# Economic Insight

# Population growth in Germany:
# New projections – old challenges

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## Executive Summary

- Demographers from the German and EU statistical offices have revised their population projections for Germany, painting a more optimistic picture about the country's population for coming decades. The overall as well as the working-age population are now assumed to be rising or stable until about 2030, with only a slight decline thereafter.

- The record immigration waves of recent years are the main reason for the revision. These have prompted demographers to also increase their assumptions about net migration going forward. Since migration flows depend on a host of economic and political factors in both sending and receiving countries, such assumptions are a very shaky basis on which to revise population forecasts.

- Migration also accounts for a recent uptick in the German birthrate, as mothers with foreign citizenship have noticeably higher birth rates than German mothers. But since birthrates among immigrant communities tend to fall towards those of their host countries in due course, this increase in the German birthrate may turn out to be transitory.

- Ceteris paribus, a larger working-age population would push up Germany's long-term growth potential. However, since much of the additional labor consists of immigrants, partly from less developed parts of the world, much will depend on Germany's ability to educate and integrate the new arrivals.

- German policymakers would be wrong to take the new, more optimistic population forecasts as a reason to slow down efforts to prepare the country for an aging population. Aging remains a common factor in all available population projections. If Germany is to avoid overburdening its social security and healthcare systems, it urgently needs to invest more in education and return to the issue of pension reform.

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# Decline of German population is postponed

The latest population projections for German reflect a major reassessment of demographic trends in coming decades. Instead of a steady decline, both the German Federal Statistical Office and international organizations are now predicting further population growth for some years to come. The most optimistic forecast comes from Eurostat, the European Union Statistical Office. It now forecasts a rise in the German population from 83.3 million today to 84.6 million in 2031, with only a slight drop to 82.7 million by the middle of the century. By comparison, Eurostat's previous projection forecast a steady decline to 74.7 million. By implication, the aging of society, measured as the number of persons in retirement age as a proportion of the total population, should also be less severe than previously expected. This raises two main questions: What prompted this reassessment of future population dynamics? And what does it mean for the economy and for politics?

## Reassessment of future demographic development



Sources: Federal Statistical Office of Germany, Eurostat.
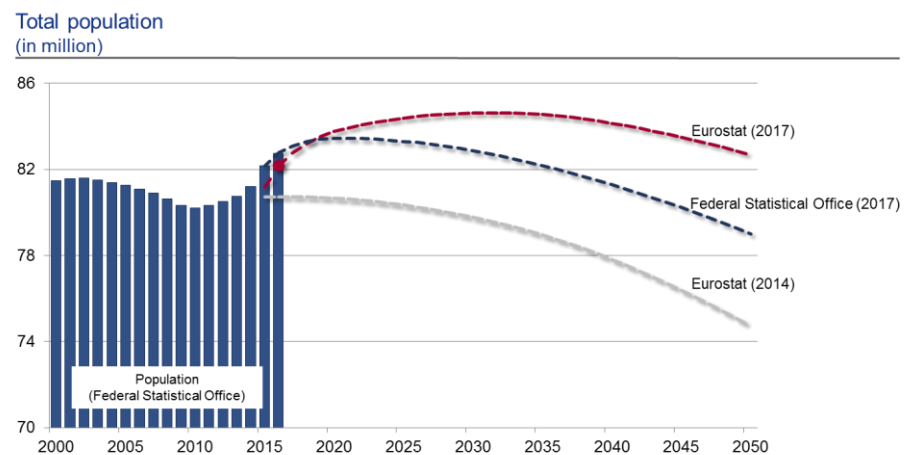
## Record immigration and high birth rates prompt new population forecasts

The reassessment was triggered by the recent immigration wave. Record immigration inflows have prompted demographers to substantially raise their assumptions regarding the future development of net migration, i.e. the difference between immigration and emigration. Eurostat now assumes annual inward net migration of over 250,000 up to 2033, and 200,000 a year from then until 2050.

### *Net migration assumptions are notoriously difficult*

This reassessment leaves the latest forecasts open to criticism as, retrospectively, assumptions about future net migration trends have turned out to be the main source of error. For instance, the Federal Statistical Office responded to successive waves of immigration in the mid-1960s and the late 1980s by increasing its assumptions about net migration in its population forecasts. These subsequently turned out to be wrong. Migration flows are heavily dependent on political and economic conditions, both in the migrants' home countries and in their potential destinations, and are thus highly volatile. Recently, the good economic situation in Germany has attracted migrants from within the EU as well asylum seekers from crisis-hit countries in the Middle East. Not too long ago at the turn of the century, an entirely different situation prevailed: Germany was seen as the sick man of Europe, with poor economic growth and high unemployment, making it unattractive to potential immigrants. Net migration fell drastically as a result; in 2008 it turned negative, for the first time since the early 1980s. Future immigration, too, will depend heavily on economic performance and labor market conditions as well as on the design of immigration policies. Of course, demographers have to base their projections on certain assumption. But the outcome remains highly uncertain.

### *Immigration also influences the birth rate*

Another reason for the increased population projections is a slight rise in Germany's birth rate. Alongside the healthy labor market and stronger income growth in recent years, reforms aimed at improving the compatibility of work and family life may have encouraged people to start families. Here too, however, it is still too early to judge conclusively whether this is the start of a long-term trend or a mere blip. In this context it is important to note that birth rates differ significantly according to the nationality of the mother. For German citizens, the birth rate in 2015 rose to an average of 1.43 per woman. For mothers with foreign citizenship, the figure was 1.96. Bearing in mind the fact that birthrates among immigrants tend to fall towards the averages prevalent in their new home country, it seems questionable whether Germany's birth rate will continue rising to the same extent.

## Aging is being underestimated

By contrast, assumptions about future trends in average life expectancy remain virtually unchanged compared to past projections. In its latest forecast, Eurostat assumes that the average life expectancy for newborn children will rise from 78.9 years today to 83.6 by the middle of the century for boys and from 83.8 to 87.9 years for girls. In fact, average life expectancy may already today be substantially higher. Based on cohort mortality tables for birth years since 1871, the Federal Statistical Office has calculated (in its lower estimate) that the average life expectancy for children born in 2017 is already 84.3 years for boys and 88.2 years for girls.

## Underestimated life expectancy

Life expectancy at birth
(male, in years)
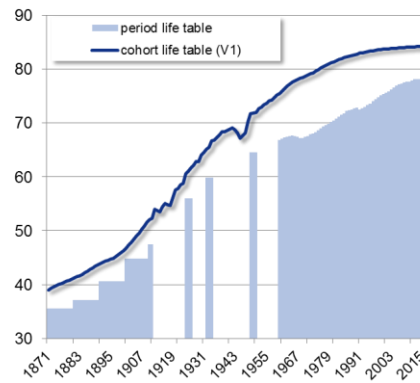
Life expectancy at birth
(female, in years)
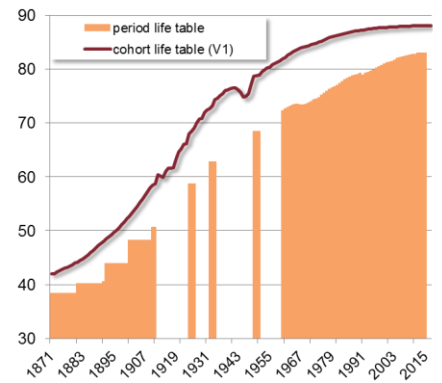
Source: Federal Statistical Office of Germany.

## BOX: Cohort and periodic mortality tables

Cohort mortality tables are longitudinal observations. A particular annual cohort is examined retrospectively from birth until death, i.e. it is known how many people from the cohort were alive or dead in any given year. Actual average life expectancy thus reflects events such as the two World Wars, as well as advances in medicine and rising general living standards.

For demographic studies, periodic mortality tables are more frequently used. These entail a cross-sectional observation that portrays the mortality situation of the whole population over a defined period (usually three years) and hence captures the prevailing conditions with regard to living standards and medical care. A change in the mortality situation due to potential medical advances or a further rise in living standards is not taken into account.

Based on the periodic mortality tables available at the time, statisticians in 1910, for example, assumed that the average life expectancy for newborn boys and girls would be 47.4 years and 50.7 years, respectively. In fact, according to cohort mortality tables, even though this generation lived through two World Wars, men born in 1910 lived to an average age of 52.1 and women to 58.5. In other words, average life expectancy was underestimated by just under five years for men and over seven years for women.

Given that current knowledge suggests that life expectancy will continue rising in the future, the present population forecast may underestimate both the true level of future life expectancy and the number of persons in retirement age.

# Do the new calculations mean we can expect higher economic growth?

The development of the labor force is obviously an important factor for future growth. Based on the high immigration figures and rising birth rate, demographers believe that the size of the working-age population aged from 20 to 66 will not shrink as severely as previously assumed. Eurostat's current projections suggest that the labor force will continue to rise until 2020 and will not fall back below current levels until after 2030. Thereafter, it will drop by a "mere" 5 million (to 45.7 million) between 2030 and 2050, which is also less than previously expected. If correct, this would entail a stimulus to long-term economic growth: higher potential labor supply could well boost growth by a quarter of a percentage point per year up to 2050, compared to former more pessimistic demographic assumptions. This additional impetus to growth would be very welcome, since it would reduce the strains on social welfare systems and public-sector finances.

Whether such additional output growth actually happens will depend on how well-qualified the jobseekers are, in the broadest sense of the term. Given that the assumed rise in potential labor supply is mainly caused by immigration, which may come from the central and eastern European EU countries and from non-EU countries such as Syria, Libya, the MENA region and other parts of Africa, successful language teaching, training measures and integration efforts of all kinds will play a central role. The success of these measures is not easy to forecast and therefore growth effects remain uncertain.

# Economic policy agenda

Irrespective of the revised population projections, German policymakers face fundamental challenges in securing long-term prosperity and growth. The challenge to deal with an aging society has not lost any of its relevance. However, additional work will be required as a result of the increase in immigration:

### Education and training:

Ongoing digitalization and the ensuing upheavals in the workplace mean that education and training must remain a key focus of economic policymaking. Within the EU, Germany ranks only average in terms of the financial and human resources invested in its education system. Public spending on the education system (excluding children under three) amounted to 4.6% of GDP in 2014. The EU average was 5.1%; at the top of the table, Sweden spent 7.1% of its GDP on education. In terms of spending and pupil-teacher ratios, Germany lags behind internationally, especially in primary education. Germany will have to devote more financial and human resources to primary education, especially to accommodate the growing number of immigrant children. Primary education is particularly important as it lays the foundations for later educational success. In Germany today, the number of early and poorly qualified school-leavers in immigrant and socially disadvantaged families remains above average.

Regarding public expenditure on and staffing of its
education system Germany is at best EU-average

Public expenditure on education
(in % of GDP, 2014)

Ratio of pupils and students to teachers and
academic staff
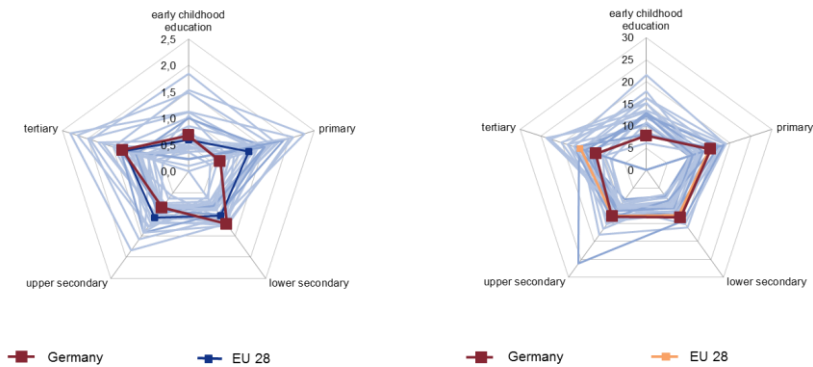


Source: Eurostat.

Germany also needs to make more early education facilities and after-school care
available; not only to make work and family life more compatible; but also – provided
enough qualified teaching staff is available – to start breaking down the persistent link
between social origin and educational success.

## Pension provision:

German policymakers must not take the new population projections as a reason to slow
down policy actions to prepare the country for an aging population. At present, we are
still on a "demographic plateau", since the baby-boomers are still at work. This lull has
encouraged politicians to reverse some earlier pension reforms and rule out, for the time
being, any further increase in the pension age. These steps disregard the fact that, even
under the new more optimistic projections, aging will constitute a substantial burden on
social welfare systems and public finances over the next few decades. The aging of the
population is a common factor in every demographic forecasting scenario. Current
calculations may well underestimate its effects, as it is extremely likely that the
conservative assumptions regarding life expectancy will fall short of reality. In 2035, once
the baby-boomers are retired, Germany will have an estimated 21 million inhabitants
aged 67 and above. Moreover, the numbers of the very elderly will continue to rise: by
2050, some 10 million inhabitants are expected to be aged 80 or above.

# Conclusion: Demography is endogenous

The latest German population forecasts should be regarded as optimistic. Whether they
prove to be accurate depends, amongst other things, on future economic growth and
income trends. If the German economy remains on a successful course, then the birth
rate, net migration and life expectancy will all tend to increase. Unlike what many
economic models assume, population trends are not an exogenous variable, but
materially affected by economic development and social prosperity. Economic and
demographic policy have a positive interrelationship. Without successful policies for
growth, we cannot count on migration to alleviate the demographic decline of the
population.

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