A closer look at CLIC – Part I

Consume • **L**ive • **I**nnovate • **C**onnect

Understanding how where we **consume** is reshaping real estate investment thinking

Contents

1 **Executive summary**

2 **Introduction**

3 **The transformation of consumption**
3.1. From buckets to behavior
3.2. The influence of major structural trends
3.3. E-commerce and the march of tech

4 **Q&A: Michelle Foss, Portfolio Manager, Invesco Real Estate**

5 **Conclusion**

6 **References and suggested further reading**

Authors

Mike Bessell
European Investment Strategist and
Head of Global Strategic Analytics,
Invesco Real Estate

Michelle Foss
Portfolio Manager,
Invesco Real Estate

Kenneth Blay
Head of Research,
Global Thought Leadership
Invesco

Our CLIC series of white papers

CLIC – Consume, Live, Innovate, Connect – is a framework for investing in real estate. Based on the experience of Invesco Real Estate experts worldwide, it moves away from broad property types and instead focuses on the underlying needs that drive real estate demand and utilization. It fully recognizes that the world's oldest asset class is – and has always been – central to our everyday lives.

CLIC seeks to better highlight the ever-growing opportunities in a real estate space that has never been more complex, challenging and exciting. In tandem, it attempts to reduce the risk of investing in economically unsustainable assets that are unsuitable for long-term strategies with a focus on environmental, social and governance (ESG) considerations.

This series explores CLIC in five white papers:

1. **Introducing CLIC:** real estate investment thinking for a disruptive age
2. **A closer look at CLIC – part I:** understanding how where we **consume** is reshaping real estate investment thinking
3. **A closer look at CLIC – part II:** understanding how where we **live** is reshaping real estate investment thinking
4. **A closer look at CLIC – part III:** understanding how where we **innovate** is reshaping real estate investment thinking
5. **A closer look at CLIC – part IV:** understanding how where we **connect** is reshaping real estate investment thinking

1

Executive summary

- From the perspective of real estate investing, historically, "consume" has been viewed as a narrow question of where people shop – as reflected in the broad notion of retail properties.
- The Consume element of our CLIC framework instead considers the many ways in which wealth is spent – and the factors that allow it to be spent – in a hyperconnected society.
- This approach requires us to recognize the growing links between traditional real estate arenas such as retail and industrial and to take account of a much wider range of property types.
- It also requires us to acknowledge that numerous sectors are likely to be affected by evolving patterns of consumer behavior and that these patterns are being increasingly disrupted.
- The principal drivers of this disruption include the aging global population and other major structural trends. The far-reaching implications of the rise of e-commerce are also key.
- The Consume concept illustrates CLIC's ability to move beyond a bricks-and-mortar approach and identify new opportunities that can help real estate investors accomplish their goals.

2

Introduction

Historically, approaches to real estate investing have adopted a purely physical view of the market. The most influential of these traditional framings has split the world's oldest asset class into quadrants: residential, industrial, office and retail (RIOR).

We explained in the first paper in this series why such constructs are fast losing relevance in an era of extraordinary demographic shifts, accelerated technological progress and near-constant disruption. In tandem, we made the case for a new framework: CLIC – Consume, Live, Innovate, Connect.

CLIC aims to take full account of real estate's centrality to everyday life by focusing on the underlying needs that drive demand and utilization in this space. It recognizes that the simplistic, bricks-and-mortar distinctions that have dominated for decades may not capture the intersectional dynamics that prevail today. RIOR may still be capable of providing the "what", but CLIC supplies the "why".

In this paper we examine the Consume element of CLIC in more detail. "Consume" might appear to have a direct counterpart in RIOR's retail component, but this one-dimensional comparison overlooks the holistic and nuanced view that CLIC seeks to provide.

"Consume" can no longer be regarded as a narrow question of where people shop. It is not even a question of how they shop. Rather, it has become a question of the many ways in which wealth is spent – and the numerous factors that enable it to be spent in a hyperconnected society.

We unpack these factors in the following pages, showing how they shape our thinking when we apply the CLIC lens. We outline the importance of considerations such as the aging population, the e-commerce explosion and the broader march of technology; we explore some of the new opportunities to which they are giving rise; and we show how developments in this sphere underline our belief that CLIC is a framework both for the present and for the future.

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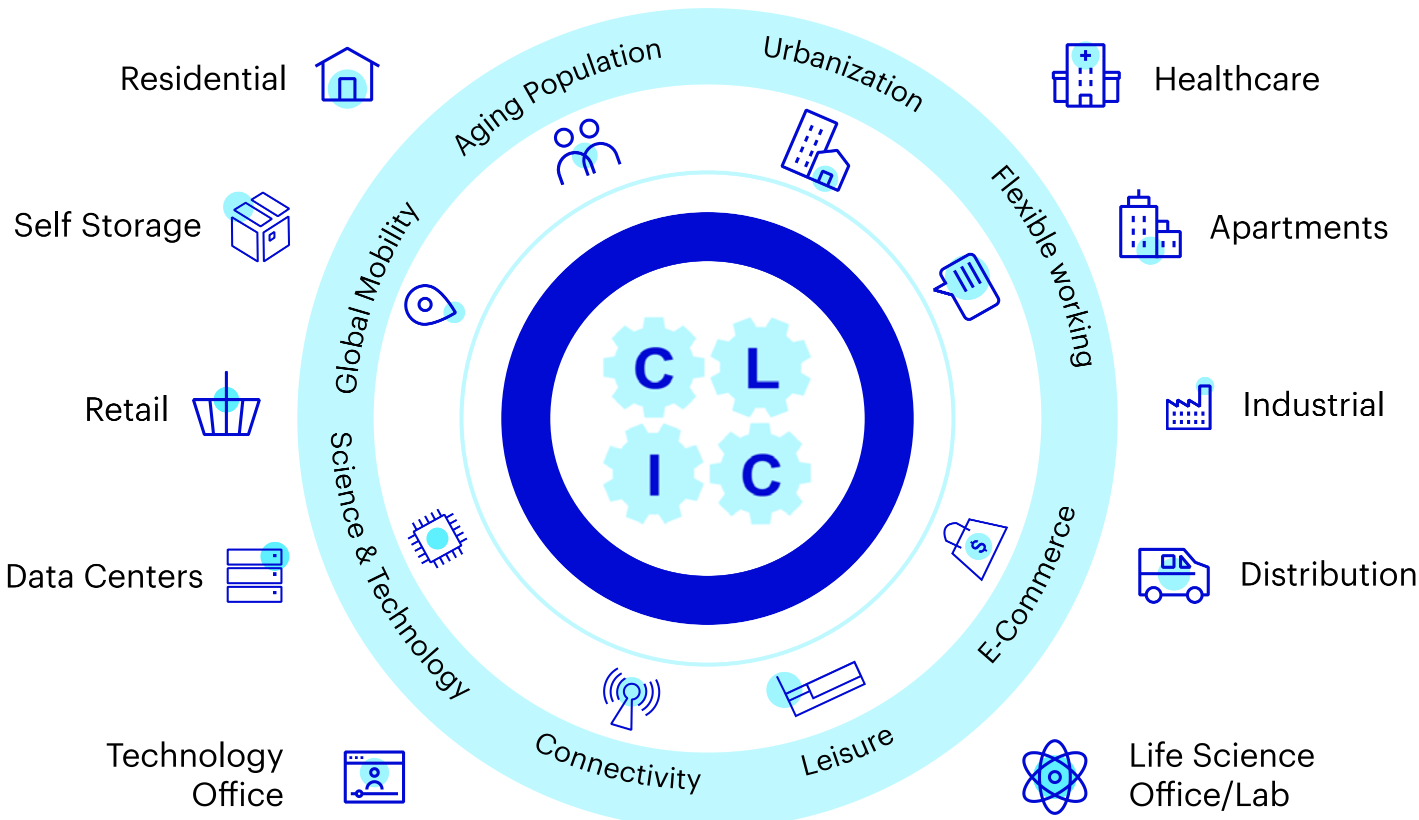
‘**Consume**’ has become a question of the many ways in which wealth is spent – and the numerous factors that enable it to be spent in a hyperconnected society.”

A novel view of the world’s oldest asset class

The Invesco Real Estate team created CLIC to reflect the fundamental drivers and secular trends shaping real estate demand and utilization. CLIC aims to provide a novel and genuinely holistic view of a market that is becoming ever more complex, challenging and exciting.



Source: Invesco Real Estate

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The transformation of consumption

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It is now clear that the issue of where and how we consume has become far more multifaceted than it was during the RIOR age or any other era.

3.1. From buckets to behavior

The issue of where and how we consume has been a pillar of real estate for hundreds of years. Its significance can be traced at least as far back as the Middle Ages and the emergence of the merchant class, when the purchase, sale and renting of shops became possible among “commoners”.

For much of the 20th century its relevance was framed in a determinedly rudimentary way. This reflected the bricks-and-mortar perspective of the prevailing RIOR approach to investing in real estate.

RIOR’s distinct “buckets” dictated that properties such as shops, malls and restaurants should be classified under the banner of “retail”. Meanwhile, despite their role in enabling consumption, properties such as warehouses and distribution facilities were customarily placed within the “industrial” grouping.

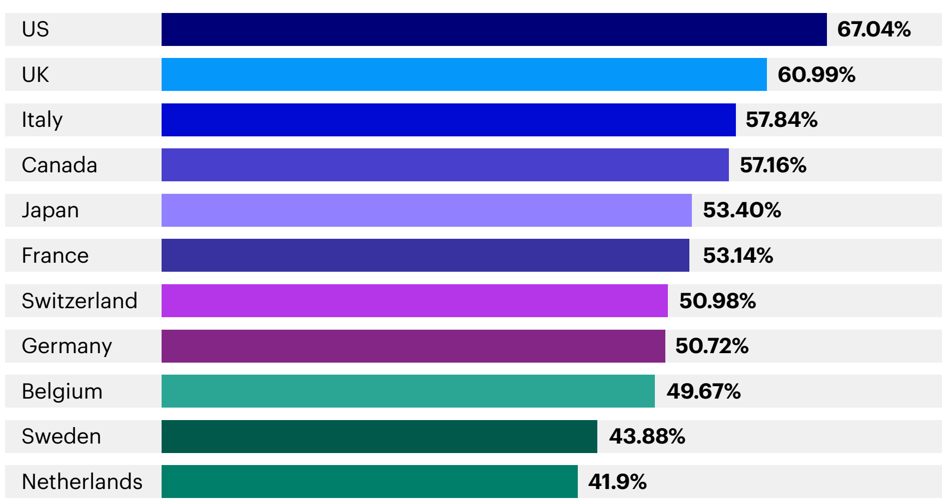
The notion of a substantive intersection between these and other categories was generally overlooked. Yet it is now clear that they are inextricably linked and that the issue of where and how we consume has become far more multifaceted than it was during the RIOR age or any other era.

This is why the Consume element of CLIC extends even beyond the traditional retail and industrial arenas. It encompasses sectors such as healthcare, travel, leisure and self-storage – all of them manifestations of both 21st-century hyperconnectivity and the myriad ways in which wealth can now be spent.

Today, crucially, household consumption of goods and services accounts for around half of gross domestic product in many developed markets[1]. In some instances the figure is notably higher. This alone tells us that various sectors are likely to be affected by evolving patterns of consumer behavior – and those patterns are now being disrupted at an arguably unprecedented rate.

Household consumption as a proportion of GDP in G10 nations[2]

Household consumption of goods and services is responsible for a sizeable share of gross domestic product (GDP) in developed economies. In the euro area, for example, it accounts for more than 50%. The table below shows levels for the G10 industrialized nations in 2020.



Source: TheGlobalEconomy.com: “Household consumption, percent of GDP – country rankings”, 2022

1. See, for example, Organisation of Economic Cooperation and Development: “National accounts at a glance”, 2022; and TheGlobalEconomy.com: “Household consumption, percent of GDP – country rankings”, 2022.
2. Despite its name, the G10 has consisted of 11 nations since Switzerland joined in 1964 – two years after the original Group of Ten was established.

3.2. The influence of major structural trends

To make sense of the bigger picture of consumption, we need to appreciate the drivers that are transforming consumer behavior. In turn, we need to understand how this transformation is forging novel connections and opening up new opportunities.

By and large, the principal drivers take the form of structural trends. From the standpoint of investment and asset management, these help guide our thinking in relation to where markets are likely to be years or even decades from now – and, indeed, where the world as a whole might be.

We know, for example, that the median age of the global population is going up. In 2018, for the first time ever, the number of people aged 65 or over surpassed the number of children aged under five[3]. In 2019 the United Nations Department of Economic and Social Affairs (UN DESA) reported that there were more than 700 million over-65s and that this figure could hit 1.5 billion by 2050[4].

More recent research has underscored this trajectory, with the UN DESA revealing that the over-65 cohort is continuing to expand faster than the under-65 demographic. It is now predicted that over-65s will account for 16% of the worldwide population by the middle of the century – up from 10% at present[5].

The UN DESA touched on the likely impacts when it advised: "Countries with aging populations should take steps to adapt public programs... including by establishing universal healthcare and long-term care systems."[6] Yet in many nations, of course, it is the private sector that will meet demand – which is likely to mean more healthcare/care-related real estate.

Greater mobility and a conspicuous appetite for experiential activities have also become key factors in shaping consumption. They translate into more leisure facilities, travel hubs, hotels and so on. Even in a hyperconnected society, it turns out that we still enjoy doing plenty of things away from our "smart" devices – although at the same time, as we will see next, the online realm is in many ways the primary disruptive force at play here.

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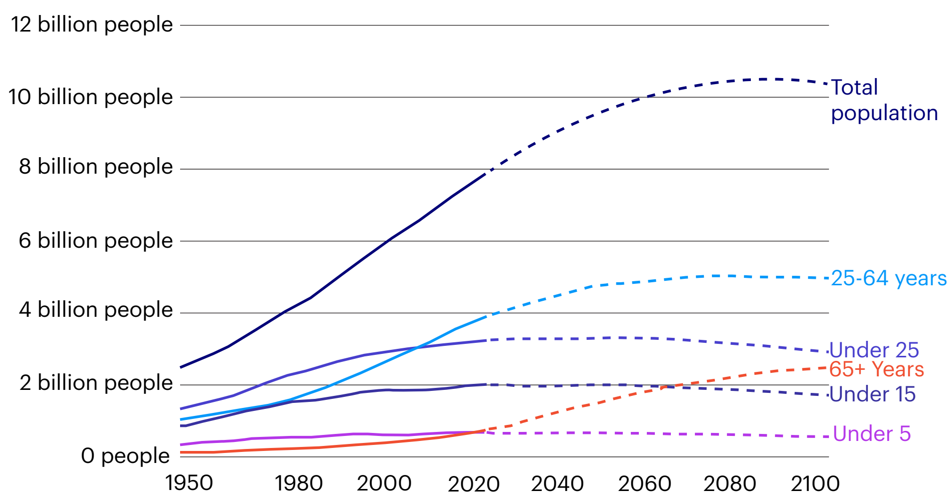
The global population is aging. In 2018, for the first time ever, the number of people aged 65 or over surpassed the number of children aged under five.

The entrenchment of RIOR

Since the mid-1980s, when institutional investors began to show an interest in residential property, the concept of RIOR has dominated the framing of real estate. The chart below shows each component's share of the US market between 1978 and 2016, with the National Council of Real Estate Investment Fiduciaries deeming only the hotel sector worthy of intruding on the customary mix.



Source: United Nations Department of Economic and Social Affairs: World Population Prospects 2022: Summary of Results, 2022

3. See, for example, Our World in Data: "The world population is changing: for the first time, there are more people over 64 than children younger than five", 23 May 2019.
4. See, for example, United Nations Department of Economic and Social Affairs: "Our world is growing older: UN DESA releases new report on aging", 10 October 2019.
5. See United Nations Department of Economic and Social Affairs: World Population Prospects 2022: Summary of Results, 2022.
6. Ibid.

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> The global e-commerce market has been tipped to deliver a compound annual growth rate of 14.7% between 2020 and 2027, with forecast revenue of more than $27 trillion in the last of those years.

3.3. E-commerce and the march of tech

Depending on how it is defined, e-commerce may be said to have existed for almost three quarters of a century. A primitive electronic commerce system was used to order goods via telex during the Berlin blockade and airlift in the late 1940s, and computer-to-computer business transactions were effectively standardized by the mid-1970s[7].

E-commerce as we know it today, however, undoubtedly began with the mainstreaming of the internet in the early 1990s. It is particularly associated with the founding in 1994 of Amazon, which began as a two-man online bookseller operating out of a garage in Bellevue, Washington, and now has well over a million employees around the globe and a market capitalization of more than a trillion dollars[8].

The advent of smartphones and other web-enabled mobile devices obviously fuelled e-commerce’s rise. With improved connectivity becoming more commonplace, worldwide sales exceeded $1.3 trillion in 2014 and topped $3 trillion five years later[9]. Yet it was crisis, not innovation, that eventually propelled online retail to another level.

The lockdowns implemented in response to the COVID-19 pandemic saw a dramatic spike in e-commerce’s overall share of retail sales. In the UK, for instance, there was a near-fivefold increase[10]. Shopping online – whether for essential items, clothes or even evening meals – cemented itself as a new normal.

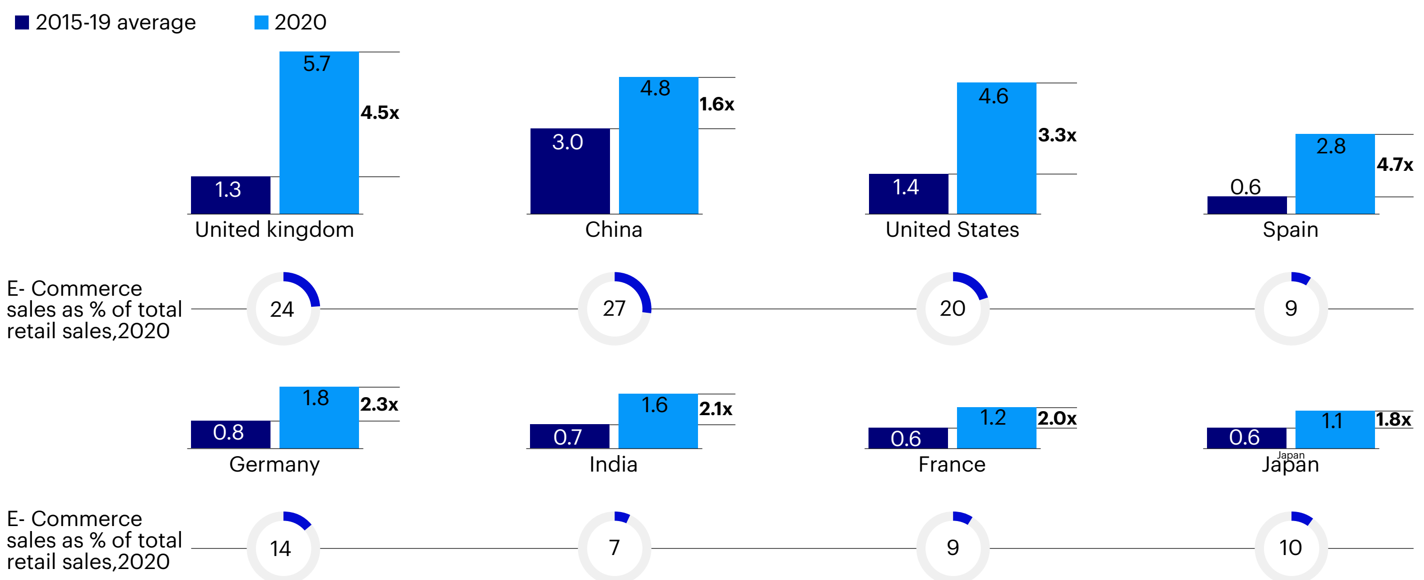
The global e-commerce market was valued at more than $9 trillion in 2019. It has been tipped to deliver a compound annual growth rate of 14.7% between 2020 and 2027, with forecast revenue of over $27 trillion in the last of those years[11]. The enhanced hyperconnectivity made possible by 5G technology is poised to further underpin its spread, as is accelerated progress in science and tech more broadly.

Naturally, this does not represent especially good news for many of the properties that once occupied the RIOR framework’s retail bucket. It does, though, give new relevance to some of the properties that were once confined to the industrial quadrant – foremost among them a fast-distending network of warehouses, distribution facilities and logistics centres.

7. See, for example, Britannica: “E-commerce”, 24 August 2022.
8. See, for example, Business Insider: “Jeff Bezos originally wanted to name Amazon ‘Cadabra’, and 14 other little-known facts about the early days of the e-commerce giant”, 2 July 2021.
9. See, for example, Statista: “Retail e-commerce sales worldwide from 2014 to 2026”, 21 September 2022.
10. See, for example, McKinsey & Company: “How e-commerce share of retail soared across the globe: a look at eight countries”, 5 March 2021.
11. See Grand View Research: E-Commerce Market Size, Share and Trends Analysis Report, 2020-2027, 2021.

Crisis as an accelerant of the e-commerce boom

E-commerce was already in the ascendant when the exigencies of the COVID-19 pandemic sparked a marked rise in the popularity of online retail. The illustration below shows the year-on-year growth of e-commerce as a share of total retail sales (in percentage points) in eight selected countries.



Source: McKinsey & Company: “How e-commerce share of retail soared across the globe: a look at eight countries”, 5 March 2021

4

Q&A: Michelle Foss, Portfolio Manager, Invesco Real Estate

Michelle Foss is a Managing Director at Invesco Real Estate and a Portfolio Manager. A Chartered Financial Analyst, she is a member of the Urban Land Institute and the Pension Real Estate Association.

Here Michelle discusses how the Invesco Real Estate team's thinking has consistently evolved in the face of disruption, eventually resulting in CLIC. She also explains how CLIC's Consume component is taking account of new opportunities as the intersectionality that now characterizes real estate – and day-to-day life – becomes more ever apparent.

How does the Consume element of CLIC differ from the established notion of retail?

Traditionally, real estate as a whole has been thought of in terms of "What are the four walls?" – a retail property, an industrial property, a multi-family property and so on. But recently, given some of the secular trends that were in place even before the pandemic, we've really been evolving our thinking.

So when we talk about the Consume element of CLIC, when we think about consumption's relevance to real estate today, it's very different to the kind of lens that was applied in the past. It's not enough now to hear the word "consume" and simply equate it with retail, which we all know as one of the traditional property quadrants.

We really need a broader perspective. We should add industrial properties under this umbrella, for example, to reflect the scale of distribution of retail goods and the critical importance of supply chains. And self-storage facilities where we store some of the goods we've purchased. We should also include private healthcare facilities, because they're ultimately places where people spend money. Basically, we need to see the bigger picture.

Within this bigger picture, would it be fair to say retail is still the purest constituent of Consume?

Coming out of the global financial crisis, when we very quickly concluded there would be winners and losers in every sector, our strategy for retail developed into a barbell approach. At one end we had the places people need to shop – necessity retail – and at the other end we had the more experiential forms of retail. We didn't want too much exposure to the middle – commodity-centric, generic retail that could be easily replicated online.

That idea of retail real estate as a place where people need to go to "consume" – to shop, to have experiences – still probably represents Consume in its purest form. But we also need to appreciate the more recent evolution – particularly since the COVID-19 crisis – which is that retail is now also clearly the end point of a supply chain.

We're viewing the real estate landscape differently in the wake of the pandemic, just as we saw it differently emerging from the global financial crisis. The world has obviously changed and our viewpoint and framework for evaluating real estate demand has evolved along with that disruption into CLIC.

You've already mentioned several non-traditional property types that can be considered key to the Consume element of CLIC. Are there any that are especially illustrative of how your thinking has evolved?

Self-storage is an interesting example, because it thrives on the disruption of day-to-day life and represents what we do with the product of some of our consumption. It's something people use when they're going through life changes – moving, downsizing, getting married and so on. And the pandemic has accelerated that disruption by forcing more people to move locations, switch jobs, and just generally change their circumstances.

One of the key metrics we evaluate in self-storage is the per capita availability of space; we look for locations that are underserved, with proximity and price the principal determinants of choice.

Take infill Los Angeles. The average per capita availability of storage space in the US is something like six to eight square feet, and in infill LA it's closer to two square feet.[12] That's the kind of embedded demand opportunity we seek.

We closed on a ground-up development project in infill LA in 2017 and completed in 2019. Our lease-up timing tracked with our original underwriting and our revenue is well ahead of our projections - a testament to the level of demand in that particular location.

Amid all this disruption and the inclusion of multiple property types, have the four traditional property sectors now become irrelevant?

No, they still have relevance. But we really don't believe they capture all the nuances and intricacies of how real estate relates to everyday life – the idea that real estate houses the economy and is a complex, ever-evolving reflection of demand and utilization.

There are numerous sectors beyond those traditional quadrants with attractive investment characteristics that can also provide diversification.

There's still a place for those conventional framings, but we now have a much broader menu of options to choose from. The CLIC framework definitely resonates as we appreciate the value in moving beyond that old "four walls" idea and identifying new opportunities and new ways of achieving strategic objectives.

Self-storage demand drivers

According to data from NAREIT (National Association of Real Estate Investment Trusts), the equity market capitalization of the self-storage sector in the US rose from $14 billion to $116 billion between year-end 2005 and year-end 2021. This represents an eightfold increase. As shown below, various dynamics are driving demand.

Durable drivers

Life changes/ disruption
- Moving home
- Death
- Divorce
- School/ college/ military service

Business
- Small businesses
- Gig workers

Lifestyle
- Adult sporting goods (skis, golf clubs, etc.)
- Downsizing baby-boomers with too much "stuff"

Pandemic-related drivers
- **Remote working and the need for home office space**
- **Elevated levels of moving home**
- **Temporary closure of small businesses**
- **Temporary relocation**

Source: Invesco Real Estate

> "The world has obviously changed and our viewpoint and framework for evaluating demand has evolved along with that disruption into CLIC.

12. U.S. Self-Storage Industry Statistics https://www.sparefoot.com/self-storage/news/1432-self-storage-industry-statistics/

    Los Angeles Self Storage Market Statistics: Rent Prices, Local Inventory and Development Trends (March 2023)https://www.storagecafe.com/self-storage-industry-statistics/us/ca/los-angeles/

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Conclusion

> Like all the components of our innovative framework, the Consume element of CLIC recognizes that the world has changed – and that it will continue do so.

In 2005, even before the turmoil of the global financial crisis, the Journal of Portfolio Management suggested that real estate investors were being driven into “new territory” . There was already a sense that the distinctions between the traditional cornerstones of the market – residential, industrial, office and retail – were crumbling.

The fundamental question of where we consume lays bare how dramatically these once-entrenched divisions have now fallen away. Today, in a world permanently buffeted by the gale of creative destruction, the fact is that we consume almost anywhere and everywhere – not least in our own homes.

Retail as we long knew it still survives. We still frequent shops to buy necessities. We still spend money on leisure, travel and other experiences. But major structural trends such as the aging global population and the spectacular rise of e-commerce have radically transformed consumer behavior – and there is ample reason to believe that they will continue to do so.

The COVID-19 pandemic has merely accelerated this shift. It has underscored that in the 21st century, in a hyperconnected society defined by tech-fuelled disruption, multiple sectors are likely to be affected when consumer behavior materially alters.

Our thinking has to reflect this reality. Like all the components of our innovative framework, the Consume element of CLIC recognizes that the world has changed – and that it will continue do so. Conventional notions of retail real estate are by no means entirely redundant, but their limitations must be acknowledged.

As we said in introducing this paper, this has become a matter of how wealth is spent. Importantly, it has also become a matter of the factors that enable wealth to be spent. It is a classic illustration of our contention that, while RIOR might still be able to supply the “what”, CLIC is uniquely positioned to provide the “why”.

6

References and suggested further reading

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