AEW

AEW RESEARCH

VALUE BEYOND THE GATEWAY MARKETS

Q1 2017

FOCUSED ON THE FUTURE OF REAL ESTATE

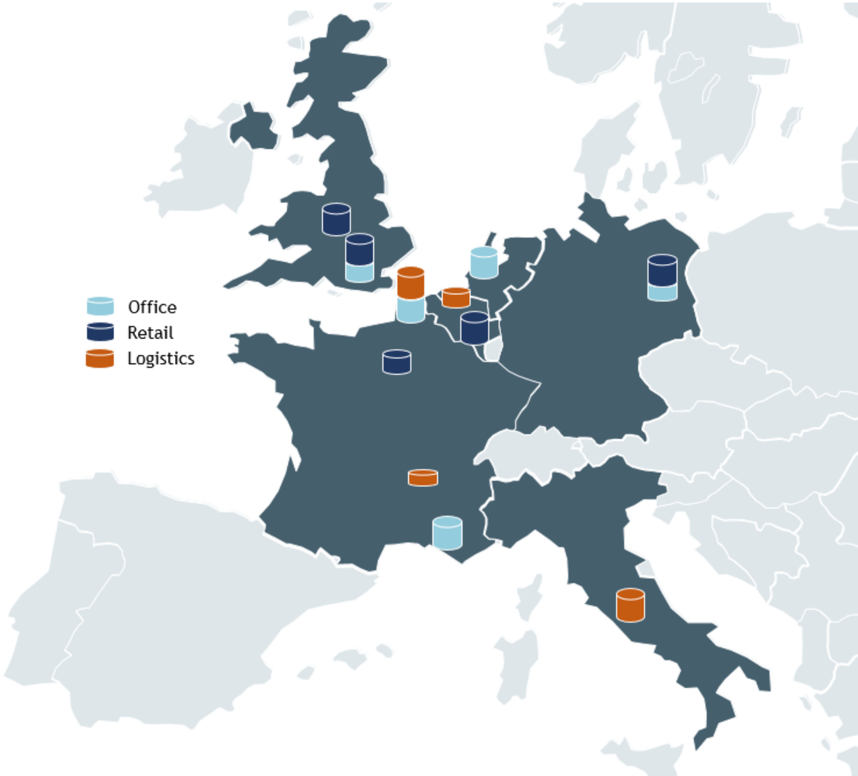
- Investors should expand their horizons beyond the usual gateway markets of London, Paris and Berlin, based on our three-step analysis

    1) Our proprietary market scoring ranks the 50 most liquid markets in the European investment market based on economics, liquidity, risk and return
    2) The market scores are used to limit the universe from 50 to 24 and 15 markets to provide investors with a more manageable and attractive universe; in fact, we achieved better optimal portfolios as we became more selective in the number of markets we use
    3) Optimal portfolios are constructed based on these three different market universes to match up with each of three investor's individual risk-return preferences

- Our three investor-preferred optimal portfolios consistently select the 14 market segments listed below

    1) As correlations play a big role in portfolio optimization, high return markets are not automatically included
    2) Depending on the exact allocation ranges, up to 100% of the portfolio can be allocated to non-gateway markets
    3) London, Paris and Berlin can represent up to a maximum of 60% of our optimal portfolio

- Returns are forecasted at 5.5-6.0% p.a. on an unlevered gross basis for the next five years across the three optimal portfolios. Investors seeking higher returns might consider adding core plus and value add strategies.

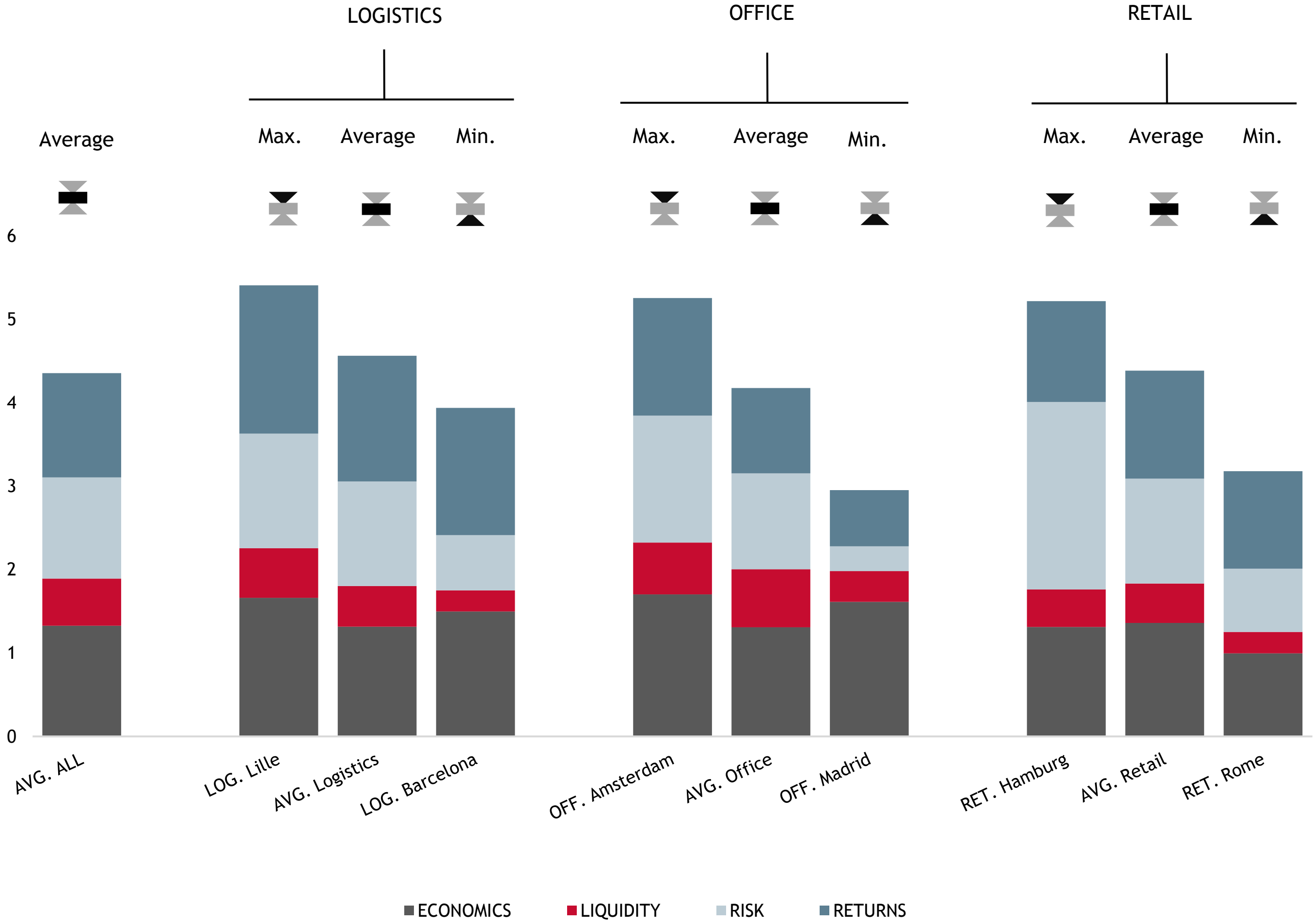


MARKET SEGMENTS	ALLOCATION
Office - Amsterdam	0 - 15%
Office - Marseille	0 - 15%
Office - Lille	0 - 10%
Office - London Central	0 - 10%
Office - Berlin	0 - 8%
Retail - Berlin	0 - 15%
Retail - Brussels	0 - 15%
Retail - Birmingham	0 - 15%
Retail - Paris	0 - 10%
Retail - London	0 - 15%
Logistics - Lille	0 - 15%
Logistics - Rome	0 - 15%
Logistics - Antwerp	0 - 8%
Logistics - Lyon	0 - 5%

Source: AEW

NON-GATEWAYS COME TOP IN ALL PROPERTY TYPES IN AEW MARKET SCORING

- Amsterdam comes out top in offices on the back of its late cycle recovery, with Madrid on bottom, driven by its above average historical volatility
- Hamburg ranks number one in retail due to a very strong risk score in contrast with Rome with high historical rent and price volatility
- Lille shows highest rank in logistics, with strong return score. Barcelona comes bottom due to low risk and liquidity score



Sources: AEW, Oxford Economics, JLL, PMA und RCA

SCORING APPLIES FOUR EQUAL-WEIGHTED CRITERIA

- Universe includes most liquid 20 office, 15 retail and 15 logistics markets across seven European countries
- To ensure consistency in scoring each criteria, each criteria is normalised across its min-max range
- Each of the four criteria is equally weighted (25%) in the overall score

SCORING KEY CRITERIA	Weight
Economics - each property type has different city-level economic drivers	25%
Liquidity - last 5 years' investment volume & JLL Transparency index	25%
Risk - standard deviation, maximum drawdown and Sharpe-ratio	25%
Return - PMA forecast total return for the next 5 years	25%

ECONOMIC DRIVERS CUSTOMISED FOR EACH PROPERTY TYPE

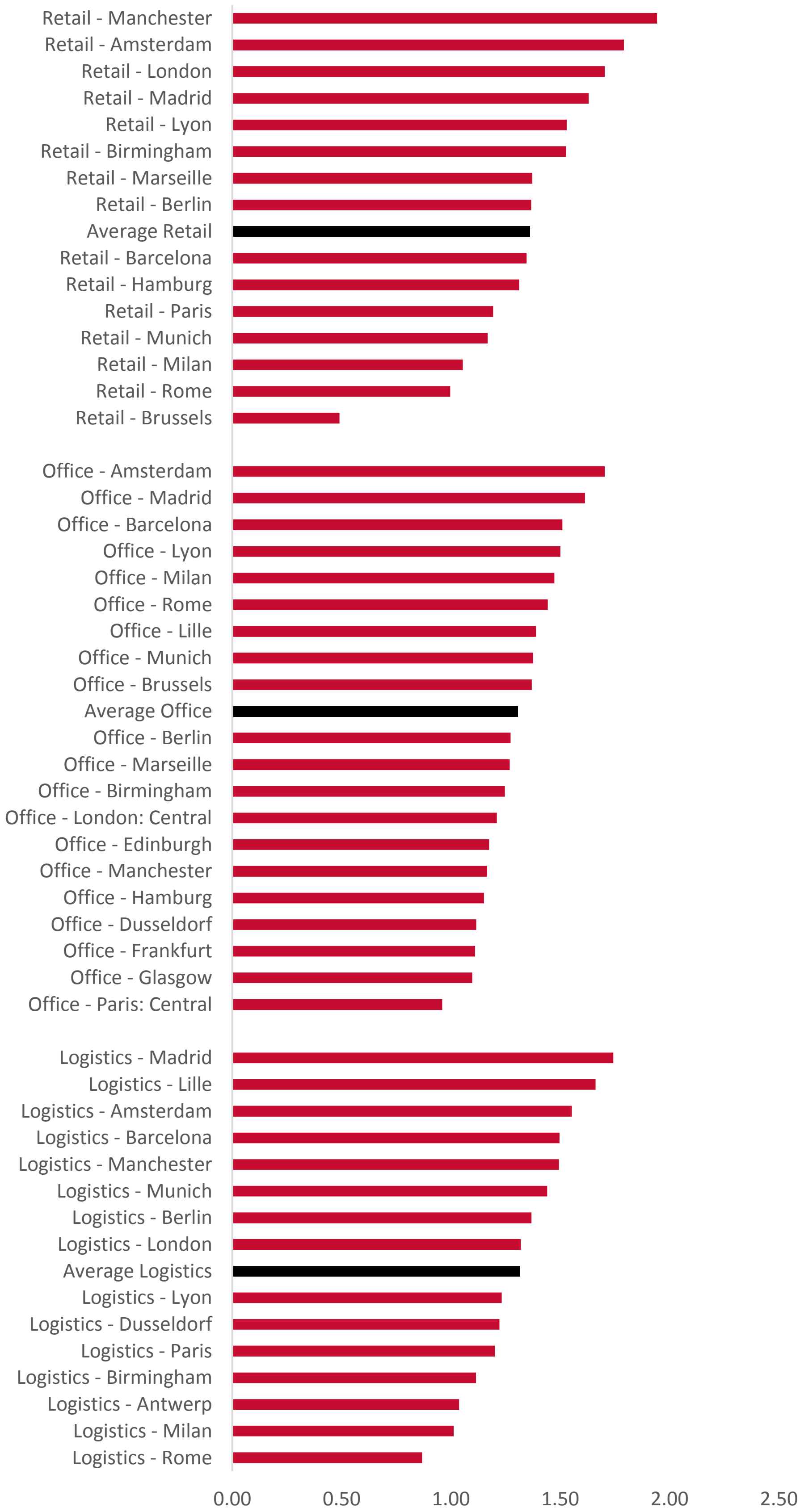
- GDP, bond yields and unemployment are common drivers
- Offices driven by specific industry sector employment growth
- Retail spending and trade GVA are key retail drivers
- Trade and transport GVA as well as retail spending are logistics factors

DRIVERS	OFFICE	RETAIL	LOGISTICS
10y bond yield	3%	3%	3%
National GDP	2%	2%	2%
GVA - Manufacturing	-	-	3%
GVA - Trade	-	8%	5%
GVA - Transportation & storage	-	-	5%
Employment - ITC	4%	-	-
Employment - Finance & Insurance	4%	-	-
Employment - Real Estate	4%	-	-
Employment - Admin & support	4%	-	-
Unemployment	4%	4%	4%
Retail Spending	-	8%	3%

Sources: AEW, Oxford Economics, JLL, PMA and RCA

ECONOMIC SCORE

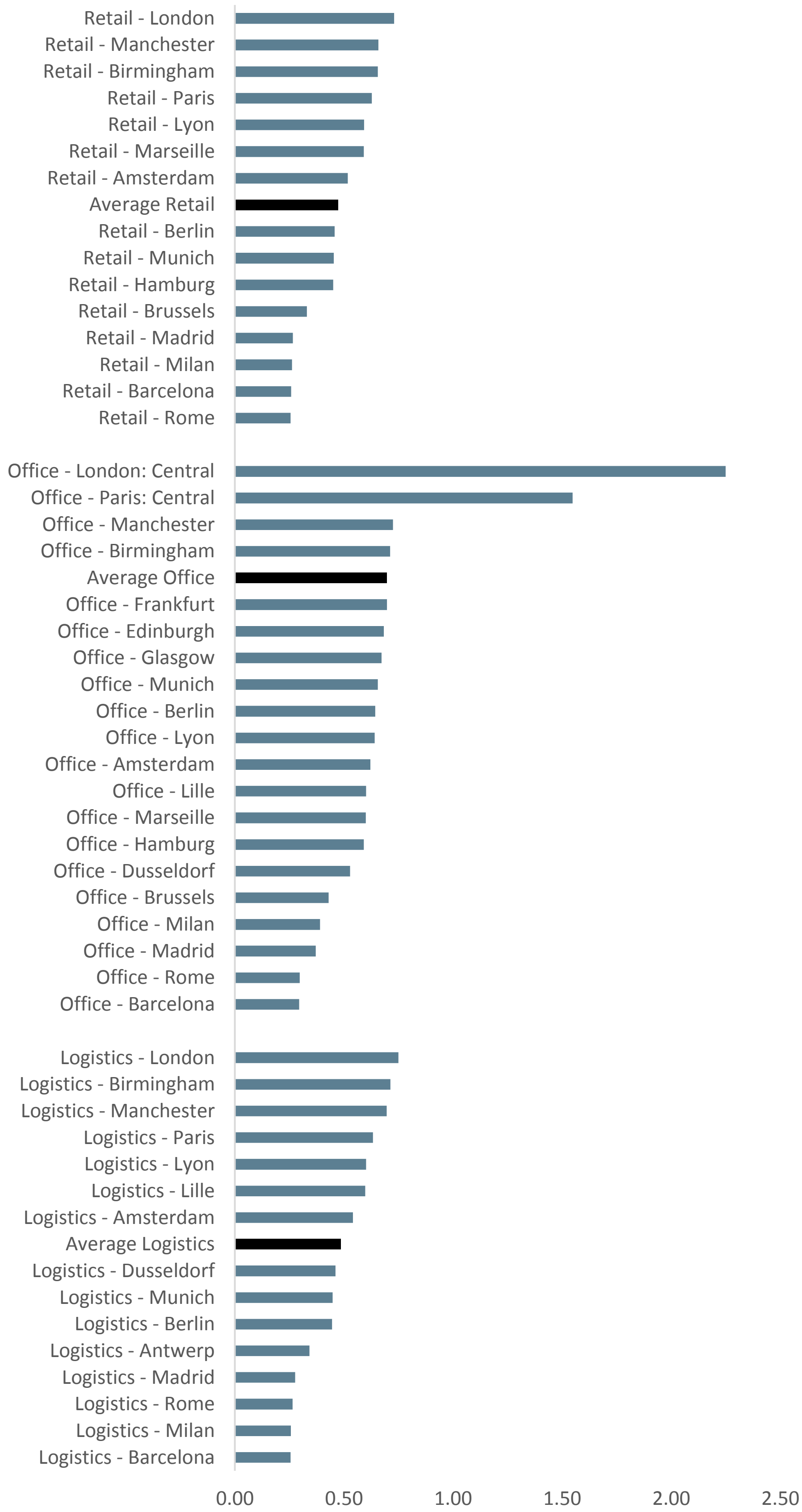
- Dutch growth to outpace Eurozone average: robust domestic demand, strong business confidence & declining unemployment
- Strength in UK retail is triggered by strong prospects of retail spending
- Madrid logistics and retail shows strong score driven by strong GDP growth forecasts, GVA retail trade and GVA transportation & storage growth as the rebound from the recent recession continues
- Brussels is the sole European market with trade GVA forecasts to decline after strong recent growth
- Paris office drivers are weakened by relatively low office employment growth. In the long-term a boost to competitiveness is expected from labour market reforms but it will be a slow process and the pace of growth might lag slightly behind the EU city average over the next five years
- Italian logistics scores are hampered by low national GDP growth and low GVA growth in manufacturing and transportation storage. Given the economic and political uncertainty gripping the country growth is forecast to decelerate



Source: AEW

LIQUIDITY SCORE

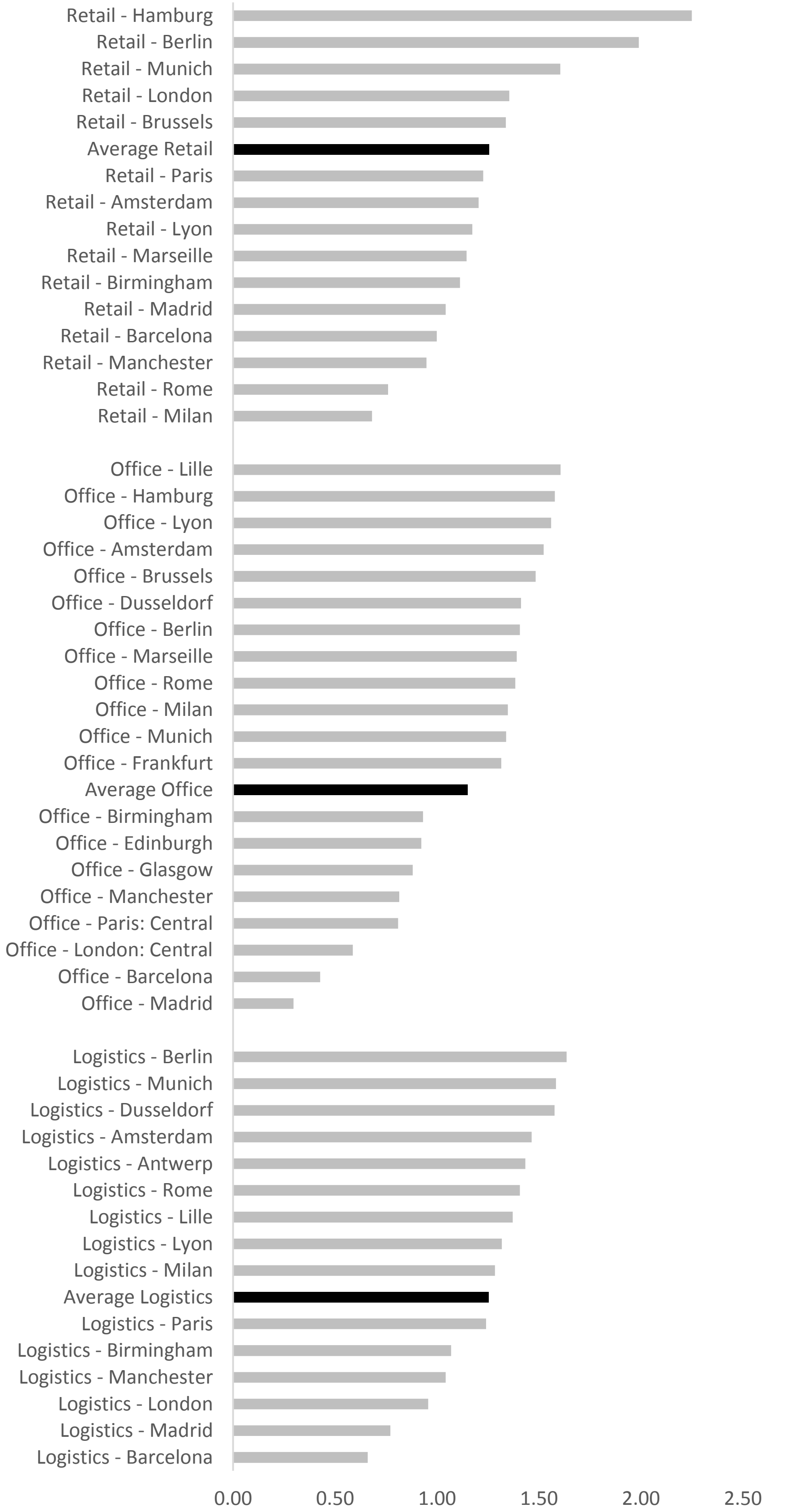
- London and Paris office liquidity stands out amongst all markets as very high
- Liquidity score based on last five years investment volumes (20%) & JLL Transparency Index (5%)
- Other UK, French and German markets show strong liquidity
- Spanish and Italian markets show consistently poor liquidity, partly driven by poor transparency
- Even if the stock is not concentrated in business districts, London and Paris office markets benefit from the global dynamism of the whole stock size
- UK office secondary locations benefit from high liquidity and investors looking for opportunities outside of London
- To a lesser extent, this mechanism applies to the French regional cities



Source: AEW

RISK SCORE

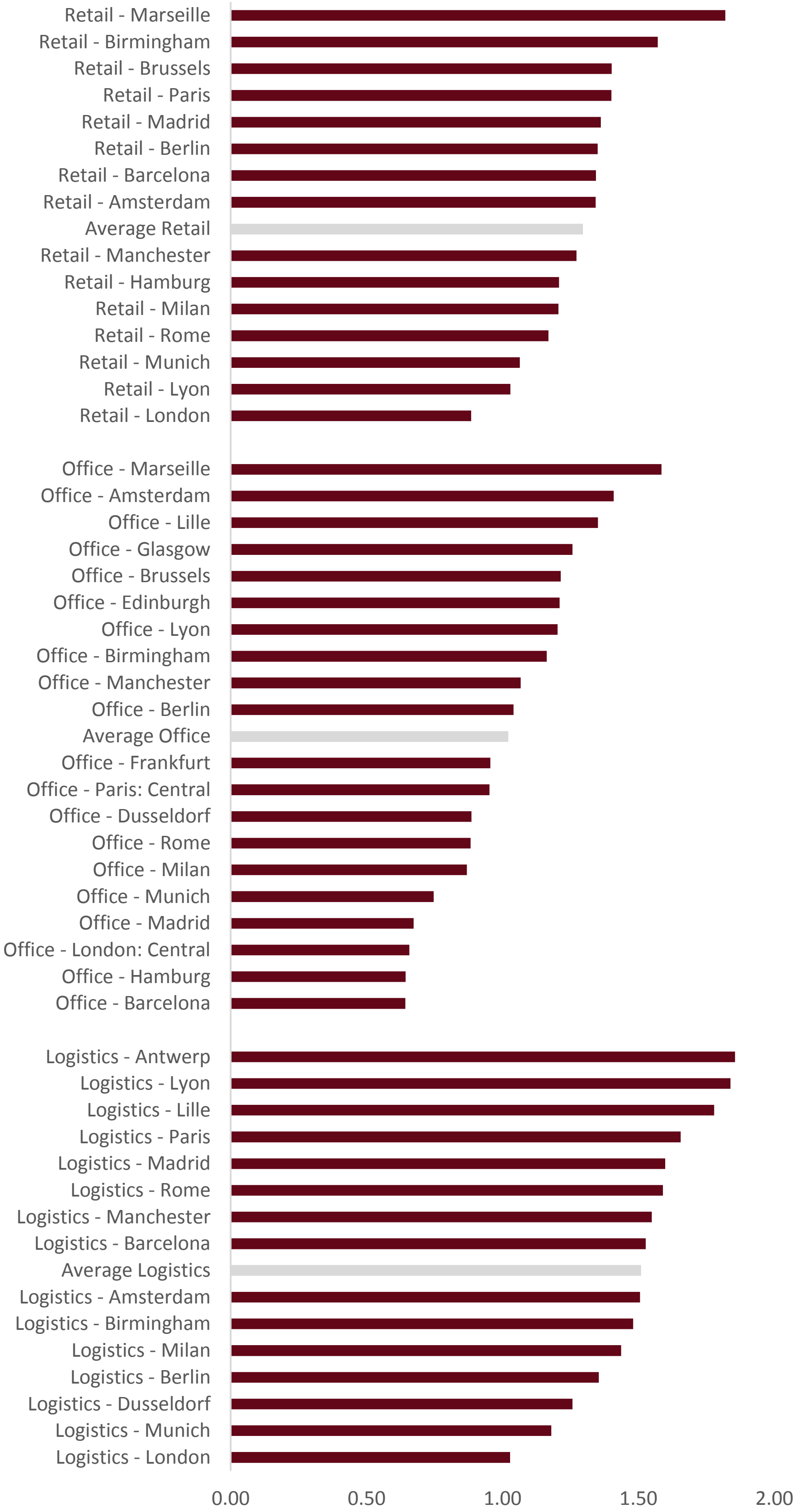
- Risk score based on historical standard deviation (10%), Sharpe ratio (10%) and maximum drawdown (5%). They measure the volatility, the risk-adjusted return and how resilient a market is in the case of crisis
- German retail and logistics markets show good scores on risk on the back of historical rent and yield stability
- The best risk score is observed in the Hamburg retail market with 2.25 and the Madrid office market exhibited the lowest risk score. This is mainly due to the aftermath of the GFC (Global Finance Crisis)
- As a result of strong resilience by German retail markets, the retail average is pulled up to the ranking topside
- Spanish and Italian markets show consistently poor risk scores on the back of recent rent and yield volatility
- London and Paris offices show risk scores below average as volatility is usually the downside of being a very liquid market
- If Hamburg and Berlin (outliers) are not taken into account, both retail and logistics sectors show some homogeneity



Source: AEW

RETURNS SCORE

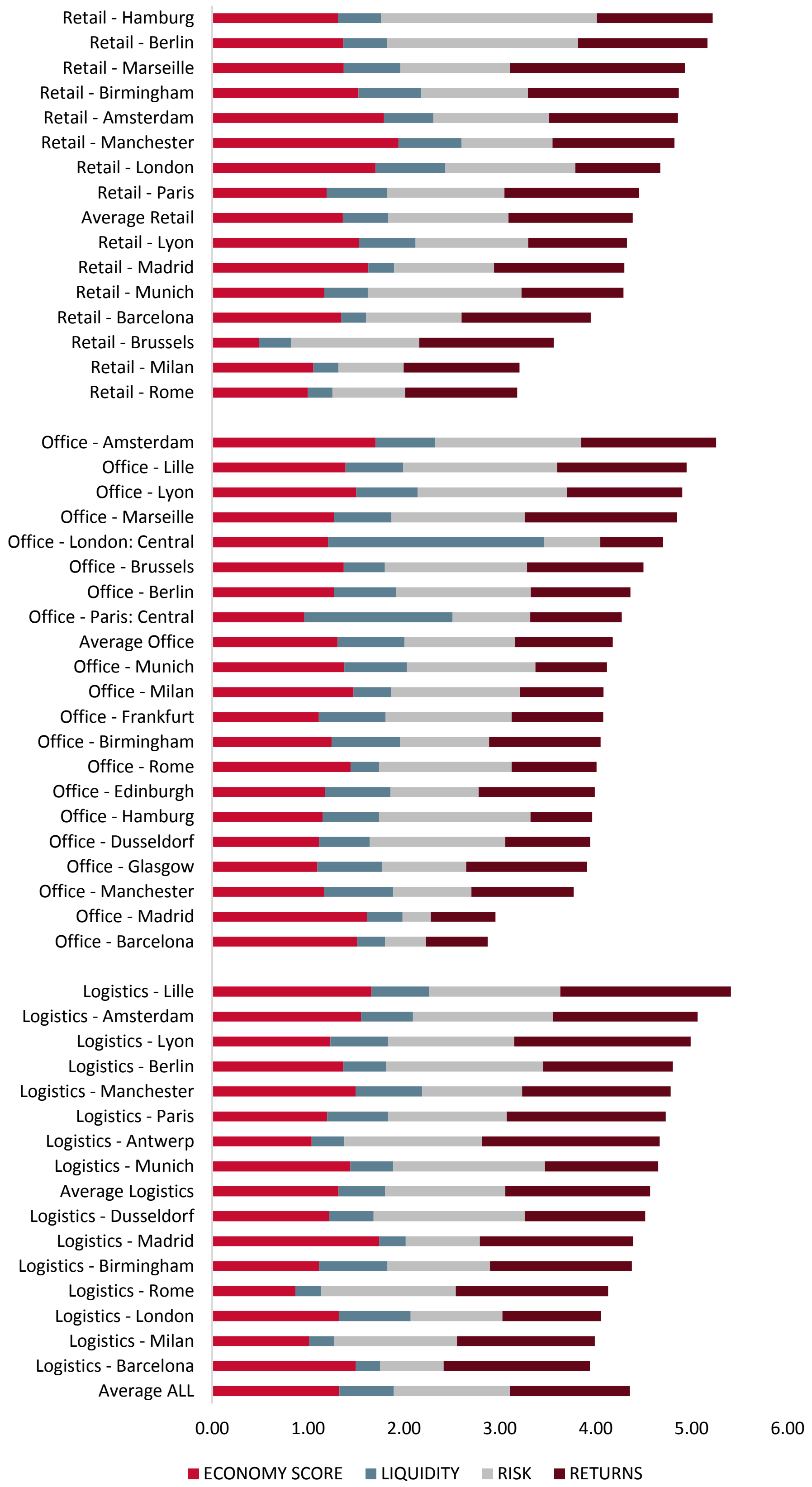
- Belgian and French logistics markets as well as Marseille retail and offices show high return scores pushed by strong cyclical recoveries
- The return score is based on total return (10%), income return (10%) and capital growth (5%)
- Among the three property sectors, London has a relatively low return score mainly due to low growth in employment and uncertainties around Brexit
- Despite the economy rebound, Spanish office markets returns score is low due to high unemployment rate
- Italian offices score low due to political uncertainty
- In the French office market, returns score is stronger in secondary locations on the back of rent stability and yield compression on prime assets.



Source: AEW

OVERALL MARKET SCORES BY PROPERTY TYPE

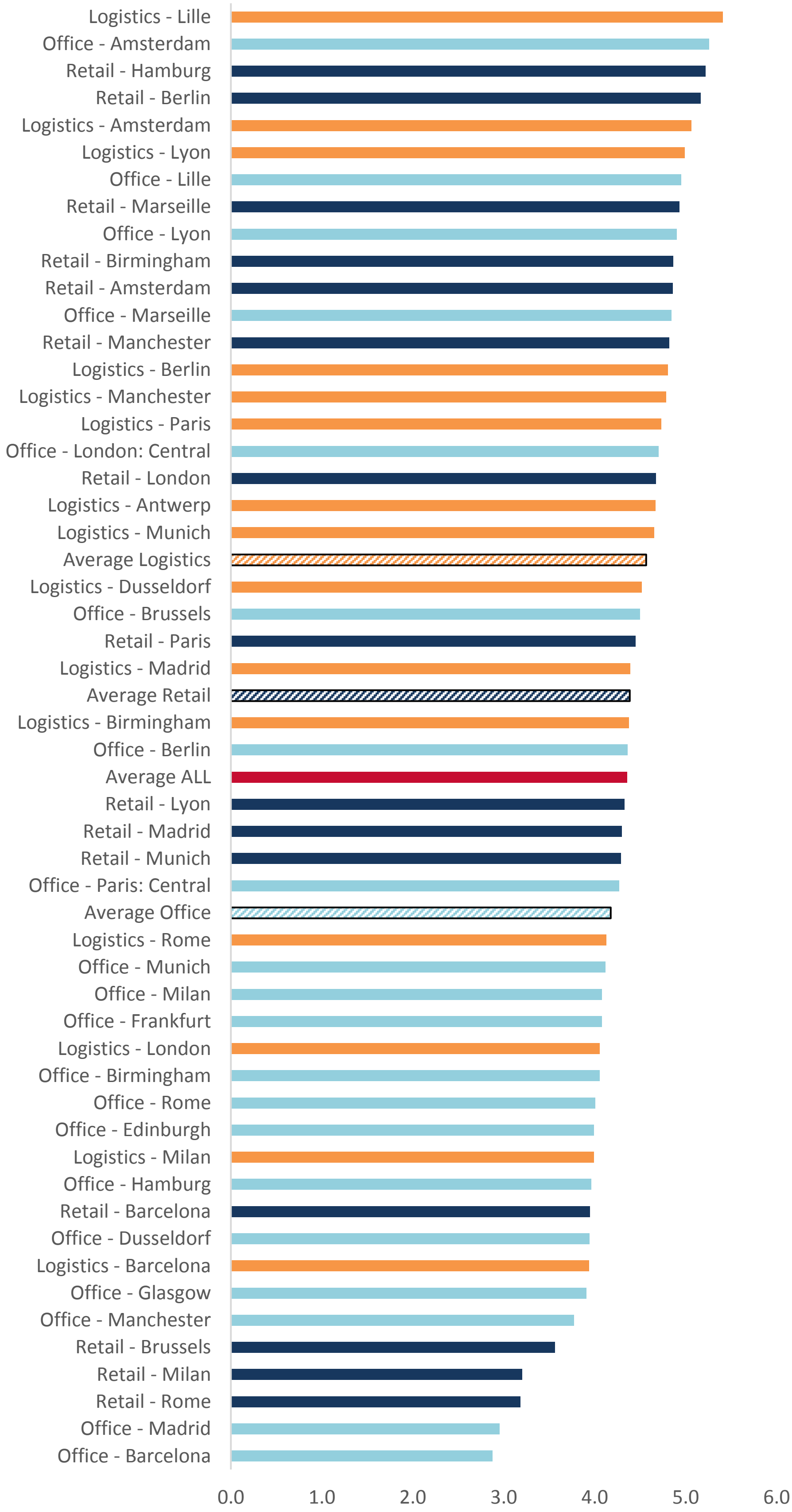
- Lille logistics has best overall score, but not all logistics markets rank ahead of all retail and office markets
- Hamburg and Berlin retail come top on the back of very strong risk scores. This is driven by good rent and yield stability over the long term
- London and Paris retail also score above average
- Italian retail markets show low overall scores due to low risk sub-scores. Again, this is driven by their above average historical volatility



Source: AEW

OVERALL MARKET SCORES ACROSS ALL MARKETS

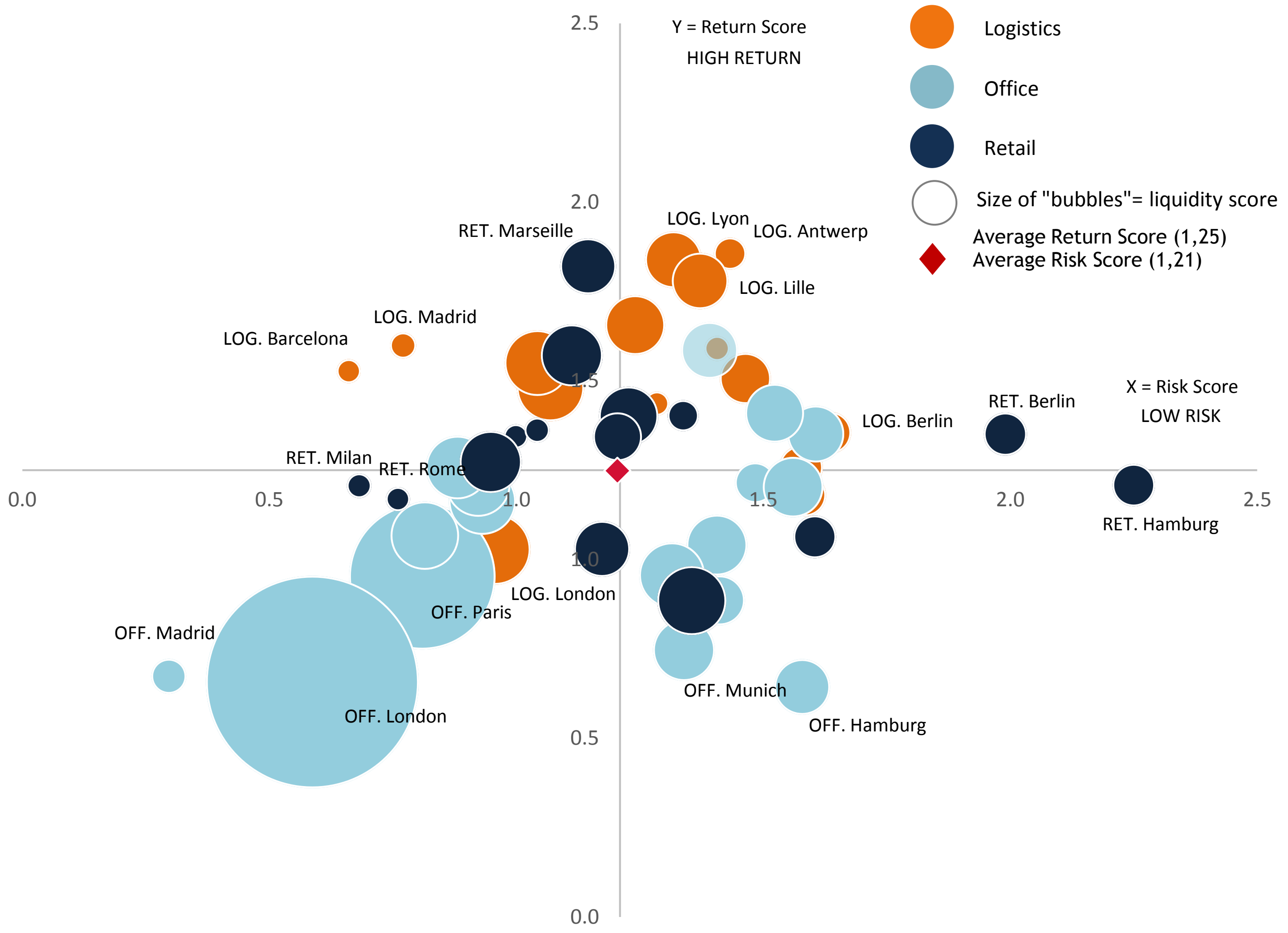
- Logistics markets (orange) are on average ranked higher than high street retail and offices
- Retail markets (dark blue) come second, despite poor scores for Brussels and Italian markets
- Despite strong scores for Amsterdam and Lille, offices are ranked mostly lower with Spanish markets ranking lowest



Source: AEW

TO REDUCE THE UNIVERSE FROM 50 TO 24 WE USE SECTOR AVERAGES

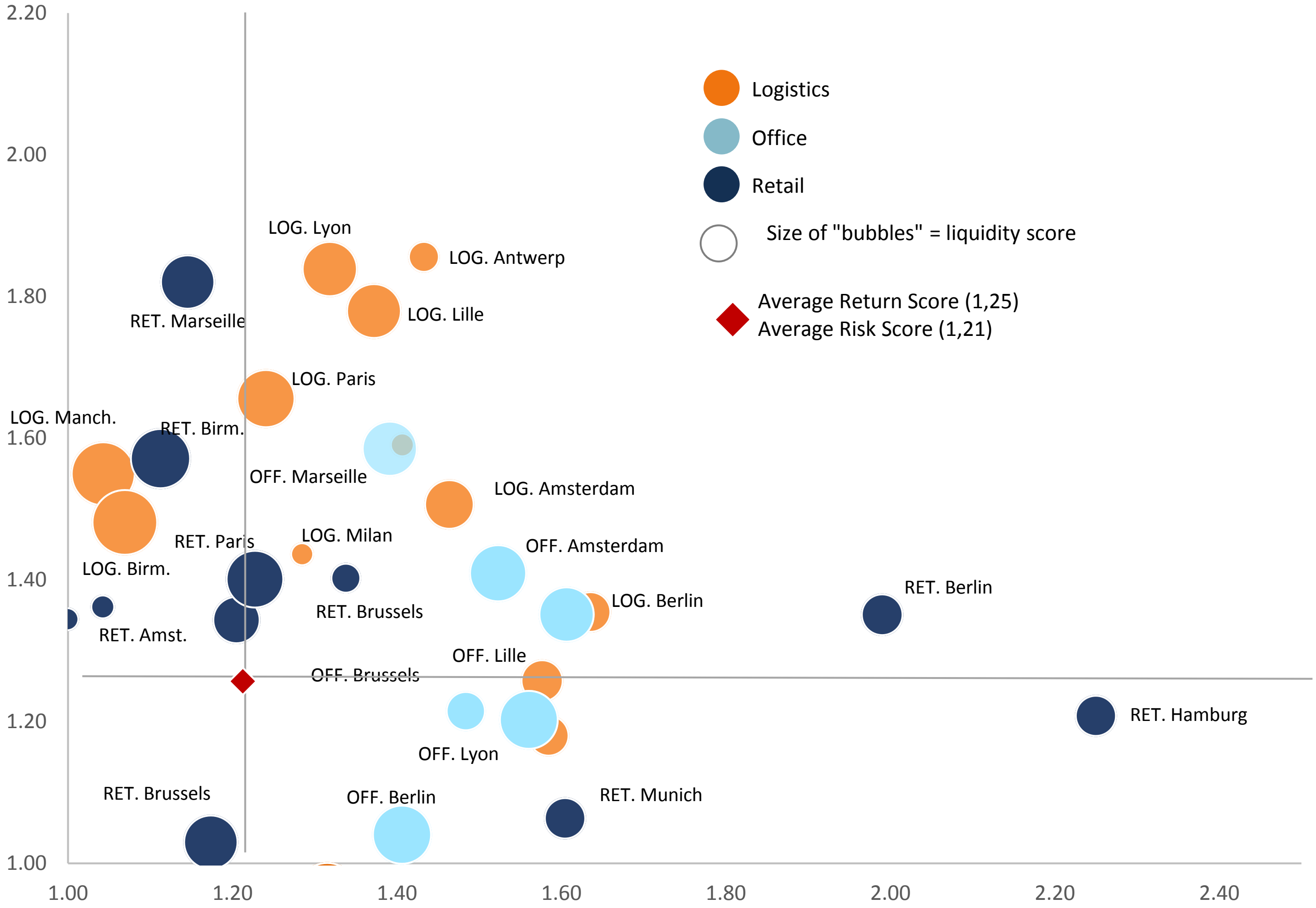
- Most investors looking at Europe for the first time are unlikely to cover all 50 markets
- Follow the leader strategy into gateway markets might not be best strategy
- To reduce the universe, we include only markets scoring above their own property type's average overall score
- This more than halves the universe from 50 to 24 markets



Source: AEW

OVERALL UNIVERSE AVERAGE RISK AND RETURN USED TO FURTHER LIMIT UNIVERSE TO 15

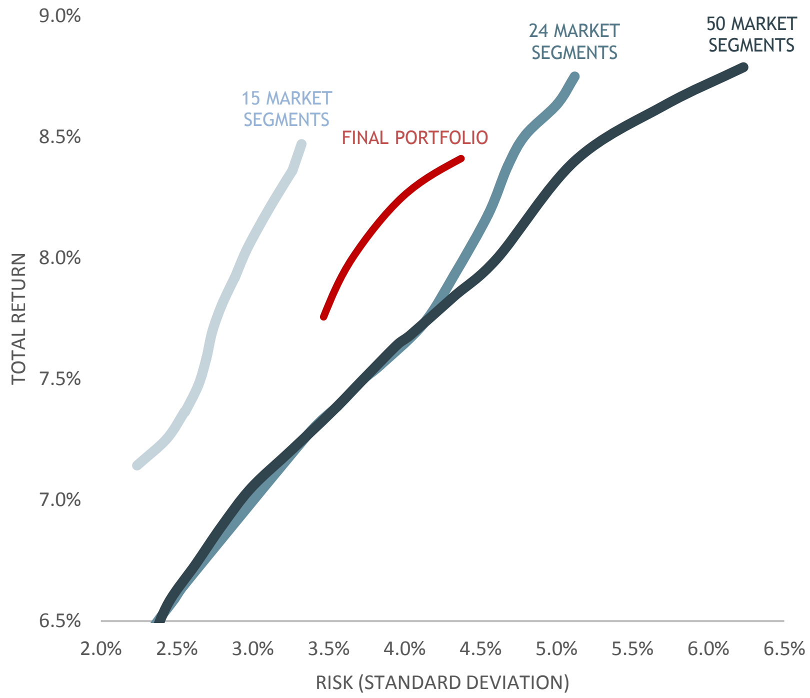
- But, 24 markets is still a lot for most first time investors, so we want to reduce further
- Only including markets with above the overall universe average risk and return scores does this
- It further reduces the universe from 24 to 15 markets



Source: AEW

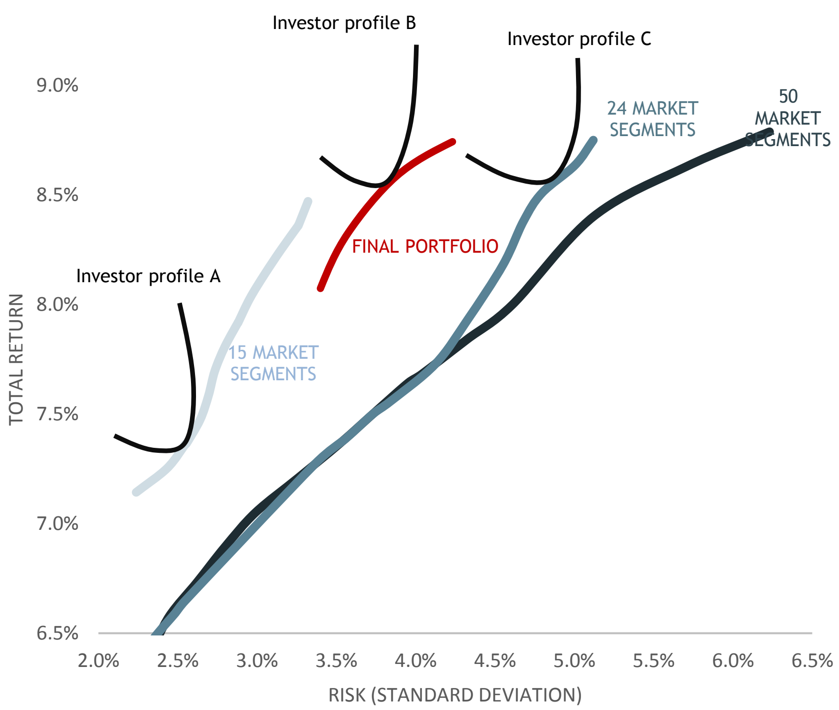
SMALLER UNIVERSES DO BETTER AND VALIDATE OUR MARKET SCORING

- Optimal portfolios with less, but more highly ranked market segments, have better risk-returns dynamics. This outcome also validates our market scoring
- Our portfolio model uses data for the 2012-21 period to allow for both historical volatility and future returns as well as correlations. This means returns shown are not only forward looking
- Final portfolio situated between 15 and 24 markets
- To reflect clients' needs we applied in four allocation restrictions:
  - not more than 15% in a single segment
  - not more than 50% in a single country
  - not more than 50% in office or retail
  - not more than 25% in logistics



MULTIPLE PORTFOLIO OPTIONS ALLOWS FIT TO RISK PREFERENCES

- Different optimal portfolios allows fit to a wider range of investors' risk-return preferences
- Risk averse investors (Profile A) allocate among the 15-market universe
- Average investors (Profile B) can improve returns by increasing risk and using the final portfolio
- High risk investor (Profile C) will find it more difficult to improve return by looking across 24 markets, even if taking more risk
- High risk investor can consider Core Plus and Value Add strategies

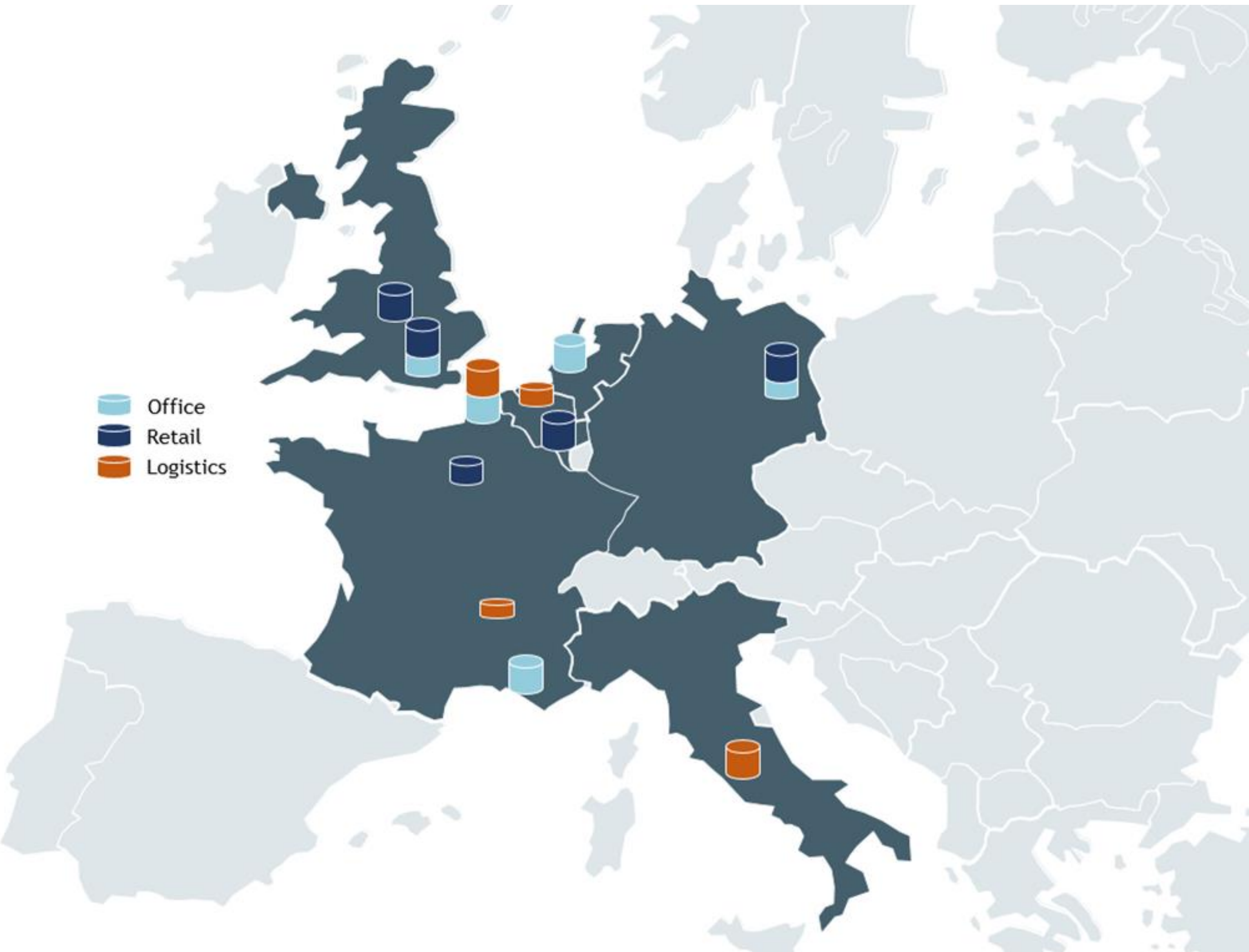


Source: AEW

CORE FINAL PORTFOLIO ALLOCATIONS MOSTLY OUTSIDE GATEWAYS

- Traditional gateways, such as London, Paris and Berlin can be 60% of the optimal portfolio allocation
- Non-gateway markets can dominate the optimal portfolio with a maximum of 100% of total allocation
- Adjoining table shows allocations for each of the three investor preference profiles
- Returns are forecasted to be between 5.5-6.0% for the next five years across the three profile portfolios

Market Segment	Allocation	Profile A	Profile B	Profile C
Office - Amsterdam	0 - 15%	✓	✓	✓
Office - Marseille	0 - 15%	✓	✓	✓
Office - Lille	0 - 15%	✓	✓	
Office - London	0 - 10%		✓	✓
Office - Berlin	0 - 8%		✓	✓
Retail - Berlin	0 - 15%	✓	✓	✓
Retail - Brussels	0 - 15%	✓	✓	
Retail - Birmingham	0 - 15%		✓	✓
Retail - Paris	0 - 10%		✓	✓
Retail - London	0 - 15%		✓	✓
Logistics - Lille	0 - 15%	✓	✓	✓
Logistics - Rome	0 - 15%	✓		
Logistics - Antwerp	0 - 8%		✓	✓
Logistics - Lyon	0 - 5%		✓	



Source: AEW

ABOUT AEW

AEW is one of the world's largest real estate asset managers, with €60.1bn of assets under management as at 31 December 2016. AEW has over 600 employees, with its main offices located in Boston, London, Paris and Hong Kong and offers a wide range of real estate investment products including comingled funds, separate accounts and securities mandates across the full spectrum of investment strategies. AEW represents the real estate asset management platform of Natixis Global Asset Management, one of the largest asset managers in the world.

As at 31 December 2016, AEW managed €26.0bn of real estate assets in Europe on behalf of a number of funds and separate accounts. AEW has over 300 employees based in 10 offices across Europe and has a long track record of successfully implementing core, value-add and opportunistic investment strategies on behalf of its clients. In the last six years, AEW has invested and divested a total volume of over €22.0bn of real estate across European markets.

www.aew.com

RESEARCH & STRATEGY CONTACTS

Hans Vrensen MRE, CFA
HEAD OF RESEARCH & STRATEGY
Tel +44 (0)20 7016 4753
hans.vrensen@aeweurope.com

Ken Baccam MSc
DIRECTOR
Tel +33 (0)1 78 40 92 66
ken.baccam@aeweurope.com

Virginie Wallut MBA
ASSOCIATE DIRECTOR
Tel +33 (0)1 78 40 95 07
virginie.wallut@aeweurope.com

Shan Shan Qi MSc
ASSOCIATE
Tel +44 (0)20 7016 4853
shanshan.qi@aeweurope.com

Abraham Mboyo Mbango MSc
ASSOCIATE
Tel +33 (0)1 78 40 92 65
abraham.mboyombango@aeweurope.com

Guillaume Oliveira MSc
ANALYST
Tel +33 (0)1 78 40 92 60
guillaume.oliveira-ext@aeweurope.com

INVESTOR RELATIONS CONTACT

Alex Griffiths
DIRECTOR
Tel +44 (0)20 7016 4840
alex.griffiths@aeweurope.com

LONDON
AEW EUROPE | 33 Jermyn Street | London, SW1Y 6DN | UK

PARIS
AEW EUROPE | 8-12 Rue des Pirogues de Bercy | 75012 Paris | FRANCE

DÜSSELDORF
AEW EUROPE | Steinstraße. 1-3 | D-40212 Düsseldorf | GERMANY

AEW. AEW includes AEW Capital Management, L.P. in North America and its wholly owned subsidiaries, AEW Global Advisors (Europe) Ltd. and AEW Asia Pte. Ltd, as well as the affiliated company AEW Europe SA and its subsidiaries.