



## The significance and performance of French REITs (SIICs) in a mixed-asset portfolio

Newell, G., Adair, AS., & Nguyen, T. K. (2013). The significance and performance of French REITs (SIICs) in a mixed-asset portfolio. *Journal of Property Investment and Finance*, 31(6), 575-588. <https://doi.org/10.1108/JPIF-01-2011-0004>

[Link to publication record in Ulster University Research Portal](#)

**Published in:**

Journal of Property Investment and Finance

**Publication Status:**

Published (in print/issue): 01/01/2013

**DOI:**

[10.1108/JPIF-01-2011-0004](https://doi.org/10.1108/JPIF-01-2011-0004)

**Document Version**

Publisher's PDF, also known as Version of record

**General rights**

The copyright and moral rights to the output are retained by the output author(s), unless otherwise stated by the document licence.

Unless otherwise stated, users are permitted to download a copy of the output for personal study or non-commercial research and are permitted to freely distribute the URL of the output. They are not permitted to alter, reproduce, distribute or make any commercial use of the output without obtaining the permission of the author(s).

If the document is licenced under Creative Commons, the rights of users of the documents can be found at <https://creativecommons.org/share-your-work/licenses/>.

**Take down policy**

The Research Portal is Ulster University's institutional repository that provides access to Ulster's research outputs. Every effort has been made to ensure that content in the Research Portal does not infringe any person's rights, or applicable UK laws. If you discover content in the Research Portal that you believe breaches copyright or violates any law, please contact [pure-support@ulster.ac.uk](mailto:pure-support@ulster.ac.uk)



## ACADEMIC PAPER

# The significance and performance of French REITs (SIICs) in a mixed-asset portfolio

Significance and performance of French REITs

575

Received January 2011  
Accepted June 2013

Graeme Newell

*School of Business, University of Western Sydney, Penrith, Australia*

Alastair Adair

*University of Ulster, Newtownabbey, Northern Ireland, and*

Thi Kim Nguyen

*School of Business, University of Western Sydney, Penrith, Australia*

### Abstract

**Purpose** – REITs have taken on increased significance in Europe in recent years, with French REITs (Societe d'Investissement Immobilier Cotee (SIICs)) becoming an important property investment vehicle since 2003. The purpose of this paper is to assess the significance, risk-adjusted performance and portfolio diversification benefits of SIICs in a mixed-asset portfolio context in France over 2003-2012. The impact of the global financial crisis (GFC) on SIICs and their post-GFC recovery are also assessed.

**Design/methodology/approach** – Using monthly total returns, the risk-adjusted performance and portfolio diversification benefits of SIICs over 2003-2012 are assessed, with efficient frontiers and asset allocation diagrams used to assess the role of SIICs in a mixed-asset portfolio. Sub-period analyses are conducted to assess the impact of the GFC on SIIC performance, as well as their post-GFC recovery.

**Findings** – SIICs delivered superior risk-adjusted returns compared to stocks over 2003-2012, but with limited portfolio diversification benefits with stocks and more portfolio diversification benefits with bonds. In the post-GFC period, SIICs have delivered enhanced risk-adjusted returns, but with no recovery in their portfolio diversification benefits with stocks. SIICs are seen to contribute significantly to the mixed-asset portfolio across the risk spectrum in the post-GFC period.

**Practical implications** – SIICs are a significant REIT market at the French, European and global REIT levels. The results highlight the role of SIICs in a French mixed-asset portfolio. The strong risk-adjusted performance has highlighted the robustness of SIICs; particularly compared to French stocks, and the contribution of SIICs in a French mixed-asset portfolio across the portfolio risk spectrum. This contribution by SIICs has been further reinforced in the post-GFC period.

**Originality/value** – This paper is the first published empirical research analysis of the risk-adjusted performance of SIICs and the role of SIICs in a mixed-asset portfolio. Given the increased significance of REITs in Europe, this research enables empirically validated, more informed and practical property investment decision-making regarding the role of SIICs in a mixed-asset portfolio; particularly in the post-GFC period.

**Keywords** France, SIICs, Risk-adjusted returns, Portfolio diversification, Asset allocation, Global financial crisis, Post-GFC recovery, Portfolio investment

**Paper type** Research paper



## Introduction

REITs in Europe have taken on increased significance in recent years. With REITs in Belgium and The Netherlands having been well-established, this has seen REIT markets more recently established in France, the UK and Germany, as well as Turkey, Greece, Italy and Bulgaria. This saw over 120 REITs in these nine European countries at March 2013, with a total market capitalisation (free float) of US\$90 billion, accounting for 11.2 per cent of the global REIT market capitalisation (EPRA, 2013).

Within this European REIT context, France established a REIT market in 2003. This saw the establishment of French REITs as Societe d'Investissement Immobilier Cotee (SIICs), with 40 SIICs established by 2012. The SIIC market accounted for 4.4 per cent of the global REIT market and 38.8 per cent of the European REIT market in March 2013 (EPRA, 2013). This sees the SIIC market as the sixth largest REIT market globally and the second largest REIT market in Europe. Many of the major French listed property companies converted to SIICs; this includes Unibail-Rodamco, Klepierre and Gecina. Given the significance of France as a major international financial centre, and the international stature of SIICs and the French commercial property market, it is important to assess the significance and performance of SIICs in a French mixed-asset portfolio.

Extensive research has been done concerning REITs in the mature and well-established REIT markets, across a wide range of performance, financial, structural and operational issues. This includes US REITs (Corgel *et al.*, 1995; Feng *et al.*, 2011; Lee, 2010; Zietz *et al.*, 2003) and REITs in Australia (Newell and Peng, 2009). Given the more recent development of REITs in Europe, much of the previous property research regarding European property has focused on various aspects of European listed property companies rather than European REITs (Freybote *et al.*, 2008; Hui and Chan, 2013; Kovac and Lee, 2008; Lee, 2009; Lizieri *et al.*, 2003; McAllister and Lizieri, 2006; Morri and Cristanziani, 2009; Niskanen *et al.*, 2011; Schindler, 2009; Schulte *et al.*, 2011; Westgaard *et al.*, 2008; Yang *et al.*, 2005). The only research as yet concerning European REITs assessed issues relating to REITs in the UK (Baum and Devaney, 2008), REITs in Germany (Schacht and Wimschulte, 2008) and REITs in Turkey (Aktan and Ozturk, 2009). While descriptive studies have examined the development of SIICs in France (Antonini, 2011; Hughes and Arissen, 2005; Nappi-Choulet, 2008; PWC, 2012a, b), no rigorous empirical analysis regarding the risk-adjusted performance and role of SIICs in a mixed-asset portfolio has yet been published; this empirical analysis of SIICs being the focus of this paper.

As such, the purpose of this paper is to assess the significance, risk-adjusted performance and portfolio diversification benefits of SIICs in a mixed-asset portfolio in France over October 2003-April 2012. Sub-period analyses are also conducted to assess the impact of the global financial crisis (GFC) on the investment dynamics of SIICs, as well as their post-GFC recovery. This sees two specific research questions concerning SIICs as the empirical focus of this research:

*RQ1.* How have SIICs performed on a risk-adjusted basis in a French mixed-asset portfolio since being established?

*RQ2.* Have SIICs enhanced their performance in the post-GFC period?

These *RQ1* and *RQ2* enable considerable insights into the role of SIICs in a mixed-asset portfolio, and the ongoing strategic implications for both local and international investors concerning SIICs as an effective property investment vehicle in France.

---

### Significance of commercial property in France

France has been a key player in the growth of the European economies over many years. France is one of the most globally competitive business environments, being ranked no. 18 globally (WEF, 2012), as well as being one of the least corrupt countries globally (no. 25) (TI, 2011). While GDP growth was evident in 2010-2011 (1.7 per cent p.a.), this GDP growth slowed in 2012 (0.0 per cent), with the 2013 GDP growth forecast being – 0.3 per cent (OECD, 2013). This reflects the current difficult and uncertain economic environment in France and Europe (JLL, 2013).

France is estimated to have the sixth largest investable property market globally and the third largest in Europe; only exceeded by Germany (fourth largest globally) and the UK (fifth largest globally) (Pramerica REI, 2012). France is also seen as one of the most transparent property markets (classified as high transparency), being ranked seventh globally and third in Europe; only exceeded by the UK (second) and The Netherlands (fourth) (JLL, 2012). Globally, France has been a focus for commercial property transactions in recent years for both local and international property investors. With over \$139 billion in commercial property transactions over 2007-2012, France has accounted for approximately 5 per cent of global property transactions annually and approximately 13 per cent of property transactions in Europe. This sees France as the fifth most active property market globally and the third most active property market in Europe (RCA, 2013). Paris was the fourth most active city globally and the second most active property market in Europe over 2007-2012; only exceeded by London (RCA, 2013).

### Development of SIICs in France

SIICs were established as the REIT market in France in 2003; being the third European REIT market in Europe, after REITs in The Netherlands and Belgium. This reflects the growth in innovative property vehicles in Europe in recent years (Hoesli and Lekander, 2008). This has seen the SIIC market grow from 11 REITs in 2003 to 40 REITs in 2012, with the initial catalyst being the conversion of the large listed property companies to SIICs; this includes Unibail-Rodamco, Klepierre and Gecina. SIIC structures have also been established for the French portion of cross-border portfolios for major players in The Netherlands (e.g. Corio, Rodamco Europe, Wereldhave), the UK (e.g. Hammerson) and Belgium (e.g. Cofinimmo, Warehouse de Paw) (EPRA, 2012).

Table I lists full details regarding the current regulatory structure and characteristics of SIICs. The SIIC regime has been regularly amended by the Autorite Des Marches Financiers (AMF) over 2004-2012 via revisions to the Finance Act and revised administrative tax guidelines by the French taxation authorities. This has encouraged the growth and investor attractiveness of the SIIC market; particularly for corporates seeking to outsource, owners seeking to diversify, and providing an exit strategy for unlisted property funds. These regulatory changes concerned expanding the property types able to be included in SIIC portfolios, favourable capital gains tax provisions for properties transferred to the SIIC, allowing SIICs to be listed on EU registered markets (not requiring a secondary listing on the French stock exchange) and formation of joint ventures between SIICs and unlisted Societe de Placement a Preponderance Immobiliere a Capital Variable (SPPICAVs). 2012 saw further legislative changes relating to the income tax treatment of SIIC dividend income when earned by individuals (EPRA, 2012); potentially reducing the attractiveness of SIICs to retail investors (Antonini, 2011).

Management	Both external manager and internal manager allowed; typically internal model used
Property investments	Principal activity is income-producing properties, with other activities taxable, e.g. property development, brokerage
Overseas investment	Yes
Property development	Yes; limited to 20 per cent of gross book value
Gearing	No limit
Distribution	At least 85 per cent of net taxable income is to be distributed, and 50 per cent of realised capital gains (within two years)
Capital gains tax	19 per cent capital gains tax for sale of property from corporate to SIIC; provided property is held by SIIC for at least five years
Conversion to SIIC	19 per cent unrealised capital gains exit tax, payable in four annual instalments; previously 16.5 per cent
Tax transparency	Yes
Shareholder requirement	Maximum of 60 per cent by any one shareholder
Free float of IPO	Minimum of 15 per cent
Regulatory body	Autorite Des Marches Financiers (AMF)

**Table I.**  
Regulatory structure  
and characteristics  
of SIICs: 2012

**Source:** Authors' compilation from EPRA (2012)

With a total market capitalisation (free float) of US\$35 billion at March 2013, this saw SIICs accounting for 4.4 per cent of the global REIT market and 38.8 per cent of the European REIT market. This sees SIICs as the sixth largest REIT market globally and the second largest REIT market in Europe; only exceeded by UK REITs (fifth largest global REIT market; 4.9 per cent of global REIT market; 44.0 per cent of European REIT market) (EPRA, 2013). The largest SIICs (by assets under management (AUM)) are Unibail-Rodamco (no. 1 in Europe), Klepierre (no. 5), Fonciere Des Regions (no. 11), Gecina (no. 13) and Icade (no. 14). This sees five SIICs in the top 15 REITs in Europe (EPRA, 2013).

While SIICs were adversely impacted by the GFC, importantly SIICs have shown strong recovery and performance in 2010-2012, both in a France asset class context (Table II) and in a global REIT context (Table III). This saw SIICs out-performing the other major asset classes in France in recent years, as well as out-performing the other major European REIT markets. The dynamics of this performance of SIICs in the GFC and post-GFC periods will be examined more fully in the empirical results and discussion section of this paper.

Table IV provides the general profile of the leading SIICs in 2012; particularly providing details of their AUM (€), the timeline of their establishment and the property portfolio profile for each of these leading SIICs. These SIIC property portfolios cover office, retail, industrial/logistics and residential property, as well as the hotel, leisure,

Asset class	Average annual returns			
	One year (%)	Three years (%)	Five years (%)	Ten years (%)
Commercial property	6.3	8.2	4.3	9.3
Stocks	20.9	2.8	-3.3	5.7
SIICs	36.0	12.5	7.7	NA
Ten-year bonds	13.4	8.4	8.4	6.2

**Table II.**  
Asset class performance  
in France: December 2012

**Source:** Authors' compilation from IPD (2013) and EPRA (2013)

Country	One year (%)	Average annual return	
		Three year (%)	Five year (%)
France	18.4	9.4	1.8
UK	13.4	9.4	-9.3
The Netherlands	-6.2	-5.5	-7.3
European REITs	12.3	6.6	-4.3
USA	14.9	17.2	6.5
Australia	30.8	16.6	-1.6
Japan	47.4	22.7	7.7
Singapore	37.7	21.1	8.7
Global REITs	18.9	16.3	4.3

Significance and performance of French REITs

579

**Table III.**  
REIT performance:  
March 2013: US\$

Source: EPRA (2013)

SIIC	AUM	Year established	Property portfolio
Unibail-Rodamco	€29.3B	2003	Diversified
Klepierre	€16.4B	2003	Retail
Gecina	€11.0B	2003	Diversified
Fonciere Des Regions	€10.0B	2003	Diversified
Icade	€6.8B	2003	Diversified
Societe Fonciere Lyonnaise	€3.8B	2003	Diversified
Societe Immobiliere de Location pour l'Industrie Et le Commerce	€3.6B	2005	Office
Fonciere Developpement Logements	€3.2B	2005	Residential
Fonciere des Murs	€2.9B	2005	Diversified
Mercialys	€2.6B	2005	Retail
Altarea	€2.6B	2006	Diversified
ANF	€1.7B	2004	Diversified
Societe de la Tour Eiffel	€0.9B	2004	Diversified
CeGeReal	€0.9B	2006	Office
Fonciere Paris France	€0.7B	2006	Diversified

**Table IV.**  
Property profile of leading SIICs: 2012

Source: Authors' compilation from SIIC annual reports and web sites

car parking, healthcare and nursing home sectors in both sector-specific and diversified property portfolios. With over €100 billion in property AUM, SIICs have established significant property portfolios in both Paris (60 per cent) and regional cities (40 per cent) including Lyon, Marseille, Rouen, Toulouse, Bordeaux and Lille. The office and retail sectors account for 77 per cent of SIIC AUM (PWC, 2012b). This SIIC context further confirms the significant property investment role and stature of SIICs in the French property markets.

## Methodology

### Data

Monthly total returns (€) were assessed over the period of October 2003-April 2012 for French SIICs, stocks and bonds. The SIIC index used was the S&P France REIT total return index. Equivalent asset class series used were the S&P France BMI stock series, France ten-year bonds and France Three-month Treasury Bills. With SIICs now

accounting for the major form of French listed property exposure on the stock market, listed property companies as a separate asset class were not included in this analysis. This reflects the conversion to SIICs by the major listed property companies in France since 2003. Direct property was also not included, as the IPD France property index is only available annually.

*Statistical analysis*

For the various French SIIC, stock and bond series, risk-adjusted total returns were assessed over October 2003-April 2012. Average annual returns were calculated as the annualised average monthly return. Risk-adjusted returns were assessed using the reward-to-risk ratio and Sharpe ratio. Mixed-asset portfolio diversification benefits were assessed using correlation analysis, as well as efficient frontiers and asset allocation diagrams used to assess the role of SIICs in a mixed-asset portfolio.

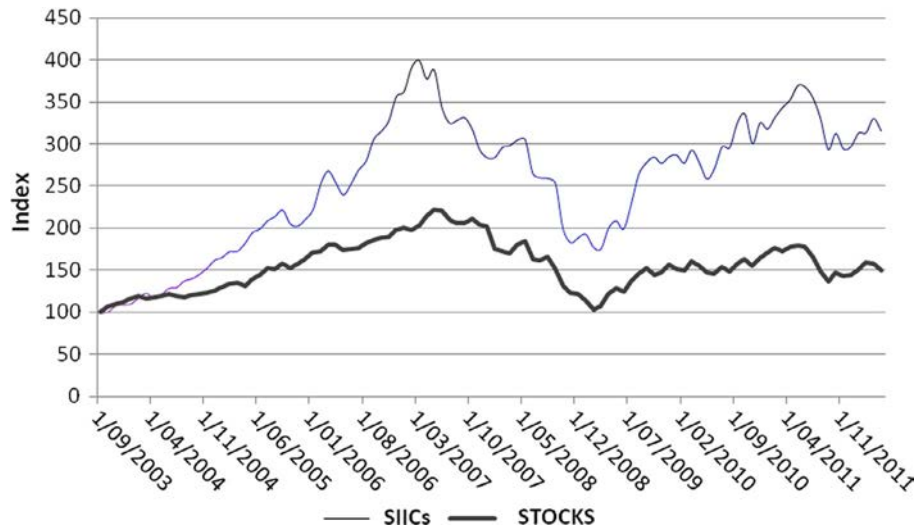
The full period of October 2003-April 2012 was also broken down into the three sub-periods of October 2003-August 2007 (pre-GFC), September 2007-June 2009 (GFC) and July 2009-April 2012 (post-GFC) to assess the impact of the GFC on SIIC investment dynamics and their post-GFC recovery. September 2007 was treated as the starting period of the GFC.

**SIIC performance analysis**

*Risk-adjusted returns*

Figure 1 shows the graph of total return performance for SIICs and stocks over October 2003-April 2012. The significant growth of SIICs prior to the GFC, impact of the GFC on SIICs and post-GFC recovery by SIICs is clearly evident; particularly in comparison to stocks.

Table V presents the risk-adjusted performance analysis for SIICs over October 2003-April 2012. SIICs (14.34 per cent p.a.) significantly out-performed the overall stock market (4.85 per cent p.a.), with the risk level for SIICs (21.07 per cent) marginally



**Figure 1.**  
SIIC versus stock total  
return performance:  
October 2003-April 2012

exceeding the stock market risk (16.83 per cent). On a risk-adjusted basis (reward-to-risk ratio and Sharpe ratio), SIICs clearly out-performed the French stock market, with a Sharpe ratio of 0.59 for SIICs versus 0.17 for stocks. This saw SIICs being the best-performed asset class over this period.

*Diversification benefits*

Table VI presents the SIIC correlation analysis over October 2003-April 2012. Over this period, SIICs were highly correlated with the stock market ( $r = 0.68$ ), reflecting marginal portfolio diversification benefits. SIICs also provided important portfolio diversification benefits with bonds ( $r = -0.09$ ).

*SIICs in the mixed-asset portfolio*

To assess the role of SIICs in the mixed-asset portfolio, the efficient frontier and asset allocation diagram for the mixed-asset portfolio of SIICs, stocks and bonds over October 2003-April 2012 are shown in Figure 2. The significant contribution by SIICs across the risk spectrum is clearly evident, with SIICs taking on an increased contribution with increasing risk levels. This is in contrast to stocks, which did not figure prominently at any stage in the mixed-asset portfolio.

*Investment dynamics*

To more fully assess SIIC investment dynamics over October 2003-April 2012, rolling three-year periods were assessed regarding the volatility for each of these French asset classes, including SIICs (Figure 3). Increased volatility was clearly evident for both SIICs and stocks; particularly since June 2007, with stabilising of the risk profiles since mid-2009. Reduction in risk levels for both SIICs and stocks were evident since early/mid-2011 in the post-GFC period. Importantly, the increase in risk during the GFC for SIICs (80 per cent; increasing from 14.88 to 26.73 per cent) was less than that seen in the increased risk for stocks (146 per cent; increasing from 9.29 to 22.87 per cent). By April 2012, the reduction in risk levels from the GFC peak for SIICs (18 per cent decrease in risk) was comparable to that seen for stocks (22 per cent decrease in risk). This risk dynamic reflects the relative robustness of SIICs in this volatile investment environment and in the post-GFC period.

Sector	Average annual return (%)	Annual risk (%)	Reward-to-risk ratio	Sharpe ratio
SIICs	14.34	21.07	0.68	0.59 (1)
Stocks	4.85	16.83	0.29	0.17 (3)
Bonds	6.00	8.18	0.73	0.50 (2)

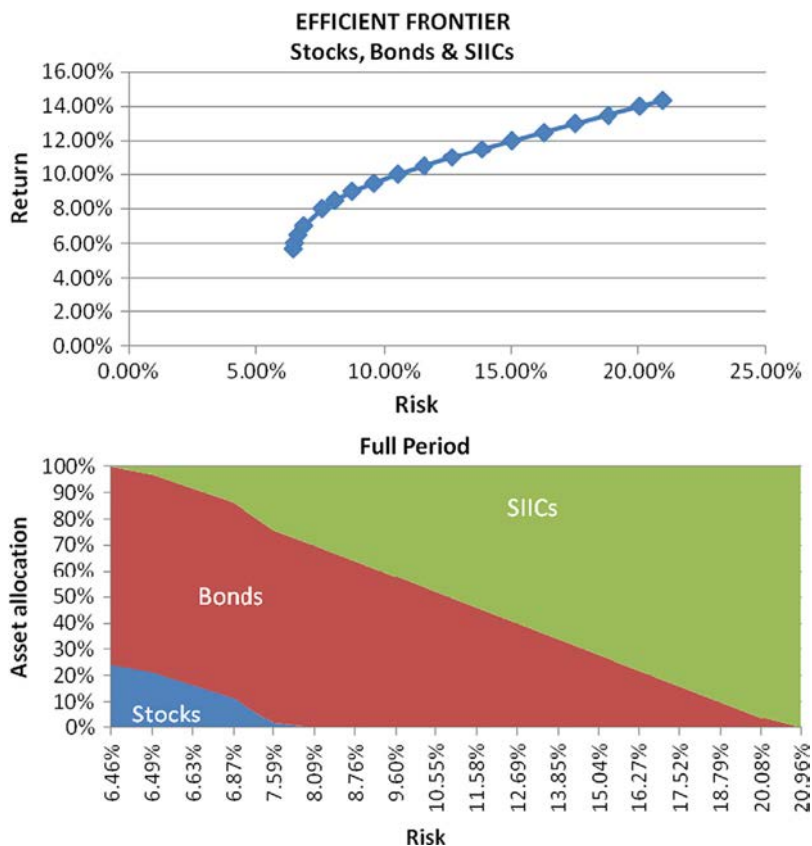
**Table V.**  
SIIC performance analysis: October 2003-April 2012

	SIICs	Stocks	Bonds
SIICs	1.00		
Stocks	0.68*	1.00	
Bonds	-0.09	-0.25*	1.00

**Table VI.**  
SIIC correlation analysis: October 2003-April 2012

**Note:** Significant correlation at: \* $p < 5$  per cent





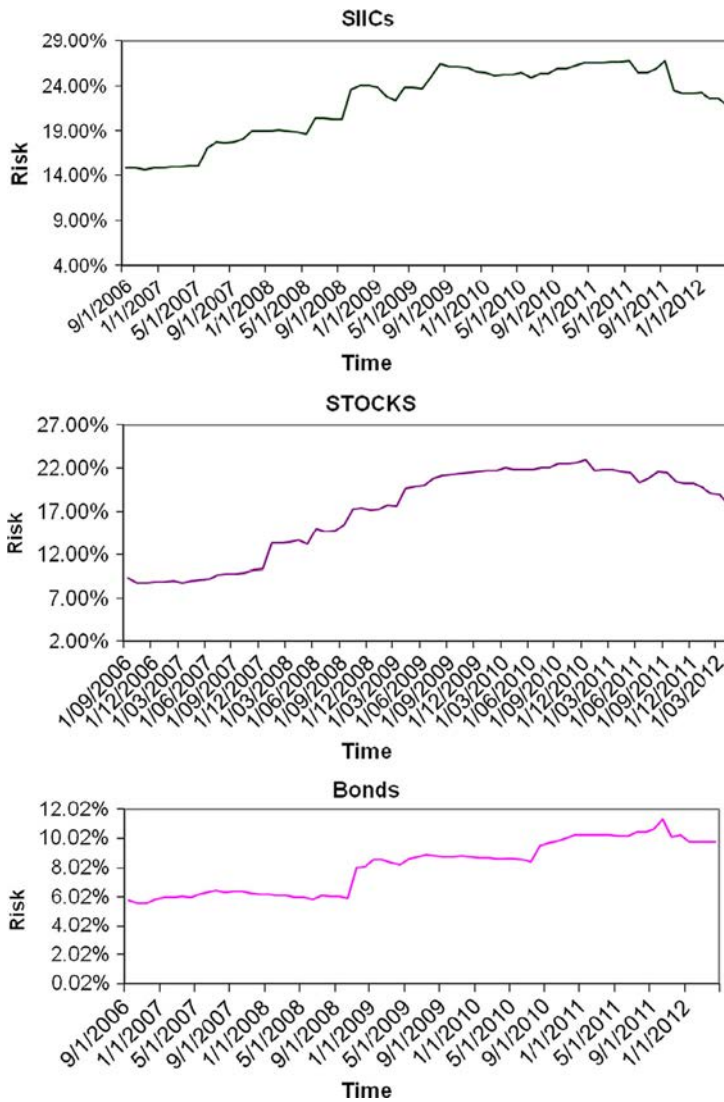
**Figure 2.**  
Efficient frontier and  
asset allocation diagram:  
October 2003-April 2012

Similarly, to assess the changing portfolio diversification benefits, Figure 4 shows the rolling three-year correlations for the various asset classes with SIICs over October 2003-April 2012. The loss of portfolio diversification benefit by SIICs with stocks was clearly evident, with the correlation increasing  $r = 0.33$  to  $r = 0.79$  over this period. Whilst having stabilised since 2011, this saw SIICs not recovering the portfolio diversification benefits with stocks to the levels seen pre-GFC. This loss of portfolio diversification benefits by SIICs was offset to some degree by enhanced portfolio diversification benefits with bonds ( $r = -0.25$  at April 2012); comparable to that for stocks with bonds in recent years.

### Sub-period performance analysis of SIICs

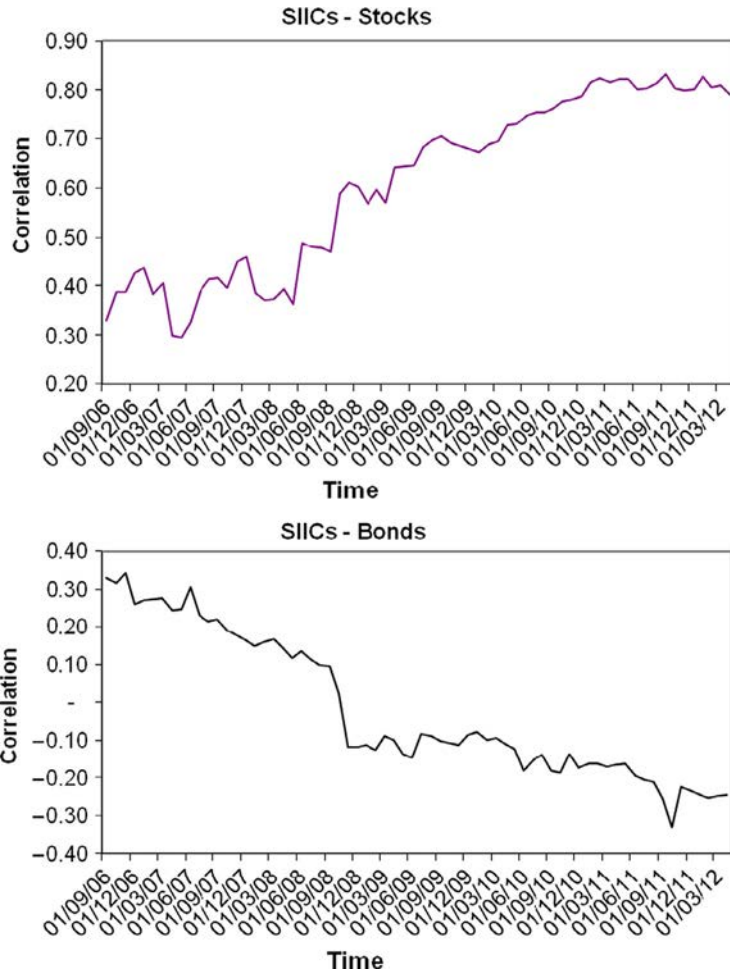
The above analysis over 2003-2012 has highlighted the important strategic role of SIICs in a mixed-asset portfolio. As this period involved the GFC, it is important to do this analysis over different time periods to more fully understand the investment dynamics of SIICs under different market conditions.

The impact of the GFC on SIIC risk-adjusted performance over the three sub-periods of October 2003-August 2007, September 2007-June 2009 and July 2009-April 2012



**Figure 3.**  
Rolling risk analysis:  
October 2003-April 2012

is shown in Table VII. As shown in Panel A, in the pre-GFC period, SIICs delivered the best risk-adjusted performance (Sharpe ratio = 1.98). However, the impact of the GFC is clearly evident across SIICs and stocks, with significantly reduced risk-adjusted returns (Panel B). Importantly, the post-GFC period has seen significantly improved risk-adjusted returns for SIICs; particularly compared to stocks. This is evident in significantly higher average annual returns for SIICs compared to stocks (17.61 per cent



**Figure 4.**  
Rolling correlation  
analysis: October  
2003-April 2012

versus 6.93 per cent), with comparable risk levels (22.1 per cent versus 18.0 per cent). The resulting Sharpe ratios (Panel C) see SIICs as the best-performed asset class in the post-GFC period.

Table VIII shows the impact of the GFC and post-GFC on the portfolio diversification benefits of SIICs. SIICs lost a significant degree of their portfolio diversification benefits with stocks during the GFC, with the correlation increasing from  $r = 0.32$  to  $r = 0.72$ . However, the post-GFC period has seen this correlation between SIICs and stocks remain at these GFC levels ( $r = 0.75$ ). This reflects SIICs not recovering their portfolio diversification benefits with stocks in the post-GFC period. This is offset to some degree by improved portfolio diversification benefits being evident for SIICs and bonds ( $r = 0.25$  to  $r = -0.22$  to  $r = -0.34$ ) across the three time periods.

Figure 5 shows the efficient frontiers for the mixed-asset portfolios in the three sub-periods. Clear differences are evident with the risk-return profile for these

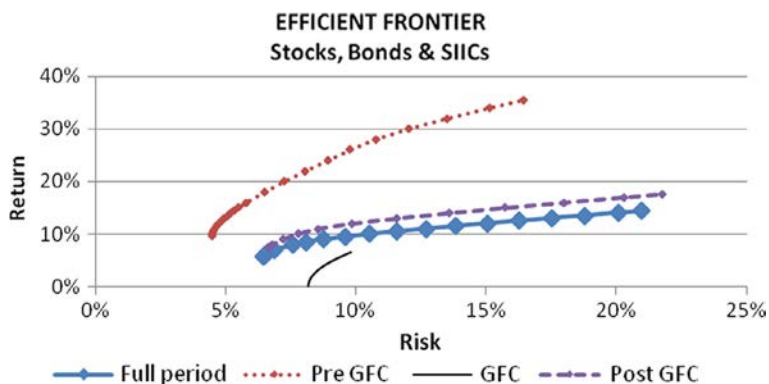
Sector	Average annual return (%)	Annual risk (%)	Reward-to-risk ratio	Sharpe ratio
<i>Panel A: October 2003-August 2007: pre-GFC</i>				
SIICs	35.48	16.61	2.14	1.98 (1)
Stocks	20.25	9.53	2.12	1.85 (2)
Bonds	4.63	6.02	0.77	0.34 (3)
<i>Panel B: September 2007-June 2009: GFC</i>				
SIICs	-23.82	24.44	-0.97	-1.09 (2)
Stocks	-24.11	23.54	-1.02	-1.15 (3)
Bonds	6.46	10.05	0.64	0.36 (1)
<i>Panel C: July 2009-April 2012: post-GFC</i>				
SIICs	17.61	22.08	0.80	0.78 (1)
Stocks	6.93	17.99	0.39	0.36 (3)
Bonds	7.60	9.55	0.80	0.75 (2)

**Table VII.**  
Sub-period SIIC performance analysis

	SIICs	Stocks	Bonds
<i>Panel A: October 2003-August 2007: pre-GFC</i>			
SIICs	1.00		
Stocks	0.32*	1.00	
Bonds	0.25	-0.23	1.00
<i>Panel B: September 2007-June 2009: GFC</i>			
SIICs	1.00		
Stocks	0.72*	1.00	
Bonds	-0.22	-0.14	1.00
<i>Panel C: July 2009-April 2012: post-GFC</i>			
SIICs	1.00		
Stocks	0.75	1.00	
Bonds	-0.34	-0.48	1.00

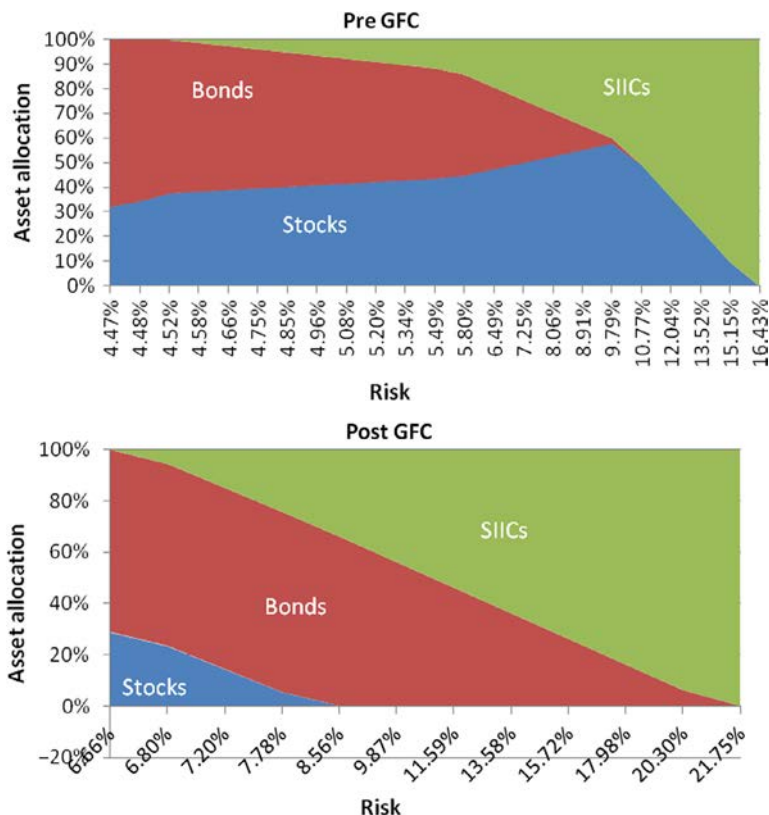
**Table VIII.**  
SIIC sub-period correlation analysis

Note: Significant correlation at: \* $p < 5$  per cent



**Figure 5.**  
SIIC efficient frontiers: impact of the GFC

mixed-asset portfolios. To more fully assess the role of SIICs in these mixed-asset portfolios in different market conditions, Figure 6 shows the asset allocation diagrams for the pre-GFC and post-GFC periods. In the pre-GFC period, SIICs made a significant contribution to the mixed-asset portfolio across the portfolio risk spectrum; replacing



**Figure 6.**  
SIIC asset allocation  
diagram: pre-GFC  
versus post-GFC

stocks at the higher portfolio risk levels. In the post-GFC period, SIICs make a more significant contribution across the portfolio risk spectrum, with stocks playing a less significant role in the portfolio. The asset allocation context in the post-GFC period further reinforces the value-adding role of SIICs in a mixed-asset portfolio moving forward.

Overall, SIICs have shown superior risk-adjusted performance to stocks over 2003-2012. Whilst providing marginal portfolio diversification with stocks, there were significant diversification benefits with bonds. SIICs also contributed to the efficient frontier asset allocation across the full risk spectrum for the mixed-asset portfolio. Importantly, in the post-GFC period, SIICs continued to provide superior risk-adjusted returns to stocks, although there has been no recovery of the portfolio diversification benefits of SIICs with stocks to the pre-GFC levels. This strong post-GFC performance by SIICs has seen SIICs making a significant contribution to the mixed-asset portfolio at various risk levels, with stocks playing a lesser role. As such, this empirical analysis confirms the robustness of SIICs in a French mixed-asset portfolio; particularly in the post-GFC context.

### Property investment implications for SIICs

The development of SIICs in France has seen an important REIT product now being available in Europe for both local property investors and European property investors with

a French property portfolio element. This has seen SIICs develop into the 2nd largest European REIT market, as well as being the sixth largest REIT market globally and accounting for 4.4 per cent of the global REIT market. The conversion of many leading French listed property companies into SIICs has been a key catalyst to the growth of the SIIC market since 2003. The active support of the AMF in facilitating regulatory reform has also further enhanced the investor attractiveness of SIICs at both a local and international level.

This paper has addressed two key research questions and empirically highlighted the added-value of SIICs in a French mixed-asset portfolio; particularly the superior risk-adjusted performance of SIICs compared to stocks, and the robustness of SIICs during the post-GFC period. This saw a significant role for SIICs in the mixed-asset portfolio across the risk spectrum; particularly in the post-GFC period. These results have significant property investment implications, both for the ongoing development of SIICs and the positioning of SIICs for investors in a French, European and global REIT context. Despite the current uncertain economic environment in France and Europe, further opportunities are expected to see the ongoing strategic development of SIICs as a major European and international REIT market, driven by recent strong performance and recovery in the post-GFC period.

## References

- Aktan, B. and Ozturk, M. (2009), "Empirical examination of REITs in Turkey: an emerging market perspective", *Journal of Property Investment & Finance*, Vol. 27, pp. 373-403.
- Antonini, R. (2011), "Le crunch: France versus UK REITs", *EPRA News*, Vol. 40, pp. 26-27.
- Baum, A. and Devaney, S. (2008), "Depreciation, income distribution and the UK REIT", *Journal of Property Investment & Finance*, Vol. 26, pp. 195-209.
- Corgel, J., McIntosh, W. and Ott, S. (1995), "Real estate investment trusts: a review of the financial economics literature", *Journal of Real Estate Literature*, Vol. 3, pp. 13-43.
- EPRA (2012), *Global REIT Survey: France-SIIC*, European Public Real Estate Association, Brussels.
- EPRA (2013), *EPRA Monthly Statistical Bulletin: March 2013*, European Public Real Estate Association, Brussels.
- Feng, Z., Price, S. and Sirmans, C. (2011), "An overview of equity REITs: 1993-2009", *Journal of Real Estate Literature*, Vol. 19, pp. 307-344.
- Freybote, T., Rottke, N. and Schiereck, D. (2008), "Underpricing of European property companies and the IPO cycle", *Journal of Property Investment & Finance*, Vol. 26, pp. 376-387.
- Hoesli, M. and Lekander, J. (2008), "Real estate portfolio strategy and product innovation in Europe", *Journal of Property Investment & Finance*, Vol. 26, pp. 162-176.
- Hughes, F. and Arissen, J. (2005), "SIIC II will drive the French market further", *EPRA News*, December, pp. 22-23.
- Hui, E. and Chan, K. (2013), "The European sovereign debt crisis: contagion across European real estate markets", *Journal of Property Research*, Vol. 30, pp. 87-102.
- IPD (2013), *IPD France Annual Property Index*, IPD, London.
- JLL (2012), *Global Real Estate Transparency Index 2012*, Jones Lang LaSalle, Chicago, IL.
- JLL (2013), *Office Market in the Greater Paris Region Q1 2013*, Jones Lang LaSalle, Chicago, IL.
- Kovac, V. and Lee, S. (2008), "The specific risk of the UK real estate securities market", *Journal of Property Investment & Finance*, Vol. 26, pp. 399-417.

- Lee, S. (2009), "Is the UK real estate market converging with the rest of Europe?", *Journal of European Real Estate Research*, Vol. 2, pp. 18-32.
- Lee, S. (2010), "The changing benefits of REITs to the mixed-asset portfolio", *Journal of Real Estate Portfolio Management*, Vol. 16, pp. 201-215.
- Lizieri, C., McAllister, P. and Ward, C. (2003), "Continental shift? An analysis of convergence trends in European real estate securities", *Journal of Real Estate Research*, Vol. 25, pp. 1-21.
- McAllister, P. and Lizieri, C. (2006), "Monetary integration and real estate markets: the impact of the Euro on European real estate equities", *Journal of Property Research*, Vol. 23, pp. 281-304.
- Morri, G. and Cristanziani, F. (2009), "What determines the capital structure of real estate companies? An analysis of the EPRA/NAREIT Europe index", *Journal of Property Investment & Finance*, Vol. 27, pp. 318-372.
- Nappi-Choulet, I. (2008), "The French REIT market – the SIIC regime", *The Introduction of REITs in Europe: A Global Perspective*, CompEtenE, Wien, pp. 98-105.
- Newell, G. and Peng, H.W. (2009), "The impact of the global financial crisis on A-REIT risk", *Pacific Rim Property Research Journal*, Vol. 15, pp. 453-470.
- Niskanen, J., Rouhento, J. and Falkenbach, H. (2011), "European real estate equities: ownership structure and value of the firm", *Journal of European Real Estate Research*, Vol. 4, pp. 131-144.
- OECD (2013), *OECD Factbook: Economic, Environmental and Social Statistics*, OECD, Paris.
- Pramerica REI (2012), *A Bird's Eye View of Global Real Estate Markets: 2012 Update*, Pramerica Real Estate Investors, London.
- PWC (2012a), *Report on the Tax Contribution of the SIICs*, PWC, London.
- PWC (2012b), *The Socioeconomic Impact of SIICs in France*, PWC, London.
- RCA (2013), *Global Capital Trends: 2012 Year in Review*, Real Capital Analytics, New York, NY (and miscellaneous previous copies).
- Schacht, U. and Wimschulte, J. (2008), "German property investment vehicles and the introduction of G-REITs: an analysis", *Journal of Property Investment & Finance*, Vol. 26, pp. 232-246.
- Schindler, F. (2009), "Correlation structure of real estate markets over time", *Journal of Property Investment & Finance*, Vol. 27, pp. 579-592.
- Schulte, K., Dechant, T. and Schaefer, W. (2011), "Systematic risk factors in European real estate equities", *Journal of European Real Estate Research*, Vol. 4, pp. 185-224.
- TI (2011), *Corruption Perception Index 2011*, Transparency International, Berlin.
- WEF (2012), *Global Competitiveness Report 2011-2012*, World Economic Forum, Geneva.
- Westgaard, S., Eidet, A., Frydenberg, S. and Grosas, T. (2008), "Investigating the capital structure of UK real estate companies", *Journal of Property Research*, Vol. 25, pp. 61-87.
- Yang, J., Kolari, J. and Zhu, G. (2005), "European public real estate market integration", *Applied Financial Economics*, Vol. 15, pp. 895-905.
- Zietz, E., Sirmans, G. and Friday, H. (2003), "The environment and performance of real estate investment trusts", *Journal of Real Estate Portfolio Management*, Vol. 9, pp. 127-165.

**Corresponding author**

Alastair Adair can be contacted at: [as.adair@ulster.ac.uk](mailto:as.adair@ulster.ac.uk)