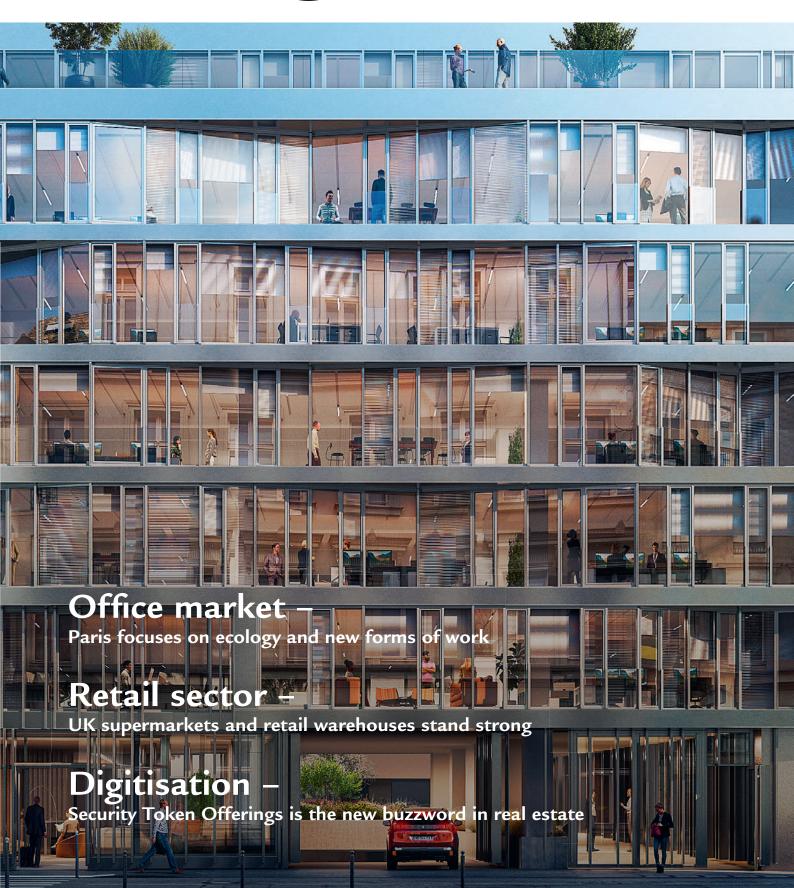
Insight SwissLife Asset Managers Real Estate Real Estate





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Editorial

Dear readers,

We want to enable our customers to achieve a solid, sustainable performance, even in difficult market conditions. To this end, with our pan-European real estate know-how, we look to the entire ABC of asset management. In this issue of Insights, we highlight the letter C. Or, to be more precise, we illuminate the "five Cs."

Swiss Life Asset Managers pursues a thematic investment approach with the five Cs, which identifies five overarching themes to ensure that our clients' real estate portfolios remain as resilient as possible, even if markets see some harsh times.

The five thematic areas include climate change as well as digitisation, both of which are having a long-term impact on the real estate market. Using the example of Paris, which is on its way to becoming a 15-minute city, we show the market opportunities inherent in office properties if investors read the green signs of the times correctly. And we'll probably hear a lot more about blockchain in the real estate sector.

Our experts can also identify interesting investment opportunities in more traditional sectors such as retail or logistics. We use our experience and expert advice to support our customers in achieving their long-term investment objectives.

I hope you enjoy reading this issue



Stefan Mächler Group Chief Investment Officer Swiss Life

Themes that drive real estate performance

The way we live, work and play has evolved significantly over the last decade and with it the way we use real estate. Underlying megatrends such as demographic shifts, globalisation, climate change and digitisation will continue to drive this change at an accelerating rate. Institutional investors must identify real estate that is positively aligned to change in order to ensure portfolio resilience.

Francesca Boucard, Head Real Estate Research & Strategy, Swiss Life Asset Managers; Rita Fleer, Economist Quantitative Analysis, Swiss Life Asset Managers; Frances Spence, Director Research Strategy and Risk, Mayfair Capital

Swiss Life Asset Managers applies a thematic investment approach that identifies overarching themes in order to ensure portfolio resilience; these themes – the five Cs – will drive real estate performance in an everchanging world. The five Cs are: Change & Disruption, Climate & Environment, Communities & Clustering, Consumers & Lifestyle, and Connectivity.

Swiss Life Asset Managers has built on years of expertise applying the five Cs across countries, cities, and assets. We use the five Cs to screen new investments, to review existing holdings, to determine asset management opportunities that enhance value, and to optimally time exits. We believe that places and assets which are well aligned with these themes will capitalise

on structural change. They will be more attractive to occupiers and knowledge-based workers. This cross-sectional appeal to businesses and skilled workers will be needed to succeed in the modern economy by underpinning occupier demand and supporting sustained, long-term real estate performance.

The five Cs and the city

The Swiss Life Asset Managers' European Thematic Cities Index (TCI) compares European cities across the five Cs. It identifies those most likely to be resilient in the face of unrelenting structural change as well as their individual strengths and weaknesses. We translate the five Cs into city specific themes that resilient cities will need:



The five Cs and the cities

Five Cs	nplications on city level City themes		Attributes
Change & Disruption	Ability and means to adapt to and embrace changes by offering opportunities to create, innovate, educate and produce	Dynamism	Economic output Ease of business Entrepreneurialism
Climate & Environment	Ability to build resilience to a shifting climate and to support a healthy and sustainable future for the physical and mental well-being of citizens	Healthiness	Air quality Sustainability Waste management
Communities & Clustering	Ability to provide places where personal and professional networks can form and thrive and where occupiers can access business and talents	Networks	Business density Educational offer Growth potential
Consumers & Lifestyle	Ability to meet changing consumer demands and support different lifestyles by offering stimulating, varied and diverse options to multicultural residents	Cosmo- politanism	Amenity provision Entertainment Population
Connectivity	Ability to connect citizens seamlessly to the physical and digital world within and outside of the city	Accessibility	Personal mobility Digital access Public transport

The TCI ranks 135 European cities from 28 countries in respect of the five core city themes: Dynamism, Healthiness, Networks, Cosmopolitanism and Accessibility. Launched in 2021, the TCI will be updated annually. The model behind it includes 49 attributes and is based on the Organisation for Economic Cooperation and Development (OECD) handbook on constructing composite indicators.

The TCI and our investment approach

The ranking differs from other city rankings as it focuses on the structurally driven themes that shape real estate demand. It avoids a large city bias by predominantly using per-capita attributes and it takes trend forecasts into account, benefiting cities with the most potential for further strengthening.

The TCI adds to our pan-European real estate research expertise. It is an additional tool that informs our bi-annual publications of the Real Estate House View and the Strategic Implications and strengthens our investment approach in several ways. The purely data-driven score offers a comparable metric to illuminate the relative strengths and weaknesses of cities across the themes derived from the five Cs. As such, the ranking can serve as an input for investment analyses, combined with other qualitative and quantitative information. The detailed insights gained from our proprietary TCI support the development of well-informed investment strategies. It aids Swiss Life Asset Managers in building resilient real estate portfolios that appeal to the occupiers of today and tomorrow. It enhances the ability to position investments to protect, create and grow income in a rapidly evolving world.

The European TCI Ranking 2021

The strongest thematic cities in the overall European ranking 2021 are the capitals London, Amsterdam, and Paris. Furthermore, three Nordic capitals as well as the three non-capital cities Basel, Zurich, and Manchester rank within the top ten. The TCI also reveals thematic strength of some smaller cities such as Lausanne, Potsdam, Milton Keynes, or Grenoble, which profit from our per-capita adjustment of some variables. At the bottom of the ranking are cities like Gijón, Brno, and Granada. These cities are not necessarily unattractive for real estate investments but special attention to their scores can help identify lucrative segments. Our 2021 scores are not immune to the pandemic, as lockdowns affected some attributes such as mobility data, business registrations and air quality.

Rankings of the top 35 European cities

	Overall Ranking		Ø	œ		B
London	1	1	7	1	1	77
Amsterdam	2	6	2	3	31	9
Paris	3	2	37	7	9	32
Oslo	4	27	6	35	6	19
Luxembourg	5	26	22	12	62	1
Stockholm	6	37	4	16	30	12
Copenhagen	7	23	5	23	63	6
Basel	8	38	63	11	3	11
Zurich	9	49	10	6	14	20
Manchester	10	15	12	32	28	8
Munich	11	29	23	2	26	22
Berlin	12	90	3	14	2	57
Dublin	13	5	40	18	16	44
Dusseldorf	14	110	15	20	34	2
Edinburgh	15	10	36	13	7	80
Brussels	16	72	11	5	111	7
Lausanne	17	12	70	4	22	47
Bristol	18	16	59	10	8	70
Berne	19	63	77	65	5	5
Helsinki	20	55	14	45	76	4
Tallinn	21	11	66	54	12	34
Potsdam	22	83	1	70	20	14
Cambridge	23	4	79	19	11	93
Vienna	24	95	8	49	39	13
Milton Keynes	25	3	30	67	23	71
Belfast	26	9	82	34	24	46
Reading	27	7	38	24	29	96
Gothenburg	28	69	69	79	50	3
Newcastle	29	32	25	57	38	65
Cardiff	30	47	29	37	64	36
Frankfurt	31	101	88	17	54	10
Karlsruhe	32	92	34	50	21	25
Grenoble	33	53	67	22	72	35
Rotterdam	34	50	32	64	85	27
Hamburg	35	114	17	30	4	106

Paris Inner City, a resilient and sustainable office market

Seen as a safe haven by investors in 2020, the Inner Paris office market strongly recovered in 2021 in terms of letting activity. Apart from its strong economic fundamentals and being increasingly eco-friendly, the city office market is also better hedged to "hybrid work" and well positioned to match the Paris Agreement by 2050.

Béatrice Guedj, Head of Research & Innovation, Swiss Life Asset Managers, France

In 2021, the Inner Paris letting market activity remained robust, pushing prime rents to EUR 930 per m², a new high in the wake of a strong demand (the city accounts for 43% of the total letting transactions in 2021, a historic high since 2000).

Paris city is more flexible in terms of uses and new designs for offices, particularly following the disruption brought on by working from home. The new hybrid model of work, a combination of working in the office and at home, has reinforced Paris as a focal point to attract workforce, to foster interaction and to increase labour productivity. For companies, the trade-off is simple: a 20% reduction in office space, but actually having offices in the Paris city centre with its Haussmann 2.0 buildings is more attractive to employees.

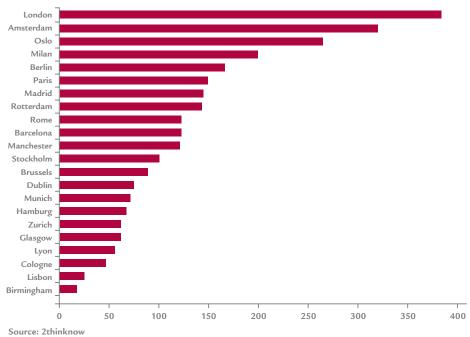
Paris city appears as an eco-friendly and sustainable spot to minimise the carbon footprint over time in line with the 15-minute-city concept. Paris was named Europe's greenest city in 2018¹. The success of greening Paris had to be seen as a long-term process when Paris joined the Reinventing Cities initiative in 2014². The guidelines were to stimulate sustainable development by designing a green urban future within the City of Love. Apart from a pure repositioning programme to make assets more resilient3, initiatives also include converting urban highways into cycle lanes, creating large gardens, as well as repurposing entire neighbourhoods into pedestrian zones, favouring green spaces and biodiversity. Thus, between 2015 and 2020, cycle lanes have increased from 200 km to 1,000 km. Paris has gained a green advantage since Covid-19, as companies and workers have become very carbon footprint aware. Since cycling lanes offer a more flexible and individual mode

of transport, Parisians are keener to com-

Bicycle shops take off

Recent evidence suggests that in one year, Paris experienced the highest growth rate of bicycle shops (x149) in Europe despite the 400,000 subscribers to the public bike services.

Bicycle shops per 100,000 inhabitants by main cities





Life and (hybrid) work: In the eco-friendly 15-minute city, the next green space is never far away.

mute by bike. Looking back, tech companies such as Google, Facebook, and other international tech names were pioneers in locating their headquarters in historic flagship buildings, claiming for large private gardens and bike rooms. Against this backdrop, and in line with the Paris Agree-

ment, Paris 2050 aims to reduce its carbon footprint by 75% by promoting renewable energy in the city and supporting new clean technologies across the built environment. The ongoing resilience of the Parisian office market with strong expectations to secure stable cash flows in a

changing office environment is the key driver of investors' current appetite for Paris. Finally, the ability of Paris to minimise its carbon footprint (Scope 3⁴) explains the continuous bandwagon effect from investors to see the city as a safe haven over the long term.



In the heart of Paris: 104, rue de Richelieu.

¹ Essentialliving.co.uk. These attributes are the number of parks, gardens, playgrounds, and the body of water.

² A global competition aiming to accelerate the decarbonisation and favouring urban regeneration using innovation.

³ For example: SLAM France won a competitive process to reposition specific assets such as a public bath building in 2018 in the 15th district (34, rue de Castagnary) to a co-living space for young workers.

for young workers.

⁴ The Green House Protocol guidance outlines 15 different Scope 3 categories such as employees' commuting costs.

A revival in the UK retail sector?

Retail has been out of favour with investors given disruption from e-commerce, but recent data suggests it is outperforming offices for the first time since 2016. A more detailed look reveals this trend masks significant polarisation, as "winners" in the evolving retail landscape begin to emerge.

Frances Spence, Director, Research, Strategy and Risk, Mayfair Capital

Disruption caused by the rise of e-commerce has put retail out of favour with investors in recent years. Given the backdrop of a pandemic and the subsequent acceleration of online sales, it is surprising that during 2021, MSCI data revealed retail outperformed offices for the first time since 2016, returning 14.6% compared with 5.1%.

A detailed look reveals a more nuanced picture. Behind this headline, retail warehouses and supermarkets performed most strongly, returning 24.9% and 14.7%, respectively.

As an essential retailer with lower online penetration, the resilience of supermarkets is understandable. More interesting is the strength in retail warehousing, which has been driven by investor demand. Over H2 2021, yield compression has had a positive impact of 14.8% on capital values.

What's the attraction?

Our thematic research has unearthed the roots of the attraction; it states that resilient retail locations will offer convenience, value, experience or ideally a mix of these. The success of retail parks reflects their drive to convenience, consumer appetite for value, and the increasing demand for drive-through dining. Footfall on parks anchored by food or discounters has been resilient. Vacancy is below the retail average and operators are expanding. Value retailers including Aldi, B&M,

Retail warehouses and supermarkets stand strong

Retail warehouses and supermarkets have driven the strong performance in retail, returning 24.9% and 14.7%, respectively.



Source: MSCI Monthly Digest December 2021

and Home Bargains are among the most acquisitive.

In addition, retail parks should benefit from disruption in the sector, including the growth in both online retail and quick commerce or "q-commerce", where retailers compete on delivery times.

The benefits in respect of online retail are twofold. First, retail parks are used for online fulfilment, as access to convenient car parking supports the servicing of "click and collect" and the larger unit sizes mean stores can become partial

warehouses for last-mile delivery. Second, there is the option to repurpose accessible retail parks in densely populated locations to provide a combination of retail and urban logistics units.

Q-commerce relates to the delivery of goods within one hour of ordering. To achieve this, retailers need to store products close to the end consumer. Retail parks embedded in urban areas are well placed to serve as pseudo-warehouses for this activity. This trend will intensify the attractiveness of other convenience retail,

with local small format food stores in well-connected locations, also able to compete at this level.

Where are the risks?

Pitfalls for investors remain. Even within the retail warehousing segment polarisation is increasing. Location, including catchment and accessibility remains king. If repositioning, the park specification must meet user needs for urban logistics, including yard depth and loading configurations. Current rental levels are also critical as while many rents have been rebased, over-renting is still prevalent.

Nevertheless, for investors that have a clear understanding of how disruption is shaping user demands for this sector, there are winners to be found in the evolving retail landscape.



Urban, convenience retail is likely to play a role in q-commerce fulfilment.





Security Token Offerings are digitising real estate

Real estate tokenisation is rapidly gaining attention across Europe with Blockchain and its underlying distributed ledger technology. It lowers investment thresholds, reduces transaction costs as well as involved intermediaries, and delivers liquidity to a naturally illiquid asset class.

Philipp Holzmann, Product & Lifecycle Management, Swiss Life Asset Managers, Germany

Digitisation is advancing with ever greater strides. This not only applies to communication technology, private households, politics, and the economy in general, but it is also now progressing into the financial and real estate markets. "Tokenisation is the process of representing fractional ownership interest in an asset with a blockchain-based token".1 Real estate tokenisation via Security Token is a broad term and can take several forms. It may refer to representing shares in a real estate investment fund with tokens, to the use of a token to represent debt or to converting a single property into tokens2 (see chart). It is important to note that some peculiarities currently exist with regard to the jurisdiction of a tokenisation. Currently in Germany, only participation via subordinated loans and bonds is permitted. However, in countries such as Luxembourg, Liechtenstein, and Switzerland a participation in equity is already possible. Digital assets structured as

Selection of successful tokenisations

Promoter	Domicile of Promoter	Label	Туре	Size (€)
Aspen Digital	United States	Aspen Coin	Single Asset	16,330,200
Blockimmo	Switzerland	Hello World	Fund	2,705,600
Bolton	United Arab Emirates	Bolton Coin	Debt	61,537,800
Brickblock	Germany	Peakside Fund	Fund	2,200,000
Equitybase	Hong Kong	BASE	Fund	5,290,300
Evarei Management	Cayman Islands	Evareium	Fund	1,814,500
iCap Equity	Washington, US	iCap Equity	Fund	1,130,000
Max Property Group	Netherlands	Max Property Fund	Fund	6,090,000
Peakside	Germany	Peakside Fund IV	Fund	Up to 200m
QuantumRE	United States	Quantum REIT	Fund	20,000,000
Resolute	United States	Resolute Fund	Fund	Up to 100m
Shoijin	United Kingdom	Smartlands PBSA	Single Asset	1,000,000
SocialRemit	United Kingdom	CSR	Single Asset	2,078,700
BrickMark	Switzerland	-	Single Asset	120,000,000
RTX 21	Germany	-	Single Asset	Up to 20m
Vonovia	Germany	-	Debt	20,000,000

Source: FoRE/CBRE/FIBREE/SLAM



Digital assets will accelerate digitisation in real estate.

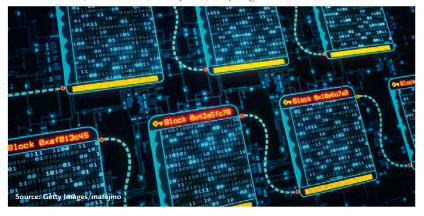
Security Token Offerings (STO) are treated as securities and are therefore subject to laws and regulations, in contrast to Initial Coin Offerings which operate mainly in an unregulated environment.

STOs boost liquidity into the real estate sector

The real estate sector typically has a high market entry barrier because it requires large amounts of capital. An STO can lower the entry barrier and enable new investor groups to participate in assets which would

previously have been pretty much exclusive to institutional investors and wealthy private investors. Therefore, fractionalising real estate assets offers the opportunity to increase liquidity in the asset class. Digital issuance and investment through STOs can help to simplify business operations and reduce the number of involved parties. Also automated smart contracts, transparent transactions recorded on Blockchain, builtin KYC (know your customer) documentations and other features might bring cost reduction potential.3

On the Blockchain, transactions are transparent, everything is recorded.



A few hurdles remain

In addition to all the positive aspirations of tokenisation, hurdles remain, as for example the digitisation of the land register and the development of secondary markets need to be overcome to exploit the whole potential of tokenisation. The currently low interest rate environment and the steadily increasing yield compression in the real estate sector ensure that the cost savings resulting from tokenisation can have a positive impact on returns.4 Irrespective of all innovation, the underlying asset remains a property which requires to be managed by an experienced investment and asset manager in order to leverage the full potential for value enhancement. Tokenisation, however, is set to become an important medium within the real estate investment market.

¹ Tokenisation: The future of real estate investment? University of Oxford Research (2020)

² Tokenisation: The future of real estate investment? University of Oxford Research (2020)

³ Study on the tokenisation of real estate. Frankfurt School Blockchain Center and Hamburg Commercial Bank (2021)

Technology paper digitalisation and tokenisation. INREV (2021)

Covering the entire logistics spectrum

Modern logistics in conurbations is on top of investors' shopping lists. Yet with this approach there may be a lack in diversity of location, user and property types. Linking the various formats, the sector provides a balanced risk-return structure and broad diversification.

Andri Eglitis, Head Research, Swiss Life Asset Managers, Germany

The logistics investment market is booming, achieving a transaction volume of around EUR 53 billion in Europe in 2021, 40% up on the previous year. Investor demand rests on solid ground. There is the expanding e-commerce, which demands thousands of additional square metres of logistics space with every billion euros of revenue growth. This strong growth is combined with a high need for modern space by the manufacturing sector. Yet there are many logistics formats an investor can consider.

Logistics assets within economically strong metropolitan areas are close to a large number of customers, good transport infrastructure and large workforces, making them the most attractive logistics destinations. But growth has its limits. First of all, in terms of land resources, which are often tightly zoned by local authorities. Secondly, land suitable for logistics competes with other uses such as office and residential.

Investors benefit from expansion

The growth of logistics is increasingly shifting to more decentralised locations. This trend represents not only an evasion, but also stands for expansion and densification of logistics networks – be it on a national level or across borders into neighbouring countries. The aim is to guarantee faster delivery to the custom-

er, especially in e-commerce. Investors can benefit from this expansion, albeit keeping a strong eye on the quality of the tenant. This can be achieved through growing companies from (online) retail, parcel services or manufacturing with good credit ratings. Secondary locations offer a yield premium compared to metropolitan regions, not only for prime properties, but with a wider spread for older assets. The key prerequisite for such investments is a solid letting market.

Pool of suitable land is limited

Logistics is multifaceted - from large central warehouses, special properties such as cold storage to urban last-mile logistics. This variety is reflected in the size of the property and the replicability of locations, as well as in rent and yield opportunities. It is worth noting that urban logistics is not always "pure", but can also be part of mixed-use properties. Large-scale logistics is often located at transport hubs such as motorway interchanges. The pool of suitable land is limited by planning law, but such sites are more likely available than, for example, urban land for last-mile logistics. City logistics usually offers very good third-party usability - but the prices tend to be higher, which implies lower yields, and the number of properties is limited. In terms of investment volume, large-scale logistics once again has the advantage.

Supply chain for online trade



Source: Swiss Life Asset Managers Germany Research (scheme, no common definitions of the terms given)



Conceptual design of a large-scale logistics development.

Consider all logistics segments

To benefit from the boom in the logistics industry and to have the flexibility to participate in future trends in the industry, investors should consider all logistics segments. This includes project developments, e.g. through partners or in-house. This approach ensures not

only risk diversification and balance in the overall portfolio, but also takes mega-trends into account, such as increasing urbanisation and rising demand for city logistics.

National and regional logistics networks in Germany



- Key metro area
- Secondary metro area
- Logistics hub

Mechanical delivery base in Hannover.

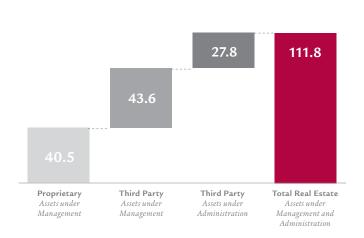




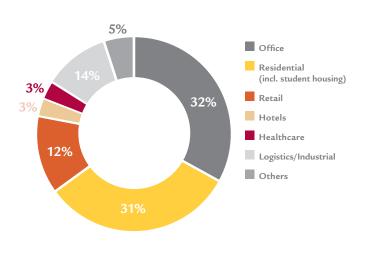
Real estate - facts and figures

Assets under Management and Administration

(in EUR bn)

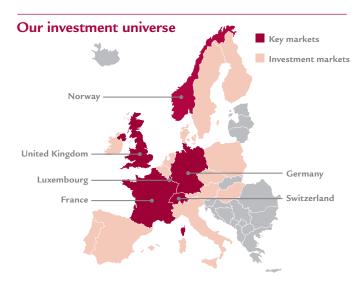


Breakdown by real estate sector



REuM EUR 84 bn





Sums are based on unrounded figures and may not add up due to rounding differences.

All figures as of 31 December 2021 unless stated otherwise.

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