

Medium-Term Projection

Projection of overall economic trends in Germany through 2013

Present situation and outlook

Following the significant decline in overall economic activity in the current year, the Federal Government is anticipating in its medium-term forecast a tangible recovery in overall economic development in Germany in the medium term.

Once the current period of weakness has been overcome, and as the measures to stimulate the economy increasingly take effect, global economic growth will recover to an annualised global rate of around 1 ½ % and then settle into an average growth trend of 3 - 3 ½ %. This corresponds to the trend growth which existed prior to the current global economic crisis.

Following the sharp decline this year, world trade is likely to expand again in 2010 as overall economic activity recovers in the world's major economic regions, and is likely to grow at an average annual rate of around 6 % in the medium term from 2011. Here, we assume that the German sales markets will expand at an average annual rate of 4 % in the medium term. Not least because of its strong competitiveness on price, particularly in relation to other European countries, Germany's economy will benefit from the positive development of the world economy. In addition, domestic demand will continue to expand powerfully.

Following the substantial fall in the level of capacity utilisation due to the difficult sales situation of German commerce this year, and the resulting collapse in investment activity, we can expect investment to recover in the medium term. Here, we expect a return to the level of investment prevailing before the global economic crisis of 2007/08. Consumer spending, which was less affected by the current economic crisis, will prove most robust due to the anticipated relatively favourable development in disposable income. In the coming years, this component of GDP – by far the largest component – is likely to expand at an annual rate of just under 1 % in real terms again, as in the years before the economic crisis.

Medium-term projection

The government's medium-term projection is not an "extension" up to 2013 of the current short-term projection for this and next year. Rather, it is based on a model-driven estimation of the German economy's potential growth as well as the assumption that production capacity utilisation in the overall economy will be roughly normal at the end of the projection period. The consensus medium-term projection presented by the project group of economic research institutes in spring 2009 arrives at pretty much the same results as the medium-term projection

of the Federal Government. However, the institutes expect that the financial market crisis will have a negative impact on investment activity and potential growth for quite some time, and that the output gap is therefore unlikely to be closed until later years.

Medium-term macroeconomic projections are based on considerations related to supply-side trends. The medium- and long-term possibilities for the growth of a country's economy can be described in terms of production potential, which indicates the productive capacity of the entire economy operating at a normal level of utilisation. However, this production potential cannot be directly observed or measured. It is not a constant variable, but is subject to changes deriving from the provision of the economy with production factors and from advances in technology. This year's period of marked economic weakness goes hand in hand with a collapse of investment affecting the production capacities in the economy as a whole and thus the growth potential. Once investment activity picks up across the economy, the development of the production potential will also return to a positive medium-term trend. Here, the negative output gap resulting from the economic crisis will gradually be closed.

In order to enhance potential growth, it is necessary to invest more in human and physical capital; at the same time, it is also necessary to promote technical advances, i.e. to promote greater efficiency in the use of factors of production. Without an intensification of investment, there can be no broad-based, sustained process of job creation and hence no reduction in unemployment. In this connection, it is particularly important that the utilisation of the labour factor be improved by enhancing skills through increased investment in education, by raising the labour force participation rate of women and older workers, and by extending the working life.

The reform process initiated by the German government has already succeeded in raising the German economy's potential growth and is likely to further strengthen this potential in the coming years. In the course of a sustained economic recovery, it is likely that investment in physical and human capital will once again increase. In the medium term, it is expected that potential growth will accelerate to $1\frac{1}{4}$ % p.a.; in the longer term, it might even exceed this if it proves possible to offset the demographic challenges to the potential workforce by economic policy measures to increase labour participation and to improve the skills of the human capital in the economy and by increased quality immigration.

On average, Germany's GDP has increased by only 1.4% per year since 1991. This comparatively weak rate of growth reflects the fact that during this period, the German economy's development has been hindered by a number of special factors. In particular, there are the adjustment processes related to reunification. In addition, the weak growth of the world economy at the beginning of the current decade had a particularly negative impact on Germany

due to its high degree of external economic linkages. Furthermore, the steep rise in oil prices over several years has put a brake on economic performance.

Arguments in favour of a return to growth include the structural reforms of recent years, the good situation in the private sector and the public-sector budgets before the economic crisis, and the Federal Government's packages of economic and fiscal measures at the beginning of the reference period.

Underlying economic conditions

The projection of medium-term economic development between 2009 and 2013 is based primarily on the following **assumptions**:

I. Global economy and international environment

- Following the global economic crisis in 2009, we expect a **gradual recovery in global economic activity** from 2010.
- It is assumed that the negative effects of the mortgage and financial market crises will have run their course, so that the United States in particular will once again make a stronger contribution to global growth. The expansionary trends in China and Southeast Asia as well as in the euro zone are likely to regain the upper hand in the coming years. The fundamental conditions for the stabilisation and recovery of the world economy are therefore in place. **Supply of energy and resources:** No supply-side bottlenecks are anticipated for crude oil and raw materials in the reference period. Nor are the prices for crude oil and resources expected to generate any burdens to a return to a higher growth level in the medium term.
- Following the clear shrinkage in 2009, **world trade** – which particularly affects Germany – is expected to pick up slightly. Due to its high level of competitiveness, German commerce will be able to maintain its market shares on Germany's sales markets in the medium term. Global demand for capital goods is also likely to increase clearly again in the medium term. The latest indicators of medium-term export expectations are already pointing towards a recovery in demand for exports of capital goods. In the medium term, world trade is likely to expand more sharply again in line with the recovery in global economic activities. Due to the moderate growth of markets in the industrialised countries, German exports are likely to expand at a somewhat weaker pace than overall world trade.

- **Prices** in Germany will tend to remain below the European Central Bank's price stability target, following the clear fall-off in the price trend for energy and foodstuffs, and also due to the intensive competition on the markets.
- The **real increases in wages and salaries** will continue to remain inside the development of productivity.

II. Technical assumptions:

- There will be no shortages in the supply of energy and raw materials. It is assumed that prices for energy and raw materials will remain stable at the current level. The projections assume an oil price of US \$50 per barrel.
- The real external value of the euro will remain largely stable over the medium term.
- The ECB will achieve its medium-term price stability objective of an inflation rate below but close to 2%.

III. Economic and fiscal policy in the European Union and the eurozone:

Progress is being made in all the EU countries on implementing measures to boost European economic development and the financial markets. It is expected that this will go hand in hand with a stabilisation of the medium-term inflationary outlook and asset prices. Following the end of the economic crisis, the focus will return to continuing medium-term budgetary consolidation and safeguarding the long-term viability of public-sector finance in all EU countries. An important medium-term factor affecting the recovery in economic activity in the European economic and monetary area is stability- and employment-oriented wage agreements which are oriented towards productivity gains in the medium term.

At the European level, the Lisbon strategy will continue to be implemented and fine-tuned. The recovery of the economy will also be supported through the smooth interaction of fiscal, wage and monetary policy at both national and EU level;

IV. Economic and fiscal policy in Germany:

In Germany, the stimulus packages and measures to ensure a functioning money and credit cycle adopted since October 2008 are being implemented rapidly. Furthermore, the strategy of economic policy reform to boost growth and employment is being continued in the medium term. Increased investments and improvements in quality in the field of education and research are occurring in the context of this medium-term strategy of economic reform. Once the current recession has been overcome, the policy of medium-term consolidation of public-sector budgets will be resumed.

Any financial leeway within public budgets will be utilised to push forward with fiscal consolidation, to improve the long-term sustainability of public finances and to provide stimuli for growth and employment.

The outcome of the projection

Given the factors and technical assumptions described above, the following **key figures for macroeconomic development** are anticipated as an average for the entire projection period of 2009-2013:

- after adjustment for price, GDP remains constant as an average of the annual growth rates over the projection period;
- the aggregate price level is expected to increase by 1 % per year;
- total employment will decline by approximately ½ % per year during the reference period;
- the share of net foreign demand in nominal GDP stands at approx. 3 % at the end of the projection period.

Whilst growth was mainly export-driven in recent years, now, as an average over the projection period, domestic demand will provide the main positive stimulus (+0.6 % points); we assume that the contribution to growth from domestic demand will rise to 1.6 % points in 2011 to 2013 once the economic crisis has been overcome. Due to the collapse in international trade and German exports in 2009, net foreign demand is likely to make a negative contribution of roughly 0.6 % points to growth over the medium-term projection period. Here again, we assume that demand for exports will recover once the global economic crisis has been overcome, so that foreign economic relations can again be expected to have a positive impact on growth of +0.4 % points p.a. in 2011 to 2013. Consumer spending can expand its significance as the strongest expenditure component and is likely to make a contribution towards growth rising to 0.5 % points in 2011 to 2013. Its average contribution to growth throughout the projection period stands at 0.2 % points.

Effective wages are likely to increase by 1.7 % p.a. With a 0.5 % p.a. fall in employment, this results in a 1.2 % annual rise in gross wages and salaries. As state transfers increase at a below-average rate, and given a dynamic development in income from entrepreneurial activity and assets, the disposable income of private households is expected to increase by roughly 1.6 % per year. The same rate is expected for nominal consumer spending, i.e. it is assumed that the savings rate will remain constant in the medium term. Adjusted for prices, consumer spending is likely to increase by 0.4 % p.a.

Government consumption will show the opposite development. Due to the stimuli to demand from the growth packages taking effect in 2009 and 2010, its contribution to growth as an average for the projection period will be 0.2 % points, a higher figure than for 2011 to 2013 at only 0.1 % points. After all, once the stimulus measures run out, and the policy of consolidation begins again, government expenditure on consumption will increase at a more moderate rate, so that it only expands slightly at an average of 1.2 % p.a. in real terms.

As the overall economy recovers, corporate investment is likely to increase more than output. Due to the collapse in investment in 2009, it only contributes 0.2 % points to growth on average during the projection period. When the macroeconomic development improves again, investment is expected to make a higher contribution towards growth during the residual period of 2011 to 2013, of 0.9 % points each year. The investment trend will then benefit from a recovery in profits, moderate labour costs, improved sales expectations, and relatively stable commodities prices. Furthermore, the burden on companies will be reduced through tax cuts (i.e. more favourable depreciation rules, corporate tax reform, further relief from 2008 till 2011). The rise in the level of capacity utilisation will also create a growing need for expansion investments. On the other hand, less favourable financing conditions due to the financial crisis might restrain investment activity. As a consequence, on average over the five years investment in plant and equipment might decline by 1.1 % p.a. in real terms following the sharp fall in the recession, chiefly as a result of the anticipated decline of 17 % in 2009. In 2011 to 2013, an increase in investment in plant and equipment of 5.1 % in real terms is expected. The development of the German construction sector is relatively stable. Since 2006, construction investment has once again been making a positive contribution to growth (about 0.3 %). Given a similar development to that of investment in plant and equipment, and boosted by the stimulus packages, an average increase in real terms of 2.5 % p.a. is expected in the medium term, although the dynamism in this sector will be directed primarily toward non-residential construction.

Following the collapse, foreign trade is likely to expand more powerfully again. However, anticipated trends in world trade and German sales markets could – over the projection period as a whole – cause exports to decline at a rate of about 1.7 % per year in real terms. At the same time, imports are expected to fall by about -0.4 % per year in real terms, so that net foreign demand, adjusted for price, will have roughly halved in the final year compared with 2008.

Appropriate wage agreements, the stability-oriented monetary policy and sharply falling energy and commodities prices will contribute to a quiet price climate in the medium term as well. As a result, a general inflation rate of approximately 1.1 % per year is expected. Thus GDP is likely to increase by an annual average of 1.1 % in current prices.

In the light of anticipated wage trends and reductions in social security contributions, employee remuneration is expected to increase by about 1.2 % annually. It is expected that, following its rapid rise in 2009, the adjusted share of wages will drop by just under two % points to 64 %. Corresponding to this, corporate and investment income is expected to rise by 0.8% per year.

The economic development depicted here means that employment will rise again following the decline at the beginning of the projection period, but in 2013 it is still about 900,000 people lower than in the base year. At the same time, it can be assumed that the labour force participation rate of women will continue to rise and the retirement age will gradually increase; unemployment is likely to mirror this with a corresponding increase.

There is still a risk that this projection will not be realised due to global imbalances as well as due to a generally more restrained global economic development should the financial market crisis prove to be more sustained than presently anticipated. Further, oil prices could rise more steeply than can be foreseen at present in response to geopolitical tensions or unforeseen shortages. Also, the external value of the euro might follow a different path than that assumed here.

There are also chances for a more favourable global economic development. The financial crisis could soon be overcome, and confidence could return more rapidly to the German economy. Moreover, it is possible that, due to self-sustaining and self-reinforcing factors, the German economy will exhibit greater dynamism in the medium term. The Federal Government's economic and fiscal policies are making a major contribution towards this.

Employment, Productivity and Growth

- The Federal Republic of Germany -

Year	Total Employment	Dependent employed	Hours worked per employed	Gross Domestic Product				
				at chained prices			at current prices	Deflator
				domestic concept	per employed	per working hour		
							million	billion €
2003	38,726	34,653	1439	2083,5	53802	37	2163,8	103,9
2008 1)	40,330	35,865	1432	2270,8	56306	39	2492,0	109,7
2013 2)	39,4	35,0	1426	2272	57615	40	2632	115,8
percentage change overall								
2008/03 1)	4,1	3,5	-0,5	9,0	4,7	5,2	15,2	5,7
2013/08 2)	-2	-2 1/2	- 1/2	0	2 1/2	2 1/2	5 1/2	5 1/2
average percentage change p.a.								
2008/03 1)	0,8	0,7	-0,1	1,7	0,9	1,0	2,9	1,1
2013/08 2)	- 1/2	- 1/2	-0	0	1/2	1/2	1	1

Use of GDP at current prices

- The Federal Republic of Germany -

Year	Gross Domestic Product	Consumption		Gross investments			net external surplus
		Private sector	Public sector	total	fixed assets	inventory change	
billion €							
2003	2163,8	1284,6	416,9	376,4	386,7	-10,3	85,9
2008 1)	2492,0	1402,3	452,0	480,6	478,7	2,0	157,1
2013 2)	2632	1520	516	520	520	0	76
shares in GDP (%)							
2003	100,0	59,4	19,3	17,4	17,9	-0,5	4,0
2008 1)	100,0	56,3	18,1	19,3	19,2	0,1	6,3
2013 2)	100	58	19 1/2	20	20	0	3
percentage change overall							
2008/03 1)	15,2	9,2	8,4	27,7	23,8	.	.
2013/08 2)	5 1/2	8 1/2	14	8	8 1/2	.	.
average percentage change p.a.							
2008/03 1)	2,9	1,8	1,6	5,0	4,4	.	.
2013/08 2)	1	1 1/2	2 3/4	1 1/2	1 1/2	.	.

1) Status: Preliminary results of National Account Statistics of the Federal Statistical Office, Febr. 2009

2) Medium-term projection (rounded figures) prepared by the Federal Ministry of Economics and Technology (April 2009)