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# Construction of 1+2 Family Homes in Germany: Is the Golden Age Over? 

## INTRODUCTION

By historical comparison the construction of $1+2$ family homes is currently on the back burner in Germany, despite the fact that financing conditions and the general economic are favourable; as this is offset by far higher (additional) construction costs and land prices. In addition, state subsidies for new construction works differently today and the federal government is providing less funding than it did in the past.

In the long-term demographic aspects in particular can be expected to constrain new construction activities. For the ageing of society is leading to a quantifiable decrease in the potential occupants of $1+2$ family homes. At the same time, private households are on average getting smaller, partly because there are fewer families with children. Moreover, the rising number of inheritance-related sales means that a growing volume of 'second-hand' real estate is coming onto the market.

In Europe there are also several (neighbouring) countries in which the number of $1+2$ family homes has fallen significantly over the past two decades. Several of the influence factors cited above probably also played a role there too. So demographic ageing is a pan-European phenomenon.
real estate by investors, affected the owner-occupied segment far less strongly than the multi-family segment. A lateral move in the market emerged early in the $1+2$ family homes, i.e. completion figures have been fluctuating between 100,000 and 110,000 dwellings for some years. The increase to around 110,000 units forecast for 2017 is related to a special effect following the introduction of stricter energy regulations. This growth generated by a pull-forward effect in completion figures is very likely to be temporary. The fact that a potential, marked increase in the construction costs of owner-occupied homes has only moderately stimulated new construction permits shows the 'modest' upwards potential of this sub-segment.

Despite extremely low long-term mortgage rates for several years and very positive developments in (real) income, the number of newly-completed owner-occupied homes has stagnated at a good 100,000 units for some time. This is an exceptionally low figure by historical comparison. Over the last decade the average annual completion figures has been around 140,000 units, versus around 195,000 dwellings in the 1990s. In terms of Germany's previous federal territory (the former Federal Republic of Germany), the corresponding figures for the 1980s are a good 155,000 units, compared to over 230,000 units in the 1970s and almost 240,000 in the 1960s. There are no official statistics on construction activity available in such detail for previous years.

## NOT JUST A GERMAN PHENOMENON

New build activities in the $1+2$ family homes sector have also sunken to far lower levels than in the last two decades in the rest of Europe (Figure 2). The extreme market correction in 2008 to 2010, however, was largely due to the impact of the financial and economic crisis. In countries like Ireland, Spain and Hungary, new-build construction activity has nevertheless been on the 'back burner' for several years and is only expected to recover moderately by the end of the decade.


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## CURRENT SITUATION

Since the millennium the number of dwellings in newly-constructed $1+2$ family buildings ('owner-occupied homes') has plunged. In 1999 just under 240,000 new owner-occupied homes were completed, versus around 150,000 residential units in 2005 and around 85,000 units in 2010 (Figure 1). The upturn in the new residential construction sector after the financial and economic crisis as a result of low interest rates, pronounced immigration and internal migration, as well as the rediscovery of

Figure 1
New Construction of 1+2-familiy Homes in Germany ${ }^{\text {a }}$

a Until 1990: territory of the former Federal Republic, as of 1991: unified Germany.
Source: Federal Statistical Office (2017a); ifo Institute.
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Figure 2
New Construction of 1+2-familiy Homes in the EUROCONSTRUCT Area

during this decade will also be clearly weaker by historical comparison in several countries that were less heavily impacted by the crisis. In addition to Germany, these countries include Belgium, the Netherlands, Norway, Austria and Switzerland. In the first four of these countries, average completion figures for dwellings in new $1+2$ family homes in the three decades since the beginning of the 1990s have fallen in clear steps. In the Netherlands, for example, average annual completion figures of owner-occupied homes were around 62,500 units in the nine years between 1992 and 2000, compared to approximately 46,500 units in the decade between 2001 and 2010. A figure of around 35,000 is forecast for the nine years from 2011 to 2019. The decline between the 1990s and the 2000s is around a quarter and between 1990s and the 2010s even 45 percent as a result.

In Norway, Austria and Switzerland the decline over these three decades was less consistent. Switzerland saw a similar number of owner-occupied home completions in the 1990s on annual average than in the decade that followed. The current forecast of newly-constructed apartments in $1+2$ family homes in 2010 to 2019, by contrast, is expected to be a third lower than in the 1990s. With its marked decline by almost half of completions over the same time period, Germany is not alone.

Comparing new-build activities in the five major European countries reveals that the Spanish market has hit rock bottom. In Spain only around a quarter of an owner-occupied home per 1,000 inhabitants is completed and/or one owner-occupied home per 4,000 inhabitants (Figure 3). For 2017 only 14,000 apartments are forecast to be completed in new $1+2$ family homes, which is a

Figure 3
Completed 1+2-familiy Homes in the Big 5 European Countries ${ }^{\text {a }}$
Completed dwellings per 1,000 inhabitants
(in newly-built homes)
homes is being completed per 1,000 inhabitants as in the 1990s is France. Although demand has also clearly weakened since the outbreak of the financial crisis with a completion rate of almost 4 dropping to 2.3 residential units at present - the French market apparently was not too strongly overheated and/or driven by speculation in the pre-crisis years. On the other hand, it is worth noting that although the construction of owner-occupied homes in France got off with a black eye, its importance compared to mul-ti-family home construction, has diminished significantly since the crisis.

## WAGE DEVELOPMENT VS. CONSTRUCTION COSTS AND LAND PRICES

Let us go back to the situation in Germany. The sharp increase in wages and salaries in recent years should have given fresh impetus to the construction of $1+2$ family homes. Over the past seven years average gross wages and salaries earned by German workers have increased by a good $21 / 2$ percent annually (Figure 4). As of 2014 the annual increase in consumer prices has slowed down significantly in addition, meaning that gross wages and compensation increased by around 2 percent p.a. in real terms during the period of 2014-2016. Higher levels of real growth were last seen in 1992.

On the other hand, the prices for construction services related to erecting a new residential building have risen more sharply since 2006 than general consumer prices (Figure 5). This particularly applies to the years from 2014 to 2016 and thus relativizes the greater financial scope created by stronger growth in

Figure 4
Wages and Salaries as well as Consumer Prices in Germany Changes on the previous year

wages and salaries. Moreover, according to official statistics on building permits, the estimated construction costs of owner-occupied homes per square meter living area has increased by almost 3 percent p.a. since 2008. In the years between 2012 and 2016 the annual pace of growth also picked up somewhat. For the ongoing year the increase in costs even reached a rate of nearly 4 percent, a figure last seen in 1993.

The higher growth rate of estimated construction costs reflects the faster increase in construction costs on the one hand, as contractors can now command higher prices due to brisker demand. On the other hand, stricter - and in most cases more expensive - state regulations (like the tightening up of Energy Savings Order regulations, for example), as well as steadily tougher requirements in terms of quality and furnishings on the part of clients and/or owner occupiers, are also playing a key role.

Moreover, the shortage and increase in land prices particularly in metropolitan areas has already been negatively influencing demand for $1+2$ family homes for some time. In addition to the reports of market players, the results of official statistics on the land market point to an insufficient offering of plots suitable for construction (Figure 6). Although the amount of land suitable for construction sold has increased significantly since 2010, this figure remains far below the levels seen at the beginning of the 1990s. Today's demand for residential construction - especially related to mul-ti-family buildings - is similar to back then. The shortage of land, reflected in soaring sales prices per square metre, is causing problems both for multi-storey and owner-occupied dwellings. The

Figure 6
Purchase Values for Building Land in Germany


Source: Federal Statistical Office (2017f); ifo Institute.
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## DEMOGRAPHIC EFFECTS AND SUPPLY OF EXISTING HOMES

We have already established that low interest rates and the favourable economic environment with its rising income levels - are indicative of higher demand for newly-built $1+2$ family buildings. At the same time, however, potential home builders are confronted with far higher construction and land costs, as well as higher incidental costs related to land transfer tax. In addition, the government has scaled back its funding significantly. Moreover, other aspects like greater (pro-
very moderate development in the sales of green field sites - which is precursor of the various different types of construction sites, but primarily for land ready for building - suggests that the offering of sites will remain very limited because there is a lack of replacement land in the pipeline. Since 2012 the average sales price for green field sites has been way above that of previous years. Actual demand for land has since increased considerably.

## CURRENT STATE SUBSIDIES

Another important reason for the extremely sluggish demand for new construction in recent years is the significant reduction of state subsidies. At the beginning of 2006 - almost ten years after its launch - the home ownership subsidy was finally scrapped. The market for $1+2$ family homes benefitted tremendously from this measure, which, unlike its predecessor, no longer consisted of tax breaks. This was primarily due to the high upper income tax ceiling, below which the subsidy was paid, as well as the special subsidy for children. Unlike today, the level of the subsidy was not coupled with the new building's energy-saving features either.

At its peak in 2004 this subsidy cost the German federal government almost 11 billion euros. At that time the average construction costs were over a quarter below the present level and also the land prices were considerably lower. The government now offers funding via the state-owned Reconstruction Loan Corporation (KfW) for the creation of owner-occupied property (e.g. the purchase from builders) via loans at favourable rates on the one hand; and supports ener-gy-efficient (e.g. independent) new construction via cheap loans and redemption subsidies on the other. The latter can be as high as 15,000 euros, but this calls for extremely energy-saving and therefore expensive construction. The current promotion can be described as far less appealing than the funding available in 2004 as a result.
fessional) mobility and the growing attractiveness of cities and/or conurbations, where people primarily live in apartment buildings, also have a certain role to play. In the long term, however, digitalisation may lead to slightly more decentralisation and/or fewer mobility requirements.

While the interest rate, economic environment and subsidy strategy pursued by politicians may change markedly in the short term in theory, demographic developments and their effects on the market for $1+2$ family buildings, for example, are difficult to influence even in the long term. The ageing of society, which is extremely hard to prevent, is leading to a significant reduction in the size of the traditional target group on the one hand; while the rising number of bequests mean that a rising number of existing homes are coming onto the market. The growing supply of 'secondhand' real estate is making new-builds look less attractive since they are far more expensive to buy and involve a great deal more organisational effort if built independently by their owners.

Germany's population has already been ageing for some time and this process will gather impetus significantly in the decades ahead. The old-age dependency ratio, (or the number of at least 65 year-olds per 100 persons aged between 20 and 64 years), for example, was around 35 persons last year. According to a recent study by the Berlin Institute for Population and Development, this figure will be more than 10 persons higher by 2030 and will reach a level of around 55 persons in 2050. In other words, there will then be fewer than twice as many 20 to 64 year-olds as $65+$ year-olds. Average demographic developments will be very similar across Europe.

Focusing on the section of the population of potential home builders and/or home buyers shows a decline in Germany as a whole since the mid-1990s - even if an increase can recently be seen in the $25-44$ yearold age group (Figure 7). From 1997 to 2014 this group lost 6 million persons, i.e. potential owner-occupiers. The Federal Statistical Office's recently updated popu-

Figure 7
Development of Selected Age Groups in Germany

sales of existing $1+2$ family homes has increased sharply since 2007 (Figure 8). At that time, and after the home ownership subsidy was scrapped, the new construction of dwellings in one and two family buildings fell sharply from around 150,000 units in 2006 to just 84,000 units in 2009 . The recovery as of 2010 was far weaker then. At the same time, the number of registered purchases has risen significantly since 2007. Furthermore, information from the German Federal Statistical Office shows that a reversal in the death rate trend occurred. The number of mortalities had fallen steadily from the mid-1970s to the mid-2000. In the ten years that followed the death rate rose sharply, and therefore more properties should have bequeathed as a result.

Since the GEWOS data covers transactions, it also covers transfers of ownership in the course of property development activities. A look at the official completion statistics shows that corporate builders have completed less than 20,000 new $1+2$ family homes since 2008; and even in the previous years up to 2003 they only completed around 30,000 such new buildings. Over the entire period from 1993 to 2016 the number of owner-occupied homes built by companies as a share of all such buildings fluctuated between 15 and 25 percent. The share of private households that were builders, by contracts, fluctuated between around 75 and 85 percent. GEWOS itself assumes that only around 10 percent of the registered purchases can be attributed to property developers. Hence GEWOS total transaction figures should provide a reliable indication of how the purchasing figures of existing homes have developed in recent years.

Also the fact that GEWOS transaction data features purchase events only marginally reduces its informative value. Ownership transfers of entire 2 family
lation projection, which considers (refugee) immigration to be of considerable importance, only forecasts growth of just 1.2 million persons in the 25-44 year-old group in the period from 2015 to 2022. In the remaining years up to 2030 this figure is forecast to turn negative. In terms of numbers, the group of future home builders - or 15-24 year-olds - will not develop favourably either.

Moreover, the share of households with more than two members has been decreasing steadily for several years from just under 36 percent of all private households in 1991 to just a quarter in 2016. The number of potential families, or households of at least three persons, has therefore dropped significantly over the years. In the 20 years between 1996 and 2016 alone the number of households with married couples and/ or partners with children aged under 18 fell by a good 1.5 million to around 6.5 million. According to current official projections released in 2017, the share of households with 3+ members may even drop to just a fifth by 2035. Since it tends to be slightly larger households that want $1+2$ family homes - as they require more living space after founding a family and wish to move into their own home - the signs do not look rosy for the future construction of owner-occupied homes.

Figure 8
New Construction and Transactions of 1+2-familiy Homes in Germany

homes, as well as package sales of several $1+2$ family homes, only count as one transaction, while in reality several residential units change hands. However, an internal GEWOS analysis, as well as testimonials from land valuation boards, shows that such transactions are very rare and of virtually no importance compared to the total number of purchases. The other case scenario is that the statistics include buildings that are bought and resold very quickly and before anybody moves into them. This would mean that the supply of existing homes deduced from the figures here is overestimated, but this factor is also barely relevant.

As a result, GEWOS data seems very well-suited for finding answers to the question of how sales figures for existing owner-occupied homes have developed over the years. Comparing GEWOS data with official figures on new builds reveals that a large gap between transaction and new build figures has opened up since 2007. This, in turn, indicates that the importance of 'secondhand' real estate compared to new builds has grown significantly in the last ten years. Last year the number of registered transactions exceeded completions by around 150,000 residential units. If the sales figures are adjusted for transactions conducted by property developers, the overhand of existing homes sold annually is still way above the 100,000 unit marker. Ten years ago, by contrast, the overhang was probably only a few thousand units.

The markedly higher market offering of existing homes has already been negatively impacting new construction activity for several years. In view of the rising number of bequests in the future, this trend in demand for new construction is expected to become even more pronounced; and will lower the number of new builds. The real estate market, however, should always be considered regionally/locally. This means that in growing, sought-after cities $1+2$ family homes find buyers very quickly. In these areas large numbers of potential owner-occupiers are still contemplating new build projects as a result. Nationwide, however, progressive demographic ageing will have a negative impact on the new build market, even if land prices are still very low in several regions and many households in such areas therefore prefer to build rather than buy an existing home.

## CONCLUSION

To sum up, Germany's ageing population can be expected to clearly hamper the construction of new $1+2$ family homes in the long term. On the one hand, the number of traditional users such as families, for example, will fall, while the wave of bequests will continue to grow and will significantly boost the supply of existing homes in many areas. In the medium term, there is also little hope of any improvement as far as (additional) building costs, the availability of surface area and state subsidies are concerned. Instead, financing can be expected to become slightly more expensive
in the medium term and economic growth will slow down markedly. As a result, the number of dwellings in newly-built $1+2$ family homes could fall permanently below the 100,000 unit marker in the years ahead. The statement that new owner-occupied homes will still be built in the future is, however, little consolation to many market players like firms in main construction industry, the building supply industry and building societies.

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