The period since the late 1980s is seen in economic history as a time of major changes in both the European and world economies. There have been several notable developments. The breakdown of socialism in Eastern and East-Central Europe was a dramatic event in the European political landscape. It also initiated major structural changes in Europe. The most significant changes naturally occurred within the former socialist countries themselves, but the neighboring countries were also affected.

Economic integration in the European Union (EU) deepened with the creation of the single-market program. EU enlargements were important events for Europe. First, three EFTA/EEA countries (Austria, Finland and Sweden) sought close integration with the European Union and became members in 1995. The second expansion occurred in May 2004 when ten new members joined the European Union, including eight East-Central European and two Mediterranean countries. Clearly, the latter development entailed a major change and its effects are only now beginning to be realized across the whole EU arena. As is well known, further EU expansion is underway. Bulgaria and Romania joined the EU in the beginning of 2008, and later Croatia and possibly Turkey, are likely to become members of the European Union in the coming years.

In the world economy the general tendencies of liberalization and deregulation, often called “globalization,” have been a major economic force since the late 1980s. It is important to focus on the liberalization and deregulation of national financial systems, which have had major macroeconomic effects in several countries, including some strong performers in East Asia as well as some countries in Latin America. After opening their markets and financial systems to international forces, these countries experienced financial crises that led to
traumatic short-run economic fluctuations but that in the longer term facilitated structural change.

Financial crises also occurred in some European countries, including Finland, Sweden, and Norway. In Europe, monetary integration has been at the core of the EU single-market program. The liberalization of capital movements in the second half of the 1980s caused problems for the European monetary system, and its regime of fixed exchange rates (ERM) encountered several currency crises in the early 1990s. These were eventually overcome and the Economic and Monetary Union (EMU) was established in 1998 with a new currency, the euro. In the EMU, the European Central Bank has been in charge of the common monetary policy since the start of 1999 for the eleven original member countries, with Greece added at the beginning of 2001 as well as Slovenia in 2007.

1.1 Finland in the Turbulent Times

The global economic changes in turn entailed major economic and political challenges for individual countries. These challenges were felt particularly strongly in small economies outside the economic core of Europe. An interesting case is Finland, a small country in Northern Europe with a population of just over five million people. In this book our aim is to analyze how Finland coped with the major changes in its economic environment. The Finnish economy experienced a boom in the late 1980s, following by a deep depression in the early 1990s. Finally, renewed economic growth and prosperity were achieved in the second half of the 1990s.

We will describe and analyze these three relatively distinct periods and the factors behind the rapid swings in the economy. With the benefit of hindsight we ponder whether the macroeconomic policy response to the changing external circumstances was adequate. Moreover, we will use the Finnish experience to test for real economic effects of financial constraints and look for evidence of the “credit channel” of the monetary system. We will also elaborate on the roles of the information and communication technology (ICT) revolution and economic policies in the resumption of economic growth.

As an initial illustration of the Finnish experience we look briefly at some key data. Figure 1.1 displays indexes for the level of purchasing power parity (PPP)–adjusted GDP in Finland, Sweden, and EU-15
countries. The figure attests that Finland’s economic experiences in the second half of the 1980s through the 1990s were indeed dramatic. For instance, compared to Finland, Sweden experienced qualitatively similar—but less pronounced—developments due to some similar and some importantly dissimilar factors, which we spell out later on. The fifteen EU countries on average experienced a standstill in growth in the early 1990s, but clearly, as figure 1.1 shows, overall economic developments in the other Western fifteen EU countries were much more benign.

As figure 1.1 indicates, the Finnish economy first experienced a strong upswing and overheating in the 1980s. At the start of the 1990s, things turned around quite rapidly and an economic crisis emerged, as indicated by a sharp drop in GDP and a rapid rise in unemployment. In the mid-1990s growth resumed and the economy began to flourish.

Developments in unemployment are shown in figure 1.2. As real GDP fell by about 14 percent from the peak in 1990 to the bottom in 1993, the rate of unemployment rose from 3 percent in 1990 to almost 20 percent at the onset of 1994. After 1994 the economy started to recover and economic growth was fairly rapid until the slowdown in the world economy in 2001. In the period 1995–2001 the average rate of

**Figure 1.1**
PPP-adjusted GDP for Finland, Sweden and 15 EU-countries. Source: Statistics Finland and Eurostat
GDP growth was 3.3 percent per annum, which is the second highest rate among the Western fifteen EU countries. However, despite the rapid growth of real GDP, the decrease in the unemployment rate has been relatively slow, and it remains at a high level of 7–8 percent. Rapid economic growth usually helps to reduce unemployment. This also happened in Finland, but seemingly in a relatively sluggish manner. Later, we tackle the issue of why rapid economic growth and high unemployment have prevailed simultaneously in the Finnish case. To repeat, figure 1.2 presents the seasonally adjusted standardized unemployment rates in Finland, Sweden, and EU-15 since 1980. The Finnish and Swedish unemployment rates were far below the European average for most of the 1980s, but in both countries the unemployment rates increased rapidly and displayed very similar time patterns in the early 1990s.

These two key macroeconomic figures reflect the tip of the iceberg. The Finnish depression of the 1990s was the most serious economic crisis in its peacetime history. By many measures, it was more severe than the depression of the 1930s. In fact, it is the most severe peacetime economic crisis seen since the World War II in any of OECD economies. The 1990s crisis had many features that are not included in a standard business cycle of the market economy. These involve the
huge expansion of bank lending as a consequence of financial market deregulation and major inflows of foreign capital during the boom, periods of speculative attack on the currency, relatively high real interest rates partly due to tight monetary policy, and the emergence of a major banking crisis as part of the depression.

The recovery from the economic crisis has been equally remarkable. Economic growth resumed; new firms and industries became prominent and brought affluence to Finnish society. Finland experienced a dramatic change from a traditional industrial country to a high-tech economy. Figure 1.3 shows high-tech exports as a percentage of total exports for Finland. In the ten years from 1990 to 2000 the share rose from about 7–8 percent to nearly 30 percent, which reflects the transformation to a high-technology country.

One part of the success story lies in macroeconomic policies and political developments, which provided economic predictability and stability for the Finnish economy. We will argue later that successful macroeconomic management in many (albeit not all) respects has been an important part, but of course not the entirety, of the success story of the late 1990s. We will also study structural changes in the economy favoring the high-technology sectors and argue that they played a large role in the recent Finnish miracle. In the last section of the book
we attempt to look ahead to the primary future challenges of the Finnish economy and hence to the challenges facing macroeconomic management.

In brief, the story of Finland since the late 1980s and the 1990s is one of a boom-bust cycle and a miraculous recovery. The boom-bust cycle was due to major positive and negative shocks and also to the inadequate macroeconomic and other policy responses to them. The successful recovery and rapid growth since the turnaround can be attributed to better economic policy, success in the information technology revolution, and successful internationalization of the Finnish society. Despite these very positive developments, unemployment remained at a relatively high level due to both large structural changes in the economy and a lack of labor market reforms.

1.2 Lessons from Finnish Experience?

While an analysis of Finnish economic developments is clearly of some intrinsic interest due to the huge changes that took place, a major motivation for writing this book is to describe the important lessons that can be drawn from the Finnish experience. In the last twenty years Finland has experienced huge structural changes. In the first half of 1980s Finland still had a fairly tightly regulated financial system with a limited degree of competition. Traditional industries—wood and metal products—were Finland’s major export industries. The past can be usefully contrasted with the present. Nowadays, Finland is a country in which a large high-technology industry and its exports play a major role. Its financial system is market-based and fairly well integrated with that of Western Europe. In this book we also consider the macroeconomic and other economic policies that Finnish policymakers carried out during this period. We argue that some policy choices turned out to be misguided, while others were relatively successful. We also analyze the underlying structural conditions that enabled Finland to achieve the remarkably rapid structural change from traditional industries to an economy with a large high-tech sector.

European integration and, more generally, globalization are clearly providing numerous new economic opportunities to many countries that are less advanced than the Western European and North American economies. However, taking advantage of these opportunities requires good macroeconomic management, and we hope that the
Finnish experience since the late 1980s can provide useful guidance in this respect. In our opinion, several other countries presently face situations and policy choices that are somewhat similar to those faced by Finnish decision makers in the late 1980s.

The financial crisis in Finland in the 1990s is one part of these similarities. Weakness in the financial system is relevant at least for some new and prospective EU member countries. Several new EU member countries are currently going through a period of fast growth and a risk of overheating that is, to a significant degree, due to big increases in inflows of foreign capital as a result of a higher degree of economic integration. Fast growth and inflows of foreign capital are creating pressures for appreciation of the currencies of these countries. The appreciation is resisted by countries that hope to join the EMU soon. Some of these countries have fairly fragile financial systems, which is another possible source of instability for the future. This situation could easily lead to macroeconomic volatility in the coming years.

The challenges are not only macroeconomic. One must add that major structural changes are needed before these countries can achieve the goal of higher living standards in the future. Finland was successful in transforming itself from a traditional industrial country into a high-tech economy. We hope that the Finnish experience can highlight these challenges and thus be of some help in pointing toward appropriate policies for the coming years.

In our book we proceed as follows. The next chapter focuses on the Finnish economic crisis of the early 1990s, describing the main developments. It also contains an econometric analysis of the role of financing constraints on consumption and investment behavior. Chapter 3 continues the analysis of the Finnish crisis by looking at macroeconomic policies—monetary and exchange-rate policy and fiscal policy—before, during, and after the crisis. The chapter also considers the role of wage policy. The remaining chapters shift the focus to the upswing and rapid economic growth that took place after the early 1990s. Chapter 4 considers the resumption of economic growth and the factors behind it. Naturally, the rapid growth was partly enabled by the available unused productive capacities. However, this was not the whole story, and we analyze the major structural changes that occurred in Finland during the upswing. Chapter 5 continues the analysis of economic growth, emphasizing the importance of the Finnish educational system and human capital. Chapter 6 discusses research and
development spending in Finland and takes up the emergence and current role of the New Economy in Finland by assessing the role of information and communication technologies in economic growth. The chapter also looks at the case of Nokia and the major role it played in the Finnish growth process of the 1990s. Chapter 7 concludes by summarizing Finland’s policy achievements and discussing some of the current economic challenges the country faces.