

Sharp Drop in Youth Unemployment in Germany but Regional Differences Remain



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Sharp Drop in Youth Unemployment in Germany but Regional Differences Remain

by Karl Brenke

Youth unemployment in Germany has fallen to its lowest level since reunification. Between 2005 and 2012, unemployment among under 25 year olds has more than halved. By international standards, Germany is in an exceptionally strong position. Nowhere in Europe is youth unemployment lower. However, this is not so much due to structural improvements or positive labor market growth than to demographic change: the drop in youth unemployment is primarily a result of the declining number of young people.

In other European countries, even qualified young people have a hard time gaining a foothold in the labor market, while in Germany it is predominantly young people with no formal vocational training who are unable to find a job despite the relatively positive economic situation. It also appears that there is insufficient mobility on the German labor market. On the one hand, there is an abundance of apprenticeships in some regions. On the other hand, an increasing regional concentration of youth unemployment is evident. Particularly in old industrial regions of western Germany and in eastern Germany, the unemployment rate for young people is well above the national average. However, it is precisely in these regions that the proportion of young people dropping out of vocational training or leaving school with no qualifications is particularly high. These young people run the risk of being permanently trapped in a precarious situation.

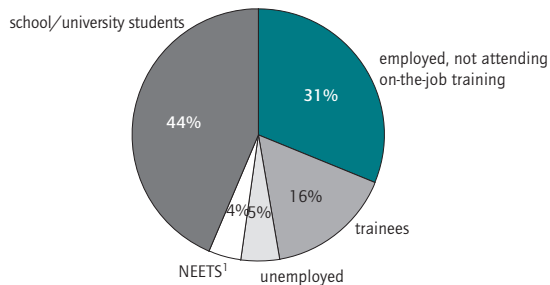
When it comes to youth unemployment, by international standards, Germany is in a very strong position. According to Eurostat and the Convention of the International Labour Organization (ILO), there were approximately 370,000 young people unemployed last year. The unemployment rate for those aged 15-24—the age group that generally applies to young people in labor market research—was 8.1 percent. In 2012, in the EU as a whole, the corresponding figure was just under 23 percent—in countries such as Spain and Greece, the youth unemployment rate exceeded 50 percent while Austria and the Netherlands had similarly low rates to Germany with 8.7 percent and 9.5 percent, respectively.

However, the German Federal Employment Agency (Bundesagentur für Arbeit, BA) reported just 274,000 registered unemployed in this age category and calculated an unemployment rate of 6.0 percent¹—the lowest since German reunification. The discrepancies between the two sources are due to differences in the definition of unemployment and how unemployment figures are captured.² For example, employment agency statistics do not include any information on unemployed young people who are not registered with them (perhaps because they are not entitled to any benefits), and who do not expect any assistance in their job search from the employment services. Furthermore, according to the ILO's concept—unlike the German Federal Em-

¹ Based on the civilian labor force of the relevant age. In comparison, in 2012, the unemployment rate for all age groups was 6.8 percent.

² According to the Federal Employment Agency, to be considered unemployed, individuals must be registered with an employment agency (municipal providers) and classified as unemployed. They are required to try and find themselves a job placement and be available for work, particularly jobs subject to social security contributions. The Federal Employment Agency's data are register data. Data according to the ILO's concept, on the other hand, are collected in household surveys—Europe-wide as part of the Labour Force Survey, the German version of which is the Mikrozensus. According to this, to be categorized as unemployed, individuals must be available to begin work within two weeks, have looked for work within the four weeks preceding the survey, and currently not be in any form of paid employment. It is irrelevant whether or not individuals are registered with an employment agency.

Figure 1

Structure of Youth Unemployment in 2010

1 Not in Employment, not in Education, not in Training—and: not employed.

Source: Statistical Offices of the Länder (microcensus), calculations by DIW Berlin.

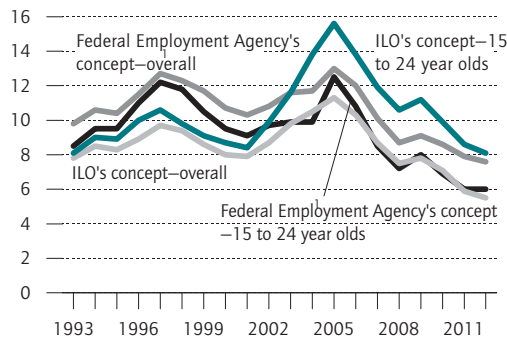
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Only around half of all young people are on the labor market—as employees, trainees in companies, or unemployed.

Figure 2

Unemployment Rate for Young People and Overall Unemployment Rate

In percent



1 Unemployed people based on the whole dependent civilian labor force.

Sources: Eurostat, Federal Employment Agency.

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The number of unemployed people fluctuates according to economic cycles—both overall and also for young people.

ployment Agency's concept—young people who are attending some sort of training course but would actually rather be in paid work are also considered unemployed.³ The following sections draw on available figures

³ However, there are further reasons for the discrepancies between the Federal Employment Agency's and ILO's statistical information. According to the

from various data sources to attempt to provide a coherent picture based on the author's findings.⁴

Although, at first glance, the situation in Germany appears to be relatively positive, nonetheless, even here, youth unemployment is a social problem that cannot be ignored. There is an additional aspect to this problem: as the number of young people in Germany is on a downward trend, society is relying more than in the past on the younger generation being well-educated and finding employment.

Lion's Share of Young People Currently Not on Labor Market but Still in School

In comparison with the rest of the working age population, young people always exhibit relatively low labor force participation—primarily because many of them are still attending various types of school. More detailed information is provided by an analysis of the individual data of the Mikrozensus from the survey conducted in Germany as part of the European Labour Force Survey; data up to 2010 is currently available for scientific analysis.

In 2010, 43 percent of young people were in school, or studying at a technical college or university (see Figure 1). Almost a third of young people were in some form of employment that required no specific qualifications, and a sixth were attending on-the-job training. In 2010, only around five percent of all young people were unemployed. This is less than the actual unemployment rate as the calculation of the unemployment rate only takes young people who are available for work into account excluding, for example, students in schools and higher education. The only information available about the four percent of young people known as NEETS is that they are Not in employment, Not in education, Not in training—and not unemployed. This group might include young parents or young people who are not active participants on the labor market for other reasons—for example, because they are waiting to start a cour-

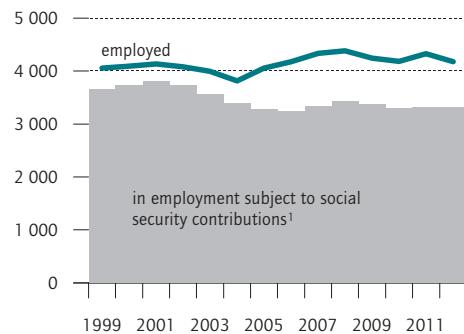
ILO's concept, school or university students can also be categorized as unemployed if they are looking for a job—to fund their education, for example. From this perspective, the ILO's definition of unemployment is broader than that of the Federal Employment Agency. On the other hand, the Federal Employment Agency counts as unemployed those individuals who have a job that does not exceed 15 hours a week. This would also include marginal employment (jobs with monthly salaries of less than 400 euros). According to the ILO's concept, however, only those who have no form of paid employment (not even an hour a week) are classed as unemployed. From this point of view, the ILO definition is narrower.

⁴ For regional analyses, only data from the Federal Employment Agency were used because the regional data according to the ILO's concept are subject to a high degree of uncertainty due to a sometimes low number of samples.

Figure 3

Youth Employment

1,000 persons



1 End of June for each year; seasonally adjusted values.

Sources: Eurostat, Federal Employment Agency, calculations by DIW Berlin.

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The number of young people in paid employment declined slightly recently.

se of training or education or do not want a job due to other factors.⁵

Sharp Drop in Youth Unemployment—Mainly Due to Demography

The extent of youth unemployment is highly dependent on, inter alia, the state of the economy. Up until 1997, youth unemployment climbed because of the economic slowdown at the time. In the course of the subsequent economic upturn, up until 2011, youth unemployment then declined (see Figure 2) but in the years that followed, it increased yet again due to poor economic growth. The increase was particularly sharp in 2005.⁶

5 Employment status alone does not paint a full picture of the social situation of young people. The dependence of many young people on social welfare benefits, in particular, is masked. In September 2012, 747,000 individuals under the age of 25—i.e., young people—who were actually fit for work received benefits under the Sozialgesetzbuch II (German Social Code, Part II-Hartz IV). This group included far more than just the unemployed, but also school students in poor households, trainees, or single parents, for instance.

6 In that year, alongside weak economic performance, legal changes (Hartz IV reform) also contributed to growth in the unemployment rate identified by the official statistics. Until the Hartz IV reform was implemented, there was effectively a two-tier system of rights for the unemployed who were not receiving any insurance benefits. Members of the one group received unemployment support because—for example, due to expiry of the previous entitlement to unemployment benefit—they were eligible for this form of tax-funded support. Members of the other group received the lowest level of social welfare as they were not entitled to unemployment insurance. Some of these people were also not registered unemployed with the employment agencies although they were effectively

In the following years, the unemployment rate declined constantly and significantly—with one short interruption due to the global financial crisis. The period from 2005 to 2012 saw the youth unemployment rate almost halve. However, in the last 20 years, according to the ILO's concept, the unemployment rate for young people was still consistently higher than for adults; but according to the Federal Employment Agency's statistics, the opposite was true.⁷

However, the decline of youth unemployment over recent years cannot be attributed to an increase in the number of jobs filled by young people. This was only the case in the boom years from the middle of the last decade until 2008. Subsequently, a slight drop in the number of employed young people was recorded (see Figure 3). Furthermore, it is also striking that the share of young employees subject to social security contributions is declining. Yet other forms of employment—for example, marginal or short-term employment such as internships—are gaining in importance.

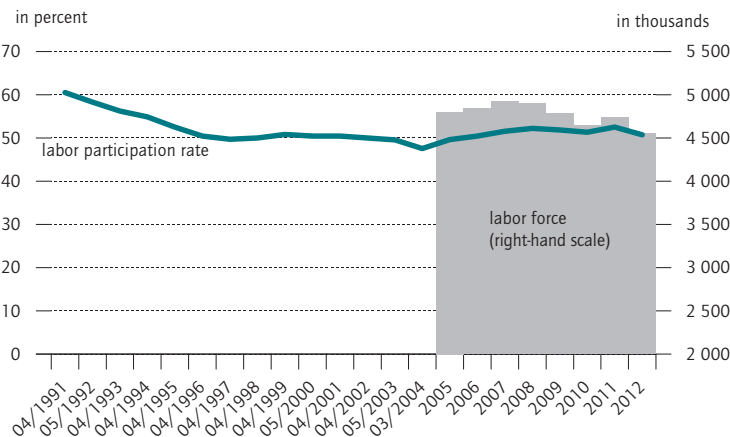
The labor force participation rate, i.e., the proportion of the total number of young people categorized as members of the labor force (employed plus unemployed), was largely constant, remaining at almost 50 percent in recent years and only declining slightly last year (see Figure 4). If labor force behavior remains unchanged and the number of employed young people has only declined slightly, then this drop in youth unemployment can only be attributed to the fact that the number of young people has decreased. It is indeed the case that the youth age cohort has shrunk dramatically since 2005; by the end of 2011, the size of this group had diminished by more than 600,000 people (see Figure 5), mainly in eastern Germany.

unemployed. As a result of the Hartz IV reform, tax-funded benefits were combined with unemployment benefit II, thus bringing thus hidden unemployment to light. A further implication of the introduction of Hartz IV reform for young people was that the parental maintenance obligation no longer applied to those who were living in their own accommodation. Prior to the reform, young people were only unable to claim social benefits if they left their parental home and their parents or guardians had sufficient income or possessed significant assets. In reality, parents were responsible for the upkeep of the young people. From the beginning of 2005, these young people were entitled to claim Hartz IV benefits. This usually required them to register as unemployed—which had a particularly significant impact on unemployment statistics according to the Federal Employment Agency's concept. The legislative amendment was frequently used by young people to enable them to leave their parental home. However, over time, access to benefits was restricted again—this was done by placing the obligation on youth welfare offices to prove that it was no longer reasonable for the young person in question or for their parents to continue to live together in the parental home. This put a brake on claims for unemployment benefit.

7 This is due to the different definitions of unemployment used in the two sets of statistics.

Figure 4

Size of Youth Labor Force and Youth Labor Force Participation Rate



Fixed reference week values in the given month until 2004; annual results from 2005.

Sources: Federal Statistical Office, Statistical Office for Berlin-Brandenburg, Eurostat, calculations by DIW Berlin.

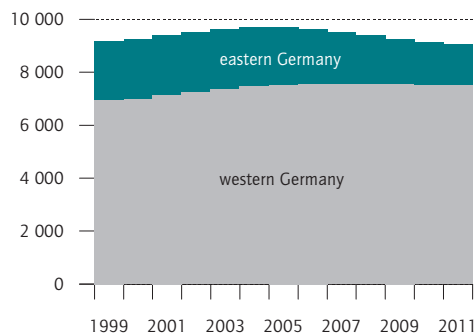
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The labor force participation rate has not changed but the number of young people on the labor market is declining.

Figure 5

Population Aged 15 to 24

1,000 persons



Source: Federal Statistical Office.

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The number of young people is declining—particularly in eastern Germany.

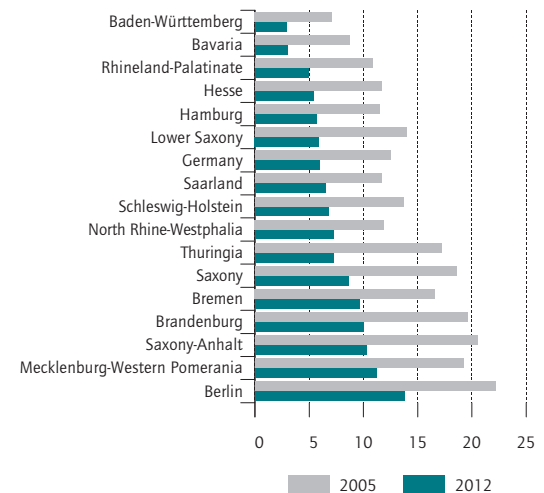
Low Youth Unemployment Goes Hand in Hand with Increasing Regional Concentration

Although the problem of youth unemployment in Germany has eased noticeably from a macroeconomic per-

Figure 6

Youth Unemployment Rates in the Länder¹

In percent



¹ Based on the whole dependent civilian labor force.

Source: Federal Employment Agency.

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The scale of youth unemployment varies dramatically between the Länder.

spective, strong regional differences are still evident. These are particularly significant when we compare the individual administrative districts and autonomous cities. At the lower end of the scale are the regions—exclusively in Bavaria and Baden-Württemberg—where, with a rate of approximately two percent, youth unemployment is of marginal significance (see Table 1). At the other end of the scale, there are regions, for instance, some sparsely populated areas in the north-east of eastern Germany and old industrial regions of western Germany such as the Ruhr valley, Pirmasens, or Bremerhaven, as well as Berlin which have unemployment rates of between almost 13 and 15 percent. In a comparison of the German Länder, Berlin has the highest youth unemployment rate at 13.8 percent; southern Germany has the lowest rate (see Figure 6). In eastern Germany, the corresponding figure is 10.3 percent—almost twice as high as the rate in western Germany (5.5 percent).

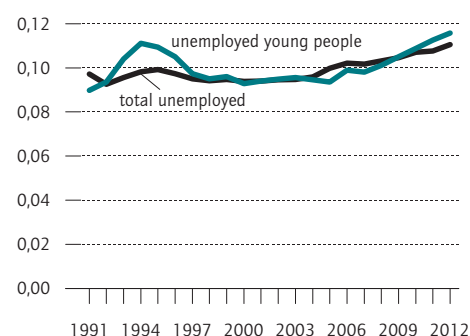
In Germany, as in the EU as a whole, youth unemployment is not an isolated phenomenon, but is correlated with the overall conditions on the various regional labor markets.⁸ Germany's individual districts reflect this: the higher the overall unemployment rate, the higher the

⁸ On the EU, see K. Brenke, "Unemployment in Europe: Young People Hit Much Harder Than Adults," DIW Economic Bulletin, no. 9 (2012).

Figure 7

Concentration of the Number of Unemployed Across the *Länder*

Herfindahl Index



Source: Federal Employment Agency, calculations by DIW Berlin.

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The number of unemployed young people is increasingly concentrated in the individual *Länder*.

youth unemployment rate.⁹ The scale of youth unemployment is, therefore, essentially an indicator of how high overall underemployment is in the individual regions.

Although nationwide youth unemployment has plummeted, its regional concentration has in fact increased. This is evident at the *Länder* level, for example.¹⁰ On the one hand, the concentration can be absolutely determined by only taking into account the regional distribution of the number of unemployed young people across the *Länder*; an appropriate measure for such an analysis is the Herfindahl index. On the other hand, the concentration of unemployed people in relation to the size of the youth labor force in each of the *Länder* can be calculated using suitable inequality measures such as the Hoover index or the Gini coefficient. The higher the measured values are, the greater the concentration or inequality for all key indicators.

In absolute terms, the regional concentration of youth unemployment has consistently grown since 2005 (see Figure 7). In 2012, the Herfindahl index reached its highest value in 20 years. The same is also true with regard to the relative concentration or unequal distribu-

⁹ There is a strong statistical correlation: a calculation from March 2013 results in an R^2 value of 0.91.

¹⁰ As well as studying the concentration of unemployment in the various *Länder*, a smaller scale analysis over the course of time would also be useful. However, such an analysis would be plagued by significant data problems due to various recent forms of restructuring of the districts.

Table 1

Districts and Autonomous Cities with the Highest and Lowest Youth Unemployment in Germany in March 2013

Rank		15 to 24		For information only:
		Number of unemployed	Unemployment rate ¹	Overall unemployment rate ¹
1	Uckermark	923	14.9	16.2
2	Pirmasens, autonomous city	324	14.3	13.6
3	Vorpommern-Greifswald	1,791	14.0	16.2
4	Mecklenburg Lake District	1,932	13.9	15.4
5	Vorpommern-Rügen	1,639	13.9	16.6
6	Brandenburg an der Havel	537	13.8	14.1
7	Bremerhaven	898	13.6	15.3
8	Herne, city	997	13.0	14.3
9	Oberspreewald-Lausitz	731	12.8	15.3
10	Berlin	20,162	12.6	12.3
11	Dortmund	3,630	12.6	13.5
12	Gelsenkirchen	1,788	12.6	14.1
...				
390	Neumarkt i.d.OPf.	215	2.2	2.9
391	Waldshut	295	2.2	3.3
392	Miesbach	141	2.2	3.5
393	Ebersberg	164	2.1	2.6
394	Dillingen a.d.Donau	151	2.1	2.8
395	Freising	237	2.1	2.8
396	Breisgau-Hochschwarzwald	343	2.1	3.5
397	Erding	179	2.0	2.4
398	Neuburg-Schrobenhausen	135	2.0	2.4
399	Freiburg im Breisgau	263	2.0	6.2
400	Starnberg	118	1.9	3.1
401	Donau-Ries	172	1.8	2.2
402	Eichstätt	144	1.6	1.5

¹ Unemployed based on whole civilian labor force.

Source: Federal Employment Agency.

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The youth unemployment rate varies significantly between the regions—in some districts, it is under two percent but over 14 percent in others.

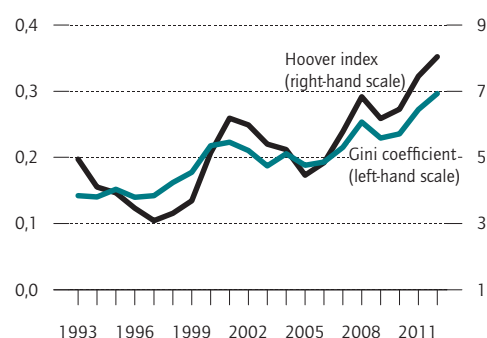
tion (see Figure 8). It is also evident that the extent of the relative concentration of youth unemployment develops procyclically: if economic development improves, the regional concentration of youth unemployment also increases, while if the economy deteriorates, the regional unequal distribution of youth unemployment also decreases. Thus, macroeconomic development affects the regional labor markets to different degrees.

Young People with No Vocational Training Hardest Hit by Unemployment

As with other age cohorts, for young people, too, the risk of unemployment depends on their level of qualification. Young people with no vocational training have much

Figure 8

Unequal Distribution of Youth Unemployment Among the Länder



Source: Federal Employment Agency, calculations by DIW Berlin.

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The unequal distribution of unemployed young people across the individual Länder is growing; and it also fluctuates according to economic cycles.

Table 2

Unemployment Rates by Qualification of Young People and People Aged from 25 to 64

	Unemployment rates		Structure of unemployed	
	Young people	People aged from 25 to 64	Young people	People aged from 25 to 64
2012 – Total				
No vocational training ¹	12	13		
Apprenticeship, technical college qualification ²	6	5		
University degree or technical college qualification ³	4	2		
Total	8	5		
2010 – total				
No vocational training ¹	13	16		
Apprenticeship, technical college qualification ²	7	7		
University degree or technical college qualification ³	7	3		
Total	10	7		
<i>For information only:</i>				
2010 – not including trainees				
No vocational training ¹	29	16	57	27
Apprenticeship, technical college qualification ²	8	7	40	60
University degree or technical college qualification ³	7	3	3	13
Total	14	7	100	100

1 ISCED 0 to 2.

2 ISCED 3 to 4.

3 ISCED 5 to 6.

Sources: Eurostat; Statistical Offices of the Länder (2010 microcensus), calculations by DIW Berlin.

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Almost one in three young people with no vocational qualification is unemployed—and they also account for over half of all unemployed young people.

poorer employment prospects than those who have successfully completed an apprenticeship or a course of study at a technical college. University graduates are even less likely to struggle to find a job. A breakdown by vocational training reveals no significant differences between the unemployment rate among young people and the rate among those over 25 (see Table 2). Only for university graduates does the youth unemployment rate exceed that of adults—the figure is very low, however. Therefore, on the whole, youth unemployment in Germany is linked to a lack of vocational training—even though not all vocational qualifications necessarily mean good job prospects. Here, Germany is dramatically different from other European countries, where young people still have much poorer employment prospects than adults even if they do have a vocational qualification.¹¹

According to the ILO's convention data, youth unemployment in Germany is essentially only higher than unemployment among adults because of the relatively small number of young people without a vocational qualification.¹² Since the calculation of unemployment rates also incorporates trainees (in the bottom of the fraction) who do not usually have a vocational qualification, statistics normally depict the labor market situation for unqualified young people as better than it actually is. An analysis of the individual data from the 2010 Mikrozensus illustrates this: If trainees are factored out of the analysis, the unemployment rate for young people without a vocational qualification is almost 30 percent. In 2010, more than half of unemployed young people had no vocational qualification; the corresponding figure for adults was, at just over a quarter, much smaller.

Shortage of Trainee Placements Largely Remedied—but Not in All Regions

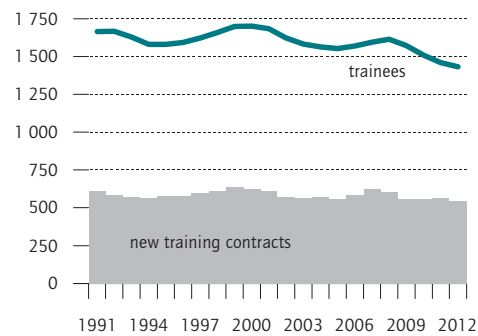
A wide range of training opportunities are therefore an important prerequisite for improving the employment prospects of the next generation. The number of trainees—and hence trainee placements—and the number of new training contracts in Germany also reflect economic trends: when the economic situation is favorable, more training placements are taken up, while in times of economic slowdown there is a cutback in available traineeships (see Figure 9). Accordingly, there has been a decline in the number of new training contracts and trainee placements approximately since the year 2000. At the same time, the number of applicants for trainee placements has also fallen—particularly sin-

¹¹ See Brenke, "Unemployment."

¹² Brenke, "Unemployment."

Figure 9

Number of Trainees and New Training Contracts In 1,000



Source: Federal Statistical Office.

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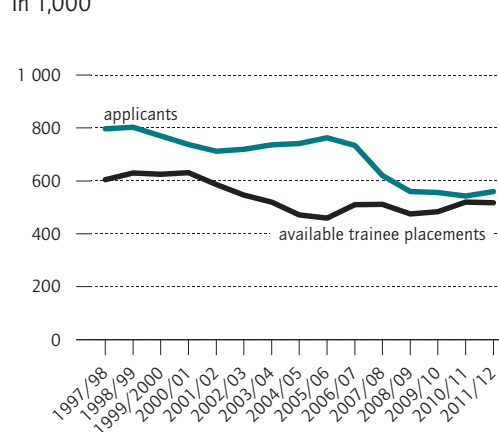
The number of trainees and new training contracts has declined in recent years.

ce the middle of the last decade and primarily for demographic reasons. This led to a situation where from the 2010/11 training year onwards the number of applicants for trainee positions registered with the employment agencies and the number of trainee placements available were virtually identical (see Figure 10). In 2010/11, in purely mathematical terms, it was thus possible to almost close the gap between trainee positions and applicants that has existed in Germany for decades. However, it should also be taken into consideration that there is still a high, albeit steadily decreasing, number of young people who are in a transitional phase, attempting to improve their chances of entering into a vocational training contract by participating in training programs or obtaining school-leaving qualifications at a later stage. These young people are not categorized as applicants for trainee placements. Nevertheless, 266,700 young people in this transitional phase began a training course in 2012; this was 36 percent fewer than in 2005.¹³

The extent of on-the-job vocational training varies considerably between the individual German Länder. This can be seen from the proportion of all employees subject to social security contributions who are trainees. In western Germany, the trainee rate determined on this basis is generally higher than in eastern Germany (see Table 3). In 2012, the north German states in the West were in the lead—with Berlin bringing up the rear. The trainee rate has also fallen much more dramatically in eastern Germany than in western Germany. This may also be because this is precisely where the number of

Figure 10

Supply of and Demand for Trainee Placements Registered with the Employment Agencies In 1,000



A training year is from October of the first-mentioned year to September of the second-mentioned year.

Source: Federal Employment Agency.

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In Germany as a whole—in purely mathematical terms—the shortage of trainee placements that has existed for decades has now been virtually eliminated.

young people is declining due to demographic change, and some companies might be reducing the number of training placements they offer in anticipation of decreasing demand.

This explanation does not go far enough, however. On the one hand, it is precisely in the Länder where youth unemployment is particularly high that the trainee rate is low. On the other hand, in most Länder, the number of available trainee positions registered with the employment offices is not sufficient to satisfy demand. This is the case particularly if only on-the-job trainee placements are taken into account—i.e., if inter-company training positions that have been financed with government subsidies because of a shortage of trainee positions are excluded. Among the west German Länder a surplus of trainee placements was evident in Bavaria, Baden-Württemberg, and Hamburg in the 2011/12 training year (see Figure 11). The same applies to Mecklenburg-Western Pomerania and Thuringia in the East; here, the relatively small number of trainee placements available seems to be sufficient at present in order to exceed the greatly reduced demand for traineeships. Young people's prospects of obtaining a trainee placement in North Rhine-Westphalia and especially in Berlin are particularly poor.

¹³ See: Federal Statistical Office, „6,4 Prozent weniger Anfänger in Bildungsprogrammen des Übergangsbereichs.“ Press release dated March 8, 2013.

Table 3

Proportion of Trainees of All Employees Subject to Social Security Contributions

In percent¹

	2000	2005	2006	2007	2008	2009	2010	2011	2012
Berlin	5.6	5.7	5.6	5.5	5.4	5.2	4.8	4.4	4.1
Brandenburg	6.9	6.8	7.0	6.8	6.5	6.0	5.3	4.7	4.2
Saxony	6.9	6.9	6.9	6.8	6.3	6.0	5.4	4.6	4.3
Thuringia	7.1	7.0	7.0	6.8	6.5	6.1	5.4	4.7	4.3
Saxony-Anhalt	7.1	7.0	6.9	6.7	6.6	6.3	5.6	5.0	4.5
Hamburg	4.5	4.9	4.9	5.0	5.1	5.1	4.9	4.6	4.6
Mecklenburg-Western Pomerania	8.5	8.7	8.6	8.4	7.9	7.3	6.2	5.3	4.7
Hessen	5.4	5.5	5.5	5.6	5.6	5.7	5.5	5.2	5.2
Bremen	5.6	5.9	5.9	5.9	6.0	6.1	6.0	5.7	5.5
Bavaria	6.3	6.4	6.3	6.4	6.4	6.5	6.2	5.9	5.8
Baden-Württemberg	5.9	6.1	6.1	6.3	6.3	6.4	6.1	5.7	5.9
North Rhine-Westphalia	6.0	6.2	6.2	6.4	6.6	6.6	6.4	6.2	6.0
Saarland	6.2	6.3	6.4	6.7	6.8	7.0	6.7	6.4	6.2
Rhineland-Palatinate	7.1	7.2	7.2	7.4	7.5	7.4	7.1	6.8	6.6
Lower Saxony	6.8	6.9	6.9	7.1	7.1	7.2	6.9	6.8	6.7
Schleswig-Holstein	6.9	7.2	7.3	7.5	7.5	7.6	7.3	7.0	6.8
Germany	6.3	6.4	6.4	6.5	6.5	6.4	6.1	5.8	5.6
Western Germany	6.1	6.3	6.3	6.4	6.5	6.5	6.3	6.0	5.9
Eastern Germany	6.9	6.8	6.8	6.7	6.4	6.0	5.4	4.7	4.3

¹ September of the year under review.

Sources: Federal Employment Agency; calculations by DIW Berlin.

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The training rate varies considerably across the individual Länder—and is falling over time.

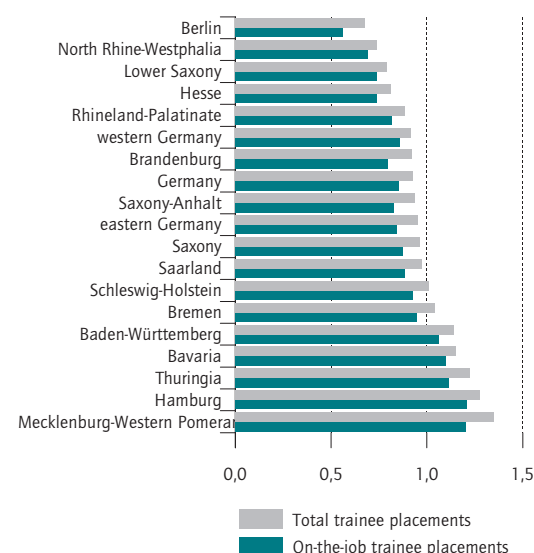
Particularly in Countries with High Youth Unemployment, Vocational Training Is Frequently Abandoned...

Far from every training contract in the German dual system is completed. In 2011, just under one-quarter of the training contracts in Germany were terminated prematurely. There is insufficient information available about the reasons. But it has been documented that the termination rate is highest among skilled manual workers at 31 percent and lowest in the civil service (6 percent).¹⁴ There is no difference between the genders—but a big difference with regard to school-leaving qualifications: For young people without a school-leaving qualification from a Hauptschule (low-track secondary school), the termination rate was 39 percent in 2011, while for those with an Abitur (school-leaving certificate that serves as a qualification for German university entrance) and young people with a Fachhochschulreife (qualification required for attending a university of applied sciences),

¹⁴ Federal Statistical Office, Bildung und Kultur. Berufliche Bildung 2011, Fachserie 11, Reihe 3.

Figure 11

Number of Trainee Placements Registered with the Employment Agencies per Applicant in the Year under Review 2011/2012



Source: Federal Employment Agency; calculations by DIW Berlin.

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In some German *Länder*, there are more trainee placements than applicants, while in others there is a shortage of traineeships.

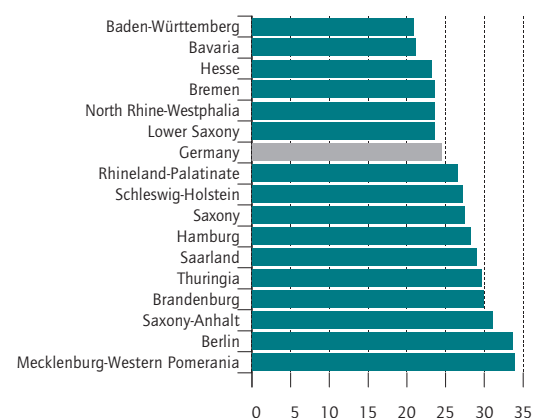
it was only 14 percent.¹⁵ This result might indicate that some of the trainees found their apprenticeship too demanding. There will also be other reasons for abandoning training. Some young people might have decided to train in a different profession—particularly when their original choice was more of a stopgap solution or their career choice did not meet their expectations. It is possible they changed training company but not the actual profession trained in. Family reasons, a move, or illness might play a role—or bankruptcy of the training company. It has also been found that the termination rates vary considerably across the regions: they are lowest in Bavaria and Baden-Württemberg, and highest in the east German Länder (see Figure 12). Perhaps in regions where trainees are in relative short supply, trainers' behavior is different than in areas where there is a shortage of trainee placements.

¹⁵ Federal Statistical Office, Bildung und Kultur.

Figure 12

Training Contracts Terminated Prematurely (2011)

In percent



Source: Federal Statistical Office.

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A significant number of training contracts are terminated prematurely—primarily in the east German *Länder*.

... and a Disproportionately High Number of Young People Leave School with No Qualifications

Since remaining in a vocational training placement and thus also completing it successfully apparently also depends on the school-leaving qualifications obtained, the risk of unemployment can be minimized if as many young people as possible leave school with at least a basic school-leaving qualification (from a *Hauptschule*). In 2011, in Germany as a whole, just under six percent of those leaving schools of general education did not have this basic qualification (see Table 4). Here, too, regional differences are evident: the proportion of school-leavers without qualifications in the east German *Länder* is particularly high, but it is low in southern Germany. It is much higher among young foreigners than among German school-leavers. And it applies to a significantly lower share of girls than boys—this also holds true when a further differentiation is made according to nationality and the German Land.

Table 4

Proportion of All School-Leavers Finishing a School of General Education with No Qualifications in 2011

	Total			Germans			Foreigners		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
Baden-Württemberg	4.9	5.7	4.0	4.0	4.7	3.2	11.3	13.1	9.4
Bayern	4.1	5.1	3.1	3.6	4.5	2.7	10.6	12.7	8.4
Berlin	8.4	9.7	7.1	7.3	8.3	6.2	15.3	18.4	12.1
Brandenburg	8.5	10.3	6.8	8.6	10.3	6.8	7.1	8.7	5.3
Bremen	6.1	7.4	4.7	4.9	5.8	4.1	12.7	17.1	8.6
Hamburg	7.0	8.1	5.9	6.0	7.1	5.0	12.4	13.8	11.0
Hessen	5.1	5.9	4.3	4.1	4.9	3.4	11.7	13.0	10.3
Mecklenburg-Western Pomerania	14.1	16.4	11.5	14.0	16.2	11.5	18.1	23.3	12.6
Lower Saxony	4.9	6.0	3.9	4.4	5.3	3.5	15.7	19.0	12.2
North Rhine-Westphalia	5.4	6.3	4.4	4.6	5.4	3.8	11.3	13.1	9.5
Rheinland-Pfalz	5.6	6.7	4.4	5.1	6.2	4.0	10.8	12.8	8.7
Saarland	5.0	6.0	3.9	4.5	5.5	3.4	10.6	12.2	9.0
Saxony	9.8	11.7	7.8	9.7	11.6	7.7	11.7	13.8	9.4
Saxony-Anhalt	11.9	13.9	9.7	11.7	13.7	9.5	19.6	20.0	19.2
Schleswig-Holstein	7.1	8.8	5.4	6.9	8.4	5.3	11.8	15.6	7.8
Thuringia	8.6	10.2	7.0	8.6	10.1	7.0	10.6	14.5	6.7
Germany	5.6	6.7	4.5	5.0	6.0	4.0	11.8	13.8	9.7
Western Germany	5.0	6.0	4.0	4.4	5.2	3.5	11.6	13.5	9.5
Eastern Germany	9.7	11.5	7.9	9.5	11.1	7.7	14.2	17.0	11.3

Sources: Federal Employment Agency; calculations by DIW Berlin.

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Particularly in eastern Germany, a relatively high proportion of young men and foreigners leave school with no qualifications.

Conclusion

Youth unemployment in Germany has fallen significantly in recent years and is lower than in any other country in the EU. In light of this, the underemployment of the younger generation could almost be considered to be a negligible problem in Germany. But it is not that simple. On the one hand, youth unemployment has not fallen because of a general improvement of German labor market conditions, but primarily because the number of young people has decreased—and therefore there is also a reduced demand for jobs and trainee placements. On the other hand, an increase in regional concentration of residual youth unemployment is evident. In addition, it cannot be ignored that a decreasing but nevertheless high number of young people are in a transitional phase attending a training course, and thus temporarily excluded from the market for trainee placements and employment.

Indeed in some parts of western Germany, youth unemployment barely plays a role nowadays—particularly in the south. There is even a surplus of supply on the trainee placement market there, the number of terminated training contracts is relatively low, as is the proportion of school-leavers without any qualifications. However, the picture is very bleak in eastern Germany—as well as in some old industrial regions of western Germany. The problem in Berlin is particularly acute: this city has the highest youth unemployment and the lowest training rate among the German Länder, and also a significant shortage of trainee placements. At the same time, there is a high training dropout rate and a relatively large proportion of young people who leave school with no qualifications.

Germany is therefore divided as regards employment opportunities and the conditions for practical vocational training for young people. The relevant regional situation on the labor and trainee placement market is likely to have an impact on society—in the behavior and attitudes of its members. A persistently high level of unemployment can lead to resignation and demotivation. Widespread unemployment in one region could bring habit-forming effects in its wake, since it is commonplace among family, friends, and acquaintances. In some sections of the population, unemployment may therefore not be perceived as something out of the ordinary but rather as the norm.¹⁶ The social impact, which sets incentives for learning, may therefore be insufficient.

Consequently, young people in regions with high unemployment may have the impression that even with increased effort at school or on a vocational training placement, their future employment prospects will remain poor. The social structure also plays a role.¹⁷ Furthermore, sometimes as a result of a limited range of trainee placements, young people embark on training but only as a stopgap solution and not as a conscious career choice. This is the start of a vicious circle: a tense situation on the labor and trainee placement market leads to behavior among young people that presents an obstacle to creating a qualified and skilled workforce—thus slowing down economic development potential in a region.

In view of the fact that the age cohorts of the upcoming generation are becoming smaller, Germany cannot afford to let human capital be wasted and young people go without vocational training. For a long time, there was a considerable shortage of on-the-job training placements, which—from a macroeconomic perspective—has now been rectified to some extent. It continues to exist in some regions, however. The number of trainee positions has not increased in accordance with the trend, but has decreased instead. This can essentially only be because there was no need for increased training on the part of the companies, since they are able to draw from a large enough pool of potential labor. Also concerning applicants for trainee placements, for a long time they could pick and choose, so that it was not unusual for a degree from a university of applied sciences or Abitur to be required for a trainee position. In the future, *nolens volens*, companies will increasingly have to also give a chance to young people who have a school-leaving qualification from a *Realschule* (intermediate-track secondary school) or a *Hauptschule* (low-track secondary school). Particularly in regions with lower levels of unemployment, companies are expected to have to compete more for applicants for trainee placements.

In qualitative terms, the range of trainee placements available is far from optimal. In a number of occupations requiring formal training, in the past, more training was provided than was needed. This is also related to the fact that in some professions, the revenue trainees generate for the company outweighs the costs they incur. Moreover, training provided by some inter-company and state-funded training centers was geared towards their own respective competences and possibilities—not necessarily primarily towards the needs of the labor market. The relevant training courses include, for example, hairdressing (in June 2011, there was one trainee for only five employees with a regular con-

¹⁶ It has been documented that training patterns and unemployment of young people are also affected by their household situation circumstances. See, for example, E. Reinowski, *Jugendarbeitslosigkeit und der Einfluss des Elternhauses. Ist der Osten anders?* *Wirtschaft im Wandel*, no. 7 (2005).

¹⁷ See S. J. Wagner, *Jugendliche ohne Berufsausbildung* (Aachen, 2005).

tract) for young women, the professions of painter and varnisher (unemployment rate of over 20 percent) for young men, and cooks (unemployment rate also over 20 percent)¹⁸ for both sexes. What is also particularly striking is a strong concentration of training in relatively few professions—still with strong gender-specific differences, with the concentration among female trainees even greater than among male ones: in the 2011/12 training year, 56 percent of male apprentices were trained in the 20 professions they most frequently selected, while the corresponding figure for female trainees was 70 percent.¹⁹ This is certainly also due to the popularity of some professions among young people—which in turn is also because they are familiar with some professions—for instance, from everyday life or their circle of friends. On the other hand, they might have insufficient knowledge about other occupations, which could well be what some young people want and provide good job prospects. Here, the availability of more information in schools could make an important difference.

Both from a macroeconomic and from an individual business perspective, the procyclical training patterns of companies to date is not very rational. On-the-job training generally lasts three years, and if not much training is carried out during an economic downturn, skilled workers can become scarce in an upswing. Or in a period of economic slowdown, it is evident that the training has exceeded current requirements for the next generation of skilled workers—so that some of the training graduates cannot be subsequently taken on. Greater consistency is needed here.

The growing regional concentration of youth unemployment suggests inadequate geographical mobility among some young people. There appear to be insufficient incentives for them to leave their region of residence to pursue a job or training placement. There may be specific considerations for keeping them in their region, or there may be a lack of incentives to take up employment or training in another region. Currently, local companies, particularly from southern Germany, are increasingly recruiting young people from the crisis countries of southern Europe; however, this ignores the fact that within Germany, too, there is still a sizeable potential pool of young people who are looking for a training placement or job. It would be useful to also tap into this potential—for instance, by providing accommodation for trainees or young employees.

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¹⁸ Unemployment rates calculated on the basis of figures for the unemployed and employees subject to social security contributions in the relevant professions in June 2011.

¹⁹ See Federal Statistical Office, Bildung und Kultur.



Karl Brenke, Research Associate and Scientific Advisor to the Executive Board at DIW Berlin.

SEVEN QUESTIONS TO KARL BRENKE

»Lack of Training for Young People Continues to be a Cause for Concern«

1. Mr. Brenke, how has youth unemployment in Germany developed in recent years, and what's the situation today? Youth unemployment has fallen considerably. According to statistics from the Federal Employment Agency (Bundesagentur für Arbeit), youth unemployment is currently at six percent, and according to statistics from Eurostat it is at eight percent.
2. What has happened to alleviate this situation? There are basically two reasons. On the one hand, employment in Germany has generally developed favorably in recent years. This has contributed significantly to a drop in youth unemployment, too. The second key reason is that the number of young people is simply decreasing for demographic reasons and if there are fewer young people on the labor market, fewer can become unemployed.
3. In what regions of Germany is youth unemployment most prevalent? We have regions where we still have youth unemployment of around 15 percent, and then there are areas where we have completely insignificant levels of youth unemployment, around two percent, for instance, in regions of southern Germany. The highest levels are found in the old industrial regions of the Ruhr valley, and also primarily in eastern Germany.
4. How many unemployed young people have no vocational training? Over half of young unemployed people have no formal vocational training. Youth unemployment in Germany is therefore primarily linked to a lack of qualifications because young people who have not completed their training or education have relatively poor prospects of finding a job. If they are qualified, however, young people are in no worse a position than

adults. Here, we have relatively low unemployment rates.

5. Is there still a shortage of trainee placements? There is still a considerable shortage on the trainee placement market in some areas, including some large cities. Right at the bottom of the league for providing trainee placements is Berlin, where we still have a considerable deficit of traineeships. On the other hand, there are regions in southern Germany where it is the trainees who are in short supply.
6. What does the situation look like in other countries in Europe? Youth unemployment is considerably higher in other European countries. In comparison, we can almost refer to a luxury problem here in Germany. Other countries also have the difficulty that even if they have completed vocational training, young people are at a disadvantage compared to adults. We do not have this phenomenon here in Germany. But even in Germany, there is still plenty of room for improvement.
7. What needs to be done to further reduce youth unemployment in Germany? I am skeptical as far as the various programs for reducing youth unemployment are concerned. We have 40 years of experience of these programs in Germany but with somewhat dubious success. In my view, it is essential for companies to provide a sufficient number of trainee placements. So far, the state or employment agencies have had to become involved in offering training because companies do not provide enough placements. An attempt must also be made to reduce the number of young people who leave school without even the most basic school-leaving qualification. And another question to be addressed is why many young people fail to complete their training.

Interview by Erich Wittenberg.

Corporate Taxation: High Profits, Moderate Tax Revenue

by Stefan Bach

If the revenue from corporate taxation in Germany is divided by the corporate income figures from national accounts, companies' average tax burden for the period 2001 to 2008 is 21 percent. This rate is considerably lower than the statutory tax rates for this period. The reason for this is that tax-reported corporate income was well below macroeconomic corporate income. This taxation gap was something in the order of at least 120 billion euros in 2007, or almost five percent of gross domestic product (GDP). Moreover, the high level of tax losses and tax losses carried forward is significant. The losses carried forward for corporate income tax rose to 568 billion euros by the end of 2007. This was equivalent to 23.5 percent of GDP and 3.5 times the corporate income tax base for that year. As a result of broadening the tax base as part of the corporate tax reform of 2008, the taxation gap has diminished significantly, but it was still at about 90 billion euros, or 3.7 percent of GDP. Due to a lack of detailed statistics, it is currently not possible to accurately identify the reasons for the difference between macroeconomic profit figures and the corporate tax base.

In January 2007, DIW Berlin published a study on tax revenues and the corporate income tax base in Germany.¹ The study evaluated tax statistics available up to 2001. A significant underutilization of tax bases has been measured against comparable income aggregates from the national accounts statistics. Furthermore, it showed significant tax losses and tax losses carried forward. At the time, the study was greeted with interest in the context of discussions on corporate income tax reform in 2008. The calculated gap between corporate income from the national accounts and taxable profits was widely discussed in the context of cross-border profit transfers at the expense of the German tax authorities.² However, the study was unable to make specific statements in this regard.³ The following are revised and updated calculations about tax revenues and the tax base of corporate income taxation in Germany.⁴

¹ S. Bach and N. Dwenger, "Unternehmensbesteuerung: Trotz hoher Steuersätze mäßiges Aufkommen," Wochenbericht des DIW Berlin, no. 5 (2007). www.diw.de/documents/publikationen/73/diw_01.c.55734.de/07-5-1.pdf

² See the explanatory memorandum on the CDU/CSU and SPD coalition's bill on the draft Corporate Income Tax Reform Act of 2008, Bundestag printed paper 16/4841, 29, and J.H. Heckemeyer and C. Spengel, "Ausmaß der Gewinnverlagerung multinationaler Unternehmen-empirische Evidenz und Implikationen für die deutsche Steuerpolitik," Perspektiven der Wirtschaftspolitik 9 (1) (2008): 37-61; BDI und VCI, "Die Steuerbelastung der Unternehmen in Deutschland," Facts for political debate in 2008 (Cologne). www.bdi.eu/download_content/Marketing/VCI_BDI_Steuerbelastung_der_Unternehmen.pdf, 26; B. Jonas, Volumen von Steuersubstratverlagerungen in Outbound-Fällen (2009). Tax-centered legal advice. Festschrift for Harald Schaumburg's 65th birthday, published by Wolfgang Spindler and others, Cologne, 793 ff.

³ The study only focused on the significant gap between the corporate income figures of the national accounts and the corporate income in tax statistics of 100 billion euros and more in 2001, addressing "tax incentives and options which businesses hide their taxable income or relocate abroad" (Bach and Dwenger, "Unternehmensbesteuerung").

⁴ S. Bach, "Has German Business Income Taxation Raised Too Little Revenue Over the Last Decades?" DIW Berlin Discussion Paper 1303. www.diw.de/sixcms/detail.php?id=diw_01.c.421801.de.

Table 1

Business taxation revenue¹ in Germany, 1992-2008

Billion Euro

Nr.		1992	1995	1998	2001	2004	2007	2008
	Local business tax							
1	Assessed local business tax ²	22.5	20.7	24.5	23.2	28.4	42.2	39.9
2	Sole proprietors	3.4	2.1	2.2	2.4	2.5	4.0	4.6
3	Partnerships	7.9	6.2	7.0	7.7	8.7	13.0	11.5
4	Corporations	11.3	12.3	15.3	13.0	17.3	25.2	23.8
	Corporate income tax							
5	Owed corporate income tax liability ³	16.3	13.5	18.7	8.8	16.5	21.0	12.3
6	Withholding taxes on capital credited ⁴	2.0	4.4	7.7	8.2	6.3	10.6	11.4
7	Gross revenue	18.3	17.9	26.4	16.9	22.8	31.6	23.7
8	Solidarity surcharge on gross revenue	0.7	1.3	1.5	0.9	1.3	1.7	1.3
	Personal income tax							
9	Assessed personal income tax liability ⁵	136.9	142.3	165.1	170.6	180.8	211.0	220.0
10	Assessed personal income tax liability after deduction of child allowances ⁶ thereof ⁷	136.9	142.3	152.1	153.0	163.5	192.9	202.6
11	on total business income	31.7	28.9	36.5	30.3	30.0	41.7	43.8
12	on income from business enterprise	21.1	17.9	23.2	16.1	15.8	24.5	25.7
13	on partnerships' business income	11.0	11.7	15.8	11.1	11.5	18.0	18.9
14	on dividend income	-1.3	-1.6	-0.9	-0.9	1.0	2.3	2.4
15	Assessed solidarity surcharge thereof ⁷	5.3	9.9	8.2	8.3	8.6	10.3	10.8
16	on total business income	1.2	2.0	1.8	1.5	1.4	2.0	2.1
17	on income from business enterprise	0.8	1.2	1.2	0.8	0.8	1.2	1.3
18	on business income of partnerships	0.4	0.8	0.8	0.5	0.5	0.9	0.9
19	on dividend income	-0.0	-0.1	-0.0	-0.0	0.0	0.1	0.1
	Withholding taxes on capital not credited							
20	Withholding taxes on capital not credited	1.8	3.8	4.0	11.8	3.6	6.4	7.7
21	Solidarity surcharge	0.1	0.3	0.2	0.6	0.2	0.4	0.4
	Total business taxation							
22	Taxes on business and dividend income (1+7+8+11+14+16+19+20+21) thereof	75.0	73.3	94.0	84.4	88.8	128.4	121.5
23	Taxes on business income (1+7+8+11+16)	74.4	70.8	90.7	72.8	84.0	119.2	110.9
24	Taxes on income from business enterprise (1+7+8+12+17)	63.4	59.1	76.8	58.0	69.0	101.2	92.0
25	Taxes on income of corporations and partnerships (3+4+7+8+13+18)	49.6	50.3	66.8	50.3	62.0	90.3	80.1
	Business taxation revenue as percent of gross domestic product (GDP)							
26	Taxes on business and dividend income (22) thereof	4.6	4.0	4.8	4.0	4.0	5.3	4.9
27	Taxes on business income (23)	4.5	3.8	4.6	3.5	3.8	4.9	4.5
28	Taxes on income from business enterprise (24)	3.8	3.2	3.9	2.8	3.1	4.2	3.7
29	Taxes on income of corporations and partnerships (25)	3.0	2.7	3.4	2.4	2.8	3.7	3.2
	Business taxation revenue as percent of total tax revenue⁸							
30	Taxes on business and dividend income (22) thereof	20.4	18.1	21.7	18.4	19.1	23.0	21.2
31	Taxes on business income (23)	20.2	17.5	20.9	15.8	18.1	21.4	19.4
32	Taxes on income from business enterprise (24)	17.2	14.6	17.7	12.6	14.9	18.1	16.1
33	Taxes on income of corporations and partnerships (25)	13.5	12.4	15.4	10.9	13.4	16.2	14.0

1) Results from the tax statistics for the relevant years.- 2) 1992 and 2008: Estimation.- 3) Tax liability after crediting withholding taxes on capital income and domestic corporate income tax on received dividends (full imputation procedure until 2001).- 4) Including withholding tax on interest.- 5) After deduction of credited corporate income tax on dividends up to 2001.- 6) From 1998 onwards: Assessed income tax liability minus tax relief from child allowances (estimation of Federal Ministry of Finance Germany).- 7) Allocation of assessed income tax and solidarity surcharge liability according to the share of business income in total income, both positive and negative.- 8) Less social contributions, from national accounts. Sources: Federal Statistical Office Germany (Destatis); Federal Ministry of Finance Germany; own estimations.

Corporate Tax Revenue Increased Significantly Until 2007...

Published results of tax statistics for the years 1992 to 2008 (see Table 1 and Box 1) were used to calculate the corporate income tax revenue accrued in the single tax years. Due to the lengthy assessment procedures, more recent results of the tax statistics are not yet available.

Tax revenues on corporate income in 2008 totaled 111 billion euros (see item 23 in Table 1) or 4.5 percent of GDP (see item 27 in Table 1). Including dividend taxation, corporate income tax revenue was 122 billion euros, or 4.9 percent of GDP (see items 22 and 26 in Table 1). The decline in tax revenue compared to 2007 was mainly due to the onset of the recession and rate reductions in the corporate income tax reform of 2008. At the same time, this reform also led to a significant broadening of the tax base, the decline in tax revenues was

only moderate. Corporate income taxation accounts for around one-fifth of total tax revenues.

... But Corporate Income Increased Even More

In the past ten years, corporate income have increased significantly more than gross domestic product (GDP) or gross national income (GNI,⁵ see Figure). This applies in particular to profits in the “corporations” sector in national accounts, which also includes joint partnerships. On the basis of similar calculations by the Europe-

⁵ Gross national income is gross domestic product plus the balance of primary income from and to abroad. Since 2005, this balance has been around +2 percent of GDP.

Box 1

Calculating Accrued Corporate Tax Revenue

Corporate tax statistics contain essential information for tax assessments. They record tax bases and tax rates originating in the relevant assessment years. Up to 2004, corporate income tax statistics were only compiled every three years, and since then every year. In contrast, revenue statistics from current corporate income tax revenue shows running advance payments, as well as retrospective tax payments and tax refunds for previous assessment years, which may differ significantly from the tax burden accrued to the relevant tax year.

For corporate income tax, gross revenue is calculated by adding withholding taxes on capital income credited against the tax liability (see lines 6 and 7 in Table 1). This revenue is the difference between the corporate income tax liability and the corporate income tax to be credited to dividends received (imputation system up to 2001). Compared to the previous study conducted in January 2007, revenue from foreign corporate taxpayers (foreign companies with operations in Germany) is also taken into account. Furthermore, the solidarity surcharge on corporate income tax is also calculated.

With personal income tax revenue, we calculate the share that is attributable to business income. The starting point is the assessed income tax liability, taking into account child

allowances for all taxpayers, child benefit is not included.¹ Based on the personal income tax statistics, the individual tax burden is divided according to the proportion of income from one income source (positive and negative) to total income from the respective income source.² Local business tax credits and tax rate limits for business income (up to 2000) are attributed to business income.

Furthermore, revenue from non-creditable withholding taxes on capital income is estimated, that is, the portion of withholding capital tax revenue not credited in the personal income tax or corporate income tax assessment. Here, annual revenue from withholding taxes on capital income are compared to tax credit amounts shown in personal and corporate income tax statistics.

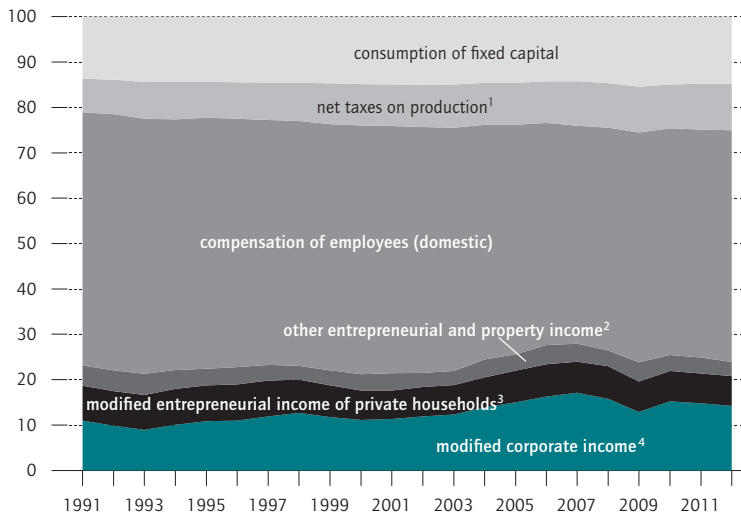
¹ Until 1995, child benefit and child allowance were granted independently of each other. According to the concept of the family benefit allowance which has been in force since 1996 (“option model,” section 31 of the Income Tax Act), child benefit relieves the tax burden for most taxpayers in place of child allowance. When assessing income tax, a check is performed to see which is the more favorable, child benefit or the tax relief effect of child allowance.

² See S. Bach and H. Buslei, “The Impact of Losses on Income Tax Revenue and Implicit Tax Rates of Different Income Sources. Evidence from Microsimulation Using Tax Statistics for Germany,” DIW Berlin Discussion Paper 950 (2009). www.diw.de/documents/publikationen/73/diw_01c.343857.de/dp950.pdf.

Figure

Distribution of gross national income (GNI), 1991-2012

Shares in percent



1) Taxes on production and imports less subsidies.- 2) Entrepreneurial and property income national accounts, less modified entrepreneurial income of private households and corporate income (see the following footnotes).- 3) Entrepreneurial income national accounts, less non-taxable subsidies (estimation).- 4) Entrepreneurial income national accounts, less non-taxable subsidies (estimation), corporate income of the central reserve bank, reinvested earnings on direct foreign investment received, and dividend income received.

Sources: Federal Statistical Office, calculations by DIW Berlin.

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Profits from incorporated companies have become increasingly significant.

an Commission,⁶ we have derived a corporate income aggregate from the national accounts statistics, which approximates taxable corporate income as close as possible (see Box 2 and the derivation in Table 3).

If we base the resulting modified macroeconomic corporate income on gross national income (GNI), formerly known as gross national product, there is a significant increase in the income share compared to other incomes. From 1992 to 2008, the proportion of profits from incorporated companies to gross national income increased by almost six percentage points. The share of total entrepreneurial and property income rose by 4.3 percentage points in this period, while the share of labor income fell by 7.3 percentage points. This trend of rising income shares, in particular for incorporated companies, can be observed in a number of European

countries.⁷ During the severe recession of 2008/2009, the proportion of entrepreneurial and property income sank significantly, but that decline was partly halted due to the rapid recovery of the German economy in the years that followed.

Significant Drop in Average Tax Burden since Early '90s

Calculated in absolute terms the modified corporate income aggregate increased by 140 percent from 1992 to 2008. However, the tax revenue from incorporated companies and partnerships (see item 25 in Table 1) increased by only 62 percent. Thus, the average corporate income tax burden for incorporated companies and partnerships in relation to macroeconomic corporate income has declined significantly since 1992. Through the use of tax statistics, which allow local business tax and income tax revenue to be divided into partnerships and sole proprietorships, we can calculate the overall implicit tax rates on corporate income from Germany's incorporated companies and partnerships (see Table 2).⁸ Here, the tax revenue from corporations and partnerships (see item 25 in Table 1) is divided by corporate income from national accounts, which also includes profits from joint partnerships. For better comparability with the results of the European Commission for the remaining countries, in Table 2 we also indicate the macroeconomic corporate income according to the Commission's concept. The implicit tax rates are calculated for these figures, too.⁹

As a result, the overall implicit tax rates are significantly lower than statutory tax rates. The significant decline in implicit tax rates since the early '90s is remarkable. First, this reflects the significant tax base erosion compared to the macroeconomic corporate income in that years. Second, for 2001 and subsequent years, there have been noticeable tax rate cuts from tax reforms since 1999. Up until 2007, implicit tax rates rose slightly

⁷ J. Piotrowska and W. Vanborren, "The corporate income tax rate-revenue paradox: Evidence in the EU," Taxation Papers 12, Directorate General Taxation and Customs Union, European Commission (2008). http://ec.europa.eu/taxation_customs/resources/documents/taxation/gen_info/economic_analysis/tax_papers/taxation_paper_12_en.pdf.

⁸ In its study on development trends and tax system structures, the European Commission calculated macroeconomic average implicit tax rates for income from incorporated companies ("corporate income"), see European Commission, Taxation trends, 257. For Germany, there is no information on this, since current revenue statistics do not allow for any allocation of local business and income tax revenues to partnerships and sole proprietorships. For information about the method, see European Commission, Taxation trends in the European Union, 275 ff.

⁹ For information on the calculations for the remaining countries, see European Commission, Taxation trends, Table D.3.1.1, 257.

⁶ European Commission, Taxation trends in the European Union: Data for the EU Member States, Iceland and Norway. 2013 edition. http://ec.europa.eu/taxation_customs/resources/documents/taxation/gen_info/economic_analysis/tax_structures/2013/report.pdf, 289 ff.

Box 2

Modified Corporate Income Based on the National Accounts Statistics for Calculating Implicit Tax Rates and the Comparison with Tax Statistics

The German national accounts statistics according to the current revision from February 2013 are used to determine aggregate corporate income. The initial figures for the calculations are net entrepreneurial income (see item B.4n ESA 95 Code) for corporations, which, in accordance with international conventions, also include partnerships. Reinvested earnings on direct foreign investment received by resident firms (see item D.43rec ESA 95 Code) are then deducted since this income is usually tax free in Germany. Received dividend income (see item D.42rec ESA 95 Code) is also deducted to avoid double counting of this income for the paying and receiving company. Finally, we adjust corporate income to allow for tax-free subsidies, estimated at 20 percent of the category "production subsidies other than on products" (see item D.39rec ESA 95 Code),¹ and the corporate income of the Bundesbank.

Other tax-exempt corporate income appearing in aggregated national accounts cannot be quantified, such as sovereignty businesses in the case of public utilities or non-profit companies, or the effects of other personnel tax exemptions (Sections 5 and 6 of the German Corporate Income Tax Act, Section 3 of the German Income Tax Act). Larger profits ought not to occur in these areas. In addition, public corporations with economic activities allocated as commercial operations are, in principle, subject to corporate income and local business tax (Section 4 of the German Corporate Income Tax Act).

The resulting modified corporate income is the basis for calculating implicit macroeconomic tax rates. Here, tax revenue from corporations and partnerships (see item 25 in Table 1) is based on this figure.

For the specific comparison of modified corporate income with the "adjusted gross income" as identified in the tax

assessment and shown in the tax statistics,² more changes are made based on national accounts information pertaining to received dividends and local business tax (see Table 3):

- Corporate income from national accounts is not corrected for dividends received up to 2001. This corresponds to the application of the tax imputation system up to 2001 for corporate income tax, where received dividends increased the taxable income of corporate taxpayers and the double burden was reduced by crediting domestic corporate income tax. From 2002, national accounts corporate income of non-financial incorporated companies is reduced by 95 percent of received dividends, in order to take into account the flat rate for operating expenses of five percent of tax-exempted dividend income. National accounts corporate income for financial incorporated companies (banks and insurance companies) is only reduced by 30 percent. With this correction, only partial relief is taken into account on dividends received for these companies (see special regulations in Section 8b, paragraphs 7 and 8 of the German Corporate Income Tax Act).³
- As local business tax was deducted from taxable corporate income up until 2007, macroeconomic income up to 2007 is reduced by local business tax revenue.

² Adjusted gross income is the sum of all taxable income, that is, income from businesses enterprise, selfemployment, etc., less income-specific operating expenses and other income-related expenses as well as adjustments for non-deductible expenses, less charitable donations and contributions, and before the deduction losses carried forward or back from other tax years.

³ Current information on the shareholdings of banks and their investments in companies provides banking statistics on the German Federal Bank: www.bundesbank.de/Navigation/DE/Statistiken/Banken_und_andere_finanzielle_Institute/banken_und_andere_finanzielle_institute.html.

¹ Bach and Dwenger, "Unternehmensbesteuerung," 62 f.

because corporate income tax revenue grew faster than referenced profits. In 2008, implicit tax rates decreased due to the slump in tax revenues, reduction in tax rates, and broadening of tax bases in the course of the corporate income tax reform.

Sustained High Taxation Gap

In DIW Berlin's study from January 2007, we compared corporate income from the national accounts with the corporate income reported in tax statistic. In the comparative analysis presented here for tax statistics referring to 2008 (see Table 3), modified corporate income from the national accounts for incorporated companies including partnerships are used as macroeconomic income base (see Table 2 and Box 2). To make these fi-

Table 2

**Tax revenue, corporate income, and implicit tax rates of corporations including partnerships
1992-2008**

	1992	1995	1998	2001	2004	2007	2008
	billion euros						
Taxes on corporate income ¹	49.6	50.3	66.8	50.3	62.0	90.3	80.1
Reference income corporations, national accounts							
Entrepreneurial income, corporations	200.1	239.6	305.2	329.1	407.4	567.6	500.2
- reinvested earnings on foreign investm. received	-1.1	0.8	1.9	-19.8	18.8	30.9	-21.0
- dividend income from residents (estimation)	18.9	17.7	29.6	65.4	39.6	49.4	54.5
Corporate income, European Commission	182.4	221.1	273.7	283.4	349.0	487.3	466.7
- other dividend income received	8.1	11.5	17.1	36.6	36.8	55.6	63.4
- non-taxable subsidies (estimated), corporate income of the central reserve bank	11.4	10.5	10.7	10.6	4.2	8.5	8.7
Modified corporate income	162.9	199.1	245.9	236.2	308.0	423.2	394.6
	percent						
Implicit tax rates							
based on corporate income, European Commission	27.2	22.7	24.4	17.7	17.8	18.5	17.2
based on modified corporate income	30.4	25.3	27.2	21.3	20.1	21.3	20.3
For comparison: statutory tax rates ²	47.1	43.1	42.8	38.3	38.3	38.3	29.8

1) Results of the tax statistics for the relevant years. Local business tax, corporate income tax, personal income tax share on partnership income, solidarity surcharge.- 2) Of incorporated firms: corporate income tax (until 2001 on distributed profits), solidarity surcharge, local business tax, excluding taxation of distributed profits at the shareholder level.

Sources: Federal Statistical Office Germany (Destatis); own estimations..

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figures comparable with “adjusted gross income” from the tax statistics for the various years, further changes were made to distributed profits and local business tax revenue (see Table 3 and Box 2).

The calculations show a considerable “taxation gap” between the reference income from the national accounts and taxable business income (see items 22-24 in Table 3) continuing until 2008. A comparison of profit cases reported in tax statistics (see item 22 in Table 3) for 2004 alone shows a difference of 91 billion euros, or 4.1 percent of GDP. For 2001, this difference was slightly higher.¹⁰ Taking into account losses, which should also be included in macroeconomic business income figures, the taxation gap in 2004 was actually 180 billion euros (see item 24 in Table 3). Also, there is an additional 15 billion euros if adjustments are made for double counting of profits and losses from investments by partnerships or corporations in partnerships (see item

18 in Table 3).¹¹ The taxation gap increased significantly up to 2007. For profit cases, 120 billion euros, or almost five percent of GDP, were achieved in this year. The gap decreased by 30 billion euros in 2008. This is probably due mainly to the broadening of the tax base through the corporate income tax reform of 2008. This decline corresponds to estimates submitted in advance of this reform.¹²

The high level of tax losses and losses carried forward is significant. As evidenced by the corporate income tax statistics, losses in 2004 amounted to 59 billion euros. In relation to positive incomes amounting to 111 billion euros, they accounted for 53 percent. By 2007, although profits rose sharply, losses remained at a high level. In 2008, losses picked up again, which was probably due to the onset of recession. But profits increased, perhaps most notably as a result of the broadening of the tax base.

¹⁰ In the study from January 2007, a difference of 96.6 billion euros was given for 2001. However, national accounts corporate income has not been adjusted for reinvested earnings from abroad (item D.43rec of ESA 95 Code). Since this figure was negative in that year, the difference increases. Other minor differences to previous results can be attributed to methodological adjustments.

¹¹ Partnerships are taxed “transparently” in Germany, that is, profits or losses are allocated to its shareholders. The local business tax statistics allows for an adjustment of double counting profits and losses, see items 16 to 18 in Table 3.

¹² S. Bach, H. Buslei, N. Dwenger, and F. Fossen, Dokumentation des Mikrosimulationsmodells BizTax zur Unternehmensbesteuerung in Deutschland (2008). Data Documentation 29 DIW Berlin. www.diw.de/documents/publikationen/73/diw_01.c.79803.de/diw_datadoc_2008-029.pdf, 52.

Table 3

Business income of corporations incl. partnerships in national accounts and tax statistics, 1992-2008

In billion euros

No.		1992	1995	1998	2000	2004	2007	2008
	National accounts, corporations¹							
1	Entrepreneurial income thereof:	200.1	239.6	305.2	329.1	407.4	567.6	500.2
2	Non-financial corporations	158.7	189.0	247.0	279.2	338.2	478.3	426.8
3	Financial corporations	41.4	50.6	58.3	49.9	69.2	89.3	73.3
4	- non-taxable subsidies nonfinancial corporations ²	4.0	5.3	5.1	4.8	3.9	4.3	4.4
5	- corporate income of the central reserve bank ³	7.4	5.2	5.6	5.8	0.3	4.2	4.3
6	- tax-exempted dividend income as of 2002 ⁴					49.3	63.1	76.8
7	- reinvest. earnings on foreign investm. received	-1.1	0.8	1.9	-19.8	18.8	30.9	-21.0
8	- local business tax	21.8	20.5	24.5	23.3	27.0	38.1	
9	Reference income corporations, national accounts (1-4-5-6-7-8)	168.1	207.8	268.1	315.0	308.2	427.0	435.8
	Tax statistics, partnerships and corporations							
	Statistics of partnerships and similar communities							
	Profit cases							
10	Adjusted gross income	54.1	59.6	88.6	99.2	106.1	146.8	152.7
	Loss cases							
11	Adjusted gross income	-18.8	-35.9	-34.5	-44.5	-30.7	-25.9	-26.6
	Corporate income tax statistics							
	Profit cases							
12	Adjusted gross income ⁵	63.6	83.0	129.6	118.4	111.0	160.2	191.2
13	Taxable income	58.8	67.0	102.6	95.1	92.8	131.3	164.0
	Loss cases							
14	Adjusted gross income ⁵	-52.2	-55.7	-46.4	-85.7	-58.8	-57.3	-67.4
15	Loss carryforward at the end of year	128.4	241.3	295.5	388.2	520.6	568.1	568.1
	Local business tax statistics⁶							
	Share of corporations and partnerships at							
16	losses of partnerships (addition)	-	-2.6	-8.2	-18.3	-9.2	-8.2	-9.7
17	profits of partnerships (reduction)	-	5.6	17.8	34.5	24.2	33.7	39.9
18	Balance	-	3.0	9.6	16.2	15.0	25.5	30.2
	Total tax statistics							
	Adjusted gross income							
19	Profit cases (10+12)	117.7	142.6	218.2	217.6	217.1	307.0	343.9
20	Profit cases without share at partnership profits ⁷ (10+12-17)	-	137.1	200.4	183.1	192.9	273.3	304.0
21	Total (10+11+12+14)	46.7	51.0	137.3	87.4	127.7	223.8	249.9
	Difference to reference income corporations							
22	Profit cases (19)	50.4	65.1	49.9	97.4	91.0	120.0	91.9
23	Profit cases without share at partnership profits ⁷ (20)	-	70.7	67.6	131.9	115.2	153.6	131.8
24	Total (21)	121.4	156.7	130.8	227.6	180.5	203.2	185.9

1) Including partnerships in terms of commercial law and tax law.- 2) Estimated share of 20 percent.- 3) According to national accounts.- 4) Assumption: 95 percent of dividends received by non-financial corporations and 30 percent of dividends received by financial corporations.- 5) Including share in income or losses from partnerships. Up to 2001 including dividends received from residents liable to corporate income tax (full imputation procedure).- 6) 2008: Estimation.- 7) Adjustment for double counting of income from partnerships.

Sources: Federal Statistical Office Germany (Destatis); own estimations.

Among partnerships, however, the ratio of running profits and losses developed more favorably.

Losses carried forward for corporate income tax rose to 568 billion euros by the end of 2007. This corresponded to 23.5 percent of GDP, or 3.5 times corporate income tax base for that year (adjusted gross income from profit cases). In 2008, losses carried forward remained constant. As a result of increased tax bases, the relation of losses carried forward to corporate income decreased to 3 times. By international standards, losses carried forward in Germany are very high.¹³

How Reliable Are Corporate Income Aggregates From National Accounts?

Corporate income figures according to national accounts and tax law may differ significantly from one another in single periods.¹⁴ However, as these differences result from different periodizations of cash flows, they should balance out over longer periods of time. For instance, the increase in the taxation gap in the mid-'90s could be significantly caused by the tax incentives for East Germany such as the accelerated depreciation schemes, which are not taken into account in national accounts. In later years, the tax write-downs were correspondingly fewer, so the taxation gap should have decreased again. The rise and persistently high difference in corporate income figures between national accounts and tax statistics cannot be explained by such periodic factors. Rather, the use of accounting flexibility to generate "hidden reserves" has systematically increased.

Further estimation risks of the comparison emerge as in German national accounts net operating surplus and entrepreneurial income of the non-financial corporations and households are only calculated residually. Direct calculations based on primary statistical data is not available for Germany, since there are no representative data records from financial or tax accounting or from any other specialized statistics. In that regard, all estimation risks of national accounts in determining gross domestic product and gross national income as well as in other income components might impair these residual figures. The estimation risks involved are difficult to quantify. The Federal Statistical Office reports "balancing differences" between calculated results for GDP according to the production and expenditure approaches

as being up to two percent of GDP.¹⁵ With respect to the income approach in German national accounts, depreciations are not statistically recorded but are estimated from capital accounts.¹⁶

For example, if we set the estimation risks involved here by up to two percent of GDP, equivalent to 50 billion euros in 2008, a significant portion of the observed taxation gap could be due to an overestimation of the entrepreneurial income in national accounts. The implicit tax rates would then be up to three percentage points higher. Such an estimation error, however, would imply that either gross domestic product is too high or the other income components are estimated too low. The estimation error might also go in the other direction, resulting in a correspondingly greater taxation gap. In any case, there are no indications that the rise and high level of the taxation gap can be attributed to a systematic overestimation of corporate income in national accounts.

Possible Causes of Taxation Gap

Even taking into account certain estimation risks in national accounts corporate, underreporting of taxable corporate income compared to macroeconomic corporate income should not be overlooked. The high level of tax losses and losses carried forward in the tax statistics underlines this suspicion. This suggests that tax exemptions, tax allowances, and tax avoidance options are systematically resulting in reduced tax bases. The complex rules of corporate taxation offer, in principle, a series of options:

In commercial and tax law income determination, profits are only taken into account on realization. Conversely, impairment losses are invoked directly (impairity

¹³ OECD, "Corporate Loss Utilisation through Aggressive Tax Planning," (OECD Publishing, 2011). <http://dx.doi.org/10.1787/9789264119222-en>, 21.

¹⁴ See Bach and Dwenger, "Unternehmensbesteuerung," 62 f and a detailed analysis by Heckemeyer and Spengel, "Ausmaß der Gewinnverlagerung," 40 ff.

¹⁵ Federal Statistical Office, "National Accounts. Gross Domestic Product in Germany in accordance with ESA 1995. Methods and Sources. Version following the major revision 2005." Subject-matter series 18, series S. 22 (Wiesbaden: 2009): 374 ff. www.destatis.de/DE/Publikationen/Thematisch/VolkswirtschaftlicheGesamtrechnungen/Inlandsprodukt/GrossDomesticProduct6489022059004.pdf?__blob=publicationFile. Risks are seen in terms of the production approach for the less well recorded economic areas, especially in service sectors with lots of small business enterprises. In the expenditure approach, private consumption and changes in inventories, in particular, are considered statistically poorly covered. See also B. Götzig and C. Schmidt-Faber, "Wie entwickeln sich die Gewinne in Deutschland? Gewinnaussagen von Bundesbank und Volkswirtschaftlicher Gesamtrechnung im Vergleich," Sonderheft des DIW Berlin 171 (Berlin: 2001).

¹⁶ A comparison of national accounts depreciation aggregates with depreciation aggregates of balance sheet statistics from the Bundesbank for industries in which these statistics should provide representative (especially for mining and manufacturing) shows slightly higher depreciation in the national accounts on aggregate. Depreciation in companies' financial statements does not generally deviate much from tax depreciation. This speaks more in favor of an underestimation of the national accounts corporate income compared to taxable corporate income.

principle). Similarly, provisions may be formed for foreseeable future expenses. Significant portions of investments in intangible assets or real estate can often be immediately claimed as expenses. This creates "hidden reserves" in the tax accounts. Since capital gains are often only partially taxed, this gives companies options to keep them permanently off the balance sheets or to realize them tax favored.

Tax benefits in the form of special depreciations or similar deductions were last used massively in the 1990s to encourage investment in the former East Germany. This could be the reason for the significant increase in tax losses in the course of the 1990s.

As a result of increasingly international corporate structures, there are many opportunities to transfer profits to foreign locations with lower levels of taxation.¹⁷ This occurs primarily through the structuring of transfer prices, cost and profit allocations, group financing, leasing, and licensing or the transfer of mobile corporate functions (research and development, purchasing, marketing and sales activities). Germany was particularly vulnerable to this up until 2007 due to its high corporate tax rates. But these correlations can only partially explain the tax gap insofar as these structures do not distort national accounts corporate income in the same way.¹⁸

Particularly in small and medium-sized enterprises, there are opportunities to relocate private expenditure to deductible business expenses or to use company resources privately, such as the use of cars, travel and entertainment expenses, non-cash benefits, or through other transactions and financing relationships with partners, relatives, and related parties.¹⁹ Where such matters are allocated to the private sector in the national accounts, it could explain a portion of the tax gap.

Due to the complicated nature of tax law and inadequate equipment and organization, the tax authorities only have limited powers to guarantee the effective enforcement of tax laws. This is particularly true of assessed ta-

xes such as corporate income taxes.²⁰ Then there are the infamous "disincentives" for Länder not to exploit the tax bases, since a large percentage of local tax revenues are siphoned off in the fiscal equalization system.²¹

However, the actual quantitative importance of these different issues remains unclear. One disadvantage, in particular, is that there are no representative statistics on the individual components of tax accounting in Germany. Therefore, it is currently not possible to determine the reasons for the discrepancies between macroeconomic corporate income and reported income for tax more accurately. The electronic transmission of detailed information for determining taxable income to the tax authorities (E-Bilanz),²² introduced in 2012, will provide new opportunities in the coming years.

Conclusion

The average effective corporate tax burden in relation to macroeconomic corporate income from the national accounts is likely to have moved by 21 percent in recent years. The reason for this low burden compared to statutory tax rates is that taxable corporate income was far below macroeconomic corporate income. This taxation gap was somewhere in the order of at least 120 billion euros, or almost five percent of GDP in 2007. The high level of tax losses is also striking. Losses carried forward for corporate income tax rose to 568 billion euros by the end of 2007, equivalent to 23.5 percent of gross domestic product or 3.5 times the corporate income tax base for that year. As a result of expanding the tax base in the course of corporate income tax reform in 2008, the taxation gap declined significantly, but still stood at about 90 billion euros, or 3.7 percent of GDP. Even taking into account estimation risks in national accounts corporate income aggregates, a significant underreporting of taxable corporate income cannot be overlooked.

¹⁷ OECD, "Addressing Base Erosion and Profit Shifting," (OECD Publishing, 2013). <http://dx.doi.org/10.1787/9789264192744-en>, 61 ff.; OECD, "Corporate Loss Utilisation through Aggressive Tax Planning," (OECD Publishing, 2011). <http://dx.doi.org/10.1787/9789264119222-en>; A. Weichenrieder, Profit shifting in the EU: Evidence from Germany (2009). International Tax and Public Finance, 16, 281-297; T. Buettner and G. Wamser, "Internal Debt and Multinational Profit Shifting - Empirical Evidence from Firm-Level Panel Data," National Tax Journal, 66, (2013): 63-96. [http://ntj.tax.org/wwwtax/ntjrec.nsf/175d710dffc186a385256a31007cb40f/eb56cf1b343df085257b3500715ab7/\\$FILE/A03_Buettner.pdf](http://ntj.tax.org/wwwtax/ntjrec.nsf/175d710dffc186a385256a31007cb40f/eb56cf1b343df085257b3500715ab7/$FILE/A03_Buettner.pdf).

¹⁸ See also Heckemeyer and Spengel, "Ausmaß der Gewinnverlagerung," 44 ff.

¹⁹ A. Kraus, "Unternehmen angemessen besteuern," Können wir uns Steuergerechtigkeit nicht mehr leisten? (Marburg: A. Truger, 2005), 117 ff.

²⁰ Federal Court of Auditors, Probleme beim Vollzug der Steuergesetze (2006). Recommendations by the President of the Federal Court of Auditors as the federal commissioner for economic efficiency in the administration of improving enforcement of tax laws in Germany. Series of papers by the Federal Commissioner for efficiency in administration. Vol. 13. Stuttgart, Federal Court of Auditors, "Chancen zur Entlastung und Modernisierung des Bundeshaushalts," Bonn, November 23, 2009. www.bundesrechnungshof.de/de/veroeffentlichungen/gutachten-berichte-bww/berichte/sammlung/2009-bww-bericht-chancen-zur-entlastung-und-modernisierung-des-bundeshaushalts, 23 ff.

²¹ C. Fuest and M. Thöne, "Reform des Finanzföderalismus in Deutschland," Stiftung Marktwirtschaft, Frankfurter Institut, Kleine Handbibliothek, vol. 37 (2009). www.stiftung-marktwirtschaft.de/fileadmin/user_upload/Kleine-Handbibliothek/KHB37.pdf, 45 ff.

²² Federal Ministry of Finance, E-Bilanz. Elektronik statt Papier - Einfacher, schneller und günstiger berichten mit der E-Bilanz (2012). www.bundesfinanzministerium.de/Content/DE/Downloads/Broschueren_Bestellservice/2012-09-05-E-Bilanz2012.pdf?__blob=publicationFile&v=2.

Due to a lack of statistics about tax accounting, it is currently not possible to explain the considerable difference between macroeconomic and taxable corporate income more accurately. Systematic underreporting may play a role in determining taxable income, for example, because of the possibilities for building hidden reserves in tax balance sheets, but also as a result of tax incentives, tax avoidance, or enforcement deficits in tax authorities. The corporate tax reform of 2008 has lowered corporate income tax rates, enlarged the tax base and restricted the regulations on profit transfers to abroad, such as the introduction of the interest barrier and restrictions on “relocating operations”. Where part of the taxation gap is due to tax avoidance, incentives to do so should have been reduced by the reform.

It would be desirable if information from tax accounting submitted as part of Germany’s E-Bilanz system and other information from tax assessment could be made promptly available for statistical evaluations and scientific analyses. This is common in other countries and would also significantly improve the information base for directly calculating corporate income in the German national accounts statistics.

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