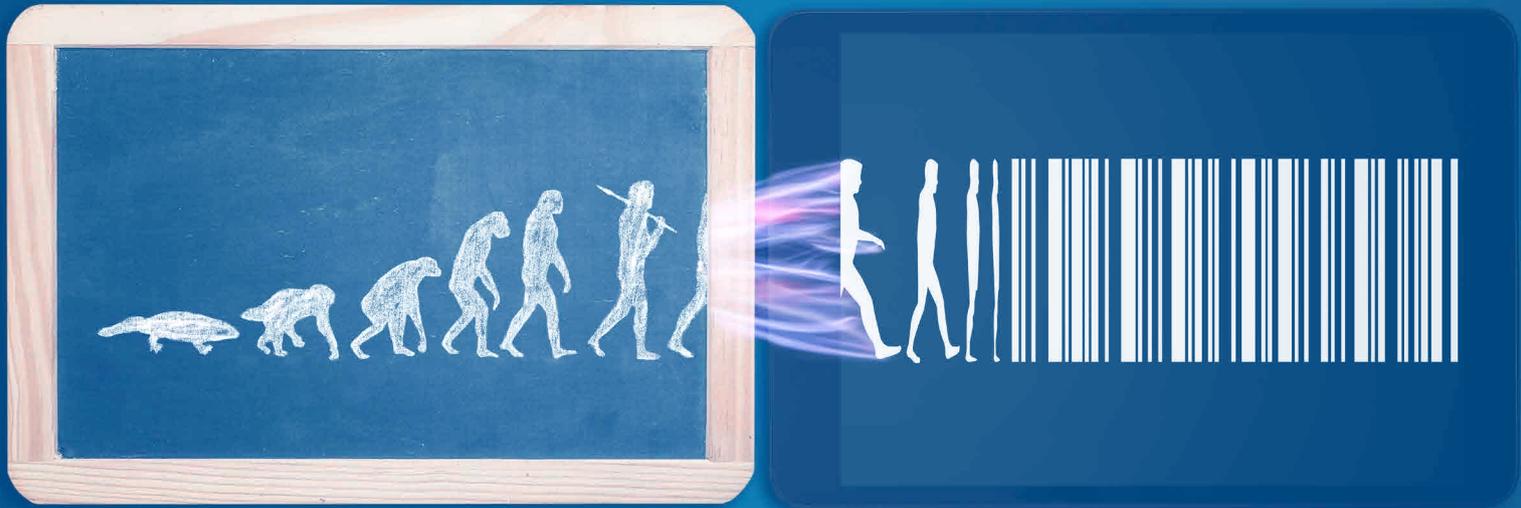


# CEE REAL ESTATE

October 2018



## Survival of the fittest

### Evolution and growth

Will ecommerce kill off retail in the CEE region? The short answer is no. We see room for online and conventional channel retail to continue co-existing side by side in the short to medium term in the CEE-6 markets. The solid further EUR 71.5bn expansion of retail sales out to 2022E, 4.9% growth per annum overall, creates enough evolutionary room for multiple concepts to continue thriving. Our conservative growth scenario sees ecommerce in CEE-6 expanding 8.8% per annum from a baseline of EUR 13.1bn, to EUR 20bn. We acknowledge that bullish estimates may put the size of the online market closer to that mark even today. But even in a more “bullish” scenario of ecommerce capturing 10% of all retail sales by 2022E, expanding to EUR 34bn, we foresee a decent majority of incremental sales still occurring through the traditional, established channels.

### Space to expand

The baseline expansion of demand via online channels and products delivered will generate, according to our calculations, a requirement for 198,000 sqm of dedicated logistics/warehouse distribution space per annum in CEE in 2018-22E, if the assumption is made that present capacity is fully-utilised. This compares to the supply chain for conventional retail in the period requiring 865,000 sqm of logistics/distribution space per annum to service increased sales.

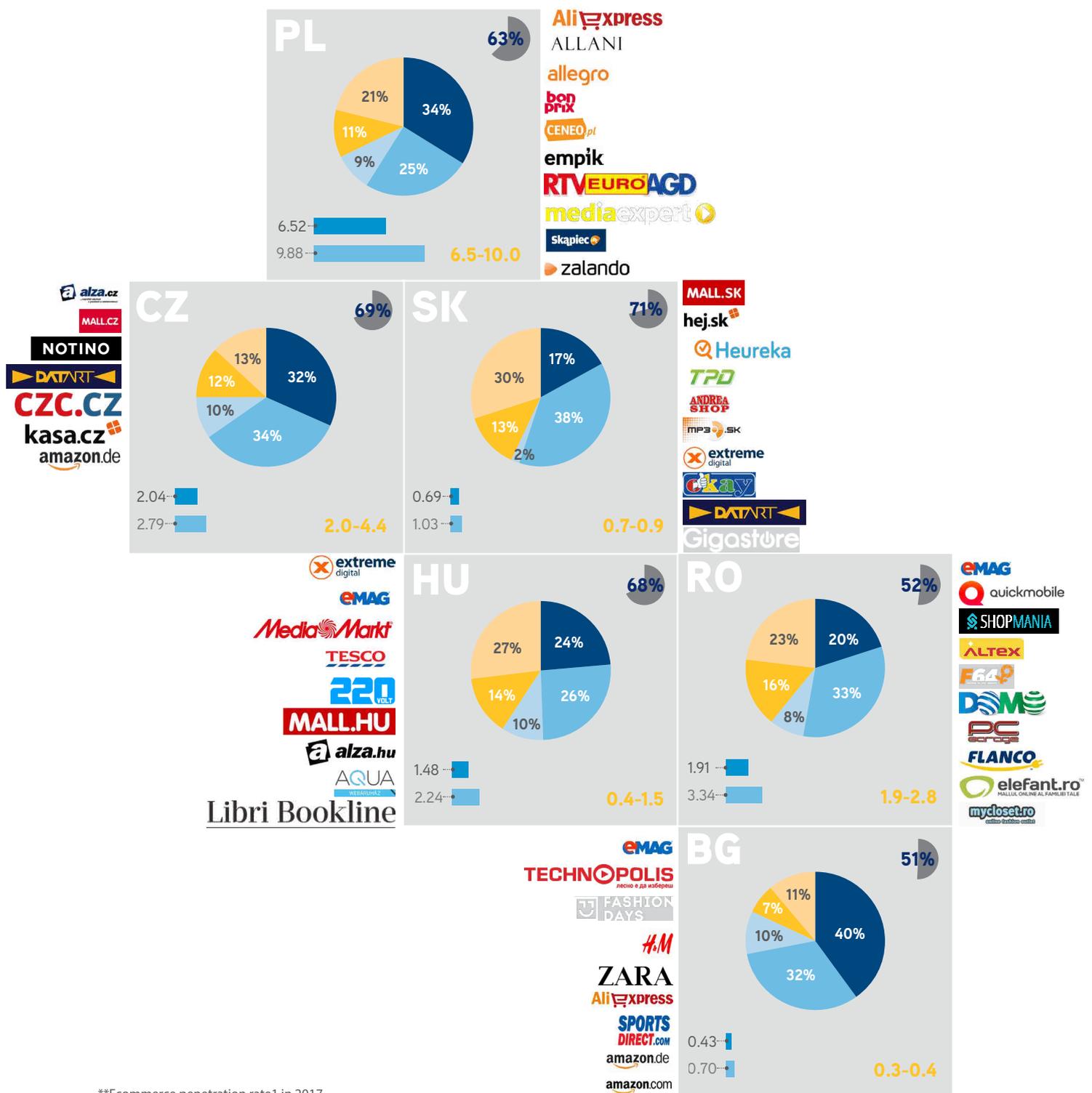
The combined 1.063mn sqm of space equates to 5.0% of present modelled logistics/distribution stock in the CEE-6, matching our retail sales growth estimate. But more interestingly, it equates to 62% of Q2 2018’s active construction figures and 87% of modelled take-up for the last 4 calendar quarters.

Due to the different sales/sqm assumption, any higher mix of ecommerce, such as our “bullish” and “high” scenarios, means increased demand for logistics/distribution space on top of the above stated figures. We see scope for an extra 107,000 sqm and 263,000 sqm per annum being required if these scenarios evolve. The supply side would be compelled to react, though we do not think with „urban logistics“ as yet.

### Adaptation rather than extinction

For the retail sector, the recent „showrooming“ concept should help the survival strategy. While we might not see any rent rises in CEE-6 due to the online threat and some hard negotiations ahead, the markets do not appear very „overbuilt“ at present. The sheer rate of increase of overall retail sales means that it is very difficult to portray that omnichannel/traditional retail growth will taper towards nothing. Significant wage increases, strong GDP growth and the increasing availability of credit should keep retail afloat.

Fig. 1: The online retail world and ecommerce<sup>1</sup> in Central & Eastern Europe



\*\*Ecommerce penetration rate<sup>1</sup> in 2017  
[usage by a resident in the last 12 months]

\*Top ecommerce players  
[revenue rank in SVK, HU]

\*\*Market size estimate [2017, EUR bn]

\*\*Sector breakdown [2017, revenue,%]

- Fashion
- Electronics & media
- Food & personal care
- Furniture & appliances
- Toys, hobbies & DIY

\*Range of estimates of ecommerce market size  
[2017, EUR bn]

\*Source: eMarketer, expandeco, internet, Peak.cz, GKI Digital, Export.gov, M.F.Feru, Kapital/Euromonitor, Colliers International

\*\*Source: Statista, Colliers International

<sup>1</sup>Definition of ecommerce: the sale of physical goods to a private end user (B2C) and excluding digital media, digitally-distributed services (e.g. plane tickets), B2B markets, resale (e.g. eBay) and C2C.

# Gorilla or pygmy?

## What stage of evolution?

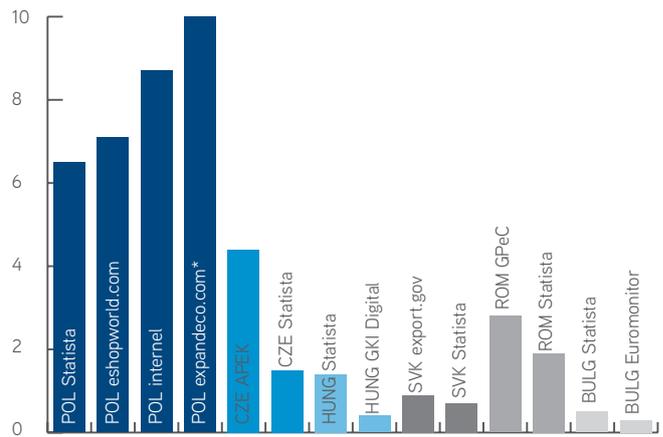
Ecommerce is playing a full part in the fast growth of the service sector in the CEE-6 countries. But the amorphous nature of the rapid growth of online sales makes precise estimation tricky

To obtain consistency, we have adopted the Statista estimates for market size in 2017 and their projections forward to 2022 that were published in their 2018 study. The Statista study was based on a model cast (in US dollar terms) using extensive surveying of 13 European countries (including Poland) and others around the world. Statista then applied their model to other markets. We applied historical average EUR/USD conversion rates and the present rate for forward projections to reach data in EUR. The 2017 market size in CEE-6 using Statista's assumptions is EUR 13.1bn.

A wide range of market size estimates exists even for the CEE-6 countries, especially but not exclusively to the upside. Indeed, other sources see the market size in Czechia (APEK, 10.5% of retail sales) as more than twice that of Statista, Poland up to 53% higher (expandeco.com, 8.5% of sales), Slovakia 35% greater (export.gov, 4.5%) and Romania 46% bigger (GPeC, 7.1%). Market size estimates range substantially lower in Hungary. Taking the highest estimates in each market would sum the CEE-6's market size in 2017 to EUR 20.1bn.

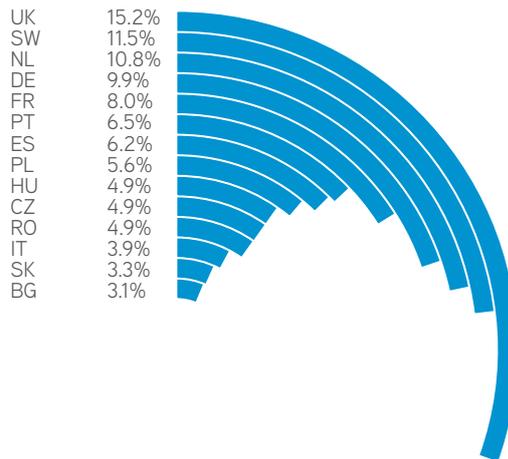
We set the Statista data against retail sales in the CEE-6 and across Europe as a test of these estimates and to attempt to assess the opportunity for future growth prospects. The Statista 2017 market sizes plot below a linear line of best fit in Romania, Czechia and especially Poland (Figure 4). The resultant proportions, a selection of which are shown on Figure 3, may thus be low versus reality in Poland (5.6%), Czechia (4.9%) and Romania (4.9%). But as Figure 4 underlines, the dispersion (scattering of the points) from that line of best fit is not insignificant. So, in recognition of those higher estimates from other sources, we adopt a "bullish" scenario where growth is projected forward from these maximum 2017 market size estimates.

**Fig.2: Range of ecommerce market size estimates in the CEE-6 countries, 2017 (EUR terms, bn)**



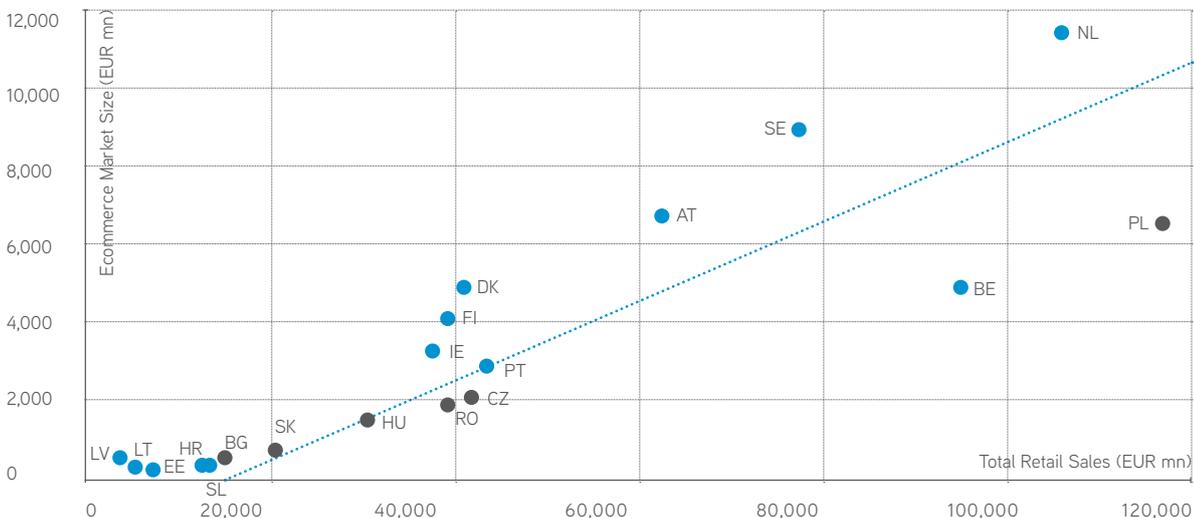
\* May 2018 estimate  
Source: Statista, eMarketer, expandeco, internet, Peak.cz, GKI Digital, Export.gov, GPeC, Kapital/Euromonitor, Colliers International

**Fig.3: Ecommerce market size (Statista) as % of total retail sales in the CEE-6 and selected European countries, 2017**



Source: Statista, Oxford Economics, Colliers International

**Fig.4: Ecommerce market size (Statista) versus retail sales in absolute terms, in 2017 (EUR terms)**



Source: Statista, Oxford Economics, Eurostat, Colliers International

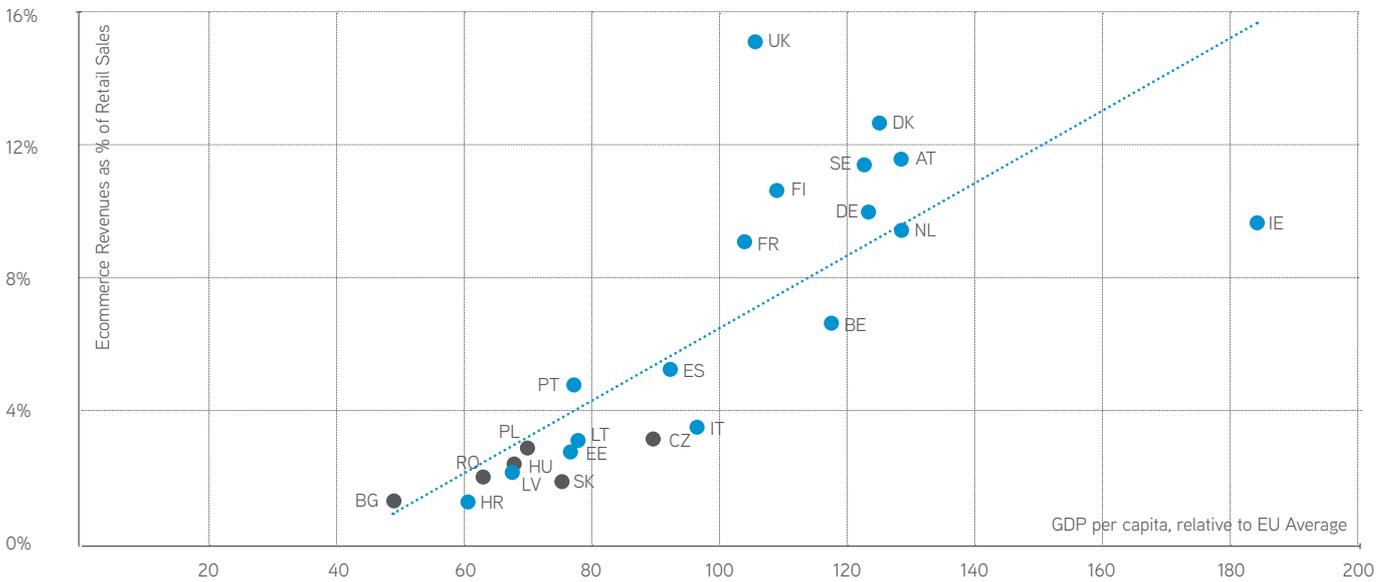
Does GDP per capita provide a benchmark? Further investigation of the 2017 revenue data via a comparison to the GDP per capita of the country relative to the EU average suggests the Statista figures are relatively clustered around a line of best fit, including 3 of the 6 CEE-6 marketplaces. Czechia (again) Slovakia and Romania (marginally) look like conservative estimates.

But is technological adoption running ahead in CEE countries, allowing faster revenue growth? Statista’s model and predictions include factors such as internet usage, mobile smartphone penetration, broadband speed and connectivity and sales of PCs and laptops. Faster technological change and adoption means that Statista’s modelling sees penetration rates (usage by a resident in the last 12 months, see Figure 1) in a range of 51% (Bulgaria) to 71% (Slovakia) of the whole populations for 2017. The UK stood at 79%, France at 72%.

Some might see Statista’s as high penetration estimates for the CEE-6 but if blended with the more conservative regional revenue data for 2017, then the resulting average revenue per user (ARPU) may well be closer to reality.

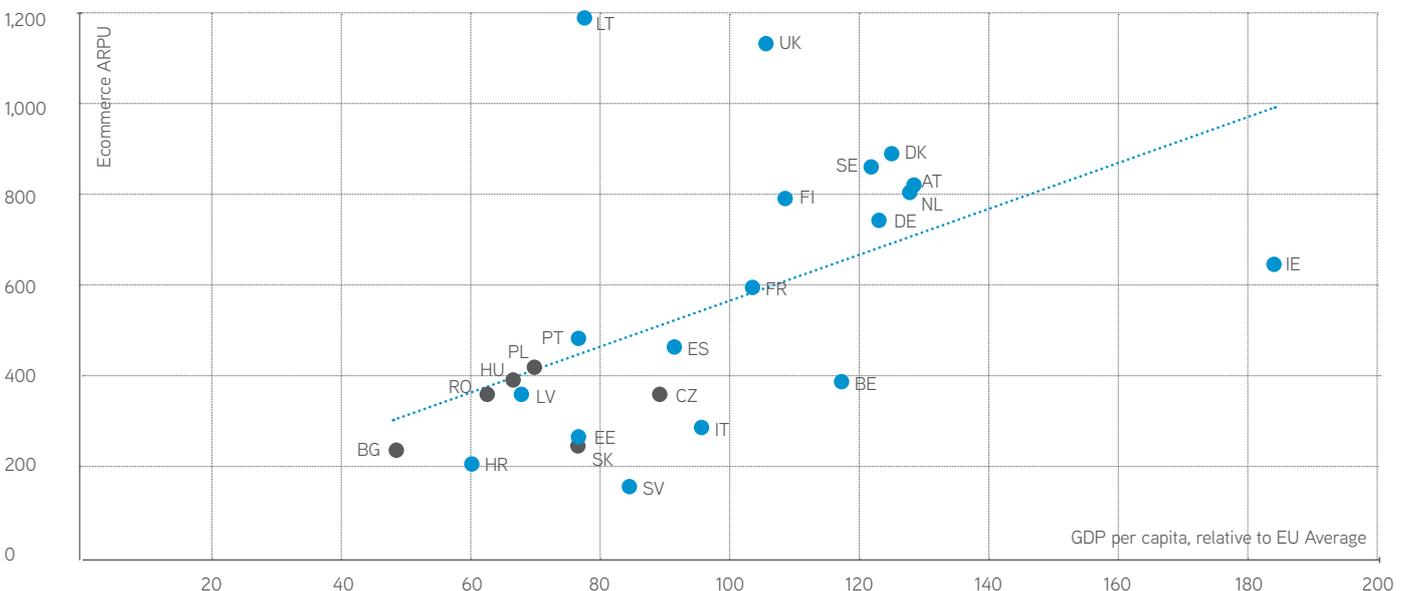
Comparing 2017 ARPU levels with GDP per capita suggests the Eurostat data are conservative in Slovakia and Czechia. Other important conclusions from this chart are the ample scope for growth in general, as GDP per capita in the region rises and the clustering of countries into two groupings, mainly CEE and mainly western Europe. If GDP per capita rises and Czechia “exits” the lower cluster, which looks likely, a jump in ARPU could well ensue, or may have done so already.

**Fig.5: Ecommerce revenues (Statista) as % of retail sales versus GDP per capita, 2017 (EUR terms)**



Source: Statista, Oxford Economics, Colliers International

**Fig.6: Ecommerce ARPU (Statista) versus GDP per capita, 2017 (EUR terms)**



Source: Statista, Eurostat, Colliers International

# Elephant in the room

## How fast will ecommerce grow?

Using forward projections from Statista, we believe that total ecommerce revenues in the CEE-6 as a baseline conservative scenario will grow 9% per annum by 2022. We expect the region's 3.1%-5.6% 2017 Statista data range of ratios to total retail sales should expand to at least 3.7%-6.9% by 2022, totalling a minimum of EUR 20bn in revenues and increasing by more than EUR 6.9bn. Embedded in the Statista model are assumptions that the penetration rates would expand in the range of between 3.1 percentage points (Czechia) to 7.4 percentage points (Romania) between 2017-22E.

To acknowledge the evidence of higher estimates of 2017 market size and also the ample potential for penetration and online shopping demand to accelerate, we assessed two further scenarios. Our second "bullish" scenario takes the maximum size for each of the online marketplaces in CEE-6 as a baseline (EUR 20.1bn total). We increase the Statista-modelled annual rate of growth for the countries by 2 percentage points ("ppts"), with the exception of Czechia, where we increase it by 4 ppts. Higher GDP per capita should lead to higher ARPU and industry player APEK's data suggest the Czech market grew at c.20% per annum between 2013 and 2017. The result is a CEE-6 market size rising from EUR 20.1bn to EUR 33.9bn, an increase of EUR 13.8bn. Online would make up 10.1% of the region's retail sales. Within that, Czechia's rises to 12.9%.

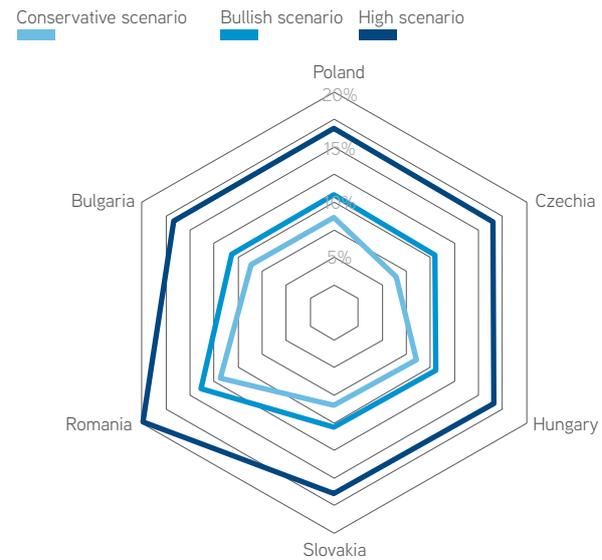
Our third "top" scenario uses the same higher baseline but with an 8 ppt increase in the annual growth rates and 10 ppts for Czechia. Ecommerce revenues for CEE-6 would sum to EUR 44.1bn, an increase of EUR 24.0bn. Online sales would be 13.2% of regional retail sales.

We believe our "bullish" scenario where ecommerce reaches over 10% of retail sales is in range for the CEE-6: 10% is France's 2017 calculated ratio, using Statista data. Achieving an ecommerce proportion of 13% of retail sales implies growth rates in the higher teens that might be ambitious. It draws Czechia (16.8%), Poland (14.6%) and Romania (14.3%) close to the highest e-revenue ratios prevalent in Europe: based on Statista's ecommerce data Lithuania had 16.0% in 2017, the UK 15.2%.

As we have seen with the ARPU levels, the CEE-6 region appears under-penetrated. The spread of smartphones, tablet access and e-solutions offered by the more innovative retailers, as well as cyclical factors such as rampant wage growth and availability of credit all underpin the growth projections, certainly in the "bullish" scenario.

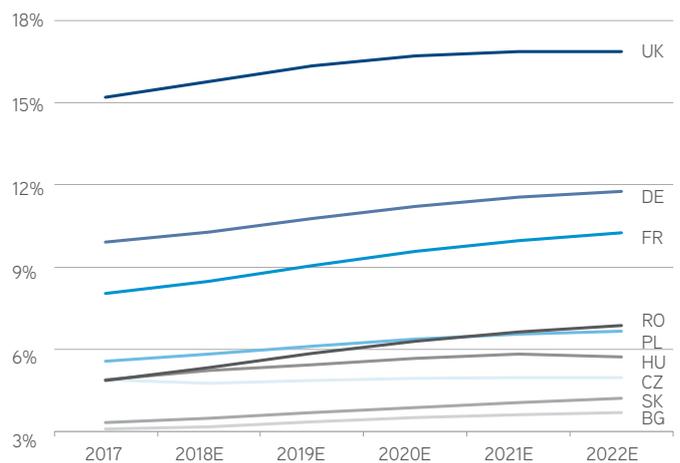
Wage growth and the availability of credit are critical factors at this point in the CEE-6 economic cycles and in our forecast period. We have documented in other research the tightness of CEE labour markets and the current and ongoing phenomenon of wage hikes. We expect average wages higher by 5% (Slovakia) to 11% (Romania) in 2018E, after similar 2017 hikes. Unemployment should stay low into 2019E: more wage rises are in the pipeline. We believe wage rises have an amplified effect on growing retail sales, especially online: first, affordability of the gadgets that facilitate online shopping increases; secondly, credit becomes more easily available if customers are paid more to start with and thirdly, prices (and thus general CPI) rise, gradually closing the gap up to the wage escalation.

**Fig.7: Ecommerce market growth per annum assumptions in our scenarios, 2018-22E**



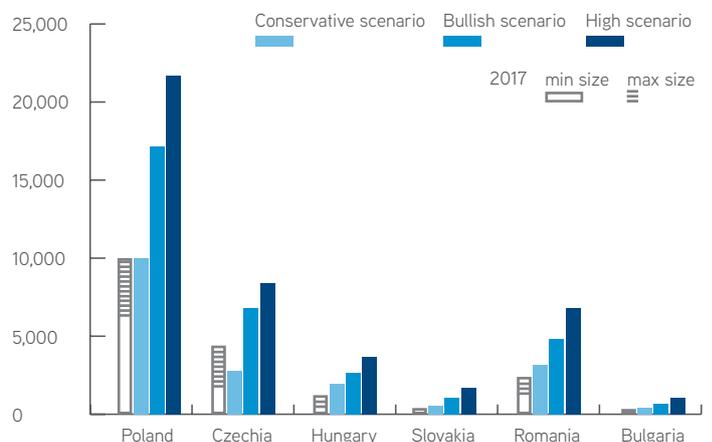
Source: Statista, Colliers International

**Fig.8: Ecommerce revenue (from Statista) as a % of retail sales in the CEE-6, 2017-22E (EUR terms)**



Source: Statista, Colliers International

**Fig.9: Total ecommerce market size by 2022E in 3 modelled scenarios (EUR mn)**



Source: Statista, Colliers International

# Breeding fast

## Growth for CEE logistics real estate

The conservative baseline 9% per annum expansion of demand via online channels and products delivered will generate, according to our calculations, a requirement for 198,000 sqm of logistics/warehouse distribution space for online players alone per annum in CEE in 2018-2022, if the assumption is made that present capacity is fully-utilised. This compares to the supply chain for conventional retail in the period requiring 865,000 sqm of logistics/distribution space per annum to deal with the projected expansion of retail sales overall if present capacity is full. The combined 1.063mn sqm of space equates to 3.3% of present modelled logistics/ distribution stock in the CEE-6. But more interestingly equates to 62% of Q2 2018's active construction figures and 87% of modelled take-up for the last 4 calendar quarters.

It is in the scenarios of higher proportions of retail sales being online that additional logistics/distribution capacity will be required. For ecommerce, we model a sales per sqm ratio about half that of conventional/omnichannel retailers (see "Notes on methodology" below). This difference generates an absolute terms requirement for space of an average of an extra 107,000 sqm per annum in our "bullish" scenario in 2022E and an extra 264,000 sqm in the more ambitious "high" scenario. This is again assuming that the present stock covers the requirements of ecommerce players with the "maximum" 2017 ecommerce revenue estimates. In the "bullish" scenario, the servicing of total retail sales including online would absorb all the present total active construction in the modelled logistics segment of the commercial industrial sectors every year in Czechia and Hungary and close to it in Romania (though the supply data in the latter are for Budapest/Bucharest only). This is all considering demand for logistics from the retail sector only. We believe the supply side, developers, will be compelled to react.

In what format? Probably the present one. We observe scant evidence of the growth of "urban logistics" thus far but would not rule out its appearance in the very largest urban concentrations (Bucharest, Budapest, Warsaw) within our study's forecast period. Accessibility to residential areas is becoming an issue in some zones of these largest cities but does not appear as an issue in smaller centres.

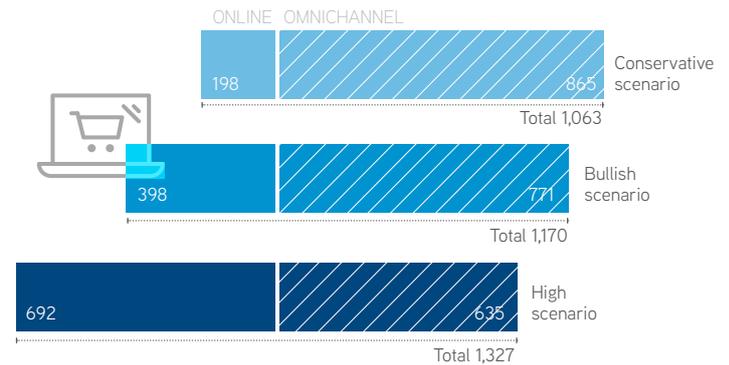
\*Notes on methodology:

The space requirements assume a revenue of EUR 6,957 per sqm of space for online retailing. This figure is taken from Amazon International's implied global sales per square metre of USD 8,004 for fulfilment space, calculated from their published results statements as at year end 2017. For omnichannel retailing, we utilise a figure of USD 16,588 per sqm we first used in our EMEA report in 2015 titled "Sheds to shelves" which we further verified with market participants to be suitable as an assumption for CEE-6 markets in 2018.

We assumed a 67%/33% logistics/distribution versus manufacturing /warehousing split of our combined industrial sector stock, gross take-up, development completions and active construction data in the CEE-6 countries. We adopted a 50%/50% split in Bucharest/Budapest/other Bulgaria where we were not able with a high confidence level to estimate the split reasonably.

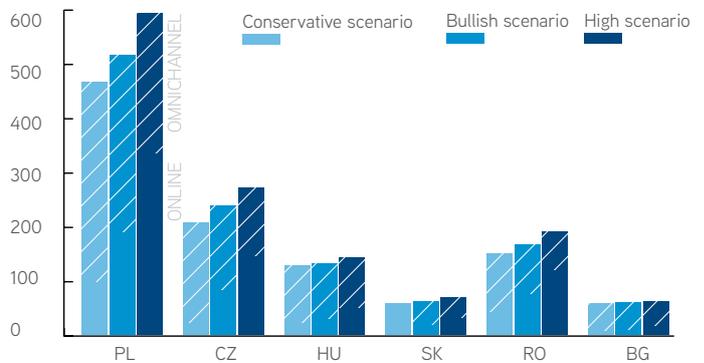
Our stock data covers the 9 major cities in Poland, including all 3 of Warsaw's zones, 13 regions of the Czech Republic, five key city-regions of Slovakia, Budapest only in Hungary, a national estimate for Romania and the four key cities in Bulgaria. The active construction/completions/take-up data are for the capital cities only in Romania and Bulgaria, otherwise the same.

**Fig. 10: Required demand for logistics/distribution space for online and omnichannel/general retailers 2017-22E (sqm)\***



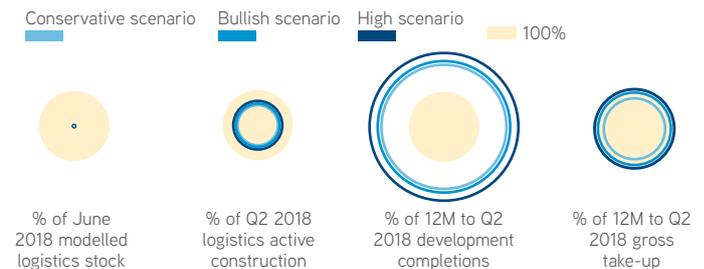
Source: Statista, Colliers International

**Fig. 11: Demand for logistics/distribution space for online and omnichannel/general retailers 2017-22E by CEE-6 country (sqm)\***



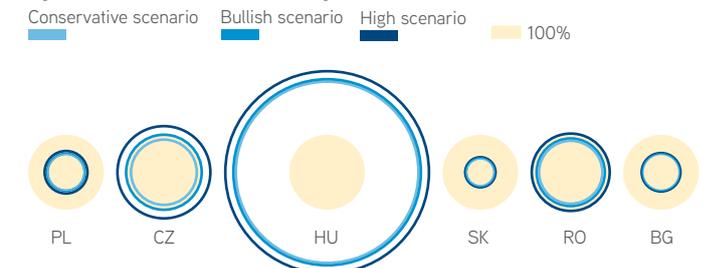
Source: Colliers International

**Fig. 12: % of region-wide logistics supply/take-up indicators absorbed by retail's demand for space in our scenarios\***



Source: Colliers International

**Fig. 13: % of Q3 2017-Q2 2018 CEE-6 country logistics active construction absorbed by retail's demand for space in our scenarios\***



Source: Colliers International

# Not extinct yet

## Impact on CEE retail demand

Our “conservative” scenario’s EUR 6.9bn online retailing increment takes a 10% chunk out of the overall projected growth in retail sales of EUR 71.5bn in 2018-22E. The extreme scenario of ecommerce absorbing all retail sales growth from now to 2022E looks out of scope. It would imply online sales rising to 19%-29% of retail sales across CEE-6. The UK’s level is 15.2% now. Our “bullish” scenario implies EUR 34bn of online sales, absorbing 20% of all retail sales growth by then. Important is that 80% of incremental sales would be omnichannel/traditional.

So, should any closures of retail units occur? Probably not, overall. We have detected none yet. Assessing the CEE-6 capital cities’ Q2 2018 TSC retail space per capita against their 2015 GDP per capita suggests slightly overbuilt situations, or room to absorb higher sales. Which we see happening.

Are regional cities and towns overbuilt? The retail provision (including high street) across the whole country is perhaps lower in CEE-6 than implied by GDP per capita numbers across the EU. So, moderate (5%-10%) expansion of floorspace (1%-2% per annum in 2018-22E) to absorb the modelled retail sales growth might be warranted in the Visegrad-4. The room to grow in Romania and Bulgaria nationally appears larger, perhaps a 20%-30% build-out.

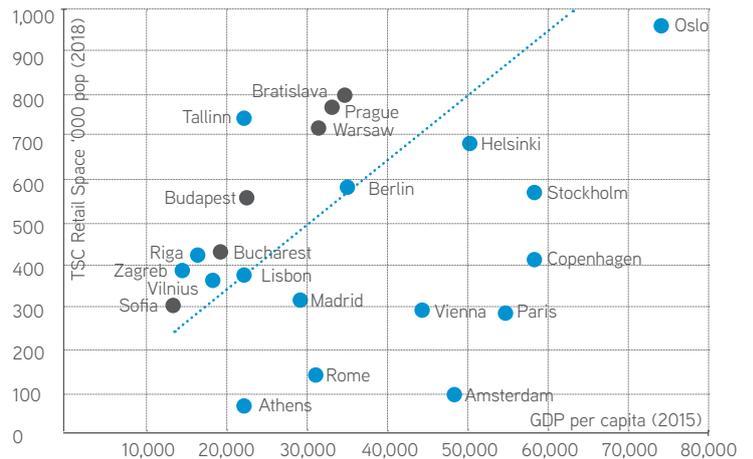
We do not see retail rents firming in the face of the our modelled ecommerce expansion. Negotiations and agreements on turnover rents and recognition of online sales are going to be required. But neither do we see large rent reductions, as the CEE-6 omnichannel/traditional increment is still worth at least EUR 27bn between 2018E-22E in our “high” scenario. An intervening recession in the economies might change this calculus. TSCs are likely to shift their tenant focus towards food and entertainment and further away from the sectors outlined on Figure 1 where e-commerce is live.

A potential survival aid, the “showrooming” phenomenon, is spreading in CEE-6 (excepting Bulgaria), now accompanying and flagging the growth of ecommerce. Some of the largest e-electronics and e-fashion & cosmetics players have already established pick-up point presence in well-located offices and at transport nodes in the larger cities (see below for details).

### Showrooming examples across CEE capitals

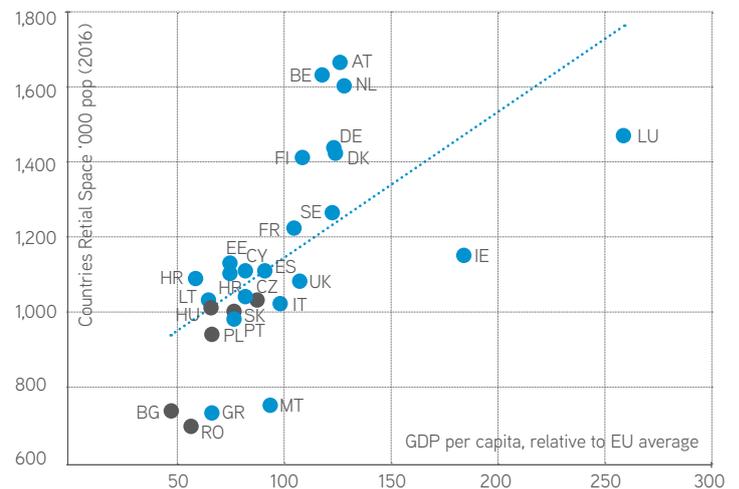


**Fig. 14: TSC retail space per '000 pop. (2018 stock) versus 2015 GDP per capita in European capital cities**



Source: Eurostat, Colliers International

**Fig. 15: Country retail space per '000 pop. (2016 data) versus 2016 GDP per capita**



Source: Eurostat, Statista, Colliers International

**Fig. 16: Showroom showcasing – eobuwie.pl**



**CCC shoe concept in Poland.**

Products available to browse on tablets.

You choose and delivery comes in 1-3 minutes.  
You check your choice and buy/return.

Source: eobuwie.pl, Colliers International

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