

Spotlight **Student housing Germany**

June 2017



Summary

Student numbers appear to have peaked-supply shortage to continue in the near term

- The number of students in Germany reached a new record level of approx. 2.8m in the 2016/17 winter semester. The number of foreign students grew more rapidly than the domestic total.
- However, there is an end to the growth in sight. Almost a third of the 60 largest university cities registered stagnating or falling student numbers last year.
- Nevertheless, there remains an undersupply of student housing in almost all cities. The provision rate is approx. 11%.
- Development activity from private investors remains buoyant and focused on the major cities. Consequently, the provision rate in these cities is growing rapidly and, in some cases, will rise to more than 50% in the rental segment from €500 per month.
- The rapid growth in the student housing stock is creating investment opportunities, producing increasing transaction volumes. Investment in the sector this year is expected to total more than €1bn for the first time.

"The student apartment market in Germany has passed the pioneering stage and is undergoing institutionalisation. At the same time, the supply is becoming increasingly differentiated but remains highly priced." Matti Schenk, Research Germany

Student numbers reach new record levels though momentum falls

The number of students rose for the ninth successive year in the 2016/17 winter semester, with more than 2.8 million students enrolled at one of the 426 state-accredited universities in Germany. This represents a further increase of 1.7% compared with the corresponding period in the previous year but also the lowest growth rate for 10 years. Overall, student numbers in Germany have risen by 44%, or 862,500 students, over the last 10 years (see Graph 1). Yet the current figure may also prove to be the peak, with the probability of any further material increase appearing low.

Significant increase in foreign student numbers

The slower growth in the number of students last year is primarily attributable to the smaller increase in domestic students. Conversely, the growth rate for foreign students remained high, with student numbers increasing by 5.2% compared with the previous year to almost 358,000. As a result, the proportion of foreign students rose to a record level of 12.8%. Since studying in Germany remains very inexpensive by international comparison (see our report "World Student Housing 2016/17") and the number of English-speaking courses is growing continuously (more than 1,100 Englishspeaking bachelor's and master's programmes at present), Germany's attractiveness to foreign students is expected to remain above average and may even increase further.

Student numbers are declining in more and more cities

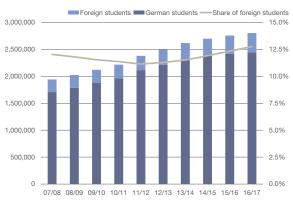
However, not all university cities are benefiting equally from the sustained growth in the number of students. A glance at the 60 university cities with at least 10,000 students illustrates that 15% of these cities witnessed a decline in student numbers in 2015 (latest available figures). A further 15% showed stagnating student numbers (from -0.5% to +0.5%). Accordingly, almost a third of all major university cities did not benefit from the growth in student numbers in Germany. In the previous year, this was only true

of 20% of cities. The university cities with declining student numbers include smaller cities - such as Trier, Greifswald and Jena. In Dresden and Mainz, however, two of the 30 largest university cities (based upon student numbers) also registered a decline. In all of these cities, the decrease was predominantly due to a decline in German students. Conversely, the number of foreign students fell in only three cities (see Graph 2). Those university cities whose students primarily come from catchment areas characterised by declining or ageing populations are particularly likely to witness increasing declines in student numbers in future. On the whole, it can be assumed that the number of cities with declining student numbers will increase going forward. Cities such as Heidelberg and Tübingen, where student numbers are already stagnating, are also likely to see declines in the near future.

Supply in the open rental apartment market is increasingly scarce

Overall, however, market activity in Germany continues to be driven by growing student numbers and, with the growth in supply unable to keep pace in many locations, the housing supply situation is becoming increasingly challenging for many students. This is reflected in the average quoting rents in the 30 largest university cities. for example, which have risen by an average of 15.5% over the last five years to €9.37 per sq m/month. Rents on small apartments with up to 30 sq m of living space have risen by 13.5% and the average net exclusive rent is significantly above average rental levels at €11.34 per sq m/month. The consequence of rising rents is that the amount of living space the average student can afford is increasingly shrinking. As a result, the number of affordable apartments in the top 30 cities fell by a third between 2006 and 2016 to around 1.15 million. However, in the same period, the number of students rose by a third to around 1.54 million last year. Consequently, the balance of power in the open apartment market has shifted further to the detriment of students (see Graph 3).

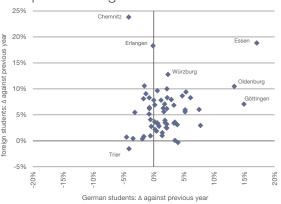
GRAPH 1 Student numbers Growth to more than 2.8 million students



Source: Statistisches Bundesamt

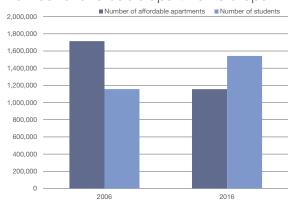
GRAPH 2 Foreign students





Source: Statistisches Bundesamt / * version: winter term 2015/16

GRAPH 3 Supply on open apartment market* Number of affordable apartments drops



Source: Savills / * in the 30 largest university cities

Growing number of places in student accommodation

WWhile supply in the open apartment market is becoming increasingly scarce, supply in the form of student accommodation is growing continuously. Student associations remain the largest providers of student accommodation, with a combined total of approximately 114,000 beds in the top 30 university cities. Other non-profit providers, such as churches and foundations, provide around 22,800 beds. These providers and the student associations also have a further approximately 4,850 places under construction or in planning. However, the supply from private operators is growing significantly more rapidly. These currently provide almost 38,500 beds across the top 30 cities, having more than trebled their stock since 2010. And there is currently no end to the construction boom in sight. A further 24,500 beds are under construction or in the planning stage, meaning that the supply should increase to at least 63,000 beds over the coming years (see Graph 4). This would mean a more than five-fold increase in the private stock within a period of just 10 years. Hence, the German student apartment market is changing fundamentally and, above all, rapidly.

Moderate increase in the supply rate

Despite the extensive new-build activity, the average supply rate across the top 30 cities will only increase moderately. While non-profit or private operators currently provide sufficient places for approximately 11% of all students, this is expected to increase to around 13% in five years (assuming constant student numbers). The highest supply rates are currently witnessed in the southern German cities of Heidelberg and Regensburg (both 19%) as well as Stuttgart and Tübingen (both 18%). The lowest relative supplies, on the other hand, are found in Kassel (4%) and Dortmund. Hanover and Cologne (all 6%). Following the completion of all developments known to us, however, Leipzig will have the highest privision rate of 21%. Heidelberg will occupy second place with approximately 20%, while Stuttgart, Mainz and Regensburg will share third place with around 19%.

Private operators are further expanding their market share

In rapidly increasing their stock, private providers are continuously expanding their market share. While such operators had a combined market share of 16% across the 30 largest university cities two years ago, today they account for 22% of all student accommodation. Over the next five years, their market share is expected to grow to almost one third. The highest market shares among private providers are currently found in Darmstadt and Bremen (both 39%) as well as in Regensburg (38%). In the medium term, however, private providers are likely to have the largest market presence in relative terms in Berlin, Kassel, Frankfurt, Hamburg and Bremen, with their market share in each of these cities expected to rise to significantly more than 40% by 2021 (see Graph 5). In Berlin, the supply of private providers is even expected to equal that of non-profit operators.

Berlin and Hamburg are the hotspots for developers

The rising market shares in cities such as Berlin and Hamburg illustrate that private providers continue to focus primarily on the major cities with particularly strained housing markets. Berlin has by far the largest pipeline. A further 8,500 beds are likely to increase the private stock in the German capital to around 11,500 beds. Hamburg and Frankfurt follow in second and third place, with approximately 2,000 and 1,650 beds respectively under construction or in the planning stage. Leipzig also has a noteworthy pipeline of 1,650 beds, which even trumps Munich. With around 4,800 beds, the Bavarian state capital currently has the largest stock, with a further 1,400 beds under construction or in planning.

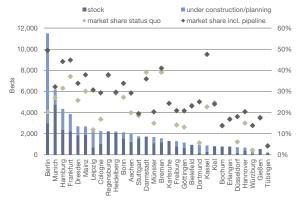
Continued focus on onebedroom apartments

The growing presence of private providers is also causing a shift in the type of accommodation offered. While 65% of places offered by non-profit providers, such as student associations, comprise single rooms in shared apartments and corridors with shared facilities, the supply of private providers is dominated by one-

Private student apartments Construction boom continues ■ Private stock* 50,000 40.000 30,000 10.000 2005 2021

Source: Savills / * in the 30 largest university cities

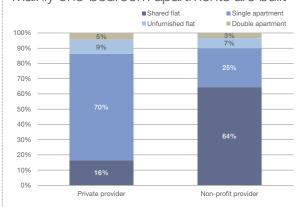
GRAPH 5 Development of the private stock* Focus on big cities



Source: Savills / * in the 30 largest university cities

GRAPH 6 Type of rooms in comparison*

Mainly one-bedroom apartments are built



Source: Savills / * in the 30 largest university cities (incl. pipeline)

bedroom apartments. To date, 59% of all private places completed have been small, furnished apartments with their own bathroom and kitchenette. A further 6% are two-bedroom apartments while around 22% are small, unfurnished apartments. One-bedroom apartments are even more prevalent in terms of private accommodation under construction or in planning, accounting for 87% of such units, while a further 2% are two-bedroom apartments. Following the completion of all accommodation planned to date, onebedroom apartments will comprise approximately 70% of the private stock (see Graph 6). The average size of these one-bedroom apartments ranges from around 18 to 22 sq m, depending on the location, while twobedroom apartments average 40 sq m. One-bedroom apartments now also account for 70% of units developed by student associations. Among the few exceptions to the trend towards one-bedroom apartments is "THF FIZZ Basic" brand from International Campus. The product comprises cluster flats offering single rooms with their own bathroom but with a shared kitchen. This accommodation type, which is already widespread in Great Britain, may be suited to helping private providers to penetrate the midprice segment.

New supply continues to target the upper price segment

However, private operators are also currently targeting potential rental demand in the upper price segment with primarily onebedroom apartments fitted out to a high standard. While the student associations and other non-profit providers offer affordable places in line with their statutory or self-imposed mandates, around half of the private supply completed to date, or 48%, is offered at all-inclusive rents of at least €450 per month. As much as two thirds of private places under construction or in planning are likely to be priced within this range while just 13% of places are expected to be offered for less than €400. Consequently, there remains little overlap in pricing between non-profit and private providers (see Graph 7). What both groups of operators have in common, however, is a lack of supply growth in the €350-€400 price segment.

Freiburg and Frankfurt are the most expensive, Bielefeld and Gießen the least expensive

The highest all-inclusive rents for private student apartments are achieved in Freiburg (average of €670 per month), Frankfurt (average of €632) and Munich (average of €569). It is noteworthy that, at an average of €552, all-inclusive rents achieved in Berlin are approaching the level witnessed in Munich. Apartment rents in the private segment in Kassel, Bielefeld and Gießen are the lowest among the top 30 cities (see Graph 8). All-inclusive rents for one-bedroom apartments remained constant in approximately 80% of cases compared with the previous year while, in most other cases, rents increased by 1% to 5%.

The mid-price segment has the lowest supply

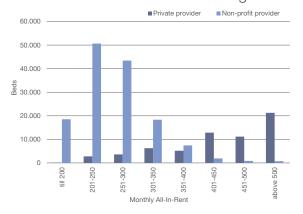
The focus of private providers on the price segment with rents starting from €450 and the simultaneous concentration of non-profit providers on places for up to €350 has resulted in a significant undersupply of student housing in the intermediate price segment. While the top 30 cities provide a total of approximately 17,800 places in the price segment between €250 and €450, the potential demand in this bracket is calculated at almost 380.000 students. Hence, the available supply covers only around 4.7% of all students. Even when properties under construction or in planning are included, the supply rate is only likely to increase to 7.2%, thus remaining the lowest across all price categories (see Graph 9). Nevertheless, it can be assumed that students will mostly satisfy their requirements in this price segment in the open apartment market. According to the empirica price database, average rents for shared apartments are falling and currently stand at around €438 in Frankfurt, for example, and €400 in Hamburg.

The highest price segment has the fastest provision rate growth

Students with the lowest budget, on the other hand, are also scarcely likely to find affordable supply in the open apartment market and are reliant upon affordable accommodation

from non-profit providers. However, there is adequate supply in the student apartment market for one in five students in the lowest budget category (rent of up to €250), which represents the highest supply rate across all price segments. The supply rate is now also above average in the highest price segment comprising rents from €500 per month. Moreover, this segment also shows the fastest supply rate growth. When places under construction or in planning are included, the supply rate is likely to increase from 13% at present to 22%. Consequently, the upper price segment will soon provide appropriate supply for more than a fifth of all potential occupiers, albeit on the assumption that all of these occupiers

GRAPH 7 Offers by prime segment* Bisection of the market is hardening

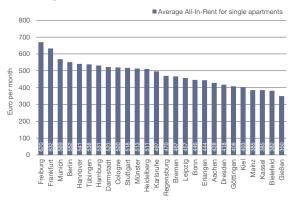


Source: Savills / * in the 30 largest university cities (incl. pipeline)

GRAPH 8

Rents for private apartments

Freiburg and Frankfurt at the top



Source: Savills

wish to live in student accommodation. In cities such as Leipzig and Frankfurt, the supply rate in this price segment likely to rise to significantly above

sub-segments of an overarching use category: temporary living.

Other target groups are on the radar

Since the concept of modern student apartments has proven successful to date (according to occupancy rates), more and more providers are also taking other target groups such as young professionals, commuters or even project employees and expatriates into account. These groups also preferably seek small apartments, which are scarce on the open apartment market. Hence, for many providers with expertise in the construction and operation of student micro-apartments, it is only logical to extend their offering to such target groups, particularly since they are normally willing to pay more than students. Accordingly. the supply of student apartments is increasingly being complemented by offerings for professionals. Examples include the micro-apartments by i Live Holding, SMARTments business and SMARTments living from GBI AG and the planned THE FIZZ Young Professionals and THE FIZZ Short Stav brands from International Campus. It is noticeable here that the boundaries between residential and commercial concepts are becoming increasingly blurred. It is also apparent that student accommodation and micro-apartments for other target groups are each

Private student accommodation

An overview of characteristics

Private student accommodation is a relatively new property type in the German real estate market. Here, we present some of its characteristics and key figures.

■ Planning law:

Student accommodation is classified as residential under building and planning law and is, therefore, normally only permissible in residential and mixed-use areas

■ Classification as student halls of residence: If the student accommodation fulfils certain criteria, it can be legally classified as halls of residence. Pursuant to § 549 para. 3 of the German Civil Code (BGB), various sections of German tenancy law do not apply to student

halls of residence. Besides focusing on students, the owner of the property must also essentially guarantee high tenant turnover. This requires implementation of an occupancy concept that

- is aligned with the interests of students,
- ensures rotation based upon general, abstract criteria and
- limits the duration of tenancies.

■ Building costs:

According to BKI data, building costs (excluding site costs) average €2,230 per sq m of usable area. The range is from €1,810 to €2,780.

■ Property size:

Private, new-build student accommodation generally has an average size of around 200 apartments. For operations to be profitable, many operators apply a minimum size of 150 residential units.

■ Type of rooms:

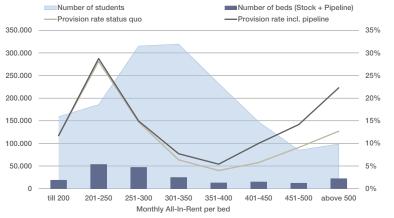
New properties comprise almost exclusively furnished apartments with their own bathroom and kitchenette. The majority of these apartments are one-bedroom apartments while some are two-bedroom apartments. The typical size of one-bedroom apartments ranges from 18 to 22 sq m. Other formats, such as rooms in shared apartments, exist but are very rare.

■ Lease structure:

All-inclusive rents are normally charged, which cover all costs. The typical minimum term is one semester or six months.

GRAPH 9 Supply-Demand-Ratio*

In the mid-price segment undersupply will continue



Investment market

A record year lies ahead in the investment market

The growth in the supply of private student accommodation also entails increasing activity in the investment market. Student accommodation in Germany changed hands for almost €750m last year, reflecting almost a five-fold increase on the previous year. Consequently, the transaction volume in 2016 was larger than in 2009 to 2015 combined. The first guarter of 2017 saw properties change hands for approximately €218m, which was one and a half times the total for the corresponding period in the previous year. In view of the strong start to the year and the multitude of properties with sales already in progress or being prepared for marketing, it can be assumed that the transaction volume this year will exceed the one billion euros mark for the first time (see Graph 10). With new-build activity remaining high, the investable stock will continue to grow and provide additional supply in the investment market.

Portfolio transactions significantly responsible for the boost in investment

Acquisitions of portfolios contributed substantially to the record year to date in the investment market, accounting for 61% of the transaction volume. The largest deal last year was the acquisition of a portfolio of four "THE FIZZ" properties by a consortium comprising Allianz and CBRE Global Investors. The second largest transaction was the acquisition of the Headquarters Portfolio by Britishbased Global Student Accommodation Group (GSA). Finally, the third largest transaction was the disposal of a portfolio comprising four German properties and one in Austria to a special fund launched by Corestate and Bayerische Versorgungskammer (BVK). A number of larger portfolios will also change hands in the current year.

Properties sold are no older than five years or still under construction

The relative infancy of the private student accommodation market is reflected in the structure of properties sold. While existing properties dominated activity last year, accounting for approximately 60% of the transaction volume, these properties were almost exclusively constructed or converted in or after 2012. In the first quarter of the current year, more than a fifth of the transaction volume was attributable to development acquisitions.

Foreign purchasers dominate the market

The rapidly growing student apartment market is not only generating strong interest from domestic investors but also from foreign players. Foreign purchasers accounted for around 60% of the transaction volume last year (see Graph 11). The most active foreign purchasers in 2016 included GSA, Catella Capital and AXA Investment Managers.

Institutionalisation of market participants

The increasing liquidity in the investment market for student accommodation has resulted in further institutionalisation of investors. Insurance companies were the most active purchaser group for the first time last year, accounting for almost 35% of the transaction volume. A further 23% was attributable to special funds, whose investors also primarily comprise insurance companies and pension funds. Consequently, a substantial proportion of private student accommodation stock has migrated from the developers or operators to the portfolios of longterm, institutional investors. This is a trend that is likely to continue.

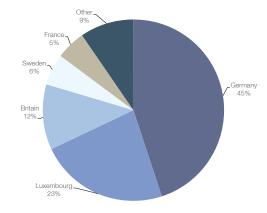
Strong commitment from commercial property investors

Many of the players that have invested in German student accommodation for the first time, or that plan to do so, are investors that were predominantly active in the commercial property market previously. Examples of this include the acquisitions by Allianz

GRAPH 10 Transaction volume New record result is becoming apparent Transaction volume, quarterly (left axis) -transaction volume, past 12 months rolling (right axis) 2011 2012 2012 2013 2013 2014 2014 2015 2015 2016 2016 2017 Q4 Q2 Q4 Q2 Q4 Q2 Q4 Q2 Q4

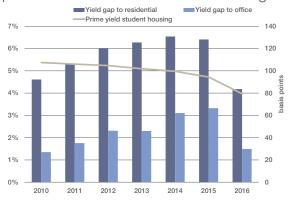
GRAPH 11 Origin of buyer*

Strong engagement of foreign investors



Source: Savills / * in the past 5 years

GRAPH 12 Prime yield student housing Risk premium towards residential is shrinking



Source: Savills

Investment market

and Commerz Real. Besides the strong fundamentals in the student apartment market along with the increasing liquidity and growing market transparency, the significant pressure to invest combined with a shortage of product in the established office and retail sectors are likely to produce a shift into the niche segment of student accommodation. Furthermore, student accommodation still offers relatively high yields compared with other sectors (see Graph 12).

Initial yields are hardening but remain attractive

The high demand from investors in the student apartment market exerted

significant pressure on yields last year. Gross multipliers for new-build student accommodation in the top seven cities currently range from 19 to 22 times the net annual rent. At the end of 2016, the (net) prime yield on student accommodation averaged 4% across the top seven cities. Net initial yields have hardened by 120 basis points over the last five years and hardened by 70 basis points last year alone. Nevertheless, yields on student accommodation remain significantly higher than initial yields on traditional apartment buildings, which recently stood at an average of 3.1% (see Graph 13). We expect continued moderate yield compression throughout the remainder of the year. This, too, is a consequence of the

increasing institutionalisation of the market.

TABLE 1

Overview of the largest transactions of the past twelve months* Five portfolio and five single transactions sold to very heterogeneous field of buyers

Date	Object / Portfolio Location(s)	Number of units	Volume (€m) ↓	Buyer	Seller
Dec 16	Portfolio (13 Objects in Europe, i.a. Bremen)	6,484	ca. 540	Liberty Living	Blackstone
Dec 16	THE FIZZ Portfolio (partly) i.a. Frankfurt, Darmstadt	1,238	undisclosed	Allianz, CBRE Investors, International Campus AG	International Campus AG
May 16	Headquarter Portfolio i.a. Frankfurt, Münster	988	undisclosed	Global Student Accomodation (GSA)	Devario Invest
Oct 16	Portfolio (4 Objects) i.a. Frankfurt, Mainz	1,247	undisclosed	Bayerische Versorgungs- kammer (BVK), Corestate Capital	Corestate Capital
Aug 16	Portfolio (2 Objects) Bremen, Freiburg	686	undisclosed	Württembergische Leb- ensversicherung	International Campus AG
Feb 17	Dresden	289	undisclosed	AXA Investment Managers	undisclosed
Jan 16	Neuer Hühnerposten Hamburg	353	undisclosed	AviaRent Capital Management S.à.r.l.	undisclosed
Mrz17	Berlin	425	ca. 41	Catella Real Estate	HOMEPOINT
Jul 16	Mainz	251	ca. 40	Catella Real Estate	P+B Planen und Bauen GmbH & Co. KG
Jul 16	Bonn	250	undisclosed	Deutsche Real Estate Funds Advisor S.A.R.L. (DREF)	undisclosed

Source: Savills / * only published transactions are shown

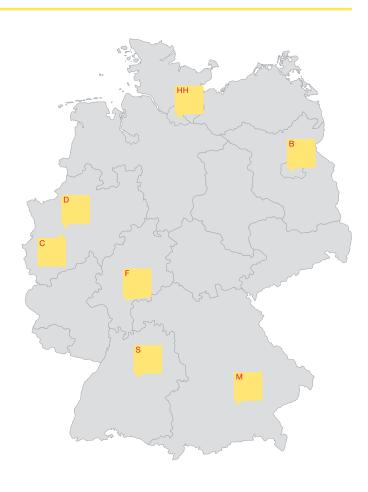
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