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The German Construction Industry: Production and Employment 2007/2008

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In 2006, after years of stagnating and even significantly declining production, the construction industry finally experienced a year of strong growth (Table 1). In nominal terms, the industry expanded by 7% in 2006. After allowing for price increases, there was real growth of almost 5%, much higher than expected. Admittedly, one cause of this expansion was the effect of a VAT increase announced for 1 January 2007. A large number of both public and private investors brought projects forward to 2006 to avoid the increased VAT charges. Yet at the beginning of 2007, undiminished high construction production could be observed and there was no sign of the expected backwash effects. In the course of the year, however, the growth rate in construction slowed considerably.

There was a steep rise in construction prices at the beginning of 2007.[1] Here, the large increase in VAT as of 1 January 2007 must be taken into account. But even without the effect of higher VAT, the price increase over the previous year amounts to around four percent. This is partly due to higher construction costs. On the other hand, we can assume that companies also experienced an improvement in their earnings. Towards the end of 2007, prices began to stabilize. Nevertheless, the average real growth of construction volume for 2007 was only just under 2%. In 2008, continued moderate growth is expected for real construction volume. The annual average growth rate should be 1%. In the new Länder the growth rate should be lower than in the old Länder.

Demand trends

The strong growth of the construction industry in 2006 was essentially due to the expansion of housing construction. In the old Länder in particular, there was a sharp upturn in real demand, with growth of over 5%. But in the new Länder, too, growth in housing construction of almost 3% was achieved in 2006. In the course of 2007, however, these trends were reversed: in real terms, housing demand in western Germany dropped, while in eastern Germany, it stagnated.

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1 See Bartholmai, B., Gornig, M.: Bauproduktion 2007: Fortgesetzte Expansion bei deutlich erhöhtem Preisniveau. Wochenbericht des DIW Berlin, No. 27-26/2007.

Table 1

Construction volume in Germany: development and forecast

	2004	2005	2006	2007	2008[1]	2005	2006	2007	2008[1]
	In billion euros at prices for that year					Change in %			
Total construction volume	236.6	231.2	247.7	267.9	277.3	−2.3	7.2	8.1	3.5
Old Länder[2]	189.2	185.6	199.6	215.7	223.3	−1.9	7.6	8.1	3.5
New Länder and Berlin[2]	47.4	45.6	48.1	52.2	53.9	−4.0	5.6	8.5	3.3
	2000 indexes = 100								
Movement of prices	101.8	103.1	105.5	111.9	114.7	1.3	2.3	6.1	2.5
Old Länder	101.6	102.9	105.2	111.6	114.4	1.2	2.2	6.1	2.5
New Länder and Berlin	102.3	104.0	106.6	113.3	116.3	1.7	2.5	6.3	2.6
	In billion euros at 2000 prices								
Total construction volume	232.5	224.2	234.9	239.3	241.7	−3.6	4.8	1.9	1.0
Old Länder	186.2	180.4	189.8	193.3	195.3	−3.1	5.2	1.9	1.1
New Länder and Berlin	46.4	43.8	45.1	46.1	46.4	−5.5	3.0	2.1	0.7
By construction sector:									
Housing construction	130.3	123.6	129.4	128.8	127.9	−5.2	4.7	−0.4	−0.7
Old Länder	110.6	105.6	111.0	110.4	109.7	−4.5	5.1	−0.5	−0.6
New Länder and Berlin	19.7	17.9	18.4	18.4	18.2	−8.9	2.7	−0.1	−1.1
Commercial construction	66.5	66.0	70.0	73.9	76.3	−0.8	6.0	5.6	3.3
Old Länder	50.1	49.9	52.9	56.3	58.4	−0.5	6.1	6.3	3.7
New Länder and Berlin	16.4	16.1	17.0	17.6	17.9	−1.4	5.7	3.3	1.9
Public construction	35.7	34.6	35.5	36.6	37.5	−3.2	2.6	3.1	2.3
Old Länder	25.5	24.9	25.9	26.6	27.2	−2.2	3.9	2.8	2.5
New Länder and Berlin	10.3	9.7	9.6	10.0	10.2	−5.7	−0.8	4.0	1.9
According to producer group:									
Old Länder									
Construction and civil engineering industry[3]	56.0	53.2	56.3	56.8	57.6	−5.1	5.9	0.9	1.4
Building installations, other parts of the construction industry[4]	71.9	69.3	72.9	74.9	75.3	−3.6	5.2	2.8	0.5
Other sectors[5]	58.3	58.0	60.6	61.5	62.4	−0.5	4.5	1.6	1.5
New Länder and Berlin									
Construction and civil engineering industry[3]	18.4	17.3	17.7	18.0	18.2	−6.1	2.7	1.5	0.9
Building installations, other parts of the construction industry[4]	16.6	15.4	16.0	16.5	16.6	−7.1	4.0	3.2	0.4
Other sectors[5]	11.4	11.1	11.4	11.5	11.6	−2.3	2.3	1.4	0.8

1 Estimates.
2 Allocation refers to services according to whether companies are based in the old or new Länder.
3 Including preparatory construction site work (corresponds to the construction industry).
4 Corresponds to the finishing trades.
5 Processing industry (installations, prefabricated structures and buildings), construction-related services, outdoor facilities and services provided personally by investors.

Source: Calculations by DIW Berlin, based on official statistics on the construction industry. **DIW** Berlin 2008

The development in housing construction has been influenced by a number of changes in transport and tax conditions over the past two years. Accordingly, base effects and backwash effects must also be taken into account when forecasting developments over the next few years. These effects indicate that the construction industry will follow an overall downward trend.

Construction of new housing, in particular, is affected by unfavourable economic conditions. According to the latest calculations by DIW Berlin, new building volume in housing construction was just under 34 billion euros in 2007 (see Table 2). This is the lowest figure for Germany since the mid-1990s. The downward trend in the new building volume in housing construction comes in waves: periods with relatively stable new building volume are followed by years with strong slumps in new building

Table 2
Structure of housing construction in Germany

	2000	2001	2002	2003	2004	2005	2006	2007
	In billion euros at 2000 prices							
Volume of new buildings[1]	64.78	52.79	49.39	49.70	50.37	43.54	43.80	33.51
Houses	49.74	40.90	39.41	40.22	41.02	35.04	34.62	25.63
Apartment buildings	15.04	11.89	9.98	9.48	9.35	8.50	9.18	7.88
Construction work on existing buildings[2]	88.65	91.40	86.08	82.84	79.91	80.02	85.60	95.34
Total housing construction volume	153.43	144.19	135.47	132.54	130.28	123.56	129.40	128.85
	Structure in %							
Volume of new buildings	42	37	36	37	39	35	34	26
Houses	32	28	29	30	31	28	27	20
Apartment buildings	10	8	7	7	7	7	7	6
Construction work on existing buildings	58	63	64	63	61	65	66	74
Total housing construction volume	100	100	100	100	100	100	100	100

1 Calculated on the basis of estimated construction costs (construction activity statistics), plus surcharges for architects' services and fees, outdoor facilities and borrowers' capital resources of the investors.
2 Building and housing modernization (incl. conversion and extension work) and renovation services carried out by the construction industry.

Sources: Federal Statistical Office: Construction activity statistics; BauMedien GmbH Heinze: survey of architects; Calculations and estimates by DIW Berlin.

DIW Berlin 2008

activity. At the same time, the importance of new buildings as opposed to construction work on existing buildings decreased. The share of all housing construction services that involved new buildings fell in real terms up until 2007 to only slightly over a quarter. In 2000, the share of new buildings in housing construction volume was still considerably above 40%. The extremely low number of building permits last year leads us to expect that the negative trend in the construction of new housing will continue in 2008.

Nevertheless, it must also to be taken into consideration that in the course of this year, the sustained economic upturn will lead to improvements in the income of private households. But this is unlikely to result in a revival of new building activity. It is much more probable that growth will be seen in the important area of modernization and renovation work in the second half of the year. Measures to save energy play an increasing role here. Owing to the building structure, the effect of these measures will be more strongly felt in the old Länder. But price increases will continue to reduce demand in both the east and west in 2008.

The commercial construction sector has shown the most stable upswing in recent years. Real demand in industrial construction and civil engineering increased by 6.0% overall in 2006 and by 5.6% in 2007. As part of this development trend, the growth rate has still been accelerating in the old Länder, while growth in the new Länder has lost its momentum since 2007. Up to the present margin, however, the statistics show positive characteristics for the commercial construction sector. Consequently, for 2008—also in view of high capacity utilization in the economy as a whole—clear growth of real production is to be expected. Compared to previous years, however, growth has slowed considerably.

In 2006 and 2007, the investment backlog in the public construction sector was tackled. Improved tax revenues at all levels—for central, regional and local authorities—were used to increase investment in construction and renovation. The growth trend in public construction began significantly earlier in the old Länder. There, real demand had already risen by almost 4% in 2006. In the new Länder, demand was still flagging in real terms. It was not until 2007 that the onset of a trend reversal was also seen in eastern Germany. Last year real growth was a good 1% higher than in western Germany. This year, however, the willingness of central, regional and local authorities in both western and eastern Germany to invest will be curbed by increased labour costs in 2008 as a result of this year's pay settlements in the public service.

Production development

At current prices, the overall construction volume in Germany will reach a value of over 277 billion euros this year.[2] This is a good 3.5% higher than in

2 For more on this, see Gornig, M.: Bauwirtschaft: Positiver Trend hält 2008 an. In: Wochenbericht des DIW Berlin 16/2008 and Dreger, Ch. et al.: Frühjahrsprognose 2008, Weiterhin gute Aussichten für Deutschland. Wochenbericht des DIW Berlin, No. 14/2008.

Table 3

Comparative data on persons employed in the construction industry

	2000	2001	2002	2003	2004	2005	2006	2007
	Figures in 1000 persons							
Official census[1]	1654	1506	1395	1290	1222	1145	1131	1130
Main construction industry	1070	969	896	833	786	734	729	720
Finishing trades	585	538	499	457	436	411	402	410
Own calculations (DIW)[2]	2406	2264	2091	1973	1884	1789	1812	–
Main construction industry	1093	1009	925	858	805	755	731	–
Finishing trades	1313	1255	1167	1115	1079	1035	1081	–
Difference between census and DIW figures[3]	*–752*	*–758*	*–697*	*–684*	*–662*	*–644*	*–681*	–
National accounts (VGR)[4]	2769	2598	2439	2322	2254	2165	2159	2199
Difference between DIW and VGR figures[5]	*–363*	*–334*	*–348*	*–349*	*–370*	*–376*	*–347*	–

1 Employees working in construction companies (including trainees) and self-employed persons (actively involved owners and relatives who assist). Data for the reference month of June.
2 Employees working in construction companies (including trainees) and self-employed persons (actively involved owners and relatives who assist). Data for the reference month converted into annual mean values.
3 Corresponds primarily to employees in companies in the finishing trade with fewer than 10 employees.
4 Persons working in Germany—irrespective of duration of work and another main source of employment. Annual average.
5 Figures correspond roughly to the number of part-time employees in the construction industry.

Sources: Statistisches Bundesamt, Fachserie 4, Reihe 5.1, Beschäftigung und Umsatz der Betriebe im Baugewerbe; Fachserie 14, Reihe 8 Umsatzsteuer; Fachserie 18, Reihe 1.4, Volkswirtschaftliche Gesamtrechnung. Calculations and estimates by DIW Berlin. **DIW** Berlin 2008

2007. The movement of prices has settled down. Nevertheless, costs are far higher than for the same period last year. Also, even further increases in costs might be seen this year, for example in relation to wages and energy. At the same time, however, the increase in demand is slowing. Consequently, looking at the annual average for 2008, a similarly high rate of price increases is expected to that for private consumption expenditure.[3] The increase of 2.5% on average will—owing to processes of adjustment in the price level—as previously, be somewhat higher in the east than in the west.

Continued moderate growth is therefore expected for real construction volume. In 2008, the annual average growth rate should be 1%. In the new Länder the growth rate should be lower (0.7 percent) than in the old Länder (1.1 percent). The reason for the lower growth dynamic in eastern Germany is a stronger cooling of overall construction activity across all demand sectors. The most marked decline is expected in the commercial construction sector in eastern Germany.

Examination of the summarized (real) construction services according to producer group shows that in 2008 the main construction industry (i.e., excluding finishing trades) can again expect above average growth rates: almost 1.5% in the old Länder and just under 1% in the new Länder. In the finishing industry, real production growth in eastern and western Germany will only be just over half a percent. This is damped down, above all, by the weak demand for housing construction. In western Germany, the trend follows the structural pattern of 2006. The period of weakness in 2007 with the strong decline in investments in construction of new housing now seems to be over. In eastern Germany, above average growth in the main construction industry points to a move away from the trend. In 2006 and 2007, the finishing industry still grew significantly faster than the main construction industry.

Growth for other groups of producers such as the processing industry and architectural offices and consulting engineering firms should slow further in 2008. In 2006 and 2007, real growth rates in this sector were already lower than in the construction industry itself. As well as a lower ability to react to cyclical fluctuations, the decline in new building activities should have a structural effect here.

Employment trends

Since the mid-1990s, employment trends in the construction industry have been characterized mainly by shrinkage. But when we compare the different statistical sources of information, we can see that there is considerable disparity between them (Table 3). According to official statistics, employment

3 Arbeitskreis Konjunktur: Tendenzen der Wirtschaftsentwicklung 2008/2009: Aufschwung geht in die Verlängerung. Wochenbericht des DIW Berlin, No. 27-28/2008.

fell by almost a third between 2000 and 2005 alone. On the one hand, the stabilizing effect of small businesses is not taken into consideration here. On the other hand, the shrinking is exaggerated by the fact that companies falling below the employment limit drop out of the statistics completely, but in reality they might merely now employ only 9 people, instead of 10 previously.

Thus, calculations by DIW Berlin give a perceptibly lower level for the drop in employment in the construction industry. They show that employment fell by just over a quarter between 2000 and 2005. Taking into consideration the increase in part-time employees, employment figures calculated on the basis of national accounts (VGR) are “only” 22%.

The growth process of production since mid-2006 has, however, also led to a reversal of the employment trend. According to calculations by DIW Berlin, annual average employment already increased noticeably in 2006. Additional employees were taken on in particular by small business in the finishing industry. Overall, employment in the finishing industry rose by around 50,000 persons as compared to 2005. A slight drop was again recorded in the main construction industry (–25,000 persons). The VGR (national accounts) employment figures also indicate a slight growth in employment, although only in 2007. Here, those preparing the statistics probably assumed that the number of part-time employees would be the first to fall.

In the face of declining growth expectations for real production in 2008, however, the upward employment trend will probably come to a halt again this year. Assuming there are further increases in labour productivity, annual average employment in 2008 might even fall slightly below the 2007 level.

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