

CHAPTER ONE

Basic Features of the German Economy

Germany is an open economy with a strong industrial base, producing about a third of its gross domestic product for export. It is also an economy in which social protection and the state play dominant roles. These two characteristics establish the central theme that will be encountered throughout this book.

Because of its openness, Germany is influenced both by the intense competition on the world product markets and by the competition among locations for the internationally mobile capital and technology that abound on the world's factor markets. Economic decisions in Germany are therefore subject to the country's need to compete in the world economy. This has been a fundamental economic law for Germany since the end of World War II. Openness means that, by and large, free markets for products prevail. The exceptions are regulations in specific areas and subsidies to sectors like coal mining and agriculture.

In contrast to this openness to competition, however, protection exists in many areas of the German economy, especially protection of the individual—e.g., through social security for unemployment, health care, nursing care, old-age pensions and by social welfare. About a third of GDP is allocated to the “social budget.” Those in employment are also protected, with respect to both their jobs and their wage incomes, as negotiated by the social partners, the trade unions and the employers' associations. Germany's labor market is heavily regulated. The social partners have a strong position arising from legal stipulations; they have been granted the right to define norms and set the nominal wage rate. In addition, people are protected against the implications of competition by the institutional forms of governance in the German system. Reliance is placed on a non-market type of decision-making, as in the management of firms through codetermination by the employees' and union representatives in the supervisory boards of directors and in the workers' councils, the allocation of capital through a bank-based system with intermediated products, and the formation of human capital, especially in universities, via a governmental administrative planning approach. Codetermination restrains the influence of market forces in firms; mediated products are a substitute

for market products in the capital market, and human capital formation is government dominated.

The government has a strong impact on the German economy in other areas as well: half of GDP (including social security) passes through it. In all of these domains, consensus plays a central role in the system of governance. The government itself is organized as a federal state, with tax revenue shared between the federal states (distributive federalism) and with two parliamentary chambers, one of which—the *Bundesrat*—represents the federal states (*Länder*). Many laws require the concurrence of both chambers, so that here too consensus is required.

THE HISTORIC ROAD TO PROSPERITY

With a population of 82 million inhabitants and a GDP of €2.1 billion, Germany is Europe's largest economy, producing nearly a quarter of the European Union's GDP and nearly a third of the GDP of the euro currency area (data for 2002). It is the third largest economy in the world, accounting for 6 percent of world GDP (2000)—one fifth the magnitude of the US share and less than half that of Japan. Accounting for 9.5 percent of world exports, Germany comes second in world trade after the United States.

GDP per capita is €26 000 in current values (2002), slightly above the EU-15 average (104 percent at current prices) and at about the same level as France, Italy, and the United Kingdom, but somewhat lower than some of the smaller EU members, e.g., Austria, Denmark, the Netherlands, and Ireland. GDP per capita at current prices and at the current exchange rate is about the same as that of Japan, but lower than that of other countries, e.g., the United States (at 142 percent of the EU level), Switzerland, and Norway. According to calculations of the World Bank,¹ Germany's relative ranking in GDP per capita in current prices stands at position 20, and in purchasing power parity at 21. Without question, Germany belongs to the rich industrialized countries of the world—in other words, the high-income countries.

Germany has experienced an admirable increase in prosperity. Its per capita GDP of about €4350 in 1950 rose by a factor of nearly six to €24 057 in 2002 in constant prices.² GDP growth rates were high in the first three decades after World War II, at 8.2 percent in the 1950s, 4.4 percent in the 1960s, and 2.8 percent in the 1970s. It also enjoyed a high growth rate in labor productivity per hour, with rates of 5.3 percent in the 1960s and 3.7 percent in the 1970s (table 1.1).

¹ World Bank (2002: table 11).

² DM8535.88 (in constant 1991 prices), equivalent to €4364.33.

TABLE 1.1

Growth rates of GDP per capita, GDP and labor productivity per hour^a

	1950–60	1960–70	1970–80	1980–90	1991–2000	2000–2003
GDP/capita	7.1	3.5	2.6	2.0	1.3	0.2
GDP	8.2	4.4	2.8	2.3	1.6	0.3
Labor productivity per hour	4.7 ^b	5.3	3.7	2.6	2.1	1.2

Source: Federal Statistical Office, Volkswirtschaftliche Gesamtrechnungen, Fachserie 18, Reihe 1.2.

^a Calculated as an exponential growth rate for a decade, i.e., with 1980 and 1990 as the end point (10 periods).

^b Productivity per capita.

The first three decades after World War II were devoted to the process of catching up with the United States. The country's institutional setup was beneficial for growth. In 1948 Ludwig Erhard freed prices, which ended the rationing of the product markets. Quickly, the economy was opened up to international competition. Nationalization of basic industries, especially coal and steel, was not pursued, although this had been considered, temporarily, even by the Christian Democrats. Establishing the Deutschmark as a stable currency made possible convertibility, first for foreigners and then for residents. Germans, hard-working and success-oriented, saw their dreams coming true—the first vacation abroad, the first motorcycle, their own home. In a way, in these years of the *Wirtschaftswunder* Germans experienced positive surprises, in that the economic system generated a higher income and a larger bundle of consumption goods than people had hoped for. Even wages increased by more in real terms than the social partners had negotiated; there was a positive wage drift through the market forces. This was a period of positive surprise. In such a period, today's success is the fuel for greater effort tomorrow.

A LOWER GROWTH PATH SINCE 1980

The two oil crises in 1973/74 and 1979/80, though causing a serious shock to the German economy with the two ensuing recessions, did not seem to have changed the pattern of growth, at first; three million additional jobs were generated in the 1980s, and many economic indicators improved in the second part of that decade. Nevertheless the year 1980,

with the second oil shock, and the following recession in 1982 can be viewed as a turning point of Germany's economic development. The increase in GDP per capita became smaller, falling to 2.0 percent in the 1980s,³ and the economy moved to a lower potential growth path of around 2.5 percent. Labor productivity was growing at a similarly low rate after 1980, by which time productivity growth had halved relative to the 1960s and was substantially lower than in the 1970s. The economic system had changed its economic properties without the politicians and the public really noticing.

Looking at economic growth for the united Germany from 1991 (the first year for which we have GDP data for the reunified country) onward, the annual growth rate for the period 1991–2000 was only 1.3 percent. This figure is somewhat distorted, since the high growth rates of 1990 (in West Germany) and of 1991 (in reunified Germany) are not included. If one were to take the 1990 West German GDP as the base value, the annual GDP growth rate for the period 1990–2000 would amount to 3.0 percent. However in this procedure, unification or the addition of East Germany to the German economy would be interpreted as growth. This rate would be way too high. If we include the West German growth rate of 1991 (5.1 percent), the growth rate for the period 1990–2000 would amount to 2.0 percent instead of 1.3 for the period 1991–2000. For 1995–2002 these statistical problems are no longer relevant; moreover, the deep recession of 1992 does not affect these data; for this period Germany's GDP growth rate was only 1.2 percent.

Over a longer duration of five decades, the high rates of about 8 percent or more in the years between 1951–56, 1959, and 1960 could no longer be reached. Since 1980, rates over 4 percent were registered only in 1990 and 1991, the years of the German unification boom (figure 1.1). The GDP growth rate continued its decline. Even if a recovery in 2004 and 2005 changes the bleak picture somewhat, there is a clear secular trend of a steadily decreasing growth rate.

AN OPEN ECONOMY

A widely accepted principle of German economic strategy has been the openness of its economy, that is, its free trade policy. In spite of the subsidization of some sectors such as coal mining and agriculture, protectionism

³ Growth rates are calculated according to the formula

$$r = [(Y_{90}/Y_{80})^{(0.1/n)} - 1] \times 100$$

where n is the number of periods and, as an example, 90 and 80 are the end- and start-years of the period.

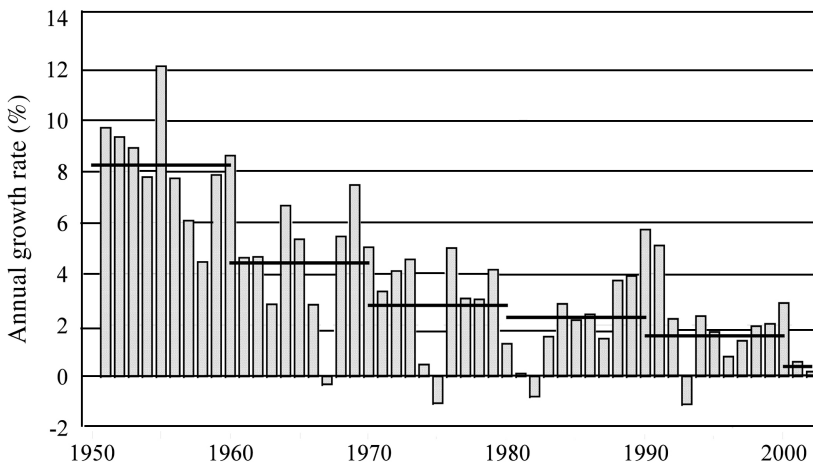


Figure 1.1 Annual growth rates, averages for decades. Until 1990, data for West Germany; since 1991, data for unified Germany. *Source:* Federal Statistical Office.

was never attractive in post-war Germany. Having joined the GATT in 1951, and with current trade policy being implemented at the European level, the principle of an open economy is by now well entrenched.

Germany has an export share of 35.5 percent of its GDP (2002). The overwhelming part of its exports—42 percent—go into the euro area and 55 percent are sold to the 15 EU countries (not all EU countries are part of the euro area); if the ten new member states of European Union enlargement are included, this share would be 64 percent. About 10 percent of exports are bought by the United States, another 10 percent by other industrialized countries, and still another 10 percent by the countries of central and eastern Europe (including the new EU members). Smaller portions are shipped to South East Asia (5 percent) and Latin America (2.5 percent) (2001).

The share of West German exports in its GDP increased steadily from the end of World War II, from 13.7 percent in 1950 to 18.0 percent in 1951, 19.0 percent in 1960,⁴ 21.2 percent in 1970, 26.4 percent in 1980, and 32.1 in 1990 (figure 1.2). It then fell for the united Germany to 22.8 percent in 1993 before rising again beyond its 1990 level. Clearly, Germany has successfully integrated itself into the international division of labor. Free trade has been the vehicle by which it has managed to increase its well-being.

Germany's technology-based industry provides almost 90 percent of the country's exports, of which a large part is investment goods: 59

⁴ There is a structural break in the data in 1960. Older data for 1960 show a larger share.

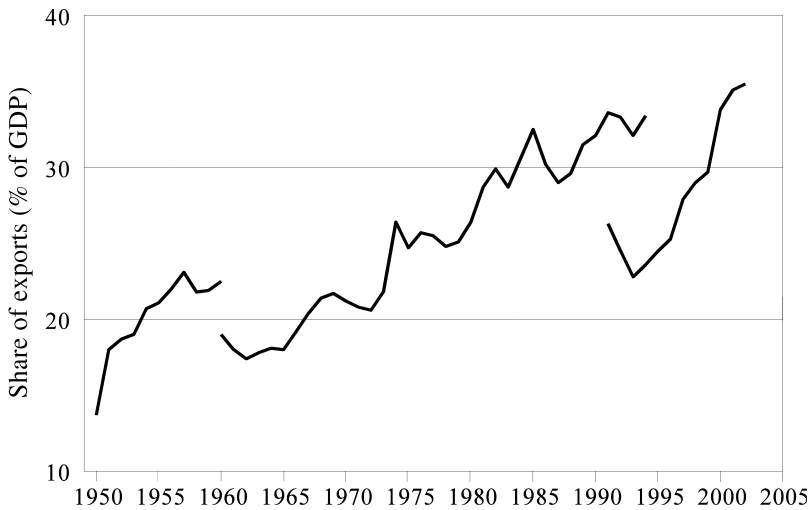


Figure 1.2 Share of exports, 1950-2002 (percent of GDP). Calculated as nominal exports to nominal GDP. At 1960 there is a structural break in the data. *Source:* Federal Statistical Office, Series 7 and 18.

percent of exports stem from four industrial sectors—machine building, automobile, chemicals, and electro-technical products; only 10 percent of exports are services.

Germany has hardly any natural resources except for coal, wood, and a few minerals. Its industrial base traditionally depended on the engineering ideas and innovative performance, on entrepreneurial spirit, on the organizational capabilities of its people, and on the skills and the effort of its workers. Raw materials and energy had to, and still have to, be imported; energy accounts for 5 percent of total imports. Foodstuffs make up 11 percent of all imports, 9 percent are intermediate products. The bulk of imports are consumer goods and investment goods. This holds especially for trade within the same sector (intra-industry or intra-sectoral trade), where many products, from cars to investment goods, are similar and thus represent both export goods and import goods. The coefficient of intra-industry trade at the two-digit level is at 0.74, higher than in for the United States (0.68) and Japan (0.45) (data for 2000).

The current account was slightly negative in the 1990s, but the balance has been in a surplus since 2001. A larger surplus, amounting to over 4 percent of GDP, was reached in the late 1980s when Germany was a net capital exporter like Japan. As a result of German unification, there was a swing in the external position, from a positive 4.6 percent of GDP in 1989 to a negative 1.2 percent in 1991.

The contribution of trade to growth can be interpreted from both the demand side and the supply side. In the short run, and viewed from the demand side, the contribution of trade stems from net exports, i.e., from a surplus in the trade balance. Positive net exports have a positive impact, as exports stimulate aggregate demand and offset imports, which represent a leakage in the traditional Keynesian analysis. From this point of view, a positive trade balance represents a positive contribution to the growth rate, its contribution being measured by the Lundberg component. A negative trade balance reduces the growth rate, and a balanced trade account has no demand effect on growth. Traditionally, in the German case an upswing in the business cycle is stimulated by an increase in export demand, which is then followed by a pick-up of investment and eventually leads to less uncertainty, in terms of employment, and to higher income, so that consumer demand increases as well. In the long run, and viewed from the supply side, trade has an impact on growth through different channels. Imports increase the set of available consumption goods; they also enlarge the production capacity of the economy by making intermediate inputs, investment goods and new technology available to the firms. Trade allows specialization gains and enhances the accumulation of growth factors.

THE ENTERPRISE SECTOR

Looking at the production side of the German economy, 22.2 percent of total gross value added came from industry in 2002, a further 6.8 percent from the other producing sectors, and 1.1 percent from agriculture. The bulk of gross value added, 70.1 percent, was generated in the service sector. Within the service sector, 30.4 percent came from financing, housing, and services to firms, 18.0 percent from retail, trading, hotels, and restaurants and 6.1 percent from public sector services.

Of the German firms, the larger German multinationals such as Allianz, Bayer, BMW, DaimlerChrysler, Siemens, and Volkswagen are recognized internationally. Out of the 20 largest firms as measured by their employees, 8 are in the export-oriented German industry, 3 of which are car producers (table 1.2); 4 are in the service sector; and another 4 in retail and trading. A few of these, like Lufthansa, are multinationals, but most are oriented toward the home market. Together with the two large energy suppliers on this list of the 20 largest German firms, the non-tradable sector is strongly represented.

It is important to make a clear distinction between the performance of the German firms and the status of the German economy. The German multinationals generate a large part of their value added abroad; this

TABLE 1.2
The twenty largest German firms

<i>Rank</i>	<i>Firm</i>	<i>Sector</i>	<i>Employment ('000)</i>
1	Siemens	Industry	445
2	Deutsche Post	Service	372
3	DaimlerChrysler	Industry	356
4	Volkswagen	Industry	325
5	Deutsche Telekom	Service	256
6	Deutsche Bahn	Service	251
7	Bosch	Industry	224
8	Edeka	Trading	200
9	Metro	Trading	192
10	Thyssen-Krupp	Industry	191
11	Rewe	Trading	187
12	Tengelmann	Trading	183
13	Allianz	Financing	182
14	RWE	Energy	132
15	Bayer	Industry	123
16	EON	Energy	110
17	Karstadt-Quelle	Trading	106
18	BMW	Industry	101
19	Lufthansa	Service	94
20	BASF	Industry	89

Source: Frankfurter Allgemeine Zeitung, July 8, 2003.

production is not included in the German GDP, whereas production by foreign firms in Germany does count towards the German GDP. Likewise, employment by German firms is not identical to employment in Germany. Whereas German firms are efficient according to international standards, this does not imply that targets of economic policy such as full employment are met in Germany.

It would be misleading to attempt to understand Germany's enterprise sector by looking solely at these 20 large firms. Among the larger firms are other international players, such as Bertelsmann with 81 000 employees, Deutsche Bank with 77 000 employees, and MAN with 75 000 employees. The ranks of firms smaller in size are densely populated with, for instance, Boehringer Ingelheim at position 25 of the industrial firms in terms of revenue (32 000 employees), Freudenberg, a family-dominated enterprise (28 000 employees) at position 49, Braun (29 000) at rank 66, Miele (15 000) at position 80, and Brose Fahrzeugbau (7000), a firm producing car seats and car doors, at ranking 100.

Analyzing the structure of firms in more detail, and looking at it from the revenue side, 2.6 million out of 2.9 million enterprises, or

89.4 percent, have an annual revenue of less than €1 million (data for 2000); 300 000 enterprises, or 10.3 percent, have an annual revenue of between 1 million and 50 million euro; 7700 companies, or 0.3 percent, have a revenue of more than 50 million euro. From the point of view of employment, there are 2.15 million businesses⁵ paying social security contributions for their employees (table 1.3). Of these, 18.2 percent are businesses with fewer than 10 employees, 60.2 percent businesses employing between 10 and 499 people, and 21.6 percent businesses employing 500 or more.

There is no doubt that small and medium-sized firms play an important role in the German economy. Enterprises with an annual revenue of less than €50 million account for 43.2 percent of total revenue of all firms; businesses with less 500 employees make up 78.4 percent of total employment according to the social security statistics. The role of small and medium-sized firms for total employment becomes even more apparent if employees exempted from social security, especially the self employed, are taken into consideration. Furthermore, small and medium-sized businesses train more than 80 percent of all apprentices and are also an important reservoir for upcoming entrepreneurs.

Small and medium-sized firms make up the *Mittelstand*. In a narrow interpretation, the *Mittelstand* may be defined as all those firms with an annual revenue of €50 million or less, or with fewer than 500 employees. In a broader interpretation, however, the concept of “*Mittelstand*” includes larger firms and implies other characteristics as well. One is that in these firms private ownership of the entrepreneur plays an important role, and that the owner-entrepreneur is the driving force of the enterprise. The legal form of such firms often is not a stock company, but another option of limiting liability, such as a limited liability company (GmbH) or the alternative with more personal liability, a non-incorporated company (e.g., a sole proprietorship or partnership with individual liability) where transparency requirements are less strict. As a rule, the more important firms of the *Mittelstand* are technological specialists in their field; they are built around a technological idea, often stemming from the owner-entrepreneur or developed further by him. Whereas some of the medium-sized firms are outsourced legal units of larger firms, or may be completely dependent on a single buyer as in the automobile industry,⁶ quite a few have their own international independent position. This applies to, for example, medium-sized enterprises like

⁵ The term “business” is here used for the German term *Betrieb*. *Betrieb* is the economic unit of an enterprise at a location. A *Betrieb* may be part of an enterprise, the legal unit, or it may be an enterprise itself.

⁶ How important this group of the *Mittelstand* is, relative to the dependent firms, especially in the automobile industry, is hard to say.

TABLE 1.3
Businesses in Germany according to size, 2000^a

<i>Employees</i>	<i>Number of businesses</i>	<i>Number of employees</i>	<i>Percent of employees</i>
Small businesses			
1–9	1 728 716	5 064 101	18.2
Medium-sized businesses			
10–19	416 499	16 759 991	60.2
20–49	205 706	2 756 042	9.9
50–99	129 296	3 908 517	14.0
100–499	46 442	3 204 874	11.5
	35 055	6 890 558	24.8
Large businesses			
500 and more	4 980	6 001 532	21.6
Total	2 150 195	27 825 624	100

Source: German Council of Economic Advisors (2002), Annual Report 2002/03, p. 220.

^a Employees paying social security contributions in businesses.

the saw producer Stihl, the hydraulic systems producer Sauer-Danfoss, the investment good producer Triumph, the cigarette machine maker Hauni, the producer of furniture machines Homag, and the tunneling machines producer and operator Herrenknecht. These are all firms that employ between 7000 and 1200 people and have an annual revenue of between €1.5 and €0.3 billion per year. Most of them have a market niche in the world market for a very specific product, normally in machine construction.

The Mittelstand has been called the backbone of the German economy. Although it is hard to imagine German industry as consisting of the firms of the Mittelstand alone, without the larger players, the description of them as a backbone seems justified when one looks at employment. The Mittelstand is also unique in the sense that, instead of having hired managers, as in the incorporated large enterprises, entrepreneurial effort of the owner-entrepreneur plays a decisive role. Politically, this group is more sensitive to changes in taxation or regulation than, say, the managers of large stock companies. There tends to be a more direct response from the Mittelstand to changes in governmental policy such as taxation and regulation. Here indeed may lie an important difference between the reality of the German economy and the economic drawing board of quite a few governmental interventionists and governmental decision makers. But it seems that this reality, i.e., the existence of a

large group of small and medium-sized firms with their entrepreneurs, is typical for other countries in Europe as well, including France, Italy, and the United Kingdom.

SOME MACROECONOMIC DATA

Viewing the German economy through the macroeconomic looking glass, consumption demand of private households accounts for 57 percent of aggregate demand on the expenditure side of GDP; consumption demand of government is 19 percent, and investment demand is 18 percent (data for 2002). Net exports or the trade balance,⁷ the remaining components of aggregate demand, account for nearly 4 percent of GDP.

The major part of the €379 billion of investment in 2002 is in buildings (about 57 percent), while about 40 percent is for investment in equipment—the most volatile element of investment, and at the same time the driving force in the ups and downs of the business cycle. Investment here means gross investment, including the replacement of existing capital, financed from depreciation; net investment is normally one quarter of gross investment.

The tax share is 23.2 percent of GDP; taxes and contributions to the social security system make up 40.8 percent; and the share of government spending is 49.2 percent. The budget deficit has increased in recent years, amounting to 3.9 percent of GDP in 2003. Social absorption is high: the social budget, which encompasses all expenditures with a social objective, absorbs one third of what is annually produced. Government debt, at 64.2 percent of GDP in 2003, has doubled in the 1990s.

National income, i.e., GDP minus depreciations and production taxes plus subsidies, was €1.57 billion (2002), of which 82 percent went to labor (including the self-employed) and about 70 percent to the dependently employed; the remainder was interest income and profits of firms. The disposable income of households, i.e., national income minus direct taxes and net contributions to social security (contributions minus transfers received), is €1.3 billion. This goes on consumption and savings.

Households save 10.8 percent of their disposable income (2003). Drawing a rather broad picture and not going too much into the details, savings of the private sector (households and firms), including depreciation, amounted to 22.5 percent of GDP (€474.84 billion⁸) in 2002, whereas investment of the private sector was 16.5 percent (€346.85 billion). Excess savings of the private sector of 6 percent of GDP (€127.99 billion) finance a budget deficit of government of

⁷ Note that net exports are not identical to the current account.

⁸ *Statistisches Bundesamt*, Series I. 18, no. 1.2, table p. 25

3.6 percent of GDP (€76.19 billion), i.e., its dissaving, and the current account surplus of 2.4 percent (€50.39 billion). Note that the budget deficit of the government is used partly to finance government investment. The relationship described here reflects the external financing constraint of the economy, well known to students of international economics, namely $S - I - D = CA$, where S and I are gross savings and gross investment of the private sector, D is the government's budget deficit, and CA is the current account. In our figures for 2002, this equation reads: $22.5 - 16.5 - 3.6 = 2.4$. Note that, unlike the United States, Germany does not have a twin deficit in the public budget and in the current account.

EMPLOYMENT

Germany has 38.3 million employees, including 4.1 million self-employed (2003). That means that less than 50 percent of the population is working. The participation rate, calculated as those in work plus the unemployed as a proportion of the entire population, stands at 51 percent. The participation rate of women, calculated as the employed plus unemployed in the 15–65 age group as a proportion of the total number of women in that age group, is much lower than that of men (65 vs 80 percent, respectively). Therefore, there is a potential for an increase in the supply of labor. Of the 34.3 million who were dependently employed in 2003, 24.6 million were fully employed and 9.3 were working part-time, implying a part-time ratio of 27 percent.

Unemployment stood at 4.4 million in 2003, or 10.5 percent of all employable persons, according to the German definition of unemployment. This amounts to 9.3 percent under the internationally standardized EU calculation. Unemployment in eastern Germany was 18.6 percent. In mid-2003 unemployment was highest in the labor office district of Neubrandenburg in Mecklenburg-West Pomerania at 24.8 percent, while the lowest rate was in Freising, Bavaria, at 4.1 percent. The labor office district of Suhl in Thuringia had the lowest unemployment rate in East Germany at 13.8 percent; the highest unemployment rate in West Germany was in Gelsenkirchen, in the Ruhr area of North Rhine-Westphalia, at 15.4 percent.

In addition to the official unemployment rate, the German Council of Economic Advisers also considers as unemployed those persons who are in various governmental schemes, i.e., who are not active in the “first” labor market.⁹ In this context, the Federal Labor Office funds job-creating measures, training programs, and early retirement. If these

⁹ Council of Economic Advisers, 2003, table 26.

are included—1.6 million people in 2003—the unemployment rate jumps to 13.9 percent in 2003, and to about 25 percent in eastern Germany.

The unemployed tend to have a weak skill base; one-third of them have no formal training in an occupation, and some have not finished German high school. Some further individuals are unemployed because of illness. Unemployment has proven to be a persistent problem for Germany. The long-term unemployed, i.e., those unemployed for more than one year, account for 35 percent of the total unemployed (August 2003), 42.5 percent in eastern Germany and 31.3 percent in the West. If, instead of simply taking the numbers of the unemployed, one weights these numbers by the duration of unemployment, the long-term unemployed account for 64 percent of the total unemployed, and those who are unemployed for three months or less for 5 percent. From a policy point of view, therefore, it is necessary to be able to reduce long-term unemployment. The unemployment rate of those under 20 years of age is 5.4 percent, for those under 25 10.8 percent; among foreign workers, the unemployment rate is more than 20 percent.¹⁰

SECTORAL CHANGE

Germany has seen major changes in its economy since the end of World War II. A consideration of these changes helps us to understand how the German economy functions. One of the major changes was the country's integration into the world economy, as we have already seen in the significant increase in exports relative to GDP. Accompanying this higher degree of openness was a remarkable structural change, which is reflected in the relative decline of industry or manufacturing (*verarbeitendes Gewerbe*) from 38.1 percent of employment in 1970 to 22.4 percent in 2002; the percentage of value added is similar. The wider delineation of the producing sector or the production industries (*produzierendes Gewerbe*), also including mining, energy supply and construction, fell from 47.9 percent of employment or 12.5 million in 1960 to 27.8 or 10.8 million in 2002, whereas the employment in the service sector increased from 38.4 to 69.7 percent (figure 1.3). There has been a continuous shift away from the industrial economy, first to a service economy and lately to the information (IT) or knowledge-based economy. Employment in mining, which is part of the producing sector, fell from over 650 000 in the mid-1950s to 108 000 in united Germany. (The sector today includes the quarrying of stone.) Agriculture too has decreased in importance, with its current share in total employment standing at just

¹⁰ 21.8 in July 2003.

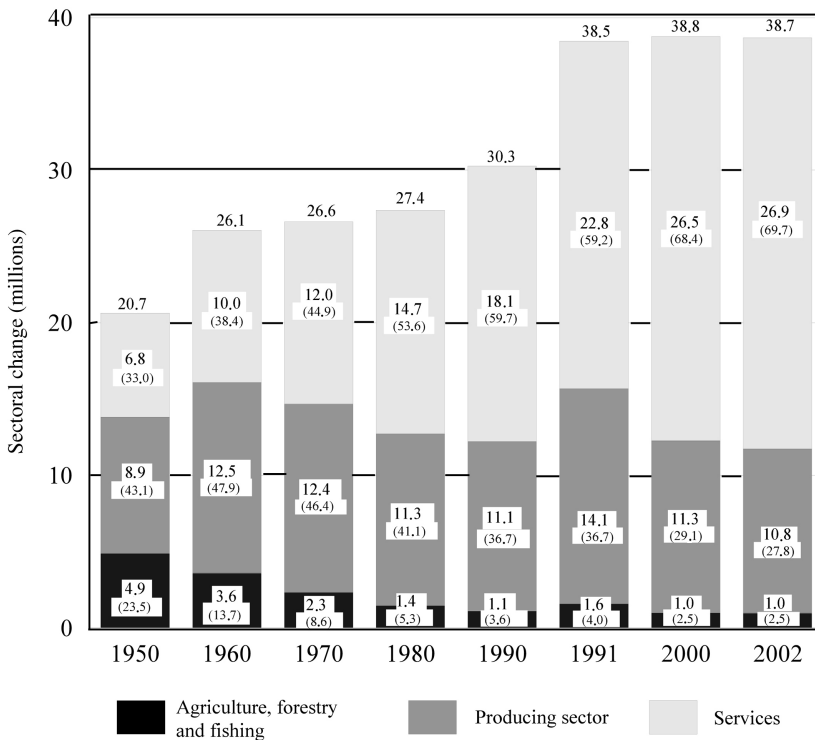


Figure 1.3 Sectoral change in employment (millions). Numbers in parentheses indicate percentage of total employment. *Source:* Federal Statistical Office, Series 1 and 18.

1 percent. It should be noted that part of this statistically observed structural change reflects the outsourcing of activities from industry, for instance to escape the branch labor contracts, but also to shift cost risks to other firms.

Such structural change is a necessary adjustment in an open economy, but it has meant that well-paid jobs have disappeared in the industrial sector. In 2001 the united Germany had more than half a million jobs fewer in industry than West Germany in 1990. This not only implies that labor demand has been reduced; it also reveals a need for drastic adjustment in the lives of workers, who can no longer rely on life-long employment in one job but must face up to the possibility of having to retrain and invest in new qualifications. Where this is not possible, and where the relative wage structure is not flexible enough, unemployment is likely to follow when a shock to the sectoral structure occurs. Moreover, the structural change means that labor relations have changed.

The dominant structural transformation from agriculture to industry, and then to the service sector, required by the high degree of openness of the economy affected the industrial regions, especially the Ruhr and the Saar, with their intense concentration on coal and steel. Baden-Württemberg and Bavaria, formerly ridiculed for their “dwarf schools” in the villages and as people in the backwoods (*Hinterwäldler*), went through a long-term catching-up process lasting three to four decades. Ultimately, they overtook the North, as northern Germany experienced a decline of its traditional heavy industry, especially in ship building; while this could be overcome in a city like Hamburg, with its new specialization in the media including television (moreover, Hamburg regained its traditional position as an economic center with German unification), other parts of northern Germany saw a relative decline.

PAST CHALLENGES AND SHOCKS

After World War II Germany was separated into two different states, one belonging to the market-oriented Western world and one to the Eastern world of central planning and public ownership of firms. In both parts of Germany the economy had to be rebuilt, but the two states developed separately and quite differently. West Germany absorbed the refugees from the former eastern parts of the country equaling about 8 million, or one sixth of its population (data for 1949). The Erhard reforms paved the way for a market economy, for a system open to international competition, and for competition policy. Whereas economic success came about quickly in the West, East Germany experienced a major upheaval on June 17, 1953, with the uprising of construction and industrial workers who were unwilling to accept the more stringent labor norms and the changes in the food stamps decreed by the Politburo. These changes, including higher production quotas of farmers and the exclusion of still independent craftsmen, coupled with the worsened living conditions, led to extreme dissatisfaction. East Germany found that it could not retain its inhabitants, who were attracted to West Germany, as long as they were allowed to move freely to West Berlin: until the Berlin Wall was constructed in 1961, the German Democratic Republic experienced an exodus of 3.8 million people. Those who remained were then walled in, and thereby prevented from leaving the country; at the same time, they were restrained in their travel options internationally to the eastern bloc of the Comecon countries. In spite of the Wall, however, an exodus of about 22 000 people annually¹¹ continued, and in the late 1980s this swelled to reach nearly 400 000 in both 1989 and 1990.

¹¹ 616 000 people between 1961 and 1988.

The West German economy, meanwhile, was experiencing other major shocks and changes. A definitive turning point was the student revolts of the late 1960s, when the younger generation expressed its deep dissatisfaction with the West German way of life—with the demands, pressures, and constraints of Germany's economic system; its institutional setting, including the traditional and closed system of the universities; its political system; and the political orientation of its society. As in other countries, the Vietnam War was a major catalyst. Suddenly, as a new and noticeable political force, there was an opposition outside parliament, with a new preference function whereby leisure ("Make love...") and other hedonistic aspects were major goals.

All this affected Germany's political and cultural values. First, it led to a substitution of the political elites by the "sixty-eighters," who are now in political command and represent values quite different from those of the previous generation. At times there was a "Tuscany fraction"¹² in the Social Democratic Party and in parts of the Green Movement, expressing these new values. Second, politics reacted to the student unrest with reforms in an attempt to integrate the new sentiment. This gave rise to the reform policy under Brandt in the 1970s, but also to a strong expansion of the welfare state. Third, a specific response of politics to changing times was an increased participation of non-governmental groups in the decisions of society—for instance, of trade unions and workers in firms and of students in the universities. Fourth, the overall restraints of the economy were loosened in the public's perception, which implied that the steering of the economic system became less efficient. Only today it is being rediscovered that Germany's preference shift for leisure, welfare, and participation has serious implications, for instance for future generations.

Independent of this, but partly related to it, a new topic of German politics has evolved with the issue of environmental policy, raised by academics as early as the 1970s (Siebert 1973) and then brought into the political arena by the Greens in the 1980s. This issue came to the fore in a country that is so densely populated that everyone is affected by air and water pollution. Although the high growth rates of the 1960s and 1970s were reached without the need to pay too much attention to environmental degradation, the Germans' high per capita income allowed them to take environmental quality into account. Environmental awareness redefined the abundance of the environment and of nature; and, of course, this involved adjustment costs for the economy as a whole.

In terms of macroeconomics, Germany has experienced four recessions, by the criterion that for a country to be in recession its annual

¹² This group of politicians was so dubbed because of their preference for vacations in the Italian province of Tuscany and its life style.

GDP growth rate has to be negative for at least one year (see figure 1.1). The 1967 downturn, with a negative rate of 0.3 percent and with an unemployment rate of just 2.1 percent, was only a minor recession compared with the dire situation in 2003, but it was the first recession in an environment in which everyone was accustomed to high growth rates. The Social Democratic economics minister Schiller applied the concept of macroeconomic stabilization according to the prevailing Keynesian mind-set of the time. The idea of a “concerted action” was born, which entailed an attempt to harmonize the actions of the social partners, the trade union, and the employers’ association. The “Stability Law” was introduced with the aim of satisfying the four major targets of economic policy: price level stability, high employment, external equilibrium, and steady and satisfactory growth. This approach led to the establishment of the German Council of Economic Advisers.¹³

The next two recessions were linked to the two oil crises, i.e., two negative external supply shocks. In 1975 GDP fell by 1.05 percent. Oil prices quadrupled, thus making energy, an important factor of production, considerably more expensive. As in other oil-importing industrial countries, the existing capital stock of the German economy became partly obsolete, since it had been formed under the low oil prices of the 1960s. The marginal productivity of capital fell, and the production capacity of the economy was reduced. All this shifted the supply curve of the economy to the left. The terms of trade, i.e., the relative price between exportables and importables, deteriorated, and on the demand side real income was transferred from Germany to the oil producing countries. This meant an unrecoverable loss of purchasing power. The trade unions attempted to make up for this loss by demanding high wage increases, amounting for instance to 11 percent in 1974 for the public sector. There can be no question that under these circumstances the inflation rate was high: it reached 7.0 percent in 1974. At the same time, the unemployment rate started to rise. Two targets of economic policy were violated, and stagflation became the economic policy maker’s new challenge.

In 1982 the repercussions of the second oil crisis hit the German economy, which saw a decline of GDP by 0.79 percent; it had increased by only 0.11 percent in 1981. The current account had turned negative in 1980, and the German mark saw a depreciation in nominal terms in the late 1970s as a result of the second oil crisis. Inflation went up, and unemployment rose once more, to top 9 percent in the aftermath of the recession in 1983–85. Again, Germany found itself in a stagflation.

¹³ The Council uses this as an official translation of the Sachverständigenrat Council of Economic Experts. It seems to me that the translation is misleading.

The final recession occurred after the German unification boom in 1993, when the country experienced a negative growth rate of 1.09. The main reason for this was a general slump in the world economy in 1992; its impact hit Germany one year later because the unification boom had put the German economy under steam, representing a Keynesian demand pull.

In terms of economic growth, the second part of the 1980s can be considered a successful period for Germany (as, of course, was the catching-up phase that lasted up to 1970). The growth rate gained momentum, with an average of over 4 percent in 1988–90, and investment was strong. About 3 million new jobs were added in the 1980s once the recession and unemployment had receded in the second part of the decade. In spite of some moderation of wage demands by the trade unions, compared to those of the 1970s real income of workers increased. The inflation rate came down, so that price level stability was established. The budget deficit was balanced in 1989, a tax reform was implemented in several steps, and the current account reached a surplus of 4.9 percent of GDP. Two of the major policy players—the central bank and fiscal policy—had done their homework; the social partners were more employment-oriented than in the prior decade. Even with some criticism of the wage policy, this was a good example of how to approach the problem of assigning responsibilities to the different players. Germany has yet to match such a period of positive development since then.

GERMAN UNIFICATION

German unification was, of course, a stroke of luck in a historical sense, and it represented a major change in the economic conditions of Germany. For the former East Germany, it meant a drastic new environment for the lives of the inhabitants—the state-owned firms had to be privatized; production had to be oriented towards the markets of the West; and new capital stock had to be built up in the business sector, in the infrastructure, and in housing.

The transformation of eastern Germany did not go as well as had been initially expected. Hopes that the German *Wirtschaftswunder* of the early 1950s could be replicated did not materialize. In the first place, investment in eastern Germany was not a bottleneck problem, as had been the case in West Germany after 1945, when the repair of a single bridge over the river Rhine represented a huge productivity boost: in eastern Germany the whole capital stock had to be rebuilt. Second, there was a great deal of uncertainty with respect to the property rights in the first

years of transformation. Third, the whole enterprise sector had to be privatized.

In addition to these challenges, serious policy mistakes were made. First, exchanging the East German mark 1:1 for the West German mark in the German Monetary Union implied an appreciation of the East German mark by some 400 percent. This adjustment was too much for any firm to handle, let alone inefficient ones used to central planning. Second, the exchange of 1:1 had a negative effect in that it formed the wrong expectations, with a devastating impact on wage negotiations; people assumed that social absorption could be financed without any repercussions. Third, applying the West German institutional arrangement of collective bargaining to eastern Germany and letting the West German unions and the West German employers' association do the wage bargaining meant that, together with the inflated expectations, wages quickly grew out of line with productivity; unit labor costs were at 140 percent of the West German level in 1991 and stayed above 100 percent thereafter (table 1.4). This meant that eastern Germany was less attractive for investment. Fourth, using the West German institutional arrangement in a transformation economy—not only for the labor market, but also for product market regulation, the university system, and taxation—was a serious mistake.¹⁴ By imposing West German institutional conditions, East Germany was not able to adopt its own approaches to enhancing its competitive position, such as establishing a more competitive university system as a leapfrogging basis for a new technological production platform. It was not allowed to find its own solutions or to determine its own priorities. As a major example, wages were negotiated by the West German social partners, whose interests, namely to protect their own position by imposing a similar arrangement on the incoming region, were counter-productive for eastern Germany. Fifth, all four of the above issues, especially the exchange rate conversion and wage policy, were reasons for high consumptive transfers, i.e., transfers that will not end up in investment but in consumption. These took place within the government sector, including the social insurance system.

In terms of GDP per capita (of the population, which is different from output per employee), GDP per capita in eastern Germany, excluding Berlin, was 62.7 percent of the West German figure, also excluding Berlin, in 2001; it had started out at 33 percent in 1991. From a historic dimension, this is quite an achievement. In a policy oriented approach, however, it does not make sense to exclude Berlin from the East German region since it lies in the middle of eastern Germany. If it is included, the

¹⁴ An exemption is the law on large transportation infrastructure projects, where legal restraints can be overruled by parliamentary decision of the East German Länder.

TABLE 1.4
East German wages, labor productivity, and unit labor cost (% of the West German level^a)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Wage income ^{b,c}	49.3	61.9	69.2	72.6	75.2	75.8	76.1	76.3	77.1	77.2	77.3	77.6
Labor productivity ^{c,d}	34.9	48.3	59.4	64.2	65.0	67.0	68.0	67.7	68.4	69.2	70.7	71.5
Unit labor costs ^{c,e}	141.1	128.3	116.3	113.2	115.7	113.1	111.8	112.6	112.7	111.7	109.8	108.5

Source: German Economic Research Institutes (2003), p. 55.

^a West Germany = 100 in each year West Germany including Berlin).

^b Wage income including contributions to social security of employees and workers.

^c Data for eastern Germany: new *Bundesländer* without Berlin, March 2003.

^d GDP in current prices per person engaged in economic activity.

^e Wage income per employee created (*Inlandkonzept*) in relation to the GDP, in current prices per person engaged in economic activity.

East German GDP per capita is now 66.2 percent of the West German level, or 71.2 percent of the overall German level. Taking into account that other German Länder such as the Rhineland-Palatinate, Lower Saxony and Schleswig-Holstein reach 80–85 percent of the West German level, eastern Germany has attained a remarkable level of GDP per capita.

The manufacturing sector in eastern Germany has exhibited sizable growth rates in its net output, reaching 10 percent in real terms in 1998–2000, albeit starting from a low level; in 2001 and 2002 the rates have been positive, at 4.7 and 2.8 percent respectively, despite stagnation in the German economy in these years. In branches where new plants have been built, e.g., car production, IT, communications, and aerospace, high growth rates have been observed since 1991. In machine building, in the construction of railroad cars, in ship building, and in leather and textiles the rates have been negative (Ragnitz et al. 2001); in part this is because these branches have experienced strong structural change in West Germany as well.

From 1997 to 2003, the GDP growth rate of eastern Germany has been below the unified German rate. This means that the convergence process has stopped, and that we have divergence instead of convergence. It should be noted that out-migration is an important adjustment mechanism, which for an economist is a normal way of adjusting to different income conditions. Since 1989 about 1.4 million people have emigrated from East Germany (net emigration), most of them before and shortly after the fall of the Wall. Young people in particular have sought jobs in the West. While emigration has decreased considerably since before and just after the Wall fell, eastern Germany continues to lose people to the West: in 2001 net out-migration came to 98 000, and a further 627 000 commuted from East to West. This, of course, means that the GDP growth rate is reduced because of a lower labor input; at the same time, per capita rates become more favorable.

German unification required, and still requires, public transfers to the East. It is estimated that only one quarter of total transfers (neglecting interest and debt repayment) were used for investment, either in the private sector or for infrastructure; three quarters went toward consumption. The magnitude of the transfers is hard to estimate; they constituted between 3 and 4 percent of the German GDP in 1995, when the flows of the different governmental layers were consolidated and when the interest burden for debt was included (see chapter 12); the amounts have become considerably smaller since then. Transfers were financed to a large extent through credits, leading to a doubling of government debt. This has had an impact on Germany's fiscal policy stance, negatively affecting the German economic position. In addition, the transfers were organized

within the social security system, which increased labor costs and reduced the demand for labor.

With respect to East Germany, two other developments represented a negative impact on growth there, with some repercussion in the united Germany. One was the over-expansion of the construction sector. This was generated by public subsidies for housing and for investment in firms, as well as by transfers for the public infrastructure in the early 1990s, and it created a massive distortion which eventually had to be corrected. Construction firms had to shrink by laying workers off; some firms went bankrupt. All this had a negative impact on the GDP growth rate in eastern Germany. Construction firms in the West were affected as well, so that the construction sector in united Germany pulled the German growth rate downward. The excess supply of office and apartment space in East Germany, a result of the distorting stimulation of the real estate sector through tax breaks, affected the positions of German banks, requiring large write-offs and bank bail-outs. Banks became more cautious in issuing credits.

The other process was a real appreciation in eastern Germany. Owing to transfers, the relative price for non-tradables expanded, reducing the attractiveness of tradables, i.e., of import substitutes and the export sector. That is to say, eastern Germany experienced a “Dutch Disease” phenomenon with an over-expansion of the service sector, to the detriment of industry as well as economic growth. This led to a real appreciation of the Deutschmark as a consequence of unification, which weakened Germany’s competitive position in the world market.

THREE MAJOR POLICY FAILURES

There is no doubt that German unification has been—in economic terms—a shock to the German economy. Germany has been financially constrained in part by funding the transfers. But it would be misleading to assume that Germany’s economic position would be completely different if the issue of the East German convergence were solved. German unification occurred in an environment in which long-run trends were already leading to three major policy failures rooted in unresolved, severe structural problems. First, since 1980 the economy has been on much lower growth path than previously, except for the late 1980s, and since 1995 the increase in its production capacity is around 1.5 percent, notably below 2 percent. It can no longer unfold sufficiently strong dynamics. Second, unemployment has ratcheted upward since 1970, from virtually full employment to a situation in which over 10 percent of the population is out of work; if those who are in government programs and who cannot

find a job in the labor market are added to the number of the officially unemployed, the rate is 14 percent. Third, the social security system and its social absorption, as well as other aspects of the social budget, clearly can no longer be financed. This issue of financing will become even more acute with an ageing population. Moreover, the financing of the social security system represents a tax on labor, which not only lowers the demand for labor, and hence creates unemployment, but also calls into question the very economic foundation of the economy.

These three issues—low growth performance, high unemployment, and the financing limits of social security—are interrelated, creating a vicious circle. Unemployment is a reason for low growth, and weak economic dynamics partly explains the high unemployment. The problems of financing social security are linked to low growth, but at the same time are responsible for high unemployment. We will study these issues in more detail in the following chapters.