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Student Accommodation in CEE: the next big thing?

April 2019

Your World First



Introduction

Welcome to the third annual Real Estate Compass report on the CEE region, which this year is themed on student housing. As CEE economies and commercial real estate markets grow in size, they also grow in scope to include new sectors. Student accommodation has been one of the most successful of the new options for investors and developers in Western Europe to consider over the past ten years. We believe the next ten years will see this new opportunity, alongside its residential peer sectors such as micro living and senior housing, spread into the CEE region.

The present supply of private purpose-built student accommodation (PBSA) in seven cities in the core CEE-6 markets is limited to 20 assets, with another eight under construction. A lack of affordability, the availability of very cheap but low quality private houses and state-owned dormitories and tight university budgets have stymied development in the past. A key demographic shift, with international students becoming an ever-higher proportion of the resident population is shifting expectations and perhaps affordability slowly towards international norms.

We assessed the potential demand over the next ten years via the expanding number of international students, through extrapolating recent growth trends. We calculated various demand scenarios, ranging between just 10% of international students looking to rent a bed in a unit, to half of them deciding to do so. In our core scenario, the shortfall in total supply of new beds across seven key CEE-6 cities is just 5,931 beds in the former case, to 53,307 in the latter case. We see Warsaw, Budapest, Krakow and Prague, in that order, as most under-supplied in coming years.

How big a marketplace? Using calculated historical investment pricing benchmarks linked to monthly living expenses and GDP per capita, the valuation of these shortfalls amounts to EUR 422m to EUR 4.0bn assuming one-bed units and EUR 281m to EUR 2.7bn assuming an average of 1.5 beds per bedroom unit. Using 10% of stock as a turnover assumption, volumes in the sector could amount to 0.6–2.5% of total deal flow by 2028.

Are investors considering the asset class in the region? And how? We conducted a CEE Student Accommodation survey, obtaining the opinion of 68 investors from across CEE, Western Europe and North America. 32% of our clients are already active in the sector in CEE or indicated that they intend to be so. Our respondents see student housing in CEE as becoming more important on a 4–8 year view. They agreed with our opinion that the real opportunity in CEE probably lies with developers in the short to medium term, to create that asset class stock base outlined above. We feature the viewpoints of three active players in the Polish market in this report.

Why might an investor consider the region? Aside from growth, the asset class appears to be counter-cyclical in nature. Investment yields were steady in the 5–7% range across the European universe in the last decade, whilst yields in other sectors fluctuated. Rents grew steadily. This is a healthy mix and certainly one which the contributors to this report agree with. And with the likelihood of sluggish economic growth in Europe over the next 1–3 years and also low interest rates sustaining, student housing has attractive attributes.

We take a look also at the legal regimes in the CEE-6 countries: we present a practical guide on what to take into consideration when planning investment in this asset class.

A steady European growth story

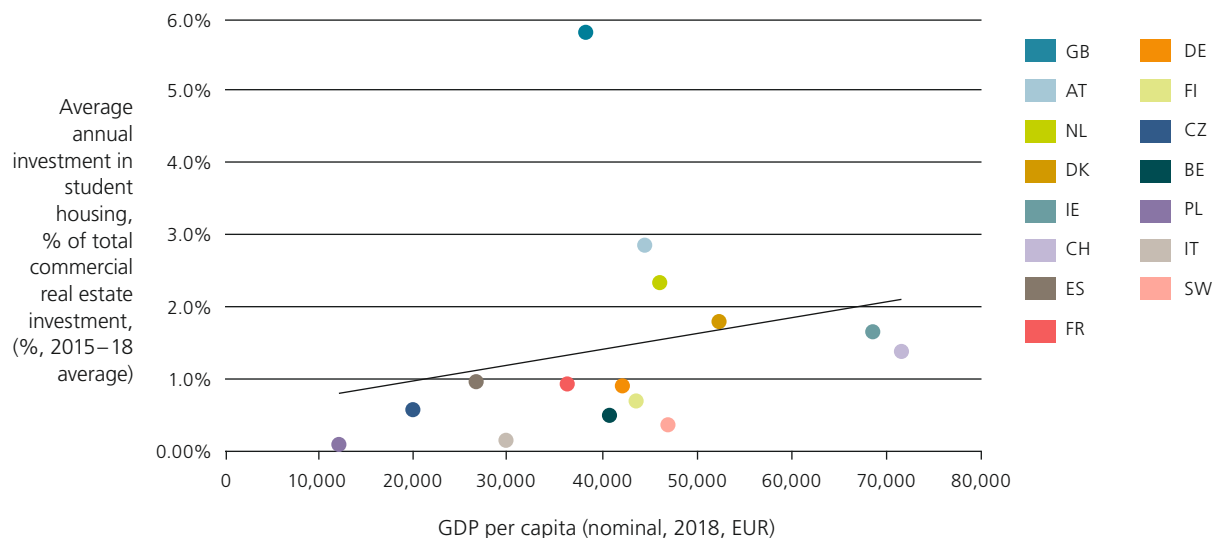
Will private purpose-built student accommodation (PBSA) become an important asset class in the CEE region? We examine in this report the conditions for its growth, current and potential size and ask the opinion of our client base. A total of just 20 private PBSA assets are in operation across the seven cities we studied across the CEE-6 countries (defined as Poland, Czech Republic, Hungary, Slovakia and Bulgaria). If growth comes, it will be coming from a low base. And, to understand the sector's track record, we must look at a universe with more transaction activity.

The path of growth in CEE is that trodden by several of the European countries already, most notably the UK. The British market has seen consistent investment in this asset class since the 2008 downturn, with 4.0% of all UK investment volume on average since 2009 being committed to the sector. This rose to an average of 5.8% between 2015–18, or EUR 4.59bn per annum, according to data provider Real Capital Analytics. These are impressive numbers, in Europe's most liquid commercial real estate marketplace.

No other European country has approached the UK's investment intensity: the Netherlands, Switzerland, Ireland, Denmark and Austria all register quite high on the student housing sector concentration scale. This private sector activity, as opposed to state-funding of student accommodation blocks, is very moderately inversely correlated (coefficient of -0.2) with the tax take as a proportion of GDP. Ireland, Switzerland and the UK have relatively low tax takes, encouraging the private sector to fill the gap. But Denmark and Austria have higher tax takes. A moderately positive correlation (coefficient of 0.37) exists when comparing GDP per capita with that proportion of investment volume. The five countries mentioned above all have relatively high GDP per capita, suggesting both affordability to build (supply) and affordability of the student to live in the housing (demand).

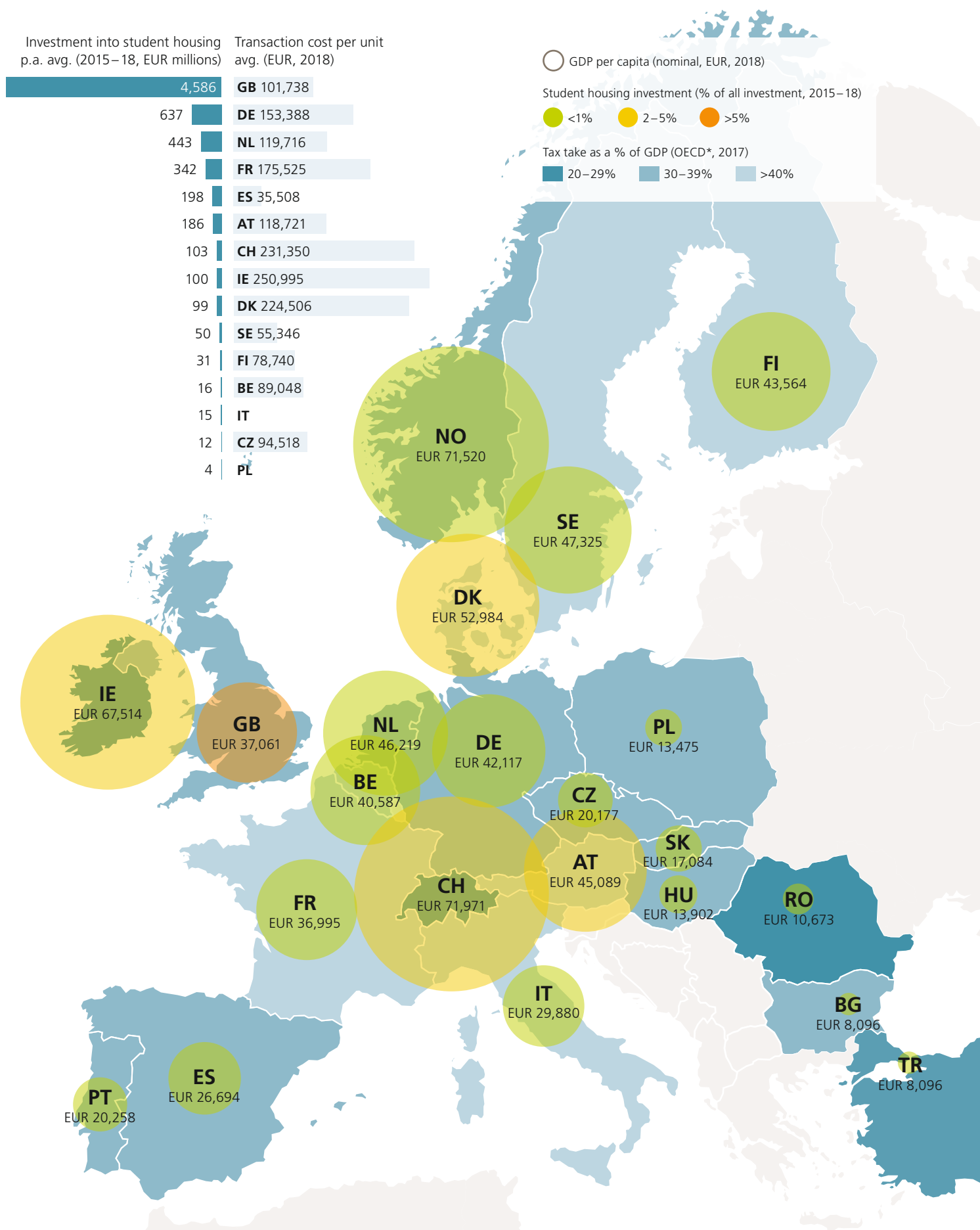
"Generally, the richer the European country, the easier it is for students to afford private PBSA and the access to funding for developers is less difficult"

Figure 1: GDP per capita (2018) versus average annual investment in student housing as % of total commercial real estate investment (2015–2018)



Source: Oxford Economics, Real Capital Analytics, Colliers International

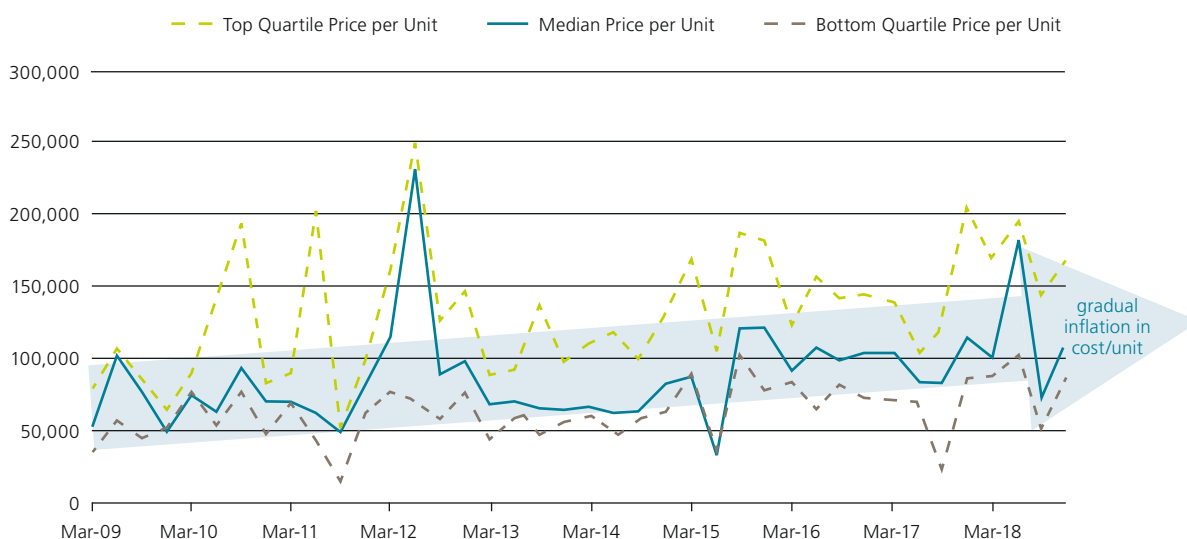
Figure 2: Investment into student housing, pricing of private PBSA assets, average annual investment in student housing as % of total commercial real estate investment, GDP per capita and tax take as a % of GDP across Europe



The asset class has seen steady, uninterrupted growth in Europe in this economic cycle. The returns for those prepared to develop or then purchase existing assets have been encouraging, not spectacular. Median prices

across the Continent have risen since 2009, with for example the cost per unit (defined as a bedroom) in UK transactions standing at EUR 75,530 in 2010 but at EUR 101,738 in 2018 in the region's most liquid marketplace.

Figure 3: Median and quartile student housing transaction costs per unit across Europe, 2009–19 (EUR, RCA data)



Source: Real Capital Analytics

Prices per unit have risen but yields have stood still. This implies three things: first, rents will have risen roughly in line with the unit prices, creating a steady return on investment. Secondly, other asset sectors have seen yields compress across Europe in recent years, so

student housing looks cheaper relative to those sectors now. And thirdly, the flat yield suggests that the risk profile of the asset class is effectively unchanged, whether in the more tricky 2009–12 period following the Global Financial Crisis or more recently.



Is student housing a residential or hotel investment vis-a-vis zoning plans (or other regulations for properties) in your country?

Bulgaria In the same category as hotel investments. Dormitories may be constructed in residential areas with approved detailed zoning plan.

Czech Republic Hotel investment, with corresponding requirements for local zoning, technical and hygienic norms and trade licensing.

Hungary Hotel investment by complying with one of the types of accommodations (e.g pension, community or other accommodation) regulated by the relevant government decree. Classic dormitories for students can only be operated on non-profit basis. Build-for-profit dormitories are not regulated under Hungarian law, but if the investment can be classified as a type of accommodation for business purpose, it can be realized.

Poland Hotel investment, with corresponding requirements in terms of local zoning norms.

Romania Residential investment, with corresponding requirements in terms of local zoning. Fire safety regulations for student housing is different than residential and/or hotel investments.

Slovakia Residential investment/development under the Slovak Building Act.



Jakub Bartos

Head of Residential, Golub GetHouse

Why you are investing in this asset? What is your concept? What is the future of this type of investment in the CEE?

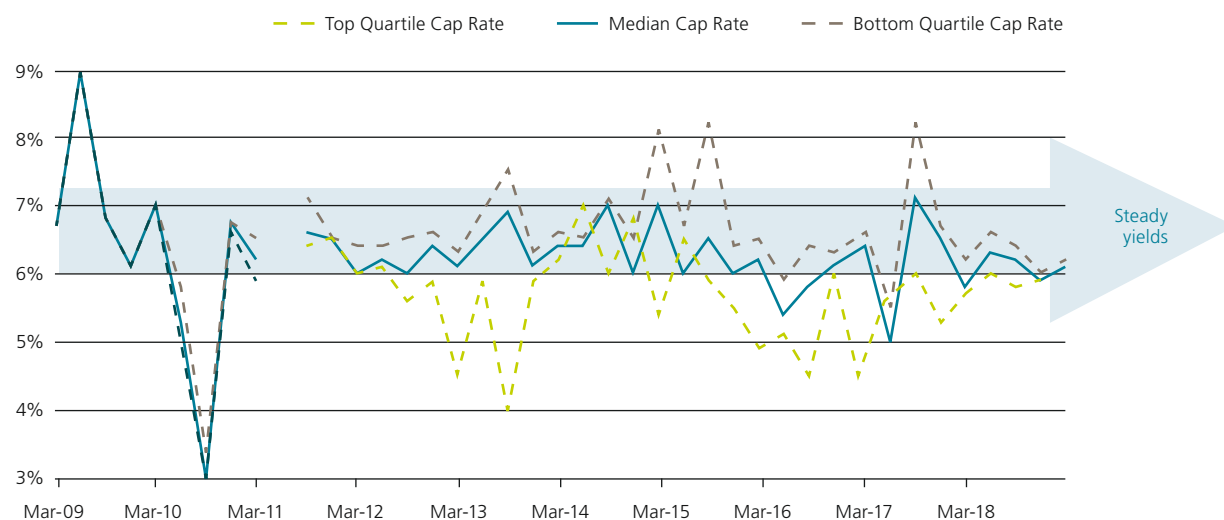
In my opinion, the market of private residence halls is one of the most promising real estate sectors in Poland. Currently in Poland, university housing and private residences satisfy less than 9% of existing demand. There is a shortage of accommodation for students, and the potential for development is enormous. Interest in such facilities can be seen not only among Polish students, but also among foreigners, who are coming here in increasingly large numbers. In the face of this growing demand, we made the decision to develop the LivinnX Kraków project, a modern student residence hall with 290 residential units (for 1, 2, 3 and 4 people). Each fully furnished unit consists of a living room with a kitchenette,

bedroom space and bathroom. LivinnX Kraków offers 2,000m² of amenities, including specially arranged study areas, a roof terrace, and a 24-hour gym. Golub Gethouse's partner in the investment is US-based CA Ventures International, which has supplied over 18,000 beds to this market. Through LivinnX Kraków, we want to implement solutions in Poland that have been successful abroad and are likely to achieve a similar result here. For Golub GetHouse, developing private student residences is one of the key business strategy elements. The Kraków development is not the only residence hall that we plan to deliver. We also have a development in Warsaw's Praga Północ district, opposite Kozminski University.



Private PBSA as an asset class appears to be counter-cyclical in nature

Figure 4: Reported yield on median and quartile student housing transactions in Europe 2009–19 (% , RCA data)



Source: Real Capital Analytics

These characteristics point to a sector that is “counter-cyclical”. Student activity and spending is not especially moving in line with an economic cycle. Thus, the end user demand is not correlated with that for sectors more tied to faster GDP growth, for example office or industrial. These characteristics are worthwhile to consider right now, given that GDP growth estimates for the Eurozone (and other countries around the world)

are being revised downwards and recession risk rises. Economic growth could well be sluggish for the next 2–3 years, something like the weak period of the cycle observed between 2000–2002, rather than the sharp collapse and recovery of 2008–09. The elongation of the time period renders more defensive asset classes in commercial real estate, such as private PBSA, relevant.



Are there age limits for dorm accommodations?

Bulgaria	No.
Czech Republic	No (with corresponding mixed-use permits).
Hungary	No.
Poland	No.
Romania	No.
Slovakia	No.



Are there legal obstacles to develop mixed-use residential (e.g. for small families) and student housing?

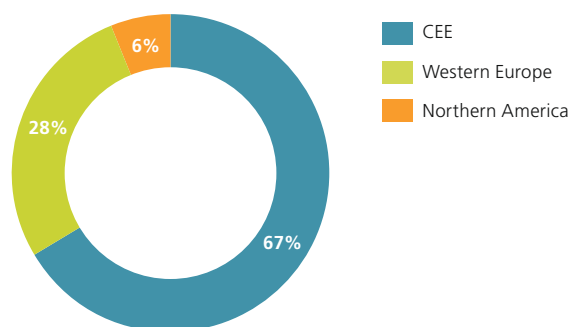
Bulgaria	No (with mixed-use zoning plan or permit).
Czech Republic	No (with mixed-use zoning plan or permit).
Hungary	It depends. For a “pension” or “community accommodation” mixed-use is NOT possible as it is an exclusive accommodation service. If classified as “other accommodation”, mixed-use is possible, but the number of rooms can be no more than eight (8).
Poland	No (with mixed-use zoning plan or permit).
Romania	No (with mixed-use zoning plan or permit).
Slovakia	No (with mixed-use zoning plan or permit).

Our client survey: How relevant is CEE student housing as an asset class?

Is there appetite, demand out there now for PBSA assets in the CEE region? We decided to answer this question by asking our general client base. We conducted an online survey of 68 responding

clients in early March 2019. Two thirds of respondents were located in the CEE region itself, with most of the remainder in Western Europe.

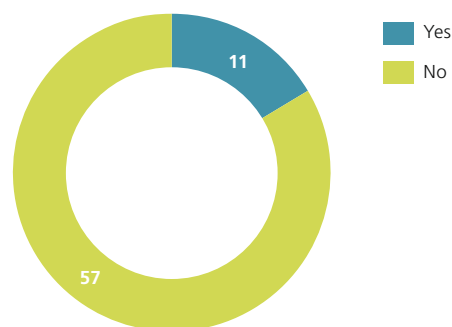
Figure 5: Location of 69 respondents to Colliers/CMS online student accommodation survey, (count, March 2019)



Source: CMS, Colliers International

Out of those that answered, 11 (16%) are currently engaged in investing into the sector in the CEE region. Out of those 11 investors, three are also active in student housing elsewhere, including in Germany, Brazil

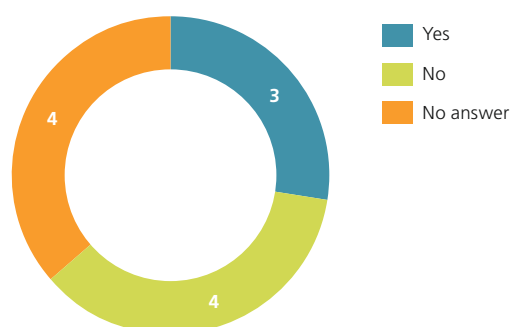
Figure 6: Number of respondents investing in the CEE region, (count, March 2019)



Source: CMS, Colliers International

and Cyprus. Out of the 57 not investing in CEE PBSA yet, four are active outside of the region. They indicated Italy, US, UK, Australia, France, Germany, Ireland and Western Europe in general in their exposures.

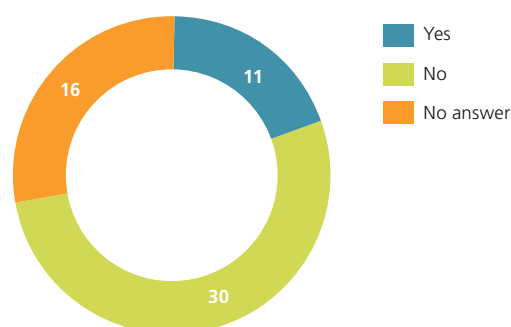
Figure 7: CEE PBSA investors also investing in the sector outside of the region, (count, March 2019)



Source: CMS, Colliers International

A further question to the 57 respondents not investing established that 11 are planning to invest in the sector, 30 are not, whilst 16 gave no answer. Thus, seven out of 68 respondents altogether (10%) indicated they are active in the asset class outside of the region. 22 out of the 68 (32%) are either active already in CEE PBSA, or indicated an intention to be so. Our survey sample may have been skewed by those with an interest in the PBSA asset choosing to complete the questions but even in

Figure 8: Intention of non-investors to invest in CEE PBSA in the future (count, March 2019)



Source: CMS, Colliers International

this case, these proportions of our sample are comfortably significantly different from the 0–1% of investment volume range in CEE seen in recent years.

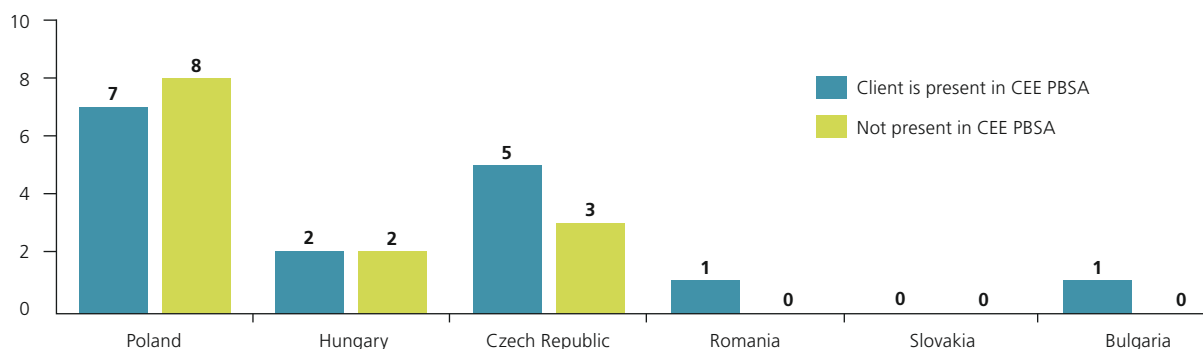
32% of our client survey respondents are active in student accommodation in CEE or indicated that they intend to be so.

Scope of interest in private PBSA in CEE

Poland is the most popular market for existing investment activity, as well as consideration of investment by those intending that in the future. The Czech market also registered, followed by Hungary. Activity in SEE is sporadic and interest in that region is not yet apparent, according to our survey population.

The proportion of the responses favouring Poland, at just over 50%, is in line with its 2018 calendar year percentage of CEE-6 investment volumes. The Czech market's share of responses (28%) is around nine percentage points higher than its investment volume.

Figure 9: Respondents' indication of investment/interest in CEE student accommodation in country, (count, March 2019)

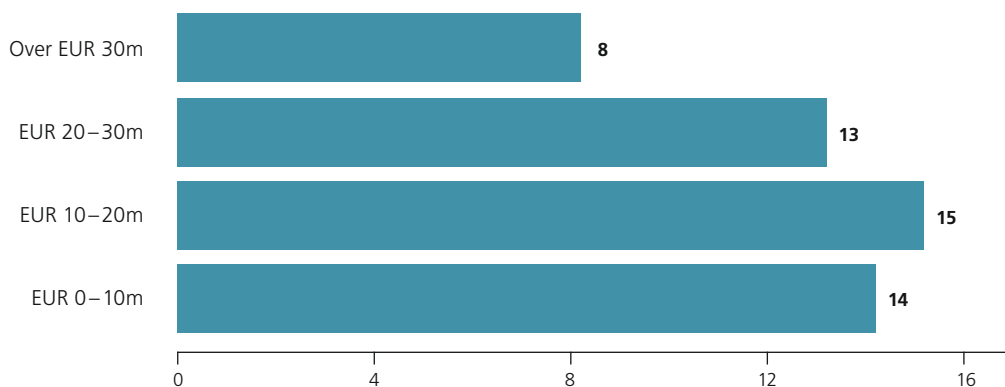


Source: CMS, Colliers International

We took the opportunity to survey what size of asset the survey participants see as optimal for CEE PBSA. Opinion was largely agnostic regarding differentiation between the EUR 0–30m ticket size categories amongst the respondents. The indication of an investment size

above EUR 30m was moderately less popular. Using EUR 30m as a threshold, an average selling price of EUR 110,438 per unit, attained in 2018 averaging 173 transactions across Europe, suggests assets with around 268 beds, assuming one bed per bedroom unit.

Figure 10: Respondents' indication of the optimal investment size in CEE PBSA (count, March 2019)

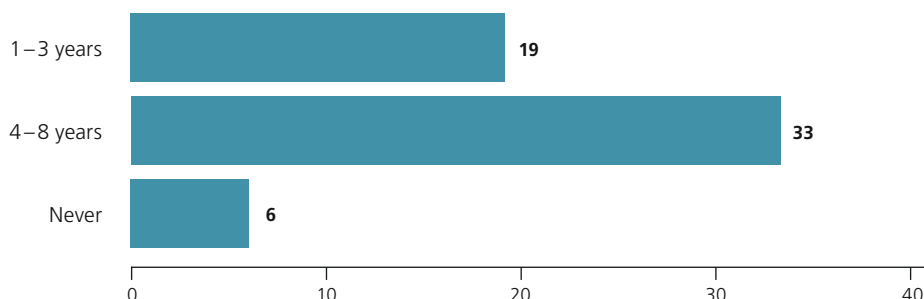


Source: CMS, Colliers International

Answers to the question of when the CEE PBSA sector will grow in importance in the region settled on the 4–8 year period (57% of respondents), followed by 32% believing it will do so within 1–3 years. 10% thought it will never grow in importance.

The sector is seen by our survey respondents as becoming more important on a 4–8 year view.

Figure 11: Respondents' opinion on when the CEE PBSA sector will grow in importance (count, March 2019)



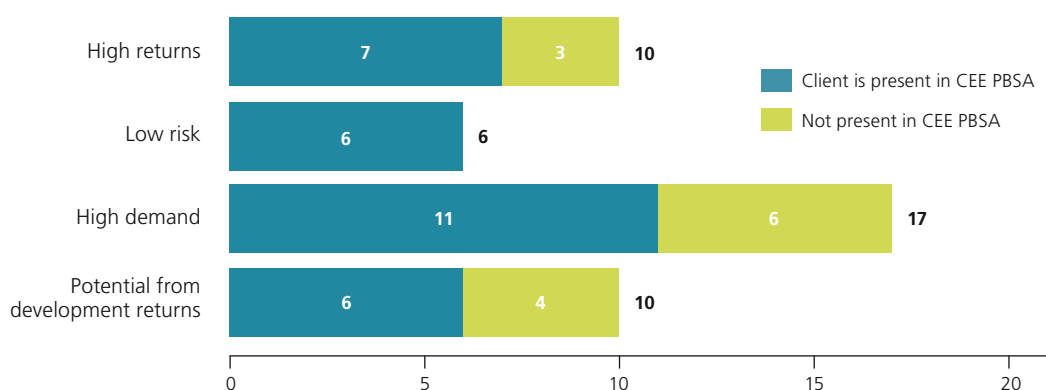
Source: CMS, Colliers International

Why invest in private PBSA in CEE?

Our survey respondents' perspective on the motives for investing in the asset class is that the high demand story is most important (17 out of 43 answers, 40%). This was the case especially amongst the investors already present in CEE PBSA. Those current investors were largely agnostic overall between the prospects of high returns, low perceived risk of the asset class or potential for development returns. Potential investors, those not yet with assets, also saw high demand as the

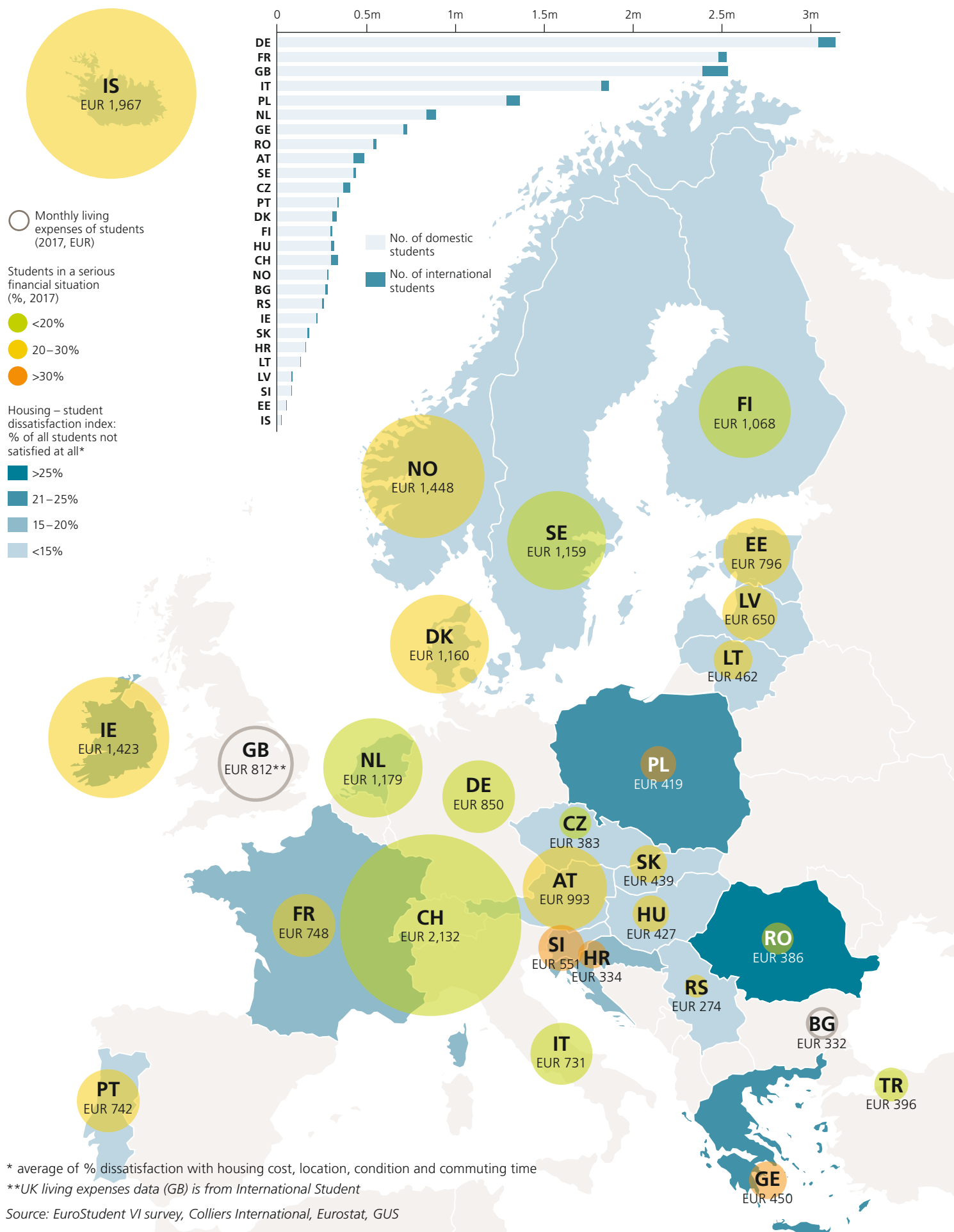
more important factor but none picked out the low risk characteristic. This may be a function of the present buoyant state of the CEE real estate cycle, with money perhaps not yet acknowledging higher risk investments as something to avoid. Colliers International's outlook for the CEE investment cycle is for very low funding rates to sustain in 2019, with growth/rent headwinds appearing in 2020. The "low risk" factor may have its day then.

Figure 12: Respondents' opinion on factors motivating investment into CEE PBSA (count, March 2019)



Source: CMS, Colliers International

Figure 13: Student numbers and sentiment: total student and international student populations, sentiment towards housing, financial stress and monthly living expenses



Affordability and addressable demand

Students being able to afford their studies, or more accurately for private PBSA, living through their study period, is a perpetual topic for debate. Almost no student will tell an interviewer that they have too much money. But across the CEE region, the identification of financial stress amongst students reached high levels of over 20% of the survey samples in the EuroStudent VI (2017) study in all countries except the Czech Republic and over 30% in Poland and Slovenia. This might not be an encouraging backdrop for the development of more expensive private PBSA in the region.

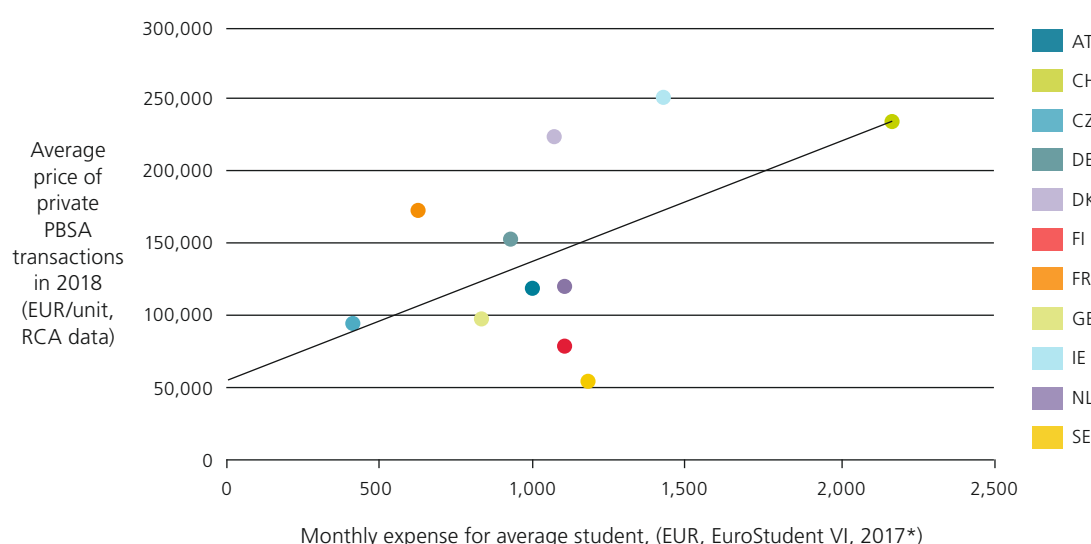
Frustration with low quality of the housing stock offering is most acute in Romania. The EuroStudent VI survey asked about housing cost, housing location, housing quality and commute from the housing. We averaged the response rates for these four surveys together and 27% of Romanian students were on average not satisfied at all with their housing situation. Poland and Bulgaria fared poorly on this measure as well, suggesting that the phenomenon may be regional. This suggests a renewal of housing stock may be overdue: better news for the region's PBSA providers.

Across Europe, almost all of the money of students, according to EuroStudent VI data, is spent on housing costs. Only in the richer countries does there appear to

be less financial distress. Low levels of budget spending on education in the region means low grants for living expenses, which often means the sharing of rooms, dorms or living at home. More students in the Czech Rep., Slovakia, Hungary and Romania live in student accommodation than the European average, according to EuroStudent VI survey data: this is despite the very low supply of private PBSA in these countries. More students live at home than the European average in Slovakia, Hungary and Poland. None of these five countries has a higher proportion of surveyed students living alone than the European average of 9%. Relying on the local student pool to fill a private PBSA portfolio in CEE might be a long term game only.

The relationship between marginal cost and affordability can be seen when comparing the monthly living expenses of students in a country (data from Figure 13) against the price paid for a unit (a bedroom) of private PBSA in 2018 (data from Figure 2). The higher the monthly living expenses, the more the market is willing to pay for student housing assets. Using the monthly living expense data and the extrapolated linear line of best fit on Figure 14, a range per unit of EUR 84,336 (Bulgaria) to EUR 93,098 (Slovakia) results.

Figure 14: Relationship between student monthly living expense (2017) and price paid per unit of private PBSA in Europe in 2018



* UK data (GB) is from International Student

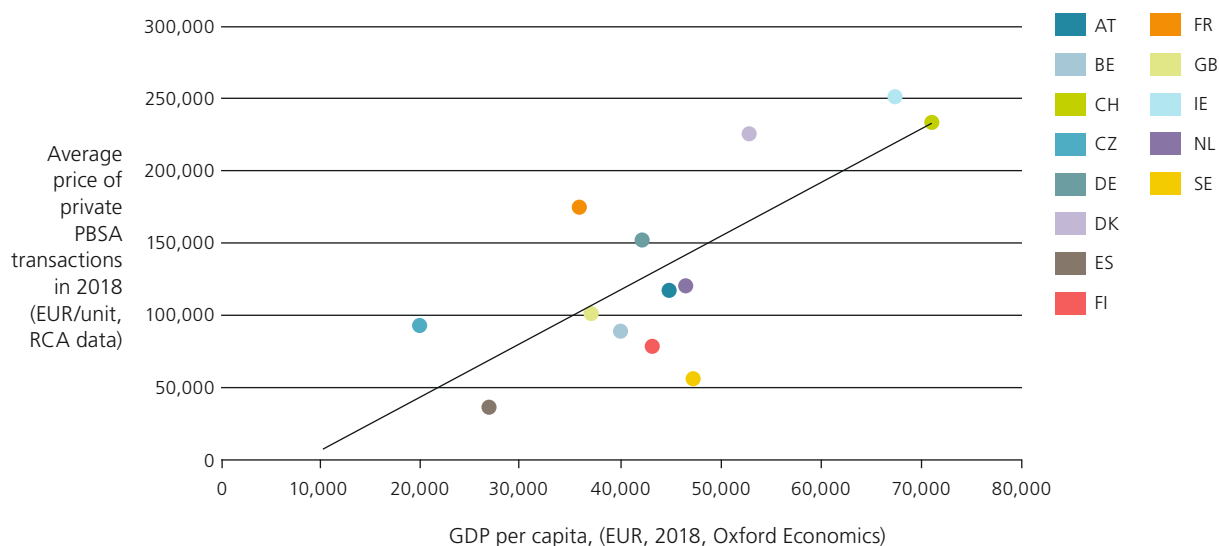
Source: Real Capital Analytics, EuroStudent VI, International Student, Colliers International

“Native” home country students may not be the source of demand for private PBSA for affordability reasons. Their numbers have also shrunk in recent years.

A more general measure of affordability is GDP per capita. Relating those data (Figure 2) again to the price paid for a unit (a bedroom) of private PBSA in 2018 (data also from Figure 2) also suggests higher affordability implying a higher marginal cost paid by the market. This can also be imagined as GDP per capita rises over time,

so does the marginal price paid (as seen on Figure 3). Using GDP per capita data and the extrapolated linear line of best fit on Figure 15, a much lower price range per unit of just EUR 3,370 (Bulgaria) to EUR 46,508 (Czech Republic) results. This highlights more the affordability issue in CEE.

Figure 15: Relationship between GDP per capita and price paid per unit of private PBSA in Europe in 2018



Source: Real Capital Analytics, Oxford Economics, Colliers International

International students, as economic players, will be attracted by the lower cost of living in CEE, if the study courses being offered are of a high standard. In addition, some CEE university cities, such as Brno or Prague score very highly in international surveys of student quality of

life, despite the issues with housing. An example of a recent survey is that from London-based specialist Quaquarelli Symonds, where the two Czech cities ranked in the global top 10 in their 2019 study.



Are government or local grants available for investors in student housing? If so, what part of the development costs could be covered by such grants (in %)?

Bulgaria No government or local grants offered.

Czech Republic No government or local grants offered.

Hungary Governmental grants available for large investments for different purposes, outside of Budapest. Grants may be provided based on a frame regulation and on personal negotiations with state representatives by concluding a governmental granting agreement. Such subsidies are usually granted to large-scale projects with a large economic impact.

Poland No government or local grants offered.

Romania According to Law no. 201/2006 on the support given to investors for developing private student housing (Law 201/2006) the Romanian State offers certain facilities to investors developing private student housing projects:

- free right of use for public land;
- loans with subsidised interest of up to 25% from the local state budget; and
- free-of-charge connection to utilities for private student housing investments.

Slovakia No government or local grants offered.



Credit: Griffin Real Estate



Nebil Senman

Managing Partner at Griffin Real Estate

Poland's student housing sector is an attractive asset for investors. This country has a growing population of students, many of whom are foreign, while available university-owned facilities are able to accommodate only about 9% of them. As a result, young people are forced to live in shared flats or costly studio apartments. By satisfying this demand, we can produce high rental income flows and generate tremendous profits for investors.

To this end, Griffin Real Estate created Student Depot, the premier network of private rental dorms in Poland. Currently, we offer 1,500 beds in Poznań, Łódź, Lublin, and Wrocław. Another project of nearly 500 new beds will be finished in Warsaw in September 2019. More investments are planned in Kraków and Wrocław by 2021, which will increase our number of beds to 2,700. Renting a room in a Student Depot premium dorm is a

safe and affordable option for any student. In addition, our facilities offer attractive common spaces for study and a vibrant student community. Since this market sector in Poland is still young, our dorms are either newly constructed or recently renovated. All are high quality and infinitely comfortable. Private dorms also offer a host of services that include Wi-Fi access, and the costs for these are included in the rent.



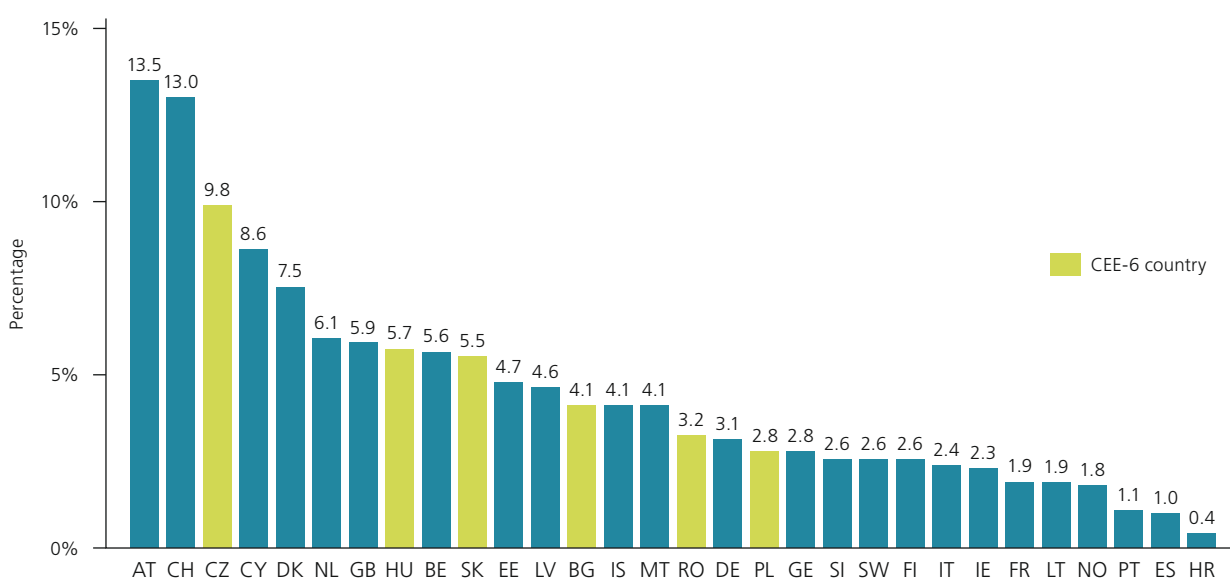
A fresh source of demand in CEE

International students are by definition mobile and, especially if they are from outside of the CEE and arguably the CIS countries, they come with higher expectations of their accommodation. Across the EU, the proportion of foreign students grew from 3.3% in 2013 to 3.6% in 2016. The absolute growth rate was 11%, or 3.7% per annum. The ERASMUS programme and others have become increasingly popular.

Foreign students as a proportion of the population are growing fast in the CEE region.

A decline in birth rates in the CEE countries occurred in the 1990s, resulting in total student numbers dipping over the past few years. This phenomenon is important for the student housing investor to understand. Universities across the CEE have thus become very active in efforts to fill places, with both an economic, social and academic benefit. Four of the six CEE countries had a higher proportion of foreign students in 2016 than the 3.6% average. The Czech Republic had the third-highest percentage, at 9.8%. More recent government data for 2017 from Poland puts their percentage up to 5.6% and, from the Czech Ministry of Education for the end of 2018, theirs jumping up to 19.4%.

Figure 16: Proportion of total student population that is international (2016, Eurostat)*



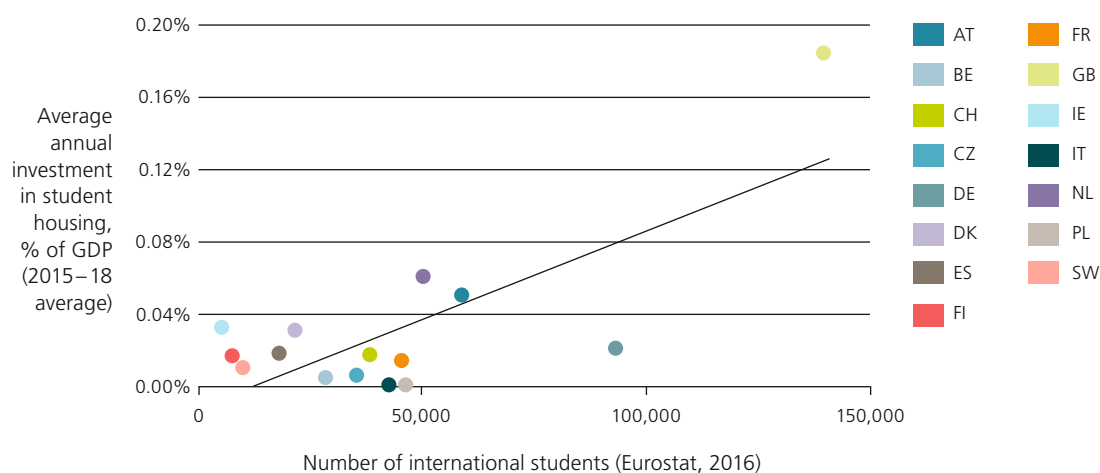
* Data for Slovenia is 2015, source Eurostat

Source: Eurostat, GUS, Colliers International

As initially suggested in presentation materials in 2018 by consultancy company Bonard (formerly StudentMarketing), the count of international students may act as a proxy for demand in the private PBSA

marketplace. This is suggested by the relationship between the count of international students in European countries versus the investment seen between 2015–18 as a proportion of GDP in those years.

Figure 17: Number of international students in 2016 versus investment as a % of GDP (2015–18 average)



Source: Oxford Economics, Eurostat, Real Capital Analytics, Colliers International



Are legal regulations applicable to student housing for fire safety, hygienic and sanitary rules, building technical conditions, etc.? If so, what are these regulations and are they also applicable in the case of hotels?

Bulgaria Must meet the same or similar technical, fire safety, hygienic and sanitary requirements as hotel premises.

Examples of specific requirements for dormitories: rooms may not be oriented in northern direction, certain requirements for common and study areas.

Czech Republic Must meet the same technical, fire safety, hygienic and sanitary requirements as hotel premises. If the length of assumed stay in the dormitory exceeds a certain limit, the operating rules adopted under the Act on Public Health Protection must include more details than in case of a standard hotel.

Hungary Annex 1 of No. 239/2009 (X. 20.) Government Decree on Detailed Terms and Conditions of Accommodation Service Activities and the Order of Property Operating Authorisation. Requirements regarding pensions, community and other accommodations are different from hotels, which have more comprehensive and detailed requirements.

Poland Must comply with requirements similar to residential buildings, subject to regulations for specific areas such as sanitary, telecommunication or fire safety requirements.

Romania The fire permit is necessary for student housing if its unfolded built-up area exceeds 150m². In addition, the specific legal regulations for student housing investments depend on the characteristics of the project (i.e. relevant permits for the operation of the investment if restaurants or cantinas, pharmacies, leisure areas, washhouse, etc. are part of the project). Permits may include sanitary and sanitary veterinary, environmental issued by the relevant authorities and functioning licence issued by the City Hall. General building requirements that are applicable to residential units would likely have to be upheld (e.g. noise, traffic, public access, lighting, environmental, height).

Slovakia Must comply with requirements similar to residential buildings subject to regulations for certain specific areas (e.g. sanitary, telecommunication or fire safety regulations).





Briefly explain the legal aspects of dormitory development, starting from the first administrative decision. Indicate the expected timing of each stage.

Bulgaria

1. Detailed zoning approval (at least 45 days).
2. Approval for investment design and construction permit (one month).
3. Certificate for entry into operation or a use permit (depending on the type and complexity of construction), can take from seven days to a month.

Administrative approvals may take longer, as terms are instructive to authorities and timing depends on other factors.

Construction works must start in three years as of entry into force of the construction permit and should be substantially completed in five years as of the beginning of the construction works, otherwise the construction permit expires.

Czech Republic

1. Zoning permit (up to 60 days) in accordance with the local zoning plan (if the dormitory with more than 100 beds is situated outside the residential area, an environmental impact assessment will be required).
2. Building permit (up to 60 days or 90 days in case of large-scale projects). Zoning and building proceedings may be merged under certain conditions.
3. Occupancy permit (in specific cases, trial operations may be requested by the building authority).

Hungary

1. Building permit (25 – 35 days).
2. The building permit becomes final and enforceable after the deadline for appeal elapses (usually 15 days after delivering the permit).
3. If the construction has been completed, an occupancy permit shall be requested from the authority necessary for official and safe use of the building. The deadlines are the same as for a building permit.
4. Provision of accommodation services can be started if an operation permit has been obtained. The operation permit is usually received within 30 days from the relevant municipality.

Poland

1. Zoning permit (not applicable if a zoning plan is in force) – issued no later than one month (in complicated cases – two months) from the date of application. Usually proceedings for zoning permits last 4 – 6 months while the authority collects necessary approvals and opinions (e.g. the monuments conservator). This might be extended by several months due to appeal proceedings initiated by other parties to the proceedings (such as owners of plots adjacent to the investment area).

Romania

2. Building permit – within 65 days from the date of application. The time limit might be extended several months due to possible appeals from parties of the proceedings.
3. Occupancy permit – as a principle, decision should come within 21 days from the date of submitting a request by the investor, once the works are completed.

1. The urbanism certificate (30 calendar days from submitting the necessary documents).
2. If urbanism certificate requires a new zoning plan, the issuance and approval of the latter could generally take six to nine months.
3. Building permit (30 calendar days from submitting necessary documents, including the zoning plan, if case).

From the date of issuance of the building permit the beneficiary has 24 months to begin construction works, and upon completion of the construction works an official reception of the building must be performed with representatives from the local authorities.

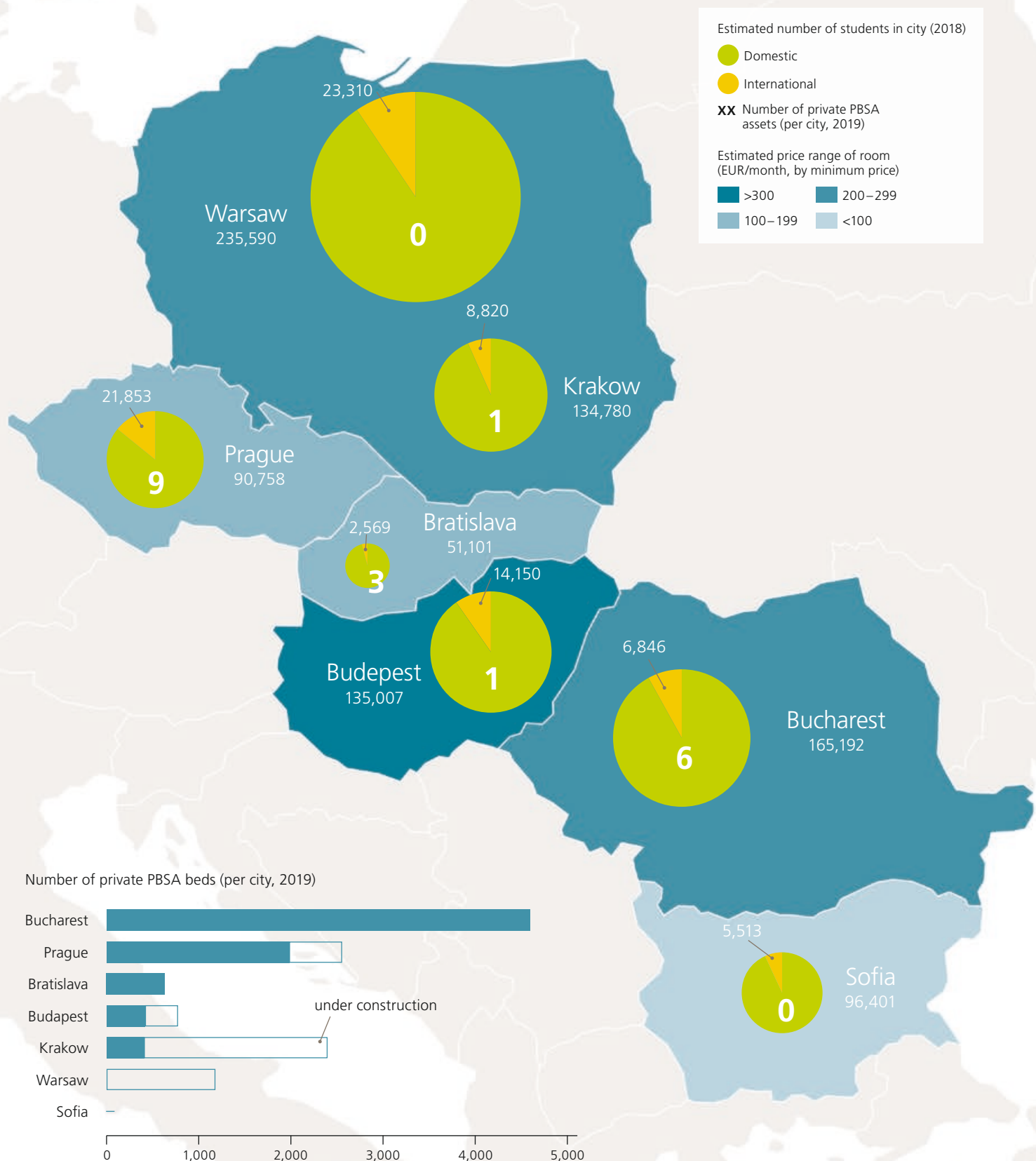
Slovakia

1. Zoning permit in accordance with local zoning plan. It takes minimum 30 days to obtain the zoning permit from submitting all required documents. However, in complicated cases the minimum statutory period can be extended up to 60 days from submitting all required documents.
2. Building permit. In order to expedite, the zoning and building proceedings may be merged under certain conditions. The timing is similar as for the zoning permit.
3. Use/occupancy permit (in specific cases, trial operations may be requested by the building authority). The timing is similar to zoning and building proceedings.

The above 30 and 60 days periods for issuance of the zoning, building and occupancy permits are statutory. However, in practise, it usually takes up to 3–5 months to have a valid and binding permit (up to five months in case somebody files an appeal). In case an EIA decision is required (due to large scale developments), such decision has to be issued and valid before application for the zoning permit. Usually 3–4 months in case of simplified procedure (if a full assessment is not required) and 9–12 months in case a full environmental assessment is required.

Supply of private PBSA assets in the CEE region

Figure 18: Supply side in key CEE cities – number of private PBSA assets, beds, beds in assets under construction, price range of rooms and numbers of students





The CEE-6 region has only 20 extant private PBSA units currently, according to our investigations. Sofia, for reasons of economics, has none and none are under construction or planned. The very low implied transaction cost per unit, extrapolated from GDP per capita via Figure 7, appears to be in line with current reality. Warsaw has no assets yet open, though two assets, with 692 units, are under construction. The number of beds in each of these Warsaw unit is not disclosed. We assumed two beds per unit, as this was almost exactly in line with the ratio of square metre area to beds in the under-construction asset “InBudapest”

that is opening in Q2 2019. For Krakow, four of the five operating/under construction assets provided data enabling a calculation of the bed to unit ratio. This came out at 1.98 beds per unit. This assumption was used for the fifth asset, to calculate the total beds under construction at 1,999. The pricing of rooms in these privately-owned PBSA assets appears to be highest presently in Budapest, perhaps reflecting the relative lack of supply there presently. The pricing shown for Sofia is for a room in a state-owned dormitory, illustrating the low purchasing power of Sofia-based students presently.

The supply-demand balance in the key CEE-6 cities

Method

We constructed a demand-supply model, matching a calculated assumption of the number of international students in the city against the supply of beds. We modelled demand using actual student data for 2018 in Prague and assumptions made from 2017 GUS data in Warsaw and Krakow and the Eurostat 2016 data elsewhere to fix 2018 data (see Figure 18). We simulated demand for 2023 and 2028 through inflating the number of international students at the rate of growth observed in the Eurostat data between 2013 and 2016. Poland’s growth rate was an impressive 28% per annum in that period. This growth rate was reduced to 10% for the years to 2023 and 6% to 2028. These assumptions assume a continuation of these countries’ efforts to attract foreign students inwards to their higher education institutions. We ran also a low demand scenario, halving the rate of growth of international students.

The supply of beds was simply modelled as the existing 20 assets as of the end of 2018 and adding the assets under construction and in Prague’s case, adding 800 beds from a project in the development pipeline.

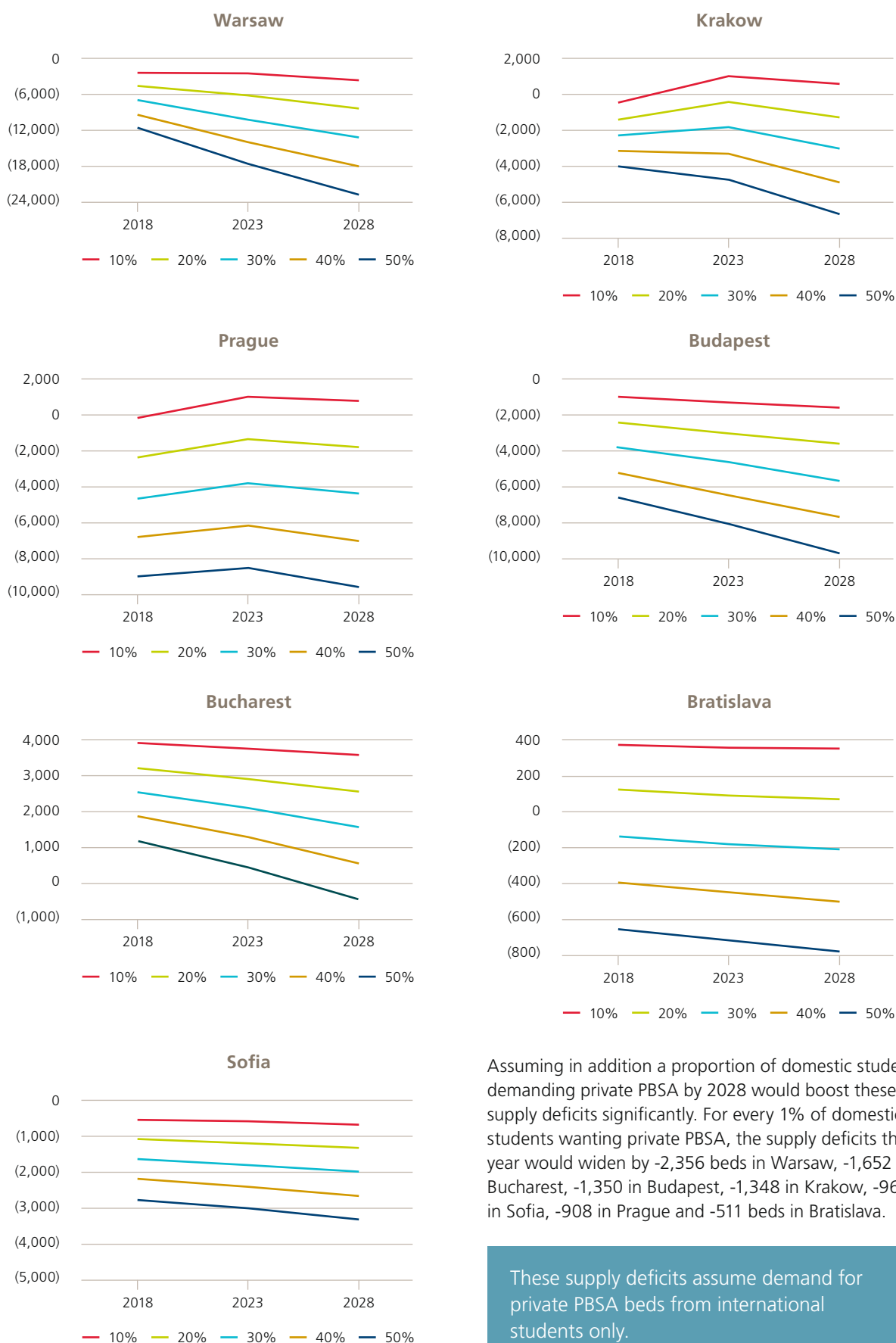
To reflect that not all international students in CEE would be able to afford to rent these new assets being built, we simulated various proportions of the international student population in these cities doing so, from 10% up to 50%. Observation by Bonard in 2018 suggested that 15% is an average “provision rate” in Europe. City-by-city, these provision rates were generally higher in cities with lower rent costs whilst some provision rates were in the single-digits-percentage range.

Results of modelling

Warsaw, Budapest, Krakow and Prague, in that order, are under-supplied. Using the international 20% adoption rate, the shortfall by 2028 amounts to -8,399 (Warsaw), -3,679 (Budapest), -1,227 (Krakow) and -1,795 (Prague). Bucharest has a surplus in all time periods and adoption rates, except 50%. Bratislava has a surplus of beds in the 20% adoption scenario, moving to a deficit in the 30% scenario. Sofia’s demand generates a moderate -1,319 bed deficit.

We see Warsaw, Budapest, Krakow and Prague, in that order, as most under-supplied in coming years.

Figure 19: Supply deficit of private PBSA beds in CEE cities 2018–2028 in core scenario with variation in % of international students opting for private accommodation



Assuming in addition a proportion of domestic students demanding private PBSA by 2028 would boost these supply deficits significantly. For every 1% of domestic students wanting private PBSA, the supply deficits that year would widen by -2,356 beds in Warsaw, -1,652 in Bucharest, -1,350 in Budapest, -1,348 in Krakow, -964 in Sofia, -908 in Prague and -511 beds in Bratislava.

These supply deficits assume demand for private PBSA beds from international students only.

Using an average of two calculated price per unit ratios for the CEE-6 countries, the first derived from monthly student expenses and the second from a 2028 estimate of GDP per capita from Oxford Economics via Figure 15, the implied value of stock at the 20% international student adoption rate in our core scenario would amount

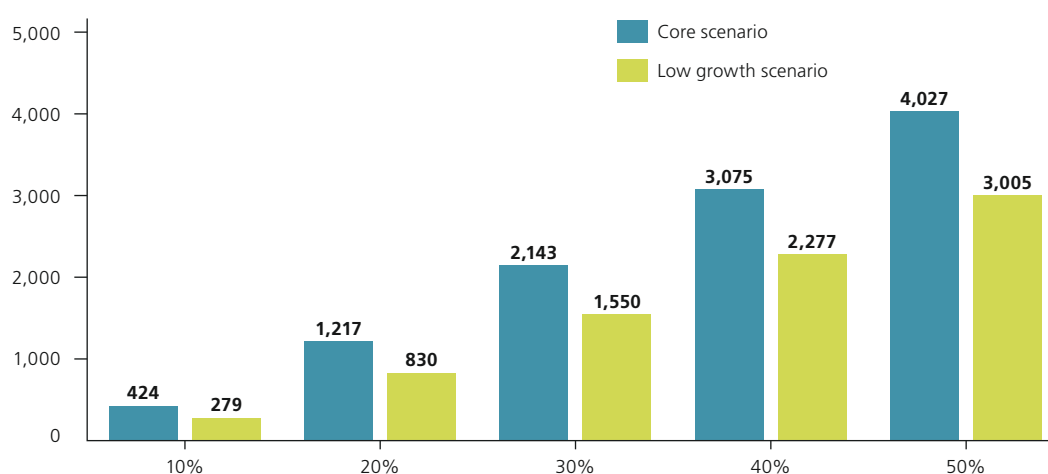
to EUR 1.22bn, counting one bed per bedroom unit. This assumes single occupancy of each bedroom unit in the built-out assets. Assuming a more conservative 1.5 beds per bedroom moves the implied value of stock down to EUR 0.81bn. Increasing the adoption rate to 30% by 2028 implies a valuation of EUR 2.14bn.

In our core scenario, the market size at a 20% adoption rate is EUR 1,22bn, implying possible annual investment volume of around EUR 122m in 2028.

In our low growth scenario, the implied value of stock by 2028 in the seven CEE-6 cities is EUR 0.85bn, or

EUR 0.57bn counting 1.5 beds per unit. The value with a 30% adoption rate is EUR 1.60bn.

Figure 20: Implied valuations of shortfall of student housing stock* in 2028 in the seven CEE-6 cities in core scenario, assuming different adoption rates (10–50% range, EUR m)



* assessed at 1 bed per unit. Divide these data by 1.5 to reach a more conservative 1.5 beds per unit. We estimate the valuation of the present/under construction stock at EUR 937m.

Source: Colliers International

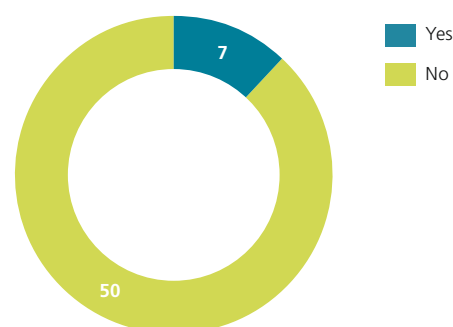
Dividing these figures by ten gives a rough guide to potential annual turnover of this shortfall of student housing assets in CEE in the year 2028. We assume, using GDP per capita forecasts, CEE-6 all-sector real estate volume of EUR 20bn for 2028. Adding the EUR 122m at the 20% adoption rate to 10% of the existing/under construction stock (EUR 94m) implies student housing at 1.1% of total volume. The higher adoption rates suggest around 1.4–2.5% of CEE-6 all-sector volume.

Confirmatory analysis we conducted on transaction deals relative to GDP versus GDP per capita suggest the assumption of volumes in the range of EUR 100–500m by 2028 as looking realistic.

Our client survey results – supply side

Our survey respondents agree with the notion of a supply shortfall in CEE private PBSA. We posed the question of whether there is enough product in the region presently and the answer was a clear “no”, 50 replies, versus seven believing there is sufficient supply.

Figure 21: Respondents’ opinion whether there is enough PBSA product in place in the CEE region (count, March 2019)



Source: CMS, Colliers International

The opportunity probably lies with developers in CEE in the short to medium term, to create the asset class stock base.



Credit: LivinnX Kraków / Golub GetHouse



What legal features of a property make it impossible to develop a dormitory (e.g. industrial or agricultural zoning designation, etc.) and does this need to be assessed prior to its acquisition by an investor?

Bulgaria

Master zoning plan may prevent development of a dormitory in specific zones (for example zones assigned for “exclusively industrial” developments). Construction on agricultural land possible on limited occasions and is conditional upon changing the designation of the land to dormitory development.

Czech Republic

Zoning plan determines the types of buildings allowed in respective areas. If the dormitory does not meet the permitted building type, it cannot be developed unless the zoning plan is changed by the municipality (such process may be time consuming and a positive result cannot be guaranteed). Certain types of real estate (e.g. agricultural, protected historical areas) are under special protection, which impacts the permitting process. Assessment of these requirements is highly advisable prior to acquisition of real estate by the investor.

Hungary

Development depends on the zoning regulations of the city where the development is to be carried out. The national framework regulation and the local zoning regulation together determine the possible function and technical specification of the buildings that can be developed, based on its location and the zoning of the plot. Assessment prior to acquisition of land is advisable.

Poland

The following legal features of a property might prevent an investor from developing a dormitory:

- designation of a property in a zoning plan or zoning permit;
- Designation of the right of perpetual usufruct;
- agricultural or forest designation of a property;
- status as a historical monument for the property or buildings or objects located on it;

- encumbrances of a property; location of a property in a special economic, revitalisation or another specific zone with separate regulations; soil contamination and other environmental limitations;
- restitution claims of previous owners of a property.

The above restrictions should be analysed prior the acquisition of the land by an SPV or the investor.

Romania

Depending on the category of the land plots (and their vicinity) where the investment is planned, there may be restrictions which cannot be overcome by changing the urban planning (e.g. protected cultural areas, green areas prescribed in the existing planning documentations). Other existing restrictions may be overcome by passing new zoning plans for the area (e.g. agricultural lands, former industrial sites).

Slovakia

Zoning plans determine the types of buildings or development allowed to be built in each area of the city. If the dormitory development does not meet the permitted type of building in a certain area or zone, development is not possible without changing the local zoning plan. Since amendments to the local zoning plan must be approved by the municipal assembly or parliament, which is a long-term process with an uncertain outcome, it is recommended to analyse and assess local zoning conditions before planning any kind of development. There could be also other restrictions (e.g. protected historical zones) which cannot be overcome by changing the zoning plans and could have significant impact on development.

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Dr. Thorsten Leipert

COO & Partner of Alkyon Partners GmbH

Our market research shows that the demand for private student housing is on the rise among local and international students. A significant number of students are willing and able to pay higher rents in exchange for extra amenities and added comfort. The student housing market in Poland is in its early stage of development. Larger centres like Kraków have seen a significant growth in demand for student accommodation that includes the newest technological trends and requirements (e.g. smart technology in buildings and operations; options such as BYOD or Bring Your Own Device).



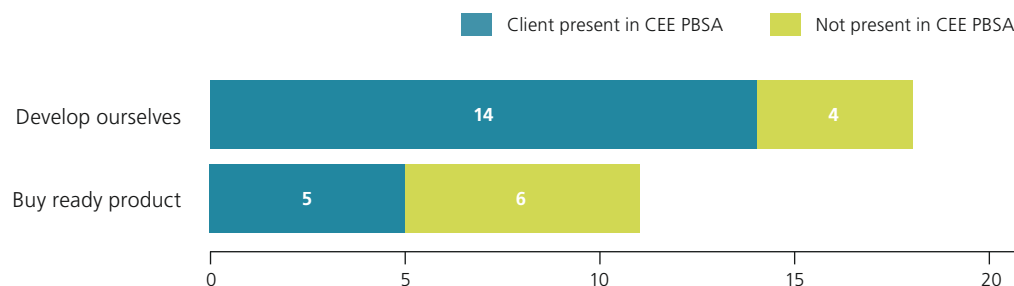
Our first Kraków investment will be a high-quality student house in the Podgórze district, which will include 1,072 single apartments with fully equipped kitchens, bathrooms and furniture. Services will include a cafe, roof terraces, Wi-Fi access, study rooms, cleaning services, and a parking garage. The building will have a modern gym, bike storage room and launderette. The concept also includes a garden and barbeque areas with trees, plants and flowers that will provide natural surroundings for students. To ensure safety and security, the facility will have a 24-hour concierge service and will be monitored at all times by reception and security staff.

The rising demand for rental space in booming cities like Warsaw, Kraków, Wrocław and Gdańsk proves that the real-estate and micro-apartment market is a sustainable business idea. As demand for high-quality living space in top locations increases, the micro-living and build-to-rent sector will enjoy attractive long-term growth. Student accommodation is a natural part of this sector, and the right operator and concept that meets the requirements of market can be a boon for investors. In addition, new and modern student accommodations are assets that support the Polish university system, making these institutions more attractive to international and domestic students. We definitely see the student-housing sector providing highly attractive investment opportunities both now and in the future.

Further, the need to develop product is certainly seen by our survey population already active in CEE PBSA, with a clear majority of respondents (14 versus 5) prepared to

develop the asset themselves rather than rely on buying ready product. And assets are under construction in Warsaw, Krakow and Bucharest already.

Figure 22: Respondents' opinion on whether to build or buy PBSA product in CEE (count, March 2019)

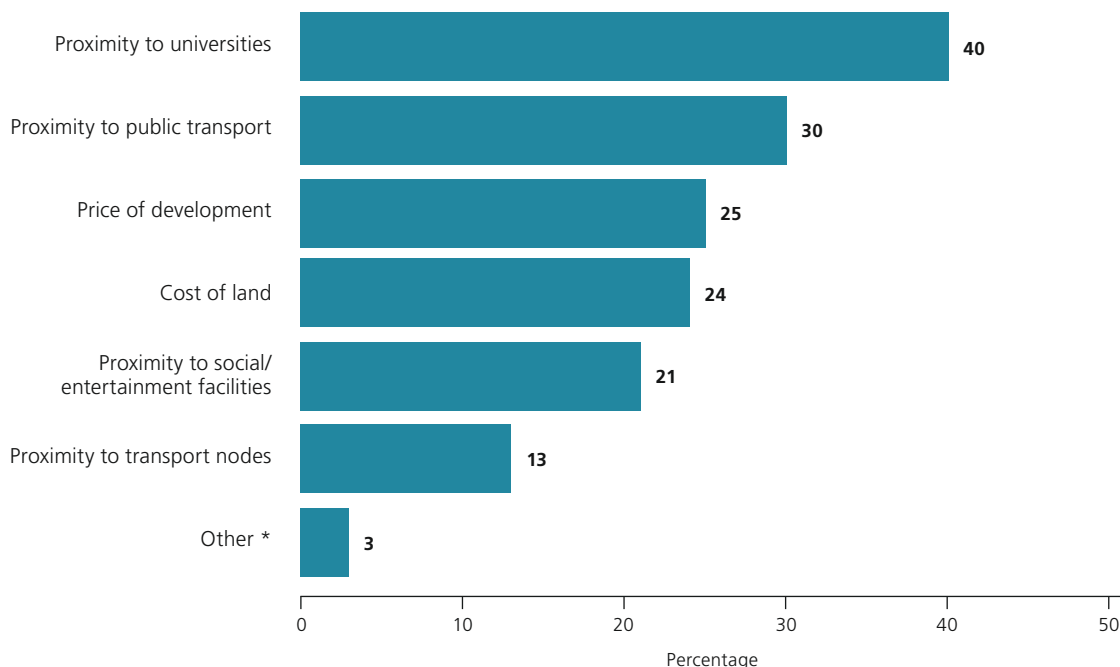


Source: CMS, Colliers International

What factors make a PBSA location desirable for a real estate investor? Some 40 out of 51 (78%) of respondents who answered our survey question see proximity to universities as a key location factor. 30 (59%) see proximity to public transport as important. Half of the

respondents differentiate on the basis of the price of development, just ahead of the cost of land (47%). Other factors mentioned in the survey were proximity to the city centre, the "mix" of the neighbourhood and airport access.

Figure 23: Respondents' opinion on the key factors in determining the location of PBSA assets (count of 51, March 2019)



* proximity to the city centre, neighbourhood "mix", airport access all mentioned

Source: CMS, Colliers International

Thus, both the survey respondents and our own modelling of potential demand from international students suggest that there is a supply deficit of private PBSA in the CEE region in coming years. As incomes

rise, the demand for quality accommodation will also most likely rise, including also from domestic, "native" students. The challenge and opportunity for developers active in the region over the next decade is clear.



Are there regulations related to REIT funds in your country? If so, do they apply to student housing investments?

Bulgaria	The REIT funds are subject to regulation under the Companies for Special Investment Purposes Act. There are no limitations to student hosting investments.	Romania	No special regulations in place for REIT funds.
Czech Republic	General regulation of investment funds is applicable to REIT funds with certain specifics related to funds focused on real estate investments (including student housing investments), such as specific requirements for mandatory reporting to authorities, content of annual reports, etc.	Slovakia	The Act on Collective Investments regulates all forms of collective investments in Slovakia. This applies to student housing investments.
Hungary	Yes, it is called "SZIT" (on the Hungarian stock market since 2007). The relevant Hungarian law is Act CII of 2011 on the Regulated Real Estate Investment Companies. This does NOT include specific provisions regarding dormitories, but is a general framework.	Slovakia	Zoning plans determine the types of buildings or development allowed to be built in each area of the city. If the dormitory development does not meet the permitted type of building in a certain area or zone, development is not possible without changing the local zoning plan. Since amendments to the local zoning plan must be approved by the municipal assembly or parliament, which is a long-term process with an uncertain outcome, it is recommended to analyse and assess local zoning conditions before planning any kind of development. There could be also other restrictions (e.g. protected historical zones) which cannot be overcome by changing the zoning plans and could have significant impact on development. There could be also other restrictions (e.g. protected historical zones) which cannot be overcome by changing the zoning plans and could have significant impact on development.
Poland	No legal regulations related to REIT are in force. A respective act is currently subject to the legislative process and has been submitted to the Parliament for voting. According to the present wording of the draft, investments in student housing will be subject to the REIT regulation.		



What legal acts prejudice the permitted use of a property? Are local zoning plans adopted across your country regulating land use, or is the investor required to obtain a special zoning decision prior to obtaining a building permit?

Bulgaria	There are two types of zoning plans – master zoning plans and detailed zoning plans. Master plans are adopted for municipalities or towns and determine the predominant use of the land plots, which are all included in different development zones (industrial, residential, green areas, etc.). Detailed zoning plans must comply with the master plan and determine the permitted construction. An investor would usually have to obtain an approval of a detailed zoning plan, permitting the construction of a dormitory.	Romania	There is a master urban plan at the level of each local administrative unit. Local urbanism documentation may have to be modified for certain investment projects. Such local zoning plans may be altered in certain respects such as: land permitted use/ function, percentage of land occupation, percentage of land use, auto and pedestrian access, etc.
Czech Republic	The main prerequisite is a local zoning plan, based on which the developer applies for a zoning permit, followed by a building permit and an occupancy permit. The zoning plans are not adopted across the country. Options for development in an undeveloped area without a zoning plan are limited.	Slovakia	The main prerequisite is the zoning permit, which the developer may apply for, followed by a building permit and an occupancy permit. In case of large housing development, the environmental impact assessment (EIA) procedure could be required. The zoning plans are not adopted across the entire area of the country.
Hungary	Permitted use (i.e. function) of a property is regulated on both the national and local level. The national framework regulation is Government Decree 253 of 1997 on National Requirements of Urban Development and Building, while the local regulation is determined by local municipalities. When a building permit for an investment is sought, the relevant authority investigates if the building designs and function of the planned development are in compliance with applicable national and local law requirements.	Slovakia	Zoning plans determine the types of buildings or development allowed to be built in each area of the city. If the dormitory development does not meet the permitted type of building in a certain area or zone, development is not possible without changing the local zoning plan. Since amendments to the local zoning plan must be approved by the municipal assembly or parliament, which is a long-term process with an uncertain outcome, it is recommended to analyse and assess local zoning conditions before planning any kind of development. There could be also other restrictions (e.g. protected historical zones) which cannot be overcome by changing the zoning plans and could have significant impact on development. There could be also other restrictions (e.g. protected historical zones) which cannot be overcome by changing the zoning plans and could have significant impact on development.
Poland	The limitation of the permitted use of a property results from provisions set out in particular in the following acts: <ul style="list-style-type: none"> — Civil Code; — Act on spatial planning and land development; — Property Management Act; — Construction Law; — Environment Protection Law; — Act on the protection and care of monuments. <p>Currently, local zoning plans have been adopted only for the area covering about 30% of the country's area. For the remaining area the investor must obtain a zoning permit.</p>		



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