



**THE DEVELOPMENT AND INITIAL PERFORMANCE ANALYSIS  
OF REITs IN IRELAND**

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## THE DEVELOPMENT AND INITIAL PERFORMANCE ANALYSIS OF REITs IN IRELAND

### ABSTRACT

**Purpose** – The inception of REITs in Ireland in 2013 presented an additional property investment opportunity to Ireland’s commercial property investment landscape. Importantly, the Irish REIT market is an institutional apparatus with an objective to rejuvenate Ireland’s commercial property market. The purpose of this paper is to provide an empirical validation of the performance of Irish REITs over the period March 2015-February 2019 across several investment measures such as risk-adjusted returns and diversification benefits.

**Design/methodology/approach** – Using monthly total returns in local currency, the risk-adjusted performance and portfolio diversification attributes of Irish REITs are assessed. The mean-variance framework is utilized to assess the potential added-value benefits of Irish REITs in a mixed-asset portfolio.

**Findings** – Irish REITs delivered the strongest average annual return performance, lower relative volatility versus the stock market and competitive overall risk-adjusted performance. The results affirm the characteristic of Irish REITs as a total return-focussed income-driven property investment asset class. The optimal asset allocation analysis shows that Irish REITs are an important ingredient in a mixed-asset investment framework, as their allocation could be scaled effectively across the portfolio risk-return spectrum.

**Practical implications** – Irish REITs are an emerging investment opportunity for investors seeking exposure in the strongly performing property market in Ireland in the post-GFC period. They are also regarded as an effective alternative conduit to private investment routes (i.e.: direct property and non-listed property funds), with the added advantage of being more liquid and versatile than their private property investment counterparts. Importantly, Irish REITs fulfilled the purpose for which they were originally designed. The promising initial performance observed in this paper gives a useful context to what the future might hold for Irish REITs, given the strong interest for commercial property assets in Ireland from both local and cross-border property investors.

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5 **Originality/value** – This paper is the first empirical research aimed at providing a initial  
6 empirical performance validation of Irish REITs as an effective route to commercial property  
7 exposure in Ireland. This research enables empirically validated, more informed and practical  
8 property investment decision-making regarding the strategic role of Irish REITs in a portfolio.  
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13 **Keywords** Ireland, REITs, Risk-adjusted returns, Portfolio diversification, NAMA, Asset  
14 allocation, Commercial property.  
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18 **Paper type** Research paper.  
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## INTRODUCTION

Over the last 55 years, REITs have been introduced across 37 countries globally, comprising 794 active property investment vehicles corresponding to \$1.5 trillion in total market capitalisation (EPRA, 2019a). This includes REITs in various European markets, notably the UK, France, Germany, Netherlands and Spain.

Being one of the most recently introduced REIT markets in Europe, Irish REITs were designed with the primary intention of providing a good compromise between liquidity and effective commercial property investment for a wide range of investors. REITs are regarded as more liquid and versatile than direct property investment, whilst delivering the fiscally transparent income streams similar to that of the existing tax efficient non-listed Irish property funds (formally Irish real estate funds (IREFs)). In 2019, the market now sees 4 operational REITs corresponding to €2.86 billion (\$3.20 billion) in total market capitalisation (EPRA, 2019a) and being one of the top ten largest REIT markets in Europe (see Table I).

Importantly, the development of the REIT legislation in Ireland was regarded as part of the institutional apparatus aimed at rejuvenating the underperforming property market (O’Callaghan et al, 2014; Waldron, 2018), having suffered two significant setbacks from the 2007-2009 Global Financial Crisis (GFC) and post-GFC economic crisis in Ireland. These two distressed periods were marked by significant outward flows of capital in investment activities, exacerbated by the debt-laden financial institutions, costly borrowings and lack of liquidity in the financial market which had long plagued the country (Lane, 2012; O’Riain, 2012), consequently bringing an end to the era of the “Celtic Tiger”.

The commercial property market in Ireland was not immune of this challenging time, during which period the main driver of investment momentum was fuelled by excessive leverage. This impact is illustrated in the commercial property performance index (Figure 1). The capital values of commercial property in Ireland declined by 68% peak-to-trough, with a comparable but less significant decline of 51% in total return terms (MSCI, 2019). This compares with the peak-to-trough decline in the stock market, corresponding to a cumulative loss of 64%. During this time, the National Asset Management Agency (NAMA) was set up with the main objective of revitalising the ailing property market in Ireland by absorbing toxic assets and injecting liquidity in the financial sector (Byrne, 2016). Several studies have established the pivotal role of NAMA in ensuring stability in the Ireland financial system (Byrne, 2015; Waldron, 2018).

Further supplementing the recovery phase in Ireland was the introduction of REIT legislation in 2013, seeing two major Irish REITs, Green and Hibernia, admitted to the Ireland Stock Exchange (ISE) in 2013. In many respects, it was perfect timing for Irish REITs, as NAMA began to offload its assets to financial players against the backdrop of improving economic fundamentals. REITs were an important solution to establish liquidity and stability to the Ireland's commercial property market.

The increasing popularity of REITs in many major European markets has resulted in a considerable number of empirical studies concentrated on their respective qualitative and quantitative investment characteristics. For example, in Spain (Marzuki and Newell, 2018), Germany (Newell and Marzuki, 2018), UK (Akinsomi et al, 2018; Jadevicius and Lee, 2017; Newell and Marzuki, 2016), Belgium (Marzuki and Newell, 2019), Turkey (Erol and Tirtiroglu, 2011) and France (Newell et al, 2013). Locally in Ireland, the increasing significance of REITs has attracted considerable research interest with a number of studies on Irish REITs scrutinising the crucial role of REITs in the post-GFC recovery, such as their role in stimulating the private rented sector of the Irish housing segment (Duffy et al, 2017) and as an exit mechanism to offload property assets (Mercille and Murphy, 2016). However, an empirical analysis of the investment attributes of Irish REITs is yet to be documented in the literature.

The main motivation of this paper is the continuous improvements in the quality and depth of data and reporting on Irish REITs. Whilst only introduced in 2013, these data are of sufficient robustness to enable an initial assessment of performance and a greater understanding of the effectiveness of Irish REITs as a property investment vehicle. Ultimately, this paper aims to assess the strategic investment importance of REITs in Ireland and address the two critical research questions:

RQ1: How do Irish REITs compare to the mainstream asset classes on a risk-adjusted basis?

RQ2: Do Irish REITs provide added-value and diversification benefits in a mixed-asset portfolio framework?

By addressing these two research questions, this paper highlights the development of Irish REITs and their accompanying role in the recovery of the commercial property market in Ireland. At the core of this paper is the empirical investigation that aims to provide knowledge on the preliminary investment attributes and added-value benefits of Irish REITs in a mixed-

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asset portfolio. The contribution of this paper is informing the ongoing strategic implications for REITs in Ireland as an effective property investment conduit; particularly for property players and investors looking for property investment opportunities with improved transparency and liquidity.



## SIGNIFICANCE OF COMMERCIAL PROPERTY IN IRELAND

Being the 14th most competitive economy in Europe (#23 globally) (WEF, 2018), the Irish economy is observed to be performing strongly. Although it was one of the most impacted countries in the GFC, its economy has experienced substantial shifts and surged to become Europe's fastest growing economy in 2018 (GDP growth: 8.2%) (CSO, 2019a). This dramatic rate of improvement in the economy, now in its sixth consecutive year, sees Ireland's \$373 billion economy (IMF, 2018) as Europe's 14th largest in US dollar terms and tightly integrated in the European Union (EU) common monetary and economic policies. Ireland's public institutions are also highly regarded, ranked 18th out of 180 countries on the corruption perception ranking compiled by Transparency International (2018). Table II profiles the social, economic and property attributes of Ireland.

This structural improvement has benefitted the Irish population greatly in the form of job creation (over 50,000 new employments), higher disposable income (3.5% growth) and reduced unemployment rate (5.3%) in 2018 (CSO, 2019b). Ireland's approximately 2.2 million-strong workforce is the main thrust for its services-dominated economy (contributing 60% of the economic output) (CIA, 2018). Ireland is also known as the "European headquarters" for many multi-national companies such as Alphabet (formerly Google), Microsoft, Facebook and Intel, partly due to the competitive corporate tax rates (12.5%) (KPMG, 2019) and supported by the conducive environment it provides for businesses (World Bank, 2018).

Although it was badly impacted by the two financial crises, Ireland's \$134 billion commercial property market (EPRA, 2019a) is making a substantial recovery and has delivered over 14% per annum in total investment returns since the last quarter of 2011 (MSCI, 2019). The main driving force behind this rapid recovery, aside from the upward trend of the economy, is the impressively performing property market which has seen stabilising rental yields, low vacancy rates and increasing investment deals across all segments of the Ireland property market (Knight Frank, 2018; Savills, 2019). The Ireland property market is also regarded as Europe's 5th most accessible property market (global property transparency ranking: #9; high transparency status), after the UK (#1), France (#4), Netherlands (#6) and Germany (#8) (JLL, 2018), with Dublin being the focus of much of this commercial property activity. Its maturing listed commercial property investment space (including REITs) accounts for circa 2% of the total commercial property market in Europe (EPRA, 2019a).

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3 Crucially, the continuous improvement in the economic fundamentals has set the stage for a  
4 positive change in the sentiment for the commercial property investment landscape in Ireland.  
5 Over the last 5 years (2014-2018), over \$30 billion in income-producing commercial property  
6 assets were transacted; averaging over \$6 billion per annum. Dublin proved to be the most  
7 popular destination amongst property investors, having absorbed on average over 85% of the  
8 transaction volume during this 5-year timeframe. The most sought-after and the largest  
9 property sector in dollar terms was the office property sector, accounting for 37% (\$11 billion)  
10 of the marketplace in the last 5 years, followed by retail (29%; \$8.6 billion), hotel (12%; \$3.7  
11 billion) and residential (12%; \$3.5 billion) property sectors (RCA, 2019a).

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20 Importantly, there is a strong appetite for commercial property assets in Ireland by overseas  
21 investors. Cross-border capital deployment accounted for approximately 69% (\$20.7 billion)  
22 of the 5-year transaction volume. The sources of this capital are diverse and include countries  
23 such as the US (\$10.4 billion; 50% of cross-border transaction volume), UK (\$5.1 billion; 25%)  
24 and Germany (\$4.8 billion; 23%) (RCA, 2019a). Eight of the top ten most active buyers of  
25 Ireland property assets were also foreign investors across a range of investor types such as  
26 investment managers (e.g.: Patrizia; transaction ranking: #1; transaction volume: \$584  
27 million), equity funds ( Kennedy Wilson; #2; \$568 million), multi-national corporations  
28 (Alphabet (Google); #4; \$481 million) and insurance companies ( AXA; #8; \$378 million)  
29 (RCA, 2019b).

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38 Overall, the improving investment momentum in Ireland presents strong opportunities for both  
39 local and overseas investors, against the backdrop of strong economic fundamentals. This was  
40 further enhanced by the establishment of the Irish REIT market that opened another pathway  
41 for access to this strongly performing commercial property investment space. Given the  
42 progressive growth that the Irish REIT market has undergone and its significant contribution  
43 to the commercial property market in Ireland in the last few years, the next section proceeds to  
44 highlight the establishment and significance of the Irish REIT market, as well as the high level  
45 of sophistication that it provides to the commercial property investment landscape in Ireland.  
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## DEVELOPMENT OF REITs IN IRELAND

The REIT framework in Ireland was a successful attempt to satisfy the requirements of both the financial players and investors for a solution that could improve the investability and accessibility to Ireland's significant \$134 billion commercial property investment space. The challenge was to design an effective listed property investment vehicle by allowing the decoupling of the management function from investors to investment managers, concurrently allowing for tax-exempted flow-through investment returns. The first iteration of the REIT framework in Ireland, introduced initially in 2013, provided legislation to facilitate the development of a special purpose vehicle for effective commercial property exposure. Aside from the strengthening macroeconomic fundamentals, Ireland was also a strong candidate for the introduction of the REIT regime due to its open and highly transparent property market, availability of high-quality assets, with the broad performance improvement in the domestic commercial property market since the depth of the two major economic crises. Its robust regulatory environment for setting up tax efficient investment vehicles was also one of its strong features, with the establishment of the Irish REIT regime allowing financial players to tap into the potential of the Ireland property market. An expansion in the size of the Irish REIT market has ensued since 2013 due to these contributing factors.

Table III provides full details of the Irish REIT market regulatory framework and attributes. For a company intending to adopt the REIT status and qualify for its associated tax treatment, the company must be domiciled in Ireland and listed on the main board of the ISE or compliant EU member state stock exchanges. Irish REITs include several provisions which promote higher levels of risk management for the vehicle. For instance, the legislation mandates a minimum number of 3 properties, of which a single property must not account for more than 40% of the REIT portfolio total market value, 85% minimum distribution requirement to invoke the fiscal exemptions, and more critically, a robust share ownership and public float structure emphasising equal investment opportunity for all types of investors (EPRA, 2018; PwC, 2017). Investing in both commercial and residential property is allowed and importantly, whilst some of these features are designed to manage the investment and property-specific risks, they could also enhance the performance and versatility of the Irish REIT vehicle.

The REIT regulations in Ireland are less stringent than that in the UK in terms of the distribution requirement (Irish REITs: 85% versus UK REITs: 90%), minimum capital requirement (Irish REIT: €25,000 versus £700,000, although they also share some similarities in areas such as the

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3 leverage ratio allowable and ownership structure, amongst others. This is not surprising  
4 considering the importance of stimulating the growth of the REIT market during the maturing  
5 stages. These lessons were also learned by Spanish legislators, whereby the original iteration  
6 of the Spanish REIT framework was considered as very inflexible, leading to limited response  
7 from financial players (Marzuki and Newell, 2018). Only after the Spanish REIT legislation  
8 was amended to be more accommodating did it start to receive a positive reaction from  
9 stakeholders in the domestic market. The essential requirement for public listing is also  
10 supported by the fact that both financial players and investors prefer the stock market for access  
11 to investment instruments due to its openness and regulated environment. REITs in Ireland are  
12 structured to maintain the compatibility with the existing stock market platform similar to that  
13 of the ordinary publicly quoted companies. This sees Ireland as having more streamlined  
14 implementation compared to non-listed property investment vehicles, with access to the capital  
15 market for effective capital raising activities.  
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26 Since its establishment in 2013, the Irish REIT market has grown significantly, evidenced by  
27 the listing of new REITs, stable appreciation of the share price and active capital raising  
28 activities ( Figure 2), with €2.5 billion (\$2.8 billion) in total free-float market capitalisation. As  
29 indicated in Table I, Ireland accounts for around 1% of the size of the European REIT market.  
30 The four current Irish REITs are Green, Hibernia, Irish Residential and Yew Grove, accounting  
31 for over €3.2 billion in market capitalisation and over €3.8 billion in assets under management  
32 in the commercial and residential property market spaces. Green (#29 largest European REIT),  
33 Hibernia (#33) and Irish Residential (#37) are in the top 50 ranking for the largest European  
34 REITs (EPRA, 2019). Their significant market capitalisation also sees Green (#10 largest listed  
35 company in Ireland by market capitalisation), Hibernia (#12) and Irish Residential (#18)  
36 forming part of the Euronext Dublin ISEQ 20 stock market index (Euronext, 2019).  
37 Importantly, Irish REITs were also established with solid institutional backing; some of their  
38 largest shareholders include institutional investors and investment managers such as BNP  
39 Paribas, TIAA-CREF, AXA and Standard Life.  
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51 REITs have been playing an active role in providing liquidity in Ireland's commercial property  
52 marketplace with their intensive transaction activities, consistent with the original intent of  
53 their establishment accounting for 44% (\$1.6 billion), 38% (\$887 million) and 41% (\$699  
54 million) of domestic acquisition activities in 2014, 2015 and 2016 respectively (RCA, 2019a),  
55 making them the largest domestically sourced capital into the commercial property marketplace  
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3 across this 3-year period. Over a 5-year period of 2014-2018, Irish REITs cumulatively  
4 absorbed \$3.6 billion, whilst disposing of only \$241 million in property assets, effectively  
5 making them the largest domestic net purchaser group at \$3.4 billion dollars. These investment  
6 activities are clearly reflected in the current portfolio of Irish REITs with over 65 commercial  
7 properties and 2,679 residential units across the core segments of office, retail, industrial and  
8 residential property; see Table IV). Whilst Irish REITs can invest internationally, their current  
9 property portfolios are locally focussed, benefitting from the opportunity to initially acquire  
10 properties at discounted prices via NAMA. From an investment standpoint, the Irish REIT  
11 portfolios allow for the dispersal of property-specific risk and enable investors to obtain  
12 exposure in high quality, income-producing and diversified portfolios.  
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21 Overall, this section has established the development of REITs in Ireland and their growth as  
22 they evolve through the maturity stages. Importantly, Irish REITs have played a key role in the  
23 recovery of the broader Ireland property market. The next section assesses the preliminary  
24 performance analysis of Irish REITs and addresses the two research questions presented in the  
25 opening section of this paper.  
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## METHODOLOGY

### *Data sources*

Month-end total returns (€) for REITs, stocks and bonds for Ireland were obtained and assessed over March 2015-February 2019. Total returns for Irish REITs were extracted from the Financial Times Stock Exchange European Public Real Estate Association / National Association of Real Estate Investment Trusts (FTSE EPRA/NAREIT) database. This FTSE EPRA/NAREIT index requires publicly-quoted property companies to satisfy four admission criteria regarding: (1) free-float market capitalisation, (2) proportion of public float shares, (3) proportion of property-sourced income, as well as (4) accessible audited annual reports in the English language. Consequently, the FTSE EPRA/NAREIT index only tracks established and sufficiently capitalised publicly-quoted property companies. This sees the FTSE EPRA/NAREIT Irish REIT index starting in March 2015 and comprising three of the four Irish REITs over this period (Green, Hibernia, Irish Residential).

At February 2019, this market capitalisation-weighted, public float-adjusted Irish REIT index had a total market capitalisation of approximately €2.5 billion (EPRA, 2019b). Figure 2 highlights the steady growth in market capitalisation of the FTSE EPRA/NAREIT Irish REIT index. The MSCI Ireland, 10-year government bond and 3-month deposit rate represents the stock, bond and cash asset classes respectively; all of which are sourced from the Thomson Reuters Datastream database. One limitation in this study is the exclusion of the direct property investment class in the analysis due to incompatibility with the frequency of measurement – the MSCI institutional-grade Ireland property performance index is available only on a quarterly basis. Another limitation is the lack of coverage of a full business or property cycle. Nonetheless, performance data over the period March 2015 to February 2019 is sufficient to empirically validate the initial performance of Irish REITs. This short timeframe is consistent with previous papers conducting preliminary empirical analysis in other new REIT markets; for example, Islamic REITs in Malaysia (Newell and Osmadi, 2009) and Spain (Marzuki and Newell, 2018).

### *Statistical analysis*

The risk-adjusted performance and diversification benefits of Irish REITs were assessed over the period of March 2015-February 2019. Average annual returns and annual risk were derived from annualised geometrically-compounded monthly returns and annualised standard

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3 deviation for Irish REITs, stocks and bonds. The Sharpe ratio, which was used as a measure  
4 of the risk-adjusted performance for the three asset classes, was computed by subtracting the  
5 annualised 3-month deposit rate as a risk-free benchmark. Correlation analysis was used to  
6 measure the relationship of returns between the three assets as a measure of diversification.  
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8 Lastly, the traditional mean-variance framework was developed to assess the added-value role  
9 of Irish REITs in a mixed-asset portfolio. The result of this optimal asset allocation analysis is  
10 presented using asset allocation diagrams.  
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## IRISH REIT PERFORMANCE ANALYSIS

### *Risk-adjusted returns*

Table V presents the risk-adjusted performance analysis of the Irish REIT market over March 2015-February 2019. Despite Ireland being the country with the highest economic growth in Europe, concerns over the ongoing uncertainties surrounding Brexit are negatively influencing the broader investment market. This is particularly true as the UK is one of Ireland's largest trading partners. These uncertainties are two-fold: (1) short-term uncertainty around the way in which the UK eventually leaves the EU, and (2) longer-term political (Irish border) and macro-economic impact in the event of a "hard Brexit" outcome. The prolonged uncertainties are clearly reflected by the overall performance of the financial markets over the last few years, further exacerbated by uncertainty from the recent US-China trade dispute. Despite these ongoing geo-political issues, Irish REITs managed to deliver a positive and the strongest average annual total return performance (1.88% p.a.), exceeding both the stock market (-0.54% p.a.) and government bonds (0.74% p.a.). One reason crucial for this distinction in performance of Irish REITs is their fiscally efficient income stream format, resulting in a constant and relatively high distribution yield (REIT average dividend yield: 2.86% versus stock market: 1.89%) (EPRA, 2019b; Euronext, 2019), partially masking the effects of the broad market underperformance.

As important as the absolute return performance is the question of investment risk, in terms of volatility. The results show the level of volatility in Irish REITs (13.85%) was lower than that of the stock market (15.37%), although bonds (0.82%) provided investors with a much lower risk exposure. For the risk-adjusted return benchmark as measured by the Sharpe ratio, Irish REITs (Sharpe ratio: 0.15; Sharpe rank: 2) have a clear advantage against the Ireland stock market (-0.02; 3) due to the superior returns delivered at a lower volatility. Overall, Irish REITs showed some promising preliminary performance, but they also present evidence of short-term volatility as a result of the tight coupling with the overall trend of the stock market. One reservation with this existing preliminary analysis is the difficulty in quantifying the direct property performance delivery of Irish REITs due to constraints in sample size and time. Hence, it is important that this performance assessment is revisited when more REIT and longer time-series data are available to establish the effectiveness of Irish REITs in channelling direct property performance.

### *Diversification benefits*

Table VI presents the inter-asset correlation matrix of Irish REITs. Diversification benefits are a fundamental risk management tool for a multi-asset investment portfolio, with significant amounts of time and effort having been expended by investors to build an effective and robustly diversified investment portfolio. The growing emphasis on greater transparency and liquidity in a property portfolio presents a strong investment case for Irish REITs amongst investors seeking to strike a balance between gains in performance and diversification efficiency. While the overall results indicate that Irish REITs exhibited some propensity to follow the trend of the stock market (correlation coefficient  $r = 0.46$ ), this marginally positive correlation shows they were less dependent on the stock market movements. More importantly, Irish REITs could provide investors with excellent diversification benefits with the fixed-income instrument since their returns were asymmetrical with the long-term government bonds ( $r = -0.17$ ). These diversification results are consistent with that seen in other European REIT markets such as in Belgium (Marzuki and Newell, 2019), Germany (Newell and Marzuki, 2018), Spain (Marzuki and Newell, 2018) and the UK (Newell and Marzuki, 2016). Overall, the results show that Irish REITs are an important ingredient to achieve diversification benefits for a traditional portfolio of stocks and bonds.

### *Irish REITs in the mixed-asset portfolio*

While the allocation into the property asset class has been seen as an approach to deliver improved performance due to its strong diversification potential and competitive performance, adoption of such implementation in Ireland has been slow because of the barriers to entry for the property asset class; some of which has been overcome by the effective solution that Irish REITs present. This section assesses the performance enhancement role of Irish REITs in a mixed-asset portfolio. A sequence of 3-asset efficient portfolios comprising stocks, bonds and Irish REITs was compiled using the traditional mean-variance framework, with the portfolios represented different investment strategies, ranging from the conservative to optimistic risk-return investment strategy. The framework was also configured to limit the exposure to Irish REITs at a maximum practical level of 10% to represent the asset mix that an investor realistically achieves in an actual situation, aside from accounting for the limited number of Irish REITs and their small market capitalisation. The constrained REIT allocation is consistent with that used in previous European REIT research (Marzuki and Newell, 2019; Newell and Marzuki, 2018; Marzuki and Newell, 2018; Newell and Marzuki, 2016). The result is presented



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3 in the asset allocation diagram as illustrated in Figure 3 Panel A. Bonds dominated the portfolio  
4 since stocks, being the poorest performing asset class, could not be efficiently included into the  
5 asset mix; effectively creating a 2-asset portfolio. The allocation to Irish REITs scales well  
6 with the gradual increase in the portfolio risk, ranging from 1.3% to 10.0% at minimum and  
7 maximum risk levels respectively, which suggests that effective diversification is achieved  
8 through the inclusion of Irish REITs in a mixed-asset portfolio.  
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14 Given the over-exposure of bonds in the first scenario, the optimisation process also adopted a  
15 lower-bound limit of 20% in stocks to further assess the practical significance of Irish REITs  
16 in fuller multi-asset portfolio dynamics. An upper-bound constraint of 10% was maintained for  
17 Irish REITs and bond allocations were not constrained. The result of this scenario, as presented  
18 in Figure 3 Panel B, shows that stocks were consistently allocated at the minimum 20% level,  
19 while Irish REITs exhibited their flexibility to be steadily included into the efficient portfolio  
20 sets across a wider range of the risk spectrum. From an absolute performance-centric  
21 perspective, the efficient use of Irish REITs is observed to result in improved portfolio returns  
22 in both scenarios, which was achieved within the 10% upper-bound constraint.  
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31 As they are in the state of maturing, this initial performance analysis for Irish REITs is not  
32 guaranteed to reflect the future investment performance as the fuller business and property  
33 cycle is assessed in the longer term. Nevertheless, the overall initial results indicate some  
34 promising performance attributes of Irish REITs across the absolute risk-adjusted return and  
35 multi-asset portfolio performance viewpoints. More significantly, all of these benefits are  
36 achieved despite the challenging geo-political environment adversely impacting the financial  
37 markets at a local and global level.  
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## CONCLUSIONS ON PROPERTY INVESTMENT IMPLICATIONS OF IRISH REITs

The inception of Irish REITs in 2013 presented an additional property investment opportunity for commercial property investment in Ireland. The most striking features of Irish REITs are the enhanced liquidity, transparency and governance, giving investors enhanced opportunities in Ireland's commercial property investment space. While REITs are not meant to replace the private investment routes (direct property and non-listed property funds) used by many institutional investors, their ability to blend liquidity and efficiency sees Irish REITs as highly desirable as an additional route to commercial property investment exposure in Ireland. Moreover, Irish REITs fulfilled the purpose for which they were originally designed; they are an important example of the successful use of the financialization regime to support the economic recovery of a country. Their main role as an "exit mechanism" for NAMA to liquidate some of its property holdings has brought the much-needed liquidity and stability to Ireland's commercial property market in the post-GFC period.

As their role is becoming increasingly significant, Irish REITs have become the focus of growing attention and investment. This paper in highlighting the rise of REITs in Ireland addresses two crucial research questions, providing an initial empirical performance validation of REITs as an effective route to commercial property exposure in Ireland. They outperformed both the stock market and government bonds on a total return basis, affirming the effectiveness of their fiscally efficient format and their characteristic as a total return-focussed, income-driven asset investment class. The ongoing geo-political uncertainties ( Brexit, US-China trade dispute) have proven to be strong headwinds for Irish REITs, which explain their lower total return performance over a short-run holding period compared to some of their regional peers such as Belgium, Germany and Italy (Table VII). A long run investment horizon in Irish REITs should see the convergence of returns to direct property performance, as evident in other international property markets (Hoesli and Oikarinen, 2012; 2016; Hoesli et al, 2015; Ling and Naranjo, 2015). Notwithstanding the investment volatility, a risk-adjusted performance comparison of Irish REITs versus the stock market shows significant performance advantages in favour of the former. A small trade-off in diversification benefits was also observed between Irish REITs and the stock market; an inevitable compromise in the quest of achieving liquidity and efficiency. Importantly, Irish REITs were able to provide a performance uplift when included in a portfolio of stocks and bonds; an important feature that increases Irish REITs' appeal further from an investment standpoint.

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3 While it is too early to conclude whether they are a definite success at this point in time, this  
4 paper gives a useful context on what the future might hold for REITs in Ireland, as well as the  
5 lessons from evidence from the broader REIT markets in other international property markets.  
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7 Going forward, further refinements in the legislation should make the implementation of Irish  
8 REITs more practical and improve functionality. Importantly, the Irish REIT market needs to  
9 scale higher in terms of both the number of active vehicles and size of each vehicle beyond  
10 their current levels. Irish REITs will eventually reach the physical limit with their current  
11 domestic-focussed investment portfolios, which is mostly concentrated in Dublin. Ireland's  
12 relatively small marketplace will become a major limitation for future acquisition  
13 opportunities, seeing Irish REITs potentially having to geographically diversify their portfolios  
14 more fully (UK, Europe). While some Irish REITs have been actively involved in development  
15 activities, economies of scale may constrain further growth in their portfolios, as only  
16 sufficiently capitalised Irish REITs can sustain these significant development costs. Therefore,  
17 it is crucial for Irish REITs to look for possible options to circumvent the physical limitations  
18 imposed by the domestic market in achieving organic growth; as mentioned above, one  
19 alternative is to expand regionally as many of their European REIT peers have successfully  
20 done in the past. Irish REITs also have the opportunity to learn from the other European REIT  
21 markets in developing an effective REIT growth strategy.  
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35 Irish REITs have clear opportunities for continued development, but also face threats / risks.  
36 As well as the issues of scale, diversification, the uncertainty of the economic climate and  
37 structural issues will also play a key role. In particular, Irish REITs trade at a significant  
38 discount to their net asset value (NAV) reflecting the growth in the Ireland property market.  
39 This disconnect between share price and NAV sees potential opportunities for the sale of  
40 individual assets or entire REIT portfolios; as evident with Green REIT, whereby its share price  
41 is trading at around 20% lower than its NAV per share, suggesting a significant undervaluation  
42 of the shares of the REIT. This will place increased pressure on Irish REITs to grow, diversify  
43 and achieve scale as a significant European REIT market.  
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52 While this paper has empirically validated the preliminary investment attributes of Irish REITs,  
53 the coverage of a full market or business cycle is lacking, which limits the ability of this paper  
54 to objectively assess the long term and future investment profile of Irish REITs. Further, the  
55 use of historical data over a short time period may not fully reflect the future growth potential  
56 of Irish REITs, especially when the REIT market in Ireland is still maturing. Therefore, the  
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3 availability of future time series data over a longer time frame for Irish REITs will enable a  
4 more robust empirical investigation, particularly regarding the effective performance delivery  
5 of direct property performance through Irish REITs. This is to ascertain whether Irish REITs  
6 can be utilised as a complementary or substitute vehicle to the existing private property  
7 allocation in an investment portfolio, given the stronger desire for higher portfolio liquidity via  
8 the blended property investment approach.  
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Table I. Significance of the European REIT markets: 2019

Country	No. of REITs	Market capitalisation (US\$B)	Percentage of European market (%)
United Kingdom	52	\$77.92 B	33.6%
France	29	\$60.83 B	26.2%
Netherlands	5	\$35.75 B	15.4%
Spain	59	\$25.60 B	11.0%
Belgium	17	\$13.06 B	5.6%
Turkey	25	\$4.66 B	2.0%
Germany	6	\$4.27 B	1.8%
Italy	5	\$3.38 B	1.5%
Ireland	4	\$3.20 B	1.4%
Greece	5	\$2.60 B	1.1%
Poland	3	\$0.69 B	0.3%
Russia	1	\$0.15 B	0.1%
Finland	1	\$0.06 B	0.0%
Total Europe	212	\$233.73 B	

Source: Authors' compilation from EPRA (2019a)

Table II. Social, economic and property profile of Ireland: 2018

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**Social:**

Population: 5.1 million

Major cities: Dublin, Cork

Urban population: 63%

Rate of urbanisation: 1.1% per annum

**Economic:**

GDP: \$373 billion

GDP growth: 8.2% p.a.

GDP sectors: Services (60%), industrial (39%), agriculture (1%)

Labour force: 2.2 million (services (84%), industrial (11%), agriculture (5%))

Unemployment: 5.3%

Global competitiveness: #23 (out of 140 countries)

Corruption perception: 18<sup>th</sup> least corrupt (out of 180 countries)

Ease of doing business: #23 (out of 190 countries)

Stock exchange: Dublin (€98 billion market cap)

**Property:**

Property transparency: high transparency (#9 globally)

Size of commercial property market: \$134 billion

Listed property sector = 2% stock market

No. of REITs = 4

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Sources: CIA (2018), IMF (2018), EPRA (2019a), JLL (2018), TI (2018), World Bank (2018), WEF (2018), WFE (2019)



Table III. Regulatory structure and characteristics of Irish REITs

Management	Both external and internal manager allowed.
Property investments	Principal activity is income-producing property either directly or subsidiaries. Portfolio must contain $\geq 3$ properties; a single property must account for $\leq 40\%$ of total portfolio value within 3 years of establishment.
Overseas investment	Yes.
Property development	Development for investment is permitted.
Gearing	$\leq 50\%$ of total portfolio value. Maintain a profit-to-finance ratio of 1.25.
Distribution	Annually; at least 85% of net profit excluding capital gains be distributed to shareholders.
Capital gains tax	Capital gains tax is levied on gains arising from conversion.
Tax transparency	Yes; no income tax at company level if Irish REIT distribution criteria are met.
Transition regulations	No entry charge for conversion to Irish REIT status. Property acquisition and transfer of shares are liable for stamp duty.
Share capital	No REIT-specific requirement. Additional stock market listing requirements apply.
Share ownership / free float structure	After 3 years of establishment, a REIT cannot be controlled by $\leq 5$ investors (i.e.: closed), a corporate investor (except for qualifying investors) cannot own more than 10% of shares and 35% voting rights must be held by the public (including qualifying investors).
Listing	Irish Stock Exchange, parallel listing on London Stock Exchange, compliant EU member state stock exchanges.
Headquarters	Ireland.

Source: Authors' compilation from EPRA (2018) and PwC (2017)

Table IV. Property profile of Irish REITs: 2019

<b>Name</b>	<b>IPO</b>	<b>AUM</b>	<b>Sector</b>	<b># of properties</b>	<b>Property location</b>
Green	18/07/13	€1.5 B	Office, retail, logistics	20	Ireland
Hibernia	11/12/13	€1.3 B	Office, industrial, residential	29	Ireland
Irish Residential	16/04/14	€921 M	Residential	2,679 units	Ireland
Yew Grove	08/06/18	€89 M	Office, industrial	16	Ireland

Source: Authors' compilation from various Irish REIT websites and annual reports

Table V. Irish REIT performance analysis: March 2015 – February 2019

	Average annual return	Annual risk	Sharpe ratio	Rank
REITs	1.88%	13.85%	0.15	2
Stocks	-0.54%	15.37%	-0.02	3
Bonds	0.74%	0.82%	1.21	1

Source: Authors' compilation / analysis

Table VI. Irish REIT correlation analysis: March 2015 – February 2019

	REITs	Stocks	Bonds
REITs	1.00		
Stocks	0.46*	1.00	
Bonds	-0.17	-0.01	1.00

\*: significant correlation ( $P < 0.05$ )

Source: Authors' compilation / analysis

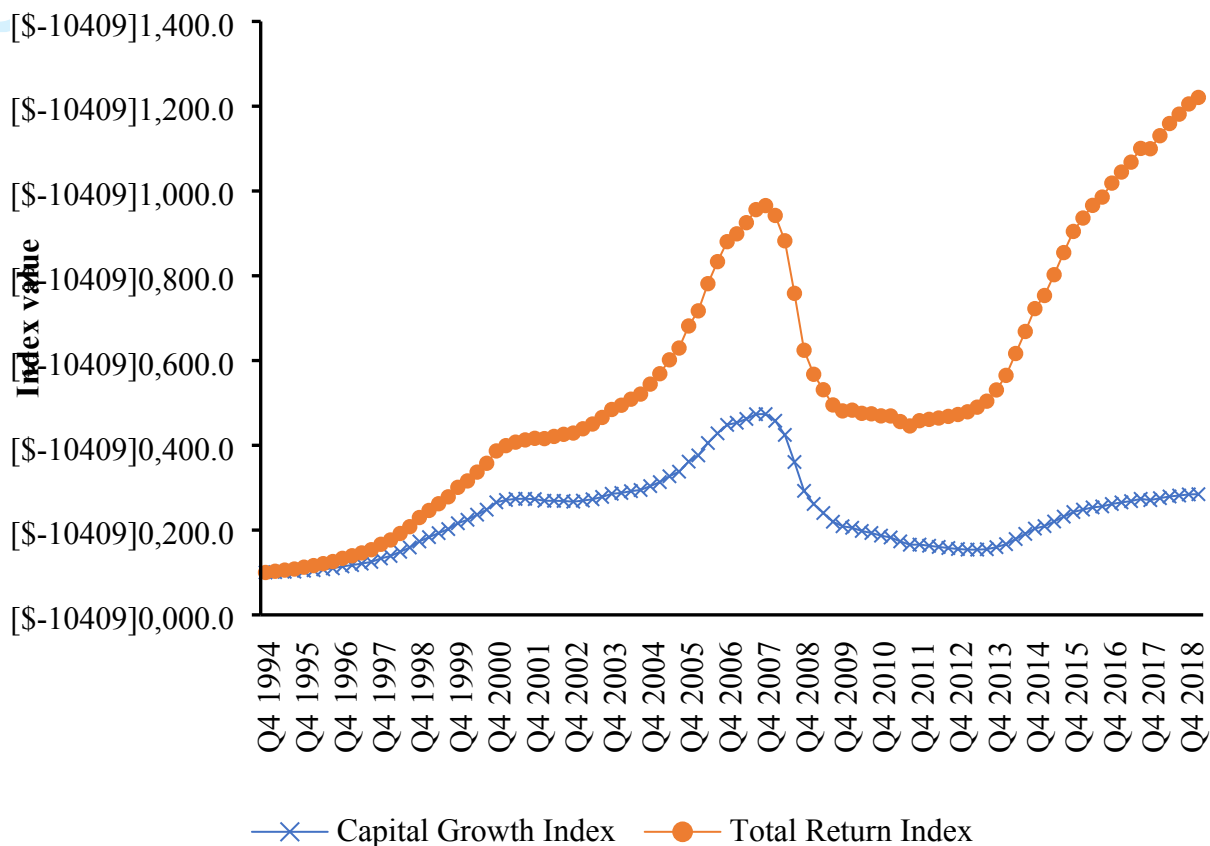
Table VII. Total return performance of European REITs<sup>a</sup>: February 2019

Country	Average annual return (%)		
	1Y	3Y	5Y
Ireland	-0.42%	7.60%	n/a
Belgium	18.00%	12.38%	13.36%
France	-3.61%	4.12%	12.94%
Germany	10.61%	7.53%	10.07%
Italy	16.08%	11.92%	6.96%
Netherlands	-19.62%	-9.67%	-1.09%
Spain	1.64%	11.23%	n/a
UK	5.48%	4.54%	4.68%

a: Local currency

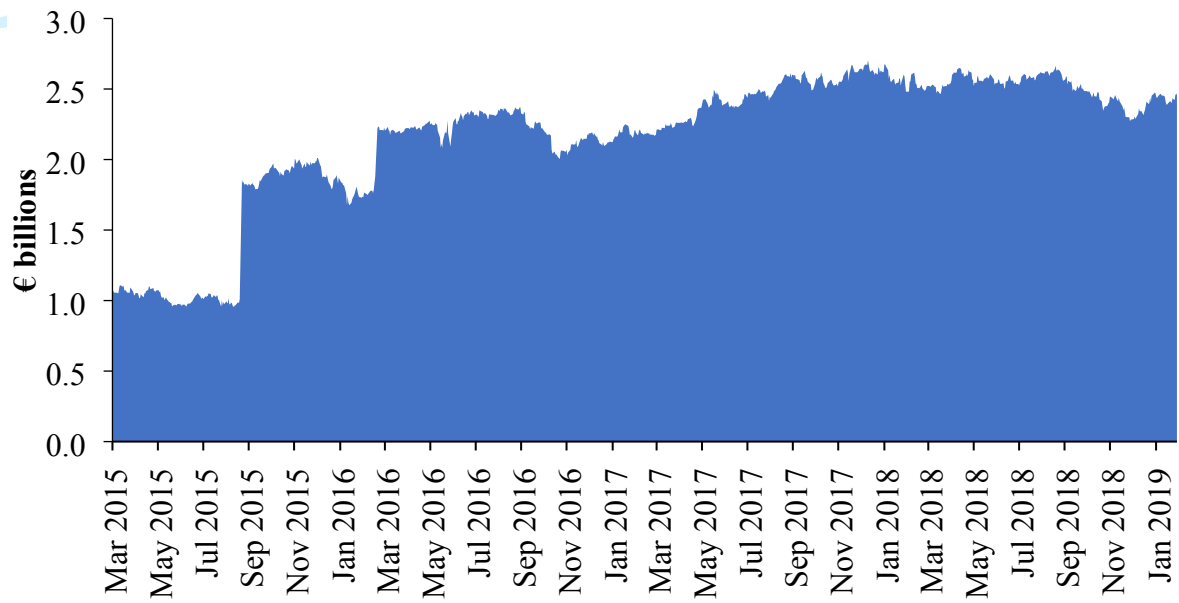
Source: Authors' compilation from EPRA (2019b)

Figure 1. Ireland direct property index performance: December 1994-March 2019



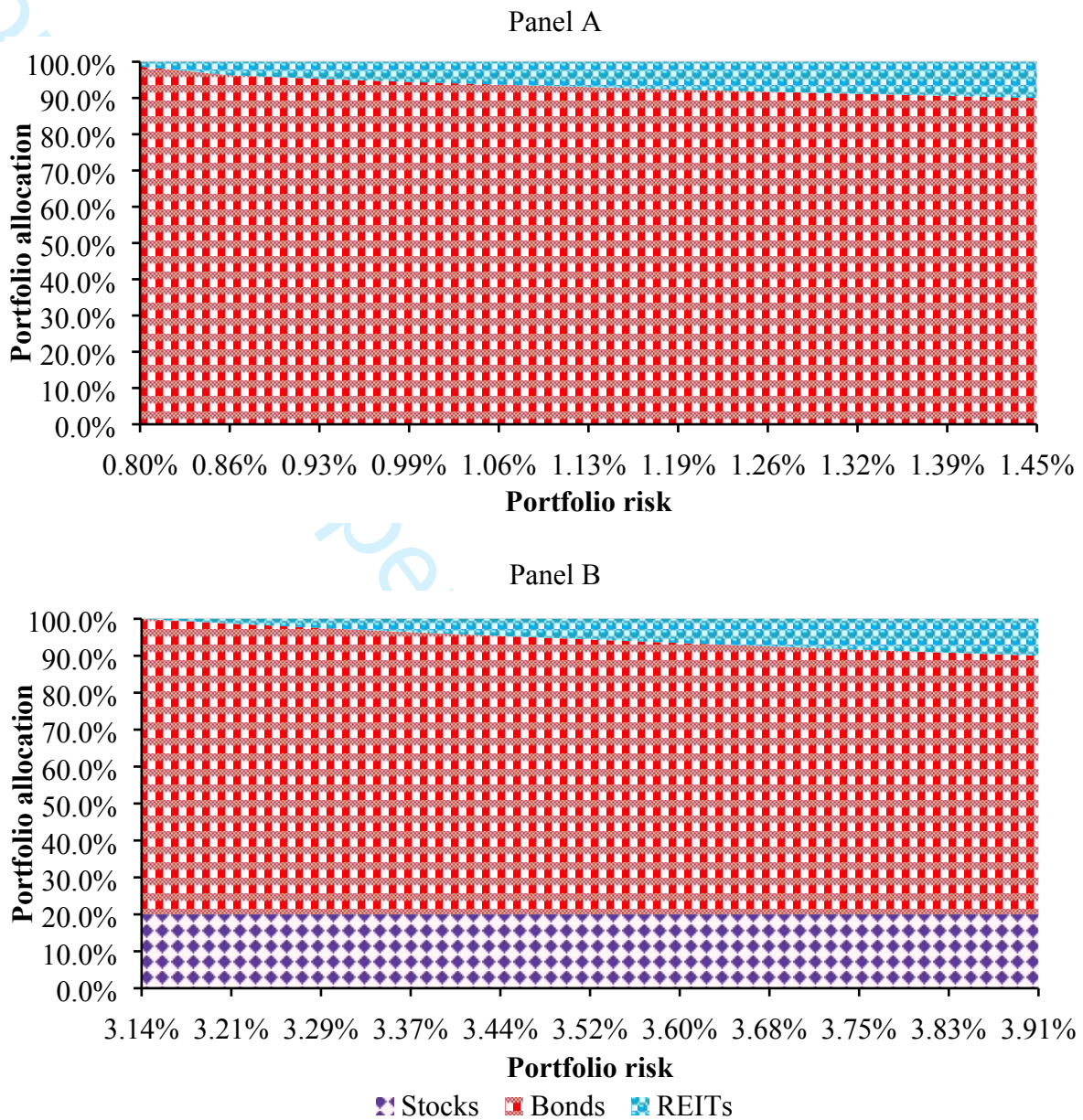
Source: Authors' construct from MSCI (2019)

Figure 2. Growth in market capitalisation for the Irish REIT index: March 2015 – February 2019



Source: Authors' compilation from Datastream

Figure 3. Irish REIT constrained asset allocation diagram



Source: Authors' compilation / analysis