MAP REAL ESTATE MARKET INSIGHT

Frankfurt, August 2023

THE REAL ESTATE MARKET IN THE FACE OF DEMOGRAPHIC CHANGE: CHALLENGES AND OPPORTUNITIES. PART 1: KEY FACTS ABOUT DEMOGRAPHIC CHANGE

Introduction

Most European countries are currently struggling with a variety of challenges. Inflation and high interest rates are dampening investment and private demand. Added to this are the obligations to reduce greenhouse gas emissions, which require a fundamental restructuring of national economies. Compared with other EU member states, Germany in particular is taking longer to overcome the current crisis. In these times, it is easy to forget that beyond the current difficulties, the future holds further challenges that have not lost their importance. In this and the following Market Insight, we look at one of the most significant economic and societal changes that is already taking place not only in most European industrialized countries but also in many parts of the world and will gradually intensify in the coming decades: demographic change. The aging of the population and the gradual reduction in the labor force potential are already having a noticeable impact on the economy and also on the real estate markets, which are the focus here.

The players in the real estate industry are well aware of this, as the results of the latest EY Real Estate Trend Barometer show. Around 250 investors from companies that form a representative cross-section – from banks to investment funds and project developers to housing companies – contributed to the survey. Figure 1 shows that demographic change has consistently occupied one of the top positions in the ranking of megatrends in recent years. In 2023, from the respondents' point of view, it is only surpassed in importance by the current trend of interest rates.

Figure 1: EY Real Estate Trend Barometer: „Which megatrends will most influence the German real estate market in the next five to ten years?"
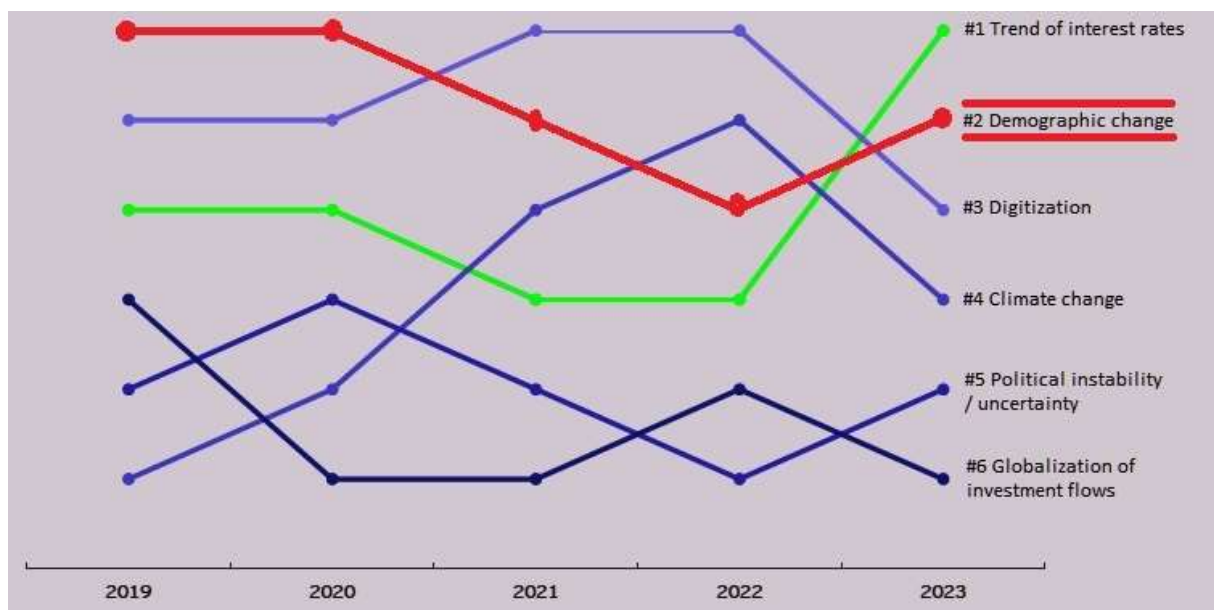
Source: Modified graph from Ernst & Young Real Estate GmbH 2023: Trendbarometer Immobilien-Investmentmarkt 2023

In this Market Insight, we will first give an in-depth overview of demographic change in Germany and work out how this poses challenges for the real estate sector. In the upcoming Market Insight, we will then address these consequences in detail, also with a view to the individual market segments.

In the following section, we look back at the demographic trends of the past, as this allows us to better categorize the challenges ahead. We then present current forecasts of population size and the future age structure. We also address the question of whether the resulting consequences for the labor market can be absorbed in any way. Finally, we look at forecasts of demographic change at the regional level, which are particularly interesting for assessing the consequences for the real estate market.

A look into the past

The determinants of population development consist of three demographic variables: Births, deaths and the balance of migration into and out of a country. For the example of Germany, Figure 2 shows how these variables have changed since the end of the World War II. The sudden drop in birth rates since the mid-1960s is striking. This is mainly due to the advent of hormonal contraceptives ("Pillenknick"), which considerably simplified contraception. The further progression of the curve shows that the lower birth rates which followed were not a temporary phenomenon. Since then, the willingness to have children has consistently hovered at a level far below the highs of the 1960s.

*Figure 2: Determinants of Population Development in Germany since 1950*
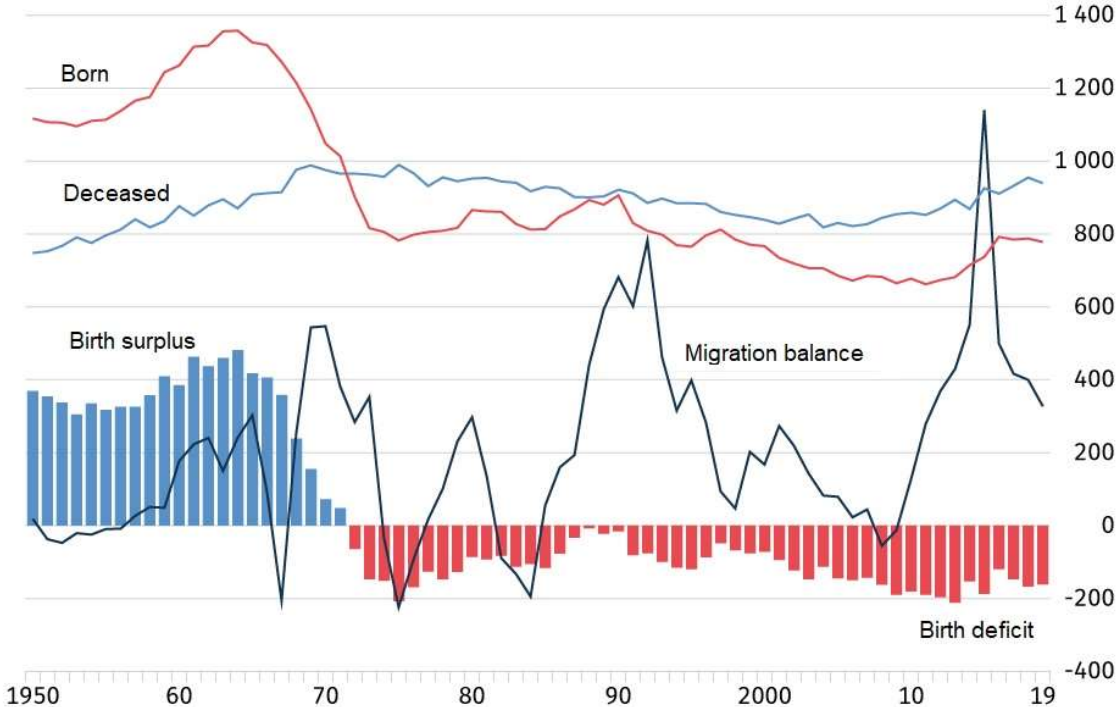
Source: Statistisches Bundesamt, 2023: Demografische Aspekte. Demografischer Wandel und Bevölkerungszahl.
https://www.destatis.de/DE/Themen/Querschnitt/Demografischer-Wandel/textbaustein-taser-blau-bevoelkerungszahl.html?nn=238640

There has been a birth deficit in Germany since 1973. The number of births is consistently lower than the number of deaths. This means that the "natural" population trend has been negative since then.

The balance of immigration and emigration alone is responsible for the fact that the German population has not shrunk in every year since the birth deficit occurred for the first time. While fertility rates have changed only slowly since the "pillenknick", net migration is subject to high fluctuations. Figure 3 shows the current data on immigration to Germany and includes the high net migration of almost 1.5 million people in 2022. This is mainly due to the strong influx of refugees from Ukraine as a result of the Russian invasion.

*Figure 3: Migrations between Germany and abroad 2000-2022*
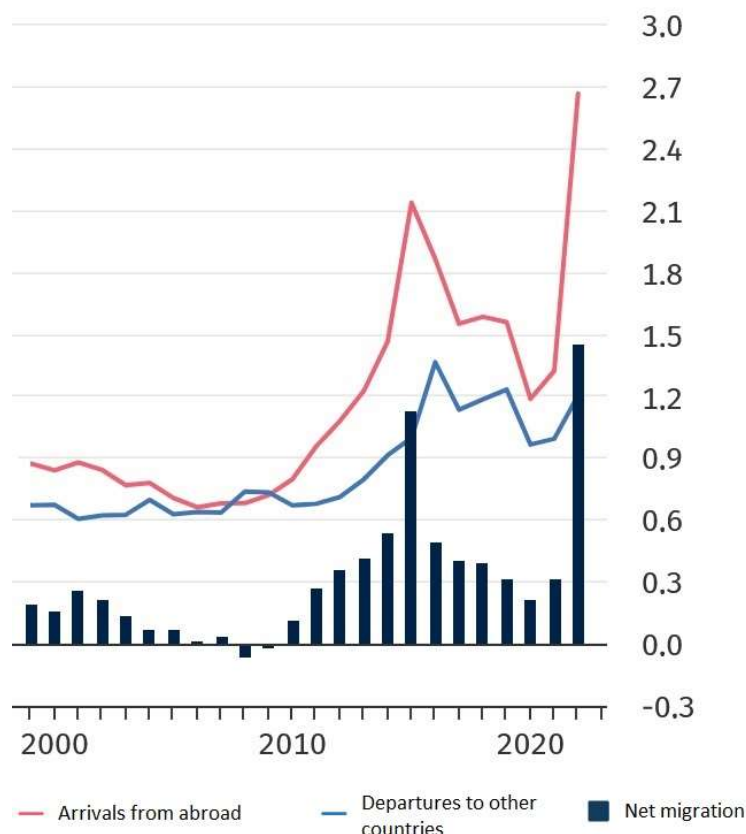
A look into the future

The high volatility of immigration figures is the main reason for the uncertainties in population projections. Changes in birth and death rates are typically much smaller. Here, uncertainties only become relevant with increasing forecast periods. Usually, this is countered by calculating scenarios based on different assumptions. The latest population forecast of the Federal Statistical Office for Germany is shown in Figure 4. For the graph, assumptions for the parameters birth rate, mortality and migration, are combined in three scenarios. In the pessimistic scenario (grey line), which leads to a relatively old population structure, the total number of the German population falls significantly by 2070. The optimistic variant (blue line), on the other hand, is based on a set of assumptions that leads

to a noticeable increase to over 90 million in 2070. An important reason for this is a high net migration balance of 400,000 persons per year on average until 2070. It is assumed that a targeted immigration policy is implemented to strengthen the labor force potential and that, in addition, international crisis situations lead to the admission of refugees for humanitarian reasons.

Figure 4: Population Change in Germany 1950-2070
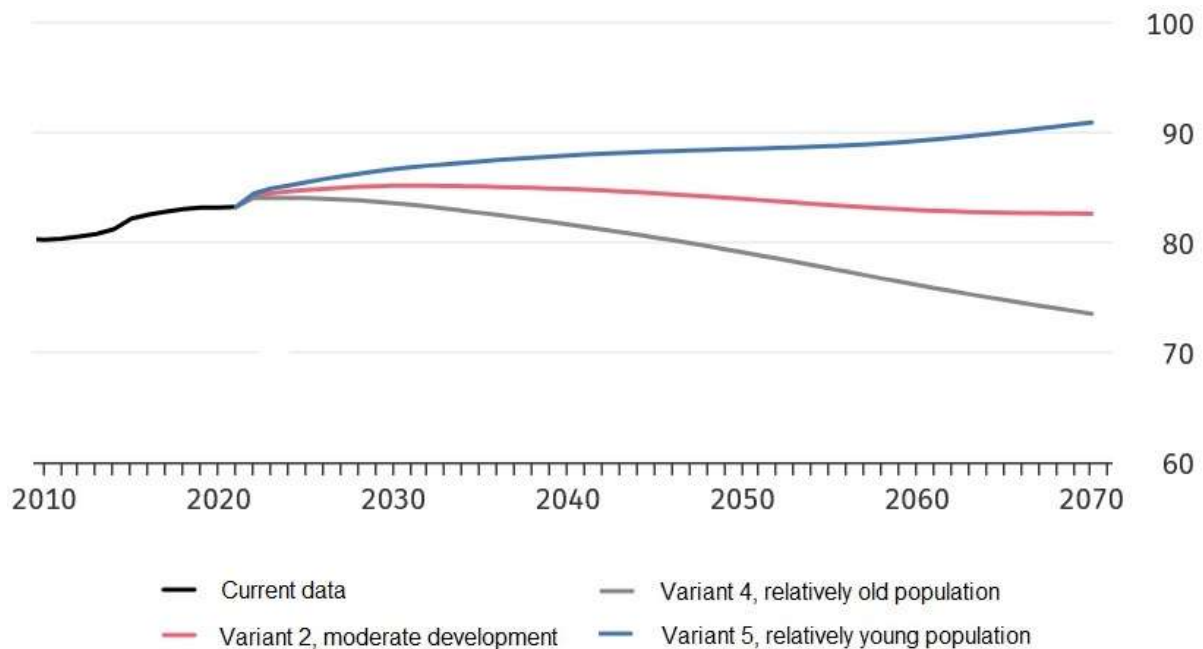
Source: Statistisches Bundesamt, 2023: Bevölkerungsvorausberechnung. https://www.destatis.de/DE/Themen/Gesellschaft-Umwelt/Bevoelkerung/Bevoelkerungsvorausberechnung/_inhalt.html

The developments described above, in particular a scenario with a shrinking population, have clear repercussions for the economy and thus also for the real estate markets. In order to estimate the economic consequences, a breakdown by age group is helpful. The impact of two age groups is particularly strong: working-age persons and pensioners and retirees. These generally have very different preferences and needs in the real estate market and shifts between them will be noticeable there. The same applies to the labor market, where pensioners and retirees are no longer represented. Moreover, the numerical ratio of the two groups is of great importance for the financing of the pension system, especially if the system is designed on a pay-as-you-go basis. To illustrate this for Germany, Figure 5 shows the population forecast for a scenario with a moderate development of the birth rate[1] and a moderate increase in life expectancy[2] and an average net migration of 290,000 persons per year.

According to this scenario, the total population continues to rise moderately until 2030. Only from 2030 does a slight decline set in, which continues steadily until 2070 and strengthens in the process. At the same time, however, a development is continuing that is already in full swing today: the group of 20- to 67-year-olds, from whom the potential labor force is mainly drawn, is steadily declining while the group of old-age pension recipients is growing. For example, in 2040, 48 million Germans will be of working age, but at the same time around 20 million will be over 67. This is challenging in two respects: As a direct effect, a decline in

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[1] Annual birth rate at 1.55 children per woman.
[2] Increase in life expectancy at birth to 84.6 years for boys and 88.2 years for girls by 2070.

the labor force is a concern especially against the backdrop of growing qualification requirements. It further increases the shortage of skilled workers due to the loss of human capital. On the other hand, the social security systems are burdened, as fewer and fewer net payers are confronted with more and more recipients. We will show in the upcoming Market Insight that the real estate markets will be affected by this because their companies, like other industries, will have to contend with increasing recruitment worries. At the same time, falling employment may also have an impact on the office markets, where demand could decrease. However, the opposite development is also possible if the amount of space required per employee increases. We will analyze this and highlight the factors which will determine to what extent the office markets will be affected.

Figure 5: Population Forecast Germany by Age Group 2070
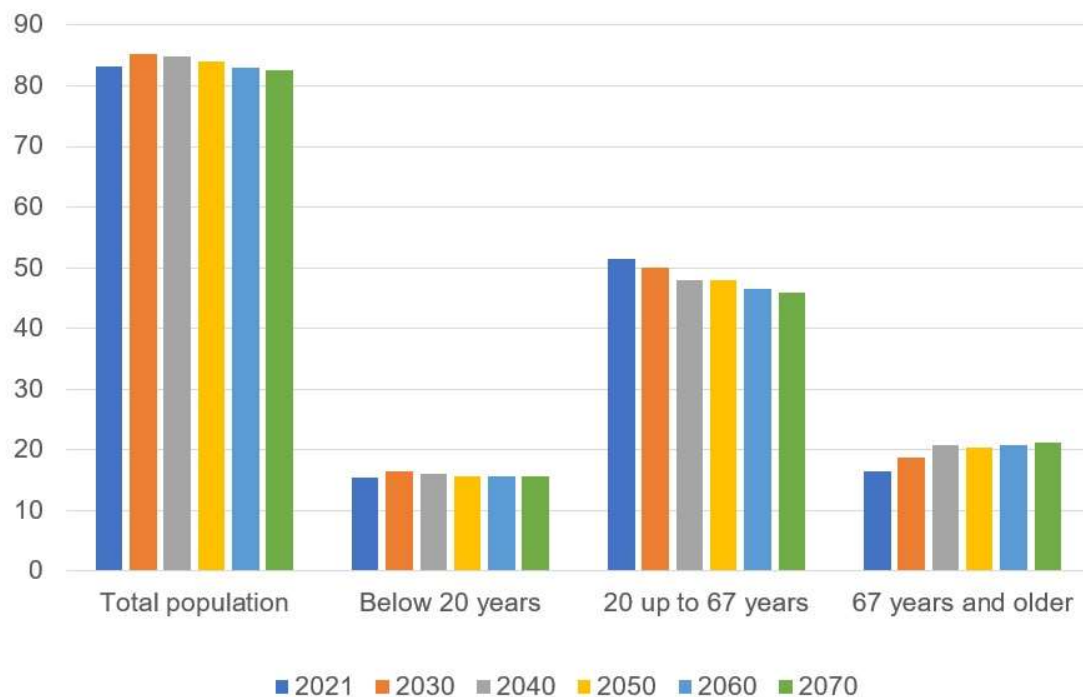
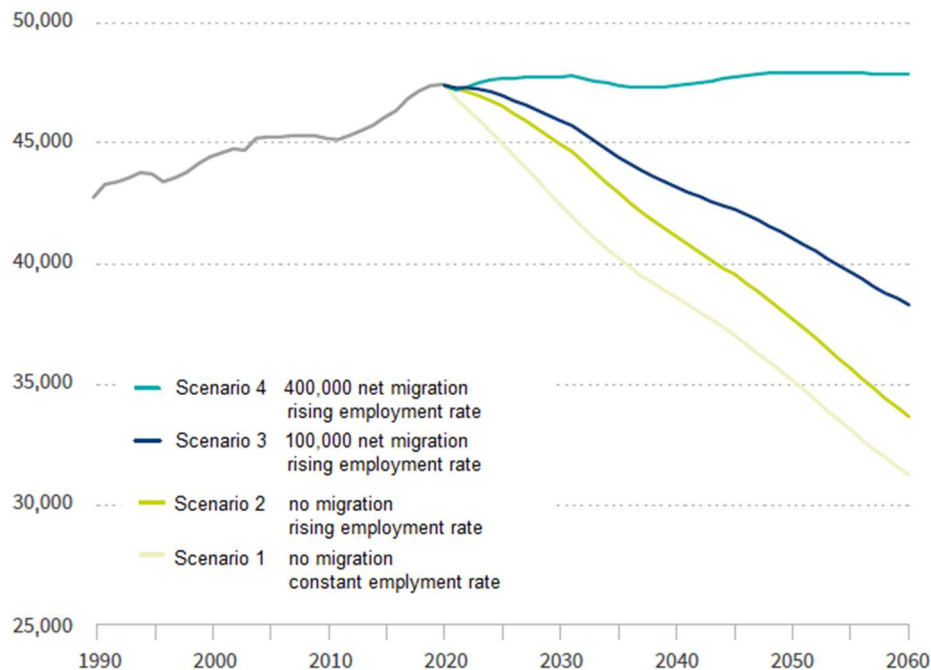Legend: ■ 2021 ■ 2030 ■ 2040 ■ 2050 ■ 2060 ■ 2070

Source: Statistisches Bundesamt, 2023: Bevölkerungsvorausberechnung. https://www.destatis.de/DE/Themen/Gesellschaft-Umwelt/Bevoelkerung/Bevoelkerungsvorausberechnung/_inhalt.html

Demographic change and the labor market

To assess the consequences of demographic trends on the labor market, it is necessary to look beyond the data shown in Figure 5. The size of the working-age cohort is not the decisive factor in this context, but rather how many people from this group are employed. Increasing labor force participation - especially among women and older people - can be an important lever for countering the unfavorable demographic trend. Immigration is another influencing factor. A study by the IAB Institute for Employment Research from 2021 examined the extent to which this can compensate for the demographically induced sharp decline in the number of people in the potential labor force.[3]

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[3] Fuchs, J., Söhnlein, D. and Weber, B., 2021: Demografische Entwicklung lässt das Arbeitskräfteangebot stark schrumpfen. In: IAB-Kurzbericht, 25/2021. Cf.

The study examines the period up to 2060 and distinguishes between four scenarios in which the labor force participation rate and the number of net annual immigrants are varied. In scenario 1, only demographic factors are altered. The proportion of people in employment remains constant and there is no immigration. In this scenario, which is not realistic, the potential labor force begins to decline sharply in the coming years (see Figure 6). In 2060, it would be around 16 million persons lower than in 2020, which would mean that German companies would have one-third fewer potential workers at their disposal. In scenario 2, the labor force participation rates of women and older people rise. This results in a slightly less steep curve. Scenarios 3 and 4 include immigration. With an annual net migration of 100,000 persons in scenario 3, which is considerably lower than the average of the past years, the labor force potential decreases to a much lesser extent. It declines by about 6.1 million by 2030. Only in scenario 4, which assumes net immigration of 400,000 persons per year, could the labor force potential be maintained or even slightly increased despite the unfavorable demographic change.

The results of the study reveal the important starting points for policymakers. While the already very high labor force participation of women in the middle age groups can hardly be increased, the rates among foreign women, which are about 20 percentage points lower, offer opportunities for improvement.[4] The same applies to the labor force participation of older women, which is lower than for men. For both sexes, however, legislation on retirement age and health policy must find ways to limit the impact of demographic change on the labor market. With regard to immigration, in addition to the number of immigrants, a targeted immigration policy based on professional qualifications can be implemented. The positive experiences which other countries, such as Canada, have had with such an immigration regime should be considered by policymakers. This would not only mitigate the

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[4] Cf. ibid.

decline in the labor force potential. At the same time, the professionals urgently needed by the economy could be recruited in a targeted manner. An examination of such a measure, also with regard to its compatibility with European law, should be placed on the political agenda. Another starting point to be discussed could be increasing net migration by reducing outward migration.[5]

Finally, it should be mentioned that, given an unfavorable ratio of younger to older generations, the financial viability of the pension system can also be maintained by increasing labor productivity. However, this is contradicted by the fact that productivity growth rates have tended to decline in most industrialized countries for several decades.[6] Decisive impulses could arise here, however, from the further development of artificial intelligence. It is already foreseeable that AI will significantly change the economy and society. An increase in labor productivity as a result is likely. The impact on the labor market, on the other hand, is uncertain. Therefore, it is still too early to make a reliable forecast of what impact the AI revolution will have on the pension systems.

Demographic change on a regional basis

A regional view is essential for an analysis of the consequences of the demographic trends described above for real estate markets. Such a forecast is regularly prepared by the Federal Institute for Research on Building, Urban Affairs and Spatial Development.[7] Figure 7 shows the forecast for Germany up to 2040. In the calculations, current structural conditions are extrapolated into the future. Political reforms are not assumed. It is obvious that population development varies greatly from region to region. While some regions will continue to grow in 2040, there are a large number of counties in which the population will shrink, in some cases quite significantly. A clustering is particularly evident in the rural regions in eastern Germany. Of the 100 counties with the greatest population losses, 55 are in the east, although the total number of counties in the eastern states is only 77.[8] The reason is the already above-average age of the population. On the other hand, of the 100 counties where the population will grow by 2040, only 10 are in eastern German regions.[9] The city of Leipzig is the only one from eastern Germany among the five counties with the highest growth.

It should be noted, however, that the study does not yet take into account the changes caused by the Covid 19 pandemic when forecasting internal migration. Since then, the home office trend has mainly led to movements from urban to rural areas. It is not yet possible to make a final judgment as to how sustainable these changes in the modern working world will be. However, it is possible that migration to the big cities will be weaker than predicted.

This is also true to a limited extent for another study that performed a stochastic simulation of regional population trends.[10] It thus examines a very large number of different scenarios, although it remains unclear whether the changes caused by the pandemic are explicitly

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[5] Cf. ibid.

[6] Kuntze, P. and Mai, C.-M., 2020: Arbeitsproduktivität – Nachlassende Dynamik in Deutschland und Europa. In: Wirtschaft und Statisik, 2, pp. 11-24.

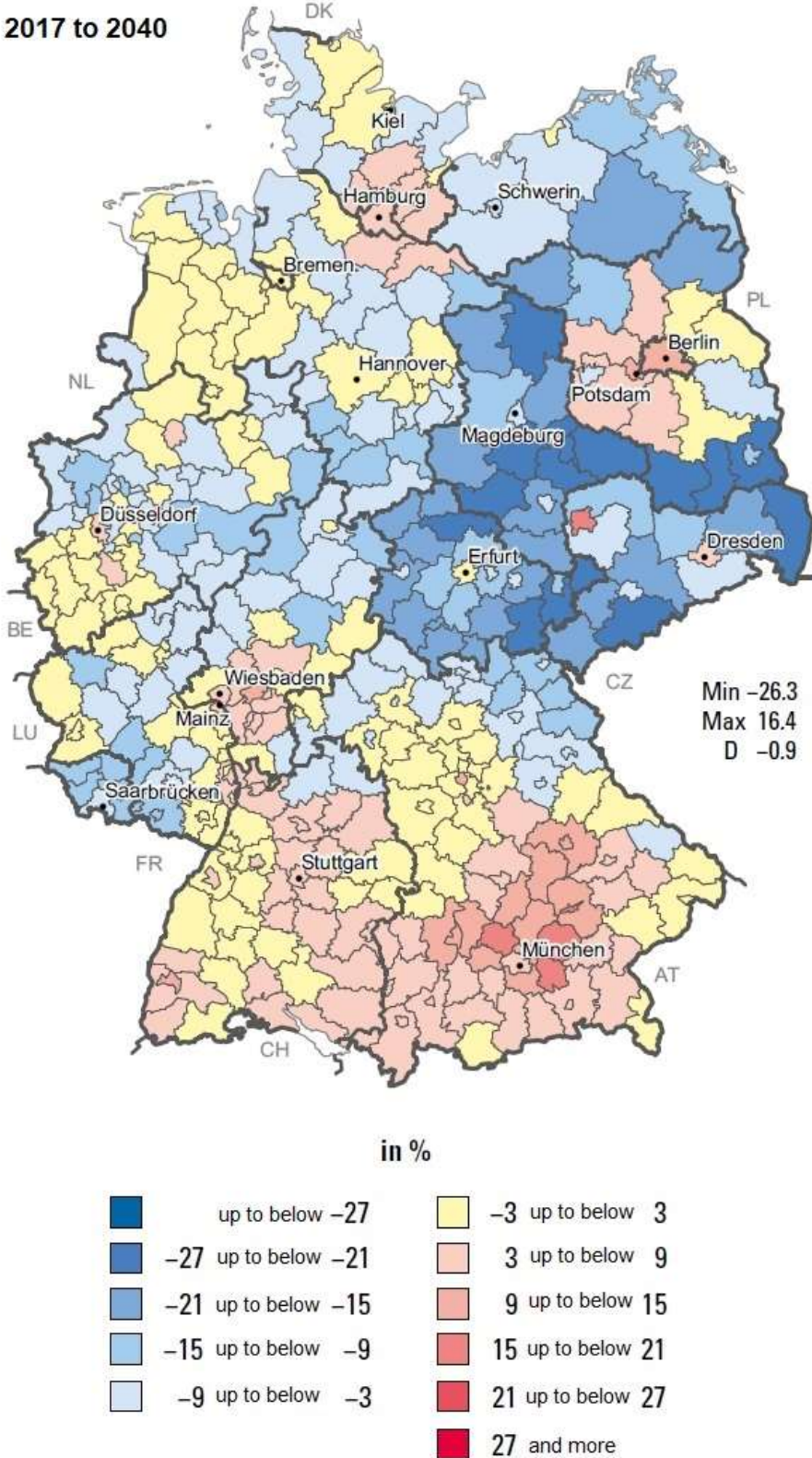[7] Bundesinstitut für Bau-, Stadt- und Raumforschung (BBSR).

[8] Bundesinstitut für Bau-, Stadt- und Raumforschung, 2021: Raumordnungsprognose 2040.

[9] Cf. ibid.

[10] PREA, 2023: Geburtenkollaps Part 1: In diesen Städten sollten Sie nicht mehr investieren! https://www.prea.eu/de/insights/latest/geburtenkollaps-part-1

included. It determined the population size and age structure at the regional level for the coming 10, 15 and 20 years. From this study, a large regional discrepancy also emerges.

Figure 7: Population Development of Counties in Germany Until 2040

Min −26.3
Max 16.4
D −0.9

in %

up to below −27	−3 up to below 3
−27 up to below −21	3 up to below 9
−21 up to below −15	9 up to below 15
−15 up to below −9	15 up to below 21
−9 up to below −3	21 up to below 27
	27 and more

Source: Bundesinstitut für Bau-, Stadt- und Raumforschung, 2021: Raumordnungsprognose 2040.

Figure 8 shows the results for each of the 10 major cities with over 100,000 inhabitants which are most affected by growth or decline. It has already been shown above that many rural regions will be affected by a population shrinkage, while urban centers, which are already experiencing growth today, will continue to grow in the future. Demographic change is reinforcing this trend toward urbanization. Here, too, Leipzig occupies a prominent position. For the next 20 years, growth is estimated at a total of 30%. Of the German TOP 5 cities, only Frankfurt appears among the fastest growing. Overall, the authors of the study conclude that cities with strong population growth in the past will continue to grow in the future. Demographic change will thus ensure that demand pressure in major cities and urban centers will remain high.

For both studies, it should of course be noted that regional forecasts are subject to significantly more uncertainties than a forecast of the development of the total population. In particular, extrapolating current structures and policy measures into the future, while a necessary assumption, can lead to erroneous results. Especially at the regional level, unpredictable single events can have significant consequences in the long term. For example, the settlement of a large industrial company (Tesla, Intel) can have a strong and lasting impact on the economic structure and thus also on the population of a region. Of course, such processes are also strongly felt on the real estate markets.

Figure 8: Top 10 Cities with more than 100,000 Inhabitants with highest Population Growth (left) and Highest Population Decline (right) in the next 10, 15 and 20 Years

	△ 10 years	△ 15 years	△ 20 years		△ 10 years	△ 15 years	△ 20 years
1 Regensburg	18.6 %	24.4 %	32.5 %	1 Neuss	-7.8 %	-16.6 %	-22.1 %
2 Leipzig	16.2 %	21.3 %	30.2 %	2 Trier	-5.1 %	-11.4 %	-17.3 %
3 Potsdam	13.8 %	17.6 %	24.4 %	3 Moers	-4.7 %	-12.90%	-16.4 %
4 Fürth	14.9 %	17.2 %	22.3 %	4 Recklinghausen	-3.4 %	-11.5 %	-14.2 %
5 Bremerhaven	13.7 %	14.8 %	20.8 %	5 Braunschweig	-4.9 %	-10.6 %	-13.3 %
6 Salzgitter	13.3 %	14.6 %	20.5 %	6 Karlsruhe	-2.7 %	-7.9 %	-10.0 %
7 Augsburg	11.8 %	13.7 %	19.1 %	7 Chemnitz	-2.1 %	-8.6 %	-9.1 %
8 Frankfurt a. Main	11.8 %	13.9 %	18.7 %	8 Bochum	-0.6 %	-6.2 %	-7.4 %
9 Nürnberg	11.4 %	13.2 %	18.1 %	9 Oberhausen	0.6 %	-4.7 %	-6.1 %
10 Erlangen	11.2 %	13.1 %	17.9 %	10 Göttingen	-0.3 %	-5.2 %	-5.9 %

Source: PREA, 2023: Geburtenkollaps Part 1: In diesen Städten sollten Sie nicht mehr investieren!
https://www.prea.eu/de/insights/latest/geburtenkollaps-part-1

Conclusion

The demographic outlook for Germany represents an economic and social challenge for the future. The trend in the potential labor force is clearly downward, which will have tangible consequences for the national economy if appropriate political measures are not taken. Proposals on what to do are available and have been discussed for a long time. The effects will be felt not least in the real estate market, as we will show in detail in the forthcoming Market Insight, although there are also opportunities for investors.

From today's perspective, it is too early to hope that the AI revolution will change the economy in such a way that labor shortages and the financial viability of the pension system will no longer be challenges in the future. Only considerable political efforts could ensure that the German labor force potential does not fall as sharply as current projections predict. Increasing the labor force participation rate through higher employment among women and older people plays an important role here. The impact of these measures, however, is small compared to the potential that targeted and numerous immigrations aligned with the needs for professional qualifications could achieve. Policymakers are challenged to explore this alternative and achieve its implementation as far as possible. There is simply too much at stake to let a new immigration policy fail because of obstacles that can be overcome.

One limit here, however, is certainly the willingness of the population to support the social changes that such a large influx of immigrants would cause. In this context, the recent history of Switzerland can serve as an example. While the German population grew by less than 1.5% between 2000 and 2020, the small country of Switzerland has absorbed an increase of more than 20%[11], predominantly caused by immigration. What is essential here is the widespread social consensus that immigration of qualified workers is welcomed because it is crucial for maintaining prosperity. It must be a goal to promote this awareness in Germany as well. Here, much more intense and clearer communication by the government about the costs at the societal and individual level could, however, help to shed more light on the alternative of doing nothing.

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[11] https://www.swissinfo.ch/ger/multimedia/10-millionen-schweiz-zuwanderung/48631798

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