

European Living Refurbishment

September 2024

IN A NUTSHELL

- Across many of Europe's major cities there is an acute lack of housing, particularly rental stock. Supply shortages, urban demand and a plunging development pipeline is supporting rental growth across Europe.
- We see the refurbishment of residential space as part of a broader value add strategy. Supply shortages are the primary reason for refurbishment, but changing occupier needs, growing demand for smaller units, and environmental considerations also play significant roles.
- This strategy primarily targets the modernisation of older stock, capturing rental growth and optimising unit sizes. We would also explore opportunities to increase floorspace where feasible and appropriate.
- We believe investors should have a particular focus on inner city locations across major cities in the German and Dutch housing market given the high share of older stock and the relatively large built-to-rent-sector in these markets.

Sitting here in London and Frankfurt, rarely a day goes by without one of us reading in the press a story about housing. Shortages, mortgages, rents, regulation, affordability, and planning. Housing is high up on the agenda, not just here in the UK and Germany, but across much of the globe.

This is not surprising. Across many of Europe's major cities there is an acute lack of housing, particularly rental stock. For example, by the end of last year, the average residential vacancy rate in Germany's top 7 cities was less than 1%, with Frankfurt, Munich, and Hamburg essentially full.¹

There are many proposed solutions to these housing challenges. Some have focused on the demand side and market intervention, regulating rents, or providing increased security of tenure. While providing temporary relief for incumbent tenants, there is growing evidence to suggest this does not provide a long-term solution to supply issues.

Therefore, we strongly believe the solution to housing shortages lies in increased development. This will likely come in many forms, from the development of greenfield sites to the

repositioning of obsolete commercial stock – such as obsolete offices – into residential space.

One area we think is often overlooked, is the refurbishment of aged residential into modern stock, able to meet the needs of today's tenant base. Not only do we believe there will be ample demand for this type of space, forming part of the solution to the housing shortage, this approach could provide a compelling investment strategy for real estate investors, looking to actively manage space, and achieve value add returns.

Why residential refurbishment?

Supply, regulation, risk, and return

We see the refurbishment of residential space as part of a broader value add strategy. It is not the only approach, but in some locations and across certain assets we believe it could be the most appropriate method of delivering high-quality space and achieving value-add-level returns.

Supply shortages are the primary reason for refurbishing residential spaces. However, changing occupier needs, growing demand for smaller units, and environmental

¹ CBRE, empirica, June 2024

The brand DWS represents DWS Group GmbH & Co. KGaA and any of its subsidiaries, such as DWS Distributors, Inc., which offers investment products, or DWS Investment Management Americas, Inc. and RREEF America L.L.C., which offer advisory services. There may be references in this document which do not yet reflect the DWS Brand.

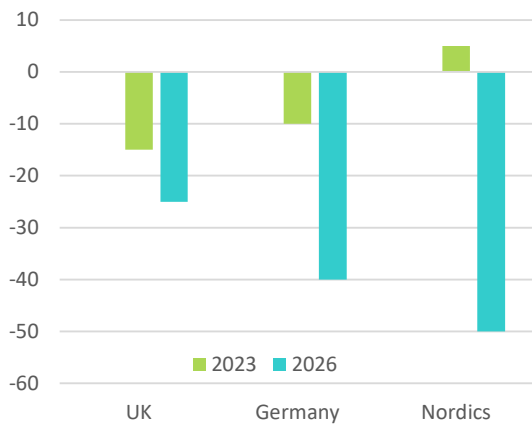
Please note certain information in this presentation constitutes forward-looking statements. Due to various risks, uncertainties and assumptions made in our analysis, actual events or results or the actual performance of the markets covered by this presentation report may differ materially from those described. The information herein reflects our current views only, is subject to change, and is not intended to be promissory or relied upon by the reader. There can be no certainty that events will turn out as we have opined herein.

Marketing Material. In EMEA for Professional Clients (MiFID Directive 2014/65/EU Annex II) only; no distribution to private/retail customers. In Switzerland for Qualified Investors (art. 10 Para. 3 of the Swiss Federal Collective Investment Schemes Act (CISA)). In APAC and LatAm, for institutional investors only. In Australia and New Zealand for Wholesale Investors only. In MENA: For professional Clients. Further distribution of this material is strictly prohibited. For business customers only. In North America, for institutional use and registered representative use only. Not for public viewing or distribution. In Israel for Qualified Clients (Israeli Regulation of Investment Advice, Investment Marketing and Portfolio Management Law 5755-1995). For investors in Bermuda: This is not an offering of securities or interests in any product. Such securities may be offered or sold in Bermuda only in compliance with the provisions of the Investment Business Act of 2003 of Bermuda which regulates the sale of securities in Bermuda.

considerations also play significant roles. These factors collectively drive the push towards modernising existing properties to better meet current and future housing demands.

Supply shortages have been exacerbated by recent market events, notably rising construction and financing costs, falling real estate values, and the collapse of development companies. As shown in the chart below, residential completions – already well down in some markets – are projected to fall sharply over the coming years.

Residential Completions (% change compared to 2022)



Source: Greenstreet, April 2024

But it's not just about a lack of new supply. Regulatory changes are also increasing the need for better quality stock. As we've said in previous reports, we are unlikely to build our way out of climate change, and as such government and our industry would need to improve the current stock.

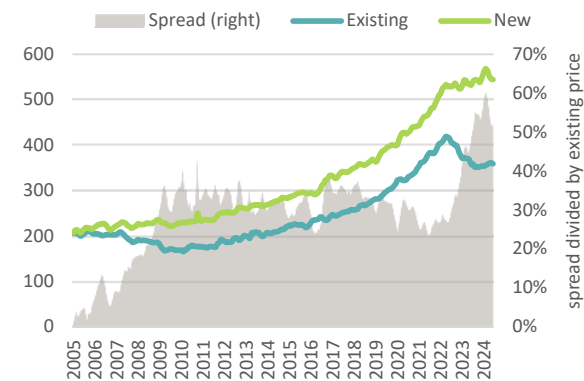
We are seeing an increasing number of governments implementing minimum energy standards across commercial real estate, including residential rental stock. For example, from next year all newly rented properties in the UK will require an EPC of at least a C. This is also visible when looking at price developments by energy efficiency.

For example, the price discount for properties in Germany with weak EPC rating has increased significantly. The discount between buildings with best energy classes A/A+ compared to

worst classes G/H rose from -12% to -29% in the two years to third quarter 2023.²

Regulatory changes are expected to accelerate an already established trend in the diverging performance between new and existing stock. Whether driven by environmental regulations, build quality, occupier preferences, or the investment cycle, in Germany amongst other places, we've observed a widening spread in the value of new build and existing stock. This has become most apparent during the market correction of the past two years, with new build values broadly unchanged, compared to a 15% value loss on existing stock.³ The trend is also observable in other regions across Europe. In the UK, the price difference between new and existing stock more than doubled from 16% to 40% over past two years.⁴

Germany: Residential House Price (€'000)



Source: Macrobond, Europace, July 31, 2024

We anticipate this trend to continue for the rest of the decade. With shortages of high quality and modern space exacerbated by the reduced level of construction, as well as ongoing environmental pressures from regulators and tenants potentially driving a green premium, we forecast that prime (new build quality) values may grow at twice the pace of average stock. Not only does this support current investments into this part of the market, but it also increases the alpha of transforming weaker quality stock into modern assets.

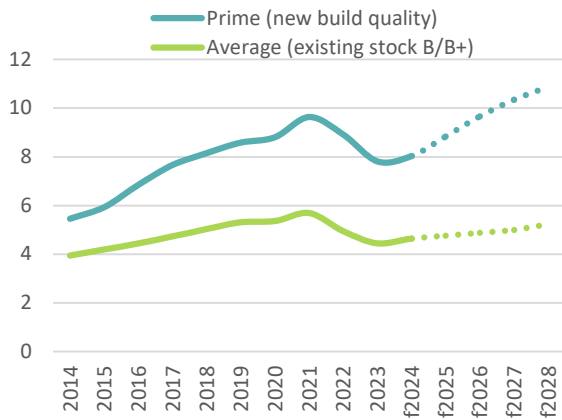
² JLL, April 2024.

³ Europace, July 2024.

⁴ HM Land Registry UK, July 2024

This information is subject to change at any time, based upon economic, market and other considerations and should not be construed as a recommendation. Past performance is not indicative of future returns. Forecasts are not a reliable indicator of future performance. Forecasts are based on assumptions, estimates, opinions, and hypothetical models that may prove to be incorrect. Investments come with risk. The value of an investment can fall as well as rise and your capital may be at risk. You might not get back the amount originally invested at any point in time. Source: DWS International GmbH.

**European Multifamily Capital Values
(€'000 per square metre)**



Source: Greenstreet, DWS, June 2024

The case for refurbishment goes beyond returns. This approach could also be lower on the risk spectrum when compared to some of the other approaches to transforming assets into rental residential. Planning risks are expected to be low. The locations are established for residential use, with associated amenities. These assets should have an operational track record, helping to determine levels of demand, tenant mix, optimal configurations, and appropriate rental levels.

Furthermore, this approach is likely to require less development activity. Pandemic-related supply bottlenecks, material shortages, energy prices and labour shortages raised total development costs, and while the recent moderation of construction inflation does support a more active management approach going forward, development risks remain.

Investment strategy

Modernisation and extensions in Germany & Netherlands

This strategy would primarily target the modernisation of older stock, capturing rental growth and optimising unit sizes. This involves updating interiors, improving layouts, and ensuring each unit meets contemporary living standards, making them more attractive to potential tenants and increasing rental income.

We would also explore opportunities to increase floorspace where feasible and appropriate. This could involve extending existing structures or converting unused spaces into additional

living areas. By delivering more space, we could potentially enhance the property’s value and appeal, providing tenants with more comfortable and versatile living environments.

Refurbishment efforts would focus on modernisation and energy efficiency improvements. Upgrading energy certifications to meet regulatory standards not only helps ensure compliance but could potentially reduce overall running costs. Implementing energy-efficient systems and materials could potentially lower utility bills for tenants, making the units more desirable and environmentally friendly.

Additionally, we would aim to provide modern amenities that cater to current market demands. This includes installing high-speed internet, smart home features, and potentially communal spaces such as gyms. These enhancements could boost tenant satisfaction and retention, potentially leading to a more profitable and sustainable investment.

Access to stock of an appropriate scale is likely to limit the focus of this strategy to a select number of European cities. While all major cities may provide select opportunities, we believe that with their large and well-established rental markets, the German and Dutch markets are likely to offer the greatest scope. In some instances, both these markets will present challenges around rental regulation, although with sufficient change, and a keen understanding of the market, we believe capturing value add returns is achievable.

In general, we prefer inner city locations across major cities, where the delivery of improved assets is well aligned with the rental tone of the location, affordable, but high enough to compensate for the cost of delivering the refurbishment.



Source: DWS Images, May 2024

This information is subject to change at any time, based upon economic, market and other considerations and should not be construed as a recommendation. Past performance is not indicative of future returns. Forecasts are not a reliable indicator of future performance. Forecasts are based on assumptions, estimates, opinions, and hypothetical models that may prove to be incorrect. Investments come with risk. The value of an investment can fall as well as rise and your capital may be at risk. You might not get back the amount originally invested at any point in time. Source: DWS International GmbH.

Real Estate Research Team

Office Locations

Frankfurt

Mainzer Landstrasse 11-17
60329 Frankfurt am Main
Germany
Tel: +49 69 71909 0

London

45 Cannon Street
London, EC4m 5SB
United Kingdom
Tel: +44 20 754 58000

New York

875 Third Avenue
26th Floor
New York
NY 10022-6225
United States
Tel: +1 212 454 3414

San Francisco

101 California Street
24th Floor
San Francisco
CA 94111
United States
Tel: +1 415 781 3300

Singapore

One Raffles Quay
South Tower
15th Floor
Singapore 048583
Tel: +65 6538 7011

Tokyo

Sanno Park Tower
2-11-1 Nagata-cho
Chiyoda-Ku
18th Floor
Tokyo
Japan
Tel: +81 3 5156 6000

Sydney

Level 16, Deutsche Bank Place
Corner of Hunter and Phillip Streets
Sydney NSW 2000
Australia
Tel: +61 2 8258 1234

Teams

Global

Kevin White, CFA
Global Co-Head of Real Estate Research

Simon Wallace
Global Co-Head of Real Estate Research

Americas

Brooks Wells
Head of Research, Americas

Liliana Diaconu, CFA
Office & Retail Research

Ross Adams
Industrial Research

Sharim Sohail
Self-Storage Research

Europe

Ruben Bos, CFA
Head of Real Estate Investment Strategy, Europe

Tom Francis
Property Market Research

Siena Golan
Property Market Research

Rosie Hunt
Property Market Research

Carsten Lieser
Property Market Research

Martin Lippmann
Head of Real Estate Research, Europe

Asia Pacific

Koichiro Obu
Head of Real Estate Research, Asia Pacific

Seng-Hong Teng
Property Market Research

Hyunwoo Kim
Property Market Research

Matthew Persson
Property Market Research

Authors



Simon Wallace
Global Co-Head of Real Estate Research



Carsten Lieser
Research Analyst Real Estate

Important information

For North America:

The brand DWS represents DWS Group GmbH & Co. KGaA and any of its subsidiaries, such as DWS Distributors, Inc., which offers investment products, or DWS Investment Management Americas, Inc. and RREEF America L.L.C., which offer advisory services.

This material was prepared without regard to the specific objectives, financial situation or needs of any particular person who may receive it. It is intended for informational purposes only. It does not constitute investment advice, a recommendation, an offer, solicitation, the basis for any contract to purchase or sell any security or other instrument, or for DWS or its affiliates to enter into or arrange any type of transaction as a consequence of any information contained herein. Neither DWS nor any of its affiliates gives any warranty as to the accuracy, reliability or completeness of information which is contained in this document. Except insofar as liability under any statute cannot be excluded, no member of the DWS, the Issuer or any office, employee or associate of them accepts any liability (whether arising in contract, in tort or negligence or otherwise) for any error or omission in this document or for any resulting loss or damage whether direct, indirect, consequential or otherwise suffered by the recipient of this document or any other person.

The views expressed in this document constitute DWS Group's judgment at the time of issue and are subject to change. This document is only for professional investors. This document was prepared without regard to the specific objectives, financial situation or needs of any particular person who may receive it. No further distribution is allowed without prior written consent of the Issuer.

Investments are subject to risk, including market fluctuations, regulatory change, possible delays in repayment and loss of income and principal invested. The value of investments can fall as well as rise and you might not get back the amount originally invested at any point in time.

An investment in real assets involves a high degree of risk, including possible loss of principal amount invested, and is suitable only for sophisticated investors who can bear such losses. The value of shares/ units and their derived income may fall or rise.

War, terrorism, sanctions, economic uncertainty, trade disputes, public health crises and related geopolitical events have led, and, in the future, may lead to significant disruptions in US and world economies and markets, which may lead to increased market volatility and may have significant adverse effects on the fund and its investments.

For Investors in Canada. No securities commission or similar authority in Canada has reviewed or in any way passed upon this document or the merits of the securities described herein and any representation to the contrary is an offence. This document is intended for discussion purposes only and does not create any legally binding obligations on the part of DWS Group. Without limitation, this document does not constitute an offer, an invitation to offer or a recommendation to enter into any transaction. When making an investment decision, you should rely solely on the final documentation relating to the transaction you are considering, and not the document contained herein. DWS Group is not acting as your financial adviser or in any other fiduciary capacity with respect to any transaction presented to you. Any transaction(s) or products(s) mentioned herein may not be appropriate for all investors and before entering into any transaction you should take steps to ensure that you fully understand such transaction(s) and have made an independent assessment of the appropriateness of the transaction(s) in the light of your own objectives and circumstances, including the possible risks and benefits of entering into such transaction. You should also consider seeking advice from your own advisers in making this assessment. If you decide to enter into a transaction with DWS Group, you do so in reliance on your own judgment. The information contained in this document is based on material we believe to be reliable; however, we do not represent that it is accurate, current, complete, or error free. Assumptions, estimates, and opinions contained in this document constitute our judgment as of the date of the document and are subject to change without notice. Any projections are based on a number of assumptions as to market conditions and there can be no guarantee that any projected results will be achieved. Past performance is not a guarantee of future results. The distribution of this document and availability of these products and services in certain jurisdictions may be restricted by law. You may not distribute this document, in whole or in part, without our express written permission.

For EMEA, APAC, LATAM & MENA:

DWS is the brand name of DWS Group GmbH & Co. KGaA and its subsidiaries under which they do business. The DWS legal entities offering products or services are specified in the relevant documentation. DWS, through DWS Group GmbH & Co. KGaA, its affiliated companies and its officers and employees (collectively "DWS") are communicating this document in good faith and on the following basis.

This document is for information/discussion purposes only and does not constitute an offer, recommendation, or solicitation to conclude a transaction and should not be treated as investment advice.

This document is intended to be a marketing communication, not a financial analysis. Accordingly, it may not comply with legal obligations requiring the impartiality of financial analysis or prohibiting trading prior to the publication of a financial analysis.

This document contains forward looking statements. Forward looking statements include, but are not limited to assumptions, estimates, projections, opinions, models, and hypothetical performance analysis. No representation or warranty is made by DWS as to the reasonableness or completeness of such forward looking statements. Past performance is no guarantee of future results.

The information contained in this document is obtained from sources believed to be reliable. DWS does not guarantee the accuracy, completeness, or fairness of such information. All third-party data is copyrighted by and proprietary to the provider. DWS has no obligation to update, modify or amend this document or to otherwise notify the recipient in the event that any matter stated herein, or any opinion, projection, forecast, or estimate set forth herein, changes or subsequently becomes inaccurate.

Investments are subject to various risks. Detailed information on risks is contained in the relevant offering documents.

No liability for any error or omission is accepted by DWS. Opinions and estimates may be changed without notice and involve a number of assumptions which may not prove valid. DWS does not give taxation or legal advice.

This document may not be reproduced or circulated without DWS's written authority.

This document is not directed to, or intended for distribution to or use by, any person or entity who is a citizen or resident of or located in any locality, state, country, or other jurisdiction, including the United States, where such distribution, publication, availability, or use would be contrary to law or regulation or which would subject DWS to any registration or licensing requirement within such jurisdiction not currently met within such jurisdiction. Persons into whose possession this document may come are required to inform themselves of, and to observe, such restrictions.

© 2024 DWS International GmbH
 Issued in the UK by DWS Investments UK Limited which is authorised and regulated by the Financial Conduct Authority (Reference number 429806).
 © 2024 DWS Investments UK Limited

In Hong Kong, this document is issued by DWS Investments Hong Kong Limited and the content of this document has not been reviewed by the Securities and Futures Commission.
 © 2024 DWS Investments Hong Kong Limited

In Singapore, this document is issued by DWS Investments Singapore Limited and the content of this document has not been reviewed by the Monetary Authority of Singapore.
 © 2024 DWS Investments Singapore Limited

In Australia, this document is issued by DWS Investments Australia Limited (ABN: 52 074 599 401) (AFSL 499640) and the content of this document has not been reviewed by the Australian Securities Investment Commission.
 © 2024 DWS Investments Australia Limited

For investors in Bermuda: This is not an offering of securities or interests in any product. Such securities may be offered or sold in Bermuda only in compliance with the provisions of the Investment Business Act of 2003 of Bermuda which regulates the sale of securities in Bermuda. Additionally, non-Bermudian persons (including companies) may not carry on or engage in any trade or business in Bermuda unless such persons are permitted to do so under applicable Bermuda legislation.

For investors in Taiwan: This document is distributed to professional investors only and not others. Investing involves risk. The value of an investment and the income from it will fluctuate and investors may not get back the principal invested. Past performance is not indicative of future performance. This is a marketing communication. It is for informational purposes only. This document does not constitute investment advice or a recommendation to buy, sell or hold any security and shall not be deemed an offer to sell or a solicitation of an offer to buy any security. The views and opinions expressed herein, which are subject to change without notice, are those of the issuer or its affiliated companies at the time of publication. Certain data used are derived from various sources believed to be reliable, but the accuracy or completeness of the data is not guaranteed, and no liability is assumed for any direct or consequential losses arising from their use. The duplication, publication, extraction, or transmission of the contents, irrespective of the form, is not permitted.

© 2024 DWS Group GmbH & Co. KGaA. All rights reserved. (09/24) 101142_2.0