1999 and examines the linkage between economic development and the presence of UC programs across the 150 countries. The chapter also introduces an actuarial framework useful for examining the cost of UC. In this framework, costs are measured relative to the aggregate volume of wages and salaries in a country's economy. Costs as a percent of payroll depend on three factors: 1) the underlying unemployment rate, 2) the share of the unemployed who collect UC benefits (the reciprocity rate), and 3) the level of benefits relative to average wages (the replacement rate). Given that the cost framework is general, it is used to compare UC programs across countries. Quantitative estimates of UC costs for the 1990s are calculated for a sample of 24 countries drawn from the regions that account for most UC programs. The analysis shows that the costs of UC are systematically higher in OECD countries than

elsewhere. Finally, the chapter traces the increased importance of unemployment assistance in countries where the unemployed are supported by both unemployment insurance and unemployment assistance.

Chapters 4–7 focus, respectively, on four specific regions of the world: 1) Western European and the English-speaking OECD countries, 2) CEE and FSU countries, 3) Asia, and 4) Latin America and the Caribbean. The problems of unemployment are examined in each geographic area as well as questions of UC costs and program administration. Problems specific to individual regions are addressed, such as inflation in Latin America, activation of UC claimants in OECD countries, and the establishment of new UC programs in CEE-FSU and Asian countries.

Chapter 8 examines three problem areas that extend across a broad range of countries and regions: 1) UC coverage, 2) issues of continuing UC benefit eligibility, and 3) policies to shorten the duration of unemployment and UC benefit duration. Coverage issues are present for countries at all levels of economic development, although the types of coverage problems differ for high-income versus low-income countries. The analysis of continuing eligibility and benefit duration draws mainly upon experiences of high-income countries. The chapter identifies and discusses evolving practices intended to activate claimants, such as mandating stricter work search requirements and revising (widening) the concept of suitable work. In particular, it discusses the use of statistical profiling to identify the long-term unemployed and the application of profiling in Australia, the Netherlands, and the United States.

Chapter 9 provides concluding comments. It highlights selected findings from this volume and offers some suggestions about the various UC programs throughout the world.

The approaches that countries in various regions of the world have taken in supporting the unemployed are diverse. We trust that the book will provide useful information about country-specific programs as well as highlight regional problems. We believe this volume should serve as an up-to-date review of, and as a basis and inspiration for, continuing work on UC. At the same time, we acknowledge that the coverage of topics, while extensive, has left many issues unaddressed.

Notes

1. A short list of international organizations include the International Labour Office, the International Monetary Fund, the Organisation for Economic Development and Co-operation, the International Social Security Association, Eurostat, the Division of Foreign Labor Statistics of the U.S. Department of Labor's Bureau of Labor Statistics, and the World Bank.

Part 1

A Global Perspective

2

Economic Performance and Unemployment

This chapter introduces several topics relating to macroeconomic performance. While this may seem to have little connection with unemployment protection, it provides important background information for understanding the context of unemployment protection and the specific issues prevalent in various regions of the world. Readers more interested in a comparative analysis of unemployment protection arrangements could start with Chapter 3. Specific issues addressed in detail here are also revisited in later chapters.

The objective of this chapter is to establish the link between macroeconomic performance in the product market and the labor market and to argue for the necessary role of unemployment protection. In terms of macroeconomic variables, performance is translated into three standard goals: high growth in real output, low inflation, and low unemployment. Countries with strong macroeconomic performance are characterized by high rates of real output growth, low inflation, and low unemployment. In the long run, growth in employment is influenced by growth in real output. This linkage shows that strong (or weak) performance in the product market is transmitted to the labor market. Hence, when output growth slows, it adversely affects employment growth.¹ This chapter explores this relationship using time series data from several large economies.

As noted above, when a country's economic performance is strong, the output of goods and services rises, causing increases in employment and hours worked. Yet, high unemployment rates can persist even when aggregate real output grows at a reasonably rapid rate. This phenomena has been especially noticeable in several advanced western economies during the 1980s and 1990s. Some of this unemployment persistence has been linked with the generous provision of benefits to the unemployed as well as strong statutory measures to provide contractual employment security. While different facets of this issue are examined in subsequent chapters, this chapter examines the unemployment experience of the large economies using time series data.

Increasingly, countries are using surveys of households to gather labor market information such as employment, hours worked, unemployment, and underemployment for each family member of working age. Many countries still do not collect systematic information on unemployment and underemployment. Hence, it is much more difficult to assess labor market performance in these countries compared with countries where labor force survey (LFS) measures are routinely collected.

For workers and families who experience unemployment, income decreases and the need for temporary income support and other services increases. Poor economic performance causes not only increased economic hardship but also increased social stress. For instance, crime and marital stability are adversely affected by unemployment. The problems caused by poor economic performance extend across economies at all levels of economic development.

High inflation can also affect the well-being of workers and families through its direct effects on employment and real earnings and the indirect effects of policies intended to reduce inflation. In addition, high inflation will adversely affect income support programs such as UI unless arrangements are made to maintain the real value of benefits for recipients. While this topic is directly examined in Chapter 7, a comparison of real output growth with population growth is presented in this chapter to judge if growth is occurring at a sufficient pace to potentially improve the average well-being of a country's citizens.

In this chapter, the most important indicators of economic performance are examined and discussed for a sample of the world's largest countries. These indicators are presented as a set of summary tables for 150 countries combined into eight regional groups. A number of important questions are answered in the subsequent discussion:

- 1) How similar are the countries within each region?
- 2) How large are the contrasts across regions?
- 3) What has been the economic performance of the regions over time?
- 4) What is the relationship between growth in output and inflation?
- 5) How extensive is labor market information?

ECONOMIC PERFORMANCE INDICATORS

The performance measures examined in this chapter are standard macroeconomic indicators from the product market and the labor market. Key measures in the product market are changes in average prices (inflation) and changes in the level and growth of real output (GDP). Countries with strong macroeconomic performance are characterized by low rates of inflation, high levels of GDP, and high rates of real GDP growth.

The most common measure of the level of economic development used to compare different economies is per-capita GDP, annual GDP expressed as a ratio to a country's population. Estimates for most major economies are available in publications of the World Bank. These estimates include adjustments for the differing value of the currencies of individual countries, termed purchasing power parity (PPP) estimates. As discussed below, these measures vary widely across countries and regions. Historical data on population growth and real output growth is examined to provide a better understanding of the evolution of per-capita GDP in individual countries and regions. Data from the International Monetary Fund (IMF) are used to make these comparisons, which show strong contrasts across countries and regions.

Key indicators of economic performance in the labor market are total employment, total unemployment, and the unemployment rate. Unemployed persons are defined to be those who are able to work and are actively seeking work but unable to find jobs.² This contrasts with underemployment, where people have jobs but are involuntarily working short hours or working at jobs with skill levels below the level for which they were trained.

The unemployment rate—the ratio of unemployment to the labor force (the labor force is the sum of unemployment plus employment)—is usually expressed as a percentage. In the past, estimates of unemployment and the unemployment rate were often based on counts of persons registered as job seekers at local employment offices. Increasingly, however, countries are using surveys of households to gather labor market information such as employment, hours worked, unemployment, and underemployment for each family member of working age. As will be seen below, however, many countries still do not collect systematic information on unemployment and underem-

ployment. Hence, it is much more difficult to assess labor market performance in these countries compared to countries where LFS measures are routinely available.

A SAMPLE OF LARGE COUNTRIES

To discuss economic performance from a global perspective, countries with populations of at least 1 million were selected. This 1-million threshold excludes many small countries. For example, the 2001 edition of the IMF publication *International Financial Statistics (IFS) Yearbook* displays economic data for 32 countries with populations of less than 1 million. Combined, the total population of these countries in 1999 was 9.9 million. Many other countries with small populations are not included in the *IFS Yearbook*, such as the Caribbean islands of Guadeloupe and Martinique, which are included in France for certain statistical reporting.

Three countries with larger populations were also excluded from the analysis. North Korea and Cuba, with populations of 23 million and 11 million, respectively, in 1999, were not included because their socialist ideology does not recognize the existence of unemployment. The commonwealth of Puerto Rico, with a population of 4 million, was excluded because its citizens are covered by the UI system of the United States. The UI system in the United States operates with 53 administrative jurisdictions, the 50 states plus the District of Columbia, Puerto Rico, and the Virgin Islands.

The resulting sample of 150 countries had a total population of 5.9 billion in 1999, accounting for 99 percent of the world's population. As noted, data on economic performance for most of the 150 countries are available from publications of the World Bank and the IMF, as well as from statistical agencies in individual countries.

DESCRIPTIVE INFORMATION FOR 150 COUNTRIES IN 1999

Table 2.1 displays summary data for these 150 countries. The table provides a geographic breakdown of the countries into eight major

Table 2.1 Major Countries, by Region, in 1999, and Selected Regional Characteristics

Characteristics	Countries	Population (millions)	Surface area	Population density	Output	Per-capita output (\$)	Population shares (%)	Output shares (%)
OECD-20 countries	20	718	30,956	23	18,770	26,142	12.1	46.0
Cent.-Eastern Europe	12	120	1,179	102	926	7,718	2.0	2.3
Former Soviet Union	16	291	23,844	12	1,523	5,235	4.9	3.7
East-South Asia	22	3,297	20,183	163	13,387	4,060	55.7	32.8
North Africa-Middle East	17	358	11,897	30	1,965	5,490	6.1	4.8
Sub-Saharan Africa	42	639	23,840	27	932	1,458	10.8	2.3
South America	10	339	17,387	19	2,294	6,767	5.7	5.6
Cent. America-Caribbean	11	152	2,550	60	991	6,522	2.6	2.4
Total	150	5,914	131,836	45	40,788	6,897	100.0	100.0

NOTE: Population in millions, surface area in thousands of square hectares, output and per-capita output is GDP adjusted for purchasing power parity (PPP) and stated in U.S. dollars. Population density and aggregate output are derived from data in other columns.

SOURCE: Data taken mainly from Table 1.1 of World Bank (2001). Other information taken from IMF (2001).

regions. The first grouping, OECD-20 countries, includes 14 OECD member countries from continental Western Europe plus 6 countries where English is the main language (Australia, Canada, Ireland, New Zealand, the United Kingdom, and the United States). Eight other OECD member countries have been classified according to their geographic area. Thus, Japan and Korea are placed in East and South Asia; the Czech Republic, Hungary, Poland, and Slovakia in Central and Eastern Europe (CEE); Turkey in North Africa and the Middle East;³ and Mexico in Central America and the Caribbean. Hungary, Poland, Slovakia, Turkey, and Mexico are middle-income countries with per-capita GDP measurably lower than the OECD-20 group of countries. Placing Japan and Korea in East and South Asia also yields a larger sample of high-income countries from this geographic area. Clearly, other classifications are possible.

The breakup of the geographic block dominated by the Soviet Union has yielded 28 successor states at this time. The table shows two groupings that distinguish the CEE countries from those located within the former Soviet Union (FSU) borders. Thus, the three Baltic Republics (Estonia, Latvia, and Lithuania) are included within the 16 FSU countries even though they are physically located in Eastern Europe. Again, alternative classifications could have been made.

Sub-Saharan Africa has the largest number of independent countries with 42 in 1999. All other regions have between 10 and 22 countries. The population data demonstrate, however, the demographic predominance of East and South Asia. The combined populations of these 22 countries totaled 3.3 billion in 1999, representing 55.7 percent of the worldwide total. Six of the 10 most populous countries are from this region, and the average population was over 150 million in 1999. China and India each have populations that exceed the totals for the other seven regions displayed in Table 2.1. Removing these giants from the region's total would still leave East and South Asia with the largest population across all eight regions.

Population density is also greatest in East and South Asia, with an average of 163 persons per square hectare. The next highest average density is in CEE, with 102 per square hectare. The low density for the OECD-20 countries masks the diversity in density between the 14 countries from Western Europe (98 per square hectare) and the 6 English-speaking countries (14 per square hectare). The large land

areas of Australia, Canada, and the United States dominate the latter average while the averages for Western Europe and CEE are quite similar. The other major areas all have much lower population densities; the density of 60 per square hectare in Central America and the Caribbean ranks third in the table.

Table 2.1 shows clearly that most of the world's output is generated in two regions. The countries of the OECD-20 and East and South Asia produced \$32.2 trillion of the world's \$40.8 trillion in GDP in 1999, a combined 78.8 percent share of world GDP. The next largest regional share was 5.7 percent in South America.

Probably the most striking feature of Table 2.1 is the data on per-capita output, which is defined as GDP adjusted for purchasing power parity (PPP). The average of \$26,142 for the OECD-20 is nearly four times the worldwide average of \$6,897. Just one other region, CEE at \$7,718, has an average above the worldwide average. For five regions, the averages in per-capita output fall into the range from \$4,060 to \$6,767 or from 59 percent to 98 percent of the worldwide average.

The low average per-capita output of Sub-Saharan Africa, \$1,458 or 21.1 percent of the worldwide average, is also a dramatic feature of the table. This area's population was 10.8 percent of the worldwide total in 1999, but its output was only 2.3 percent of the worldwide total.

It is interesting to note that the large shares of output generated by the countries of the OECD-20 and East and South Asia are achieved by sharply contrasting avenues. The OECD-20 have relative modest share of world population (12.1 percent) but high output per worker as reflected in per-capita output. On average, the countries of East and South Asia have large populations coupled with low output per worker.⁴

Information is lost through aggregation when summary information for 150 countries is combined into eight regional groups. Focusing just on per-capita output, two important questions arise. How similar are the countries within each region? And how large are the contrasts across regions? One partial answer to the first question is provided by looking at the coefficients of variation, the ratio of the standard deviation to the average for each region. In 1999 these ranged from a low of 0.18 in the OECD-20 countries to highs of 1.15 in Sub-Saharan Africa and 1.17 in East and South Asia. The remaining five regions had measures that ranged from 0.46 to 0.71. Thus, the region with the highest

average income has the least relative variation in per-capita output across constituent countries, and the two regions with the lowest average income have the highest relative variation.

One partial answer to the second question concerning the contrasts across regions is provided in Table 2.1 with the per-capita output means. A second approach is to examine the countries in the upper and lower tails of the per-capita output distribution. Focusing on the top 30 countries (20 percent of the 150-country sample) clearly shows the consistently high income of the OECD-20 countries. They account for 9 of the top 10 (Japan is the 10th), 16 of the top 20, and all 20 are included in the top 30. Of the 10 not from the OECD-20, 5 are from East and South Asia (Hong Kong, Japan, Korea, Singapore, and Taiwan), 3 are from North Africa and the Middle East (Israel, Kuwait, and the United Arab Emirates), and 2 are from CEE (the Czech Republic and Slovenia).

When the 30 countries with the lowest per-capita income are examined, the consistently low income of countries from Sub-Saharan Africa clearly shows. All 10 with the lowest income are from this area as well as 18 of the bottom 20, and 25 of the bottom 30. Of the remaining 5 countries in this group, 4 are from East and South Asia (Afghanistan, Bhutan, Cambodia, and Nepal) and 1 is from North Africa and the Middle East (Yemen).

Thus, East and South Asia is unique when the classification of eight broad regions is used, having 5 countries in the top 30 and four in the bottom 30. In all, 9 of the 22 countries from this region are located in either the upper and or the lower tail of the per-capita output distribution.

A third approach to the analysis of cross-country income differences is to fit descriptive regressions with regional dummy variables used in the specification to “explain” per-capita output. As would be expected, regressions for the years 1996 and 1999 yielded highly significant findings and very similar patterns for the regional dummy coefficients. By far the most significant dummy variable was for the OECD-20 countries, which had a coefficient of \$18,505 (the average deviation from the excluded group, Central America and the Caribbean) and a *t*-ratio of 11.2 in 1999 data. The next largest regional coefficient was \$3,386 for North Africa and the Middle East with a *t*-ratio of 2.0.⁵ For

Sub-Saharan Africa the dummy coefficient was \$-2,882 with a *t*-ratio of 1.9.

There was some suggestion of a relative change in regional income patterns between 1996 and 1999, but the changes were generally small. The largest change was an increase in the dummy coefficient for the OECD-20 countries. Larger dummy coefficients were also recorded for both CEE and FSU countries. This would be expected as these countries advance further into the transition from their former nonmarket economic arrangements. Increased coefficients were also recorded for countries in North Africa and the Middle East. In contrast, the coefficients for East and South Asia decreased in size, as did the coefficients for South America and Sub-Saharan Africa. The decrease in East and South Asia would be expected as a consequence of the Asian financial crisis of 1997–1999. The decrease for Sub-Saharan Africa reflects continuing economic development problems for many of these countries.

MACROECONOMIC PERFORMANCE INDICATORS, 1970–1995

In the product market, the rate of inflation and growth in real GDP are two key indicators of macroeconomic performance. Experience with market-based economic arrangements extends back for little more than 10 years in CEE and FSU countries. The transition to a market economy for many of these countries has been difficult, with major reductions in real output and episodes of high inflation, particularly in the first half of the 1990s. Because of the major structural break in their economic and political systems, tracking performance over a long period is much more difficult in CEE-FSU countries than in other countries. As a consequence, this section excludes the CEE-FSU countries and instead focuses on the other six major regions with particular attention to the period from 1970 to 1995.

The primary source for information on macroeconomic performance is the IMF publication *International Financial Statistics Yearbook*. Where data are available back to 1970 they are utilized, but the time series are incomplete in many instances. For some countries the data are available for a shorter period, and in several instances there

are no published data for a lengthy period. In the ensuing analysis, the potential number of countries is 122—the original 150 countries less the 28 CEE-FSU countries. Counts of countries are shown in the following tables to provide an idea of the completeness of coverage among the 122 countries in the six regions.

Table 2.2 summarizes information on inflation and growth in real GDP. The inflation indicator is the (geometric) average annual rate of increase in the GDP deflator.⁶ Most of the 101 countries with available data experienced average inflation of less than 20 percent per year between 1970 and 1995. The all-country median inflation rate was 10.8 percent, and five of the six regional medians were between 7.3 and 12.6 percent.

Inflation in South America was consistently higher than in all other regions. The median rate is 59.2 percent, and 9 of the 10 countries had averages of 20 percent or higher. For 6 South American countries, average inflation averaged 50.0 percent or more per year during these 25 years. The averages were between 50 and 99 percent in Bolivia, Chile, and Uruguay, while Argentina, Brazil, and Peru had averages that exceeded 100 percent. Across the other five geographic areas, only two other country averages exceeded 100 percent (Democratic Republic of Congo and Nicaragua), and just four fell into the 50–99 percent range (Israel, Mozambique, Turkey, and Uganda).

Most South American countries have one or more programs that provide income security to the unemployed. Unemployment insurance, severance pay, and social assistance programs are all present in this geographic area. Given the persistently high inflation experienced in the region, it is especially important to ensure that the value of payments is not eroded by high inflation.⁷ Indexation needs to be present, and its provisions must be effective if such protection is to be provided. Chapter 7 examines this topic in more detail.

Table 2.2 also summarizes real GDP growth rates for the same geographic areas. In the period from 1970 to 1995 about half of the countries experienced average real growth rates between 2.0 and 3.99 percent per year. Of the 17 countries with real growth below 2.0 percent per year, 7 were in Sub-Saharan Africa and 4 each were in OECD-20 countries and Central America and the Caribbean.

High real GDP growth rates were concentrated in East and South Asia. Fourteen of the 22 countries had growth rates above 4.0 percent

Table 2.2. Average Inflation Rates and Real GDP Growth Rates in Six Regions, 1970–1995

	OECD-20	E. and So. Asia	N. Africa & M. East	Sub-Sah. Africa	South America	Cent. Am. & Carib.	Total
Countries	20	22	17	42	10	11	122
Average GDP							
inflation rate (%)							
0.00–9.99	16	11	6	13	0	1	47
10.0–19.99	4	7	2	9	1	7	30
20.0–29.99	0	0	1	2	3	1	7
30.0–49.99	0	1	0	3	0	1	5
50.0–99.99	0	0	2	2	3	0	7
100.0+	0	0	0	1	3	1	5
Total reporting	20	19	11	30	10	11	101
Median	7.3	9.2	8.5	10.9	59.2	12.6	10.8
Average real							
GDP growth (%)							
Negative	0	0	0	2	0	1	3
0.0–0.99	0	0	1	3	0	1	5
1.0–1.99	3	1	0	2	1	2	9
2.0–2.99	11	0	2	7	4	1	25
3.0–3.99	5	4	1	8	1	4	23
4.0–4.99	1	3	2	3	2	2	13
5.0–5.99	0	2	3	3	2	0	10
6.0–6.99	0	2	1	0	0	0	3
7.0–7.99	0	4	0	0	0	0	4
8.0+	0	3	1	2	0	0	6
Total reporting	20	19	11	30	10	11	101
Median	2.6	5.8	4.8	3.0	3.2	3.4	3.4

SOURCE: IMF (1999, 2000, 2001); Council for Economic Planning and Development (2003).

per year. Nine of the 13 countries with growth rates in excess of 6.0 percent per year were from this region. The median growth rate of 5.8 percent per year in East and South Asia was 2.4 percentage points above the worldwide average of 3.4 percent. North Africa and the Middle East was the only other region where the median growth rate for the period was above the worldwide average.

Since so much of the world's economic output is concentrated in the OECD-20 countries and East and South Asia, it is interesting to compare their growth rates: the median was 2.6 percent for the OECD-20 countries (the lowest across the six regions) and 5.8 percent for East and South Asia. Using the "rule of 70," real GDP would be expected to double in 27 years for a typical OECD-20 country but in just 12 years for a typical country from East and South Asia.⁸

Five economies from East and South Asia are frequently described as "Asian tigers." The real GDP percentage growth rates for these five are as follows: Hong Kong, 7.4; Korea, 7.9; Malaysia, 7.6; Singapore, 8.3; and Taiwan, 8.5.⁹ All five have above-average to high levels of per-capita GDP. Of course, it will be interesting to see if this past high growth can be sustained in the future.

The favorable potential effects of real economic growth can be reduced or even nullified by a high rate of population growth. The top panel of Table 2.3 summarizes population growth for the same 25 years. For the 101 countries that report data, the median population growth was 2.2 percent per year. If this rate were sustained, the world's population would double every 32 years.

Large differences in rates of population growth are observed in Table 2.3. The OECD-20 countries have low rates, with only one rate as high as 1.5 percent per year. Of the 5 with growth rates of 1.0 percent or higher, 4 are the English-speaking former colonies of the United Kingdom (Australia, Canada, New Zealand, and the United States). Germany had growth above 1.0 percent only because of reunification. All 14 West European countries plus Ireland and the United Kingdom have population growth rates below 1.0 percent per year.

High population growth is found in two regions: North Africa and the Middle East, and Sub-Saharan Africa. Note that their medians, 2.9 and 2.8 percent, respectively, are substantially higher than the all-country median of 2.2 percent. Further, of the 23 countries with growth rates above 3.0 percent per year, 18 are from these two regions. No

Table 2.3 Average Population Growth Rates and Real Per-Capita GDP Growth Rates in Six Regions, 1970–1995

	OECD-20	E. and So. Asia	N. Africa & M. East	Sub-Sah. Africa	South America	Cent. Am. & Carib.	Total
Countries	20	22	17	42	10	11	122
Average population growth rate (%)							
0.0–0.49	8	0	0	0	0	0	8
0.5–0.99	7	1	0	0	1	1	10
1.0–1.49	4	2	0	4	0	1	11
1.5–1.99	1	3	0	2	3	0	9
2.0–2.49	0	8	4	3	2	3	20
2.5–2.99	0	4	2	8	2	2	20
3.0–3.49	0	1	1	9	2	1	14
3.5–3.99	0	0	1	3	0	1	5
4.0+	0	0	3	1	0	0	4
Total reporting	20	19	11	30	10	11	101
Median	0.5	2.1	2.9	2.8	2.2	2.5	2.2
Average growth in per-capita real GDP (%)							
Below –1.0	0	1	2	8	0	2	13
–0.99– –0.01	0	0	1	6	1	1	9
0.0–0.99	1	1	1	5	3	4	15
1.0–1.99	8	2	1	5	2	3	21
2.0–2.99	8	6	4	3	4	1	26
3.0–3.99	3	0	2	0	0	0	5
4.0–5.99	0	4	0	2	0	0	6
6.0+	0	5	0	1	0	0	6
Total reporting	20	19	11	30	10	11	101
Median	2.0	2.9	2.1	0.4	1.7	0.6	1.5

SOURCE: IMF (1999, 2000, 2001); Council for Economic Planning and Development (2003).

country from these two regions has a growth rate below 1.0 percent, and just 6 of 41 have growth rates below 2.0 percent. Finally, note that the population growth in East and South Asia and South America matches the all-country average.

The bottom panel in Table 2.3 combines real GDP growth with population growth to show the pattern of change in annual per-capita real GDP. Highest growth occurred in East and South Asia. The median of 2.9 percent for this region was almost exactly double the all-country average of 1.5 percent. Nine countries from this region had per-capita real GDP growth that exceeded 4.0 percent per year. Only three other countries had such high growth, and all were from Sub-Saharan Africa.

Several countries in the OECD-20, North Africa and the Middle East, and South America had above-average growth in per-capita real GDP during these 25 years. In contrast, most countries in both Sub-Saharan Africa and Central America and the Caribbean experienced growth of less than 1.0 percent per year. The low medians in these two regions fall short of the overall median, and the shortfalls are substantial (0.4 and 0.6 percent, respectively) compared with the all-country median of 1.5 percent. The situation in Sub-Saharan Africa seems especially serious, with low per-capita GDP (Table 2.1) as well as low growth. High population growth may be contributing to low growth in per-capita real GDP in the region.

Considering the regional data summarized in Tables 2.1, 2.2, and 2.3, four final observations seem appropriate. First, there are wide differences in average income across regions with very high income characteristic of the OECD-20 countries and very low income characteristic of the Sub-Saharan African countries. Second, sustained high rates of inflation are characteristic of just one region, South America. Third, rapid rates of economic growth were most pronounced in East and South Asia between 1970 and 1995. Output grew much more rapidly than the population, with a resulting high growth in per-capita real GDP. Finally, low growth in per-capita real GDP occurred in Sub-Saharan Africa and Central America and the Caribbean from 1970 to 1995, and a probable contributing factor was high population growth.

UNEMPLOYMENT AS A MACROECONOMIC INDICATOR

Within any economy, regardless of its level of per-capita GDP, the bulk of household income is derived from labor market earnings. The

inability to secure meaningful and remunerative employment spells economic hardship for affected individuals and their dependents. Lack of work also has deleterious consequences for mental health, family stability, and participation in the wider society.

Inadequate demand for labor services for the working-age population has two important manifestations: unemployment and underemployment. As defined earlier, an unemployed person is able and willing to work but unable to secure a job. An underemployed person is in one (or both) of two situations: 1) the worker has a job but at a skill level below that for which he or she has been trained, or 2) he or she has a job but is working fewer hours than desired. Both aspects of underemployment cause the earnings of affected persons to be less than the earnings derived from standard hours of work at usual or customary occupations.

Unemployment is more directly amenable to measurement than underemployment. For a specific reference period, say last week, it is comparatively easy to determine if a person was employed or not and, if not, whether the person was actively trying to secure employment. Underemployment is more difficult to measure, because an individual's desires regarding hours of work and/or the skills provided by past training may not match well with the types of jobs available in the labor market. In the aggregate labor market, unemployment and underemployment are both high when demand for labor is deficient relative to labor supply.

At the level of individuals and families, unemployment and underemployment imply low income and economic hardship. When large numbers of labor force participants are in these situations there are macroeconomic consequences such as deficient aggregate demand and needlessly low total employment. Because it is easier to measure than underemployment, unemployment is a key yardstick for assessing a nation's economic performance. The unemployment rate (the ratio of unemployment to labor force, expressed as a percentage) in most countries is as important or more important than the inflation rate and the rate of real GDP growth as an aggregate indicator of economic performance.

Unemployment is measured in three principal ways: as official unemployment, registered unemployment, and/or from estimates based

on LFSs. Many countries rely on more than one of these methods of measurement.

Some countries publish periodic estimates of “official” unemployment. These estimates are derived by differing methodologies and may incorporate information from periodic surveys or censuses of the labor force, data from selected geographic areas (perhaps large cities), and/or information on persons registered as job seekers with local offices of the labor exchange. Official estimates may severely underestimate total unemployment because of the inadequate frame (scope) of the information used. The methodology of official estimates differs from one country to the next. Even within a given country, official estimates are sometimes subject to manipulation to improve the appearance of the country’s unemployment situation.

Registered unemployment provides a count of persons registered as job seekers with local offices of the public labor exchange. The motives for registration are varied. Often the country will require registration for persons who receive UI benefits or other cash payments, or who participate in temporary employment programs. Some registrants may already be employed and seeking a better job through the labor exchange. Others may not be actively seeking work, but they may register to derive some benefit or service which requires registration. The level of registered unemployment reflects the pervasiveness of the public employment service (PES) in the economy. Its penetration is typically greater in urban areas than in agricultural and other rural areas. In countries where the public labor exchange has only a limited presence in the labor market, registered unemployment will severely underestimate total unemployment.

Unemployment as estimated from a periodic LFS or census information has the potential to portray comprehensive and unbiased estimates of unemployment. Over the past 50 years, LFSs have become well-established phenomena in many countries. Periodic measurements of employment, unemployment, hours worked, and earnings using information drawn from representative samples of households have become commonplace and are nearly universal in countries with high per-capita GDP. Of the 150 countries covered by Table 2.1, 28 of the 30 with the highest per-capita GDP conducted LFSs in 1999, often on a monthly basis. Information from these surveys permits close tracking of short-term and longer-term developments in the labor market.

Because an LFS poses questions regarding each household member of working age, they provide valuable information on key labor market outcomes. Not only is it possible to count the number of persons unemployed, but it is also possible to obtain information about their characteristics. If a country does not have a consistent and reliable estimate of unemployment, it is difficult to assess the adequacy of unemployment protection. In particular, counts of beneficiaries can be compared with total unemployment, as well as the coverage of programs, access to benefits, and duration of benefits. Hence, an LFS can be helpful in evaluating unemployment protection in countries with income support programs. Given the importance of these surveys, background information on the presence and frequency of LFSs around the world follows.

LABOR FORCE SURVEYS

In the years since World War II, LFSs have become well established in the statistical-economic measurement systems of many countries. They provide macro information on the labor market through estimates of the overall unemployment rate. Such surveys also help to pinpoint problem areas in the labor market by gathering information on unemployment and underemployment by age, gender, ethnicity, skill level, and geographic area. The surveys also provide useful information on hours worked, hourly compensation, total earnings, and other sources of income. Because LFS data have many useful applications, they have been adopted in numerous countries. In 1999, for example, 82 of the 150 countries included in Table 2.1 had an LFS.

Tables 2.4 and 2.5 provide summary details on LFS growth from 1949 to 1999. Table 2.4 traces the growth in the number of independent countries during these 50 years, with six end-of-decade counts of independent countries in the eight major regions used in Table 2.1. Changes by decade are also displayed. By 1999 there were nearly twice as many independent countries as in 1949 (150 versus 78).¹⁰ As noted above, the countries included in Table 2.4 account for the bulk of the world's population, 5.90 billion persons, or 99 percent of the worldwide total in 1999.

Table 2.4 Number of Independent Countries, by Major Geographic Area, 1949–1999

Independent countries	1949	1959	1969	1979	1989	1999	1949–1999 Change
OECD-20 countries	20	20	20	20	20	20	0
Central-Eastern Europe	8	8	8	8	8	12	4
Former Soviet Union	1	1	1	1	1	16	15
East-South Asia	15	19	20	22	22	22	7
North Africa-Middle East	11	14	16	17	17	17	6
Sub-Saharan Africa	3	10	36	39	40	42	39
South America	10	10	10	10	10	10	0
Cent. America-Caribbean	10	10	11	11	11	11	1
Total	78	92	122	128	129	150	72
Ten-year change		14	30	6	1	21	

SOURCE: Rajewski (1998).

Table 2.5. Countries with Labor Force Surveys, 1949–1999

Labor force survey	1949	1959	1969	1979	1989	1999	1949–1999 Change
OECD-20 countries	2	7	11	18	19	20	18
Central-Eastern Europe	0	0	0	0	0	10	10
Former Soviet Union	0	0	0	0	0	8	8
East-South Asia	1	2	6	12	14	14	13
North Africa-Middle East	0	2	4	6	7	7	7
Sub-Saharan Africa	0	0	0	1	5	5	5
South America	0	0	5	8	10	10	10
Cent. America-Caribbean	0	0	2	5	8	8	8
Total	3	11	28	50	63	82	79
Ten-year change		8	17	22	13	19	

SOURCE: Data mainly from a 1989 survey by the ILO (1990) and an ILO update survey (2001).

Table 2.5 traces the increased LFS prevalence for the same period. Only three countries had LFSs in 1949 (Canada, Japan, and the United States). By 1999, however, the number had grown to 82, or 55 percent of the 150 countries. Table 2.5 shows that a measurable rate of LFS adoptions occurred during each decade. In all five decades, more than 10 percent of the countries that entered the decade without an LFS adopted one during the decade.

Note the particularly fast pace of adoptions in the CEE-FSU countries during the 1990s. By 1999 18 of 28 countries mounted an LFS. The pace of adoptions was particularly rapid among CEE countries, with 10 of 12 supporting an LFS by 1999.¹¹ Switzerland was the only country outside the CEE-FSU region to adopt an LFS during the 1990s.

The scope and details of the surveys vary from country to country. Table A.1 in Appendix A provides selected information about the LFS conducted in each country. The table draws heavily upon work of the International Labour Office (ILO). To elicit the details of the LFSs present in member countries, the ILO conducted a survey in the late 1980s and again in 2001. Its questions spanned the details of sampling and statistical reliability as well as the scope and item content of the LFS questionnaires (ILO 1990).

Across the eight broad regions, the comparative scarcity of surveys in Sub-Saharan Africa stands out—just 5 of these 42 countries have an LFS. In two other regions—the FSU and countries of North Africa and the Middle East—fewer than half the countries have one. Across the other five regions, substantially more than half of the countries have an LFS. All countries in the OECD-20 group and South America have an LFS.

Labor force surveys vary in frequency from 1 to 12 times per year. The bulk, however, have a frequency of 1, 2, 4, or 12. There have been examples of countries mounting three surveys per year and China still does this.¹² Some countries such as Guatemala, India, and Syria plan on surveys every two or five years while some also mount surveys on an irregular basis. Of the 82 countries with LFSs identified in Table A.1, all but 11 have at least one LFS per year.

Several countries now conduct a monthly LFS. Some countries with 12 surveys per year release information for consecutive three-month periods. Because their sample sizes are limited, data for adjacent months are combined to reduce short-run noise in the estimates. Chile

and Hong Kong both release information for adjacent three-month periods rather than for the individual months. Some countries, such as the Netherlands, conduct surveys continuously. This practice helps to keep interviewers continuously employed and reduces attrition among the survey staff.

In several countries, particularly in South America, the surveys are restricted to urban areas. Chile supports both a national survey and a survey just for Santiago. Since unemployment in rural areas is likely to be qualitatively different from urban unemployment, restricting the geographic scope to urban areas is appropriate for many countries. As economic development has progressed, several countries have expanded the scope of their surveys from some initial (largest) urban areas to more urban areas and/or the full country (e.g., Australia, Brazil, Chile, and Mexico).

All surveys restrict the age group to whom the employment and unemployment questions are posed. Increasingly the minimum age for labor force questions is 14, 15, or 16 years, but younger ages are still used in several countries. The minimum age in 1999 was less than 14 years in 20 countries, and most of these countries have below-average per-capita GDP. Several countries (Chile, the Philippines, Portugal, Thailand, and the United States) have increased the minimum LFS age. As economic development progresses and schooling extends to older ages, the LFS minimum ages have been raised.

While most societies expect workers to retire at some point in their lives, some persons continue to work past the standard retirement age. Only 12 countries place an upper limit on the age for asking labor force questions. These upper age limits range from 59 to 74 years, with 64–66 and 72–74 being the most common. The LFS in most countries continues to trace the labor force activities of persons after reaching retirement age.

In nearly all surveys, the sequence of questions about employment and unemployment posed to persons of working age starts with employment. Most surveys ask about employment during the preceding week and treat it as a yes-no situation, with a very low threshold of hours worked for defining employment. Typically, a person paid for one or more hours of work during the week will be classified as employed. Unpaid family workers may require a higher threshold, such as 15 hours in the United States. Countries count persons temporarily

away from jobs for reasons such as illness, labor disputes, holidays, and vacation days as employed. With such a broad definition of employment, someone classified as employed may nevertheless be experiencing substantial economic hardship. Many are underemployed either through involuntary work of less-than-preferred hours or work at wages not commensurate with their skill level. Several countries attempt to measure underemployment in their LFSs, but the ILO member countries have yet to establish a common definition of underemployment at this point in time.

Since the distinction between being unemployed and being economically inactive may not be obvious, LFS questions typically probe to ascertain how much job search the person has done recently. In contrast to the employment questions which refer to the past week, unemployment questions often have a longer reference period. The most common reference periods listed in Table A.1 are last week (35 countries) and the trio of four weeks, one month, and five weeks (34 countries). Observe, however, that nine countries have reference periods ranging from eight weeks to one year. These longer reference periods are usually found in countries with low per-capita real GDP. Reference periods also vary systematically by broad geographic area. For the OECD-20 countries, the reference period is either four weeks or one month. In 14 of 18 CEE-FSU countries, a one-week reference period is used. One-week reference periods are also common in East and South Asia, North Africa and the Middle East, and South America. Use of a longer reference period will increase the counts of unemployment while reducing counts of those classified as out of the labor force.

In all countries, regardless of the reference period, the interviewer must classify each person of working age as either employed, unemployed, or out of the labor force (economically inactive), and this often poses difficult problems. Survey responses are not verified by external information such as registration with the PES or documentation of recent attempts to secure a job through direct contacts with employers. Also, surveys in many countries recognize discouraged workers—those who have stopped actively seeking work from a belief that no jobs are available in the local labor market. At the level of individual respondents, errors undoubtedly are made in assigning individuals to the labor force status of being unemployed.

From one country to the next, the LFS concepts used to measure employment and unemployment can differ. Cross-country differences

in the LFS definitions of unemployment, however, are larger than in the definitions of employment. One hour in paid employment during the last week is widely used to define employment. For unemployment, there is more variation in factors such as the job search reference period and the amount and intensity of search activity required to be classified as unemployed (as opposed to economically inactive). Also, differing minimum ages for inclusion in the LFS have larger effects on estimates of unemployment because young workers traditionally experience high unemployment rates. Thus, care must be exercised in comparing unemployment rates of different countries.

In recent years significant efforts have been made to construct “comparable” or “harmonized” measures of employment and unemployment across countries. The Bureau of Labor Statistics of the U.S. Department of Labor periodically issues labor force data based on U.S. labor force concepts for 10 countries (the G7 countries plus Australia, the Netherlands, and Sweden; see Sorrentino 1995). Eurostat of the European Union (EU), the ILO, and the OECD also have developed comparable labor force data for groups of countries. The OECD publication *Labour Force Statistics* now routinely displays “comparable” labor force, employment, and unemployment data for its 30-member countries. The ILO also publishes annual estimates of employment and unemployment for more than 30 of its member countries (Lawrence 1999), including several from outside the OECD. One factor encouraging the increased comparability of cross-country LFS data is a set of guidelines issued by the ILO for measuring the labor force, employment, and unemployment. Efforts to improve the cross-country comparability of LFS data will continue.

While efforts to harmonize LFS measurement of employment, unemployment, and unemployment rates have been significant, disparities remain.¹³ One good example is provided by the different treatment of passive job seekers in Canada and the United States. Someone whose only job search activity consists of reading newspaper advertisements about job openings is described as a passive job seeker. Such persons are classified as unemployed in Canada but as out of the labor force in the United States. Between 1977 and 1998 the gap between the Canadian and U.S. unemployment rates grew from 1.0 percentage point to 3.8 percentage points (8.3 percent versus 4.5 percent in 1998). The differing treatment of passive job seekers accounted for 0.1 percentage

point of the difference in 1977 but 0.8 percentage point in 1998 (Table 1 in Sorrentino 2000). Thus, about one-fifth of the gap in 1998 was caused by this single difference in the LFS measurement.

Table A.1 displays average LFS unemployment rates for several countries during three periods: 1980–1989, 1990–1994, and 1995–1999. Table 2.6 provides summaries of these rates. The countries in Table 2.6 are arranged into four geographic regions, combining the CEE and FSU countries and the South American, Central American, and Caribbean countries (Lat.Am.-Carib.).¹⁴ For each of the 10 columns in Table 2.6, average unemployment rates have been grouped into six ranges. Mean, median, and number of included countries are also shown. All distributions and summary measures are based on groups of at least 11 countries. The countries in each region are weighted equally even though their labor forces vary greatly in size. The CEE-FSU averages appear just for the period 1995–1999 since many of their surveys commenced only in 1993 or 1994.

The most striking feature of Table 2.6 is the contrast between countries in East and South Asia and those in the other regions. For all three periods, most of the Asian countries had average unemployment rates below 5.0 percent. For the other three regions, the majority of the averages were 7.0 percent and higher. The medians and means further emphasize the low Asian unemployment rates. All medians and means are below 5.0 percent for the Asian economies while all are above 7.5 percent for the economies in the other regions. While the Asian median and mean did increase between the 1990–1994 and 1995–1999 periods, the increases were relatively modest. Even with the Asian financial crisis of 1997–1999, low averages still prevailed.

The medians and means for the CEE-FSU countries during the 1995–1999 period are the highest of all entries in Table 2.6. On average, high unemployment is more prevalent here than in the other regions. Only two of these countries had unemployment rates below 7.0 percent during the 1995–1999 period while six had rates of 12.0 percent or higher. Unemployment in the transition economies was highest across all the regions where most countries undertake systematic measurement of unemployment using LFSs.

High unemployment known from LFS data implies widespread economic hardship for many individuals and families. This hardship provides the prime reason why unemployment protections are needed.

Table 2.6 Average Unemployment Rates, by Region, 1980s and 1990s

Average unemp. rates (%)	OECD-20			CEE-FSU	East and South Asia			Latin America and Caribbean		
	1980–99	1990–94	1995–99	1995–99	1980–89	1990–94	1995–99	1980–89	1990–94	1995–99
Under 3.0	2	1	0	0	4	7	4	0	0	0
3.0–4.99	3	1	4	0	5	2	4	3	3	3
5.0–6.99	2	5	4	2	1	1	2	2	4	2
7.0–8.99	4	3	4	2	0	1	1	0	6	3
9.0–11.99	6	8	6	5	1	0	1	7	0	3
12 and up	2	2	2	6	0	1	0	2	3	5
Median	7.6	8.7	7.7	11.2	3.2	2.4	3.8	9.8	7.8	7.8
Mean	8.1	8.7	8.4	11.2	3.9	4.1	4.6	9.9	8.3	9.5
Number	19	20	20	15	11	12	12	14	16	16

SOURCE: Data taken mainly from the ILO Web site: <http://laborsta.ilo.org>.

Unemployment insurance, unemployment assistance (UA), and other programs help to cushion the impact of unemployment. Labor force surveys provide important information about not only the numbers but also the characteristics of those who experience unemployment. Surveys can also be helpful in assessing the adequacy of unemployment protections in countries with UI and UA programs. Unemployment protection programs are examined in the next chapter.

To be most useful to economic and other policymakers within a country, LFSs should be conducted on a continuing basis. Continuous LFS information helps in the detection of business cycle developments. It is also easier to interpret seasonal labor force developments if measurements are made in different seasons. Finally, the presence of labor market problem areas (e.g., dislocated worker unemployment, low-skill unemployment, and youth unemployment) can be detected in labor force data. Used in conjunction with other information, an LFS helps to monitor labor market developments.

The preceding arguments for the merits of surveys are widely known and appreciated. Mounting a repeated LFS, however, involves costs and several technical issues in design, data processing, and interpretation of survey information. Cost considerations are particularly acute if a country has a modest or low level of income. Therefore, the surveys are much more common in high-income countries than they are elsewhere.

To examine the linkage between income (per-capita real GDP) and the presence of an LFS, a set of regression relations are estimated. All of the regressions use per-capita real GDP as a principal explanatory variable. The relations also test for the presence of systematically different regional rates of LFS usage by using dummy variables to represent countries from different regions.

The analysis focuses not only on presence of an LFS in each country but also on the ongoing use of a LFS. To approximate ongoing use, the reporting of LFS results to the ILO (or in own-country publications) is noted. Table A.1 shows how many years between 1990 and 1999 a country's unemployment rate appeared on the ILO Web site. Countries that reported unemployment rate data in six or more years of the 1990s were considered as making ongoing use of their LFSs. Of the 82 countries identified as having an LFS, 67 reported on their unemployment rate for at least six years during the 1990s.¹⁵

Table 2.7 displays four regressions fitted by ordinary least squares to explain either the presence of an LFS in 1999 or ongoing use of an LFS during the 1990s. All specifications include per-capita real GDP as a variable, and two include regional dummy variables. All coefficients in the regressions are highly significant, with t -ratios of 3.3 or larger. For the per-capita real GDP variable, the t -ratios were 7.2 or larger. The fraction of variation explained ranges from 0.25 to 0.53. Labor force surveys are much more likely in countries with high income than countries with low income. Ongoing LFS use is even more closely associated with per-capita real GDP than is LFS presence. The coefficients and associated t -ratios for per-capita real GDP are larger in the second pair of regressions than in the first pair. The adjusted R^2 s and standard errors also suggest that the latter two regressions fit better than the first two in Table 2.7.¹⁶

Note that the regional dummy variables make highly significant contributions to explained variation in two equations. All three dummy coefficients are positive, suggesting that the presence of an LFS and

Table 2.7 Regression Analysis of Presence and Ongoing Use of Labor Force Surveys

	LFS, 1999		Ongoing use of LFS, 1990s	
	Without dummies	With dummies	Without dummies	With dummies
Constant	0.314	0.091	0.178	-0.053
Relative per-capita real GDP	0.232 (7.2)	0.266 (9.2)	0.268 (8.8)	0.303 (11.6)
Dummy, CEE-FSU		0.347 (4.1)		0.357 (4.7)
Dummy, East and South Asia		0.302 (3.3)		0.323 (3.9)
Dummy, Latin America and Caribbean		0.569 (6.0)		0.592 (7.0)
Adjusted R^2	0.253	0.421	0.340	0.526
Standard error	0.432	0.380	0.405	0.343
Mean dep. variable	0.547	0.547	0.447	0.447
Number observations	150	150	150	150

NOTE: Regressions based on a sample of 150 countries with populations of one million or more citizens in 1999. Beneath each coefficient is the absolute value of its t -ratio. Per-capita real GDP measured relative to world average income. Individual countries and regions identified in Table A.1.

the ongoing use of an LFS are more likely in the three identified regions even after controlling for the effects of income. The size of the dummy coefficient and its significance are particularly noteworthy for the CEE-FSU countries. Since per-capita real GDP is also included in the regressions, the significance of the dummy variables suggests that other sociopolitical factors present in these regions also are important. The low-use countries are located in two regions: North Africa and the Middle East and Sub-Saharan Africa.¹⁷ In short, it seems that income differences and other sociopolitical factors each contribute to cross country variation in both the presence of and the ongoing use of LFSs.

FULL EMPLOYMENT

The labor market in any economy is characterized by constant churning as new jobs appear, old jobs disappear, and workers move into and out of employment as well as into and out of the labor force. Even when the labor market is functioning efficiently, a certain volume of unemployment will accompany this turnover of jobs and workers. While unemployment always exists, a low volume is to be expected if the total number of jobs equals or exceeds the size of the labor force. When labor supply and demand are in balance, the associated unemployment rate can be termed the full-employment unemployment rate, defined as the unemployment rate below which inflation tends to accelerate.¹⁸

Labor force surveys yield unemployment data that help to define full employment. They provide estimates not only of the number of unemployed relative to the total labor force but also the rate of unemployment occurrences and the length of the spells for unemployed workers. Full employment may be accompanied by a high volume of new unemployment spells but short average duration of individual spells. When demand for workers is deficient, unemployment spells lengthen, increasing economic hardship for affected individuals and families. The primary purpose of programs such as UI is to lessen these hardships.

Long spells may also reflect the effects of inappropriate labor market institutions. Two areas of concern that have been highlighted are

employment protection legislation (EPL) and the provisions of unemployment protection payments. Restrictive EPL provisions, such as lengthy advance notice periods for mass layoffs and factory closings and generous mandated severance packages, have been identified as contributing to low accession rates, reducing new job openings, and contributing to lengthened unemployment duration. Research on this effect has been undertaken in OECD countries (Blanchard and Portugal 2001; OECD 1999), where EPL indices were first developed. More recently this work has been extended to countries in Latin America (Heckman and Pages 2000) and the CEE (Riboud, Sanchez-Paramo, and Silva-Jauregui 2001). Countries with more strict EPL provisions are found to have longer unemployment duration. The effects of UI benefits on unemployment duration have been documented in numerous studies. One standard reference is a survey paper by Atkinson and Micklewright (1991). Two aspects of UI benefit provisions are important: high benefit generosity and long potential benefit duration. Both operate to increase unemployment duration. Long unemployment duration is examined in more detail in Chapter 8.

Because labor market features and institutions differ across countries, it is likely that the full-employment unemployment rate also varies across countries. One consequence of having comparable cross-country labor force data is that a question such as this could be examined empirically. As more work on LFS comparability is completed, progress in answering this question can be anticipated. In the interim, it seems clear that observed unemployment rates within a given country reflect both the balance of supply and demand in the labor market and the institutions that impinge on the labor market. The relationship between these two factors may not be direct. Blanchard and Wolfers (2000), for example, suggest that labor market institutions interact with demand conditions to produce observed unemployment rates.

For this discussion, it is sufficient to note that the unemployment rate is a very useful indicator for suggesting whether or not an economy is at full employment. Short-run changes in unemployment signal movement toward or away from full employment. Comparisons of unemployment rates across countries must be done with greater caution, because of differences in both labor force measurement and in labor market institutions, such as EPL and unemployment protections.

THE LINKAGE BETWEEN OUTPUT GROWTH AND EMPLOYMENT GROWTH

Economic performance in the product market and the labor market of any economy are closely linked. The discussion to this point has addressed economic performance in the two markets separately. Here, their connection is explored with an empirical analysis of employment change. When real GDP increases more rapidly, it typically causes employment to increase at a faster rate. Since labor productivity usually increases each year, however, annual real output must grow simply to keep aggregate employment from decreasing.

This section examines the association between real output growth and employment growth using multiple regressions based on annual data. The specification is straightforward: current and lagged output growth affect employment growth. Including lagged output change permits the total employment response to be spread over two years. The relationship is fitted to data measured as annual changes (first differences). It is expected that current and lagged changes in real GDP will both exhibit a positive association with employment growth. It is also anticipated that the intercept in the employment change relationship will be negative, reflecting the effects of labor productivity growth in reducing employment at a given level of output.

The investigation is restricted to countries in two broad geographic areas: the OECD-20 countries and the countries of East and South Asia. Countries from these two broad areas accounted for 78.8 percent of real GDP among the 150 countries included in the analysis. The regressions utilize LFS employment data, but because these data are not available for long periods in many countries, the results are reported for just 29 countries. Where possible, the estimation period spanned the 32 years from 1971 to 2002. One objective of the analysis is to compare the response of employment to output change across these two broad geographic regions.

A priori one might expect to observe a larger employment response to output changes in the OECD-20 countries than in the Asian countries for at least four reasons. First, real wages may be more flexible in Asian economies. One contributing factor would be lower unionization, which would give employers more flexibility in wage setting. To the extent that wages (hourly compensation and/or year-end bonuses)

adjust more in the short run to output shocks, there is a reduction in the size of the needed employment response. Second, in some Asian countries, employers may be more reluctant to sever workers when demand decreases, resulting in a larger adjustment in hours per worker than in OECD-20 countries. Third, self-employment is more prevalent in Asian economies, which may add stability to overall employment. The self-employed can adjust to shocks by varying their selling prices (with an associated effect on their own income) to remain employed in the face of changes in demand. Finally, the presence of a large agricultural sector may allow urban workers to find alternative employment more easily when they experience layoffs in cities. Having a larger agricultural sector and closer family ties to that sector among urban residents may cause this migration response to be larger in Asia than in the OECD-20 countries. All four considerations imply a smaller employment response in Asia.

Table 2.8 summarizes the key findings of the regression analysis. The sums of the coefficients on current and lagged changes in real GDP are displayed in ranges along with medians and means for countries in the two geographic areas. The regressions themselves are displayed in Table B.1 of Appendix B. Both tables provide strong evidence for a

Table 2.8 Regression Analysis of Employment Response Coefficients on OECD-20 and East and South Asian Countries

Two-year employment responses	OECD-20	East and South Asia
>0.80	6	0
0.70–0.799	6	0
0.60–0.699	0	1
0.50–0.599	0	1
0.40–0.499	2	2
0.30–0.399	2	1
0.20–0.299	2	1
<0.20	2	3
Median	0.748	0.330
Mean	0.594	0.351
Number	20	9

NOTE: Employment responses are measured as the sum of coefficients on current and lagged changes in real GDP. Most regressions use data that extend from 1971 to 2002.
SOURCE: Time-series regressions shown in Appendix B.

systematically smaller employment response in the Asian economies. It should be noted that the 9 Asian countries are drawn from the high end of the per-capita GDP distribution. Table 2.1 indicated there are 22 countries from this area. The 9 included the 8 with the highest per-capita GDP in 1999 along with Indonesia. The 11 Asian countries with the lowest incomes were not included due to data unavailability.

Table 2.8 indicates that the employment responses are not only larger in the OECD-20 countries but also that the disparities with Asian countries are very large. The coefficient sum is 0.70 or larger for 12 of the OECD-20 countries. No Asian country has a coefficient sum as large as 0.70, and only 2 have sums as large as 0.50. The medians and means show that the typical two-year employment response in OECD-20 countries is about twice the size of the response observed in Asian countries.

These regression findings have three implications. First, with a smaller response of employment to output changes, it is likely that unemployment rates would be systematically lower in Asian as compared with OECD-20 countries. Second, since unemployment protection programs mainly serve those who are fully unemployed, as opposed to underemployed, there may be less of a role for social protection programs in Asian economies because there is a smaller flow into unemployment than in other geographic regions of the world. At the same time, it is possible that there may be a greater role for coping mechanisms in Asian economies. Finally, even though employment may exhibit a smaller response to output changes, it does not follow that recession-induced changes in poverty will be smaller in Asia than elsewhere. Downward adjustments of wages and hours per worker also cause family income to fall, causing increased economic hardship even though a larger fraction of the labor force remains employed.

The following chapters examine unemployment protection arrangements and contrasts in these arrangements in different areas of the world. The analysis assumes that the unemployment rate provides a good indication of the need for unemployment protection. It must always be kept in mind, however, that each country's unemployment rate reflects macroeconomic performance in the product market. Strong real output growth raises employment, reduces unemployment, and reduces both the need for, and the costs of, unemployment protection.

SUMMARY

As the data and analyses presented in this chapter show, there is great diversity in the geographic regions of the world. A number of observations stand out clearly. First, most of the world's output is generated in two regions: the countries of the OECD-20 and East and South Asia, with a combined share of 78.8 percent of the world GDP. There are different employment responses to changes in real output, however, in these two regions. When real output changes, the employment responses are systematically smaller in the Asian economies compared with the OECD-20 countries.

Second, the population data demonstrate the demographic predominance of East and South Asia. This region experienced rapid rates of economic growth between 1970 and 1995. Given that output grew much more rapidly than the population, the result was high growth in per-capita real output.

Third, the data on per-capita output show that the OECD-20 average is nearly four times the worldwide average, while Sub-Saharan African is one-fifth of the worldwide average. Low growth in per-capita real output occurred in both Sub-Saharan Africa and the region of Central America and the Caribbean from 1970 to 1995. A probable contributing factor was high population growth.

Fourth, the problems of high inflation and high unemployment tend to be associated with specific regions. Sustained high rates of inflation are characteristic of just one region, South America. Unemployment in the transition economies of the CEE-FSU region during the 1995–1999 period was very high. On the other hand, for most of the Asian countries, the average unemployment rates have historically been low.

The final observation based on the presentation in this chapter is the increase in the prevalence of LFSs from 1949 to 1999. By the end of the period, 55 percent of the 150 countries were conducting these surveys. While all countries in the OECD-20 group and South America have an LFS, the comparative scarcity of surveys in Sub-Saharan Africa stands out. As well as providing information on labor market outcomes, surveys can also be helpful in assessing the adequacy of unemployment protection programs.

Notes

1. The relationship between the unemployment rate and output was first proposed by Arthur Okun in 1962 and became known as Okun's Law. Okun's Law states that each percentage-point rise in unemployment is associated with a two-percentage point reduction in the annual growth of real GDP.
2. The Thirteenth International Conference of Labour Statisticians adopted a standard definition of unemployment that is applied by member countries. The unemployed comprise all persons above a specified age who during the reference period were: 1) without work, 2) currently available for work, and 3) seeking work. See *Volume 4: Employment, unemployment, wages and hours of work (administrative and related data)*, <http://laborsta.ilo.org>. National definitions of unemployment, however, may differ from the recommended international standard definition. The national definitions used vary from one country to another with regards to age limits, criteria for seeking work, reference periods, and treatment of persons temporarily laid off and of persons seeking work for the first time.
3. The term Western Asia is more geographically accurate than the Middle East even though Middle East remains the more common usage.
4. The low average in East and South Asia is obtained despite the inclusion of Japan and other high-income countries from this area. The demographic weight of Bangladesh, China, India, Indonesia, and Pakistan predominate in overall average per-capita output for this region.
5. A *t*-ratio of 2.0 or larger is the normal criteria for significance in a test at the 0.05 level.
6. A parallel analysis was conducted of inflation in the Consumer Price Index with results practically identical to those for the GDP deflator.
7. Inflation since 1995 has been much lower in South American countries than it was during the period from 1970 to 1995. However, given their history, there remains the risk of high inflation in future years.
8. The rule of 70 is a shorthand way to compute the time required for a value growing at a constant geometric rate to double. Doubling time is the ratio of 70 to the percentage growth rate. For example, $70/2.6 = 26.9$ years.
9. Interestingly, China's growth rate of 10.0 percent for the 17 available years of data (1979–1995) exceeded that of all five Asian tigers.
10. Table 2.4 identifies two periods when the number of independent countries increased sharply. During the 1950s and 1960s the number increased as the European colonial empires were dismantled. The country counts increased most noticeably in Sub-Saharan Africa, from 3 in 1949 to 36 in 1969. During these two decades measurable increases also occurred in East and South Asia (from 15 to 20) and in North Africa and the Middle East (from 11 to 16). The rate of change was comparatively slow during the 1970s and 1980s with the emergence of only seven new countries. The pace then increased during the 1990s with the FSU break-up and developments in the CEE causing most of the increase between 1989 (129) and 1999 (150). During these five decades the only change in the

count for three other major areas (the OECD-20 countries, South America, and Central America and the Caribbean) was an increase of one, the independence of Trinidad and Tobago in 1962.

11. Of the eight FSU countries with an LFS in 1999, three are the Baltic Republics of Estonia, Latvia, and Lithuania. If these countries had been classified as CEE countries, then the pace of adoptions in the CEE countries during the 1990s would be even more rapid, that is, 13 of 15.
12. Until recently Bulgaria and Thailand had three surveys per year.
13. The following is a short list of areas where differences in national practices persist: employed persons on extended leave, unpaid family workers, members of the armed forces (career and conscripts), residents of group quarters, persons on lay-off, the definition of job search, and the job search reference period.
14. Two regions are not included in this analysis due to the small number of countries where unemployment rate averages could be assembled. For 1995–1999, the most recent of the three periods covered by Tables A.1 and 2.6, averages could be readily assembled for only four countries in the North Africa-Middle East region and for no country in Sub-Saharan Africa.
15. For CEE-FSU countries where the LFS start date was often later than 1992, we included in the ongoing use group those where the unemployment rate was continuously available in years following the establishment of the LFS.
16. All results were qualitatively the same when logit and probit equations were fitted.
17. The countries in the OECD-20 grouping are also excluded, but they all have comparatively high incomes, at least twice the worldwide average.
18. Some economists use the term *natural rate of unemployment*; others use the *non-accelerating inflation unemployment rate*.

3

Unemployment Protection

The prevalence of UC differs markedly across the eight regions covered by this book. It is nearly universal in OECD-20, CEE, and FSU countries. The majority of countries in South America also have UC programs. On the other hand, these programs are practically nonexistent in the countries of Sub-Saharan Africa and Central America and the Caribbean, and they are comparatively rare in East and South Asia. Yet, unemployment protection does exist in the latter groups of countries, mainly in the form of active labor market measures (e.g., training or temporary public jobs programs), severance pay, social assistance (SA) programs, and social investment funds. Of course, these latter kinds of programs are present in many countries throughout the world.

This chapter briefly surveys several types of unemployment protection arrangements throughout the world before devoting primary attention to UC. Unemployment protection programs focus on the current labor force situation of a worker and provide income and other support services to the unemployed. Note that unemployment is defined as being without a job but being able to work, available to work, and actively seeking work in the labor market.¹ The subsequent discussion addresses a number of questions:

- How can unemployment protection programs be classified?
- What has been the pace and pattern of adoptions of UC programs over time?
- What determines why countries have UC programs?
- How can the costs of UC programs be measured?
- How generous are UC programs?

As noted in Chapter 2, the labor market is characterized by continuous turnover as new jobs appear, old jobs disappear, and workers change jobs, move into and out of employment, and into and out of the labor force. When jobs end, affected workers may be eligible for and receive compensation, either from a public program or from their former employers. Some payments represent deferred compensation

where entitlements were built up during past employment with a specific employer. Severance pay is a common form of deferred compensation. Other payments are compensation for the unemployment caused by job terminations. This chapter deals mainly with the second type of payments, that is, compensation for unemployment.

DEFERRED COMPENSATION AND UNEMPLOYMENT PROTECTION

Unemployment protection and deferred compensation differ in several important ways. Deferred compensation is backward looking, basing eligibility and the size of the payment on years of past employment and the level of past earnings. Payments are commonly made as a single lump sum disbursement, and current labor force status does not affect eligibility. For a person with a given history of work and earnings, the payment is the same if she/he is employed, unemployed, or not in the labor force at the time of the payment.

Perhaps most important, the payment of deferred compensation arises primarily from statutory requirements and the economic circumstances or needs of the employer. There is a need to reduce the size of the workforce or a need for a complete shutdown of operations. For workers who satisfy a minimum seniority threshold and whose termination is not for “cause,” the employer may have a statutory requirement to provide compensation.

While severance pay is the most common form of deferred compensation, other payments with similar features include bonus payments for taking early retirement and bridge payments to span the period between the date of termination and the date when the worker reaches the minimum age for a retirement pension. These latter schemes are similar to severance pay in that they compensate for a job termination. The worker is not necessarily expected to remain active in the labor force. Thus, they have features akin to pension payments.

In practice, severance pay is often linked to unemployment. Even when a termination is foreseeable, an individual may not secure a new job immediately after the termination. Thus, in many countries, severance pay is an important source of income to the unemployed. Most typically severance pay is administered by the employer, and quantita-

tive data on its performance (number of persons compensated, total payments, and average payments per worker) are not commonly available.²

Severance pay has several drawbacks as a program for compensating the unemployed. First, the lump sum form of payment does not encourage job search.³ For many individuals, there is a strong temptation to use up the severance before starting to search for new employment. Second, because the basis for entitlement is past work with a particular employer, payments go mainly to persons with long tenure (i.e., dislocated workers) and not to those with frequent job changes. Workers with frequent job changes and repeated spells of unemployment may never achieve the minimum threshold of seniority needed for eligibility. Nevertheless, they may warrant some form of social protection. Third, in situations where severance pay is a statutory mandate, it may not be delivered when payment is due.⁴ If a firm experiences bankruptcy, it may not be able to deliver required payments because other creditors (the tax authority, banks) may have higher priority claims to the firm's assets. Reinsurance arrangements with the government as guarantor could help in such situations, but these do not typically exist. Finally, mandated severance can inhibit restructuring in transition situations. For instance, in many CEE and FSU countries, employers were obligated to provide two or three months of severance upon termination. A frequent result was the retention of workers but with work schedules of zero hours or very short hours. Ultimately the adjustments did occur, but the pace of change was retarded by the severance payment requirement. More often than not, severance payments were not made in spite of the legal obligation.

Despite these limitations, severance pay is an important source of income support for workers in some countries. Indeed, it is present in countries of all income levels. Frequently, in countries with both UC and severance pay, there are offset features which reduce UC when severance is paid. Due to data limitations, however, the performance of severance pay in stabilizing worker income and reducing poverty is not well documented. The theme of severance pay in Latin American and Caribbean countries is revisited in Chapter 7.

A wide variety of unemployment protection programs exist throughout the world. Increasingly these programs require individuals in receipt of benefit payments to provide evidence of active work

search and/or other socially beneficial activities. The latter requirement has various names in different countries: activation, reciprocal obligation, or mutual obligation. Without attempting to specify the full range of possibilities, five types of programs can be identified. While additional possibilities could be added to the list, they generally would have a less direct link to the job terminations than these five.⁵ The five types of programs are 1) UI; 2) UA; 3) means-tested SA (also termed general assistance or welfare) programs; 4) programs to provide temporary employment (through public works, public service employment, social investment fund employment, or workfare); and 5) access to payments of accrued rights from past employment (withdrawals from provident funds or from individual savings accounts).

Unemployment Insurance

Unemployment insurance makes payments to unemployed persons who meet other eligibility criteria. To be initially eligible, the worker must have a minimum level of past employment and/or past wages and be separated from work under nondisqualifying conditions. Quits are often disqualifying while layoffs usually are not. The person remains attached to the labor force, and the common descriptor of this situation is able and available for work. Payments of UI are made periodically but with limited potential duration. In most UI programs, the level of the periodic payment is positively linked to the level of past earnings, and potential payment duration may also be linked to past work experience. Payments commence after serving a waiting period and terminate when maximum potential benefit duration has been reached or the person becomes reemployed. Many exceptions to this general description of UI exist. For example, in Ireland and the United Kingdom, flat benefits unrelated to past earnings are paid while Ecuador provides one lump sum payment. The exceptions, however, are comparatively rare.

Unemployment Assistance

Unemployment assistance also is paid to persons without a job who are able and available to work but with the additional constraint of a means test. Income and assets must fall below designated thresholds before the claimant can receive benefits. Potential duration of UA

may or may not be limited, and payment levels typically vary by family size and composition. Many member countries of the OECD provide both UI and UA protection to the unemployed. Generally, UI is the primary program, with UA paid to those who do not qualify for UI and/or to those who have used up (exhausted) their UI entitlement. For this book, the countries offering both protections will be considered as having UI systems. Usually UI benefits are preferred by claimants, in large part because payment levels are more generous than UA payments. Again, there are exceptions; for instance, average weekly UA in the United Kingdom has exceeded weekly UI in recent years.

Across the 150 countries presented in Chapter 2, UI is much more prevalent than UA. In 1999, 66 countries had either UI or UA. Countries with UI numbered 59, those with UA numbered 21, and 14 countries had both UI and UA.⁶ Ten of the 14 countries with both UI and UA are from the OECD-20 group of countries (Table A.1).

Social Assistance

The unemployed may also be compensated under SA programs that provide families and persons with a guaranteed minimum level of income.⁷ While UA serves the unemployed with low income, SA programs serve the low-income population more generally, with most recipients being families headed by single mothers, persons with physical disabilities and other health problems, and the elderly who do not qualify for standard old age pensions based on prior earnings and/or years of work experience. Most SA recipients are not expected to be active participants in the labor force. Unemployed SA recipients, however, are usually required to register as job seekers at a public labor exchange and to be able and available for work.

The line separating UA and SA is not always clear. Typically UA payments are the higher of the two, and the time sequence of payments is UA first and then SA. The two programs differ in the support services typically utilized, UA recipients using labor market services such as job matching and training while SA recipients utilize a wider range of services such as child care.

France and Germany are countries with UI, UA, and SA. In both countries, data on unemployed recipients of SA are less generally

available than data for UI and UA recipients. Several CEE-FSU countries make a clear distinction between unemployed SA recipients and “all other” SA recipients. They publish data that show numbers and amounts of SA compensation for the two groups. Chapter 5 examines unemployed SA recipients in CEE-FSU countries.

Temporary Employment

Several countries provide preferential rights to temporary employment for the unemployed. The employment measures are highly varied, including (but not restricted to) public works, temporary public service jobs, and employment in social investment fund projects and workfare. The jobs are typically temporary in duration with rates of pay at, or near, the minimum wage. Remuneration may be received as cash payments, but some projects also make in-kind payments (e.g., food). Eligibility may be reserved for those who are unemployed, the long-term unemployed who have exhausted rights to unemployment benefits, or more broadly to those with low income. However, others besides the unemployed may participate. Typically, participation is elective, but workfare projects require participation in work (or training) as a condition for receiving SA payments. All of these arrangements have an explicit *quid pro quo*, payments in return for work on a specified public project. The discussion of social investment fund projects, common in Latin America and Sub-Saharan Africa, is revisited in Chapter 7.

Targeting presents an important challenge in temporary employment schemes. Programs often target geographic areas with high unemployment. Administration is usually centered at the local level, and local administrators may enroll others besides members of the target population. Thus, payments may go to persons besides those for whom the program was intended.

Accrued Rights from Past Employment

Provident funds are supported by contributions from employers and workers into individual accounts. While their primary purpose is to provide income support in retirement, these funds often allow for preretirement early withdrawals for specific contingencies, such as temporary illness or permanent disability. In a few countries, unem-

ployment is one allowable contingency. While some share of the individual's account balance may be accessed, the potential payments are strictly limited by the total balance. Hence, these programs are not included in the book.

Individual savings accounts are similar to provident funds in that their main objective is to provide income support in retirement, and they also may permit early withdrawal under specified circumstances. The administrator of individual savings accounts is often a private financial management company that invests these savings in financial market instruments and deposits interest earnings (net of fees) into individual account balances. To receive "emergency" payments from individual accounts, the person must satisfy specified criteria. If he or she is unemployed, and this is an allowable contingency, documentation of termination from the employer and registration with the public labor exchange are typically required. Because withdrawals for unemployment are rarely allowed, these funds will not be discussed further.

Other Payments

As noted previously, other categories of payments could be included in addition to the preceding five.⁸ The one additional program to be noted here is special industry programs for the unemployed. Several countries have established programs in narrow industries known to have high rates of unemployment (e.g., fishing and construction). Typically, the industry is highly seasonal or subject to especially wide cyclical swings. Industry programs have sometimes preceded more broad-based national UC programs and have yielded valuable lessons in structuring national programs, such as in Argentina.

A Note on the Classifications Used

While the five types of broad-based unemployment protection programs introduced above are presented as distinct entities, in practice there are programs that do not fit neatly into one of the categories. The protection scheme in Ecuador makes a single lump sum payment to eligible unemployed persons. Eligibility is based on previous employment, and the payment is related to past earnings. This scheme is treated here as UI even though it does not feature periodic payments.

The new system established in Chile makes payments to the unemployed from individual accounts with balances linked to past contributions. However, this too is considered as UI since the program has a job registration requirement, periodic (up to five) monthly payments, and a degree of pooling; that is, there is a common fund to finance payments to those who exhaust their individual accounts. Finally, programs in 14 countries including Germany and Slovenia are also treated as UI even though these countries have dual UI-UA systems. After exhausting UI payments, eligible unemployed persons can receive UA conditioned on family income. As noted above, other features of a dual system resemble UI; for example, payment levels are related to past earnings and potential duration is limited. In the ambiguous situations, an arbitrary element entered the classification decision. The final decision concerning the classification used (UI or UA) reflects a judgment reached after weighing competing considerations.

For the rest of the discussion in this book, the term unemployment compensation is used in reference to two unemployment protection programs: UI and UA. Countries that offer UI, UA, or both are commonly described as having UC. The arguments for excluding the other protections can be briefly stated. Social assistance, individual savings accounts, and temporary employment schemes serve broader populations than the unemployed, for instance, families with low income and/or the disabled. As noted above, severance pay represents deferred compensation and not unemployment protection. Thus, while unemployed individuals may receive payments from these other programs, the programs do not exclusively or primarily compensate persons without jobs who are attached to the labor force—those able, available, and actively seeking work. Unemployment compensation as used in the subsequent discussion refers to programs whose primary client base is the unemployed.

PREVALENCE OF UNEMPLOYMENT COMPENSATION, 1949–1999

Unemployment compensation programs have become much more prevalent over the past 50 years. Table 3.1 traces developments from

Table 3.1 Growth of Unemployment Compensation Programs, 1949–1999

Region	Countries with UC programs						1949–1999 Change
	1949	1959	1969	1979	1989	1999	
OECD-20 countries	19	19	19	20	20	20	1
Cent.-Eastern Europe	0	1	1	2	3	12	12
Former Soviet Union	0	0	0	0	0	14	14
East-South Asia	1	1	1	3	4	6	5
North Africa-Middle East	0	0	1	3	5	6	6
Sub-Saharan Africa	1	1	1	2	2	2	1
South America	1	3	4	4	4	6	5
Cent. America-Caribbean	0	0	0	0	0	0	0
Total	22	25	27	34	38	66	44
Ten-year change	3	2	7	4	28		

SOURCE: U.S. Social Security Administration (1999).

1949 to 1999 among the 150 independent countries examined in Chapter 2 and listed in Appendix A. The table shows six end-of-decade counts of countries with UC programs in eight major regions of the world.⁹

Between 1949 and 1999 the number of countries with UC programs tripled, increasing from 22 in 1949 to 66 in 1999. Note that UC programs in 1949 were almost exclusively a phenomenon of the OECD-20 countries. Among the countries of this group, only Portugal did not have a UC program in 1949. Portugal added a program in 1975. Three other countries with UC programs in 1949 were Chile, Japan (an OECD country grouped with other Asian countries), and South Africa.

During the next four decades (the 1950s through the 1980s) the number of countries with UC programs increased by 16, reaching 38 in 1989. This growth roughly matched the growth in the number of independent countries so that the proportion with UC program in 1989 (38 of 129 or 0.29) was almost identical to the proportion in 1949 (22 of 78 or 0.28). Most of the new adoptions of UC programs (11 of 16) occurred during the 1970s and 1980s. The new adoptions were widely dispersed across the world's major geographic regions.

The pace and pattern of adoptions during the 1990s stand in sharp contrast to developments of the preceding four decades. There were 28 more UC programs in 1999 than 10 years earlier. All but five adoptions, however, took place in CEE and FSU countries.¹⁰ The end of Marxist-Socialist states was followed by an acknowledgment of unemployment as a serious societal problem. The adoption of UC laws was nearly universal in these countries.¹¹ More countries instituted UC programs during this single decade than during the four preceding decades combined. As of 1999, the proportion of countries with UC programs had increased to 0.44.

The prevalence of unemployment compensation is clearly different in the eight regions. It is nearly universal in three regions: the countries of the OECD-20, CEE, and FSU. South America is the only other region where a majority of countries (6 of 10) have UC programs. These programs are practically nonexistent in Sub-Saharan Africa (2 of 42) as well as in Central America and the Caribbean (0 of 11). Only 6 of 22 East and South Asian countries had this form of social protection in 1999.¹² For many countries, other forms of unemployment pro-

tection also exist (including those discussed above), but they typically serve a wider client base than just the unemployed.

ECONOMIC DEVELOPMENT AND UNEMPLOYMENT COMPENSATION

The level of economic development as signaled by per-capita GDP is closely linked to the presence of UC. This relationship is explored with a multiple regression analysis of the 150 countries introduced in Chapter 2. The estimates of per-capita GDP were based on PPP estimates of GDP appearing in the World Bank publication *World Development Indicators* and refer to 1999. Logistic and probit regressions are fitted as well as regressions using ordinary least squares (OLS). Since the interpretation of OLS regression results is more transparent, these regressions are emphasized in the discussion that follows.¹³

All regression equations measure the dependent variable as a discrete (dummy) dichotomous variable where the absence or presence of the feature under investigation is signaled by a 0 (absent) or 1 (present). Four UC and labor market features are examined using a 0–1 framework. These are presence of a UC program in 1999 (columns 1 and 2 in Table 3.2), adoption of a UC program between 1949 and 1999 (columns 3 and 4), adoption of a UC program between 1949 and 1999 in countries besides those in CEE-FSU (columns 5 and 6), and presence of a UC program and LFS in 1999 (columns 7 and 8).

Besides per-capita GDP, the other explanatory variables are dummy variables for three specific geographic areas: CEE-FSU countries, East and South Asia, and Latin America and Caribbean. These three areas account for 28, 22, and 21 countries, respectively, in the 150 country data set.

The choice of specification is based upon two considerations: it is parsimonious, and it permits the inclusion of all 150 countries. The inclusion of a large number of countries extends the analysis of previous authors in this area. Of the existing literature, work by Vodopivec (2004) and Simonetta and Wandner (2002) also use per-capita GDP to explain the presence of UC. The analysis in both papers shows a positive and significant coefficient for per-capita GDP. These papers use other variables in their specifications such as the average age of the

Table 3.2 Regression Results for Presence and Adoption of Unemployment Compensation, 1949–1999

	Presence UC 1999		Adopt UC 1949–99		Adopt UC 1949–1999		UC and LFS 1999	
	No dummy (1)	Dummy (2)	No dummy (3)	Dummy (4)	No dummy (5)	Dummy (6)	No dummy (7)	Dummy (8)
Constant	0.192 (4.1)	0.03 (0.6)	0.175 (3.2)	0.027 (0.5)	0.036 (0.8)	0.018 (0.3)	0.096 (2.3)	– 0.020 (0.4)
Relative per-capita real GDP	0.248 (7.9)	0.275 (11.0)	0.262 (4.3)	0.212 (4.6)	0.236 (4.6)	0.230 (4.4)	0.277 (9.7)	0.296 (11.2)
Dummy, CEE-FSU		0.687 (9.4)		0.739 (9.4)				0.436 (5.7)
Dummy, East and South Asia		– 0.008 (0.1)		0.044 (0.5)		0.039 (0.4)		0.023 (0.3)
Dummy, Latin America and Caribbean		0.053 (0.6)		0.071 (0.8)		0.068 (0.7)		0.087 (1.0)
Adjusted R^2	0.292	0.568	0.123	0.500	0.170	0.158	0.386	0.490
Standard error	0.419	0.327	0.447	0.337	0.352	0.354	0.380	0.346
Mean dep. variable	0.440	0.440	0.344	0.344	0.180	0.180	0.373	0.373
Number of observations	150	150	128	128	100	100	150	150

NOTE: Beneath each coefficient is the absolute value of its t -ratio. Per-capita real GDP measured relative to world average income.

Individual countries and regions identified in Table A.1. Excludes CEE-FSU countries.

SOURCE: Regressions based on a sample of 150 countries with populations of one million or more citizens in 1999.

population, educational attainment, openness to international trade, unionization, urbanization, and a dummy variable for countries that signed the freedom of association convention. Unfortunately, variables such as unionization rates are not readily available for all of the 150 countries in the data set.

The OLS regression results appear in Table 3.2. Per-capita GDP enters with a significantly positive coefficient for all eight regressions. Countries with higher incomes are more likely to have all of the indicated features. Having UC in 1999, adopting UC between 1949 and 1999, and having both UC and an LFS in 1999 were all more probable in high-income countries.

In the first two regression equations that explain the presence of UC in 1999, note the importance of the dummy variable for CEE-FSU countries. While the adjusted R^2 increases from 0.292 to 0.568 when the dummy variables were added, only the CEE-FSU dummy variable is significant. Its coefficient has a t -ratio of 9.4, nearly as large as the t -ratio for per-capita GDP. Note also that the coefficient on GDP becomes larger and more significant when this dummy variable is present. The CEE-FSU countries are particularly likely to have a UC program even though per-capita GDP is typically modest.

Very similar results are obtained in the regression equations shown in columns (3) and (4), which examine the adoption of UC between 1949 and 1999. The CEE-FSU dummy variable is by far the most significant variable in the equation (column [4]). From the positive and significant coefficient on per-capita GDP, it is clear that countries with high income were more likely than others to adopt UC programs during these 50 years.

Since the CEE-FSU countries were unusually likely to adopt UC, equations in columns (5) and (6) are fitted with these countries excluded. The coefficient for per-capita GDP remains significant in these equations as well. Note that the dummy variables for the other two geographic areas are not significant (columns 2, 4, and 6). Countries in East and South Asia, and in Latin America and the Caribbean, are neither more likely nor less likely than the average in having UC in 1999 and in adopting UC between 1949 and 1999.

The regression equations shown in columns (7) and (8) examine the presence of both UC and a LFS in 1999. The coefficient on per-capita GDP is somewhat larger in equations (7) and (8) than in equa-

tions (1) and (2). The only significant region dummy variable in equation (8) is for CEE-FSU countries. This finding contrasts with equation (2) in Table 2.7 where all three regional dummy variables have positive and significant coefficients in explaining the presence of an LFS. The result for equation (8) is not surprising given the other results displayed in Table 3.2. Recall that the regional dummy variables for East and South Asia, and for Latin America and the Caribbean, are not significant in explaining the presence of UC in 1999 (column 2), nor the adoption of a UC program between 1949 and 1999 (columns 4 and 6).

Consider the following simple verbal summary to supplement the regression analysis of Tables 2.7 and 3.2, which describe the presence of LFSs and UC programs in 1999. The presence or absence of both an LFS and UC can be considered as cells in a two-by-two contingency table. Across the 150 countries studied here, 56 countries had both an LFS and a UC program in 1999 while 58 had neither. Of the remaining 36 countries, 26 had only an LFS while 10 had only UC. Eight of the latter 10 were CEE-FSU countries which established UC during the 1990s without developing a survey-based measure of unemployment.¹⁴ This situation is especially common in FSU countries, where 6 have a UI program but no LFS.

The 26 countries with an LFS but no UC program are disproportionately located in two regions: East and South Asia (8 countries), and Latin America and the Caribbean (12). Policymakers in these countries can track labor market developments through periodic household survey-based measures of unemployment, involuntary short hours, and wages, but there is no program that pays UI or UA benefits to the unemployed. While other programs provide benefits and services to the unemployed, support comes mainly from active labor market measures (training, temporary public jobs programs), severance pay, SA programs, and social investment funds. Chapter 7 discusses these alternative support programs in the Latin America-Caribbean region.

Having a UC program is no guarantee that the program is effective in meeting the needs of the unemployed. The program in a low-income country will undoubtedly be very different from the program in a high-income country, say, Germany. Some programs may compensate a low share of the unemployed and/or provide very meager support payments while others may be quite generous. The following sections introduce and examine measures of UC reciprocity, payment levels, and costs.

THE COST OF UNEMPLOYMENT COMPENSATION

Payments of UC benefits can be compared across countries using a common metric. This section introduces an expression to characterize the costs of UC benefit payments as a percentage of total wages. The next section then examines the costs of UC programs for selected countries.

Benefit payments to the unemployed can be expressed as

$$(3.1) \quad TBen = AWWBen \times NBen \times 52,$$

where

$TBen$ = total annual benefit payments,

$AWWBen$ = average weekly benefits,

$NBen$ = the average weekly number of beneficiaries, and 52 converts weekly benefit payments to an annual benefit flow (assuming payments are made weekly).

The right-hand terms in Equation (3.1) can be rewritten equivalently as

$$(3.1a) \quad TBen = (RRate \times AWW) \times ([NBen/Unemp] \times [LF \times TUR]) \times 52,$$

where

AWW = the average weekly wage,

$RRate$ = the replacement rate (average weekly benefits as a ratio to AWW),

$Unemp$ = average weekly number unemployed,

LF = the labor force, and

TUR = total unemployment rate.

Note that the replacement rate in Equation (3.1a) measures benefit payments relative to the economy-wide average weekly wage. Because the incidence of unemployment is above average among low-skilled workers, the average weekly wage of UC beneficiaries is lower than

the economy-wide average weekly wage. Thus, $RRate$ in Equation (3.1a) could be expressed as the replacement rate for beneficiaries times the ratio of their weekly wage to the overall weekly wage. In data for the United States, the weekly wage of UI beneficiaries ranges from 80 to 90 percent of the overall weekly wage. This alternative representation would have the advantage of showing an average replacement rate more directly relevant to labor supply decisions of beneficiaries.

A convenient metric for scaling (normalizing) the costs of UC is annual wage and salary payments. This can be expressed as

$$(3.2) \quad Wages = Emp \times AWW \times 52,$$

where

$Wages$ = total annual wages or the wage bill,
 Emp = annual average employment, and
 AWW = the average weekly wage.

This expression for the annual wage bill can be rewritten as

$$(3.2a) \quad Wages = LF \times (1 - TUR) \times AWW \times 52.$$

All terms in (3.2a) have already been introduced.

Dividing Equations (3.1a) by (3.2a) yields an expression for unemployment benefit costs measured as a fraction of the wage bill:

$$(3.3) \quad TBen/Wages = RRate \times (NBen/Unemp) \times TUR/(1 - TUR).$$

The benefit-cost rate can be expressed as a fraction or as a percentage. In a graphical exposition to be presented below, B ($= TBen/Wages$) is shown as a percentage.

The left-hand side of Equation (3.3) is the cost of unemployment benefits expressed as a fraction (or percentage) of the wage bill. This cost rate has three determinants: the replacement rate, the share of the unemployed who are compensated, and the unemployment rate. The latter is largely a macro phenomenon that reflects the overall functioning of the economy. The replacement rate and the share who receive benefits, in contrast, are influenced by policy choices made by a coun-

try as well as factors that reflect the functioning of its labor market. Statutory UC provisions and administrative procedures influence both payment levels and the share of the unemployed who receive benefits.

When unemployment increases, there is a direct and obvious effect on the cost rate in Equation (3.3); that is, total benefit payments increase. Increased unemployment, however, also reduces the total wage bill through a reduction in total employment. This enters explicitly into Equation (3.2a) with the term $LF \times (1 - TUR)$, which stands for total employment. The employment reduction enters Equation (3.3) through the final term, the denominator $(1 - TUR)$. Thus, as unemployment increases, the benefit-cost rate increases for two reasons: increased benefit payments and reductions in the total wage bill through reduced employment.

The denominator in the left side of Equation (3.3) is the total wage bill. This is smaller than total labor compensation because it excludes fringe benefits (supplements to wages and salaries) and the income of the self-employed. Total labor compensation or total GDP could also be used in the denominator of Equation (3.3) to calculate the cost rate for providing UC. These two alternatives were not selected for the following reasons. The self-employed are excluded from UC coverage in most countries because of moral hazard, that is, the temptation to cause your own unemployment in order to collect UC benefits. Fringe benefits are not measured as accurately as total wages and salaries. Deriving a measure of weekly employee compensation would thus be difficult in many countries, particularly those where the income side of the national income accounts is not complete. Measures of average weekly wages are much more readily available.¹⁵ If GDP were used, some of the variation in the cost rate would reflect cross-country differences in labor's share of total GDP as well as the explicit factors shown in the right-hand side of Equation (3.3). Readers should note that the OECD often uses GDP when it assesses the comparative costs of UC, other passive measures, and active labor market measures.

Up to this point, the discussion of unemployment benefit costs has not distinguished UI from UA payments. Regardless of the kind of UC program offered by a country, its cost rate can be represented by Equation (3.3). Because the expression is generic, it is helpful in making comparisons between UI and UA, showing the cost of each relative to the total wage bill.

One other feature of Equation (3.3) should also be pointed out. The $(NBen/Unemp)$ ratio is a summary measure of benefit availability, but $NBen$ is not nested within $Unemp$. Since both UI and UA can make payments to persons with earnings, $NBen$ is not a subset of $Unemp$. In the United States, for example, almost 10 percent of weeks compensated by the UI program go to persons with earnings who receive so-called partial unemployment benefits. In Australia, nearly one-fifth of UA recipients have earnings in the same period when benefits are received, and $NBen$ has exceeded $Unemp$ in some years. Thus, the $(NBen/Unemp)$ ratio is best thought of as a macro indicator of benefit availability where some recipients may not be unemployed.¹⁶

Typically, estimates of unemployment from an LFS ($Unemp$) and UC beneficiaries ($NBen$) are derived from separate statistical reporting systems. If the UC administrative agency does not effectively monitor claimant eligibility, some beneficiaries could be unemployed while others could be employed and/or inactive (out of the labor force). Thus, the $(NBen/Unemp)$ ratio could be high not only because entry requirements are easy but also because eligibility is not effectively monitored. When countries cross-classify benefit status with the three labor force states (employed, unemployed, and inactive), some have found that a measurable share of recipients are employed and/or inactive.¹⁷

The ratio $(NBen/Unemp)$ is also affected by the extent of UC coverage. In the United States, coverage of wage and salary workers is close to universal (97–98 percent). In several countries, however, coverage is much lower for various reasons, including the exclusion of small firms, industries such as agriculture, and the self-employed, and the failure of covered firms to register. With lower levels of program coverage, the $(NBen/Unemp)$ ratio will be lower. Chapter 8 discusses UC coverage in more detail.

In offering UC, a country may make explicit or implicit decisions regarding the replacement rate and the reciprocity rate. The product of $RRate$ and $(NBen/Unemp)$ in Equation (3.3) shows the cost of UC per percentage point in the unemployment rate. This product can be termed a generosity index (G):

$$(3.4) \quad G = RRate \times (NBen/Unemp)$$

It is obvious that several different combinations of $RRate$ and $(NBen/Unemp)$ in Equation (3.4) can yield a given level of G . For example, a

G of 0.25 is possible either when both $RRate$ and $(NBen/Unemp)$ equal 0.50, or when $RRate$ equals 0.25 while $(NBen/Unemp)$ equals 1.00. Countries have wide choice in establishing the levels of the two factors that combine to determine G . Thus, the United Kingdom and the United States have roughly similar levels of G (See Table 3.3 and chart A in Vroman [2002b]), but the replacement rate ($RRate$) is much higher in the United States while the reciprocity rate ($NBen/Unemp$) is much higher in the United Kingdom. Should a country decide to make a cost-neutral change in its UC program, this could be accomplished by changing $RRate$ and simultaneously modifying $(NBen/Unemp)$ in the opposite direction.¹⁸

Regardless of the system used to provide UC—UI or UA or a mixed system with both—the costs of benefit payments per percentage point of unemployment can be characterized with G , the generosity index. Empirical examples from UI systems and from UA systems are explored in the next section.

The coefficient G also has macroeconomic significance. It is a gradient that shows how much the cost of UC changes when the unemployment rate changes. This can be seen by recalling the definition of the benefit-cost rate (benefit costs relative to payroll or B) and substituting the definition of G from Equation (3.4) into the right-hand side of Equation (3.3):

$$(3.5) \quad B = G \times TUR / (1 - TUR)$$

Thus, as unemployment increases the benefit cost rate also increases.

Individual countries may select a smaller or larger G depending upon such factors as affordability and the size of perceived labor market disincentive effects if generous access and/or high replacement rates are provided. As will be seen, a wide variety of choices have been made by individual countries.

COST ANALYSIS FOR SELECTED COUNTRIES

The preceding framework is useful for understanding the costs of UC programs in individual countries and for making cross-country

comparisons. Table 3.3 displays cost data from 24 countries: 12 are from the OECD-20 grouping, while 4 each are countries from the CEE-FSU region, East and South Asia, and South America. The sample represents more than one-third of all countries with a UC program in 1999.

Table 3.3 identifies the type of UC program present in each country along with unemployment and UC cost data from the 1990s. The data in columns (2), (3), (4), (5), and (7) are, respectively, averages of five variables: the unemployment rate, the reciprocity rate, the replacement rate, the generosity index (G), and the benefit-cost rate (B). Column (6) shows estimates of G -based time series regressions for each country. Appendix C provides details of the regressions.

The table also displays alternative summaries of the same cost data, which emphasize the variability in each of the cost components, average costs by region, and average costs by type of UC program. Four of these countries have UA programs while the remaining 20 have UI. Seven countries, all in the OECD-20 group, offer both UI and UA while 13 have stand-alone UI. Because the table has a large volume of information, two supporting figures are used to summarize the salient details.

Figure 3.1 plots the association between the unemployment rate and the benefit-cost rate. Each country is represented with a letter (A, C, O, or S) that identifies its regional classification. The low unemployment rates in the four Asian economies are ubiquitous, all between 2.0 and 3.2 percent. Countries from the other three regions display a broad range of unemployment rates. Note also that the two highest unemployment rates are for countries from the CEE-FSU region, the region with the highest average unemployment during the 1990s (recall Table 2.6). Nearly half of the countries (11 of 24) had a benefit-cost rate of less than 1.0 percent during the 1990s. The United States was the only country from the OECD-20 group with such a low benefit-cost rate. Of the 4 countries with cost rates above 4.0 percent, all were from the OECD-20 group.

Observe the wide scatter of data points in Figure 3.1. If UC generosity were similar across countries, the data points would cluster around a line that would rise monotonically from the origin (lower left corner) and increase steadily while moving to higher unemployment rates. A regression confirms the weak association between the unem-

Table 3.3 Unemployment Compensation Costs in Selected Countries during the 1990s

Country	UC System (1)	<i>TUR</i> (%) (2)	<i>NBen/Unemp</i> (3)	<i>RRate</i> (4)	(<i>G</i>) (5)	Regression estimate of <i>G</i> (6)	<i>B</i> (%) (7)
OECD-20							
Australia	UA	8.87	0.95	0.29	0.27	0.24	2.46
Austria	UI-UA	3.82	1.32	0.34	0.45	0.43	1.73
Canada	UI	9.54	0.60	0.45	0.27	0.28	2.62
Denmark	UI	7.70	1.03	0.51	0.53	0.51	4.12
France	UI-UA	11.23	0.82	0.53	0.44	0.41	4.82
Germany	UI-UA	10.20	0.76	0.48	0.36	0.32	3.73
Ireland	UI-UA	12.07	1.42	0.27	0.38	0.28	4.50
Netherlands	UI-UA	6.16	1.43	0.58	0.84	0.58	5.27
New Zealand	UA	7.82	1.14	0.32	0.36	0.32	2.83
Portugal	UI-UA	5.53	0.77	0.47	0.36	0.18	2.11
United Kingdom	UI-UA	7.18	0.85	0.18	0.15	0.18	1.09
United States	UI	5.76	0.34	0.34	0.11	0.12	0.67
CEE-FSU							
Bulgaria	UI	16.66	0.39	0.29	0.11	0.11	1.83
Slovakia	UI	13.74	0.81	0.28	0.23	0.19	3.14
Estonia	UA	8.46	0.26	0.10	0.02	0.02	0.02
Ukraine	UI	9.50	0.13	0.22	0.03	0.03	0.32
Eastern and Southern Asia							
Hong Kong	UA	2.55	0.09	0.26	0.03	0.06	0.09
Japan	UI	3.04	0.38	0.39	0.15	0.17	0.46
Korea, South	UI	3.20	0.06	0.36	0.02	0.03	0.11
Taiwan	UI	2.04	0.04	0.36	0.02		0.07

Table 3.3 (continued)

Country	UC System (1)	<i>TUR</i> (%) (2)	<i>NBen/Unemp</i> (3)	<i>RRate</i> (4)	(<i>G</i>) (5)	Regression estimate of <i>G</i> (6)	<i>B</i> (%) (7)
South America							
Argentina	UI	12.23	0.06	0.41	0.02	0.02	0.29
Brazil	UI	6.58	0.30	0.51	0.15	0.11	0.90
Chile	UI	7.29	0.07	0.06	0.004	0.02	0.03
Uruguay	UI	9.44	0.15	0.11	0.02	0.01	0.14
All 24 countries							
Simple average		7.94	0.61	0.33	0.22	0.20	1.81
Standard deviation		3.61	0.45	0.14	0.21	0.16	1.69
Coeff. of variation		0.46	0.75	0.43	0.93	0.81	0.93
Simple averages by region							
OECD-20	12	7.99	0.95	0.40	0.38	0.32	2.99
CEE-FSU	4	12.09	0.40	0.22	0.10	0.09	1.33
E. and South Asia	4	2.71	0.14	0.34	0.05	0.09	0.18
South America	4	8.89	0.14	0.27	0.05	0.04	0.34
Simple averages by type of UC Program							
UA	4	6.93	0.61	0.24	0.17	0.16	1.35
All UI	20	8.15	0.59	0.36	0.23	0.20	1.90
UI-UA	7	8.03	1.05	0.41	0.42	0.34	3.32
UI alone	13	8.21	0.33	0.33	0.13	0.12	1.13

NOTES: *TUR* is total unemployment rate (%), *NBen/Unemp* is the reciprocity rate, *RRate* is the replacement rate, *G* is the UC generosity index, and *B* is the benefit-cost rate (%). See text for further discussion.

Figure 3.1 Unemployment Compensation Benefit-Cost Rates for Selected Countries in the 1990s

ployment rate and the benefit-cost rate. The estimated slope as shown in Figure 3.1 is 0.193, but only 11 percent of the variation in the cost rate is explained by knowing the unemployment rate. This regression line is explicitly drawn. Its slope of 0.193 is an estimate of average UC generosity (G) for these 24 countries. The predicted cost rates at unemployment rates of 5.0, 10.0, and 15.0 percent are 1.01, 2.14, and 3.40 percent, respectively.¹⁹

The fact that several data points reside a long distance from this line serves to emphasize that UC benefit generosity is highly variable. Countries with above-average generosity are located above the regression line while those with a G below 0.193 are below the line. An example of this variability is provided by the United States, which had an average unemployment rate of 5.76 percent during the 1990s. The regression-based estimate of the U.S. cost rate (B) is 1.18 percent of payroll whereas the actual average, column (7) of Table 3.3, was only 0.67 percent. Actual U.S. costs were less than 60 percent of the cost rate projected by the regression.

Interestingly, the regression line in Figure 3.1 almost perfectly divides the countries by region. There are 11 data points above the regression line and 13 below it. Ten of the 11 countries above the line are from the OECD-20 group. The other country is Slovakia from the CEE-FSU group.²⁰ The 2 OECD-20 countries that fall below the regression line are the United Kingdom and, as already noted, the United States. All 4 countries from East and South Asia, all 4 from South America, and three CEE-FSU countries are located below the regression line. Brazil and Japan are the countries from their respective regions that are located closest to the regression line.²¹ Eight countries had an average G less than 0.04 during the 1990s: 3 from Asia, 3 from South America, and 2 from the CEE-FSU region.

Appendix C reports regression results for estimating benefit generosity using time series data from these countries. Again, G is estimated using Equation (3.5); that is, homogeneous regressions linking the UC cost rate with the unemployment rate. These estimated slopes are displayed in column (6) of Table 3.3. Generally, the regression-based estimates of G closely match the estimates based on averages from the 1990s (column 5). High UC benefit generosity is a phenomenon of the OECD-20 countries.

As noted previously, a given level of UC benefit generosity can be achieved by different combinations of the reciprocity rate and the replacement rate. Figure 3.2 shows estimates of both, again using data from Table 3.3. Across the 24 countries, replacement rates range from 0.58 (the Netherlands) to 0.06 (Chile), with an average of 0.33. Reciprocity rates during the 1990s were even more variable than replacement rates. The range was from 1.43 (the Netherlands) to 0.04 (Taiwan), with an average of 0.61. Five countries had average reciprocity rates that exceeded 1.0 during the 1990s while 7 had reciprocity rates below 0.20.

The visual impression from Figure 3.2 is that the reciprocity rate is much more variable than the replacement rate. This impression is confirmed in Table 3.3, where the coefficients of variation for each can be compared. As noted in Chapter 2, the coefficient of variation is a statistic that describes relative variability using the ratio of the standard deviation (a measure of variation) to the mean of a variable. Thus, the coefficient of variation for the reciprocity rate is 0.75 whereas for the replacement rate it is 0.43. Using this measure of relative variability, the reciprocity rate was 74 percent more variable than the replacement rate for these 24 countries during the 1990s, that is, $0.75/0.43 = 1.74$ or 74 percent higher.

A second comparison may be more vivid. Rank both measures in Figure 3.2 from top to bottom and remove the three highest and the three lowest from the set. Then compare the highest and lowest of the remaining 18. For the reciprocity rate, these ratios are 1.034 and 0.068 for a high-to-low ratio of 15.2. For the replacement rate, the corresponding ratios are 0.51 and 0.18 for a high-to-low ratio of 2.8. The wider variability of the reciprocity rate than the replacement rate again emerges. Countries have made a wider range of (explicit and/or implicit) choices regarding reciprocity rates than their choices of replacement rates.

Since UC benefit generosity is the product of the reciprocity rate times the replacement rate, it is instructive to introduce selected levels of generosity in Figure 3.2. The figure displays four iso-generosity lines, that is, schedules with G values of 0.02, 0.10, 0.25, and 0.40. Eight countries have a G value close to 0.02 while 10 have a G value that exceeds 0.25. The latter are all OECD-20 countries while the former are all from the other three broad regions.

Figure 3.2 Unemployment Compensation Replacement Rates and Reciprocity Rates for Selected Countries in the 1990s

Three countries have made quite different choices to achieve a common level of generosity of 0.15. Brazil combines middle-to-low reciprocity (0.30) with a high replacement rate (0.51) while the United Kingdom has high reciprocity (0.85) but a low replacement rate (0.18). Japan has intermediate levels of both reciprocity (0.38) and its replacement rate (0.39). Other pairings, apparent in Table 3.3, can also be seen in Figure 3.2: Bulgaria and the United States at $G = 0.11$ – 0.12 ; Germany, Ireland, New Zealand, and Portugal at $G = 0.36$ – 0.38 ; and Austria and France at $G = 0.44$ – 0.45 . Across all 24 countries in Figure 3.2, the high generosity indices of Denmark and the Netherlands stand out as does the low generosity index of Chile.

The cost experiences for the four regions are also summarized in Table 3.3. These averages again illustrate the high costs and high benefit generosity of the OECD-20 countries. Average generosity was 0.38 during the 1990s, and only the United Kingdom and the United States had generosity indices lower than 0.20. When average reciprocity rates and replacement rates are compared across regions, it is clear that high reciprocity is the factor most responsible for high generosity in the OECD-20 countries. Their average reciprocity rate during the 1990s was 0.95, roughly twice the CEE-FSU average of 0.49 and nearly seven times the averages of 0.14 for both the Asian and the South American countries included in this analysis.

Summaries of data by type of UC program are also shown. When averages for all UI and all UA programs are compared, the reciprocity rates are the same at 0.61, but the average UA replacement rate is lower (0.24 compared to 0.35).²² Because the average UA replacement rate is the lower of the two, so too is UA generosity (0.17 compared to 0.23) and average UC costs (1.35 percent compared to 1.90 percent). For this broad comparison, UA is the less expensive of the two UC systems because of its lower average replacement rate.²³

The final two lines of the table compare countries that offer UI as a stand-alone program with those having both UI and UA. The biggest contrast between these two is found in their average reciprocity rates: 0.36 for UI-alone programs and 1.05 for combined UI-UA programs. Access to benefits is much easier in countries with the combined programs. The lowest reciprocity rates among the seven with both UI and UA were 0.77 in Portugal and 0.76 in Germany. While the combined programs also have higher replacement rate averages, the differences

are more modest, for example, 0.41 versus 0.32. Average unemployment rates are quite similar for the UI-UA and UI-alone programs. Thus, the three-to-one difference in average costs (3.32 percent versus 1.13 percent) arises almost totally from differences in benefit generosity, that is, average G values of 0.42 and 0.13. The combined UI-UA programs cost more mainly because of easier access to benefits by unemployed workers.

The average cost data indicate that UA is not necessarily less expensive than UI. The average cost rate for the 13 UI-alone programs (1.13 percent) was lower than the 1.35 percent cost rate for the UA programs during the 1990s. When their generosity indices are compared, the average is somewhat higher for the UA programs (0.17) than for the UI-alone programs (0.13). Thus, if a country wishes to operate a low-cost UC program it can be done with either UI or UA. The statutory and administrative details that determine the reciprocity rate and the replacement rate are the key elements in determining the level, the generosity index and the cost of a UC program (either UI or UA) at a given level of unemployment.

THE CHANGING MIX OF BENEFICIARIES: UI VERSUS UA

Program costs and long duration in benefit status have become increasingly important policy concerns in the provision of UC benefits in the OECD-20 countries. These concerns are a major motivation behind initiatives to “activate” the unemployed. With UC cost concerns as a key background consideration, it is relevant to note that the mix of beneficiaries within combined UI-UA systems has been changing towards an increased share of UA beneficiaries. Since UA benefit levels are typically the lower of the two, this change has an obvious implication, a tendency to reduce UC benefit costs.

Table 3.4 summarizes trends in the mix of beneficiaries between 1960 and 2000 among the seven countries with combined UI-UA systems. It shows the UA share of beneficiaries for years at the start of the past five decades and the changes between 1960 and 2000. For five of the seven countries, there was a sharp increase in the UA share. France

Table 3.4 UA Share of Beneficiaries in Mixed UI-UA Systems

Country	1960	1970	1980	1990	2000	Change 1960–2000
Austria		0.12	0.16	0.31	0.41	0.29
France				0.22	0.22	
Germany	0.23	0.15	0.21	0.35	0.46	0.24
Ireland	0.42	0.40	0.48	0.71	0.60	0.18
Netherlands		0.21 ^a	0.35	0.63	0.49 ^c	0.28
Portugal			0.69 ^b	0.45	0.46 ^c	–0.23
United Kingdom	0.30	0.32	0.46	0.75	0.82	0.52

^a 1975.^b 1986.^c 1998.

and Portugal were the two countries with different patterns: There was essentially no change in France (between 1990 and 2000) while the UA proportion decreased in Portugal. The latter trend has a very simple explanation. Portugal initiated UC in 1975 with a UA system. This changed to a combined UI-UA system in 1985–1986. Since 1990, the UA share of days compensated in Portugal has ranged from 0.36 to 0.46 with no discernable trend.

For the other five countries, the increases in the UA share of weeks compensated have ranged from 0.18 in Ireland to 0.52 in the United Kingdom. For Ireland and the Netherlands, the changes were partially reversed during the 1990s as the strong economic performance in both countries saw large decreases in the number of UA recipients. The continuing increase in the UA share in the United Kingdom during the 1990s was influenced by a shortening of the maximum duration of UI benefits from 12 to 6 months in 1996. Thus, five of the six countries with combined UI-UA systems consistently present throughout recent decades have experienced a large scale shift in the mix of beneficiaries toward UA.

The most likely explanation for the increase in the UA share of the combined UI-UA caseload is the continued and growing incidence of long-term unemployment, that is, unemployment spells that last more than 12 months. Chapter 8 examines long-term unemployment and documents its growth and persistence in OECD-20 countries and its very high incidence in CEE-FSU countries.

SUMMARY

This chapter introduced and briefly discussed a broad range of unemployment protection arrangements before narrowing the focus to UC. The following observations were made:

- There has been a growth in the prevalence of UC programs since 1949, with a particularly large increase in the 1990s. Most of the increase in this decade reflects widespread adoption by CEE-FSU countries.
- The presence of UC is closely linked to the level of economic development. Countries with high income were more likely than others to adopt UC programs during the 50 years covered in this book.
- Countries with an LFS but no UC program are disproportionately located in two regions: East and South Asia, and Latin America and the Caribbean. Policymakers in the countries of these regions can track labor market developments through periodic household survey-based measures of unemployment, but there is no program that pays UC benefits to the unemployed.
- The costs of UC benefits depend on three factors: the UC reciprocity rate, the replacement rate, and the underlying unemployment rate in the labor force.
- A descriptive analysis for a sample of 24 countries drawn from the world's major geographic regions shows that, on average, UC costs and generosity are highest in the countries from the OECD-20 group. Programs from other regions are typically much less generous.
- Costs are also systematically higher in countries that provide both UI and UA benefits to the unemployed when compared to UI- and UA-alone countries.
- For countries with combined UI-UA systems of unemployment protection, there has been a trend toward an increased proportion of UA beneficiaries relative to UI beneficiaries.

The nearly 70 countries with UC programs face a variety of situations regarding macroeconomic performance, unemployment rates, ac-

cess to benefits, and program financing. The next four chapters extend the discussion of UC program experiences in four broad geographic groupings: 1) the OECD-20 countries, 2) CEE-FSU countries, 3) East and South Asia, and 4) South America. Some problems are common to countries in all regions. These include providing for adequate program financing, extending coverage to small enterprises, and ensuring that UC-related labor market distortions are limited in scale.

On the other hand, some problems are much more pronounced in particular regions. For instance, unusually long benefit duration is a feature in OECD-20 and CEE-FSU countries, ensuring protection against inflation is a unique problem facing many countries in South America, and effective implementation of new UC programs is a challenge facing Asian and CEE-FSU economies. Given these differences, the next four chapters pay particular attention to the regional aspects of unemployment protection.

Notes

1. See Chapter 2.
2. For example, the OECD database on social expenditures explicitly identifies severance pay in one of its tables. Across the 29 member countries, just 6 reported expenditures on severance pay for 1998. Only 2 countries reported data for every year between 1990 and 1998. Information on numbers compensated is even less common than expenditure data.
3. Given the relatively long history of UC programs, there is a large literature accounting for their disincentive effects on job search. The adverse effects of severance pay has received less attention, and data limitations restrict comparative research.
4. For example, MacIsaac and Rama (2001) estimate that only about half of those eligible for severance pay in Peru actually receive a payment.
5. Other systems that serve terminated workers include early retirement programs, disability programs, qualification training and retraining, group loan funds, and support for small business start-ups.
6. Vroman (2002b) examines UI and UA programs with attention to their comparative costs and labor market disincentives.
7. Livelihood protection programs in Asia are also a form of SA program.
8. Programs related to trade and structural change, such as trade adjustment assistance, could be added to the list.
9. The geographic classification used in Chapter 2 underlies Table 3.1.
10. Six countries outside the CEE-FSU area added UC programs: Algeria, Argentina, Korea, Mauritius, Taiwan, and Venezuela, but one (Ghana) discontinued its pro-

gram for a net increase of five. It should also be noted that three CEE countries already had UC in 1989: Bulgaria, Hungary, and the former Yugoslavia.

11. The only 2 of these 28 countries without a UC program in 1999 were Kazakhstan and Tajikistan. Kazakhstan created a program shortly after independence but eliminated it in the mid-1990s.
12. In 2004, Sri Lanka and Vietnam were considering adopting a UC program, and Thailand started to make benefit payments in midyear.
13. The results were not sensitive to the method of measurement: OLS, logit, or probit.
14. The countries are Albania, Azerbaijan, Belarus, Bosnia, Kyrgistan, Mongolia, Turkmenistan, and Uzbekistan. The other two with UC but no LFS are Iran and Iraq.
15. In the empirical measures examined below, the average weekly wage refers to the nonagricultural sector. For many countries estimates are available from the ILO Web site: <http://laborsta.ilo.org>.
16. The usual LFS convention is to count people as unemployed only if they have been looking for work but had no hours worked during the reference week of the survey. In other words, people with both hours worked and hours of unemployment during the reference week are counted as employed. Persons in these situations are commonly described as underemployed. Underemployment as discussed in Chapter 2 is a broader concept that can also encompass persons working full time but at a skill level below that for which they were trained.
17. For example, see Table 8.5 in OECD (1994). Data for registered unemployed were matched against labor force status (employed, unemployed, or inactive) in Denmark, Finland, France, the Netherlands, and the United Kingdom. The proportion of registered unemployed who were not unemployed under the LFS definition ranged from 23 percent (Finland) to 63 percent (the Netherlands).
18. In practice, the changes would probably occur gradually. Changing the actual provisions of a functioning program is more difficult than changing terms in a mathematical expression such as Equation (3.4).
19. This relationship has some curvature because the unemployment term in Equations (3.3) and (3.5) enters as the ratio of the unemployment rate to 1 minus the unemployment rate.
20. Slovak UC benefit generosity nearly matches the regression estimate. The actual cost rate for Slovakia of 3.14 percent is just slightly higher than the regression-based estimate of 3.07 percent.
21. The predicted and actual values for Brazil they are 1.36 and 0.90 percent, respectively, while for Japan they are 0.61 and 0.46 percent, respectively.
22. Because the UA sample has only four countries, each of the four has a large effect on the averages. For example, the average reciprocity rate is high in Australia (0.95) and New Zealand (1.14) but low in Estonia (0.26) and Hong Kong (0.09).
23. A comparison of UI and UA programs which emphasizes costs and labor market disincentive effects is given in Vroman (2002b). That analysis focuses on the cost experiences of three countries: Canada and the United States, which have UI

systems; and Australia, which is the largest of the four countries with UA noted here. For all three countries, there have been important changes in UC generosity and costs during the past four decades. Details of changes in UC costs for these three are provided in Vroman (2002b). For both Canada and the United States, the direction of UC generosity and costs has been downward, particularly for Canada during the 1990s.

Part 2

Regional Aspects of Unemployment Protection

4

Unemployment Compensation in the OECD-20 Countries

We commence the regional analysis with the OECD-20 countries for a number of obvious reasons. First, these countries have the longest continuous experiences with UC programs and a rich historical record. Second, they have influenced the programs adopted in later years by countries in other regions. While the influence of France and the United Kingdom on the UC programs in other countries, particularly former colonies, is most obvious, the UI programs of Germany and the United States have also influenced programs established elsewhere. Third, a wide range of social protection programs and more complete data reporting systems in the OECD-20 countries combine to yield a wider array of data. As a result, a broader set of quantitative analyses can be undertaken for these countries.

The OECD-20 countries have high average per-capita income, extensive social protection arrangements, and well-developed statistical reporting systems. Because of these features, they present several dimensions of information for analysis. Not only is labor market information more extensive, but it is also more readily available than in other regions. Finally, potential analyses are facilitated by the efforts of the OECD, Eurostat of the EU, and the ILO to standardize labor market and social protection information, efforts that have advanced further than in other regions.

As noted in Chapter 3, some problems in UC programs are common to all countries, while other problems are much more pronounced in specific regions. Unusually long benefit duration is a particular problem in the OECD-20 countries. Through their long historical experiences, particularly developments since the mid-1970s, these countries have come to recognize the negative aspects of UC in contributing to long-term unemployment and dependency among a subset of their labor forces. This realization has resulted in initiatives to “activate” the unemployed; that is, institute labor market policies have been designed to shorten the duration of unemployment and increase the likeli-

hood of reemployment. Recognition of the negative aspects of UC has been heightened by OECD analyses of social exclusion and the potential negative effects on unemployment, both high unemployment rates and long unemployment duration, caused by the full array of labor market and social protection programs, not just the UC program.¹ Academic research has reinforced this conclusion by emphasizing the interaction effects between downward deviations in output and labor market institutions in causing persistently high unemployment.²

This chapter first highlights the similarities and differences in the labor markets of the OECD-20 countries before presenting individual experiences of UC programs in five countries: Austria, Denmark, Germany, Ireland, and the Netherlands. Attention is given to Germany, one of the three large economies in mainland Europe, because it has been characterized by high unemployment rates for more than 20 years, a problem that was exacerbated with the reunification of East and West Germany in 1989. Moreover, Germany is currently undertaking an extensive reform of its UC program in light of this persistent unemployment problem.

Austria, Denmark, Ireland, and the Netherlands, four small- to medium-sized economies, are used as a case study because they are viewed as success stories in terms of employment growth and unemployment. The contrast with Germany makes the recent experiences of these four countries all the more interesting, particularly since their success has occurred in the face of certain institutional conditions that are often cited as impediments to low unemployment.

The final section of the chapter examines expenditure data on active labor market measures in the OECD-20 countries. Given that the most troubling aspect of the higher unemployment was a significant increase in the duration of unemployment spells, the emphasis within the OECD has been to “activate” the unemployed. It is argued that activation should shorten the average duration of unemployment spells. Public policies to foster activation would be expected to change the composition of labor market spending. This expectation is tested in a set of regression equations using data on spending obtained from the OECD social expenditure database for both active and passive labor market measures. Data availability constrains the analysis to changes in the active-passive mix from 1985 for all OECD-20 countries and changes back to 1980 for four countries.

LABOR MARKET INDICATORS

Table 4.1 displays summary labor market information for the OECD-20 countries. The data on unemployment duration (the percent unemployed 52 or more weeks), the ratio of registered to total unemployment, and the part-time employment share (columns [1], [2], and [6], respectively) all refer to averages for the decade of the 1990s. In contrast, the information on coverage proportions and employment protection legislation (EPL) indices (columns [3]–[5]) were assembled at the OECD and refer to the late 1990s or 2000. The bottom rows of Table 4.1 present simple (unweighted) averages for all 20 countries and averages for four subregions.³

A striking feature of the table is the diversity shown by each indicator. The long-term unemployment share varies over a wide range. The lowest percentage is observed for the United States (8.9 percent) while percentages above 50 percent are observed in five countries. The average of the long-term unemployment share across the 20 countries is 36.7 percent.

Unemployment duration varies systematically across the four subregions, being shortest for English-speaking and Scandinavian countries and longest in southern European countries. During the 1990s the percentage unemployed 52 or more weeks in the four southern European countries was approximately twice the percentages for English-speaking and Scandinavian countries. The extent of diversity by subregion is illustrated with a simple variance decomposition of the Table 4.1 data. Regional dummy variables “explain” about one-third of the variation in the percent with 52 or more weeks.⁴ Thus, within the OECD-20 countries, there are strong contrasts by subregion in the prevalence of long spells of unemployment.

Across the OECD-20 countries, most unemployed persons register as job seekers with the public employment service (PES). The average ratio of registered unemployment to LFS unemployment is 1.01 for the 18 countries with available data. Only in the United States did this ratio fall below 0.50. Unlike unemployment duration, no strong association is found between the prevalence of registration and subregion.⁵ Use of the PES is ubiquitous within the OECD-20 countries. When workers become unemployed they routinely register with the PES. Much of their motivation is that registration is a requirement for UC eligibility.

Table 4.1 Selected Labor Market Indicators for OECD-20 Countries, 1990s

Country	Subregion	Unemp. 52 or more weeks (%) (1)	EOR/LFS (2)	Nonag. emp. share (3)	Nonag. employees, emp. share (4)	EPL index (5)	Part-time emp. share (6)
Australia	Eng.	30.7	0.98	0.95	0.83	1.2	0.25
Austria	W. Eur.	26.9	1.46	0.94	0.86	2.3	0.11
Belgium	W. Eur.	61.8	1.48	0.98	0.82	2.5	0.16
Canada	Eng.	13.9	0.60	0.96	0.81	1.1	0.19
Denmark	Scan.	27.5	1.26	0.97	0.90	1.5	0.18
Finland	Scan.	28.4	1.17	0.93	0.84	2.1	0.09
France	W. Eur.	39.1	1.01	0.96	0.91	2.8	0.14
Germany	W. Eur.	44.7	0.99	0.97	0.88	2.6	0.14
Greece	S. Eur.	52.3	0.50	0.80	0.54	3.5	0.08
Ireland	Eng.	60.3	1.51	0.92	0.80	1.1	0.14
Italy	S. Eur.	63.2	n/a	0.95	0.69	3.4	0.10
Netherlands	W. Eur.	47.8	0.85	0.97	0.86	2.2	0.29
New Zealand	Eng.	24.8	1.37	0.91	0.77	0.9	0.22

Norway	Scan.	18.5	0.86	0.96	0.91	2.6	0.21
Portugal	S. Eur.	44.7	n/a	0.87	0.71	3.7	0.09
Spain	S. Eur.	53.4	0.73	0.93	0.77	3.1	0.07
Sweden	Scan.	23.3	1.14	0.98	0.89	2.6	0.25
Switzerland	W. Eur.	27.6	1.00	0.95	n/a	1.5	0.23
United Kingdom	Eng.	37.1	0.89	0.98	0.87	0.9	0.23
United States	Eng.	8.9	0.37	0.97	0.91	0.7	0.14
Simple averages							
20 countries		36.7	1.01	0.94	0.82	2.2	0.16
Subregions							
English-speaking		29.3	0.95	0.95	0.83	1.0	0.19
Scandinavia		24.4	1.11	0.96	0.88	2.2	0.16
Western Europe		41.3	1.13	0.96	0.86	2.3	0.18
Southern Europe		53.4	0.62	0.89	0.68	3.4	0.08

NOTE: See text for a more complete description of column headings. n/a = information not available. EOR: Employment office registration; EPL: employment protection legislation.

SOURCE: Data on registered unemployment from the ILO. Data on the percent unemployed 52 or more weeks and various employment shares from OECD (2001b). Employment protection legislation index from OECD (1999, Table 2.6).

However, other services such as job referrals, counseling, testing, and access to training programs are also utilized by some job seekers. In many countries, the PES is under increasing pressure to provide these adjustment services to its clients.

Columns (3) and (4) present information pertinent to UC coverage. They display the proportion employed in nonagricultural industries and the proportion employed as wage and salary workers in the nonagricultural sector, respectively. The averages for these two series are 0.94 and 0.82. Across the 20 countries, approximately four in five workers are employed in a situation where UC coverage might be anticipated. Note the regional contrasts within the OECD-20 group of countries. For both series, countries in southern Europe have smaller proportions than elsewhere; for example, 89 percent work in nonagricultural industries and 69 percent work as nonagricultural wage and salary workers. These lower proportions are characteristic of all four southern European countries (Greece, Italy, Portugal, and Spain). These countries' rankings of the column (4) proportions were 16, 18, 19, and 20. Only New Zealand had a similarly low proportion of nonagricultural wage and salary workers (i.e., below 0.80).

Column (5) in Table 4.1 shows there is wide diversity across these countries in the EPLs that govern employment contracts and dismissal. The OECD has been computing comparative EPL indices that extend back to the late 1980s. The original work by Grubb and Wells (1993) was extended in the *OECD Jobs Study* (OECD 1994). More recently, the scope of EPL has been expanded from its original focus on statutory provisions governing terminations from permanent and temporary jobs to include mass dismissals (Grubb 2001). The EPL indices shown in Table 4.1 recognize all three areas. In each area, these ordinal indices are derived as averages of several underlying indicators. The 22 individual indicators cover factors such as the length of advance notice to be given, the amount of severance pay to be provided, restrictions on the number and duration of temporary employment contracts, and special notification requirements for mass dismissals. Each indicator ranges in value from 0 (greatest employer discretion over dismissals) to 6 (greatest restrictions on employer discretion).

Across the OECD-20 countries the average EPL index was 2.0, but ranged from 0.7 (United States) to 3.7 (Portugal). Systematic contrasts in EPL indices by subregion are also apparent. The English-speaking

countries have uniformly low EPL indices, the six lowest in the table (all below 1.3), while the indices for the southern European countries are the highest (all exceeding 3.0). Not surprisingly the EPL indices are closely correlated with the regional dummy variables. Over 80 percent of the variation in the EPL indices was explained by a regression using regional dummy variables. While the indices are generally close to the overall average for countries of Western Europe and Scandinavia, they are uniformly low for English-speaking countries and uniformly high in southern Europe.

Finally, column (6) shows there is wide diversity in the prevalence of part-time employment across the OECD-20 countries. The full range during the 1990s was from 0.07 in Spain to 0.29 in the Netherlands. Note also the low shares present in all four southern European countries. This diversity is relevant for UC coverage and is revisited in Chapter 8. To anticipate the discussion of UC coverage in Chapter 8, it is a common practice to exclude at least some part-time workers from UC eligibility. Given the differences in work patterns by gender, reducing access to UC among part-time workers has a disproportionate effect on women.

To summarize, as shown in Table 4.1, the OECD-20 countries display quite diverse labor market indicators, but systematic differences by subregion are also apparent. Generally, the English-speaking countries are characterized by relatively short average unemployment duration and low EPL indices, suggesting above-average employment flexibility. At the opposite extreme, the countries of southern Europe have the longest unemployment duration, the lowest nonagricultural employment proportions, the highest EPL indices, and the lowest part-time employment proportions. Note that the Scandinavian countries achieve relatively short unemployment duration but have an implied middling level of employment flexibility.

For four of the six indicators in Table 4.1, note the extreme values shown by the United States. It ranks lowest in the percent with unemployment of 52 or more weeks, lowest in the ratio of registered-to-survey unemployment, highest in the nonagricultural wage and salary employment share, and lowest on the EPL index. Within the context of these 20 advanced market economies, the United States is an outlier. It grants employers the greatest latitude in decisions over staffing and worker retention, and its labor market functions with the lowest degree

of worker contact with the PES. Job changing is largely a phenomenon of individual decisions in the private market. This undoubtedly influences U.S. researchers and policymakers in examining the functioning of the labor markets in the other OECD-20 countries.

THE EVOLUTION OF UNEMPLOYMENT

Over the past four decades the majority of the OECD-20 countries have undergone similar unemployment experiences. From the 1950s to 1973 unemployment rates were generally low but increased sharply from 1974 to 1976 and then again from 1980 to 1983. A third period of increased unemployment occurred between 1990 and 1993. Sustained economic expansions of the mid- to late 1980s and for most of the 1990s caused noticeable decreases in unemployment from earlier cyclical peaks. Even at the end of the especially long expansion of the 1990s, however, unemployment rates during the period 1999–2001 in most OECD-20 countries had only returned to levels of the mid-1970s, not to the levels of the 1960s and early 1970s.

Figure 4.1 traces the average unemployment rate for these countries between 1959 and 2001. Two series are shown, the mean and the median, both based on data from 19 of the OECD-20 countries. Because Switzerland did not conduct an LFS before the 1990s, it is excluded from the chart. The mean unemployment rate was derived from 19 unemployment rates, weighting each country by the size of its labor force. The United States has the highest weight in this series. The U.S. labor force accounted for about 40 percent of the total between 1975 and 2001.

The mean and median differed considerably in the early years. Prior to 1976, the mean was consistently the higher of the two, exceeding the median by 1.0–1.8 percentage points in most years, and the average differential was 1.3 percentage points (e.g., 3.4 percent versus 2.1 percent). During these years the large countries of this group had systematically higher unemployment rates than the small countries. The United States in particular had above-average unemployment in many of these years. Between 1959 and 1973 the number of countries with unemployment rates below 2.5 percent ranged between 9 and 13

Figure 4.1 Weighted Mean and Median Unemployment Rates, 19 OECD Countries, 1959–2001

and averaged 11. During these 14 years, no annual unemployment rate exceeded 7.5 percent in any of the 19 countries.

The convergence of the median and the mean after 1976 has persisted through 2001, with the largest difference being 0.95 percentage points in 2001. For the years 1977 to 2001 the respective averages of the mean and the median were 8.0 percent and 7.7 percent. Unemployment rates below 2.5 percent have been extremely rare in recent years. Between 1982 and 2001 there were only seven instances of such low rates, most recently in Sweden between 1988 and 1990.

Along with the increases in the means and medians shown in Figure 4.1 has been growth in the number of countries with very high unemployment rates. The first annual average for any country to exceed 10 percent occurred in 1980, followed by a maximum rate above 12.5 percent in 1981, and a rate above 15 percent in 1982 (Spain in all three instances). Between 1981 and 1999 the number of countries with double-digit unemployment rates ranged from four to eight and averaged six. Several of the OECD-20 countries have had persistently high unemployment during the decades of the 1980s and 1990s. Thus, while the average unemployment rate (both mean and median) has gone through periods of large decreases during both the 1980s (between 1983 and 1990) and 1990s (between 1993 and 2001), several individual countries have continued to experience persistently high unemployment rates.

Figure 4.2 documents some of the diversity of unemployment experiences by tracing developments for seven individual countries between 1959 and 2001. Note that five of the seven (all but Ireland and Italy) had very low unemployment rates between 1959 and 1973. Most then experienced large increases in unemployment from 1974 to 1976 (all but Austria and Italy), and all seven had large increases between 1980 and 1983.

France, Germany, and Italy have been characterized by high unemployment rates for more than 20 years, consistently above 8.0 percent in France and Italy in every year since 1982 and consistently above 7.0 percent in Germany during the same period. While all three countries have experienced reductions in unemployment since the mid-1990s, their average unemployment rates during the period 1999–2001 ranged from 9.8 percent (France) to 10.9 percent (Germany). Since these three have the largest economies in mainland Europe, their experiences are

Figure 4.2 Unemployment Rates for Seven OECD Countries, 1959–2001

especially important for judging the overall condition of the labor market in the OECD-20 countries.

Figure 4.2 also traces unemployment rate developments for four small- to medium-sized economies: Austria, Denmark, Ireland, and the Netherlands. In terms of unemployment, these countries can be described as four success stories since each had an average unemployment rate of 5.0 percent or lower during the 1999–2001 period. Ireland's reduction in unemployment was particularly dramatic since its rate averaged 14.2 percent during the 1980s and again between 1990 and 1995. Very large reductions in unemployment also took place in Denmark during the 1990s and in the Netherlands between 1986 and 1992 and again after 1996. Austria is the only country of the seven to have experienced persistently low unemployment throughout the years between 1959 and 2001.

Because of the diversity of unemployment experiences, it is important to highlight the developments in selected countries. The following two sections present case studies of the various experiences with emphasis on developments in UC programs and other labor market interventions. Attention is devoted first to Germany, one of the three large high-unemployment countries, and then to Austria, Denmark, Ireland, and the Netherlands, the four small to medium countries mentioned above.

GERMANY

Germany provides income support to the unemployed through three separate programs: UI (*Arbeitslosengeld*), UA (*Arbeitslosenhilfe*), and SA (*Sozialhilfe*). The UI program has rather generous support, with replacement rates of 60 and 67 percent, respectively, for single persons and those with dependents. The work history requirement is modest (covered work in 12 of the 36 months prior to unemployment), and potential benefit duration ranges from 12 months (under age 42) to 32 months (age 55). Unemployment assistance provides a lower replacement rate (50 or 57 percent with dependents) and potentially unlimited duration for those who exhaust UI. In the past, UA also compensated persons with between 5 and 12 months of covered earnings (out of the past 36 months), but this entitlement has been eliminated.

Social assistance, which is entirely financed and administered by local governments (*lander*), is available to those ineligible for UI or UA and for some UI and UA (mainly UA) recipients with low income. During 2001, there were about 1.7 million monthly UI beneficiaries with an additional 1.4 million receiving UA, 0.8 million receiving only SA, and about 0.15 million receiving both UA and SA.⁶ Spending for the three programs totaled more than 85 billion German deutsche marks in 2001, with UI and UA accounting for DM48 billion and DM25 billion, respectively.

The merger of the two formerly separate parts of Germany has been accompanied by widespread job losses and high unemployment in the areas of the former East Germany.⁷ Employment in eastern provinces is now more than 3.5 million lower than at the time of unification. This reduction has been accomplished through seven adjustments: 1) early retirement, 2) migration to the west, 3) commuting to jobs in the west, 4) temporary public employment, 5) training, 6) reduced labor force participation among women, 7) and large increases in open unemployment. The eastern provinces account for less than 20 percent of employment in unified Germany, but they accounted for about 40 percent of combined UI–UA spending and more than 35 percent of the combined UI–UA caseload in 2001.

The cost of unemployment protection in Germany has been consistently high since unification, averaging above 4 percent of payrolls between 1992 and 2001. The persistence of high costs and of high unemployment rates has stimulated broad interest in reforms of unemployment support and reemployment programs. Thus, the most recent years stand in sharp contrast with the 1980s and early 1990s when the provisions of the unemployment support programs were stable. Several changes became effective in 1998, and new reform proposals are pending implementation in 2004.

The structures of the local and regional apparatus that administers the employment offices and active labor market measures have been modified. While local offices have traditionally been characterized by strong compartmentalization of functions and extensive federal regulation of detailed activities, the reforms confer greater flexibility and autonomy on local offices. Funding which had previously had been closely tied to individual reemployment support activities was modified to provide more general grants. Local offices were given greater

authority to determine the appropriate mix of active measures. Increased communication across local offices and regions was encouraged with the expectation that improved knowledge of best practices would favorably influence administration throughout Germany.

Implementation of the administrative changes started in 1998 and 1999. The changes included several modifications to the UI and UA programs:

- UA eligibility was ended among persons with earnings in just 5 to 12 months of the past 36 months prior to unemployment.
- The new calculation of monthly benefits used earnings in the past 12 months, as opposed to the past 6 months, frequently causing a small reduction in the average used to calculate monthly benefits.
- Evidence of active work search was required of beneficiaries, if requested, a change from simply being available for work. Procedures to administer this requirement are still being developed.
- The disqualification period for quits was lengthened from 8 weeks to 12 weeks.
- The definition of suitable work was modified to emphasize the monetary thresholds of job offers, a change from a requirement that the offer was to be in one's established occupation. During the first three months of benefits, an offer would be suitable even if the job paid 20 percent less than the prior job. The allowable wage rate reduction was increased to 30 percent during months four to six and then after six months to any job paying more than the monthly UI benefit.
- The age limits to qualify for more than 12 months of potential benefits were raised.
- There was an explicit recognition that the primary responsibility for securing a new job resides with the worker and the employer rather than with the administrative agencies.

A common thrust of these changes was to reduce access to benefits, benefit duration, and payment levels. All of the changes can be described as measures either to reduce the amount of income support or to encourage the activation of claimants.

Reforms were also implemented to encourage nonstandard employment arrangements. The terms of UI support were broadened among several groups, for instance, part-time workers, those desiring training, seasonal workers, those working short hours, and persons interested in starting businesses. Measures were also taken to encourage displaced workers to take jobs with lower pay than their previous jobs. The generic term used in Germany to describe labor market activities involving atypical forms of employment is “transitional labor markets.”⁸ Details of specific changes in these areas are varied, but they share a common characteristic: encouragement and support for workers to try new work as opposed to just waiting for jobs to reappear in their previous occupations.⁹

It is too early to determine the effects of the preceding changes on the labor market and unemployment. The previous stability in labor market programs, especially the passive measures, has ended with the changes already enacted. To this point, the changes in administrative procedures, such as increased local decision making, have been more fundamental than the changes in UI and UA, which have been more incremental. Further reforms of active and passive measures are under way.

The potential range of further reforms in Germany remains very wide. First, additional changes to the administrative apparatus that supports active and passive labor market measures are being considered. Currently UI and UA are administered by the national labor office (*Bundesanstalt für Arbeit*) while SA has local administration through welfare offices. Preparations for merging the functions of the two separate administrations are under way. Second, implementing more client-friendly local administrative arrangements, including the possibility of offering “one-stop” services at local offices, has strong adherents. Third, regional funding issues are also being examined. Geographic areas of high unemployment face constraints in financing SA benefits, resulting in lower expenditures for public investment. The weak economies of some areas, particularly in the eastern provinces, create the dual problems of high benefit costs in supporting the unemployed and high SA financing costs which are partly supported by revenues generated regionally and locally.

While the final form of the changes that emerge from current discussions is not certain, it is clear that a broad spectrum within Germany

is committed to “do something” about the high unemployment. Further reforms that reduce access to passive income support and stress activation can be expected. It also seems likely that a merger between the two separate administrative apparatuses will occur. More than likely, further evolution toward increased autonomy and flexibility for local employment offices can be expected. Finally, a continuing challenge will be to foster greater prosperity in Germany’s eastern provinces. To achieve this, active labor market measures and economic development initiatives will likely play an increasingly important role while a reduced role for passive income maintenance may be anticipated.

FOUR OECD-20 ECONOMIES WITH LOW UNEMPLOYMENT

Austria, Denmark, Ireland, and the Netherlands have achieved low unemployment in recent years. The explanation for their success was the subject of a book by Auer (2000). While his analysis utilized data through 1996–1997, more recent years have witnessed a continuation of low unemployment in Austria and even further reductions in unemployment rates in Denmark, Ireland, and the Netherlands, as illustrated in Figure 4.2.

Their success has occurred in the face of certain institutional conditions that are often cited as impediments to low unemployment, for example, strong unions and extensive systems of social protection for the unemployed. All four have realized important gains in employment while larger neighbors have experienced little or no employment growth. This contrast makes their recent experiences all the more interesting.

Auer (2000, Chapter 3) identifies three broad factors that contributed to employment growth and reduced unemployment in the four countries: macroeconomic policies, social dialogue, and labor market policies. The focus of the subsequent description is primarily on labor market policies, but the other two areas have been crucial for achieving consistently strong economic performance. While the discussion emphasizes experiences common to all four countries, important special factors were also operative in individual countries. For instance, there

has been a large volume of foreign direct investment in Ireland and a successful implementation of widespread part-time work arrangements in the Netherlands.

Favorable macroeconomic outcomes, such as strong output growth, high employment growth, and low inflation, partly reflect conservative fiscal policies (small government deficits) and actions that support international trade. All four countries are open market economies. Historically, exports have been large (from 35 to 60 percent of GDP) and have grown as a percentage of GDP over time. Exports have contributed to strong output growth and strong employment growth. Supporting their open-economy stance has been monetary policy that tied their currencies to that of large partners (earlier the German Mark, now the Euro) and did not try to influence domestic interest rates.

While all four economies have strong labor union movements, they also have longstanding traditions of social dialogue. The social partners frequently meet to participate in key societal decisions such as national wage policy and hours of work for the standard work week. Given that agreement in key areas has usually been achieved, wage growth has been moderate. This, in turn, has contributed to low inflation, both for domestic products and exports.

Auer (2000) provides a detailed review of the changes in both active and passive labor market measures in the four countries. The unemployment protection systems in all countries allow for very long-term benefit reciprocity, either through UI alone (Denmark) or through UI followed by UA (Austria, Ireland, and the Netherlands). Furthermore, all four countries modified UI-UA during the 1990s in one or more of the following ways: shorter maximum potential benefit duration, lower replacement rate, stricter entry eligibility and closer monitoring of continuing eligibility through increased work search requirements, and a more flexible definition of suitable work.

For working-age persons who do not have jobs, the distinction between being unemployed and not being in the labor force is often difficult to make. Thus, the reforms of passive measures in these countries have extended to closely related programs such as early retirement, permanent disability insurance, and sick leave. Early retirement and permanent disability awards have operated to reduce labor supply and open unemployment. Measures to restrict access to these benefits have also been implemented. While details of the changes have varied, im-

portant components have included reducing replacement rates, the introduction of experience rating of employer sick leave contributions, and more frequent reviews of continuing disability. Support for phased (gradual) retirement has grown as an alternative to simply offering early retirement.

The traditional measures of active labor market policy have also undergone several revisions. While the contribution of these measures to reduced unemployment has been modest, they have been more important in Denmark and Ireland than in Austria and the Netherlands. Auer (2000) identified three correlates of successful interventions. First, the content of worker training was close to the requirements of jobs offered by businesses. Second, active measures targeted the needs of the unemployed (assessment) and were appropriate to local labor market conditions. And third, smaller and more tailored employment programs were pursued.

Evolutionary changes in the structure of service provision also occurred. Three aspects of change have been decentralization, "tripartization," and allowing an increased scope for private placement activities. The details of the changes have varied by country. While Ireland actually moved the Employment Service from the Labor Ministry to the Department of Enterprise and Trade, regional tripartite advisory structures were established in the three other countries. The results have not always been as positive as hoped, particularly in the Netherlands, but moving the locus of decision making to lower geographic levels and eliciting more participation from the social partners is viewed positively in all four countries. Growth in private placement activities has occurred in all four countries with the activities of temporary help agencies in the Netherlands assuming a major role in job matching.

An administrative question facing these countries is the degree of integration of the benefit payment function with the provision of labor market services. Austria has integrated these two activities, but the functions remain separate in the other three countries. Auer (2000) noted that reciprocity rates seem to be higher in countries where the functions are separated. The explanation, he speculates, may be that UC recipients are free from the need to actively search and/or from effective monitoring of their search activities. There is recognition that, at a minimum, greater coordination is needed, if not full integration of the payment and service provision functions.

A common stylized fact across all four countries is that they continue to have very high UC reciprocity rates, even with the variety of changes that have occurred in both active and passive measures and the structure of labor market program administration. The average ratios of UC beneficiaries to unemployment for recent periods were: Austria (1995–1999), 1.33; Denmark (1995–1999), 0.98; Ireland (1995–1999), 1.58; and the Netherlands (1995–1998), 1.63. In Denmark, Ireland, and the Netherlands, unemployment decreased markedly after 1995 (Figure 4.2). For all three countries, there was a common pattern between the UC reciprocity rate and the unemployment rate: the UC reciprocity rate increased significantly as unemployment declined. In other words, UC caseloads declined but much less rapidly than unemployment. Average ratios of the late 1990s were much higher than, say, the 1980s, when decade averages ranged from 0.90 to 1.13. This empirical “fact” suggests that high UC reciprocity rates do not preclude countries from reaching low unemployment. If the other elements of a country’s economic structure are strong (high growth in real GDP, strong net exports, low inflation), then low unemployment can be achieved even with high UC reciprocity rates.

Finally, it should be repeated that the four countries are small to medium in size. Their combined labor forces totaled 17 million in 2001. Compare this to France, Italy, and the United Kingdom, which each had a labor force of 24–30 million and Germany with a labor force of 40 million. Overall, the success these four countries achieved in lowering unemployment has had little impact on aggregate unemployment in the OECD-20 countries.

EXPENDITURES ON ACTIVE LABOR MARKET MEASURES

There is an emphasis within the OECD to “activate” the unemployed. This is not a recent phenomenon. Initiatives to encourage reemployment commenced in the 1980s and intensified during the 1990s. Following the first energy crisis of 1973–1974, unemployment rates increased significantly for most member countries and, as shown in Figure 4.1, the average unemployment rate has remained stubbornly high during subsequent periods of economic expansion. The most trou-

bling aspect of the higher unemployment was a significant increase in the duration of unemployment spells. Many of the long-term unemployed seemed reluctant to change industries and/or occupations but, rather, opted to wait for former jobs to reappear. In the interim, they utilized the payments paid by UC and other social protection programs as a primary source of income.

Activation changes the terms of the implied contract between the benefit recipient and the state. Previously UC benefits were received as a matter of right by individuals who were unemployed through no fault of their own, had sufficient past employment to satisfy base period work requirements, and met the conditions of continuing eligibility (that is, able and available to take suitable work if offered). Responsibility for reemployment resided primarily with the state through its Employment Service. Policies of activation change this responsibility by placing a greater burden on the unemployed person to secure reemployment. One aspect of activation is to require active job search by the claimant and, if requested, provide evidence of job search activities as a condition of continuing eligibility for UC benefits. In some countries, this means greater reliance on skills assessments and periodic meetings with job counselors to develop and review reemployment plans developed jointly with the claimant. In short, activation means requiring the unemployed to take affirmative steps to secure reemployment. Undertaking more active job search, undergoing training, starting new micro-enterprises, and broadening the geographic scope of job search are all examples of activation among the unemployed. If such actions are not pursued, then the claimant may be denied UC benefits. It was anticipated that through activation, the average duration of unemployment spells would be shortened.

Public policies to foster activation would be expected to change the composition of labor market spending. For recent years, the OECD has published member country data on spending for both active and passive labor market measures in their social expenditures database. The data on spending for passive measures usually extend back to 1980 and back to 1985 for active measures. Thus, changes in the active-passive mix of spending can be traced from 1985 and even back to 1980 for a few countries. The OECD database tracks spending on three passive measures (UC benefits, early retirement payments to the unemployed, and severance pay) and five active measures (training, youth

measures, subsidized employment, support of the disabled, and employment services and administration). For all OECD-20 countries, spending for UC is the largest category of passive spending, but there is wide diversity in the mix of spending on active measures. Expenditures on training are largest in 6 countries, but each of subsidized employment, support of the disabled, and employment service administration is largest in 4 individual countries. Thus, within the OECD-20 countries, spending on active labor market measures defies easy summarization.

The individual countries of the OECD-20 group display wide variability in the share of spending devoted to active labor market measures. Across 19 countries (all but Italy), the average of the percent of spending directed to active measures during the years 1985 to 1998 was 36.5 percent. The full range extended, however, from 21.7 percent in Spain to 59.9 percent in Sweden. The high percentage in Sweden reflects a long-standing emphasis on training, public employment, and other active measures in preference to UC and passive measures. For the individual countries, the average share spent on active measures appears in the final column of Table 4.2, discussed below. Six countries spent between 20 and 30 percent for active measures while active spending fell into the 30–40 percent range in seven. The percentages were 49 percent or higher in the remaining 4 countries.

Table 4.2 displays country-specific regression results for the share of spending devoted to active measures. Typically, the regressions cover the 14 years from 1985 to 1998 (the most recent year available from the OECD), but the time periods vary by country depending on data availability. Primary interest centers on the trend in the proportion spent on active measures.

The regression equations utilize simple trend-cycle specifications, with cyclical controls being the unemployment rate for the current year and the previous year. During a cyclical downturn, spending on passive measures increases rapidly as the number of UC recipients increases and benefit duration also rises. Thus, the proportion spent on active measures would be expected to decrease. *A priori*, the sign of the coefficient on lagged unemployment is ambiguous, as there could be lagged effects on passive spending, but exhaustion of UC benefits and a response of active spending could both cause the active share to increase

Table 4.2 Regression Results for Percentage of Expenditures on Active Measures, 19 OECD Countries

Country	Constant	Unemp. rate	TUR lag	Trend 1985	Years	Adj. R^2	Std. error	Durbin- Watson	Mean
Australia	14.8 (1.8)	-1.74 (1.6)	2.42 (2.2)	0.66 (2.5)	1986-00	0.415	4.4	1.58	26.6
Austria	16.3 (0.7)	0.92 (0.1)	0.50 (0.1)	0.44 (0.7)	1985, 1990-98	-0.212	5.2	0.66	25.7
Belgium	24.5 (6.7)	-0.53 (0.9)	0.86 (1.6)	0.49 (3.9)	1985-98	0.510	1.5	2.52	31.4
Canada	20.1 (6.0)	-2.56 (5.5)	2.63 (5.6)	0.66 (7.4)	1985-99	0.863	1.5	1.55	26.7
Denmark	25.8 (11.0)	-0.83 (2.7)	-0.36 (1.1)	1.03 (11.7)	1985-98	0.926	1.3	1.57	24.4
Finland	47.3 (48.8)	-1.73 (8.2)	0.13 (0.6)	0.51 (2.7)	1985-98	0.944	1.6	1.88	36.2
France	16.8 (3.4)	1.00 (1.5)	-0.56 (0.8)	1.63 (12.6)	1985-98	0.959	1.5	0.93	33.8
Germany ^a	71.1 (13.9)	-2.12 (1.9)	-0.97 (0.9)	1.24 (3.2)	1985-98	0.731	2.4	2.33	49.3
Greece	74.9 (4.2)	-0.73 (0.2)	-4.53 (1.3)	1.34 (1.5)	1985-98	0.136	5.5	1.02	40.1

Ireland	38.1 (6.2)	− 1.05 (3.1)	0.57 (1.5)	0.40 (2.1)	1985–98	0.864	1.3	1.22	34.7
Netherlands	62.1 (10.7)	− 2.80 (4.1)	− 0.60 (1.0)	− 1.12 (4.5)	1985–98	0.812	1.4	1.92	27.7
New Zealand	60.8 (1.5)	− 3.44 (3.4)	1.73 (1.7)	− 1.27 (4.6)	1986–00	0.777	3.7	1.53	37.3
Norway	57.9 (11.6)	− 7.64 (4.4)	4.24 (2.2)	0.94 (2.5)	1985, 1988–98	0.776	3.8	2.24	49.9
Portugal	84.9 (13.2)	− 5.69 (3.9)	2.04 (1.6)	− 1.30 (4.0)	1986–98	0.753	4.3	1.51	53.4
Spain	23.5 (2.2)	− 1.44 (2.7)	1.20 (2.2)	0.40 (1.3)	1985–98	0.367	4.7	1.98	21.7
Sweden	76.2 (65.1)	− 2.68 (5.1)	1.44 (2.8)	− 1.34 (5.1)	1985–98	0.951	2.1	1.58	59.9
Switzerland	52.1 (21.8)	− 19.23 (8.3)	3.39 (1.5)	3.34 (5.2)	1985–98	0.912	4.2	2.20	41.5
United Kingdom	77.9 (11.7)	− 6.59 (8.7)	2.80 (3.6)	− 0.84 (3.6)	1985–98	0.871	2.6	1.63	38.8
United States	64.0 (9.7)	− 4.08 (3.4)	− 0.59 (0.5)	− 0.23 (1.2)	1985–99	0.718	2.4	1.20	34.4

NOTE: TUR lag: the unemployment rate from the previous year.

^aRegression also includes a dummy variable: 1 for the years 1991–1998, 0 for earlier. Beneath each coefficient is the absolute value of its *t*-ratio.

SOURCE: OECD database on social expenditures.

in the later stages of a downturn. The linear trend is included to test for secular changes in the percent spent on active measures.

The current unemployment rate enters with a negative coefficient in 17 of 19 equations and has a significant *t*-ratio in 13. Neither of the 2 positive coefficients is significant. Six of the coefficients on lagged unemployment are negative but not one is significant, while 6 of the 13 positive coefficients have *t*-ratios of 2.0 or larger. For several countries, spending on passive measures increases rapidly as unemployment rises and reduces the share spent on active measures. The increase is not sustained, however, in the following year, and the spending mix moves back towards its prerecession level. This pattern of opposite signs for current and lagged unemployment is present in 14 of the 19 countries; for 11 of the 14, at least one of the two *t*-ratios on the unemployment variables is significant.

Major interest in Table 4.2 centers on the coefficients for the trend variables. Thirteen enter positively and 10 have *t*-ratios of 2.0 or larger. Five of the remaining 6 trends, however, have negative coefficients that are also significant. The regression results suggest that the share of spending on active measures increased in about two-thirds of the countries while it decreased in the other 6. Just 4 of the 19 trend coefficients were not significantly different from zero.

The fit of the equations in Table 4.2 are generally good, with 14 adjusted R^2 s above 0.70. Also, the standard errors exceed 4.0 percent in only five countries. Given these measures, the regression equations perform reasonably well in explaining the active-passive mix of spending.

For four countries information on spending for active measures is available from 1980 or 1981, and this allows analysis of the active-passive mix for a longer period.¹⁰ Since the emphasis on activation has been greater in the 1990s than it was previously, the acceleration in the trend toward active measures is tested. The regression results, however, are not significant. Observe that Denmark and Spain do have positive trends in the regression results of Table 4.2. A test for an acceleration of the trend towards active spending during the 1990s, however, yields a negative coefficient in all four countries, and two of the four coefficients are significantly negative. For this quartet of OECD-20 countries, evidence from the 1990s suggests a trend away from spending on active measures.

Considering these results along with those presented in Table 4.2, four conclusions can be drawn. First, the share of spending on active measures varies with the unemployment rate, decreasing in years when unemployment increases. Second, for many countries, the mix between active and passive labor market measures reverts in the following year towards the prerecession mix. Third, while the trend in the share of spending was positive in about two-thirds of the OECD-20 countries, there was a significant group where the trend from 1985 to 1998 was for a decreased share of spending on active measures. Finally, extending the analysis back to 1980 in four countries, did not support the hypothesis that the trend in the mix towards active measures accelerated during the 1990s. The emphasis on active measures in OECD policy discussions is reflected only to a modest extent in actual spending.

SUMMARY

Our principal conclusion is that the OECD-20 countries display quite diverse labor market indicators. Moreover, there are systematic differences by subregion: the English-speaking countries, the countries of southern Europe, and the Scandinavian countries. The United States is shown to be an outlier. Yet, the institutional features of the U.S. labor market are used by researchers as the model for examining the labor markets of other OECD-20 countries.

Over time, there has been an increase in the number of countries with very high unemployment rates, and several countries continue to experience persistently high rates. France, Germany, and Italy have been characterized by high unemployment for more than two decades. Since these three countries have the largest economies in mainland Europe, their experiences are especially important for judging the overall condition of the labor market in the OECD-20 region.

Germany has been characterized by high unemployment rates for more than two decades. In light of this persistent problem, Germany is currently undertaking an extensive reform of its UC program. At the time of writing, the final form of the changes is not certain. What is clear is that active labor market measures, economic development

initiatives, and changes in administrative structures will figure prominently in the reform initiatives.

The unemployment experiences of smaller OECD-20 countries are different. Austria, Denmark, Ireland, and the Netherlands, four small-to medium-sized economies, can be described as success stories terms of unemployment. Much of the success has been attributed to particular institutional features, macroeconomic policies, and specific labor market interventions. Yet the success these four countries achieved in lowering unemployment has had little impact on aggregate unemployment in the OECD-20 countries.

Finally, the regression results suggest that the share of spending on active measures varies with the unemployment rate, decreasing in years when unemployment increases. For many countries, the mix between active and passive labor market measures changes back to the pre-recession mix in the following year. The results also suggest that the share of spending on active measures increased in about two-thirds of the OECD-20 countries and decreased in the other third. For the subset of four countries with longer expenditure series, the regression results are not significant. Overall, the emphasis on active labor market measures in OECD policy discussions is not consistently reflected in actual spending.

Chapter 8 examines a closely related topic: policies to shorten the duration of unemployment. This particular problem is present not only in the OECD-20 countries but also in the CEE-FSU countries to be examined in the next chapter.

Notes

1. Prominent examples include the first volume of the OECD jobs study (OECD 1994) and a summary analysis of social exclusion (OECD 1998).
2. Examples include papers by Blanchard and Wolfers (2000) and Blanchard and Portugal (2001).
3. Throughout this discussion, the term *average* refers to the simple (unweighted) average.
4. The regressions utilize dummy variables for three of the four regions. The adjusted R^2 is 0.33.
5. The adjusted R^2 using regional dummy variables to explain the registered-to-survey unemployment ratios is only 0.08. Note that two countries from southern Europe are not included in this analysis. If they were included, a stronger association might be observed.

6. See Reissert (2001).
7. Prior to unification, unemployment data for East Germany were not available as the socialist ideology of the former regime did not recognize the existence of unemployment. See Eurostat of the EU and the ILO Web site for data since unification.
8. A discussion of transitional labor markets is given in Schmid (1998).
9. See section 4.3 in Reissert (2001).
10. These four countries are Denmark, the Netherlands, Spain, and the United Kingdom.

5

Unemployment Compensation in the CEE-FSU Countries

More than a full decade has now passed since the collapse of the political systems in CEE and the FSU countries. The economic transition that followed these political changes has lasted longer and has been much more difficult than was anticipated in the early 1990s. Initially, real output declined precipitously, and the pattern of recovery has varied widely in the region. As of 2001–2002, the recovery of real output to previous levels (e.g., 1989), still had not occurred in several successor states. The closing of state-owned enterprises entailed large-scale worker dislocations in all countries from this region. Economic hardship has been widespread, especially among older and younger workers, individuals with lower levels of skill, and families residing in communities once dominated by large state-owned enterprises.

The large scale of the economic dislocations experienced throughout the region was accompanied by increases in poverty and other indicators of economic hardship. These countries have also experienced important changes in basic demographic indicators. For instance, there have been large reductions in marriage and birth rates and a significant increase in the rate of emigration, particularly among the young and highly educated. For nearly all CEE-FSU countries, average life expectancy has declined, especially among men. Regional economic disparities have become more exaggerated as strong growth in the capital cities and some other urban areas stands in contrast to worsened conditions in former centers of manufacturing and in most rural areas.

High rates of unemployment, explored in the first section of this chapter, provide a clear signal of the economic distress experienced by the people of this region. High unemployment and other indicators of economic hardship highlight the need for strong income support arrangements among workers and their families. A description of UC programs and other income support programs for the unemployed is presented in the second section of the chapter. Two developments in UC programs are explored in the third section: UI benefits administra-

tion in Bulgaria and the revision of UI financing in Russia. While both changes are discussed within the context of country-specific experiences, each change addresses a problem that is present in several CEE-FSU countries.

CEE-FSU UNEMPLOYMENT

The labor markets in these countries have been characterized by high unemployment rates and unemployment spells of very long average duration. More than half of the 28 countries from the CEE-FSU area initiated new LFSs in the 1990s. In many countries, the surveys commenced between 1992 and 1994, yielding time series of survey-based unemployment rates that now span up to 10 years. Additionally, all countries from the CEE-FSU area operate a PES, providing a second potential source of data on unemployment, that is, registered unemployment.

Average unemployment rates are illustrative of the high and persistent unemployment in these 28 countries during the four-year periods of 1994–1997 and 1998–2001. Table 5.1 displays average unemployment rates for the two periods from LFSs and from registration at employment offices. Besides displaying averages for the individual countries, Table 5.1 also shows separate all-country averages for the CEE and FSU countries where unemployment rates are displayed for both periods.

Several features of Table 5.1 are noteworthy. First, double-digit unemployment rates are ubiquitous in the LFS data. Sixteen of the 28 countries had average unemployment rates of 10.0 percent or higher. Only one country averaged less than 5.0 percent, the Czech Republic during the 1994–1997 period. Second, high unemployment is also predominant in the registration data for the CEE countries but not in the data for FSU countries. In the former group of countries, 11 of 13 entries are 10.0 percent or higher; only the Czech Republic had a rate below 5.0 percent, during the 1994–1997 period. For FSU countries, in contrast, unemployment rates are low in the registration data, and only 2 of 20 averages exceed 10.0 percent. This regional contrast in the registration-based unemployment rates is examined below.

Table 5.1 Unemployment Rates and Unemployment in CEE-FSU Countries, 1994–2001

Region and country	LFS unemployment rate (%)			EOR unemployment rate (%)			EOR/LFS ratio 1994–2001
	1994–1997	1998–2001	Change	1994–1997	1998–2001	Change	
Central and Eastern Europe							
Albania	NS	NS	NS				
Bosnia	NS	NS	NS				
Bulgaria	16.3	16.6	0.3	12.9	16.6	3.7	0.95
Croatia	9.9 ^a	14.2	4.3	19.9			1.42
Czech Republic	4.3	8.1	3.8	4.3			0.98
Hungary	10.1	6.8	−3.3	10.9	9.6	−1.3	1.31
Macedonia				36.3	50.6 ^c	14.3	
Poland	12.8	14.7	1.9	13.6	14.0	0.4	1.04
Romania	7.2	6.7	−0.5				1.19
Serbia					20.8		
Slovakia	12.5	16.8	4.3	13.4	16.9	3.5	1.11
Slovenia	7.7	7.0	−0.7				1.67
Average ^e	10.1	11.4	1.3	12.7	14.3	1.6	1.21
Former Soviet Union							
Armenia				8.4	10.7	2.3	
Azerbaijan	NS	NS	NS	0.9	1.2	0.3	
Belarus	NS	NS	NS	3.0	2.2	−0.8	
Estonia	9.2	12.0	2.8				0.39
Georgia	NS	12.6					

Table 5.1 (continued)

Region and country	LFS unemployment rate (%)			EOR unemployment rate (%)			EOR/LFS ratio 1994–2001
	1994–1997	1998–2001	Change	1994–1997	1998–2001	Change	
Kazakhstan	NS	NS	NS	2.8	3.8 ^c	1.0	
Kyrgistan	NS	NS	NS	2.8	3.1 ^c	0.3	
Latvia	17.2 ^a	13.9	– 3.3	6.8	8.4	1.6	0.55 ^d
Lithuania	16.3	15.0	– 1.3	6.1	10.5	4.4	0.52
Moldova	NS	9.0 ^b		1.3	2.0	0.7	0.21 ^b
Mongolia	NS	NS	NS				
Russia	9.8	11.6	1.8	9.4			0.27 ^d
Tajikistan	NS	NS	NS	2.6			
Turkmenistan	NS	NS	NS				
Ukraine	7.4 ^a	11.5	4.1	1.3	5.0	3.7	0.31 ^d
Uzbekistan	NS	NS	NS				
Average ^f	12.0	12.8	0.8	3.7	5.2	1.5	0.38

NOTE: NS = no LFS. All averages give equal weight to included countries. EOR = Employment office registration. Unemployment rates are in percent; change is percentage-point change.

^a Croatia, 1996–1997; Latvia and Ukraine, 1995–1997.

^b Moldova, 1999–2001.

^c Macedonia, 1998–2000; Kazakhstan and Kyrgistan, 1998–1999.

^d Latvia and Ukraine, 1995–2001; Russia, 1994–1999.

^e Average of eight countries in LFS data, ratios of registered unemployment to LFS unemployment and four countries in registration data (Macedonia excluded).

^f Average of five countries in LFS data, nine countries in registration data, and of six countries in registration data.

SOURCE: Data taken mainly from the ILO Web site.

Third, no data are shown for several countries. While this partly reflects the fact that LFSs are not administered, it also reflects the unavailability of data which have been collected. Ten of the 28 countries at present do not have an LFS, mainly FSU countries.¹ Several entries are blank, however, because countries do not readily publicize data collected through LFSs or registration. No entries appear for Albania, Bosnia, Mongolia, Turkmenistan, or Uzbekistan. These countries do not routinely make available such basic labor market information as the national unemployment rate.

Finally, perhaps the most surprising aspect of Table 5.1 is the number of situations where the average unemployment rate in the period of 1998–2001 exceeds the average for the 1994–1997 period. The table displays 28 changes in the average unemployment rates and 20 changes are positive. All four sets of changes in the overall averages are also positive. Throughout the region, the unemployment situation was generally worse from 1998 to 2001 than it was from 1994 to 1997.

The explanation for the high and even increasing unemployment rates involves several considerations. The Russian financial crisis of 1998 affected not only Russia but also several of its trading partners in the region. The war in Kosovo affected nearby countries, such as Bulgaria. Slovakia experienced higher unemployment in 1998–1999, which seemed linked to a change in the political administration. Delayed implementation of economic reforms contributed to higher unemployment in several countries towards the end of the 1990s.

An important policy debate of the 1990s concerned the speed of the transition to a market economy with individual countries adopting different policies. Within the most western of the CEE economies, Hungary and Poland are generally perceived as promoting a speedy transition, sometimes termed shock therapy, while the Czech Republic and Slovakia generally followed a more deliberate agenda. The Hungarian experience seems to provide support for the merits of the speedy approach as the average unemployment rate dropped 3.3 percentage points in the later period. Unemployment increased, however, in Poland in the 1998–2001 period. The large increase observed for Slovakia was at least partly due to the effects of a change of political regime; the Mecir administration lost the fall 1998 elections, and unemployment started to increase shortly afterward. It appeared that there was a

shift towards a more restrictive fiscal policy prior to the change of political administration.

Among the other countries with lower average rates of unemployment during the 1998–2001 period, Latvia and Lithuania could be described as pursuing policies to achieve a speedy transition. Small reductions in average unemployment, however, also occurred in Romania and Slovenia—countries that followed comparatively gradualist approaches. Thus, no overall pattern is apparent regarding the speed of the transformation and the time paths of the unemployment rates for the countries located wholly within continental Europe.

The five countries that succeeded the former Yugoslavia have followed a distinct time path strongly influenced by military conflict. Only Slovenia avoided extensive fighting (or major infusions of refugees) within its borders during this decade. Because military activities were spread across several years, the unemployment data from the other four countries (Bosnia, Croatia, Macedonia, and Serbia) reflect an admixture of the effects of the economic transition (which commenced before the 1990s in the former Yugoslavia) and the military conflicts. Observe that the four highest averages in the table (Croatia in 1994–1997, Macedonia in both periods, and Serbia in 1998–2001) are from these countries. Of these countries, only Croatia and Slovenia have LFS data in Table 5.1.

It is widely recognized that the economic transition commenced later in FSU countries than in CEE countries. During the first half of the 1990s many FSU countries tried to function with as little change as possible from the Soviet era. Because LFSs are less common in FSU countries, developments in unemployment for several must be inferred from the data on registered unemployment. For every FSU country except Belarus, the 1998–2001 average exceeded the 1994–1997 average in the registered unemployment data. For both Russia and Ukraine, a similar pattern is also observed in the LFS-based unemployment rates.

Table 5.1 also indirectly reveals important contrasts between the countries in the two groupings. Seven of the CEE countries along with Estonia, Latvia, and Lithuania will probably enter the EU during the present decade.² Note that each of these countries displays LFS-based unemployment rates in Table 5.1. All have UC programs along with other income support programs for the unemployed. All operate with

a PES that serves the majority (or at least a large fraction) of the unemployed. Strong contrasts across these countries, however, are seen in the ratios of registered unemployment to LFS-based unemployment. For eight CEE countries, the ratios ranged from 0.95 to 1.67, averaging 1.21 during the 1994–2001 period. Among six FSU countries, the ratios ranged from 0.21 to 0.55, averaging 0.38 during the same years. Note that the three in the latter group with the highest ratios are the three Baltic republics of Estonia, Latvia, and Lithuania. Their average ratio of 0.49 is nearly double the average of 0.26 for the other three FSU countries (Moldova, Russia, and Ukraine). The penetration of the PES into the labor market, however, is clearly much greater among the CEE countries than among the Baltic republics.

UNEMPLOYMENT PROTECTION ARRANGEMENTS

Unemployment was not officially recognized in the socialist economic systems of the CEE-FSU countries. Prior to the 1990s, however, UC programs were available in several CEE countries. For instance, Bulgaria, East Germany, Hungary, and Yugoslavia had enacted UC legislation prior to their transition to market-based economic systems. The pretransition UC statutes authorized short-term benefits (up to three months) with low levels of means-tested income support.³ No performance data have been found for these programs, but some of their features have persisted in current UC programs. In parts of former Yugoslavia means testing of unemployment benefits continued through the mid-1990s.

Following the collapse of the Soviet block, market-based economic systems were adopted, particularly in the CEE countries. While it was recognized that the transition to a market economy would entail dislocations and unemployment, it was anticipated to be short run. New UC programs were enacted in the vast majority of the successor countries and, in most cases, the new program was a UI program. The rate of adoptions was rapid, with 18 countries enacting UC laws in 1991 and four in 1992. With the single exception of Kazakhstan, which ended its program in 1996, these UC programs have continued to function down to the present.

Because both the UC programs and the phenomenon of open unemployment were quite new, there were many surprises in the early years of the 1990s. Two were the rapid increase in unemployment and the unexpectedly high level of UC costs. While the initial program provisions were often modest compared to functioning systems in Western Europe, the new UC programs experienced unexpectedly high costs and difficulties in administering benefits. Because actual UC costs were so much higher than anticipated, pressures to balance program expenditures with revenues emerged in the very first years of operation. Adjustments to the funding imbalance included changes in UC statutory provisions and in administrative rules with the objective of reducing access to benefits, benefit duration, and payment levels.

On average, these pressures emerged more quickly in the CEE countries than in the FSU countries because the former group evolved away from the previously centrally planned systems at a much faster pace. Employment collapsed at a faster rate in the CEE countries and unemployment increased more rapidly. For many FSU countries, in contrast, the most rapid pace of economic dislocation occurred during the mid-1990s.

Developing the appropriate administrative and policy responses to the severe dislocation in the labor market presented major challenges. Several legislative changes were enacted in individual countries, especially those with a large UC client base. Labor market policy initiatives emphasized both active and passive measures, but within a budgetary environment of inadequate resources and a labor market with persistently high average unemployment duration.⁴

Appendix D provides some details of the evolution in UC program statutes and other support for unemployed persons (either ineligible for UC or those who exhausted UC benefits). Table D.1 focuses on 12 countries (7 CEE and 5 FSU) selected from the 28 CEE-FSU countries. Two selection criteria were used: 10 countries have been invited to join the EU during the next few years and two countries, Russia and Ukraine, have the largest populations of all countries in the CEE-FSU region. These 12 countries have UC programs serving measurable numbers of clients and all support an LFS so that the UC reciprocity rate can be assessed.

From the outset, the UC programs in these countries experienced funding problems because the volume of recipients persistently ex-

ceeded initial expectations. While their detailed provisions have not been particularly generous when compared to OECD-20 countries, benefit costs often exceeded the payroll tax revenues that support most UC programs, necessitating support from the general budget. In some countries, payments to eligible persons were not made or were partial and/or made after long time delays. The problem of payment arrears was more widespread in FSU countries where local and regional governments often had partial responsibility for financing UC benefits. Thus, pressures to restrict UC access and benefit levels were encountered from the first years of operation. Table D.1 displays four UI provisions for 1991, 1997, and 2001 for the 12 countries. Because the UC programs were new, they were the subject of frequent legislation. The table shows that during both periods (1991–1997 and 1997–2001) numerous restrictions on benefits were enacted. For both periods, the number of UC restrictions exceeded the number of liberalizations by a ratio of about two to one.

Faced with both UC funding problems and long-duration unemployment, these countries all modified their existing SA programs in the early to mid-1990s to provide benefits to the unemployed. Payments were allowed for both individuals ineligible for UC (due to inadequate prior work experience or other disqualifying circumstances related to the job separation or the prior receipt of UC benefits) and those who had exhausted UC benefits.

Boeri and Edwards (1998) examine these developments through the mid-1990s for the CEE countries (outside the areas affected by military conflicts). They show that adoption of this two-tier UC-SA strategy was universal among their sample of countries.⁵ The final two columns of Table D.1 focus on developments in SA for the unemployed through 2001. All 12 countries continue to provide SA to the unemployed. In about half the countries, SA is available without time limits for those satisfying the means test and other eligibility criteria.

Table D.2 provides data on UC reciprocity and costs for four countries (Bulgaria, Estonia, Slovakia, and Ukraine) using the cost framework developed in Chapter 3. These annual data span the period from the mid-1990s to 2000–2001. Data for the UI programs show them to have modest reciprocity rates and low replacement rates. Based on just their UI programs, generosity is generally low but considerably higher in Bulgaria and Slovakia than in Estonia and Ukraine. Despite having

low generosity, the programs in Bulgaria and Slovakia have experienced UC cost rates that consistently have exceeded 1.0 percent of covered payrolls, reflecting high unemployment.

Unemployed SA recipients in both countries represent a sizeable share of the combined caseload. The SA component consistently represented more than 60 percent of the combined caseload in Slovakia between 1995 and 2000. From 1999 to 2001, SA recipients averaged 35 percent of the combined caseload in Bulgaria.

Payment levels for SA recipients are higher (relative to UI payment levels) in Slovakia than in Bulgaria. Thus, the higher caseloads caused by paying SA benefits to the unemployed have differing total cost implications. In Bulgaria, total costs (UI plus SA) were only about 27 percent higher for the six-year period from 1995 to 2001 but 38 percent higher from 1999 to 2001. In Slovakia, total costs were 158 percent higher when SA benefits paid to the unemployed were added to UI costs.

Policies have been initiated to reduce reliance on SA benefits among the unemployed in both Bulgaria and Slovakia. Slovakia sharply reduced the generosity of SA benefits by lowering the payment level after 12 months to half of the initial level, a policy first initiated in 2001. Commencing in late 2002, Bulgaria has required mandatory participation in its new initiative "From Social Assistance to Employment" for all unemployed SA recipients in benefit status for more than one year. Refusal to participate causes sanctioning in most individual situations. The initiatives in the two countries have the common objective of hastening the return of able-bodied, working-age SA beneficiaries to employment.

Recognizing the presence of SA as well as UC benefits to the unemployed causes a substantial increase in measured reciprocity rates and total costs. An analysis that does not incorporate the SA component of unemployment protection costs in CEE-FSU countries would be seriously incomplete. To secure the requisite data, acquiring SA data presents a larger challenge than obtaining UC cost data. It is absolutely essential to obtain this information in order to gain a full picture of the actual cost of providing income support to the unemployed in these countries.

More than likely, the prospect of accession to the EU during the present decade will influence the UC programs in the 11 CEE-FSU

countries nominated for admission.⁶ Harmonization of social protection systems will be a motive for change and an ongoing concern. While the largest cost implications of this harmonization involve pension benefits, there will also be effects on UC statutes. Recent changes in Estonia's UC program are illustrative of changes that may take place elsewhere. Legislation enacted in 2002, with benefit provisions effective in 2003, moved the previous flat benefit system towards a more traditional earnings-based UI system (all four UI provisions covered by Table D.1 were changed by this legislation). As a result, average benefit levels in Estonia are expected to more than triple after the new provisions are fully in place. It is likely that other countries may also introduce liberalizing changes, the underlying motivating factor being the prospect of EU accession.

Instituting liberalizations in UC benefits in labor markets with high open unemployment rates will not immediately alleviate unemployment problems. In the longer run, closer ties to the EU can operate to improve efficiency and economic performance. The outcome will depend in part on macroeconomic and labor market policies.

BULGARIA AND RUSSIA: TWO SHORT STORIES

Certain developments specific to individual CEE-FSU countries merit a brief analysis because they illustrate changes motivated by perceived structural flaws in the design and/or administration of the existing UC programs. While both changes are discussed within the context of individual country experiences, each change addresses a problem that exists in several CEE-FSU countries.

Benefit Payments in Bulgaria

The emergence of the gray economy has been widespread throughout in the CEE-FSU countries. The administration of UI tax collections and benefit payments needs to recognize and try to offset the actions of claimants and employers in this area.⁷

Starting in 2002 Bulgaria embarked upon a major consolidation of its benefit payments administration. The National Social Security Institute (NSSI) has traditionally administered the payment of social

insurance benefits for retirement, disability, and survivorship. In 2002, the NSSI was authorized to administer payments for UI and for short-term sickness and maternity leave. These payments had traditionally been administered by the State Employment Service (now the Employment Agency) and directly by employers, respectively.⁸ The change-over in benefit payments administration is slated to continue into 2004 and 2005.

Since 1997 the NSSI also has been collecting monthly earnings records for workers covered by the public pension system (hereafter, earnings records). The main purpose of the collections is to develop earnings histories for individuals to be used in pension determinations at retirement. During 2002, the NSSI conducted cross-matches between UI benefit payments and its earnings records and found that about 10 percent of recipients had full monthly earnings during the same months when benefits were received.⁹ The scale of the overlap between benefits and earnings confirmed suspicions about the abuses associated with social protection payments and had been one factor in the decision to consolidate benefit payments administration under the NSSI. The net effect of the cross-matches, coupled with attendant publicity about cross-match activities, is to target UI payments more effectively to unemployed persons.

The failure to declare earnings is a major administrative problem across many UI programs, but program administrators often do not have a good means for timely identification of such situations. If the failure to report covered earnings arises solely from the claimant's initiative, a cross-match with earnings records can be most productive, as illustrated by the Bulgarian experience. To perform such a cross-match, an effective information technology (IT) structure is needed. Four requirements are necessary. The first is effective establishment and enforcement of a system of unique identification numbers for individuals. Second, timely access to electronic micro data on benefit payments is required. Third, earnings records for individuals must be available in a timely manner. Finally, there must be high level policy interest and IT technical support for cross-matches of different administrative activities. Bulgaria has both the necessary IT capability and an administrative structure where benefits records and earnings records for individuals can be accessed by the NSSI. Even with all four conditions present, however, collusion between employers and workers can vitiate

the effectiveness of cross-matches. The Bulgarian initiative works in cases where the earnings are reported. Persons who work “off the books” would elude detection.

Bulgaria will further consolidate benefit payments administration under the NSSI in the near future. In 2004, the payment of UI, sickness, and maternity benefits will become the responsibility of NSSI. The long-run vision is for NSSI to administer all payments of social protection benefits. The consolidation will permit the NSSI to more easily detect unwarranted duplication in the receipt of benefit payments as well as the simultaneous pairwise occurrences of earnings with the receipt of benefits for each program within its administrative domain.

UI Financing in Russia

In 2002, Russia instituted a major overhaul in the financing of its UI program. The change shifted the locus of tax collection responsibilities away from the regional (oblast) governments to the national government. In many FSU countries, the collection of payroll taxes has been primarily the responsibility of regional governments. This decentralized arrangement has characterized the collection systems that support public pension programs, health programs, and labor market programs. While this financing arrangement worked relatively well during the Soviet era, it has proved difficult to effectively extend collections to the new business entities that have emerged during the economic transition. As the economic transition has proceeded, revenues have lagged further and further behind the amounts needed to finance social benefits.

The underlying premise for payroll tax collections was that aggregate receipts would be sufficient to cover benefit costs, but that deficits and surpluses would exist for individual geographic areas. Each region was to retain a fraction of its initial collections and submit the remainder to a central authority. The central authority, in turn, would return these monies to the oblasts on an as needed basis.¹⁰ In practice, it became increasingly difficult to finance social programs for two reasons. Aggregate revenues became increasingly insufficient and surplus regions avoided submitting part of their revenues to the central tax authority. As a result, payment arrears developed and were largest in the regions with financing deficits. This problem has been most acute for

the pension programs because their costs are highest and account for the largest share of total payroll taxes, typically some 70 to 80 percent of all payroll taxes. With insufficient aggregate revenues, substantial pension payment arrears accumulated.

The UI programs in many FSU countries have used this decentralized system of payroll tax collections, essentially a carry-over from the Soviet period. Because unemployment rates vary widely across regions, UI financing problems have arisen, most acutely in regions with the highest unemployment rates. Surplus regions, wanting to be assured of adequate funding to make payments to claimants from their region, have retained most or all of their collections. The central administration then had insufficient monies to transfer back to deficit regions. In deficit regions, payments simply were not made. This not only adversely affected the income of the unemployed, it also limited their utilization of PES offices for job-matching services and other help in securing new jobs.¹¹

In the area of UI financing, the CEE-FSU countries could learn from the experiences of other countries. Most UI programs throughout the world are financed nationally with payroll taxes levied at a uniform rate. Cross-subsidization at a number of levels is an implied part of these financing arrangements. There are net subsidies (benefit payments less revenues) across geographic areas, across industries, and within industries as employers follow different policies regarding long-term employer-employee relationships.

Studies in Canada and the United States have investigated the extent of cross-subsidies and shown that it depends crucially upon UI financing arrangements. In the United States, for example, cross-subsidies between the states are precluded in the regular UI programs because the programs are fully financed at the state level. Furthermore, net subsidies across industries are reduced due to experience rating. Recent literature in this area includes papers by Anderson and Meyer (1993), Vroman (1996), and Woodbury (2003). Large net subsidies flow to agriculture, mining, and construction, and from the retail trade, finance, and service industries. The patterns have been stable for more than four decades since the earliest work by Becker (1972).

Canada has a typical financing arrangement with national collection of UI (EI) taxes levied at uniform tax rates.¹² Research on various aspects of cross-subsidies in Canada has been conducted by Karagian-

nis (1986), Corak and Pyper (1995), and Corak and Chen (2003). The patterns of net subsidies across industries and regions have been stable in Canada since the early 1970s. The interindustry pattern is similar to that found in the United States, with agriculture and construction as the major recipients of net subsidies while the finance and services industries are consistently net donors.¹³

The size of the geographic cross-subsidies in the Canadian program is not only large but also persistent. For the 11 years from 1986 to 1996, total benefit payments were \$15.2 billion (in 1997 Canadian dollars). The net subsidy to the five eastern provinces during these years was \$2.4 billion. The ratio of benefits to UI taxes ranged from 1.29 in Quebec, the largest of the five, to ratios above 3.00 in Newfoundland and Prince Edward Island. Net subsidies were provided by the other provinces west of Quebec, with Ontario providing the largest share. Corak and Chen (2003, Part II) vividly document these patterns by industry and province.

The change in Russia's method of UI financing will operate to increase reciprocity, particularly in the regions with high unemployment. This change will improve the targeting of benefit payments to persons in the geographic areas where the need for UI benefits is greatest. Since this is but one change within a UI program characterized by low reciprocity, albeit an important one, it remains to be seen how much reciprocity will increase in the areas of high unemployment.

SUMMARY

The problems of unemployment as well as questions of UC costs and program administration were examined in the CEE-FSU geographic area. The labor markets in the countries of this region have been characterized by high unemployment rates and unemployment spells of very long average duration. Moreover, the unemployment situation deteriorated throughout the region during the 1998–2001 period from the position during the 1994–1997 period. This deterioration was attributed to three adverse developments: the Russian financial crisis of 1998, the effects of the conflict in Kosovo, and delayed implementation of economic reforms. Yet, important contrasts between the CEE and FSU countries were noted.

While an important policy debate of the 1990s concerned the speed of the transition to a market economy, there does not appear to be an overall pattern that links the speed of the transformation to the time path of the unemployment rate. For instance, Latvia and Lithuania pursued policies to achieve a speedy transition and managed to reduce average unemployment. Small reductions in average unemployment, however, also occurred in Romania and Slovenia, countries that followed a more gradual approach.

It was recognized that the transition to a market economy would entail dislocations and unemployment, but the severe nature of these problems has presented major challenges. Three were noted: the rapid increase in unemployment, the unexpectedly high level of UC costs, and the difficulties in administering benefits. Several legislative changes were enacted, including changes in UC statutory provisions and administrative rules with the aim of reducing access to benefits, the duration of benefits, and the level of payments. Labor market policy initiatives emphasized both active and passive measures, but within a constrained budgetary environment.

From the outset, the UC programs in the CEE-FSU countries experienced funding problems because the volume of recipients persistently exceeded initial expectations. The administration of benefit payments in Bulgaria was used as a case study to illustrate the problems encountered in this area. Starting in 2002, the Bulgarian NSSI embarked upon a major consolidation of its benefit payments administration. In terms of UC, the objective was to target payments more effectively to unemployed persons. This objective was achieved by trying to detect unwarranted duplication in the receipt of benefit payments with concurrent earnings. By cross-matching benefit payments with earnings records, an agency can be more effective in serving the appropriate client base. Of course, an effective IT structure is necessary to undertake such cross-match activities. This structure is necessary, however, but not sufficient. For instance, collusion between employers and workers can impair the efficiency of an effective IT structure.

The financing of the UC program in Russia was used as another case study to illustrate the problems encountered in funding. In 2002, Russia instituted a major overhaul in the financing of its UI program by shifting tax collection responsibilities away from the regional (oblast) governments to the national government. The underlying premise was

that aggregate receipts would be increased to cover benefit costs, and any deficits would be reallocated to the oblasts needing additional funds. More than likely, the change in the method of UI financing will lead to increased reciprocity, particularly in the regions with high unemployment. Moreover, it will improve the targeting of benefit payments to persons in the oblasts where the need for UI benefits is greatest. It was noted, however, that since this is but one change within a UI program characterized by low reciprocity, it remains to be seen how much reciprocity will increase in the oblasts with high unemployment.

Notes

1. The two CEE countries are Albania and Bosnia, while the eight FSU countries are Azerbaijan, Belarus, Kazakhstan, Kyrgistan, Mongolia, Tajikistan, Turkmenistan, and Uzbekistan.
2. In May 2004, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, and Slovenia were formally accepted into the EU. Bulgaria, Croatia, and Romania are candidate countries.
3. Details appear in issues of *Social Security Programs Throughout the World* that predate the 1990s.
4. Large proportions of unemployment spells lasted for more than 12 months. The average percentages in five CEE countries between 1995 and 2000 were Bulgaria, 61; the Czech Republic, 35; Hungary, 51; Poland, 38; and Slovakia, 52.
5. Boeri and Edwards (1998) also document the evolution of selected UC benefit provisions through roughly middecade.
6. Eight countries were formally accepted into the EU in May 2004; three are candidate countries. See note 2 for the list of countries.
7. This discussion is based on Vroman's work in Bulgaria in 2000–2003 and conversations with Ms. Hristina Metreva of the National Social Security Institute (NSSI).
8. Consolidation of Bulgarian tax collection administration is also under way.
9. Similar cross-matches were made between earnings records and short-term sickness and maternity benefits. For these benefits, the NSSI found that the overlap was nearly 15 percent of recipients.
10. In many countries this arrangement was intended to operate at two levels: from local areas (*raions*) to regions and from regions (*oblasts*) to the national authority.
11. Note in Table 5.1 the low ratios of registered to LFS-based unemployment for Moldova, Russia, and Ukraine.
12. The Unemployment Insurance Act was given Royal Assent in Canada on August 7, 1940. A major reform of the UI program, the Employment Insurance Act, was passed in July 1996.
13. In the United States the net subsidies across industries are reduced by the experience rating of UI taxes. See Vroman (1996) for a comparison of the interindustry subsidies in Canada and the United States.

6

Unemployment Compensation in East and South Asia

The countries of East and South Asia have the widest range of relative income variation among the eight regions studied in this volume. On the other hand, most of the countries of this region generally have low unemployment rates, with only the Philippines, Sri Lanka, and Pakistan having relatively high rates of unemployment. Unemployment rates increased, however, following the Asian financial crisis of 1997, and they continued to be higher in 2000–2001 than they were at the start of the 1990s. More than likely, unemployment rates in the region are going to remain higher than the rates experienced in the precrisis period.

To the extent that unemployment will be higher in the future, the need for income protection for the unemployed will grow. Yet, UC programs are not common in Asia. Indeed, there is not a strong tradition of utilizing PES to secure reemployment so that job matching by public agencies is generally quite limited. The Asian financial crisis highlighted the risks inherent in this situation, particularly with the large increases in poverty rates that accompanied the higher unemployment.

Certain institutional features in Asian labor markets would inhibit the applicability of a UC program. First, a sizeable share of employment is in agriculture, where UC traditionally does not apply. Second, particular groups of workers usually excluded by UC programs, such as the self-employed, form a high proportion of total employment in many Asian countries. Hence, if a low-income country in the region were to adopt UC with customary coverage provisions, it would likely include less than half of the total labor force. These issues are explored in the first section of the chapter.

The second section of the chapter describes UC reciprocity in four countries with functioning UC programs as of 2001: Hong Kong, Japan, Korea, and Taiwan. Not only have unemployment rates risen in recent years, but UC caseloads have also increased. The growth in

UC reciprocity was more dramatic than the growth in unemployment, particularly in Korea and Taiwan. This alarmed policymakers in Hong Kong, Korea, and Taiwan and led to the implementation of initiatives to increase the likelihood of reemployment.

Given that Korea was one of the five Asian economies most affected by the Asian financial crisis, the Korean experience with UC is reviewed in the third section of this chapter. The fact that Korea had established UC before the Asian financial crisis makes the case study all the more interesting because the performance of the program during the crisis can be assessed. In fact, serious shortcomings in the structure of the UC program were revealed and several changes were implemented to make the program more accessible to the unemployed.

OVERVIEW OF THE LABOR MARKET

As noted in Chapter 2, the Asian region (along with Sub-Saharan Africa) has the widest range of relative income variation among the eight regions studied in this volume. This point is reemphasized in column (1) of Table 6.1, which displays the 22 Asian economies arrayed by their level of real per-capita GDP in 1999. For the top 11 and bottom 11 countries the simple (unweighted) averages of their income levels were \$11,600 and \$1,618, respectively.

Several labor market factors are correlated with the level of income in these countries. Fourteen of 22 countries conduct LFSs, all 11 with the highest income levels plus Pakistan, Bangladesh, and (since 2000) Cambodia.¹ The generally low unemployment rates are illustrated in columns (3) and (4). Only the Philippines, Sri Lanka, and (possibly) Pakistan could be described as having high rates of unemployment.

Column (5), however, provides an explicit comparison of unemployment rates before and after the Asian financial crisis. It is generally agreed that the crisis affected unemployment mainly during 1998 and 1999 and that five Asian countries (Indonesia, Korea, Malaysia, the Philippines, and Thailand) were most severely affected. Column (5) shows a before-and-after comparison for these countries along with other countries with ongoing LFSs. For all five countries, unemployment rates were higher in 2000–2001 than in 1995–1996, and the increase was in the 1.9- to 2.1-percentage-point range for four. Only

Table 6.1 Summary Characteristics of Asian Economies and Labor Markets

Country	Per-capita GDP 1999(\$) (1)	LFS (2)	Unemp. rate 1995–96 ^a (%) (3)	Unemp. rate 2000–01 ^b (%) (4)	Unemp. rate change (5)	UC type (6)	Reg. job seekers/ unemp. 1990s (7)	Nonag. emp. share 2000 ^c (8)	Wage-sal. employee share 2000 ^c (9)
Japan	25,170	Yes	3.3	4.9	1.6	UI	0.38	0.95	0.83
Hong Kong	22,570	Yes	3.0	5.1	2.1	UA	0.09	1.00	0.90
Singapore	22,310	Yes	2.9	3.9	1.1		0.04	1.00	0.90
Korea, South	15,530	Yes	2.0	3.9	1.9	UI	0.09 ^c	0.90	0.62
Taiwan	15,000	Yes	2.2	3.8	1.6	UI		0.92	0.71
Malaysia	7,640	Yes	2.8	3.5	0.7		0.13	0.82	
Thailand	5,950	Yes	1.6	3.5	1.9	UI ^d		0.53	0.40
Philippines	3,990	Yes	7.9	10.0	2.1			0.60	0.48
China	3,550	Yes	2.7	3.1	0.5	UI		0.53	
Sri Lanka	3,230	Yes	11.9	8.0	–3.9	UI ^d		0.65	0.60
Indonesia	2,660	Yes	4.1	6.1	2.0		0.30	0.57	
Papua New Guinea	2,260								
India	2,230								
Myanmar (Burma)	2,000							0.37	

Table 6.1 (continued)

Country	Per-capita GDP 1999(\$)	LFS (2)	Unemp. rate 1995–96 ^a (%)	Unemp. rate 2000–01 ^b (%)	Unemp. rate change (5)	UC type (6)	Reg. job seekers/ unemp. 1990s (7)	Nonag. emp. share 2000 ^c (8)	Wage-sal. employee share 2000 ^c (9)
Vietnam	1,860					UI ^d			
Pakistan	1,860	Yes	5.4	7.8	2.4		0.12	0.52	0.36
Bangladesh	1,530	Yes	2.5	3.3	0.8			0.38	0.15
Laos	1,430								
Cambodia	1,350	Yes		2.2					0.15
Nepal	1,280								
Bhutan	1,200								
Afghanistan	800								

NOTES: Unemployment rate change is percentage-point change.

^a Indonesia data are for 1995 only. Bangladesh data are for 1996 only.

^b Bangladesh, Indonesia, Pakistan, and Sri Lanka data are for 2000 only.

^c Philippines data refer to 1999. Sri Lanka data refer to 1996.

^d Country plans to establish a UI program.

^e Average for 1998–2000.

SOURCE: World Development Report for per-capita GDP. Other data from the ILO Web site and country publications.

Malaysia had a smaller increase between 1995–1996 and 2000–2001. Note that four other high-income Asian countries (Japan, Hong Kong, Singapore, and Taiwan) also had higher unemployment rates in 2000–2001 than in 1995–1996. The 2000–2001 rate was at least one full percentage point higher for all four, and the increase was between 1.6 and 2.1 percentage points for three of those. Higher unemployment was widespread during 2000–2001. In fact, for the 13 countries where comparisons are possible, only Sri Lanka had lower unemployment in 2000–2001 than in 1995–1996. While this comparison may be influenced by lingering effects of the Asian financial crisis (affecting unemployment rates during 2000), it could also suggest that unemployment rates in Asia are not going to return to the very low levels observed during the 10 to 15 years of the precrisis period.

To the extent that unemployment will be higher in the future, the need for income protection for the unemployed will grow. In contrast to the OECD-20 countries, Asian countries have operated small-scale programs of active and passive labor market measures. The Asian financial crisis highlighted the risks inherent in this situation, with large increases in poverty rates that accompanied the higher unemployment of 1998 and 1999.²

Unemployment compensation (UC) programs are not common in Asia. Table 6.1 identifies the five countries with functioning UC programs in 2001. Of these, the program in Japan has been operating for more than 50 years and is the largest. Korea and Taiwan established programs in the 1990s. The generally small scale of the Asian UC programs has already been noted in the discussion of UI costs in Chapter 3. Three additional countries that are considering or have recently adopted UC (Thailand, Vietnam, and Sri Lanka) are also identified. Thailand had planned to start a program in the fall of 2003, but this was delayed until mid-2004, while the start-up dates for Sri Lanka and Vietnam are uncertain, perhaps 2006. Because of their recent start-ups, the initial experiences of the UC programs in Korea and Taiwan are of particular interest. The Korean experience is reviewed later in this chapter.

To function most effectively, UC programs must be able to assist claimants in learning about job vacancies, facilitate job search, provide counseling and assessments, and refer people to training. One indicator of the presence of these activities is data on job registrations with the

public labor exchange. Recall from Table 4.1 that ratios of registered job seekers to LFS unemployment averaged about 1.0 in the OECD-20 countries. The seven ratios shown for Asian countries are much lower, ranging from 0.04 to 0.38 (Table 6.1). The ratios exceed 0.15 only for Indonesia (0.30) and Japan (0.38). The PES operation in most Asian economies is small scale. There is not a strong tradition of utilizing the PES to secure new jobs. Thus, the ability to perform the job-matching function is generally quite limited across these countries.

There are other facets of employment in Asia that would inhibit the applicability of a UC system. In many countries, a sizeable share of employment occurs in work situations where UC traditionally does not apply. First, agriculture usually falls outside the scope of UC coverage. This is a highly seasonal industry and typically many, or most, workers are the farm owners and other family members. The agricultural employment share traditionally is much higher in countries with low per-capita income. Column (8) shows the nonagricultural shares for 14 of the 22 Asian countries. The nonagricultural shares are close to (or round to) unity in the three highest income countries (Hong Kong, Japan, and Singapore) whereas the shares fall into the 0.37 to 0.53 range in five (Bangladesh, China, Myanmar, Pakistan, and Thailand). The proportions in the high-income Asian countries resemble those of the OECD-20 countries (outside of southern Europe), as shown in Table 4.1.

Second, certain groups of workers are rarely covered by UC programs: employers, the self-employed, unpaid family workers, and members of production cooperatives. Coverage most usually applies to wage and salary employees (so-called dependent employees). Column (9) shows the wage and salary shares of total employment in 2000. These proportions also vary widely. For the three highest income Asian countries, the proportions exceeded 0.80, as in the OECD-20 countries. However, for the lower-income countries (where data are available), the proportions are much lower: five fall below 0.50. If one of the lower-income Asian countries were to adopt UC with customary coverage provisions, it would apply to much less than half of the total labor force.

Data from Thailand are useful for illustrating this point. In the fourth quarter of 2002, employment totaled 33.1 million but only 41 percent were wage and salary workers, just one percentage point higher

than the 40 percent for 2000 shown in Table 6.1. Workers from agriculture, employers, own-account workers (self-employed), and unpaid family workers combined to represent 60 percent of total employment. The example is interesting because Thailand is establishing a UI program, with payments commencing in mid-2004. From the preceding discussion, it would seem likely that less than half of unemployment would be potentially covered in Thailand. The UC coverage question is revisited in Chapter 8.

UC RECIPIENCY IN ASIA

Table 6.2 presents annual summary data on unemployment and UC reciprocity since 1990 for four of the five countries with functioning UC programs as of 2001 (all but China). Panel A displays unemployment rates, again illustrating that unemployment rates in the most recent years have been much higher than at the start of the 1990s. The simple averages across the four countries were 1.9 percent in 1990 but 4.7 percent in 2001. The combined annual unemployment across the four increased from 2.0 million in 1990 to 4.9 million in 2001 (Panel B).

Panel C traces the time paths of UC reciprocity in each country. In Japan there were twice as many recipients at the end of the period as in 1990. For the other three countries, the increases were much more dramatic. In Hong Kong, the UA program average caseload from 1998 to 2001 averaged 27,000 compared to 2,500 from 1990 to 1993. Although the data periods are much shorter for Korea and Taiwan, both countries have witnessed very large caseload increases since the inception of their programs. Thus, some of their caseload growth reflects factors associated with initiating a new UI program, also note that both countries experienced higher unemployment rates shortly after their programs commenced. Finally, as will be described below, Korea's increased reciprocity has been influenced by policy changes designed to make the program more accessible to the unemployed.

While much of the caseload growth in all four countries simply reflects the increase in unemployment, Panel D shows there has been a large increase in the reciprocity rate for three. At the same time, note the generally low levels of the reciprocity rates even in the most recent

Table 6.2 Unemployment Rates and UC Reciprocity Rates for Four Asian Countries, 1990–2001

	Japan	Hong Kong ^a	Korea	Taiwan
A. Unemployment rates (%)				
1990	2.1	1.5	2.4	1.7
1991	2.1	1.9	2.3	1.5
1992	2.2	2.0	2.4	1.5
1993	2.5	1.8	2.8	1.4
1994	2.9	2.4	2.4	1.6
1995	3.2	3.3	2.0	1.8
1996	3.4	2.4	2.0	2.6
1997	3.4	3.0	2.6	2.7
1998	4.1	5.4	6.8	2.7
1999	4.7	6.1	6.3	2.9
2000	4.7	4.7	4.1	3.0
2001	5.0	5.7	3.8	4.5
B. Unemployment (in thousands)				
1990	1,340	43	454	140
1991	1,360	55	436	130
1992	1,420	55	465	132
1993	1,660	53	550	128
1994	1,920	72	490	142
1995	2,100	101	420	165
1996	2,250	78	426	242
1997	2,303	99	556	256
1998	2,787	179	1,461	257
1999	3,171	202	1,353	283
2000	3,198	159	913	293
2001	3,397	197	845	444
C. UC beneficiaries (in thousands)				
1990	482	1.7		
1991	494	2.0		
1992	571	2.6		
1993	699	3.5		
1994	780	4.6		
1995	837	7.7		
1996	844	13.0	2.1	
1997	899	16.6	10.3	
1998	1,053	26.7	113.6	
1999	1,068	29.7	142.6	3.3
2000	1,029	23.9	76.5	8.8
2001	1,077	26.9	117.0	40.5

Table 6.2 (continued)

	Japan	Hong Kong ^a	Korea	Taiwan
D. UC reciprocity rates				
1990	0.360	0.040		
1991	0.363	0.037		
1992	0.402	0.047		
1993	0.421	0.066		
1994	0.406	0.064		
1995	0.398	0.076		
1996	0.375	0.167	0.005	
1997	0.390	0.168	0.018	
1998	0.378	0.150	0.078	
1999	0.337	0.147	0.105	0.012
2000	0.322	0.151	0.084	0.030
2001	0.317	0.137	0.138	0.091

^a Data refer to fiscal years ending on March 31 of the following year, e.g., 2001 spans the months from April 2001 to March 2002.

SOURCE: Data from ILO and labor market publications of individual countries.

years. While Japan has had reciprocity proportions consistently in the 0.32 to 0.42 range, the ratios for the other three countries have been less than 0.17 for every year covered in Panel D.

The dramatic growth in caseloads in Hong Kong has alarmed public officials and program administrators. Concerns have emerged about possible long-term welfare dependency and have motivated new policy initiatives designed to speed reentry into employment.³ In 1998 the government convened an interdepartmental steering group that was chaired by the Director of Social Welfare and undertook a major review of the system of income support. Several recommendations were made, including the establishment of a "Support for Self-Reliance" scheme (Hong Kong Social Welfare Department 1998). The scheme included three elements: 1) more active assistance to help the unemployed to find new work, 2) a requirement that the unemployed participate in unpaid community work, and 3) an increase in the earnings disregard to improve incentives for the UA recipients to seek work.

These recommendations have already been implemented, and evaluations of "Support for Self-Reliance" are being undertaken. At the same time, however, unemployment has remained in the 4.5 to 6.0 percent range, and the labor market has not demonstrated the same

strength as in the precrisis years. The reciprocity rate has decreased somewhat since 1997 but still has remained at levels far above those of the early 1990s. The UA program in Hong Kong is now serving many more persons than it did before the Asian financial crisis.

The one decrease in the reciprocity rate is observed for Japan, declining from 0.39 (1990–1993) to 0.34 (1998–2001). The decline seems to reflect, in part, the effects of relatively fixed benefit duration provisions in the UI program coupled with higher unemployment rates (Panel A) and the associated increase in unemployment duration. Maximum potential UI duration is linked to both age and years of service. The longest potential duration, for persons aged 45 to 60 years with 20 or more years of service, is 330 days, or 11 months. While this potential duration is higher than previously (300 days prior to 2001), the increased duration applied only to job losers and dislocated workers in the 45–60 age group. The maximum potential durations have not changed for younger people.⁴ For someone aged 30 to 45 years with 20 years of experience, the maximum has remained at 240 days. Data on actual benefit duration in Japan show that it has remained at about 6 months since unemployment started to increase in the mid-1990s. At least some of the explanation for the decrease in reciprocity observed in Panel D is the higher rates of exhaustion experienced in the most recent years covered by Table 6.2.

THE KOREAN EXPERIENCE

Korea instituted its UC program shortly before the onset of the Asian financial crisis.⁵ Unemployment increased sharply in late 1997 and early 1998 following the financial crisis; unemployment averaged 6.8 percent during 1998 and 6.3 percent during 1999. While these unemployment rates were not the highest ever experienced in Korea, rates in excess of 5.0 percent had not occurred since the late 1960s. Unemployment decreased in the postcrisis period, with the annual unemployment rate reaching 3.7 percent in 2001.

The high unemployment of 1998–1999 revealed serious shortcomings of Korean UC as originally structured, and several changes were implemented to improve its effectiveness. Even today, however, UC in Korea remains a modest program, as shown in Panel D of Table 6.2.

As one of the countries most severely impacted by the Asian financial crisis, Korea is interesting to study for several reasons. Its strong economic performance during the preceding two decades was broadly shared within the population. As indicated in Table 6.1, its per-capita GDP of \$15,530 in 1999 placed Korea fourth among all Asian countries, with higher income present only in Japan, Hong Kong, and Singapore. Korea has been an OECD member since 1996, and the availability of labor market data and other economic data make it possible to study its experiences in greater detail than is possible for many other Asian countries. Since UC was recently adopted, Korea had the opportunity to study UC programs in several other countries and incorporate foreign design features into its own program. Finally, because UC was established before the Asian financial crisis, the program's performance during the crisis can be assessed.

Unemployment insurance had been considered for adoption in Korea during the 1970s and 1980s but was rejected as premature.⁶ There were also concerns about disincentive effects of cash transfers to the unemployed. In the late 1980s, Korea adopted a public pension system, and experiences with this social insurance program were generally viewed as successful. During the early 1990s the Korean Labor Institute was charged with designing an EI program. Their proposal included both active and passive measures for the unemployed. The EI bill was passed in late 1993, went into effect in July 1995, and benefit payments commenced in July 1996.

Korea's EI program has three elements: UI benefits, an employment stabilization program, and a job skills development program. The program is funded with payroll taxes on covered employers and workers. The stabilization component provides wage subsidies to employers to retain current workers and to hire workers from protected classes such as the elderly, disabled, and labor force reentrants. The job skills component mainly provides training to experienced workers. The two components have several individual measures to serve a diverse client base. The design of the Korean EI program places strong emphasis on both active and passive measures to support the unemployed and encourage reemployment.

To be eligible for UI benefits under the original 1993 legislation, the covered worker initially needed to have 12 months of covered employment during the 18 months preceding the separation. Coverage in

the first years extended only to firms with 30 or more employees. The statutory replacement rate was 50 percent, and the original maximum benefit was 35,000 won per day, which implied maximum monthly benefits roughly equal to average monthly wages. The waiting period was two weeks, and payments were made biweekly so that the first payment would be received four weeks after the onset of unemployment. Potential benefit duration ranged from one to seven months in the original age-experience table, which conferred longer potential durations for those who were older and those with more years of experience. Because the crediting of experience commenced only in 1995, however, the initial maximum was just four months.⁷ This design feature recognizes the above-average duration of unemployment among older workers and makes an explicit link between years of past service and one's potential entitlement. Durational disqualifications were applied in situations of voluntary quits and misconduct. The UI program was supported by payroll taxes levied at a 0.3 percent rate on both employers and employees.

As unemployment increased in late 1997 and early 1998, it became apparent that UI was serving only a small fraction of the unemployed. During the last half of 1997, monthly beneficiaries averaged 2.4 percent of total unemployment (12,553 out of 515,000), and this only increased to 5.6 percent during the first half of 1998 (73,818 out of 1,330,000). Thus, while UI caseloads grew rapidly, the program was not reaching the vast majority of the unemployed.

Several changes were instituted to improve access to the UI program:

- During 1998, the minimum size of covered firms was lowered in stages from 30 to 10 (January), then to 5 (March), and finally to all firms with 1 or more employee (October).
- The minimum qualification period was reduced to 6 of the past 12 months starting in March 1998 (initially extending through June 2000 but later revised to 6 of the past 18 months in April 2000).
- In March 1998, a new age-experience table was instituted, which increased the minimum potential duration to two months.⁸
- A temporary extension of the maximum duration for an additional two months was effective between July 1998 and December 1999.

- The maximum benefit was reduced from 35,000 to 30,000 won per day in July 1999. In effect, the Korean policy response was to improve access to the UI program but to reduce benefit levels to lessen the total increase in benefit payments.
- Finally, even though the trust fund that pays UI benefits was not in deficit, contribution rates were raised in January 1999 to 0.5 percent of payroll for both employers and employees.

Note that all changes related to coverage and eligibility became effective during 1998 and remained operative throughout all of 1999. Despite these expansions, UI continues to serve a small share of the unemployed. As indicated in Table 6.2, the average reciprocity rate during 1999 (monthly beneficiaries as a proportion of monthly unemployment) was only 0.105. This proportion decreased to 0.084 in 2000 (as temporary measures, such as the emergency two-month extension of benefits lapsed). With continuing decreases in unemployment during 2001, the reciprocity rate increased to 0.138. The increase was partly a reflection of increased potential duration due to the liberalization in January 2000 of the age-experience table that determines potential duration and the fact that more qualified workers had at least five years of creditable experience which entitled them to up to seven months of potential benefits. Increases in potential benefit duration will continue to occur as more of the unemployed acquire the necessary five years of creditable work experience, and then 10 years starting in 2005.

As presently structured, the UI program in Korea is narrow in scope despite extensions of coverage to small firms, easier qualification requirements (work in 6 of the last 12 months since 1998), and increases in potential duration from the revised age-experience table. Five elements operate to limit the scale of the program:

- 1) There are important limitations in coverage that arise from both the exclusion of certain classes of workers and from the limited penetration of the program in securing contributions from small firms. More discussion of this issue is reserved for Chapter 8.
- 2) Many who work in covered firms are not eligible for benefits due to blanket exclusions of temporary, daily, and part-time workers. For example, in December 1999, temporary and daily employees constituted 53 percent of employment but 82 percent of unemployment (Table 2.5 in Hur 2001).

- 3) The two-week waiting period and the 50 percent replacement rate are both strict when viewed from a comparative perspective.
- 4) Durational disqualifications for both quits and misconduct reduce eligibility. The importance of quits in Korea can be illustrated with data from the last half of 1998, which was already months in the midst of the financial crisis. Nearly 60 percent of the covered unemployed for these six months had voluntarily left their last job compared to about 30 percent who became unemployed through (individual and mass) layoffs (Table 5.3 in Yoo 1999).
- 5) To retain continuing eligibility, UI recipients are required to visit local EI offices every two weeks. A failure to report leads to a suspension of benefits payments.

In addition to these points, it should be noted that potential duration is short for many, especially for younger workers who traditionally have high unemployment rates. For the five years between 1997 and 2001, UI duration averaged 2.4, 3.1, 5.3, 3.6, and 4.0 months, respectively.⁹ This five-year series shows both a gradual increase in actual duration as potential duration has increased and the effect of the two months of emergency benefits operative throughout all of 1999. Short potential duration results in a high rate of benefit exhaustion (i.e., about 70 percent in 2001 and 2002).¹⁰

As noted at the outset of this section, concerns about disincentive effects of UI benefit payments have been longstanding in Korea. Not surprisingly, this concern is reflected in program statutes and administrative requirements affecting eligibility. The Korean UI program can be described as limited both in the generosity of monthly payments and in access to benefits. Thus, even though UI was substantially expanded during 1998 and again in 2000, UI recipients have remained a small proportion of total unemployment.

Ongoing concerns about the effective coverage of EI have resulted in further coverage extensions effective in January 2004. Coverage has been extended to day workers and those employed under temporary employment contracts. It is anticipated that some 1.5 to 2.0 million workers will benefit from this extension. Like the minimum firm size coverage extension of 1998, it is likely the effects of this extension will occur over several years.

Given the limited effective scale of UI in Korea, other labor market measures are also important for alleviating the effects of unemployment. Two important strands in the social safety net are the other EI program components noted earlier: the Employment Stabilization Program and the Job Skills Development Program. Both expanded sharply in 1998 and 1999. The number of jobs protected under the Employment Stabilization Program increased from 93,000 in 1996 and 117,000 in 1997 to more than 750,000 in 1998 and more than 650,000 in 1999. Training activities under the Job Skills Development Program also increased during 1998 and 1999, with nearly 600,000 participants in 1998 and more than 1,000,000 in 1999. The number of participants in training activities has continued to grow since 1999, reaching more than 2,000,000 in 2001.¹¹

Two other important programs serving the unemployed are the livelihood protection program and emergency public works. The number of beneficiaries in both programs expanded sharply during 1998 and 1999. Livelihood protection has been a longstanding program providing income support to the indigent and families without a working adult. It uses income and asset tests to target payments to low-income recipients. A temporary livelihood protection program for families with unemployment was added during the financial crisis. It served 310,000 persons in 1998 and 760,000 in 1999. Emergency public works jobs were also created, and participation levels were 175,000 in 1998 and 390,000 in 1999. Workers in these jobs were paid on a daily basis for periods up to three months, with a second period of eligibility also possible following a successful reapplication.¹²

Thus, UI is but one element in the Korean social safety net. According to one set of estimates, UI benefits accounted for 15 to 17 percent of all spending on social protection for the unemployed during 1998 and 1999.¹³ The combined scale of all social protection programs, however, was quite modest relative to the need for income support during these two years. According to a household survey of September–October 1998, the most important sources of support for the unemployed (utilization ranked in order of importance) were earnings of others, 55 percent; savings, 34 percent; borrowing, 22 percent; and social protection payments, 19 percent. The three leading categories of social protection payments were public works employment (7.7 percent), UI benefits (7.5 percent), and training (4.2 percent).¹⁴ Receipt of

UI benefits was a small element in the support system used by Korean families during the Asian financial crisis. For most families, the adjustment to unemployment during the financial crisis was to rely mainly on personal resources, family resources, and coping mechanisms.

SUMMARY

In the region of East and South Asia identified in Table 6.1, functioning UC programs were present in just 5 of the 22 countries in 2001. Although at least 3 other countries have an active interest in having UC, it remains to be seen if and when their programs will be instituted. As of 2004 only Thailand has been added to the other 5.

The low incidence of UC among Asian economies is explained in large part by the low per-capita GDP of many countries. In 1999, the worldwide average as shown in Table 2.1 was about \$6,900 (PPP estimates), but the Asian average was \$4,060, the second lowest of the eight regional averages in that table. Thirteen Asian countries had per-capita income less than half of the worldwide average in 1999. Using income as a guide to the likely presence of UC in a country, the surprises in Asia would be Singapore and (perhaps) Malaysia, not Laos, Nepal, or the other low-income countries appearing in Table 6.1.

Where UC is present in Asia, the programs are relatively small. Even after expanding the scope of the program in Korea in 1998, less than one in five unemployed receives benefits. The same is true of Hong Kong and Taiwan. Only Japan routinely compensates as many as one-third of the unemployed through its UI program.

The small scale of UC programs in Asia reflects deliberate policy choices affecting both initial eligibility and continuing eligibility. Reciprocity would be higher with different treatment of part-time workers, shorter disqualification periods, and longer potential entitlements. Restrictive features, however, reflect deep concerns about the disincentive effects of UC programs and potential long-term dependence on transfer payments. These concerns were apparent in Hong Kong in 1998, when UA caseloads increased sharply.

Similar concerns slowed the initial adoption of UI in Korea and continue to dominate policy discussions even after the higher unemployment rates arising from the Asian financial crisis revealed the seri-

ous shortcomings of the original Korean UI program. The program has been modified to improve its effectiveness but remains relatively modest in scale. Despite the extension of coverage to small firms, easier qualification requirements, and increases in potential duration, the program continues to serve a small share (less than 20 percent) of the unemployed. Concerns about disincentive effects of UI benefit payments continue to be reflected in program statutes and administrative requirements affecting eligibility.

It seems that UC programs are likely to remain small scale not only in Korea but also in other Asian countries. The limited penetration of the PES into the labor market will reinforce this tendency. Finally, the comparatively small share of wage and salary employment within the overall employment total in most Asian countries would also operate to restrict the scale of UC programs. More discussion of UC coverage is given in Chapter 8.

Based on LFS unemployment rates, UC would appear to be quite affordable for most countries in the region. Labor force surveys typically show low to moderate unemployment rates, for example, 10 of 14 countries below 6.0 percent in 2000–2001. Also, recall from Chapter 2, the generally small response of employment to changes in real GDP in Asia. This would suggest that unemployment and UC benefit payments would exhibit less cyclical volatility for a given change in real GDP relative to a similar change in the OECD-20 countries. Interest in adopting and expanding the scope of UC programs may grow, however, if Asian unemployment rates continue to increase as is suggested by the data presented in Tables 6.1 and 6.2.

Notes

1. Vietnam also conducts an LFS, but the results are not generally available.
2. One analysis of the Asian financial crisis with individual chapters on each of the five “crisis” countries is the volume edited by Betcherman and Islam (2001).
3. The Hong Kong income support system for those of working age includes UA benefits for the unemployed, cash support for those with low earnings, and payments to low-income families with single parents.
4. Maximum potential duration is determined by a table with four age groups and five experience categories. Only 2 of the 14 cells in this table were increased when the table was revised in 2001.
5. The Korean Labor Institute was charged with designing an Employment Insurance (EI) program in the early 1990s. The EI bill was passed into legislation in late 1993, and benefit payments commenced in July 1996.

6. Yoo (1999) gives the background and a thorough description of all the elements of the EI program in Korea.
7. The first age-experience table had three age categories (under 30, 30–49, and 50 and older) and five experience categories (from less than 1 year to 10 or more years). The 5–10 year category became operative only in June 2000 and the top category (for those with 10 or more years of experience) will not become operative until June 2005. As noted previously, Japan has a similar arrangement linking potential duration to age and experience.
8. Since January 2000 a third age-experience table has been operative with potential benefit duration ranging from three months to eight months.
9. Duration is measured as months compensated in the year divided by the number of claimants receiving a first payment.
10. This was reported in a meeting with representatives of the Human Resources Development Service of Korea in July 2002.
11. Counts of participants in these two programs are shown in various issues of *Monthly Statistics of Employment Insurance*, a publication of Human Resources Development Service of Korea (2002).
12. Details of both programs are given in Lødemel and Dahl (2001).
13. See Table 1.2 in Park et al. (2001).
14. The survey, conducted by the Korean Institute of Health and Social Affairs and the Korean Labor Institute, interviewed 4,339 households during September–October 1998. The results described in the text are reported in Park (2001).

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Unemployment Compensation in Latin American and Caribbean Countries

The countries of South America, Central America, and the Caribbean face serious economic challenges frequently manifested in high unemployment and/or high inflation. While the economic crisis in Argentina that commenced in late 2001 has received widespread attention, large increases in unemployment also occurred in Chile in 1999 and in Uruguay in 2001–2002. Recent economic statistics also show that the problem of high inflation has not disappeared from the region. Although episodes of hyperinflation did not return during the 1990s, inflation in Argentina during 2002 reached 40 percent while in Uruguay it was approximately 25 percent.¹ Providing social protection for the unemployed of this region presents unique challenges.

Of the 21 countries from this region, only 6—all of which are in South America—have a formal UC program. The programs in South America are, however, relatively modest in scale—potential benefit duration is short and replacement rates are generally low. Reciprocity rates are also relatively low (see Panel D of Table 3.3). These aspects of UC programs are explored in the first section of this chapter. Particular attention is given to the association between inflation and UC replacement rates because past inflation has been severe in many Latin American and Caribbean countries. It is argued that without effective indexation provisions, high inflation would quickly erode the real value of monthly benefits.

The second section examines UC administration in four South American countries: Argentina, Brazil, Chile, and Uruguay. The discussion highlights the important ways in which the administrative arrangements in these countries deviate from those in the OECD-20 countries, arrangements that are more familiar to most readers. As a broad generalization, there is a more substantial disconnect between the benefit payment function and the other reemployment functions traditionally undertaken by a country's PES.

Low reciprocity in formal UC programs has meant that the unemployed have had to rely on various coping mechanisms and/or other public programs. This is examined in the third section of the chapter, with particular attention to social investment funds and severance pay.

The final section of this chapter describes and assesses the new UI program in Chile, a program that places primary emphasis on access to individual accounts as the basis for payments. The key provisions of the new program are outlined and two questions are raised for discussion. How will access to individual accounts be controlled? How well will UI coverage match unemployment?

UNEMPLOYMENT COMPENSATION PROGRAMS: PREVALENCE, RECIPIENCY RATES, AND REPLACEMENT RATES

Of the 21 countries from this area, only 6 have formal UC programs, and all are UI programs. All 6 are in South America: Argentina, Brazil, Chile, Ecuador, Uruguay, and Venezuela.² In Chile and Uruguay nationwide programs have been operating for more than 40 years; their origins date from the 1930s.

Compared with UC programs in the OECD-20 countries, the programs in South America are modest in scale. Potential benefit duration is short and replacement rates are generally low—in the 0.50 to 0.60 range. In 2003 three countries imposed a 30-day waiting period (Brazil, Chile, and Venezuela) while the waiting period is 60 days in Ecuador. Ecuador is also unusual in that benefits are paid as a single lump sum, akin to severance pay.³

Because LFSs are present in most Latin American and Caribbean countries (18 of 21 in 1999), one can assess reciprocity rates in the countries with UC programs. Across the four countries where performance data were assembled for this volume (Argentina, Brazil, Chile, and Uruguay), Brazil stands out as having by far the highest reciprocity rate. Over the 15 years from 1987 to 2001, the annual ratio of beneficiaries to unemployment averaged 0.28, and ranged from 0.12 (1987) to 0.47 (1995). Between 1990 and 2001 the reciprocity rate ranged from

0.24 to 0.38. The targeting of UC benefits in Brazil is examined later in this section.

For the other three countries, reciprocity rates have been consistently much lower. The averages were 0.06 for Argentina between 1993 and 2000, 0.11 for Chile between 1980 and 2001, and 0.13 for Uruguay between 1984 and 2001.⁴ Just one annual observation from the three reached 0.24 (Chile in 1983), the minimum for Brazil between 1990 and 2001. Low reciprocity in these countries has meant that persons have had to rely on various coping mechanisms (savings, resources of family members, reduced consumption) and/or other public programs while unemployed.

One factor in low reciprocity in these countries has been the short duration of UI benefits. In Brazil UI duration was 4.0 months between 1987 and 2001, while it was 4.1 months in Uruguay between 1990 and 2000 and 7.1 months in Chile between 1995 and 2001. Among recipients, UI benefit payments represent a temporary income source. Limitations on potential benefit duration have been effective in these countries in preventing long-term dependency on UI benefits.⁵

A second limiting factor has been the restricted coverage of UI programs. A substantial share of the labor force works without a formal labor contract, often as self-employed or as unpaid family workers. As shown by de Ferranti et al. (2000, Table 5.3), workers in the informal sector in Argentina and Mexico have at least as high a likelihood of experiencing unemployment as those in the formal sector. These workers, however, fall beyond the scope of UI coverage.⁶

Because past inflation has been severe in many Latin American and Caribbean countries, it is appropriate to examine the association between inflation and UI replacement rates. Without effective indexation provisions, high inflation would quickly erode the real value of monthly benefits provided by these programs.

This question is examined using regressions that relate the inflation rate to the UI replacement rate in the three countries where replacement rates were measured for reasonably long periods. The estimation spans 1987 to 1999 in Brazil, 1975 to 1976 and 1981 to 2000 in Chile, and 1982 to 2000 in Uruguay. Two indicators of inflation are tested—annual percent changes in the GDP deflator and annual percent changes in average monthly wages. Over these sample periods, the replacement rates averaged 0.478 in Brazil, 0.105 in Chile, and 0.116 in Uruguay.

Figure 7.1 displays the three replacement rate series. Brazil stands out for having by far the highest replacement rate and the widest range of variation between 1986 and 1999.

Each of the three countries experienced substantial inflation during these years. In Brazil 8 of 13 years had inflation rates (GDP deflator) above 100 percent, including five years with inflation in excess of 1,000 percent. Chile experienced 9 of 22 years with GDP inflation above 20 percent, including 2 with inflation above 250 percent. In Uruguay the highest inflation over the sample period was just above 100 percent in 2 years, but the inflation rate exceeded 50 percent in 9 of 19 years. The highest single-year inflation rates (GDP deflator) during the estimation periods were 2,582 percent in Brazil (1990), 344 percent in Chile (1975), and 107 percent in Uruguay (1990). Within each country, the price and wage inflation series were highly correlated during the estimation periods, with correlations of 0.99 in Brazil, 0.96 in Chile, and 0.88 in Uruguay. Thus, each country experienced several years with high inflation in both prices and wages.

The regressions are fitted with two specifications. The first emphasizes changes in replacement rates in response to inflation. Across the three countries, no significant effects of inflation are found, based on either price inflation or wage inflation. The second specification uses the inflation rate to explain the level of the replacement rate. Here the coefficients for current inflation (both price inflation and wage inflation) are (unexpectedly) positive and significant in Brazil and Chile but negative and significant for Uruguay. Because the latter results are not consistent in explaining the levels of the replacement rates across the three countries, no strong conclusions can be drawn.

A few added comments, however, may be appropriate. Of the three countries, Brazil had the highest inflation rates over its estimation period, rates in excess of 1,000 percent in five different years between 1987 and 1999. Yet, its replacement rates did not decline during the years of hyperinflation due to effective indexation arrangements. Chile operated with a freeze on maximum benefits in the late 1980s (1986 to 1989) and again during the late 1990s (from 1996 through 2002). Although inflation rates were moderate during both periods (consistently below 20 percent), replacement rates declined due to these freezes. Uruguay had the most stable replacement rates of the three countries.

Figure 7.1 UI Replacement Rates in Brazil, Chile, and Uruguay

Replacement rates rose somewhat during the late 1990s (See Figure 7.1), a period when inflation decreased.

In sum, analyses of replacement rate developments in the individual countries need to recognize other determinants besides simply variation over time in the rates of wage and price inflation. Particularly important is the determination of changes in the maximum and minimum UI benefit. A freeze on the maximum and minimum can lead to a reduced replacement rate even if inflation is moderate, as in Chile from 1986 to 1989 and again after 1996.

ISSUES IN UI ADMINISTRATION

Unemployment insurance program administration in the four South American countries studied here deviates in important ways from administrative arrangements in the OECD-20 countries. In general, there is a more substantial disconnect between the benefit payment function and claimant registration, job search assistance, and other re-employment functions traditionally undertaken by a country's employment service. A short review of these countries' arrangements helps to highlight some salient characteristics.

Of the four countries, Uruguay's program most closely follows traditional UI administrative arrangements. The primary administrative entity, the Banco de Prevision Social, has responsibility for registration of claimants, deciding initial eligibility, monitoring continuing eligibility, making referrals for training, and paying benefits. Its role as gatekeeper is illustrated by the annual numbers of claimant sanctions. During 2000, when monthly beneficiaries averaged 26,200, there were about 5,900 sanctions (denials and suspensions) per month (see Banco de Prevision Social 2001, pp. 243–244).

Between 1974 and 2002 Chile's program functioned with benefit payments administered by the public social security system. Claimants registered at municipal offices where there was some screening for eligibility. Workers needed to provide evidence of being separated by employers, for reasons other than a quit or misconduct. In the past, claimants were often required to participate in some form of temporary employment scheme. Ongoing eligibility past the point of initial enrollment was rarely monitored. Low initial benefit levels coupled with

time-related benefit reductions (benefits after six months were only half of initial benefits) helped to ensure that workers self-limited their time in benefit status. As noted previously, duration averaged 7.1 months between 1995 and 2001.

While payment levels and replacement rates were low, there were concerns among policymakers that many recipients were needlessly prolonging their spells in benefit status. These concerns were an important factor in a major reform (revision) of the UI program enacted during 2001. Starting in October 2002, workers with expiring labor contracts were enrolled in a new program with quite different administration, eligibility, benefit levels, and potential duration. This new program is discussed in more detail in the fourth section of this chapter.

Argentina's program, enacted in 1991, is administered through the local offices of the social security system, which also pays family assistance benefits (*asignaciones familiares*). Workers both register and receive payments from these offices. The offices do not offer the job mediation functions traditionally offered by local employment service offices, and there is no requirement to register as a job seeker elsewhere. Thus, the UI system is not structured with support services and requirements designed to speed claimant reemployment.

Two aspects of the benefit structure in Argentina are also noteworthy. The level of payments decreases with benefit duration. For those entitled to 12 months, the initial replacement rate of 60 percent decreases to 51 percent after 4 months and to 42 percent after 9 months. As in Chile, this time-dependent payment level is intended to encourage reemployment. Also, when benefit claims have threatened to exceed annual revenues derived from a total (employer plus employee) 2.5 percent tax on payrolls, payment levels have been reduced. This was done in 1995, and it occurred again during the financial crisis of late 2001. Annual severance payments in Argentina are much larger than total UI payments.

While UI reciprocity is low in Argentina, it is suspected that many beneficiaries work at the same time as receiving benefits. This applies both to formal and informal employment. Because the informal sector is large, much of this claimant fraud would persist even if an effective cross-match were instituted that identified the simultaneous presence of formal sector earnings and the receipt of UI benefits.⁷

Brazilian UI also operates with a limited connection between benefit payments and job intermediation services for the claimants. Claimants may register as unemployed and collect benefits from one of three institutions: the local state banks, local offices of the Ministry of Labor, or local employment service offices.⁸ The three institutions are of differing importance across the regions of Brazil. During the 1990s, payments from employment offices grew in importance from about 20 percent of total benefits in 1991 to 45 percent in 1999. Even for those paid through the employment offices, there is no effective coordination with labor market intermediation services or linkages to training. Eligibility is to be conditioned on income, but enforcement is not vigorous.

Because job availability and work search are not monitored, the program poorly targets the unemployed. Data from a 1996 household survey indicated that, among UI recipients, 44 percent were employed, 42 percent were not actively seeking work, and only 14 percent were unemployed. The percentage employed was divided between 16 percent employed in the formal sector and 28 percent in the informal sector.⁹

In light of this administrative situation, Brazil's comparatively high reciprocity rate is not surprising. The UI program has easy entry requirements (e.g., 6 months of employment over the past 36 months) for the minimum entitlement period of 3 months. Three features operate to restrain the reciprocity rate. First, there is a 1-month waiting period. Second, potential duration is short, from 3 to 5 months. Third, repeat use is controlled by allowing a maximum of 5 months of benefits during any consecutive 16 months. As noted earlier, average duration per recipient has averaged four months in recent years.

To summarize, among the South American UI programs, Uruguay can be described as having administrative arrangements that most closely resemble those in the OECD-20 countries. For the other programs, there is a common weakness in ensuring that UI beneficiaries are indeed unemployed. It appears that benefits often go to persons who are employed and persons who are not actively seeking work. Control over reciprocity is exercised not through active monitoring of continuing eligibility but through restrictive statutory provisions. Thus, there are long waiting periods (in four of six countries), short potential benefit durations (3 to 5 months in Brazil, 5 months in the new program in Chile, and 6 months in Uruguay), replacement rates that decrease

with benefit duration (Argentina and both the old and the new Chilean programs), restrictions on repeat use (Brazil and the new Chilean program), and procedures to reduce benefits when funding is inadequate (Argentina and the new Chilean program). Targeting of benefits on the unemployed would undoubtedly improve by investing in procedures to improve monitoring of eligibility, for example, requiring claimants to develop individual reemployment plans, verifying work search activities, using electronic cross-matches between benefits and formal sector earnings, and developing employment office job matching capabilities.

OTHER SUPPORT FOR THE UNEMPLOYED

Latin American and Caribbean countries provide support for the unemployed through several programs, but their size is generally modest. Four are widely prevalent throughout this broad region: family allowances, temporary jobs programs, social investment funds (SIFs), and severance pay. Family allowances and temporary jobs programs, while varied in size, financing arrangements, and levels of financial support, are similar to programs in middle-income countries of other regions of the world. The unemployed, particularly the long-term unemployed, may also participate in temporary jobs programs (notably in Argentina). Social investment funds and severance pay merit a broader discussion and are discussed in detail below because they are ubiquitous to this region.

Social Investment Funds

Social investment funds have been widely used in South and Central America to address poverty problems in specified geographic areas. Local communities propose specific projects to improve infrastructure whose construction and renovation provide temporary employment. Projects cover a wide range of activities, such as social infrastructure (schools, health clinics), economic infrastructure (irrigation systems, access roads), social assistance (nutrition programs), support of production and distribution (local marketplaces, community banks), technical assistance and training, and environmental improve-

ment (reforestation, terracing). Two kinds of output are produced by SIF projects: enhanced services that improve the quality of life in local communities and temporary job creation associated with activities that build and upgrade local infrastructure.

An SIF typically has the following five elements:

- 1) Geographic targeting is used to decide which areas within a country will be selected for SIF activities. The identification utilizes a geographic map of poverty areas and areas of below-average income.
- 2) Local groups and communities in eligible areas write proposals describing a project, including expected output measures and the targeting of persons to work on the project.
- 3) Project financing involves some local resources. This matching requirement helps to ensure that the community really desires the project.
- 4) There is open competition in submitting bids, and submissions are evaluated by a neutral committee that selects the winning bids.
- 5) Projects are of finite duration.

The Inter-American Development Bank (IDB) has been the biggest single donor organization providing support to SIFs. In 1997, it published an evaluation report (Goodman et al. 1997) which covered all aspects of SIF activities. The IDB report drew upon other reports and evaluations of more than 800 SIFs. The majority (726) were SIF projects in three countries: Chile, Ecuador, and Peru. Assessments were based on process analysis, examination of various budget documents (project and national), and surveys of clients. Direct impact evaluation and cost-benefit analysis were not undertaken.

The IDB evaluation reached several major findings.¹⁰ In project areas the quality of life did improve. The scale of job creation, however, was small even though levels of pay were generally modest (i.e., minimum wage). This is largely explained by the importance of spending on materials and on pay of contract employees not from the local communities. While projects served low-income areas, the very poorest areas were underrepresented. Women were also underrepresented among those served. The SIF projects were generally more successful

in serving the poor in higher income countries from the region (Chile and Uruguay).

In considering SIFs as an alternative to more traditional programs that help the unemployed, such as temporary job creation and UC, two problems are especially important. First, most funding for SIFs has been external, not only to the local project area but also external to the host country. The IDB report indicated that roughly 90 percent of SIF financing was from foreign sources, meaning that projects were unsustainable when external support ceased if national support did not step in to fill the gap. Second, the scale of SIF activities was small relative to poverty and unemployment in the countries. The largest effect on employment took place in Bolivia during a year of economic crisis. However, SIF-related employment was only about 1 percent of total national employment that year. For five noncrisis years, the employment level was closer to 0.1 percent of Bolivian employment. Thus, while SIFs have helped many local communities and individual families, they have not provided sustained or large-scale support relative to the scale of unemployment and/or poverty in these countries.

Severance Pay

Workers accrue eligibility for severance pay through long-term employment. As noted in Chapter 3, it is a form of deferred compensation due when the employer terminates the employment relationship for unprejudicial reasons. While payment formulas vary widely, the value of the severance pay award often specifies a set number of months related to past tenure with the employer, paid at the level of the monthly wage just prior to separation. The payment is typically made as a single lump sum amount to workers who meet the minimum years of service requirement and have a “clean” separation, that is, not a voluntary quit or a discharge for misconduct.

Severance pay is ubiquitous in the countries of the region. A recent analysis by Heckman and Pages (2000, Table 1.A) describes the severance pay provisions in both 1990 and 1999 for 20 of the 21 countries from the South American and Central American-Caribbean regions (all but Haiti) as identified in Table A.1. Their summary highlights the variability of severance pay formulas across these countries.

Does severance pay function as a substitute for UI payments? Like UI, severance pay is available to workers in the formal sector. Neither UI nor severance pay extend to workers in the informal sector. Four considerations suggest that severance pay is not a substitute for UI. First, the minimum years of service requirement effectively targets eligibility to more experienced workers and workers with a stable past history of employment.¹¹ Yet, unemployment and frequent job changing are more common among younger workers, who typically have the highest unemployment rates. Severance pay also does not restrict eligibility to the unemployed. As discussed in Chapter 3, it is deferred compensation, an accrued property right whose value is linked to past service, the worker's wage, and the nature of the job separation. Eligibility is not conditioned upon the worker's current labor force status. Payments go to those who are employed and those who have stopped seeking work as well as the unemployed. Additionally, payments are often not timely. Disputes over the reason for the job separation frequently need to be resolved in a labor court prior to awarding severance pay. Lengthy delays often accompany court proceedings, and net awards to claimants may be reduced through associated legal fees.

Finally, the macroeconomic circumstances that cause increases in aggregate unemployment may make payment of severance pay less likely during recessions. Bankruptcies and downsizing during recessions reflect financial weaknesses of companies. This weakness may preclude the payment of severance pay even when it is an acknowledged liability. In short, severance pay may not be delivered during the phase of the business cycle when it is most needed by the unemployed.

A recent study by MacIsaac and Rama (2001) provides useful details on severance pay coverage and reciprocity in Peru. While their analysis was concerned mainly with the effects of severance pay on worker earnings (the economic incidence or burden of contributions) and consumption, MacIsaac and Rama also provide information on the workers who participate in severance pay arrangements. Relying upon surveys conducted in 1994 and 1997, they inferred that about one-fifth of all private sector workers and one-third of wage and salary workers were covered. Ranking families by consumption quintile,¹² they found that coverage among all workers increased from 15 percent in the lowest quintile to 29 percent in the highest quintile. Among wage and salary workers there also was a positive, but weaker, association with

eligibility across consumption quintiles. Eligible workers were most likely to have other eligibility-enhancing characteristics, such as a formal labor contract, social security contributions, union membership, and employment in a large firm. There was a similar strong gradient across consumption quintiles in the receipt of severance pay. At the same time, the likelihood of unemployment in 1997 (conditioned on labor force status in 1994) was lower among those more likely to be eligible. In sum, severance pay eligibility extended to only about one in five and was higher among those less likely to experience unemployment.¹³

To summarize, while SIFs and severance pay provide a degree of income security to certain recipients, neither functions as an effective program serving a large proportion of the unemployed in Latin American and Caribbean countries. Across this region, severance pay and temporary jobs programs often serve the largest number of the unemployed of all five social protection arrangements identified and discussed here (UI, temporary jobs programs, family allowances, social investment funds, and severance pay). This conclusion holds even for Argentina, one of the six countries with a UI program.

CHILE'S NEW UI PROGRAM

Starting in October 2002 Chile began replacing its existing UI program with a new one that places primary emphasis on access to individual accounts as the basis for payments.¹⁴ Covered workers with unemployment will make withdrawals from individual accounts managed by a freestanding administrative entity that records and monitors contributions and benefit payments. At the time when workers renew their formal labor contracts, they will automatically be transferred into the new UI system. Full conversion is expected to take about seven years.

Key Provisions

The new program presents several major contrasts with the existing UI program. Six are examined in the subsequent discussion. First, there is a 1-month waiting period as compared with no wait in the existing

program. Second, maximum potential duration is limited to 5 months, compared to 12 months in the current program.

Third, benefits are linked to past earnings, in contrast with the present system, which pays flat benefits (but the level decreases with duration in benefit status). For each recipient, the level of payments decreases with each successive month of reciprocity. The first month provides 50 percent wage replacement (subject to a maximum), but replacement decreases by five percentage points in each succeeding month, reaching 30 percent in the fifth month.

Monthly benefits vary between a statutory minimum and a maximum. Those persons with above-average earnings in the 12 months prior to the job separation (the basis for benefit calculations) receive above-average monthly benefits. The initial maximum for the first month of 125,000 pesos represents about 50 percent of the average monthly wage in 2002, a payment level seven times higher than the maximum of 17,338 pesos of the old UI system. The new minimum benefit (65,000 pesos in the first month) is also substantially higher than the previous maximum. Benefit levels will change automatically each year through indexation.

These new features encourage a fast return to employment. Payment levels of the new system, however, will be much higher than the existing system. For a worker eligible for the maximum benefit, the potential entitlement for five months of benefits in the new program is more than four times the potential entitlement for 12 months under the old system (625,000 pesos versus 143,000 pesos).¹⁵ An increased rate of applications can be anticipated for those covered by the new system because payment levels are so much higher than previously.

Because the increase in average monthly benefits is much larger than the decrease in average potential duration, total payments of the system will increase. The overall order-of-magnitude changes are likely to be the following: monthly benefits, six times higher than at present (66,000 versus 11,000 pesos); average benefit duration, half of present duration (3.5 versus 7.0 months); and total payments, three times higher than at present (231,000 versus 77,000 pesos per recipient). The changes to the program imply that, in any given month, fewer individuals will receive benefits, but average benefits will be much higher. Since the reciprocity rate in the existing program averaged 0.11

between 1990 and 2001, the implied reciprocity rate under the new program seems likely to be close to 0.05–0.07.¹⁶

Fourth, the new UI program is financed by payroll taxes levied on employers and employees at rates of 2.4 percent and 0.6 percent, respectively, for a combined rate of 3.0 percent.¹⁷ This marks a radical departure from the current financing arrangement, which operates through the general budget with monies transferred by the Superintendencia of Social Security to the UI fund.

Fifth, contributions are deposited into two accounts: individual accounts (*cuentas individuales*) and a common fund (*fondo solidario*). Employee contributions and 1.6 percentage points of the employer contribution go to the individual accounts while the remaining 0.8 percentage point of the employer contribution go to the common fund. The common fund finances payments to those who are eligible but whose individual account balances are insufficient to cover benefit payments. This pooling aspect of the new UI system is a unique feature that imparts a social element to its structure. Assets that remain in the individual accounts are reserved for workers at retirement or their heirs in cases of death prior to retirement.

Finally, the new program is effectively a funded system in contrast to the present system, which operates with annual appropriations, a pay-as-you-go system. It will need several new elements of financial administration: making deposits and withdrawals from individual accounts, updating information when workers change employers, investing individual account balances, and tracking transactions involving the common fund. These activities are akin to the administration of individual accounts in the present pension system. In fact, regulatory supervision of the new UI administrative entity will be undertaken by the regulatory body that now oversees the pension system (*Superintendencia de Administradoras de Fondos de Pensiones*).

Statutory safeguards will help to ensure that the new UI system will avoid financing difficulties. Since withdrawals from the individual accounts are automatically limited by the size of each person's balance, threats to solvency would arise from developments affecting the common fund. Here, there are two safeguards. First, withdrawals by any person from the common fund will be limited. During any five-year period, a person can have only two periods of benefit withdrawals. Effectively this means a limit of eight or nine months of benefits per

person financed by the common fund during a given five-year period. Second, aggregate withdrawals in any given month cannot exceed one-fifth of the existing balance in the common fund. If total claims against the common fund are larger, all claims will be reduced proportionately to make their sum add up to one-fifth of the balance.

While the new UI program represents a sharp departure from the existing one, some elements of continuity should also be noted. Unchanged will be the requirements to register as a job seeker at local municipal offices, to be able and available for work, and to not refuse offers of suitable work (still defined as work in the same occupation with wages at least half the wages of the previous job). Access to other parts of the Chilean safety net also will remain unchanged.

Two Questions

Two questions about the new program and attendant uncertainties seem especially important. How will access to individual accounts be controlled, and how well will UI coverage match unemployment?

Creation of individual accounts will undoubtedly be followed by pressures to gain access to the assets in the accounts. In most employment situations, workers will have more interest in this access question than their employers. A worker with a high rate of time preference might prefer immediate access to UI benefits rather than carrying assets over into retirement years. Collusion with employers to gain access to account balances could occur even when employers are required to make severance payments.

Brazil may provide one example of how this situation could develop. A worker who is terminated can receive both UI benefits and severance pay. In situations of unjust dismissal, severance pay has two elements: access to assets in individual accounts supported by employer contributions and direct payment by employers to workers of a 40 percent fine levied for unjust dismissals. Chahad (2000) asserts that situations of worker-employer collusion have developed whereby the worker gains access to the principal in the severance pay account and the 40 percent fine is kicked back (returned) by the worker to the employer. The resulting arrangement increases labor turnover and provides early access to severance pay intended for retirement at no added

cost to the employer. This risk, related to the asymmetry of worker and employer motivations, will be present in Chile.

Australia provides a second example of problems of coordination and moral hazard in accessing individual account assets. The pension system in Australia has two elements: mandatory savings in individual accounts that provide for superannuation benefits at retirement and pension payments from the original public scheme where eligibility is conditioned upon income. In the past, the coordination of the two systems was imperfect with the retirement (withdrawal) age for superannuation payments being younger than the retirement age in the public scheme. Australia has also had to restrict the range of permissible "emergency" early withdrawals of superannuation assets.¹⁸ The net effect of these withdrawals was to reduce individual account assets, leaving less available when the eligible age for superannuation was reached and then later when the retirement age for the public scheme was reached. The key point is that the actions of some workers to gain early access to individual account assets went counter to the intended purpose of the superannuation scheme.

These experiences should be kept in mind as Chile implements its new UI program. Some covered workers will undoubtedly try to secure UI benefits by making it appear to fund managers that they are unemployed. While the scale of the informal sector is smaller in Chile than in Brazil, and Chile has a reputation for high overall administrative efficiency, the Australian experience may also be instructive. It will require careful administrative oversight to ensure that applicants are, indeed, unemployed before they are granted access to their individual account balances.

Accrual of assets in individual accounts will be fastest among those with high wages and those with stable employment patterns. Unemployment occurrences, on the other hand, are most likely among young workers and those with low skills. In many individual situations, the pattern of asset accrual will not match the pattern of unemployment and the associated need for UI benefits. Access to payments from the common fund will address these situations to a degree. However, there will undoubtedly be many situations in which unemployed workers have insufficient assets in their individual accounts and no (or little) entitlement to assets from the common fund because of recent usage. It will require some years of operation of the new system before the

seriousness of this potential mismatch problem can be accurately judged.

Assessment

Three features of the new system in Chile are particularly attractive. First, it provides much more adequate levels of compensation than the present system. Average benefits will likely increase from about 11,000 pesos per month to about 66,000 pesos, and the associated wage loss replacement rates are likely to increase from 0.05 to 0.25, or perhaps higher. Chilean UI has not had such high replacement rates in the past 25 years (recall Figure 7.1).

Second, the new system has automatic benefit indexation that will stabilize replacement rates at their starting levels. In the past, replacement rates declined, but (interestingly) not during the periods of highest inflation. The current system will avoid this erosion as long as it maintains adjustments tied to changes in the Consumer Price Index as presently stipulated.

Third, the new system has a rock sound financial basis. Several design features ensure adequate financing: limiting potential duration to 5 months, limiting each individual's access to resources of the common fund (at most two withdrawal periods every five years), and limiting the overall payout rate from the common fund (a maximum of one-fifth of its current balance for any given month).

Three negative features of the new system can also be identified. First, potential benefit duration of 5 months is short. The existing UI program has not compensated more than 10 percent of the unemployed in any year since 1989. Reducing maximum potential duration from one year to 5 months will further reduce average reciprocity rates among the unemployed. Many workers who actively seek work during their 5 months of entitlement will not be successful despite explicit design features intended to encourage rapid reemployment. This problem will be especially apparent during recessionary periods when the private labor market will generate fewer new job openings than new onsets of unemployment.

The administrators of the new UI program should monitor average benefit duration and benefit exhaustion rates. If both are "high," corrective action needs to be considered. The most obvious measure would

be to increase potential duration from the current 5 months to a higher level, for instance, 8 months or even 12 months as in the existing UI program that is being replaced.

Second, the new system does nothing to enhance UI coverage within the labor force. The system is explicitly targeted on dependent workers where roughly three in four are now covered.¹⁹ Others are likely to remain outside the UI program as they presently remain outside of the pension system. The potential access to UI benefits through individual accounts will probably not provide a sufficient attraction to have an important positive effect on coverage. In fact, adding a new 3.0 percent payroll tax will increase the financial pressures on employers to provide noncontract jobs. The lack of coverage, in turn, may have manifestations elsewhere in Chile's system of social protection, for instance, family allowance caseloads and/or attempts to enroll in temporary jobs programs.

A final observation pertains to the balance of revenues and expenditures in Chile's new UI system. It seems that the new system will generate annual revenues that are at least two to three times annual expenditures (payouts). This inference is based on three considerations: 1) the rate of payouts of the current system, 2) the likely increase in the rate of payouts (higher benefits but shorter duration compared to the present system), 3) and the likely revenues of the new system. Table 3.3 of Chapter 3 shows that the payout rate averaged about 0.03 percent of payrolls during the 1990s in Chile. Suppose this payout rate increases to 1.0 percent under the new system. The rate of inflow based on 3.0 percent of taxable payroll is likely to be lower than 3.0 percent due to noncompliance, but much of noncompliance at the same time means there will be no associated liabilities for the new system. If revenues equal 2.5 percent of covered payroll, there will be a substantial excess of revenues over expenditures on a year-to-year basis, with exceptions occurring only during recessions.

The initial contribution rates for the participants are not fixed for all future years. Should the system be over financed, there will be ample opportunity to adjust benefit levels, potential benefit duration, and/or contribution rates in the future. For the initial years in a new system, it is certainly safer to err on the side of over financing. Benefits and/or taxes can be adjusted later should accumulations in the individual accounts and the common fund prove excessively large. Otherwise,

the new UI system would in effect become a new mandatory retirement savings plan but one entitled *Seguro de Cesantia* (unemployment insurance).

The new UI program in Chile presents a strong contrast not only with UI programs in its own immediate past but also with other programs from the region and elsewhere in the world.²⁰ Because of its strong emphasis on individual accounts, its evolution will be watched with interest by many countries. It has received strong support from some economists and some staff at both the World Bank and the IDB. Since it is presently in its initial period of implementation, evaluations of its effectiveness have not been undertaken. However, in a country where reciprocity has consistently averaged less than 10 percent of unemployment, it seems highly unlikely that the new program with shorter potential duration than the current program will lead to increased reciprocity.

SUMMARY

Unemployment compensation programs in South America are generally characterized by low reciprocity rates and low benefit replacement rates. At the same time, there is a question of targeting benefits on the unemployed. It appears that many who collect UC benefits are not unemployed. There is a disconnect between the benefit payment functions and the limited administrative activities that monitor work search and more generally verify continuing eligibility for benefits. Control of benefit payments is achieved less by proactive administration than through restrictive statutory provisions such as long waiting periods, short potential benefit durations, and low benefit replacement rates.

Increased administrative oversight of continuing claims appears to be needed. This can be achieved through increased face-to-face contact with claimants and other forms of oversight such as matching earnings information with benefit claims information to ensure that recipients are unemployed and not employed or inactive. To achieve increased oversight, more resources should be devoted to UC program administration than at present.

For three countries, an analysis of replacement rates suggested that high past inflation did not cause replacement rates to decrease. Effective protection against the effects of inflation was achieved during the periods of highest inflation. However, there was also evidence that replacement rates decreased in Chile during two periods of moderate inflation, the late 1980s and the late 1990s. More evidence needs to be adduced before concluding that South American UC programs have implemented effective ongoing safeguards against inflation.

Chile's new UI program will rely on mainly payments from individual account balances to provide protection against unemployment. The new program will pay much higher benefits than the program being replaced, but potential duration will be much shorter, 5 months versus 12 months. It appears the low reciprocity rate of the past decade, roughly 10 percent, will decrease even further under this new program. Further, coverage of the labor force will most likely not change significantly. Thus, the new program will pay higher benefits but to fewer monthly beneficiaries. To provide income support to the unemployed, other programs and measures besides UC will continue to be needed in Chile as they are needed throughout the Latin American and Caribbean region.

Notes

1. This refers to changes in consumer prices between December 2001 and December 2002.
2. Venezuela has enacted a UI law, but it has not been implemented. While Barbados also has a UI program, it is not included in the discussion because its population is less than one million.
3. Classification of Ecuador's system as UC is somewhat arbitrary. It is financed by payroll taxes levied at a 2 percent rate on employers and 1 percent on workers. The benefit formula recognizes the worker's duration of past service and level of monthly earnings. This is separate from a new severance pay system established in 2001.
4. These averages closely mirror averages for the 1990s (Table 3.3).
5. The limits are 3 to 5 months in Brazil, 12 months in Chile, and 6 months in Uruguay. In Chile the limit under the new program now being phased in is 5 months.
6. Coverage is examined in more detail in Chapter 8, with some attention to Chile and Uruguay.
7. See Mazza (1999, pp. 14–21). Argentina has recently introduced a cross-match, but its effectiveness is uncertain.

8. This description draws heavily upon Mazza (1999) and Chahad (2000).
9. See Chart 3 of Chahad (2000) and Thomas (1999).
10. See Goodman et al. (1997). A summary of the findings is given in Vroman (1999, pp. 41–42).
11. Severance pay typically is not portable. Accrual of eligibility starts anew each time a worker commences a new job.
12. Families were ranked from top to bottom and then divided into five equal groups. The bottom quintile was the 20 percent with the lowest level of consumption.
13. The details of these associations appear in Tables 3, 5, and 6 in MacIsaac and Rama (2001).
14. This description draws heavily upon Vroman (2002c, pp. 19–27).
15. This calculation incorporates the time-dependent decreases in monthly benefits in both systems.
16. The implied reciprocity rate for the new system is an illustrative calculation by the authors.
17. These contribution rates apply to workers with indefinite duration contracts and those with fixed duration contracts. For others working by task (*obra o faena*), employers contribute the full 3.0 percent.
18. Details of the Australian experience with accessing individual accounts are given in Section 6.2 of Ingles (1998) and in Ross (1997).
19. An analysis of UI coverage that includes data from Chile is undertaken in Chapter 8.
20. The UI program for wage earners prior to 1974, however, did feature individual accounts.

Part 3

Problem Areas for Unemployment Compensation Programs

8

Three Problem Areas for Unemployment Compensation Programs

This chapter turns discussion to some general issues and problems facing UC programs throughout the world. If one were to present a comprehensive assessment of UC programs, it would more than likely cover nine key areas:

- 1) *Financing of UC programs.* Selected issues in UC program financing are discussed in Chapters 5 and 7. Examples include the recent change in UC financing in Russia, the reduction of benefit levels in Argentina, and a procedure for reducing benefits from the common fund in Chile in response to inadequate UC revenues
- 2) *Improved IT capabilities to assist in UC program administration.* This topic is crucial if UC is to serve a large client base efficiently. A discussion of improved IT capabilities, however, covers a very broad area, and we covered only the use of IT in the administration of benefits in Bulgaria in Chapter 5.
- 3) *Disincentive effects of UC benefit payments.* While this is certainly a key topic, there is no attempt here to survey the extensive literature—a literature that has grown especially in reference to CEE and FSU countries during the past decade.
- 4) *An analysis of other programs that serve the unemployed.* This topic is briefly discussed both in Chapters 3 and 6 for Korea and in Chapter 7 for the Latin American region. A recent, more broad-based discussion is given in Chapter 3 of Vodopivec (2004).
- 5) *Coordination of UC benefits with other income support payments.* In many CEE-FSU countries, social assistance as well as UC is received by large numbers of unemployed. The *OECD Jobs Study* (1994) identifies many of the relevant alternative sources of income support.

- 6) *The coordination of active and passive measures for the unemployed.* While this topic receives some attention in Chapter 4 for the OECD-20 countries, the focus was mainly on trends and not directly on measures to ensure effective coordination.
- 7) *Coverage of UC programs.* Coverage issues are present for countries at all levels of economic development, although the types of coverage problems differ for high-income versus low-income countries.
- 8) *Issues of continuing UC benefit eligibility.* This topic entails a discussion of the evolving practices that have the intent of encouraging claimants to secure reemployment and/or to find suitable work.
- 9) *Policies to shorten the duration of unemployment and UC benefit duration.* This is an ongoing area of UC policy initiatives and Chapter 4 identifies some recent examples from Germany and four small-to-medium OECD-20 countries. An analysis here would include approaches used to identify the long-term unemployed and a survey of the evolving strategies to assist claimants in reemployment.

This chapter focuses on the last three areas, in part because they are relevant across all countries with UC programs, regardless of region or level of economic development. They were also selected because, when considered together, they illustrate a central ongoing tension within UC programs as they try to serve large numbers of unemployed workers while at the same time operating to encourage and assist beneficiaries to secure rapid reemployment in meaningful jobs.

The issues relating to UC coverage are important not only for countries adopting programs but also for long-standing programs with low benefit reciprocity rates. In practice, the challenges in providing effective UC coverage are quite different for countries at different stages of development. As the content of work and the terms of the employment contract change, UC coverage issues will also evolve.

Once a worker applies for benefits, administrative decisions must be made in every country regarding both initial eligibility and then continuing eligibility for claimants who receive an initial payment. Unemployment compensation is intended to provide temporary income

support. Program administrators are increasingly aware of the need to ensure that UC support is indeed just temporary. Two aspects of this administrative challenge are to ensure that ongoing eligibility is effectively monitored and that potential long-term recipients are identified early in their unemployment spells so that timely interventions may be provided.

While the problem of long duration of unemployment spells is common to all geographic areas, our discussion focuses on countries in the OECD-20 and CEE-FSU regions. This decision is strongly influenced by the availability of both data and an extant research literature on these countries. Hence, the discussions of continuing eligibility and unemployment duration both use material from the higher-income countries of the developed world.

All three issues selected are of critical importance if UC is to serve large numbers of unemployed and do it in an efficient manner. The treatment of the topics, however, is selective and reflects the availability of data and research literature.

COVERAGE

To be effective in providing income support to the unemployed, a country's UC program must extend to a sizeable segment of the labor force. While high coverage does not necessarily guarantee a high UC reciprocity rate (e.g., the United States), low reciprocity is more likely if only a small fraction of workers are covered by a country's UC program.

Two aspects of the coverage question are important to distinguish: the prevalence of jobs appropriate for coverage and the proportion of wage and salary workers excluded. In terms of the first aspect of UC coverage, the type of employment relationship is of great significance. Employment with a standard or traditional employer–employee relationship is (or can be) appropriate for coverage whereas other jobs usually are not. Traditional employment has a well-defined relationship between the employer and the employee, with a (formal or informal) contract that specifies hours of work, the rate of pay, fringe benefits, and other details of the employment relationship, such as procedures for resolving conflicts. There is distance between the employer and the

worker, and there are distinct roles for both in the performance of work. Explicit or implicit rules govern the employment relationship, and the employer can terminate the relationship if work performance is substandard or if product demand decreases. The employees in such relationships are often described as wage and salary workers or as dependent employees.

Other types of work and employment are also common.

- Some people work as owners of businesses organized as sole proprietorships or partnerships. These people control the overall direction of the enterprise; make the decisions regarding staffing, organization of production, and the choice of capital equipment; and receive the economic rewards (profits) from the enterprise.
- Large numbers work as self-employed or own-account workers where the one individual is both the employer and the employee. Such individuals may work at a fixed location or with no fixed address.
- Family workers are common in some industries such as agriculture and retail trade. Spouses, children, and other relatives commonly hold such jobs. They do not receive an explicit salary but are supported by the net income (profits) of the enterprise.
- People may work cooperatively, owning and working in a business where the financial rewards are shared under an explicit formula arrangement.

A characteristic of all four of these employment relationships is the absence of distance between the ownership of the enterprise and decisions about the work done within the enterprise. Ownership and work are closely connected, and compensation for these individuals is explicitly tied to the success (profits) of the enterprise.

As a general rule, wage and salary employment is appropriate for UC coverage whereas employers, the self-employed, family workers, and members of cooperatives are usually excluded from UC coverage. The exclusion of the latter groups is typical but not universal. However, coverage of, say, employers or the self-employed, would present problems of moral hazard because the affected individuals would, to a substantial extent, control the decisions regarding their separation from

employment. Further, if coverage of such individuals were voluntary, there could also be problems of self-selection, for example, electing coverage in anticipation of becoming unemployed. The problems of self-selection and moral hazard in UC are reduced by the exclusion of employers, the self-employed, family workers, and members of cooperatives from coverage.

The second aspect of UC coverage is the proportion of wage and salary workers excluded from the program. Here there are two issues. All UC programs have explicit statutory provisions and administrative rules that exclude some workers from coverage. Exclusions may extend to employees of small firms, to economic sectors such as agriculture or nonprofit entities, to firms in seasonal industries, or to classes of workers such as part-time employees or government employees. There also can be substantial numbers, however, who are not covered because of the limited administrative capacity of the UC agency to enforce the program's intended coverage. This is most common for workers in small firms. These firms are characterized by high turnover, employee mobility, and poor record keeping, all of which make it difficult for the agency to secure contributions on a continuing basis. In practice, many small firms avoid coverage even though they fall within the ambit of the UC statute and associated administrative rules.

To summarize, low coverage can have more than a single cause. In countries where payroll taxes support the UC program, a useful summary index of coverage is the ratio of contributing workers to total employment.¹ Countries with low UC reciprocity rates typically have low coverage ratios.

COVERAGE BY CLASS OF WORKER

Table 8.1 displays summary data on the first aspect of UC coverage: the prevalence of jobs appropriate for coverage. The country data, mainly from the ILO, have been arranged according to the eight geographic regions introduced in Chapter 2. Four kinds of employment are highlighted: 1) agricultural employment, 2) wage and salary employment, 3) employers plus the self-employed, 4) and family workers plus members of cooperatives. Each of the four was measured as a proportion of total employment in 2000 using LFS data. It should be noted that reporting of employment data to the ILO is more complete among

Table 8.1 Average Employment Shares, by Region, in 2000

Region	Agricultural employment share in 2000			Employment shares by class of worker			
	Number of countries	Countries reporting	Average proportion	Countries reporting	Wage and salary workers	Employers and self- employed	Family workers and co-ops
OECD-20 countries	20	20	0.055	19	0.838	0.145	0.017
Central-Eastern Europe	12	8	0.141	8	0.793	0.158	0.049
Former Soviet Union	16	13	0.305	7	0.779	0.149	0.072
East-South Asia	22	14	0.307	10	0.595	0.268	0.137
North Africa-Middle East	17	7	0.213	5	0.599	0.263	0.138
Sub-Saharan Africa	42	3	0.208	1	n/a	n/a	n/a
South America	10	10	0.043	7	0.617	0.344	0.040
Cent. America-Caribbean	11	9	0.202	8	0.621	0.322	0.057
Total	150	84	0.184	65	0.717	0.218	0.064

NOTE: Averages are simple averages that weight countries equally. n/a = information not available, just one country reported data to the ILO.

SOURCE: Data taken mainly from the ILO Web site. For a few countries the data refer to a year besides 2000. Data for Bulgaria, Chile, the Philippines, and Taiwan from country publications.

higher-income countries. For example, 39 of 45 countries with the highest per-capita GDP in 1999 reported information on agricultural employment compared to 3 of the 45 countries with the lowest per-capita GDP. Thus, the data in Table 8.1 should be viewed as illustrative of the prevalence of coverage because lower-income countries are less fully represented than other countries.

Data on agricultural employment are displayed for two reasons. Country data on agricultural employment are more fully reported than data by class of worker; for example, 84 countries versus 65 countries out of the 150 in Table 8.1. Also, agriculture is typically excluded from UC coverage. As this sector is relatively larger, UC would be expected to cover a smaller share of the unemployed. For six regions (all but North Africa-Middle East and Sub-Saharan Africa), more than 60 percent of the countries reported data on agricultural employment. Labor force surveys in South America and the Central America-Caribbean regions often cover just urban areas. The low proportion in agriculture in South America is strongly influenced by the fact that 6 of the 10 countries conduct urban surveys. Elsewhere, note that the lowest proportions in agriculture are found in the OECD-20 and in the CEE countries. For five regions in the world, the agricultural share fell into the 0.20 to 0.31 range. Across all reporting 84 countries, the agricultural share of employment averaged 0.184 in 2000.

The employment proportions by class of worker also show obvious regional contrasts. Average proportions in wage and salary employment exceeded 0.75 in three regions (OECD-20, CEE, and FSU) but fell below 0.65 in four regions. For the 65 reporting countries, the average proportion was 0.717. Conversely, note the higher proportions of employers and self-employed and family workers and members of cooperatives for these latter regions. On the basis of wage and salary employment shares, one might expect to observe UC programs more commonly in the former three regions and less commonly in the latter four regions. This pattern is present in Table 3.1, except for South America, where 6 of 10 countries have UC programs.

A review of the country data for the employment share proportions summarized in Table 8.1 reveals a clear association between the employment shares and per-capita GDP in 1999. This relationship is explored in a regression analysis and the results are reported in Table 8.2. The regression equations generally use the same specifications, with

Table 8.2 Regression Analysis of Employment Shares, by Region, in 2000

	Constant	Inverse income 1999	Dummy Southern Europe	Adjusted R^2	Standard error	Mean	Sample size
Agricultural employment proportion							
Full sample	0.060 (3.4)	0.636 (9.9)		0.540	0.115	0.184	84
OECD-20, CEE, FSU	0.002 (0.1)	1.037 (14.4)	0.042 (1.3)	0.838	0.063	0.151	41
Asia, South Am., Cent. Am., Carib.	0.019 (0.5)	0.845 (5.9)		0.510	0.130	0.217	33
Wage and salary employment proportion							
Full sample	0.816 (38.1)	-0.565 (7.0)		0.432	0.131	0.717	65
OECD-20, CEE, FSU	0.904 (39.9)	-0.68 (4.6)	-0.15 (3.3)	0.441	0.086	0.815	34
Asia, South Am., Cent. Am., Carib.	0.799 (24.7)	-0.875 (7.3)		0.684	0.095	0.609	25

**Employer and self-employed
proportion**

Full sample	0.165 (10.7)	0.303 (5.2)		0.291	0.095	0.218	65
OECD-20, CEE, FSU	0.102 (7.7)	0.317 (3.7)	0.120 (4.4)	0.443	0.050	0.149	34
Asia, South Am., Cent. Am., Carib.	0.205 (8.5)	0.470 (5.3)		0.527	0.071	0.307	25

**Family worker and cooperative
employment proportion**

Full sample	0.019 (1.8)	0.262 (6.5)		0.395	0.065	0.064	65
OECD-20, CEE, FSU	−0.006 (0.5)	0.368 (4.2)	0.034 (1.2)	0.325	0.051	0.036	34
Asia, South Am., Cent. Am., Carib.	−0.003 (0.1)	0.405 (4.6)		0.455	0.070	0.084	25

NOTE: Inverse of income is measured as 1,000 divided by per-capita real GDP. The dummy for Southern Europe equals 1 for Greece, Italy, Portugal, and Spain and zero for other countries. Beneath each coefficient is the absolute value of its *t*-ratio. Ratios of 2.0 or larger are significant at the 0.05 level.

SOURCE: Data on employment proportions taken mainly from the ILO Web site and refer to 2000 for most countries.

income measured in inverse form (1,000 divided by per-capita GDP) to allow for nonlinearity. The idea is that employment shares respond more strongly to income change at lower income levels than at higher income levels. After fitting several regression equations for the individual regions, two groupings of regions are assembled. The first combines OECD-20 with CEE-FSU countries while the second combines Asia with South America and the Central America-Caribbean countries. The one additional variable is a dummy variable for the four OECD-20 countries from southern Europe. Recall from Chapter 4 that wage and salary shares of total employment are lower in these countries than in the rest of the OECD-20 countries.

In Table 8.2, three regression equations are fitted for each of the four employment shares shown in Table 8.1. The first of each trio uses all available data while the second and third are based on the two regional groupings identified above. For each of the 12 regressions, the income variable is statistically significant, with *t*-ratios ranging from 3.7 to 14.4 but with most (9 of 12) between 4.0 and 7.3. As income increases, the share of employment in agriculture decreases as does the share represented by employers plus the self-employed and the share who are family workers plus members of cooperatives. In contrast, the wage and salary employment proportion increases with income. Note also that the coefficient of the dummy variable for southern European countries has the expected sign in all four regression results and is significant in two. Compared to the rest of the OECD-20 and CEE-FSU sample, these four have less wage and salary employment and more of the other three forms of employment identified in Table 8.1.

The regression findings suggest an analogy from consumer behavior theory: wage and salary employment behaves like a superior good in a cross section of countries while the other three forms of employment respond like inferior goods; that is, they become a smaller share of total employment at higher levels of income.² Since it was previously asserted that UC coverage is most appropriate for wage and salary workers, this finding helps explain why countries with higher incomes are more likely to have UC programs. Also, for a country experiencing a rapid growth in per-capita income, establishing a UC program would appear to become more appropriate as income increases and the mix of employment changes towards an increased wage and salary share.

The constant terms in the regression equations are also of interest because they show the limit towards which each of the proportions is tending to converge as income continues to grow. In particular, note that the intercepts for the wage and salary proportions in the two regional configurations differ by about 10 percentage points. For instance, it is 0.904 for the OECD-20/CEE-FSU grouping but 0.799 for the Asia/Latin America/Caribbean grouping. One implication of these regression results is that the wage and salary proportion in the CEE and FSU countries will approach that of the OECD-20 countries as (or, more appropriately, if) their average income converges to that of the OECD-20 countries. For the other subsample, the limit is much lower. Thus, the low mean wage and salary proportion in the Asia/Latin America/Caribbean grouping shown in Table 8.2 (0.609, second column from the right) reflects not only lower average income but also structural economic differences that would probably persist even with income at the level of the average for the OECD-20 countries.

To illustrate the contrast between the two regional groupings, regression equations are used to project wage and salary employment proportions at differing income levels. At an income level of \$5,000 the two proportions are 0.77 and 0.62, respectively. The proportions increased to 0.84 and 0.71 at an income of \$10,000 and then to 0.88 and 0.76 at an income of \$25,000. At each income level, the proportion in the OECD-20/CEE-FSU countries is more than 0.10 higher than in the Asia/Latin America/Caribbean countries. Note also that the differential is larger at lower income levels.

To the extent that wage and salary (dependent) employees are most appropriate for UC coverage, then at a given income level, there is a lower share of such workers in the regions of Asia and Latin America and the Caribbean. This contrast could affect the willingness of governments in these regions to institute UC programs. Where UC programs are present, this low coverage of dependent workers would operate to reduce reciprocity even if other aspects of eligibility were the same as for programs in other regions where the dependent worker share of employment is larger.

Coverage Trends in Seven Countries

To help illustrate the two distinct aspects of the UC coverage, Table 8.3 displays data for seven countries that span part or all of the period

Table 8.3 Aspects of UI Coverage in Selected Countries, 1960–2000

	United States	Japan	Singapore	Korea	Thailand	Chile	Uruguay
A. Wage and salary employment, share of total employment							
1960	0.85	0.57					
1970	0.90	0.65					
1980	0.91	0.72	0.86	0.47			
1985	0.91	0.74	0.87	0.54		0.74 ^b	
1990	0.91	0.78	0.89	0.61	0.31 ^a	0.73	0.73 ^c
1995	0.92	0.82	0.89	0.63	0.36	0.72	0.73 ^c
2000	0.93	0.83	0.90	0.63	0.40	0.72	0.73
B. Ratio of contributors to wage and salary employment							
1960	0.73	0.52					
1970	0.73	0.64					
1980	0.96	0.63	0.94				
1985	0.96	0.64	0.83			0.63 ^b	
1990	0.97	0.65	0.75		0.31 ^a	0.67	0.56 ^d
1995	0.99	0.65	0.78	0.32	0.45	0.71	0.62 ^d
2000	1.00	0.63	0.68	0.50	0.44	0.74	0.72

C. Ratio of contributors to total employment

1960	0.61	0.30					
1970	0.66	0.41					
1980	0.87	0.45	0.81				
1985	0.87	0.47	0.72			0.47 ^b	
1990	0.89	0.51	0.67		0.09 ^a	0.49	0.41
1995	0.90	0.53	0.69	0.20	0.16	0.52	0.45
2000	0.93	0.53	0.61	0.32	0.18	0.53	0.53

NOTE: Data for Chile are from Arenas de Mesa and Sanchez (2001); for Uruguay, Banco de Prevision Social (2001). Data for Singapore, Thailand, Chile, and Uruguay refer to contributions to the pension system by wage and salary workers.

^a 1991.

^b 1986.

^c Assumed to be 0.729 as in 2000.

^d Derived.

SOURCE: Proportions based on data from the ILO Web site and country sources.

between 1960 and 2000. Panel A shows wage and salary employment shares while Panel B shows the ratio of contributors (covered workers) to wage and salary employment.³ Four of the seven countries are from Asia while two are from South America. The wage and salary share for the six countries where time series are displayed has generally been increasing, with the largest changes occurring in Japan and Korea. Chile presents the only exception to this general pattern.

Note how the ratio of contributors to wage and salary employment has also been increasing in most countries. In the United States, the change during the 1970s was very large as many workers from state and local governments and employees of nonprofit organizations entered coverage through statutory changes.⁴ Singapore and Thailand did not have UC programs in these years.⁵ The data in Table 8.3 refer to the provident fund in Singapore and to the pension scheme in Thailand. For both countries, the data exclude the self-employed. Singapore provides the only example of a decrease in the ratio of contributors to wage and salary employment. Increases of more than 10 percentage points are registered by the other six countries. The changes in Korea are especially large, considering that contributions only commenced in 1995 (from 0.32 in 1995 to 0.50 in 2000).

The ratio of contributors to total employment (Panel C) combines the two aspects of coverage displayed separately in Panels A and B. Given the preceding discussion, the increases present in six countries (all but Singapore) are the result of differing combinations of increases in the wage and salary share and increases in the ratio of contributors to wage and salary employment. Except for the United States, however, the proportions in 2000 are all 0.61 or lower. For four countries, the ratio of contributors to employment range from 0.53 to 0.61, or somewhat more than half of total employment.

To the extent that workers outside the scope of UC coverage experience unemployment at rates similar to that of covered workers, these ratios provide an important insight into low reciprocity rates. Many of the unemployed are simply beyond the effective reach of UC programs. Many of these workers are not wage and salary workers, but the contributor proportions fall far short of unity in six countries. As noted above, part of the explanation for these low proportions is the low scope of coverage due to the UC statutes and administrative rules, but

part is also due to the failure to secure contributions from covered employers.

Korea and Thailand have especially low proportions (0.32 and 0.18 in 2000). Both countries recently passed laws to increase coverage by lowering the minimum size of subject employers. Details of the changes are given below. Korea and Thailand also have the lowest shares of wage and salary workers in Table 8.3 (Panel A). Even if coverage were effectively extended to all wage and salary workers, there would still be low coverage of the total employment in both countries because so many jobs are not wage and salary jobs.

Chapter 6 noted that UI reciprocity was low in Korea when it experienced high unemployment during the Asian financial crisis. In response to this, several measures were enacted to improve access to UI benefits. Table 8.4 provides details on the effects of one change, the reduction in the minimum size of firms subject to coverage. Data are displayed for Korea and Thailand since both have had recent experiences in expanding coverage.

In Korea, the original lower limit for coverage was firms with 30 or more employees. As noted in Chapter 6, this was reduced three times during 1998: to 10 in March, to 5 in June, and then to 1 or more employees in October. Changing the minimum firm size sharply increased the numbers of workers and firms making contributions to the program. There was a proportionately much larger change in the increase in the number of firms. By December 2002 more than 825,000 firms were making contributions, more than 17 times the number at the end of 1997. Contributing workers employed in small firms numbered more than 3 million in December 2002 compared to somewhat more than 4 million in firms with 30 and more employees on the same date.

The Korean data also suggest that enforcement of the coverage extension has been an ongoing process since 1998. The number of firms and employees with contributions approximately doubled between December 1998 and December 2002, with an unchanged minimum firm size. By the latter date there were over 775,000 such firms making UI contributions. Within the 1–29 size group, very small firms dominate. Of the 776,000 total for this group, nearly 90 percent were firms with 1–9 employees and their employment totaled about 1.9 million. In December 2002 the mean number of employees for firms of this size was less than 3.

Table 8.4 Effects of Changes in Minimum Firm Size on Coverage, Korea and Thailand

									Smaller ^a		Larger ^b	
	Total employ- ment (1)	Wage and salary em- ployees (2)	Wage and salary share (2)/(1) (3)	Mini- mum firm size (4)	Number of contribut- ing employers (5)	Em- ployees with contri- butions (6)	Con- tributors wage and sal. emp. (6)/(2) (7)	Con- tributors/ total employ. (6)/(1) (8)	Number of contribut- ing employers (9)	Em- ployees with contri- butions (10)	Number of contribut- ing employers (11)	Em- ployees with contri- butions (12)
Korea												
1985	14,970	8,104	0.54									
1990	18,085	10,950	0.61									
Dec. 1995	20,667	12,960	0.63	30		4,204	0.32	0.20	0	0		4,204
Dec. 1996	21,114	13,230	0.63	30	44	4,331	0.33	0.21	0	0	44	4,331
Dec. 1997	21,269	13,273	0.62	30	47	4,280	0.32	0.20	0	0	47	4,280
Dec. 1998	19,905	12,296	0.62	1	400	5,268	0.43	0.26	356	1,555	44	3,712
Dec. 1999	20,991	13,185	0.63	1	601	6,054	0.46	0.29	560	2,246	41	3,809
Dec. 2000	21,420	13,578	0.63	1	693	6,747	0.50	0.31	647	2,699	46	4,049
Dec. 2001	21,923	13,936	0.64	1	807	6,909	0.50	0.32	758	2,908	49	4,001
Dec. 2002	22,326	14,382	0.64	1	826	7,171	0.50	0.32	776	3,065	50	4,106

Thailand

Aug. 1987	27,639	7,679	0.28									
Dec. 1991	31,138	9,562	0.31	20		2,926	0.31	0.09				
Dec. 1992	32,385	10,114	0.31	20		3,868	0.38	0.12				
Dec. 1993	32,153	11,038	0.34	10		4,624	0.42	0.14				4,624
Dec. 1994	32,095	11,157	0.35	10	65	4,971	0.45	0.15		65		4,971
Dec. 1995	32,575	11,613	0.36	10	74	5,184	0.45	0.16		74		5,184
Dec. 1996	32,232	12,151	0.38	10	83	5,590	0.46	0.17		83		5,590
Dec. 1997	33,162	12,489	0.38	10	91	6,085	0.49	0.18		91		6,085
Dec. 1998	32,138	11,729	0.36	10	93	5,418	0.46	0.17		93		5,418
Dec. 1999	31,398	12,329	0.39	10	100	5,680	0.46	0.18		100		5,680
Dec. 2000	33,001	13,070	0.40	10	107	5,810	0.44	0.18		107		5,810
Dec. 2001	33,100	13,636	0.41	10	111	5,865	0.43	0.18		111		5,865
June 2002	32,352	13,881	0.43	1	276	6,697	0.48	0.21	159	712	116	5,985
Dec. 2002	33,861	13,790	0.41	1	302	6,900	0.50	0.20				

NOTE: Data in thousands except for columns 3, 4, 7, and 8. Data in columns (1) and (2) generally refer to the calendar quarter where the indicated month falls. Since the Thai LFS for the fourth quarter only commenced in 1998, earlier data refer to round 3, i.e., the August survey.

^a From 1 to 29 employees in Korea and 1 to 9 in Thailand.

^b Thirty or more employees in Korea and 10 or more in Thailand.

SOURCE: ILO Web site and Korean and Thai publications.

Despite the increases in the number of firms and workers making contributions to the program, many who are supposed to be covered by UI legislation in Korea remain without effective coverage. Data shown by Hur (2001, Table 2.2), for example, suggest that about 3.5 million permanent and temporary employees work firms with 1–9 employees. Thus, only about half of these workers were having contributions recorded in December 2002. Still, contributors as a proportion of wage and salary employment grew from 0.32 at the end of 1995 to 0.50 in December 2002.

The Thai and Korean data in Table 8.4 reveal an important contrast in the scope of wage and salary employment within total employment. During 2002 both countries had about 14 million wage and salary workers, but since Thailand's labor force was about 50 percent larger than Korea's, the wage and salary share was much lower.

Thai data on the minimum size of firms subject to pension contributions show important effects of reducing the minimum firm. The first change occurred in 1993, when the minimum size was reduced from 20 to 10. During the early months of 2002 the minimum was further reduced to firms with one or more employees. As of June 2002 the increase in the number of contributing firms was 165,000; by December 2002, it was 191,000.

The Thai coverage expansion added 712,000 contributors in June 2002. If the Korean experience is at all relevant, further increases in firms and contributing workers can be anticipated in data from 2003 and 2004. As of June 2002, Thai authorities estimated they had extended coverage to about 22 percent of firms and 27 percent of wage and salary employees in firms with 1–9 employees. The coverage expansion increased the contributor ratio from 0.43 at the end of 2001 to 0.48 in June 2002. Even with this expansion, contributions were being secured from only half of wage and salary workers and 20 to 21 percent of all employment in June and December 2002.

The effects of the Asian financial crisis in both countries are also illustrated in Table 8.4. In Korea, the number of employers in the 30 and above size category actually decreased in December of 1998 and 1999 compared to December 1997. In Thailand, growth in the number of large employers (that is, with 10 or more employees) slowed after 1997. For both countries, the associated numbers of contributing workers actually declined during 1998, by about 13 percent in Korea and 11

percent in Thailand. While total employment in these “large” firms has rebounded since 1998, it had not reached 1997 levels by the end of 2002 in either country.

Sectoral Programs and Sectoral Exclusions

Many countries first established sectoral programs before instituting their national UC programs. A short list would include construction workers in Austria, Argentina, and Italy; seamen in Greece and Japan; and meat-packing workers in Uruguay. Usually the special programs served groups with high unemployment, and these programs have persisted after the establishment of a national UC program in some instances. Sectoral programs have provided valuable administrative experience as well as actuarial (cost) experience. In effect, these sectoral programs served as pilot projects, yielding useful information that could be incorporated into the national UC programs.

Sectoral exclusions from national UC programs also exist. Government workers are excluded from coverage in several countries. Other exclusions seem more idiosyncratic; for example, bank employees are excluded in Uruguay. Since these excluded groups typically experience low unemployment, their exclusion has had only a small effect on UC reciprocity.

On the other hand, seasonal workers, domestic workers, and employees of small enterprises are also frequently excluded. Part-time workers and those employed through temporary contracts may also be excluded. These exclusions have more serious consequences for UC reciprocity since the excluded groups typically have high unemployment.

Coverage of Nonstandard Dependent Workers

Labor markets in many countries are evolving and generating more nonstandard jobs among wage and salary (dependent) workers. Nonstandard employment can be defined in different ways, but three aspects of a standard employment relationship should first be noted. One definition of a standard job would include the following: a full-time schedule of hours worked per week, a long-term commitment to the

worker by the employer and vice versa, and a clear situation of dependence as evidenced by an employment contract.

In several countries, a stable long-term relationship can exist without an explicit labor contract. This contractual arrangement is sometimes characterized as the invisible handshake. The parties are committed even though no legally binding employment contract exists. An increasing share of employment lacks one or more of the three characteristics of a standard job as defined here.⁶ When at least one of the above characteristics is absent, the job is deemed to be nonstandard.

The importance of nonstandard employment varies widely across countries. One aspect of this variance for the OECD-20 countries is illustrated in column (6) of Table 4.1. During the 1990s, part-time employment averaged 0.16 of total employment in these countries, but the range extended from 0.07 in Spain to 0.29 in the Netherlands. The part-time employment share in the 1990s exceeded 0.20 in six of these countries, and it ranged from 0.15 to 0.199 in three countries. Low shares were most obvious for the four countries from the Southern Europe sub-region: Greece, Italy, Portugal, and Spain. For most OECD-20 countries, the part-time employment share has been increasing.⁷

While individual countries follow different practices, it is common to exclude at least some part-time workers from UC eligibility.⁸ The most common treatment among OECD countries is to compensate part-time workers with the same replacement rate of previous earnings as full-time workers. Weekly hours must exceed some minimum threshold, however, in order to be eligible when unemployed. Generally, the minimum thresholds vary between 15 and 22 hours per week. Most states within the United States exclude part-time workers. The basis for these exclusions in the United States (and the United Kingdom) is a requirement that UI claimants be available for full-time work. Being available for a job with the same weekly hours as the pre-unemployment job is disqualifying in some other countries as well. Given differences in work patterns by gender, limiting access to UC among part-time workers has a disproportionate effect on women.

Although data are generally less available on temporary employment than for part-time work, temporary work has also grown in many countries. Unlike part-time workers who do not consistently experience above-average unemployment rates, temporary workers exhibit

high unemployment, much of it associated with the frequent ending of temporary work assignments. When temporary assignments end and new assignments do not follow immediately, the resulting unemployment may be compensable. Practices in the United States vary across the individual states, and they vary internationally in compensating temporary workers.

Generally, the line of demarcation between independent (the self-employed) and dependent (wage and salary) workers is clear, but there can be ambiguous situations. The distinction is important since, typically, independent workers are not covered by UC programs. Administrative agencies that collect UC taxes use both statutory language and administrative rules to draw the line between the two employment situations. A self-employed individual who works for only one client for a lengthy period (six months or a year) may be classified as an employee despite the wishes of the person and the employer. When such persons then experience unemployment, they could potentially be eligible for UC benefits.

Growth of nonstandard employment is leading to statutory changes in UI legislation in a number of countries. In 1998, Germany increased the scope of coverage of part-time workers through two changes: reducing the minimum weekly hours needed for eligibility from 18 to 15 hours; and, when hours are less than 15, having a minimum earnings threshold. In the United States, one-third of the state UI programs have instituted an alternative base period (a procedure to recognize recent earnings not captured in the standard base period) since 1987, which has had the effect of extending coverage to some low-wage workers with irregular work patterns who would otherwise be ineligible.

Coverage: Summary

To summarize, UC coverage issues are important for countries adopting programs and for long-standing programs with low benefit reciprocity rates. Extending coverage to smaller firms requires considerable administrative resources. Given the high turnover of such firms, this administrative enforcement problem is not a one-time issue but rather a matter requiring continuing attention and resources. Efficient and effective firm registration procedures are needed to facilitate tracking, to assess administrative performance, and to minimize the

burdens on covered employers. Establishing procedures for one-stop registration (for paying contributions to all social insurance programs, as opposed to program by program, and granting licenses to sell certain products such as alcoholic beverages and pharmaceuticals) can be helpful.

As the labor market continues to evolve in countries with well-established UC programs, other coverage issues will emerge. For part-time workers and employees of temporary help agencies, involuntary unemployment reduces earnings just as it does for full-time, long-tenure workers. Adapting eligibility criteria to these situations will be an ongoing challenge.

Even if administrative activities are fully effective in securing coverage among wage and salary (dependent) workers, however, there remains a coverage question for other workers such as the self-employed. It seems that some other type of income support during periods of unemployment is needed. One option is to provide temporary jobs at low pay for persons who fall outside the logical scope of UC coverage, that is, employment situations other than wage and salary (dependent) employment. Other options may be appropriate in light of differing local circumstances. As the scope of wage and salary employment is smaller and as the effective reach of UC coverage among wage and salary workers is smaller, the need for an alternative program (or programs) to complement UC is greater.

CONTINUING ELIGIBILITY

Unemployment compensation administrative activities focus on a client population that has a high rate of turnover. Following an application for benefits, administrative decisions must be made regarding both initial eligibility and then continuing eligibility for claimants who receive an initial payment. Effective administrative oversight includes not only applying the statutory requirements for eligibility but also making judgments about the motivation and activities of claimants in satisfying eligibility requirements.

In framing a discussion of UC program administration, it is useful to recall the three possible labor market states of working-age individuals: employed, unemployed, and not in labor force (inactive). Eligible

recipients must be unemployed and their situation must be involuntary. Thus, procedures should be followed to verify that claimants (beneficiaries) are not either employed or inactive or unemployed through decisions to avoid available suitable work.

To ensure that these various conditions are satisfied, UC administration undertakes some or all of the following activities: overseeing efforts to secure reemployment by imposing work search requirements, judging the “suitability” of job offers made to recipients, requiring claimants to formulate explicit reemployment strategies (usually in consultation with a job counselor), and imposing reporting requirements to assess the sincerity of reemployment efforts. These various administrative activities lead to sanctions (either suspension or outright denial of further benefits) when the claimant is judged to be making an insincere effort to secure reemployment. The administrative structures used to oversee claimant eligibility and make benefit payments are quite varied throughout the world. Moreover, they are evolving in response to improved IT capabilities, greater importance of “activation” of claimants, and increased emphasis on decentralized decision making. A key requirement of effective administration is close coordination between the oversight of claimant reemployment activities and benefit payments administration.

This section highlights some of the changes that have been taking place. It draws upon earlier discussions from Chapters 4 and 7 and presents additional information. The discussion describes existing practices, with emphasis on emerging practices that are effective in securing reemployment and directing payments to appropriate persons, that is, those who are unemployed through no fault of their own and who are actively seeking work. The objective is to highlight selected aspects of continuing eligibility rather than offer a comprehensive treatment of the issue.⁹

Three elements of searching for a new job are the ability to work, the availability for work, and an active work search. In all three areas, UC administrative agencies have developed operational definitions to be applied to ambiguous situations. In the past, being able and available for work were sufficient to confer continuing eligibility. More and more countries, however, are requiring UC recipients to engage in active work search and to be able to provide documentation of search activities. It is no longer sufficient for a UC recipient to be able and

available to take a job if one is offered, but rather proactive actions to secure a job are increasingly required. This reflects the increased emphasis on “activation” of claimants in many countries throughout the world.

Work Search

Unemployment compensation administrative agencies are increasingly requiring claimants to undertake active work search and to document their efforts to find employment. Practices are highly variable, however, from one country to the next. For example, Grubb (2001, p. 191) identifies specific practices in reference to 13 OECD countries. Belgium, the Czech Republic, and Spain do not have a general requirement for search while five countries (Australia, the Netherlands, Switzerland, the United Kingdom, and the United States) require reporting on search activity and specify a minimum number of contacts with potential employers.

A common requirement is to contact some minimum number of employers each week. Agencies can then verify assertions about contacts by following up with the employers. If the claimant fails to supply sufficient information regarding the employer (e.g., a telephone number or street address), the agency may rule there was no contact. The typical penalty for first-time failure to make adequate contacts is to be ruled ineligible for the period (week) in question. Repeated violations typically result in a durational disqualification, for example, for the remainder of the current unemployment spell and for some number of weeks (months) of subsequent employment until a requalification requirement is met.

What constitutes a bona fide job contact is subject to administrative interpretation. It is not sufficient for a person to read a help-wanted advertisement in a newspaper without making an explicit contact with the employer. Neither will inquiries about employment made of friends and relatives be sufficient. Random contacts with employers with no announced vacancies will not be sufficient, nor will making contact for a job whose qualifications differ substantially from those of the claimant.

One evaluation of work search in the United States found that benefit duration was reduced by requiring more frequent contacts with

employers and by increased agency verification of reported contacts (Klepinger et al. 1998). However, the same study found that wages at reemployment were higher when work search requirements were relaxed. Thus, increased administrative requirements and/or oversight may not lead to improved job matches.

Monitoring claimant work search activities is prohibitively expensive if applied to all cases. To reduce administrative costs, UC agencies often require that claimants keep records that can be produced upon request, in effect shifting the cost to the claimant. Agencies then sample some individuals for details of their employer contacts and apply sanctions where appropriate. Another form of sampling is to require periodic visits to an administrative office to meet with and update the case officer on progress in job search and other reemployment activities during the interval since the last visit. Sanctions may be applied for an unexplained failure to appear or lack of evidence of work search activity.

Suitable Work

When a claimant is informed of a job opening by the UC agency (or the agency becomes aware that a job offer has been made to the claimant) it may be refused if the claimant feels the job is not “suitable.” Since there can be disagreements over what constitutes suitability, UC agencies need to have an operational definition of suitable work. Refusal of a suitable job offer can lead to sanctioning.

Countries follow a variety of practices in defining suitable work. Chapters 4 and 7 noted the definitions used in Germany and Chile, respectively. The following approaches are used by different states within the United States (see Table VI-5 in Vroman 2002a):

- Suitability is determined on a case-by-case basis (Virginia).
- A suitable job is reasonably fitted to the claimant in light of training and experience (Massachusetts).
- Several factors are considered, most importantly, wages, distance from residence, the shift offered, and the occupation offered (California, North Carolina, Oklahoma, and Wisconsin).
- More than four explicit factors may be considered (Rhode Island and New Hampshire).

- The level of the wage offered relative to the wage on the last job, for example, at least 80 percent (Indiana) or 60 percent (Louisiana).

When multiple factors are deemed relevant, UC agencies often decide on the balance of job characteristics rather than using each factor as a minimum threshold where all factors must be satisfied. Considerations of safety, noise, and/or stress may also make an offer unsuitable.

The concept of suitable work is evolving away from emphasis on multiple factors toward increased emphasis on the wage of the job offer relative to the wage of the previous job. While this has been followed in Chile for decades, its adoption in Germany occurred only in 1998. Increased reliance on before-after wage comparisons simplifies UC administration while at the same time encouraging increased mobility across occupational lines and towards employment in expanding sectors.

Suitable work is a dynamic phenomenon. As the duration of unemployment increases, many UC agencies set lower and lower wage thresholds in defining a suitable job. The recent changes in Germany aptly illustrate this, with the threshold being at least 80 percent of the previous wage during the first three months descending in two steps to wages above the level of the weekly UI benefit after six months.

Practices vary regarding the number of refusals allowed before penalties are imposed. Often just one refusal is permitted. Also, the penalties imposed vary widely. Penalty periods may extend for a fixed number of weeks for the first sanction, but eventually durational penalties are imposed in most countries.¹⁰

Administrative activities related to work search and suitable work are intended to ensure that claimants are unemployed (not inactive) and that the unemployment is involuntary. Departures from these hypothesized conditions can occur in any week when benefits are claimed. Thus, administrative oversight can be exercised only for a sample of the universe of weeks claimed.

Because the potential for abuses is always present, some form of continuing oversight administered to small samples of claimants is needed to identify patterns of abuses and to modify administrative procedures with the objective of reducing occurrences. Where the payment functions and oversight functions are separate (or there is no effective

oversight as in Argentina and Brazil), the administrative problem of identifying and sanctioning violators is much larger.

Problems of Continuing Eligibility

Programs usually permit claimants to earn small amounts and still receive periodic benefit payments. Through partial benefit schedules small amounts can be earned while receiving full benefits, but higher earnings cause benefit reductions. Typically, partial benefit schedules permit only modest earnings before benefits are fully withheld.

In many situations, however, claimants may have substantial earnings while claiming benefits at the same time. Examples from Bulgaria and Brazil were noted in Chapters 5 and 7, respectively. When the NSSI in Bulgaria matched earnings records for UI beneficiaries in 2002, it found that 10 percent of recipients had full monthly earnings. In Brazil studies of recipients in 1996 found that 44 percent were employed, with a breakdown of 16 percent in formal sector jobs and 28 percent in informal jobs.¹¹ In the United States, state UI programs can match earnings and benefit records and find measurable numbers of overlaps (2 to 4 percent) among recipients. A common situation is for recipients to continue claiming UI during the first weeks of a new job even though eligibility ends when employment begins.

The preceding examples show that contemporaneous work and benefit receipt can be identified through record matching when the earnings are reported by the employer. Undeclared earnings (gray economy), however, call for another administrative strategy. One technique is to schedule eligibility reviews or otherwise require an appearance at the local administrative office at a time of day when work is likely. Alternatively, recipients can be required to work a certain number of hours at a temporary public service job as a condition of receiving UC benefits. Enforcement can be reasonably expensive, however, in terms of personnel time required for monitoring. Many countries do not have the resources to devote to such activities.

Given that administrative agencies and their contractual service providers operate with limited budgets, it is crucial to allocate administrative resources efficiently. The first priority should be to provide services related to job search assistance since this is widely found to be cost effective. In contrast, resources for monitoring continuing eligibil-

ity should be more carefully allocated. Resources for expensive interventions such as training should take into consideration the potential economic returns of these interventions.

Problems of ascertaining continuing eligibility are greater in situations where the benefit payment function and the monitoring functions are undertaken by separate entities. Brazil seems to reside at an extreme position on the continuum with practically no oversight of continuing eligibility. The advent of electronic reporting systems will increasingly make it feasible to monitor the simultaneous receipt of UI benefits with earnings and the simultaneous receipt of UI benefits with some other types of social benefits.

Chapter 7 indirectly identified a different approach where oversight of reemployment activities is zero or minimal, but potential payments to those initially eligible are kept low. If UC benefits are characterized by low replacement rates and/or short potential benefit duration, those who receive an initial payment often collect a full entitlement. Administrative oversight is very limited and focused just on determining initial eligibility for benefits. In effect, those receiving a first payment treat payments as an entitlement (similar to a pension benefit), not something requiring reciprocal actions to maintain continuing eligibility for payments.

In the past, this approach was followed within certain OECD-20 countries, but many analysts and policymakers eventually concluded that unconditional access was contributing to long unemployment duration. The emphasis on activation, which developed during the 1980s and 1990s, was intended to provide a more balanced perception among beneficiaries regarding UC eligibility; that is, they have obligations as well as rights. Since unemployment is high in many non-OECD countries, widening the geographic application of this conception of eligibility, that is, with obligations as well as rights, can be anticipated. Otherwise, the payment of UC benefits will remain poorly targeted on those who are involuntarily unemployed.

UNEMPLOYMENT DURATION AND UC BENEFIT DURATION

In many countries, policymakers are trying to devise strategies that limit the duration of benefit payments in their UC programs. Countries

follow a variety of approaches and new initiatives are common occurrences. Concerns about long spells in benefit status and repeat use of UC benefits (carousel effects) have become widespread over the past two decades. Many feel that reform of UC administrative practices is central to addressing the problem of long-term unemployment. The following section provides an overview of important developments. Given the limited availability of duration data, the overview focuses on OECD-20 and CEE-FSU countries.

Long-Term Unemployment

Unemployment spells of long duration are ubiquitous in OECD-20 and CEE-FSU countries. While the problem is not unique to these geographic areas, the availability of duration data makes it easier to trace developments here than in other regions. Figure 8.1 and 8.2 depict recent patterns using the common designation of long duration—spells lasting 12 months or longer. For CEE-FSU countries, the data are available only from the early 1990s.

Figure 8.1 displays time series on the percentages of long-term unemployment spells for six countries selected on decidedly nonrandom criteria. For all six, data on long-duration spells extend back to the mid-1970s, and the data extend back to the late 1960s for three (Australia, France, and the United States). While all six are OECD-20 countries, the second selection criteria was that they have “unusual” duration characteristics, either very long or very short average duration or duration that underwent large changes during the past 30 years. Note that Canada and the United States consistently display low percentages of long-term spells. For 25 of the 34 years, the percentage in the United States was the lowest among these six countries and was below 10 percent in 29 years.

At the opposite extreme, France and Spain display very high percentages of long-duration spells, with Spain consistently having one of the highest across all the OECD-20 countries. For both countries, high long-term percentages span the 1980s and later years, typically above 50 percent in Spain and above 40 percent in France.

The increases in duration that occurred in the mid-1970s, early 1980s, and early 1990s reflect cyclical developments discussed in Chapter 4. Also, the duration patterns across the four OECD-20 subre-

Figure 8.1 Long-Term Unemployment Percentages, 1968–2001

Figure 8.2 Countries with High Long-Term Unemployment, 1983–2001

gions discussed in Table 4.1 are reflected in Figure 8.1; for instance, rates are lowest in English-speaking countries (Australia, Canada, and the United States) and highest in southern Europe (Spain).

Two other noteworthy patterns in country-specific developments were the successively higher peaks reached in Australia in 1981, 1984, and 1993 and the large increase in long-duration spells in Sweden during the mid-1990s. In both cases, the increases reflect underlying changes in the unemployment rates in these countries. In the early years of Figure 8.1, Australia and Sweden had long-term percentages similar to those in Canada and the United States but then increased, and their percentages have not returned to Canadian-U.S. levels. Since 1995, the Australian and Swedish percentages have averaged about twice the percentage in Canada and about three times the percentage in the United States.

Finally, while the long duration percentages decrease noticeably in the most recent years for most countries (all but France), the levels as of 2001 are much higher than for the earliest years for all six countries. This holds equally for the three countries where data extend from the late 1960s and for the three countries where data extend from 1976 to 1977. Not only does long-duration unemployment reflect business cycle developments, but there has also been a pervasive tendency for unemployment duration to lengthen in OECD-20 countries since the mid-1970s.

Figure 8.2 summarizes information on six countries with consistently high long-term unemployment percentages. The long-term percentages extend from 1983 to 2001 for France, Germany, and Italy, whereas the data extend only from the early to mid-1990s for the three CEE countries (Bulgaria, the Czech Republic, and Hungary). The long-term percentages in France and Italy display little change between 1995 and 2001 despite reductions in their unemployment rates. For Germany the large reduction in the long-term percentage of 1991 was followed by a secular uptrend, with percentages reaching 50 percent from 1998 to 2000.

Of the three CEE countries, the pattern in Bulgaria is the most stable, percentages between 56 and 66 percent in all eight years. The long-term percentage increased noticeably from 1992 to 1995 for the Czech Republic and by a larger amount in Hungary. The increase for

the Czech Republic from 1998 to 2001 mirrors increases in the Czech unemployment rate. For Hungary, the 1995–1996 unemployment rate averaged about 10 percent, but it had declined to about 6 percent by 2000–2001, roughly a 40 percent reduction. Over the same period, however, the long-term unemployment percentage decreased from 52.5 percent to 47.8, a reduction of only 9 percent. Reducing the overall unemployment rate was not matched by a similar reduction in long-term unemployment. The average Czech percentages in 2000–2001 were only slightly higher than the Hungarian percentages even though their unemployment rates averaged 8.20 percent and 6.05 percent, respectively. For these two countries, the gradualist approach (the Czech Republic) and the shock therapy approach (Hungary) to the economic transition have yielded similar results in terms of the percentages of long-term unemployment spells.

We examined the patterns of high and increasing long-term unemployment percentages depicted in Figures 8.1 and 8.2 quantitatively using multiple regression equations, and the results are reported in Appendix E. For present purposes it is sufficient to note that the most important single determinant of the long-term unemployment percentage is the unemployment rate lagged one year. Under different specifications, lagged unemployment consistently entered with a positive coefficient that was nearly always significant for 18 of the OECD-20 countries for which there were enough time-series data to conduct meaningful tests.

Tests are also conducted for secular trends in the long-term unemployment percentage. While the regression results suggest significant trends for several individual countries in data measured as levels (Table E.1), the trend coefficients are not robust when the data were measured in first differences (Table E.2). The principal finding of the regression analysis is that the lagged unemployment rate is by far the largest single determinant of the percentage unemployed for periods of 12 months or longer.

Even if the evidence regarding trends in long-term unemployment percentages is not clear cut, the high levels of these percentages in several OECD-20 and CEE-FSU countries is of concern to those who study labor markets, policymakers, and UC program administrators.

Unemployment Compensation Policies and Long-Term Unemployment

Long-term dependence on UC benefits has grown as the duration of unemployment has increased. While the most obvious situations involve lengthy continuous stays in benefit status, other aspects of long-term dependency also exist. From a multiyear perspective, repeat use of UC associated with seasonal or other recurring patterns of unemployment can be important. Long-term joblessness arising from alternating spells of unemployment–employment and unemployment–inactivity (termed carousel effects) should also be noted. In all these situations, the availability of UC and other income support payments contributes to long-term dependence and a lack of self-support. Policies that stress activation and mutual obligation are intended to interrupt situations of long-term dependency.

During the past 10 years, more and more countries have adopted policies to activate the unemployed. Central to the evolution of UC administrative practices within OECD and other countries are efforts to identify the long-term unemployed early in their spells of unemployment and then to apply effective interventions that reduce their unemployment duration. A shorthand descriptive term for this approach is profiling.

A recent analysis by the OECD (2002) surveyed practices across member countries and identified Australia, the Netherlands, and the United States for their strong emphasis on early identification and intervention. A brief summary of their profiling procedures is appropriate.

Australia

The delivery of labor market services was modified in Australia in May 1998 with the introduction of Job Network services.¹² Through Centrelink, the responsible labor market administrative entity, the Australian government provides a uniform national service for registering jobseekers, administering unemployment benefits, assessing the eligibility of jobseekers for Job Network services, and referring jobseekers to appropriate interventions. As part of the mutual obligation arrangement, Centrelink is responsible for paying unemployment benefits to

jobseekers who must meet an activity test, that is, demonstrate that they are actively seeking and willing to undertake suitable work or undertake the activities specified in their Preparing for Work Agreement.¹³

Centrelink staff determine eligibility for most Job Network services using guidelines developed by the Department of Employment, Workplace Relations and Small Business. Eligibility for different Job Network services is based on scores that reflect a hierarchy of presumed jobseeker needs. Most unemployed individuals, irrespective of whether they are receiving income support, are eligible for Job Matching. Eligibility for Job Search Training is more restricted, and it is even more tightly restricted for Intensive Assistance. The restrictions are intended to ensure that assistance is directed to those most in need of interventions and that assistance is appropriate for individual jobseekers.

Centrelink staff identify the likelihood of unemployed individuals becoming or remaining long-term unemployed and refer them to Job Network providers (service providers selected competitively). The assessment utilizes the Jobseeker Classification Instrument, a profiling tool designed to identify the relative risk of becoming or remaining long-term unemployed. Each client scoring above a specific threshold is considered for case management.¹⁴ Scores above certain thresholds are used to direct clients into Job Search Training and Intensive Assistance.¹⁵ In addition, responses to certain structured questions can signal the need for further assessment by Centrelink.

Registered unemployed with a moderate degree of labor market disadvantage receive services from Job Service Training through training in job-search techniques—interview techniques, confidence-building, self-presentation, and other strategies. The most disadvantaged unemployed with a high risk of long-term unemployment receive individually tailored assistance from Intensive Assistance in such areas as training, work experience, employer incentives, or subsidies for clothing, equipment, or transportation to secure employment.¹⁶ Through different interventions, Centrelink attempts to match the client's needs with the appropriate intervention.

The Netherlands

The Netherlands uses the “chance meter” to identify those who are likely to become long-term unemployed. This meter provides a

score based on a questionnaire administered and scored by a job counselor. Four factors are of primary importance in developing the score for individual clients: age, years of education, occupation, and years of work experience. The score is used to classify individuals into one of four groups which signal likelihood of reemployment and the timing and type of intervention. Group 1 is considered most reemployable and does not receive any intervention until several months after the onset of unemployment (e.g., six months). Groups 2 and 3 are considered to be at risk of long-term unemployment and, in addition, have a capacity to benefit from a proactive intervention. Group 4 is also deemed at risk of long-term unemployment but unlikely to benefit from standard labor market interventions. The counselor assesses the client and takes the lead in suggesting the appropriate labor market intervention (or other measures to increase the likelihood of reemployment) and the timing of follow-up.

Individual clients and counselors work jointly to develop a reemployment plan. The approach to reemployment for those who are immediately job ready (Group 1) is more hands off than for those judged to be at higher risk of long-term unemployment. Individual plans may be revised as unemployment duration lengthens.

The United States

In the United States, worker profiling was established in 1993 and made mandatory for state UI agencies. The Worker Profiling and Reemployment Services system is designed to identify likely long-term claimants and those who are expected to use their full entitlements (that is, exhaust their UI benefits) and need to be referred to services for additional job search assistance.

The system is a statistical profiling technique that uses personal characteristics (education, occupation) and labor market information (local unemployment, sectoral employment growth) at intake to assign a profiling score where higher numbers indicate an increased likelihood of benefit exhaustion.¹⁷ Most typically, the profiling score is based on parameters estimated from historic data where the association between characteristics and labor market variables and actual benefit duration is known. The algorithms that assign profiling scores are highly varied, and some states utilize just selected client characteristics with no associated statistical equation.

Those with high profiling scores are required to utilize services (where available) intended to increase the likelihood of reemployment. There is a requirement to attend an initial profiling orientation session to be followed by participation in some form of services. Most services are small-scale interventions such as information on job openings, testing, and counseling. Nonparticipation in profiling can lead to sanctions if it seems the person is deliberately not cooperating.

A common element present in all three countries is the assignment of a score intended to be predictive of the likelihood of long-term unemployment. The score influences decisions about the provision of services.

Three Questions

While profiling is comparatively new and has generated widespread interest, three questions seem appropriate in assessing its usefulness. None of the questions has simple answers. For all three questions, aspects of statistical decision making are involved, that is, intervening when it is appropriate but not intervening when action is not needed.

Can long-term unemployment be predicted?

Evidence on this question is available from studies conducted in both Canada and the United States. Wong, Henson, and Roy (2002), using two distinct statistical models, report success rates of roughly 50 percent in identifying persons unemployed 12 months or longer based on 1996 data from Canada. Among the set of explanatory factors were gender, broad age group (youth, prime age), education, occupation, industry, province, weeks employed in past year, part-time status, and recall status.

Olsen et al. (2002) report a limited success rate in predicting UI exhaustions in data from Washington, D.C., and Florida during 1995 and 1996. While identification of exhaustees with the profiling models was relatively higher than would be expected from random data, there were numerous misclassifications (erroneous predictions of both exhaustees and nonexhaustees). The authors state, "The targeting effect of the profiling model is limited. The models do not separate claimants

into one group in which nearly everybody exhausts and another group in which practically nobody exhausts" (Olsen et al. 2002, p. 45).

In both states, a higher percentage exhausted benefits in the group that was predicted to exhaust benefits than in the group predicted not to exhaust. The differentials in the two percentages averaged 6 to 7 percent in the Florida data (see Table 2.4 in Olsen et al. 2002).

Based on these analyses it would seem that, to date, only modest success has been obtained in predicting long-term unemployment. The success rate reported in the Canadian study would probably be measurably lower if those still job-attached (with a definite recall date) were excluded from the data set. Given the interest in profiling, it is likely that improved predictive accuracy can be anticipated.¹⁸

It also seems likely, however, that substantial error rates will persist even as the models developed for profiling improve. At least three considerations are relevant. As the structure of the labor market continues to evolve, use of parameters derived from earlier data will contribute to inaccuracy when applied to current UC applicants. Key variables important in determining long-term status will not be available; for example, claimant motivation. In the United States, there is an added problem in that age, gender, and ethnicity are not used as predictor variables due to concerns of possible discriminatory implications. In Australia, Canada, and the Netherlands, age has proved to be an important determinant of long-term unemployment.

Thus, two types of errors will continue to be present when profiling predictions are compared to actual outcomes. Some predicted to exhaust will not do so while some will exhaust who are predicted not to exhaust.

When we step back from primary reliance on equation-based predictions, however, it is clear that use of scoring and classification procedures to identify potential long-term unemployment will become more widespread. Korea and New Zealand have experimented with scoring algorithms in the past few years. The Czech Republic, Germany, Portugal, Sweden, and Switzerland all follow systems where local office staff classifies claimants according to their perceived prospects for employment (OECD 2002, p. 217).

When should interventions take place?

The answers to this question also present dilemmas. For many (most?) of the newly unemployed who are most employable, the situa-

tion is temporary and self-correcting without the need for any intervention. On the other hand, waiting to prescribe services can lead to delays in reality testing by claimants, inefficient search, and loss of self-esteem, all of which contribute to longer unemployment duration. Since the full range of variables and motivations related to successful reemployment may not be known (or measurable) by the provider of reemployment services, this adds to the possibility of incorrect timing of the intervention.

Practices vary across Australia, the Netherlands, and the United States. For those identified through profiling as likely exhaustees in the United States, an orientation session is scheduled immediately after the first payment, and failure to participate (absence without a reason) can lead to sanctions. For both Australia and the Netherlands, follow up after the initial application for benefits can occur almost immediately, or from 3 to 12 months later. The timing is set by the job counselor and varies by individual. The client's perceived prospects for reemployment enters into this determination. Those deemed most reemployable may search for up to 6 months with little or no contact with the reemployment staff.

The timing of interventions for the three countries is more rapid than the general guidelines suggested in 1997 for member countries in the EU Luxembourg process. This guideline suggests that assistance be offered to all youth reaching 6 months of unemployment and all adults reaching 12 months. The updating of the EU guidelines in 2000, however, stressed early intervention to prevent skill obsolescence and loss of motivation (OECD 2002, p.211). A survey by Klemmer and Wink (2001) provides more details about the approaches followed in individual EU countries.

Who should receive treatments?

This question has several facets, and only a limited discussion will be attempted here. Administrative agencies and their contractual service providers operate with limited budgets, making it crucial to allocate limited resources efficiently. Services such as access to automated job listings and related job search assistance should be widely available. Resources for training and retraining, in contrast, should be more carefully allocated with potential economic returns a paramount consideration.

Two situations are important to avoid when considering an intervention. First, interventions should not be initiated while clients are actively searching and the client and the job counselor agree that job prospects are good. Reemployment implies failure to complete a treatment with an attendant waste of resources. Second, some of the long-term unemployed present poor prospects for interventions such as training. The analogy with triage in medical situations is appropriate. Resources for expensive interventions should be allocated with attention to the prospective economic return. For example, some who clearly will become long-term unemployed will not benefit from training and should be slotted to other measures, perhaps temporary employment or subsidized employment.

Other questions for assessing the usefulness of interventions are also relevant. First, how should clients participate in the decisions about the selection of services? For example, in the United States participation in self-employment assistance (use of UI to support micro-enterprise startups) is typically allowed only for persons with high profiling scores. A few states have instituted procedures to bypass this requirement, allowing more persons to participate besides just likely exhaustees.¹⁹ The effect is to allow self-selection into the program by individuals who would otherwise be ineligible.

Second, how should reemployment resources be allocated for youth and those nearing retirement? To even ask the question highlights another aspect of administrative decision making and setting guidelines for support of those with variable prospective earnings streams.

More generally, in making resources available to increase the likelihood of reemployment, there will always be tension between the objectives supporting choice among clients and allocating services based on likely economic returns. For all three preceding questions, errors will be made at the micro level even when decisions are firmly grounded on past experience and accurate knowledge of good practices. The expectation is that reliance on profiling will improve the quality of decisions because the information used will be based on a broad body of claimant experiences.

A final comment about profiling is to relate it to overall unemployment duration, the starting point for the present discussion. Analyses of its effect note that profiling will shorten average unemployment duration. A rule of thumb based on evaluations in the United States is

that UI benefit duration among those identified as likely exhaustees and referred to services averages some 0.4–1.0 weeks less than for others (Vroman 2004, Table 2C). Since this group generally averages less than one-quarter of all claimants and since claimants represent less than half of the unemployed in the United States, there is little macroeconomic significance in profiling. One should not expect to discern impacts in macro-level data on average unemployment duration or the long-term unemployment percentages as displayed in Figures 8.1 and 8.2.

SUMMARY

This chapter examines three problem areas for UC programs: coverage, continuing eligibility, and long-term reciprocity associated with long-term unemployment. The problems of coverage vary with the level of economic development as proxied by per-capita GDP. In low-income countries a large share of employment is made up of the self-employed, business owners, unpaid family workers, and members of cooperatives. Because the traditional employer–employee relationship is not present for these persons, they generally are not appropriate for coverage by UC programs. At the same time, the continuing evolution of labor markets in high-income countries also brings to the fore other coverage questions for wage and salary workers with nonstandard employment arrangements. Thus, coverage issues are present for UC programs in countries at all income levels although the specifics of coverage issues differ between high-income and low-income countries.

Our analysis of continuing eligibility and of long-duration unemployment and UC reciprocity was centered much more on the OECD-20 countries and to some extent on CEE-FSU countries. The selection of these countries was strongly influenced by availability of both data and an extant research literature on these aspects of UC administration. The general background theme of the discussion was the increased emphasis on claimant activation in recent years.

Claimant profiling received strong emphasis. Based on the research in Canada and the United States, only modest success has been obtained in predicting long-term unemployment. Improved predictive accuracy can be anticipated in the future. But substantial error rates will

continue to persist even as improved models for profiling are developed. Two types of errors will continue to be present: some predicted to exhaust will not do so and some predicted not to exhaust will exhaust.

Although profiling is comparatively new, it can be useful for identifying the potential long-term unemployed and for deciding how to allocate resources in order to increase the likelihood of reemployment. Statistical scoring procedures in Australia, the Netherlands, and the United States were described, and questions were posed regarding aspects of profiling. Given the increased interest in profiling, it is clear that utilization of profiling will increase. This is appropriate since long-term unemployment and long-term UC reciprocity are a pervasive phenomena throughout the OECD-20 and CEE-FSU countries.

Notes

1. Making contributions may be the sole responsibility of the employer or a shared responsibility of employers and employees. In employer-financed programs contributions are made for a well-defined set of covered workers.
2. Economists will recognize the similarity of these results with Engle curve analysis of consumption behavior. Some items become a larger share of the budget at higher income levels (superior goods) while others become a smaller share (inferior goods).
3. Because agriculture is usually excluded from UC coverage, it would be preferable to use nonagricultural wage and salary employment in Table 8.3. While this is easily done for OECD countries (Japan, Korea, and the United States in Table 8.3), the data are less readily available for other countries.
4. The increased coverage in the United States did not bring about a measurable increase in UI reciprocity because those newly covered have generally low unemployment rates. In recent years, workers from the government and nonprofit sectors have accounted for about 18 percent of total covered employment but only about 4 percent of beneficiaries.
5. Thailand has established a UC program that commenced benefit payments in mid-2004.
6. A more complete discussion of nonstandard employment is given in Chapter II of Vroman (1998). That discussion also identifies a fourth dimension, on-site work done by someone employed by an off-site employer. Estimates of the size of various groups of nonstandard workers in the United States in 1995–1996 are given in Table 1 of that report.
7. The part-time proportion in 2000 was higher than in 1990 in 15 of the 20 countries.
8. Practices at the end of the 1980s are summarized in ILO (1989).

9. A more comprehensive treatment is given by Grubb (2001). Annex 4.A of OECD (1999) surveys important differences across 13 OECD member countries in reference to both initial eligibility and continuing eligibility.
10. See Table 1 in Grubb (2001) for a display of penalties for the first, second, and subsequent refusals of suitable work in 13 OECD countries.
11. See Chahad (2000) and Thomas (1999).
12. Job Network provides five main services tailored to the needs and background of the individual jobseeker: 1) job matching, 2) job search training, 3) intensive assistance, 4) new enterprise incentive scheme, and 5) project contracting. The latter two services, respectively, support the establishment of new micro enterprises and the marketing of agricultural products.
13. The Preparing for Work Agreement is a mutual obligation arrangement based on the premise that unemployed individuals, supported financially by the community, should actively seek employment in the labor market and improve their competitive position while searching for work.
14. The Jobseeker Classification Instrument was developed in 1995 and 1996 using statistical analysis to identify the factors that increase the likelihood of remaining unemployed for more than 12 months. The score is a weighted sum of 18 factors that include age, country of birth, disability/medical condition, the duration of unemployment, educational attainment, geographic location, language and literacy, and recency of work experience. Centrelink staff pose a series of structured questions to obtain the required information, and the score is constructed from these responses.
15. Unemployed individuals are referred by Centrelink for Job Search Training after they have been unemployed between 3 and 12 months. The program requires attendance for a minimum of 15 consecutive days of training in job-search techniques. Intensive Assistance is a program of individualized case management in which participation can continue for up to 21 months: services are provided for up to 12 months under Intensive Assistance level A and 15 months under Intensive Assistance level B, with negotiated extensions of up to 6 months being possible. Centrelink refers individuals to Individual Assistance if their score on the Job Search Classification Instrument is above a certain threshold and, in addition, if the individuals have a capacity to benefit from this intervention. This results in some clients being referred at the start of their unemployment spell, while others are referred only after a review a year or more later.
16. See OECD (2001a, pp. 116–119) for more details.
17. Exceptions to profiling are allowed for persons with good short-term reemployment prospects, for example, persons with definite recall dates or union members listed at union hiring halls.
18. Annex 4.C in OECD (2002) gives a summary of profiling techniques used in OECD member countries.
19. In one state the bypass allows a person to have his or her profiling score revised (increased). Another state allows participation by all claimants by setting the threshold score to zero.

9

Conclusion

Unemployment compensation programs provide an important source of income support to many unemployed persons and families throughout the world. We have argued that the 70 countries with UC programs vary in terms of macroeconomic performance, particularly unemployment rates, and in access to UC benefits and payment levels. While some problems are common to countries in all regions, other problems are much more pronounced in particular regions: unusually long benefit duration in OECD-20, CEE, and FSU countries; ensuring protection against inflation in South American countries; and effective implementation of new UC programs in Asian and CEE-FSU economies.

The challenge has been to identify the common developments and to draw attention to the differences in UC programs throughout the world. During the course of our investigation, we have identified several problem areas. While we do not have all (or even most of) the answers, we do believe we have been asking the right questions and suggesting useful solutions.

This volume provides a broad perspective of the evolution of unemployment since 1970 and the establishment of labor market surveys across a global spectrum of 150 countries. We described the contrasts in unemployment between the geographic regions of the world. Unemployment rates increased in the OECD-20 countries in the mid-1970s and again in the early 1980s; they remain persistently high. Unemployment rates in the transition economies of CEE and FSU countries have been persistently high since the collapse of the Soviet regime. In contrast, average unemployment rates have historically been low for most of the Asian countries.

Over time, there has been an increase in the prevalence of LFSs. In 1999, 55 percent of the 150 countries conducted these surveys. While all OECD-20 and South American countries have an LFS, there are relatively few surveys in Sub-Saharan Africa. As well as providing information on labor market outcomes, these surveys can also be helpful in assessing access to benefits paid by UC programs.

The presence of UC is closely linked to the level of economic development. Countries with high income were more likely than others to already have UC programs or to adopt UC programs during the 50 years covered in this book. Furthermore, the countries with an LFS but with no UC program are disproportionately located in two regions: East and South Asia and Latin America and the Caribbean. The countries with UC programs differ in terms of macroeconomic performance (particularly their unemployment rates), access to UC benefits, and the generosity of benefit payments. This volume documents important details of UC programs across many countries throughout the world. From a historical perspective, the 1990s were unusual for the rapid growth in the number of UC programs. Such programs were adopted in 28 countries during the 1990s (mainly from 1990 to 1994), nearly double the total of 16 adoptions that took place worldwide during the preceding four decades.

Perhaps the most important point to note regarding UC programs is their limited scope. As stated above, UC programs are found mainly in countries with high per-capita real GDP. Of the 150 countries examined here, only 66 (44 percent) had a UC program in 1999. A second aspect of the small scope of UC is the low reciprocity rates in most countries outside the OECD-20 and CEE-FSU groupings. Of the Asian and South American countries examined in this volume, only Brazil and Japan have exhibited reciprocity rates consistently above 25 percent of total unemployment. Reciprocity rates close to or below 10 percent have characterized the other in countries with UC programs from these two regions. Most of worldwide unemployment is located either in countries with no UC program or in countries where UC reciprocity rates are very low.

This volume introduces an actuarial framework for examining UC costs and examines cost data from selected countries. The UC cost rate (UC benefits as a percent of payroll) is determined by the reciprocity rate (beneficiaries as a proportion of unemployment), the replacement rate (average weekly benefits as a proportion of average weekly wages), and the unemployment rate. The product of these three is the UC cost rate. In the sample of 24 countries, high reciprocity and high costs are evident in the OECD-20 countries. The analysis of UC costs indicated that there was much more cross-country variation in reciprocity rates than in benefit replacement rates. Also, the costs of mixed UI-UA sys-

tems were much higher than for stand-alone UI or UA programs. At a given level of unemployment, the mixed UI-UA systems are systematically more expensive than other UC systems. Moreover, there has been a trend toward an increased share of UA beneficiaries in the mixed UI-UA systems.

Programs operate within a particular regulatory and institutional environment. Such an environment defines the constraints under which these programs will function. Historically, access to UC benefits has been comparatively easy within many OECD-20 countries. Reciprocity rates have been high—ratios of beneficiaries to unemployment exceed 0.75 for 10 of 12 OECD-20 countries examined in Chapter 3 (Table 3.3). Macroeconomic performance and the institutional environment, in combination, tended to inhibit economic adjustment in the mid-1970s and again in the early 1980s, with adverse effects on employment. As unemployment rates increased, easy access to benefits and other factors meant that average unemployment duration increased substantially throughout nearly all of these countries during the 1980s and 1990s. Most countries in the OECD-20 group recognized the importance of avoiding hysteresis (persistence) effects on unemployment. If hysteresis comes from the erosion of human skills, the case for preserving these skills through more active labor market intervention is correspondingly stronger.

Based on the region's moderate unemployment rates, UC would appear to be quite affordable for most countries in East and South Asia. Moreover, the generally small response of employment to changes in real output in Asia would suggest that UC benefit payments would exhibit less cyclical volatility for a given change in real output relative to a similar change in the OECD-20 countries. The small scale of existing UC programs in Asia reflects deliberate policy choices affecting both initial eligibility and continuing eligibility. Reciprocity would be higher with different treatment of part-time workers, shorter disqualification periods, and longer potential entitlements. Restrictive features, however, reflect deep concerns about the disincentive effects of UC programs and potential long-term dependence on transfer payments. Not only do UC programs serve a small share of the unemployed, but it also seems likely that they will remain small-scale in Asian countries. Additionally, the limited penetration of the PES into the labor market reinforces this tendency.

Similar to UC programs in Asia, the programs in South America are characterized by low reciprocity rates and low benefit replacement rates. There is also a question of targeting benefits on the unemployed. Many who collect UC benefits in South America are not unemployed because there is a disconnect between the benefit payment function and the administrative activities that monitor reciprocity. Increased administrative oversight of continuing claims is needed. Here, policymakers can learn from the initiatives undertaken in OECD-20 and CEE-FSU countries. For instance, increased face-to-face contact with claimants and matching earnings information with benefit claims information improve the targeting of benefits. This implies that more resources should be devoted to UC program administration than is done presently.

The absence or limited presence of UC in most countries of these geographic regions means that other programs serving the unemployed are very important. It is undoubtedly the case that, even recognizing other programs of social protection payments and temporary jobs programs, many unemployed individuals simply cope with their situation without any form of assistance from public programs for the unemployed.

The transition to a market economy led to severe dislocations and high unemployment in the CEE-FSU geographic area. From the outset, the UC programs in the CEE-FSU countries experienced funding problems because the volume of recipients persistently exceeded initial expectations. The rapid increases in unemployment, the unexpectedly high level of UC costs, and the difficulties in administering benefits led to several legislative changes in UC statutory provisions and administrative rules. The overall result was reduced access to benefits, shorter benefit duration, and lower payment levels relative to average earnings.

Many countries in the OECD-20 group have undertaken policies to “activate” the unemployed. It is no longer sufficient to be able and available to take new jobs if offered. Increasingly, reciprocal actions such as undertaking an active job search, participating in retraining, and demonstrating willingness to accept job offers outside one’s past occupation or at wage rates below previous wages are being required as a condition for UC eligibility.

Increased reliance on activation also implies changes in statutes and administrative procedures at UC agencies. Active work search requirements have been increased, as have required documentation of

claimant contacts with prospective employers. The scope of what is deemed suitable work has been broadened. Increasingly, agency staff develops reemployment plans with clients so as to speed the movement from UC benefit recipient to employment. Absent such efforts, benefit payments will be only imperfectly targeted on persons who meet the criteria of unemployed as measured by LFSs. An important development in program administration is matching earnings records with benefit records to ensure that claimants do not have unreported earnings. The preceding developments all imply an enlarged role for administrative activities in UC programs with the twin objectives of improving the verification of eligibility and encouraging a faster transition from benefit status to employment. Continuing evolution of policies and practices in the area of proactive administration of UC programs can be anticipated.

Given that the most troubling aspect of the higher unemployment was a significant increase in the duration of unemployment spells, the social dialogue within the OECD-20 countries has increasingly emphasized active labor market measures. In this volume, we tested whether policies to foster activation were reflected in a change in the composition of labor market spending between active and passive labor market measures. The regression results obtained using data from the OECD social expenditure database suggested that the share of spending on active measures varied with the unemployment rate. In addition, the results suggested that the share of spending on active measures increased in about two-thirds of the OECD-20 countries but decreased in the other third. Overall, the emphasis on active labor market measures in OECD policy discussions was not consistently reflected in actual spending.

Faced with chronic long-term unemployment, several countries are initiating policies to identify potential long-term unemployed early in their unemployment spells. For such persons, various interventions are being recommended that are intended to shorten their duration in UC benefit status. The initial identification is being accomplished through profiling. Typically, profiling utilizes selected characteristics of individuals, their work histories, and labor market information to generate a score where a higher value is presumptive of a higher risk of long-term unemployment. Australia, the Netherlands, and the United States are leaders in the use of profiling. However, several other countries are

also utilizing the concept of profiling to identify and prescribe interventions for the likely long-term unemployed.

Profiling is comparatively new, with most experience accumulated during the past 10 years, but it has the potential for reducing unemployment duration for many workers. To date, however, the effects of profiling on unemployment duration at the macroeconomic level have yet to be demonstrated.

Profiling is but one emerging activity of UC program administration. Another aspect of evolving UC administrative practices is an increased reliance on individual reemployment plans developed jointly by claimants and employment counselors. As the IT capabilities of UC administrative agencies continue to improve, cross-matching benefit information with earnings records will become more widespread. In short, as labor markets evolve and experiences accumulate, the techniques of UC program administration will also evolve. The twin objectives of effectively targeting benefits on those involuntarily unemployed and shortening average benefit duration are destined to be of high and increasing importance for UC programs throughout the world.

Appendix A

Labor Market Data for 150 Countries

The analysis of Chapter 2 utilizes data from 150 countries, each with a population of one million or more in 1999. Table A.1 displays selected data with the countries arranged into eight major regions and alphabetically within each region.

The table shows four kinds of information: 1) the countries with an LFS in 1999 are identified, along with the first year the LFS was conducted; 2) important details of the LFS are displayed, including the number of surveys per year, the age range for persons covered by the LFS questions and the length of the job search period; 3) average unemployment rates from the 1980s and 1990s are shown along with the number of years in the 1990s for which unemployment rate information was submitted to the ILO; and 4) the countries with UI and UA programs are identified.

Table A.1 emphasizes just a few salient details of the LFSs as of 1999, with the 150 countries arrayed by geographic area. No attempt is made to address issues of sample size and design or the statistical properties of the survey estimates. Besides showing the start date for the survey, the table shows frequency (annual number), the age limits of persons treated as potentially economically active, and the job search reference period for those classified as unemployed. The table also displays average unemployment rates for the 1980s and 1990s.

The information about the LFS in each country came from ILO surveys (ILO 1990, 2001) while the unemployment rate data came from the ILO (<http://laborsta.ilo.org>). The information about unemployment protections came mainly from the U.S. Social Security Administration (1999).

Table A.1 Measurement of Unemployment, Unemployment Rates, Registered Unemployment, and Unemployment Compensation

Region and country	Unemployment rate measurement				Average unemployment rate						
	LFS start date	Annual number	Survey age limits	Job search ref. period	1980–89	1990–94	1995–99	Years of data 1990–99	RU/LFSU ^a 1990–99	UI 1999	UA 1999
OECD-20											
Australia	1960	12	15 +	4 wks.	7.6	9.6	8.2	10	0.98		X
Austria	1968	4	15 +	4 wks.	3.2	3.6	4.0	10	1.46	X	X
Belgium	1973	1	14 +	4 wks.	10.8	8.0	9.1	10	1.48	X	
Canada	1945	12	15 +	4 wks.	9.4	10.3	8.9	10	0.59	X	
Denmark	1967	1	15–66	4 wks.	8.4	9.0	6.2	10	1.26	X	
Finland	1959	12	15–74	4 wks.	4.8	10.8	12.7	10	1.17	X	X
France	1950	1	15 +	1 mo.	9.3	10.3	11.9	10	1.01	X	X
Germany	1957	1	15 +	4 wks.	6.9	8.1	9.4	10	0.99	X	X
Greece	1974	1	15 +	4 wks.	6.6	8.5	10.6	10	0.50	X	
Ireland	1975	4	15 +	4 wks.	14.2	14.6	9.6	10	1.51	X	X
Italy	1959	4	15 +	4 wks.	10.2	10.9	11.6	10		X	
Netherlands	1973	12	15 + ^e	4 wks.	9.9	6.6	5.4	10	0.85	X	X
New Zealand	1985	4	15 +	4 wks.	4.6	9.3	6.7	10	1.37		X
Norway	1972	12	16–74	4 wks.	2.8	5.6	4.0	10	0.86	X	
Portugal	1972	4	15 +	1 mo.	7.6	5.0	6.1	10		X	X
Spain	1964	4	16 +	4 wks.	18.5	19.6	20.1	10	0.73	X	X
Sweden	1959	12	16–64	4 wks.	2.5	5.2	7.2	10	1.14	X	X
Switzerland	1991	1	15 +	4 wks.		2.5	3.6	9 of 9	1.00	X	
United Kingdom	1973	1	16 +	4 wks.	9.8	9.0	7.2	10	0.89	X	X
United States	1940	12	16 +	4 wks.	7.3	6.6	4.9	10	0.34	X	

Central and Eastern
Europe (CEE)

Albania

X

Bosnia-Herzegovina

X

Bulgaria 1993 4 15 + 4 wks.

14.8 7 of 7 0.89

X

Croatia 1996 2 15 + 4 wks.

11.2 4 of 4 1.49

X

Czech Republic 1993 4 15 + 1 wk.

5.9 7 of 7 0.90

X

Hungary 1992 4 15-74 1 wk.

8.7 8 of 8 1.29

X

Macedonia 1996 1 15 + 1 wk.

0 of 4

X

Poland 1992 4 15 + 1 wk.

12.3 7 of 8 1.08

X

Romania 1994 2 14-74 1 wk.

6.8 6 of 6 1.20

X

X

Serbia 1996 1 15 + 1 wk.

0 of 4

X

Slovakia 1993 4 15 + 1 wk.

13.1 7 of 7 1.12

X

Slovenia 1993 4 15 + 1 wk.

7.4 7 of 7 1.64

X

Former Soviet
Union (FSU)

Armenia 1996 1 16 + 1 wk.

2 of 4

X

Azerbaijan

X

Belarus

X

Estonia 1990 1 15-74 1 wk.

10.3 10 of 10 0.30

X

X

Georgia 1998 4 15 + 1 wk.

14.1 2 of 2

X

Kazakhstan

Kyrgistan

X

Latvia 1995 2 15 + 4 wks.

16.0 5 of 5 0.53

X

Lithuania 1994 2 14 + 1 wk.

15.1 6 of 6 0.43

X

Moldova 1999 4 15 + 4 wks.

11.1 1 of 1

X

Mongolia

X

Russia 1992 1 15-72 1 wk.

11.5 8 of 8 0.24

X

Tajikistan

Turkmenistan

X

Ukraine 1995 4 15-70 1 wk.

9.1 5 of 5 0.26

X

Uzbekistan

X

Table A.1 (continued)

Region and country	Unemployment rate measurement				Average unemployment rate						
	LFS start date	Annual number	Survey age limits	Job search ref. period	1980–89	1990–94	1995–99	Years of data 1990–99	RU/LFSU ^a 1990–99	UI 1999	UA 1999
East and South Asia											
Afghanistan											
Bangladesh			10 +					2 of 10		X	
Bhutan											
Cambodia											
China	1978 ^b	3	16 +	3 mos.	2.6	2.2	2.9	10		X	
Hong Kong	1975	12	15 +	1 mo.	3.0	1.8	3.8	10			X
India	1955	0.2 ^c	5 +	1 wk.				0 of 10			
Indonesia	1975	4	10 +	1 wk.	2.5	3.0	5.1	9 of 10	0.34		
Japan	1947	12	15 +	1 wk.	2.5	2.3	3.7	10		X	
Korea, South	1963	12	15 +	1 wk.	3.8	2.5	3.9	10		X	
Laos											
Malaysia	1972	4	15–64	3 mos.	6.6	4.0	2.9	10	0.13		
Myanmar (Burma)											
Nepal											
Pakistan	1963	4	10 +	1 wk.	3.5	5.0	5.7	9 of 10	0.12		
Papua New Guinea											
Philippines	1976	4	15 +	1 wk.	9.0	8.6	8.6	10			
Singapore	1974	4	15 +	4 wks.	3.5	2.3	3.2	0	0.04		
Sri Lanka	1980	1	10 +	12 mos.		14.2	10.8	10			

Taiwan	1961	12	15 +	1 wk.	2.1	1.5	2.5	10		X	
Thailand	1963	4	13 +	1 mo.	3.2	1.8	1.9	10			
Vietnam											
North Africa—											
Middle East											
Algeria	1982	4	15 +	4 wks.				0		X	
Egypt	1957	4	15–64	1 wk.	6.0	9.8	9.0	9 of 10		X	
Iran, Islamic Rep.										X	
Iraq											X
Israel	1954	4	15 +	1 wk.	6.1	9.8	7.7	10		X	
Jordan											
Kuwait											
Lebanon											
Libya											
Morocco	1976 ^a	4	15 +	1 day		16.3	19.8	9 of 10			
Oman											
Saudi Arabia											
Syria	1961	0.5 ^d	10 +	1 wk.				0			
Tunisia	1976	1 ^d	15 +	1 wk.				2 of 10			X
Turkey	1966	2	12 +	6 mos.	7.8	8.0	6.6	10	0.379		
United Arab Emirates											
Yemen, Rep.											
Sub-Saharan Africa											
Angola											
Benin (Dahomey)											
Botswana	1984	1 ^d	12 +	1 wk.				0			
Burkina Faso											
(Upper Volta)											
Burundi											
Cameroon											

Mauritius	1986	1 ^d	12 +	8 wks.				1		X
Mozambique										
Namibia										
Niger										
Nigeria	1983	4 ^d	15–59	1 wk.				0		
Rwanda										
Senegal										
Sierra Leone										
Somalia										
South Africa	1977	2	15 +	4 wks.				0		X
Sudan										
Swaziland										
Tanzania										
Togo										
Uganda										
Zambia										
Zimbabwe										
South America										
Argentina	1969	2 ^b	15 +	1 wk.	4.8	8.4	15.6	10		X
Bolivia	1989	1 ^b	10 +	1 wk.		5.6	4.6	9 of 10		
Brazil	1967	1	10 +	1 wk.	3.7	5.5	7.9	8 of 10	X	X
Chile	1973	12	15 +	2 mos.	11.0	5.2	6.3	10	X	
Colombia	1970	4 ^b	12 +	1 wk.	10.8	8.9	13.6	10		
Ecuador	1987	1 ^b	10 +	5 wks.		7.2	9.5	9 of 10	X	
Paraguay	1976	1 ^b	10 +	1 wk.	5.9	5.3		6 of 10		
Peru	1967	1 ^{b,d}	14 +	1 wk.			7.6	4 of 10		
Uruguay	1968	2 ^a	14 +	1 wk.	9.1	8.8	10.5	8 of 10	X	
Venezuela	1967	2	15 +	1 wk.	9.3	8.6	11.9	10	X	

Table A.1 (continued)

Region and country	Unemployment rate measurement				Average unemployment rate						
	LFS start date	Annual number	Survey age limits	Job search ref. period	1980–89	1990–94	1995–99	Years of data 1990–99	RU/LFSU ^a 1990–99	UI 1999	UA 1999
Cent. America— Caribbean											
Costa Rica	1976	1	12 +	5 wks.	6.6	4.5	5.7	10			
Dominican Rep.			14 +								
El Salvador	1988	1	10 +	5 wks.	11.1	8.6	7.5	10			
Guatemala	1986	0.2 ^c	10 +	5 wks.				0			
Haiti											
Honduras	1986	2 ^b	14 +	5 wks.	10.2	4.2	3.7	8 of 10			
Jamaica	1977	1	14 +	1 wk.	23.8	15.7	16.0	9 of 10			
Mexico	1973	12 ^b	12 +	1 wk.	4.5	3.1	3.0	7 of 10			
Nicaragua											
Panama	1963	1	15 +	3 mos.	11.9	14.6	13.4	9			
Trinidad and Tobago	1963	2	15 +	3 mos.	15.4	19.3	15.1	10			

^a RU/LFSU is the number of registered unemployed divided by the number who are unemployed according to the LFS.

^b Urban areas.

^c LFS every 5 years.

^d Survey on specific dates.

^e Unemployment of persons 15–64.

SOURCE: Data mainly from ILO (1990, 2001) and ILO Web site.

Appendix B

Output Changes and Employment Changes

To illustrate the close connection between changes in employment and changes in real output, we fitted a series of multiple regressions. In annual data extending from 1971 to 2002, the percent change in aggregate LFS employment was regressed on the current and lagged percent change in real GDP. Positive coefficients were expected on both output change variables while the intercept was expected to be negative, reflecting the effects of productivity growth. Relationships were fitted for all countries in the OECD-20 group and for nine East and South Asian countries.

For most countries (25 of 29) the estimation was based on at least 29 observations. Only New Zealand, Indonesia, and Malaysia had fewer than 25 observations (16, 18, and 21, respectively). Table B.1 shows the estimation period for each country. Several countries had one major break in the employment series, explaining why the estimation periods skip one year.

The principal data source for the OECD-20 countries was the OECD publication *Labor Force Statistics* (OECD 2001b). Earlier editions were used to extend the data series back to 1970. In several instances the OECD has adjusted these data for breaks. For the Asian countries, the data came principally from information developed at the U.S. Bureau of Labor Statistics (BLS), Division of Foreign Labor Statistics. A file was developed at BLS that extended from 1970 to 1995 for several countries. These data were updated with information taken directly from country LFS publications extending through 2002.

Alternative data were also explored. For both the OECD-20 and Asian countries the ILO Web site had LFS employment data that can extend back to 1969. The member countries report these data in different ways, and there are more breaks in these data than in the OECD data. The BLS Division of Foreign Labor Statistics supports files of annual LFS data for 10 OECD countries. These data are available from 1959 using the country's own LFS concepts and using U.S. concepts.

Table B.1 Regressions Explaining Employment Growth on OECD-20 and East and South Asian Countries, 1971–2000

Country	Constant	GDP change	GDP change lagged	Adj. R^2	Std. error	Durbin- Watson	Years	Avg. emp. change (%)	Avg. GDP change (%)
OECD-20									
Canada	−0.387 (1.0)	0.584 (8.0)	0.165 (2.2)	0.74	0.89	1.57	1971–2002	2.12	3.35
United States	−0.547 (2.2)	0.504 (9.1)	0.242 (4.5)	0.79	0.66	1.40	1971–2002	1.75	3.10
Australia	−1.512 (2.2)	0.598 (5.0)	0.362 (3.2)	0.54	1.21	2.10	1971–2002	1.74	3.34
New Zealand	−0.109 (0.1)	0.478 (2.1)	−0.003 (0.0)	0.15	2.20	0.70	1987–2002	1.25	2.87
Ireland	−2.594 (4.5)	0.414 (3.9)	0.395 (3.7)	0.68	1.45	2.04	1971–2002	1.64	5.28
United Kingdom	−1.363 (4.7)	0.288 (3.3)	0.506 (5.9)	0.67	0.96	1.78	1971–2002	0.48	2.31
France	−0.490 (1.7)	0.342 (3.4)	0.087 (1.0)	0.36	0.74	0.83	1971–2002	0.58	2.45
Germany	−1.258 (3.7)	0.444 (4.1)	0.296 (2.6)	0.50	1.02	0.87	1971–1990, 1993–2002	0.30	2.09

Italy	0.127 (0.3)	0.020 (0.2)	0.130 (1.4)	0.00	0.98	1.16	1971–1992, 1994–2002	0.52	2.50
Netherlands	0.541 (1.2)	0.176 (1.4)	0.132 (1.1)	0.07	1.30	0.67	1972–1986, 1988–2002	1.38	2.66
Sweden	–1.520 (4.8)	0.465 (4.1)	0.429 (4.2)	0.62	1.09	0.91	1971–2002	0.32	1.98
Austria	0.079 (0.1)	0.342 (2.0)	–0.099 (0.6)	0.07	1.79	1.76	1971–2002	0.71	2.66
Belgium	–0.590 (1.8)	0.206 (2.5)	0.144 (1.8)	0.20	0.89	0.95	1971–2002	0.26	2.35
Denmark	–1.102 (2.5)	0.400 (3.0)	0.415 (3.2)	0.37	1.43	1.89	1971–2002	0.48	1.89
Finland	–2.041 (5.6)	0.343 (3.5)	0.488 (5.1)	0.71	1.37	1.63	1971–2002	0.38	2.81
Greece	0.518 (1.7)	–0.032 (0.5)	0.054 (0.8)	–0.04	0.99	2.66	1971–1980, 1982–2002	0.59	3.05
Norway	–1.532 (3.2)	0.293 (2.3)	0.465 (3.6)	0.52	1.07	1.40	1971, 1973–2002	1.09	3.42
Portugal	0.469 (0.5)	–0.120 (0.7)	0.343 (2.0)	0.07	2.88	2.13	1971–2002	1.35	3.55
Spain	–1.538 (2.2)	0.700 (3.0)	0.114 (0.5)	0.36	2.12	0.54	1971–2002	0.91	3.00
Switzerland	–0.408 (2.2)	0.512 (6.8)	0.260 (3.5)	0.77	0.82	0.70	1971–1990, 1992–2002	0.74	1.47

Table B.1 (continued)

Country	Constant	GDP change	GDP change lagged	Adj. R^2	Std. error	Durbin- Watson	Years	Avg. emp. change (%)	Avg. GDP change (%)
East and South Asia									
Hong Kong	−0.976 (1.1)	0.363 (3.5)	0.190 (1.9)	0.431	2.06	1.29	1978–2002	2.30	5.87
Indonesia	1.305 (1.8)	0.075 (0.8)	0.053 (0.2)	−0.040	1.87	2.22	1978–1980, 1987–2001	1.97	5.16
Japan	−0.409 (1.9)	0.190 (3.5)	0.140 (2.9)	0.529	0.63	0.97	1971–2002	0.69	3.20
Korea	−0.661 (0.8)	0.363 (4.8)	0.087 (1.2)	0.426	1.60	1.93	1972–2002	2.63	7.30
Malaysia	1.800 (3.0)	0.196 (2.8)	−0.009 (0.1)	0.240	1.39	1.45	1981–1995, 1997–2002	2.88	5.76
Philippines	2.912 (2.6)	0.229 (0.9)	−0.128 (0.5)	−0.039	4.10	2.09	1971–2001	3.27	3.53
Singapore	−1.460 (1.3)	0.525 (4.1)	0.141 (1.1)	0.438	2.54	2.13	1971–2002	3.62	7.54
Taiwan	−1.377 (2.3)	0.296 (5.3)	0.176 (2.8)	0.619	1.08	1.34	1971–2001	2.36	7.75
Thailand	0.876 (0.8)	0.328 (2.2)	−0.059 (0.4)	0.119	2.95	2.07	1973–2002	2.59	6.37

^a Beneath each coefficient is the absolute value of its t -ratio.

SOURCE: OECD (2001b), IMF (2001), and BLS and country LFS publications. See text of Appendix B for further explanation of the use of sources to create the table.

Regressions were fitted to both BLS employment series.¹ Thus, for 10 OECD countries, up to four different employment regressions were fitted. The results in Table B.1 are very similar to the results based on these other measures of employment change, but they are not reported here.

The regression results are summarized in Table B.1. Before examining individual equations, note the contrast in average employment changes between the two sets of countries. Only one country in the OECD-20 group (Canada) had an average employment change that exceeded 2.0 percent per year, whereas only two of the Asian countries (Indonesia and Japan) had an average of less than 2.0 percent. Similarly the real output growth averages are much higher for most Asian economies, where only two means are below 4.0 percent (Japan and the Philippines). While among the OECD-20 countries, only one (Ireland) exceeds 4.0 percent.

The regression results in Table B.1 generally conform to *a priori* expectations. Most intercepts are negative (20 of 29), most slopes are positive (51 of 58), and 37 of the positive slopes have *t*-ratios of 2.0 or larger. The results in individual countries vary widely in quality. For both groups, about one-third have an adjusted R^2 that falls below 0.20. Generally the R^2 s and the standard errors convey the same information about overall goodness-of-fit for individual countries. For the OECD-20, the fits are generally worse for countries in southern Europe. For both groups, the fits are generally worse for countries with lower levels of per-capita GDP.²

Although the specifications are relatively simple, the results show that lagged output change belongs in most equations. While its coefficient is generally smaller and less significant than for current output change, most lagged coefficients are positive and about half have a *t*-ratio of 2.0 or larger. There is support for the hypothesis that employment responds with a lag to increases in real GDP. Note that for three of four Scandinavian countries, the lagged coefficient is actually larger and more significant than for current output change.

One other finding is worth noting. For several countries in the OECD-20 group, the residuals for the last five years, 1998–2002, were positive and quite large. In a country such as the Netherlands, this might be expected as part-time employment has grown rapidly in recent years. There were, however, several other countries where the

same pattern was observed. While an increased prevalence of nonstandard work arrangements and part-time work could contribute to this finding, it probably reflects other developments as well and, hence, merits additional study.

The main purpose of this analysis was to compare employment responsiveness in the OECD-20 countries with Asian countries. The results on this point are clear. On average, employment responds more to output changes in OECD-20 countries. As shown in Table 2.8 of Chapter 2, the responsiveness is about twice as large in the OECD-20 countries. The same qualitative result was obtained when the other measures of employment change were used in the analysis.

Notes

1. The countries are the G7 countries (Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States) plus Australia, the Netherlands, and Sweden. See Sorrentino (2000) for a display of unemployment rates for these countries and for a discussion of data comparability issues.
2. Within the OECD-20, group, the four with the lowest per-capita GDP in 1999 were Spain, New Zealand, Portugal, and Greece. Thailand, the Philippines, and Indonesia had the lowest per-capita GDP among the nine Asian countries.

Appendix C

Regression Estimates of UC Benefit Generosity

Table 3.3 of Chapter 3 displays two sets of estimates of the index of UC benefit generosity, G . The estimates in column (5) are simply means based on data from the 1990s (or for as many years as available). The estimates in column (6) were derived from regression equations. Table C.1 provides details of these regressions. It displays estimated slopes, t -ratios, goodness-of-fit measures (adjusted R^2 s and standard errors), average cost rates, average unemployment rates, and the years of the estimation periods and the number of observations.

In developing regression-based estimates of G , it was decided to fit homogeneous regressions where the unemployment rate (TUR) explained the average cost rate (B) with no other explanatory variables and no intercept. Thus, the estimated coefficients show overall estimates of G with no controls for possible changes in statutory UC provisions or other factors that may have occurred during the estimation periods. Use of this specification means that the adjusted R^2 can be substantially negative, indicating that the regression performs worse than estimating simply the mean of the dependent variable (B). In fact, four fits are so poor that the adjusted R^2 falls below -0.25 .

Note also that several regressions are based on very few data points. Eight regressions had fewer than 10 observations, 4 from CEE-FSU countries.

Table C.1 Regression Estimates of Benefit Generosity (*G*)

Country	Estimate of <i>G</i>	<i>t</i> -ratio	Adj. <i>R</i> ²	Std. error	<i>B</i> (%)	<i>TUR</i> (%)	Years	Number obs.
OECD-20								
Australia	0.24	38.2	0.93	0.27	1.38	5.80	1963–99	37
Austria	0.43	42.0	–0.81	0.09	1.80	4.02	1995–99	5
Canada	0.28	32.5	0.66	0.48	2.31	7.61	1959–00	42
Denmark	0.51	28.0	0.72	0.58	3.98	7.17	1985–00	16
France	0.41	26.0	0.88	0.80	2.61	6.29	1960–97	38
Germany	0.32	57.6	0.97	0.27	1.91	5.54	1959–00	42
Ireland	0.28	44.5	0.91	0.49	3.02	9.38	1959–00	42
Netherlands	0.58	27.0	0.83	0.93	3.42	5.11	1959–98	40
New Zealand	0.32	22.9	0.95	0.27	1.49	4.29	1970–00	31
Portugal	0.18	5.0	–0.32	1.08	1.38	6.60	1981–98	18
United Kingdom	0.18	30.9	0.85	0.25	1.04	5.23	1959–00	42
United States	0.12	28.6	0.68	0.18	0.75	5.95	1959–00	42
CEE-FSU								
Bulgaria	0.11	11.8	0.48	0.35	1.83	15.04	1996–00	5
Slovakia	0.19	19.3	0.74	0.41	3.14	13.92	1995–00	6
Estonia	0.02	8.5	0.26	0.06	0.21	9.86	1994–99	6
Ukraine	0.03	5.2	0.58	0.17	0.32	9.50	1995–00	6
Eastern and Southern Asia								
Hong Kong	0.06	8.8	0.75	0.07	0.19	3.56	1994–01	8
Japan	0.17	18.1	–0.95	0.15	0.44	2.19	1959–00	42
Korea, South	0.03	13.8	0.80	0.03	0.17	5.22	1998–01	4
Taiwan								
South America								
Argentina	0.02	6.5	0.25	0.11	0.29	12.50	1992–97	6
Brazil	0.11	6.3	–0.15	0.42	0.74	5.86	1987–99	13
Chile	0.02	10.2	0.61	0.14	0.22	10.98	1975–00	26
Uruguay	0.01	12.3	–0.83	0.04	0.12	9.93	1984–00 ^a	14

^aThe years 1985, 1996, and 1997 were not included due to data unavailability.

Appendix D

UC Provisions and UC Costs in CEE-FSU Countries

Chapter 5 and this appendix examine UC statutes and UC costs in CEE and FSU countries. The division between the text of Chapter 5 text and this appendix allows the text to focus on general developments while supporting details are provided here. This appendix examines three aspects of unemployment protection in CEE-FSU countries: 1) the evolution of selected UC statutory provisions, 2) the presence and potential duration of SA payments to the unemployed, and 3) annual cost experiences (including SA costs) in four countries.

Table D.1 shows details of UC programs and other programs that provide income support for the unemployed in 12 CEE-FSU countries. As noted in Chapter 5, the 12 were selected in a decidedly nonrandom manner. Ten have recently joined or been invited to join the EU during the next few years while the other two (Russia and Ukraine) have the largest populations of all countries in the CEE-FSU region. With a few exceptions, the table covers the period from 1991 to 2001, with entries shown for 1997 along with entries for the starting and ending years.

The table summarizes UC statutory provisions related to entry eligibility, the level of payments, and benefit duration, as well as notes the presence and potential duration of other support for the unemployed. The latter is most often available as SA. As noted in Chapter 5, a common policy response to the long average unemployment duration that emerged throughout the region was to modify the preexisting SA program to serve unemployed clients. In about half the countries, the latter benefits were still not limited in duration as of 2001.

The UC provisions displayed in Table D.1 are intended to be illustrative. Additional provisions could also have been selected, for example, the minimum benefit, but many would agree that these four are key elements for judging the accessibility and generosity of UC benefits. Note that some entries are blank. Information about the provisions was not secured for the indicated years. The majority of the omissions occurred in 1991.

Table D.1 Summary of Unemployment Protection Provisions in CEE-FSU Countries, 1991–2001

Country, year of present UI law, and year	Entry eligibility ^a	Statutory replacement rate	Maximum benefit	Maximum duration (weeks)	UA or SA for unem-ployed?	UA or SA maximum duration (weeks)
Bulgaria 1989	6 of 12	1.00–0.90		26		
1992	6 of 12	0.60	1.4 × Min. wage	<u>26–52</u>		
1997	6 of 12	0.60	1.4 × Min. wage	26–52	Yes	No limit
2002	9 of 15	0.60	1.3 × Min. wage	17–52	Yes	No limit
Czech Rep. 1991	12 of 36	0.65–0.50	1.8 × Min. wage	52	Yes	No limit
1997	12 of 36	0.60–0.50	1.8 × Poverty	26	Yes	No limit
2001	12 of 36	0.50–0.40	1.8 × Poverty	26	Yes	No limit
Hungary 1991	12 of 48	0.70–0.50	3.0 × Min. wage	52		
1997	12 of 48	0.70–0.50	2.0 × Min. wage	104	Yes	104
2001	<u>9 of 48</u>	0.65	2.0 × Min. pension	39	Yes	104
Poland 1990	No Require.	0.70–0.40	1.0 × Mon. wage	No limit		
1997	6 of 12	Flat	0.36 × Mon. wage	52–78	Yes	No limit
2001	6 of 12	Flat	0.36 × Mon. wage	26–78	Yes	No limit
Romania 1991	6 of 12			39		
1997	6 of 12	0.60–0.50	2.0 × Min. wage	39	Yes	78
2001	6 of 12	0.55–0.50		39	Yes	78
Slovakia 1991	12 of 36	0.65–0.60	1.8 × Min. wage	52		
1997	12 of 36	0.60–0.50	1.5 × Min. wage	26–52	Yes	No limit
2001	24 of 36	0.50–0.45		26–39	Yes	No limit

Slovenia 1991	9 or 12 of 18	0.50		13		
1997	9 or 12 of 18	<u>0.70–0.60</u>	3.2 × Min. wage	<u>13–102</u>	Yes	26
2001	12 of 18	<u>0.70–0.60</u>		13–102		
Estonia 1991	6 of 12	Flat	0.6 × Min. wage	39		
1997	6 of 12	Flat	0.6 × Min. wage	39	Yes	No limit
2002 ^c	12 of 24	<u>0.50–0.40</u>	1.5 × Avg. wage	52	Yes	No limit
Latvia 1991	6 of 12	Flat	0.9 × Min. wage	39		
1997	9 of 12	<u>0.65–0.30</u>	1.6 × Avg. wage	39	Yes	13
2001	9 of 12	0.65–0.30	1.6 × Avg. wage	39	Yes	13
Lithuania 1990						
1997	24 of 36	Exp.-Linked	2.0 × Poverty	26	Yes	26
2001	24 of 36	Exp.-Linked	2.0 × Poverty	26	Yes	26
Russia 1991	3 of 12	0.75–0.45	1.0 × Ent. wage	52		
1997	3 of 12	0.75–0.45	1.0 × Ent. wage	52	Yes	
2002	6 of 12	0.75–0.45	1.0 × Avg. wage ^b	52	Yes	
Ukraine 1992	3 of 12	0.75–0.50	1.0 × Avg. wage ^b	26–39	Yes	
1997	3 of 12	0.75–0.50	1.0 × Avg. wage ^b	<u>26–45</u>	Yes	26
2001	3 of 12	<u>1.00–.50</u>	1.0 × Avg. wage ^b	<u>26–52</u>	Yes	26

NOTE: Entries in bold face type show restrictions from prior period while underlined entries show liberalizations.

^a Number of months must have worked in the past X number of months.

^b Regional monthly wage.

^c Benefit provisions to take place in 2003 for a law passed in 2002.

SOURCE: Data taken mainly from *Social Security Programs Throughout the World* 2002 and earlier editions.

Table D.1 is intended to highlight instances where changes occurred. The convention used throughout the table is to indicate with bold typeface situations where a restriction occurred (compared to the earlier entry in the same column). Underlined entries identify situations where liberalizations occurred. No change is indicated by entries with normal typeface (because some entries are blank, the normal typeface also applies to situations where the direction of change could not be determined from available data). Because entries are shown for just selected years, some changes are not displayed, for instance, the increase in the maximum UI benefit in Bulgaria in 1999 (from 1.4 to 1.5 times the minimum wage). The entries displayed in the table were taken from four sources: various issues of *Social Security Programs Throughout The World* (Boeri and Edwards 1998, Tables 2a, 2b, and 3), Paas and Room (2003, Appendix 1.4), and directly from the administrative agencies in Bulgaria, Slovakia, and Ukraine.

Between the initial years and 1997 the main thrust of changes in the UC programs was towards reduced access and eligibility. Twelve instances of restrictions are identified while only seven liberalizations are shown. The Czech Republic, Poland, and Slovakia all instituted at least two restrictions, while Latvia and Slovenia accounted for four liberalizations.

Between 1997 and 2001, 14 instances of restrictions are identified, with 2 or more in Bulgaria, Hungary, and Slovakia. Six instances of liberalizations are identified, with 3 in Estonia and 2 in Ukraine. Following legislation of 2002, it is anticipated that average payment levels in Estonia will more than triple, mainly a reflection of the very low level of benefits that were paid previously. Thus, during both periods when changes in UC were enacted, they were roughly twice as likely to be restrictions as liberalizations.

As emphasized in Chapter 5, these countries have come to rely on SA for a second tier of benefit payments to the unemployed. The final columns in Table D.1 show that such payments were present in all countries in 1997 and 2001. At the start of the transition, SA programs were already in place to serve clients of working age not expected to work (i.e., single mothers and the severely disabled). New provisions were enacted that expanded the SA programs to include the unemployed. These recipients were required to register with PES offices and to participate in temporary public service jobs if requested. Because

the start dates of these programs were not well obtained, Table D.1 shows entries only for 1997 and 2001. The main point to be inferred from these entries is that SA for the unemployed is a ubiquitous feature among these 12 countries.

Table D.2 displays time-series data on unemployment protection costs for four CEE-FSU countries: Bulgaria, Slovakia, Estonia, and Ukraine. Annual UI data are shown for all four (in Panels A, C, E, and F, respectively) while SA data are included in data displayed in Panels B and D. As a general rule, SA data for unemployed recipients are available for shorter periods and are less complete than UI data. No estimates have been made for either Estonia or Ukraine.

Several issues are encountered in incorporating SA benefits for the unemployed into the analysis. In Bulgaria, for example, unemployed SA recipients must be separated from others required to register at PES offices. Data to make this separation were only available starting in 1999. Estimates for 1996–1998 were derived by the author. In several CEE-FSU countries, data are simply not available that make this distinction. A second issue in Bulgaria is the distinction between SA obligations and actual payments. Prior to 2002, SA was partly financed from municipal budgets. Because the finances of many localities were inadequate, actual payments made nationwide routinely fell 10 to 20 percent below obligations. While some arrears were paid in subsequent years, new shortfalls always exceeded the make-up payments. The data underlying Panel B measured only actual SA payments in the replacement rates, generosity indices, and total cost rates shown in columns (5), (6), and (7). Third, because SA is means tested, there could be overlaps between UI and SA benefits. While administrators in both Bulgaria and Slovakia maintain that such overlaps are rare, the possibility nonetheless exists. To the extent that undetected overlaps exist, the reciprocity rates in column (4) of Panels B and D are too high (because some individuals are being double counted) while the replacement rates in column (5) are too low. Note that the estimates of generosity and the overall cost rate (columns 6 and 7) are not affected by such overlaps.

For the UI data displayed in Table D.2, four patterns are noteworthy.

- 1) The reciprocity rates are low or modest. The average reciprocity rates displayed in Panels A, C, E, and F for the included years

Table D.2 Summary of Unemployment Protection Costs in Four CEE-FSU Countries

	<i>TUR</i> (%)	Unemployment (000s)	Beneficiaries (000s)	<i>NBen./</i> <i>Unemp.</i>	<i>RRate</i>	<i>G</i>	<i>B</i> (%)	SA cost share
	(1)	(2)	(3)	(4) – (3)/(2)	(5)	(6) = (4)*(5)	(7) = (2)*(6)	(8)
A. Bulgaria—UI Alone								
1993	21.4	815	211	0.26	0.37	0.09	2.03	
1994	20.2	737	185	0.25	0.38	0.10	1.94	
1995	16.5	590	133	0.22	0.51	0.11	1.89	
1996	14.2	505	132	0.26	0.42	0.11	1.55	
1997	14.4	513	171	0.33	0.22	0.07	1.07	
1998	14.1	498	116	0.23	0.35	0.08	1.15	
1999	15.7	534	151	0.28	0.30	0.08	1.32	
2000	16.4	567	188	0.33	0.33	0.11	1.78	
2001	19.7	664	157	0.24	0.33	0.08	1.56	
B. Bulgaria—UI + SA								
1996	14.2	505	167	0.33	0.36	0.12	1.67	0.07
1997	14.4	513	206	0.40	0.21	0.09	1.23	0.13
1998	14.1	498	152	0.31	0.33	0.10	1.40	0.18
1999	15.7	534	224	0.42	0.27	0.11	1.79	0.26
2000	16.4	567	282	0.50	0.29	0.15	2.39	0.25
2001	19.7	664	256	0.39	0.30	0.11	2.26	0.31
C. Slovakia—UI Alone								
1993	12.8	306	112	0.37	0.26	0.09	1.21	
1994	13.6	333	91	0.27	0.25	0.07	0.91	
1995	13.1	324	77	0.24	0.24	0.06	0.75	
1996	11.3	284	85	0.30	0.23	0.07	0.78	
1997	11.8	297	83	0.28	0.30	0.09	1.00	
1998	12.5	317	103	0.32	0.32	0.10	1.29	
1999	16.2	417	130	0.31	0.32	0.10	1.61	
2000	18.6	485	112	0.23	0.29	0.07	1.23	

D. Slovakia—UI + SA

1995	13.1	324	234	0.72	0.28	0.20	2.66	0.72
1996	11.3	284	227	0.80	0.26	0.21	2.35	0.67
1997	11.8	297	227	0.76	0.28	0.21	2.49	0.60
1998	12.5	317	272	0.86	0.30	0.26	3.20	0.60
1999	16.2	417	367	0.88	0.30	0.26	4.27	0.62
2000	18.6	485	399	0.82	0.25	0.21	3.90	0.68

E. Estonia—UI

1994	7.6	56	17	0.31	0.10	0.03	0.23
1995	9.7	68	14	0.21	0.08	0.02	0.16
1996	9.9	68	17	0.25	0.07	0.02	0.18
1997	9.6	66	18	0.27	0.07	0.02	0.18
1998	9.8	66	18	0.27	0.09	0.02	0.23
1999	12.2	81	27	0.33	0.09	0.03	0.36
2000	13.6	90	25	0.28	0.07	0.02	0.28

F. Ukraine—UI

1995	5.6	1,437	48	0.03	0.18	0.01	0.03
1996	7.6	1,998	74	0.04	0.20	0.01	0.06
1997	8.9	2,330	215	0.09	0.24	0.02	0.20
1998	11.3	2,937	436	0.15	0.24	0.04	0.40
1999	11.9	2,699	594	0.22	0.24	0.05	0.63
2000	11.7	2,708	612	0.23	0.22	0.05	0.58
2001	11.1	2,517	626	0.25	0.22	0.05	0.60

NOTE: *TUR* is total unemployment rate, *NBen/Unemp.* is the reciprocity rate, *RRate* is the replacement rate, *G* is the generosity index, and *B* is the total cost rate.

SOURCE: Unemployment and unemployment rate data from the ILO Web site. For Bulgaria, Slovakia, and Ukraine, data collected by the author from the administrative agencies. Data for Estonia from Vodopivec, Worgotter, and Raju (2001) and Paas and Room (2003).

were 0.27, 0.29, 0.27, and 0.14, respectively. Note that the low average for Ukraine is influenced by data from 1995 to 1997; the 1999 to 2001 average was much higher at 0.23.

- 2) Replacement rates are also generally low, averaging 0.36 in Slovakia but below 0.30 in the other three countries. For Estonia, the seven-year average was only 0.08.
- 3) Because reciprocity rates and replacement rates are both generally low, the generosity indices in column (6) are low. Only 6 of 31 entries for the UI-only panels are 0.10 or larger. These indices are clearly much larger for Bulgaria and Slovakia than for Estonia and Ukraine.
- 4) Because unemployment rates are so high, however, the overall benefit-cost rates averaged above 1.0 percent of payrolls in both Bulgaria and Slovakia (1.59 and 1.10 percent, respectively). Even with UI programs that provide only about 10 percent wage loss replacement, these two countries have had benefit-cost rates that routinely exceed 1 percent of payrolls.

While the cost analysis of Chapter 3 was based on much of the same data as shown in Table D.2, the impression conveyed by these data is that unemployment protection costs are generally low because of the modest scale of the UI programs. A different impression emerges when the costs of SA payments to the unemployed are included, as in Panels B and D. For Bulgaria, the average reciprocity rate increases to 0.37 (compared to 0.27). For Slovakia, it increases to 0.72 (compared to 0.29) when SA recipients are considered. These higher averages represent increases in reciprocity of 40 percent and 158 percent respectively. The increases in the cost rates are 27 percent for Bulgaria and 158 percent for Slovakia. The lower increase in Bulgaria reflects both a lower replacement rate for SA benefits (relative to UI benefits) and that SA obligations were not paid to a measurable share of recipients.

Overall, the share of combined costs of unemployment protection payments attributable to SA benefits averaged 20 percent in Bulgaria and 65 percent in Slovakia. In the most recent years covered in Table D.2, this percentage has consistently equaled or exceeded 25 percent in Bulgaria. For three of the six years between 1995 and 2000, the SA share of combined costs was 67 percent or higher in Slovakia.

Some important inferences should be drawn from this description of combined UI-SA costs. First, SA costs are an important component of total combined costs. Second, the importance of SA costs undoubtedly varies widely from one CEE-FSU country to the next. Third, although it is more difficult to obtain appropriate data on SA costs, a full assessment of the costs of unemployment protection payments can be made only by explicitly including SA costs within the scope of the analysis.

Appendix E

Determinants of Long-Term Unemployment Percentages

The evolution of long-term unemployment percentages depicted in Figures 8.1 and 8.2 present a vivid picture of high levels and/or large increases for OECD-20 countries, as well as for CEE-FSU countries. This appendix reports the findings of regression equations intended to identify the determinants of these percentages. While the analysis was undertaken for both groups of countries, most of this appendix will focus on the OECD-20 countries. The relevant historical periods for the CEE-FSU countries are so short that little can be inferred from the regressions.

For 18 of the OECD-20 countries there were at least 15 years of data on the percentage unemployed 12 months or longer.¹ The specification used to explain movement in these percentages included three explanatory variables: the current year's unemployment rate, the unemployment rate lagged one year, and a linear time trend. It is well understood that equilibrium unemployment duration increases when the unemployment rate increases. However, the short-run effect of higher unemployment on the long-term percentage also depends upon the underlying average duration of unemployment and the speed with which unemployment increases. In countries with long duration, higher unemployment can initially reduce the percentage unemployed 12 or more months because the new unemployment inflow adds so many new spells of short duration.

The lagged unemployment rate was included in the regression equations because long-duration spells tend to persist even when unemployment decreases. Unlike the current unemployment rate where the expected sign on the coefficient is ambiguous, the lagged unemployment rate is expected to have a positive coefficient.

Finally, a trend was included to test for developments in the long-term unemployment percentage after controlling for effects of the current and lagged unemployment rates. A positive coefficient would indicate a secular increase in the percentage of long-duration spells. While

an upward trend seems to be suggested for all six countries included in Figure 8.1, this should be tested formally by regressions that include other explanatory variables.

Table E.1 displays the regression results. Sixteen of the adjusted R^2 s range from 0.59 to 0.97 while poor fits were obtained only for Italy and the Netherlands. Positive serial correlation of residuals is present in several regression results, with Durbin-Watson statistics below 1.0 in five and between 1.0 and 1.5 in seven. The significance of some coefficients is probably exaggerated, and some coefficients could be biased.

The most consistently significant variable was the lagged unemployment rate, entering with a positive coefficient in all 18 regression results, a significant coefficient in 15 (all but Greece, Italy, and the Netherlands), and a t -ratio larger than 5.0 in 7. Its coefficient had the largest t -ratio in 12 of 18 regressions, with the trend coefficient most significant in the other 6.²

In contrast, the current unemployment rate coefficients are of mixed signs and only three have significant t -ratios.³ The largest t -ratio across the 18 regression results was 2.4 (Belgium). For nearly all countries, a change in the unemployment rate had no significant effect on the percentage of long-term unemployment spells.

The trend coefficients in Table E.1 present a decidedly mixed picture. They are equally divided between positive and negative, with six significant positive coefficients and four significant negative coefficients. The patterns by subregion are of interest. Four of the significant positive coefficients are in English-speaking countries (Australia, Canada, Ireland, and the United States). Controlling for unemployment, the long-term percentage has been increasing in these countries. In contrast, significant negative trends were present in three West European countries: Belgium, France, and Germany. This trend suggests that the long-term proportions have been decreasing after controlling for the effects of the current and lagged unemployment rates. The size of these coefficients suggests a substantial reduction in the long-term unemployment percentages in Belgium, France, and Germany.

Note that the countries with the large negative trend coefficients uniformly have quite high percentages of long-term unemployment, and the current unemployment rate enters with a negative coefficient for all three. In one test of the sensitivity of the Table E.1 results, a two-

Table E.1 Regression Results Explaining the Percent Unemployed 12 or More Months in OECD-20 Countries

Country	Constant	<i>TUR</i> (%)	<i>TUR</i> lag ^a	Trend ^b	Years	Adj. <i>R</i> ²	Std. error	Durbin-Watson	Mean
Australia	−4.32 (4.7)	0.48 (1.3)	2.82 (7.2)	0.25 (4.1)	1968–2001	0.97	2.02	1.17	20.6
Belgium	67.26 (7.4)	−2.79 (2.4)	3.21 (2.8)	−0.77 (3.3)	1983–2001	0.66	3.80	0.85	64.3
Canada	−9.96 (6.2)	0.26 (1.0)	1.50 (5.7)	0.34 (9.8)	1976–2001	0.91	1.28	0.63	10.4
Denmark	17.15 (2.8)	−0.18 (0.2)	1.91 (2.7)	−0.29 (1.4)	1983–2001	0.59	3.64	1.87	27.8
Finland ^c	14.01 (6.9)	−0.36 (0.7)	2.18 (4.5)	0.31 (1.9)	1980–2000	0.82	3.06	1.00	25.1
France	16.01 (11.6)	−1.32 (1.5)	5.50 (5.4)	−0.75 (4.6)	1968–2000	0.89	3.07	0.54	34.6
Germany	15.86 (3.2)	−1.63 (1.8)	5.34 (5.8)	−0.54 (2.8)	1983–2000	0.76	2.85	2.02	45.8
Greece	45.23 (6.6)	−1.60 (1.5)	0.66 (0.6)	1.24 (4.3)	1983–2001	0.81	2.80	1.07	48.9
Ireland	18.47 (1.8)	−0.82 (0.7)	3.10 (3.1)	0.94 (2.2)	1983–2000	0.60	4.76	1.24	58.9
Italy	36.30 (2.8)	0.54 (0.4)	2.32 (1.5)	−0.37 (2.1)	1983–2001	0.20	3.51	1.41	64.0

Table E.1 (continued)

Country	Constant	<i>TUR</i> (%)	<i>TUR</i> lag ^a	Trend ^b	Years	Adj. <i>R</i> ²	Std. error	Durbin-Watson	Mean
Netherlands ^d	20.20 (1.0)	1.64 (0.8)	1.12 (0.6)	0.71 (0.9)	1983–2000	0.28	4.59	1.17	47.7
New Zealand	–3.90 (2.1)	0.32 (0.7)	3.27 (7.5)	–0.01 (0.0)	1986–2000	0.95	1.68	1.15	21.1
Norway	–10.32 (5.8)	2.55 (2.3)	4.28 (3.7)	–0.23 (1.7)	1978–2000	0.90	3.02	1.70	10.7
Portugal	18.09 (3.3)	1.58 (1.4)	2.71 (2.6)	0.23 (1.1)	1986–2001	0.74	3.47	2.23	45.6
Spain	16.91 (7.2)	0.39 (1.2)	1.56 (4.6)	–0.06 (0.5)	1977–2001	0.91	3.39	0.75	49.0
Sweden	0.47 (0.5)	–1.36 (2.5)	3.39 (5.9)	0.58 (5.9)	1976–2001	0.93	2.49	1.66	16.0
United Kingdom	4.08 (0.9)	–0.14 (0.3)	3.91 (7.8)	0.14 (1.0)	1983–2001	0.94	1.81	2.10	39.2
United States	–4.78 (4.9)	–0.07 (0.3)	1.50 (6.6)	0.17 (8.2)	1968–2001	0.85	1.19	0.76	7.0

NOTE: Beneath each coefficient is the absolute value of its *t*-ratio.

^a *TUR* lag: Total unemployment rate lagged one year

^b Trend: Linear trend.

^c 15 of 21 years of data were used for Finland.

^d 16 of 18 years of data were used for the Netherlands.

SOURCE: *OECD Labor Force Statistics*, various issues. For Australia and the United States, data from country statistical agencies have supplemented OECD data.

year lag on the unemployment rate was added to the set of explanatory variables. This caused a substantial increase in colinearity, but it did not improve the fit of the equations or reduce the size or significance of the trend coefficients.

A second test fitted equations to data measured in first differences, that is, year-to-year changes. The findings for the 18 countries displayed in Table E.2 are remarkably consistent. In first differences, the intercept coefficient plays the same role as the trend coefficient when data are measured in levels, as in Table E.1. In Table E.2 not one of the 18 intercepts has a *t*-ratio of 2.0 or larger (Ireland's is the largest at 1.8). Thus, the significant trends reported in Table E.1 do not hold up when data are measured in first differences.⁴

In contrast, note that the change in the lagged unemployment rate (analogous to the lagged unemployment rate in Table E.1) continues to enter significantly. Its coefficient is positive in 17 regression equations (all but the Netherlands) and is statistically significant in 12. As before, the current unemployment rate has roughly equal numbers of positive and negative coefficients, and only 4 of 18 are statistically significant.

In data measured as first differences, the only consistently important explanatory variable is the lagged change in the unemployment rate. When this lagged change is positive, the change in the long-term unemployment percentage also tends to be positive.

An analysis of the long-term unemployment percentages was undertaken for five CEE countries: Bulgaria, the Czech Republic, Hungary, Poland, and Slovakia. For these countries, however, there were only eight or nine data points. Using the same specification as in Table E.1, four coefficients on the current unemployment rate were negative in the regression results, but none were significant. All five coefficients on the lagged unemployment rate were positive, and three were significant. All five trend coefficients were positive, and two were significant. In data from the 1990s using levels, it appears that there has been a positive trend toward an increasing long-term unemployment percentage in these five CEE countries.

Fitting regression equations in first differences further reduced the small CEE sample sizes by one. Two patterns of note were uniformly positive coefficients on the lagged change in the unemployment rate and uniformly positive intercepts. Thus, lagged changes in the unemployment rate entered in the same positive manner as in the OECD-20

Table E.2 Regression Results Explaining Changes in the Percent Unemployed 12 or More Months in OECD Countries

Country	Constant	<i>TUR</i> (%)	<i>TUR</i> lag ^a	Years	Adj. <i>R</i> ²	Std. error	Durbin- Watson	Mean
Australia	0.052 (0.1)	0.92 (2.4)	2.45 (6.3)	1969–2001	0.64	2.11	2.23	0.52
Belgium	–0.128 (0.2)	–0.64 (0.7)	2.71 (3.0)	1984–2001	0.30	2.96	1.70	–0.73
Canada	0.225 (1.1)	0.31 (1.5)	1.33 (6.5)	1977–2001	0.72	0.99	1.92	0.22
Denmark	–0.737 (0.6)	0.35 (0.4)	0.99 (1.2)	1984–2001	–0.03	4.72	2.19	–1.23
Finland	–0.960 (0.7)	–0.14 (0.1)	0.81 (0.4)	1983–1987, 1996–2001	–0.20	3.08	2.29	–1.34
France	–0.293 (0.7)	–1.78 (2.9)	4.66 (7.3)	1969–2001	0.62	2.11	2.49	0.43
Germany	–0.372 (0.4)	–0.50 (0.3)	4.05 (2.0)	1984–2000	0.32	3.92	2.39	0.58
Greece	0.551 (0.9)	0.04 (0.0)	1.84 (2.0)	1984–2001	0.12	2.49	1.95	1.09

Ireland	2.126 (1.8)	0.90 (1.0)	1.45 (1.8)	1984–2000	0.28	4.47	1.76	1.11
Italy	0.255 (0.3)	–0.26 (0.2)	0.35 (0.3)	1984–2001	–0.13	3.83	1.58	0.29
Netherlands	–0.942 (0.5)	1.99 (1.0)	–1.58 (0.8)	1988–2000	–0.07	4.66	1.14	–1.06
New Zealand	0.225 (0.5)	0.46 (1.1)	2.68 (6.1)	1987–2000	0.81	1.65	1.31	0.79
Norway	–0.217 (0.3)	1.00 (0.7)	4.63 (3.0)	1979–2000	0.40	3.82	2.30	0.23
Portugal	0.394 (0.3)	2.87 (1.6)	1.62 (0.9)	1987–2000	0.28	5.06	2.68	–1.04
Spain	0.484 (1.0)	0.66 (3.3)	0.88 (4.1)	1978–2001	0.63	2.40	1.52	0.97
Sweden	0.393 (0.6)	–0.52 (0.6)	2.48 (3.1)	1977–2001	0.28	3.09	2.56	0.64
United Kingdom	–0.145 (0.2)	–0.49 (0.6)	3.66 (4.6)	1984–2001	0.60	2.57	2.95	–0.99
United States	0.094 (0.6)	0.39 (2.3)	1.64 (9.8)	1969–2001	0.78	0.90	2.74	0.12

NOTE: Beneath each coefficient is the absolute value of its *t*-ratio.

^a *TUR* lag: Total unemployment rate lagged one year.

SOURCE: First differences of data used in Table E.1.

countries. There was also a suggestion of an increasing long-term trend in the percent unemployed 12 or more months. More data points are needed, however, before these findings should be given much weight. At least the finding on the effect of lagged unemployment seems reasonable in light of the findings from the OECD-20 countries. Also, that there should be a positive trend toward an increased percentage of long-term unemployment seems to square with both Figure 8.2 in Chapter 8 and *a priori* notions about labor market developments in the CEE countries.

Notes

1. Only 11 years of data were available for Switzerland (1991–2001) and just 7 years for Austria (1994–2000).
2. The apparent tie in Sweden is due to rounding of *t*-ratios to one decimal place. The lagged unemployment rate has a slightly larger *t*-ratio than the trend.
3. Significance is present when the absolute value of the *t*-ratio is 2.0 or larger.
4. One indication of the differences in estimated trends from levels versus first difference specifications is the correlation of the trend coefficients across the 18 countries. The simple correlation between the trend coefficients in Table E.1 and the intercept coefficients in Table E.2 was 0.41, which was not significant at the 0.05 level.

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