EPRA

European Public Real Estate Association

Correlations of Property Stocks with other Asset Classes

Broadening the Investor Base Study

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CORRELATIONS OF PROPERTY STOCKS WITH OTHER ASSET CLASSES

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Table of Contents

1 Executive Summary

Background

One good reason to invest in property stocks is profitability, an even better one is diversification. Various studies have shown that integrating property stocks increases significantly the risk-/return profile of a mixed asset portfolio - including the recent EPRA-study by Shaun Bond of the University of Cambridge. Although, the application of complex optimisation unavoidably means that we have to make several assumptions about the markets and investors preferences. Those assumptions limit naturally the validity of the results for all types of investors and/or market conditions. Furthermore, the results, i.e., the weight of property companies in an investor's portfolio, might vary considerably depending on the design of the optimization model. All in all, the results of complex optimizations models are difficult to communicate and easy to criticise.

EPRA/IRE|BS Study

EPRA and IRE|BS decided to embark on a detailed study focused on the correlation of property stocks. The diversification benefits of an investment in property companies depend mainly on the correlation with other asset classes, such as stocks or bonds. A closer look at the evolution of the correlations over time already gives first insight into the evolution of the diversification potential of property stocks. We hope that this might serve as a reference for both, practitioners and researchers. Furthermore, this study may ignite a broader range of investor interest wishing to examine the diversification benefits of property stocks.

In addition to the FTSE EPRA/NAREIT Global Total Return Index and the FTSE EPRA/NAREIT Europe Total Return Index we include the FTSE EPRA/NAREIT Indices for USA, UK, Australia, France, Sweden and the Netherlands in our study. We do not consider big economies like Germany, Italy and Spain because there are only small real estate stock markets in these countries. For example, for Germany, only 0.64% of total real estate is quoted on the stock market and listed real estate represents only 0.45% of the stock market. For Italy and Spain, we observe similar market capitalisations. Here, listed real estate represents only 0.58% and 1.91% of the stock market, respectively.

It is the aim of the EPRA/IRE|BS study to illustrate the correlation of property stocks with the large universe of investment opportunities. We have identified three classical asset classes: stocks, bonds and money (treasury bills), and five alternative asset classes, including direct real estate, emerging market stocks, hedge funds, private equity and commodities.

Methodology

It must be noted at this point that correlations, as well as diversification potential, are not everlasting characteristics of an investment as they can vary significantly over time. The aim of the present study is to investigate rolling window correlations using periods of 5 years, analysing quarterly returns of FTSE EPRA/NAREIT Global Real Estate Index series against other asset classes, as defined above. We are preliminary interested in the correlations of the FTSE EPRA/NAREIT Indices with the asset classes and not the foreign currency. For this purpose, we include the FTSE EPRA/NAREIT Indices in local currency and compare national indices (local) wherever possible. Furthermore, we assume, that the investor hedge against currency risk in a way which causes no premium payments, i.e. by taking out a zero cost hedge. For the FTSE EPRA/NAREIT Global and Europe we cannot build up a full hedge position because they consist of economies with different currencies. The following presents selected results of the study.

Correlations with stocks

First results show moderate to strong correlations between the returns of the FTSE EPRA/NAREIT Indices and stock returns. For FTSE EPRA/NAREIT US we observe correlations between 0.4 and 0.6 and for the FTSE EPRA/NAREIT Global, Europe and UK ranging between 0.6 and 0.8. In the period of I/94-I/99 the correlations are mostly constant, with the exception of the UK where the correlations vary temporarily between 0 and 0.2 for the period I/96-I/01, reverting back to similar levels as the other FTSE EPRA/NAREIT Indices in the period I/01-I/06.

In earlier periods we observe contrasting patterns. While correlations are heavily positive with European stocks, correlations with US stocks are significantly lower, to the extent that in the period I/91 - I/96 they actually reach values close to zero.

Correlations of the FTSE EPRA/NAREIT for US and Australia with stocks show an inverse behaviour. For FTSE EPRA/NAREIT US, correlations with European stocks reach values close to zero in 91-96 while correlations with US stocks remain clearly positive. Correlations of FTSE EPRA/NAREIT Australia and US stocks are heavily positive for the entire period and they even reach their heaviest extent in the period III/93-III/98.

Correlations with bonds

In contrast, correlations between the FTSE EPRA/NAREIT Indices and Bonds Indices for Germany, UK and USA are not constant over time, decreasing from 1999 till 2006. They are mostly positive until 1999; but at the end of 1998 we observe a sharp decline in the correlation figures. From 2000 on, we even find negative correlations (between 0.0 and 0.5). For all FTSE EPRA/NAREIT Indices (except Australia), correlations move in a similar fashion in the observation period. Here, we observe after a period of declining values a gradual climb from 2003.

For FTSE EPRA/NAREIT Australia we observe continuously the strongest correlations with bonds and there is no sharp decline in the correlation figure. On the contrary, correlations decline moderately but steadily from 1998 till 2003/2004 and reach only minor negative values.

Correlations with money/treasury bonds

Correlation of property stock returns with those of treasury bonds show a very interesting evolution over time. Correlations are negative in 1995-1998, starting with values between -0.5 and -0.2. All correlations rise steadily until 2006, ending with values between 0.3 and 0.6.

We find the most stable evolution over time for correlations of FTSE EPRA/NAREIT Australia. Correlations are close to zero until 2002. Only in the following period, we observe increasing volatility in correlations.

Correlations with emerging market stocks

Although correlations with emerging markets Europe, Asia and Latin America are currently strong positive for all FTSE EPRA/NAREIT Indices – except FTSE/EPRA NAREIT Australia with moderate values between 0.3 and 0.4 – we observe contrasting patterns in the considered period from 1995 until 2006. While correlations for the FTSE EPRA/NAREIT Global, Netherlands and also Europe are steadily strong, we observe after a decline in the correlation level even negative correlations for US (about 1997), UK (about 2001) and Sweden (about 1998) followed by a constant climb until 2006.

Correlations with direct real estate

While correlations of property stocks with stocks are mostly strong positive especially in later periods, we can not make such a clear declaration about correlations with direct property. For FTSE EPRA/NAREIT France, Netherlands and Sweden correlations vary about zero. For the remaining FTSE EPRA/NAREIT Indices we observe increasing correlations from about 1999 until now. Currently, all correlations are positive ranging between 0.15 for Sweden and 0.55 for Australia.

Correlations with private equity

Because of the limited history and the bounded representativeness of the index, we only observe the correlations in the period from 2000 till 2004. Here, correlations are mostly constant. For the period I/99-I/04 we find positive correlations of the FTSE EPRA/NAREIT Indices and venture capital Europe varying between 0.1 for the FTSE EPRA/NAREIT Australia and 0.6 for the FTSE EPRA/NAREIT Global. Furthermore, correlations with venture capital Europe are stronger than correlations with venture capital USA. These correlations vary between clearly negative values for the FTSE EPRA/NAREIT UK and clearly positive values for the FTSE EPRA/NAREIT Global and Sweden.

On the contrary, correlations with buyouts & mezzanine USA are notably stronger than correlations with buyouts & mezzanine Europe. For the period I/99-I/04, we observe correlations between 0.25 and 0.56 for the FTSE EPRA/NAREIT Indices with buyouts & mezzanine USA, while correlations with buyouts & mezzanine Europe vary between -0.4 and 0.2.

On average, correlations with the overall (private equity) index are weaker than correlations with venture capital and buyouts & mezzanine USA but stronger than correlations with buyouts & mezzanine Europe.

Correlations with hedge funds

Correlations with Hedge Funds behave similar to correlations with emerging markets. They are also currently strong positive, and we also observe the most moderate level for FTSE EPRA/NAREIT Australia. Furthermore, correlations of FTSE EPRA/NAREIT Global are remarkable steadily strong with a mean of 0.76, whereas we find a period of decreasing correlations for US (1996-1998) and UK (2000-2004) and – comparable to the evolution of correlations with emerging markets – a climb in the following period until 2006.

Correlations with commodities

In the first periods correlations of property stocks with commodities are mostly negative. Here, we find on average the lowest correlation level for Australia (correlations between -0.3 and -0.5). In the period of 1998/1999 the correlations of all FTSE EPRA/NAREIT Indices increase, but especially for the FTSE EPRA/NAREIT Global, US and Sweden. And so we currently observe positive correlations of about 0.2, with the exception that correlations for the FTSE EPRA/NAREIT Australia again decrease from I/00-I/05 and are clearly negative at the moment.

Conclusion

For all asset classes, we see that property stocks show correlations significantly below 1.0, and in some cases negative readings occur, thus indicating diversification potential for investing in property stocks. The evolution over time results in the assumption that diversification benefits are most likely to vary considerably over time. This phenomenon must, among others, be taken into consideration when including property stocks in a mixed asset portfolio.

2 Data Description

Stocks

We use the stock market indices for Europe and the United States provided by Morgan Stanley Capital International (MSCI Indices) to calculate total market returns. The MSCI-Indices exclude capital arrangements especially dividend payments. According to MSCII the indices cover at least 60 per cent of the market capitalisation. The index currency is Euro and US Dollars respectively.

Source: DataStream
DataStream Codes:
MSCI USA - TOT RETURN IND - MSUSAML(RI)
MSCI EUROPE - TOT RETURN IND - MSEROPL(RI)

Bonds

The bonds indices are DataStream total all lives government bond indices for Germany, USA and UK. The indices include bonds with different liquidity to cover the development of the whole market and are calculated following the recommendations of the European Federation of Financial Analysts Societies (EFFAS). So capital arrangements especially dividend payments are excluded. The DataStream indices are investable and replicable. Index currency is USD, GBP or EURO respectively.

Source: DataStream
DataStream Codes:
BD TOTAL ALL LIVES DS GOVT. INDEX - TOT RETURN IND - ABDGVAL(RI)
US TOTAL ALL LIVES DS GOVT. INDEX - TOT RETURN IND - AUSGVAL(RI)
UK TOTAL ALL LIVES DS GOVT. INDEX - TOT RETURN IND - AUKGVAL(RI)

Money/Treasury bonds

As proxies for an investment in the money market we used the 3 Month Libor (London Interbank Offered Rate) and 3 Month Fibor (Frankfurt Interbank Offered Rate).

Source: DataStream
DataStream Codes:
UK INTERBANK 3 MONTH (LDN:BBA) – OFFERED RATE - BBGBP3M
GERMANY INTERBANK 3 MONTH - OFFERED RATE - FIBOR3M

Emerging market stocks

The MSCI Emerging Markets Indices represent stocks of emerging markets. The indices are free float-adjusted market capitalization indices that are designed to measure equity market performance in the global emerging markets. They exclude capital arrangements especially dividend payments. According to MSCI the indices cover at least 60 per cent of the market capitalisation. We use the MSCI-Total-Return Indices for Asia, Europe and Latin America.

Source: DataStream
DataStream Codes:
MSCI EM ASIA U$ - TOT RETURN IND - MSEMFA$(RI)
MSCI EM EUROPE U$ - PRICE INDEX – MSEEUR$ (RI)
MSCI EM LATIN AMERICAU$ - PRICE INDEX - MSEFLA$ (RI)

Direct real estate

The NPI (NCREIF Property Index) represents an investment in US Real Estate. The index includes cash flows and estimated changes in value of aggregated US Funds portfolios. Estimations are updated at least once a year. The index value is reported quarterly.

Source: National Council of Real Estate Investment Fiduciaries – NPI National Returns (www.ncreif.com)

Private equity

We use the Private Equity Indices of Venture Economics. According to the provider these are non annualised, quarterly calculated time weighted returns. They are composed of the concrete cash flow on the one hand and of estimations of changes in value on the other hand. We use an overall index consisting of the following indices: Venture Capital USA 5 %, Venture Capital Europe 15 %, Buy Outs USA 20 % and Buy Outs Europe 60 %. Due to the limited history the overall index cannot be calculated over the entire considered time period. We are only able to calculate correlations from 1997 till 2004.

Representativeness of the index is bounded at the beginning because it consists only of few projects. However, at the end the index represents a highly diversified portfolio.

Because the index is not replicable, adjustments are necessary if the investment does not correspond to the portfolio composition. According to the provider the index excludes management fees but particularly includes taxes and transaction costs. No further information is available on this.

Source: Venture Economics

Hedge funds

The HFRX Global Hedge Fund Index represents an investment in hedge funds. Index currency is US Dollar. According to HFR the index is designed to be representative of the overall composition of the hedge fund universe. It is comprised of eight strategies (convertible arbitrage, merger arbitrage, equity hedge, equity market neutral, relative value arbitrage, event driven, distressed securities and macro). The strategies are asset weighted based on the distribution of assets in the hedge fund industry.

Funds that stop reporting or shut down are included in the database, so according to the provider there is no survivorship bias.

Source: Credit Suisse First Boston/Tremont (www.hedgeindex.com)

Commodities

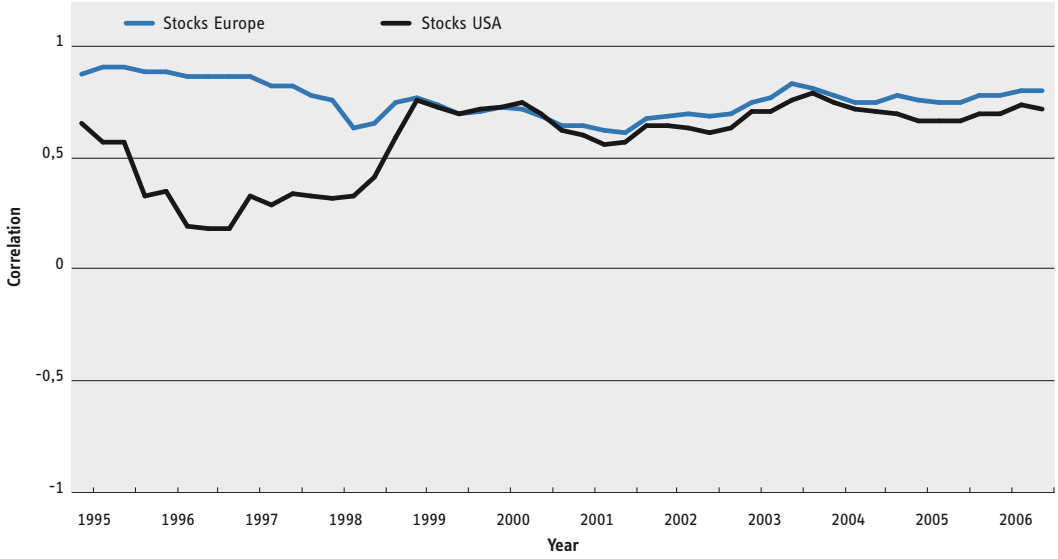
The Reuter's Commodity Price Index is an arithmetic average of commodity futures prices with monthly rebalancing. According to the provider, the Reuter's Commodity Price Index is designed to provide timely and accurate representation of a long-only, broadly diversified investment in commodities.

Source: DataStream
DataStream Codes:
Reuters Commodities Index - PRICE INDEX - RECMDTY(PI)

3. Correlations of Property Stocks with other Asset Classes

3.1. Correlations with Stocks

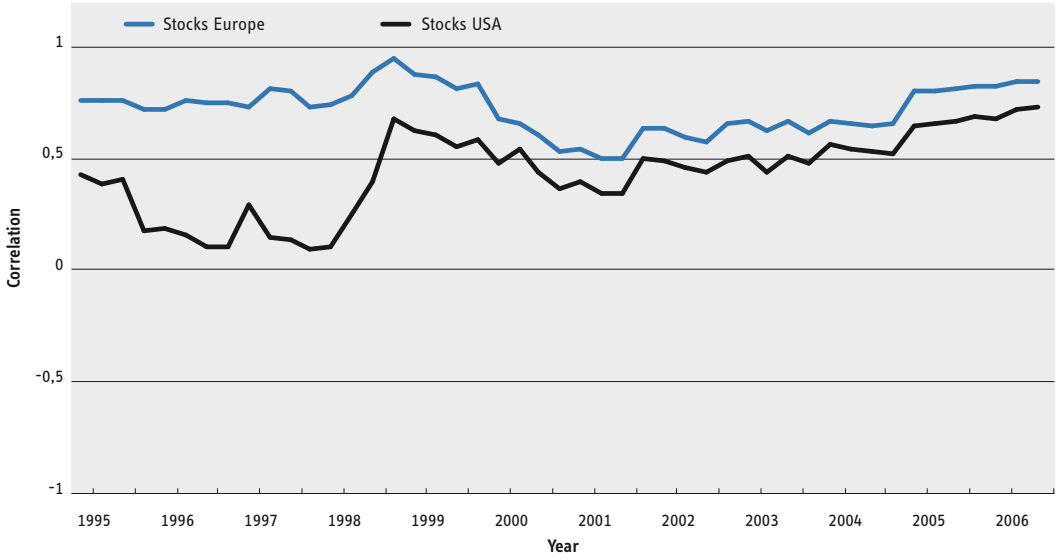
3.1.1 FTSE EPRA/NAREIT Global Total Return Index



period	Stocks Europe	Stocks USA
I/90 - I/95	0,869	0,647
I/91 - I/96	0,881	0,347
I/92 - I/97	0,856	0,331
I/93 - I/98	0,752	0,317
I/94 - I/99	0,764	0,760
I/95 - I/00	0,724	0,724
I/96 - I/01	0,644	0,603
I/97 - I/02	0,683	0,638
I/98 - I/03	0,742	0,700
I/99 - I/04	0,774	0,747
I/00 - I/05	0,756	0,665
I/01 - I/06	0,775	0,696
mean of correlation	0,758	0,578
standard deviation of correlation	0,079	0,177
coefficient of variation of correlation	0,104	0,307

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

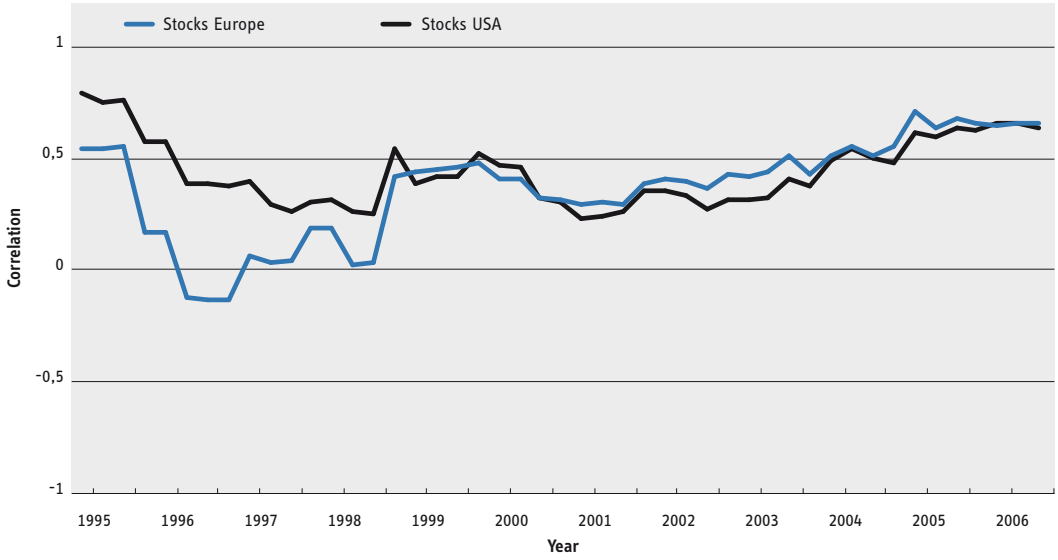
3.1.2 FTSE EPRA/NAREIT Europe Total Return Index



period	Stocks Europe	Stocks USA
I/90 - I/95	0,755	0,424
I/91 - I/96	0,713	0,183
I/92 - I/97	0,724	0,290
I/93 - I/98	0,731	0,099
I/94 - I/99	0,875	0,622
I/95 - I/00	0,670	0,474
I/96 - I/01	0,541	0,388
I/97 - I/02	0,627	0,487
I/98 - I/03	0,661	0,505
I/99 - I/04	0,665	0,558
I/00 - I/05	0,795	0,645
I/01 - I/06	0,815	0,673
mean of correlation	0,715	0,433
standard deviation of correlation	0,108	0,186
coefficient of variation of correlation	0,150	0,429

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

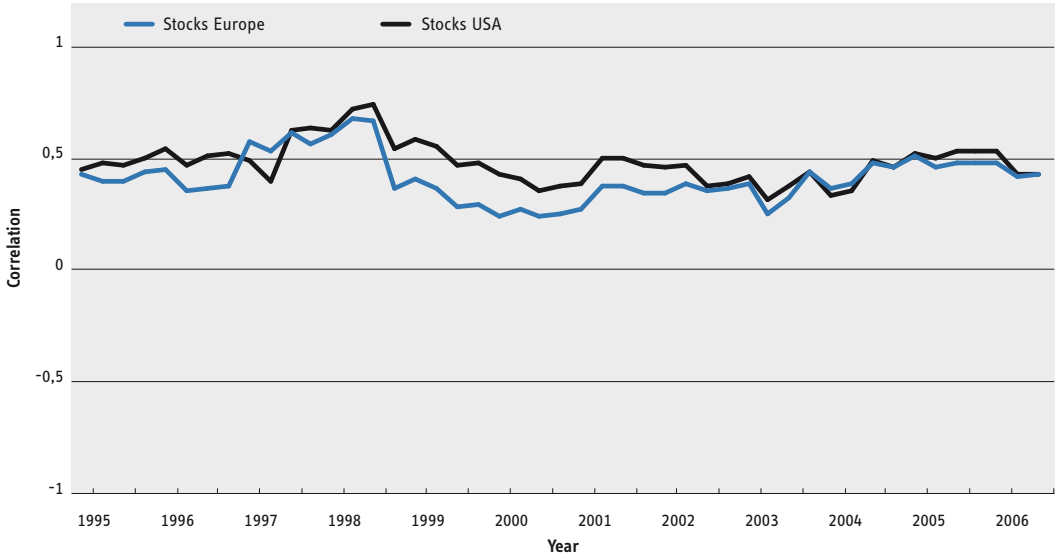
3.1.3 FTSE EPRA/NAREIT United States Total Return Index



period	Stocks Europe	Stocks USA
I/90 - I/95	0,537	0,791
I/91 - I/96	0,161	0,566
I/92 - I/97	0,059	0,390
I/93 - I/98	0,178	0,306
I/94 - I/99	0,437	0,377
I/95 - I/00	0,397	0,460
I/96 - I/01	0,281	0,221
I/97 - I/02	0,397	0,345
I/98 - I/03	0,416	0,304
I/99 - I/04	0,506	0,482
I/00 - I/05	0,701	0,610
I/01 - I/06	0,646	0,651
mean of correlation	0,361	0,435
standard deviation of correlation	0,227	0,154
coefficient of variation of correlation	0,629	0,354

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

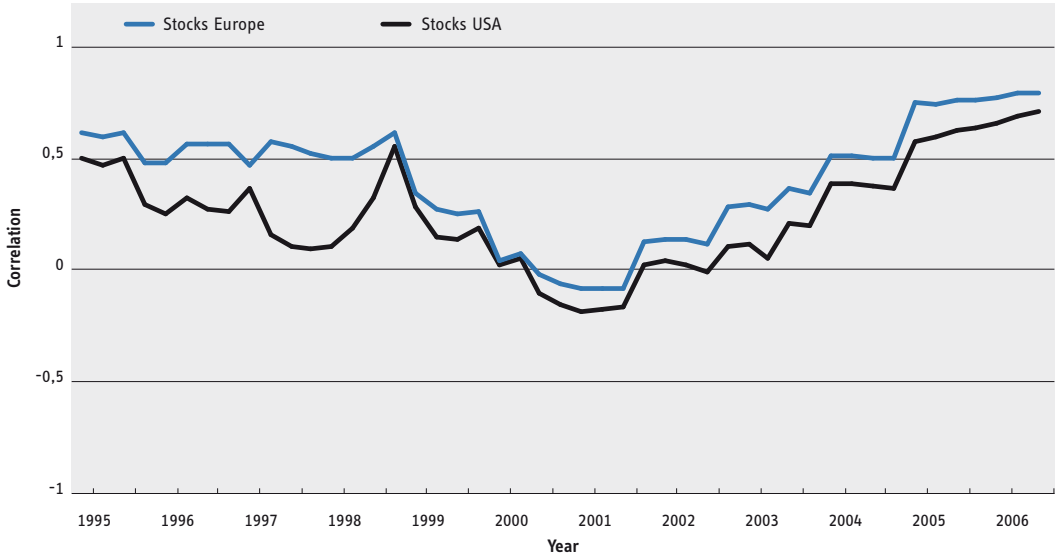
3.1.4 FTSE EPRA/NAREIT Australia Total Return Index



period	Stocks Europe	Stocks USA
I/90 - I/95	0,418	0,447
I/91 - I/96	0,438	0,534
I/92 - I/97	0,569	0,481
I/93 - I/98	0,594	0,625
I/94 - I/99	0,404	0,583
I/95 - I/00	0,232	0,418
I/96 - I/01	0,264	0,384
I/97 - I/02	0,340	0,454
I/98 - I/03	0,379	0,408
I/99 - I/04	0,362	0,325
I/00 - I/05	0,509	0,511
I/01 - I/06	0,479	0,523
mean of correlation	0,406	0,474
standard deviation of correlation	0,108	0,092
coefficient of variation of correlation	0,266	0,195

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

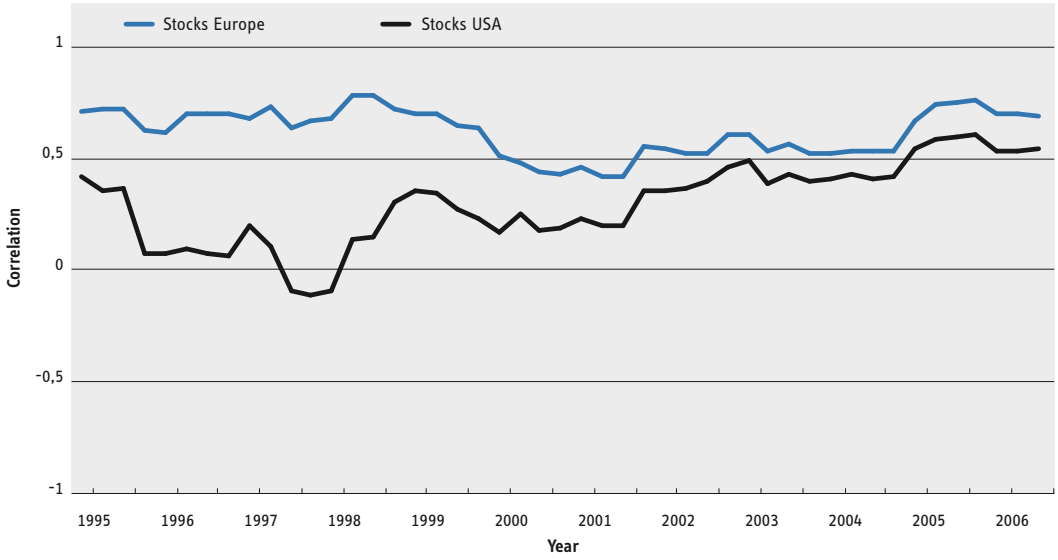
3.1.5 FTSE EPRA/NAREIT United Kingdom Total Return Index



period	Stocks Europe	Stocks USA
I/90 - I/95	0,606	0,492
I/91 - I/96	0,474	0,244
I/92 - I/97	0,463	0,362
I/93 - I/98	0,490	0,102
I/94 - I/99	0,337	0,273
I/95 - I/00	0,030	0,016
I/96 - I/01	-0,088	-0,190
I/97 - I/02	0,134	0,034
I/98 - I/03	0,288	0,107
I/99 - I/04	0,503	0,383
I/00 - I/05	0,741	0,570
I/01 - I/06	0,764	0,652
mean of correlation	0,401	0,239
standard deviation of correlation	0,261	0,246
coefficient of variation of correlation	0,650	1,027

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

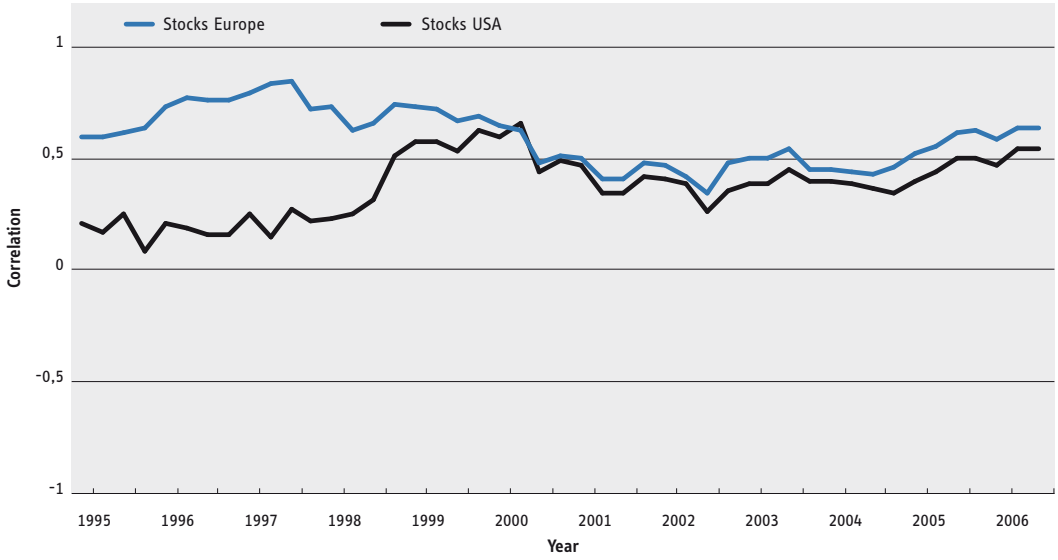
3.1.6 FTSE EPRA/NAREIT France Total Return Index



period	Stocks Europe	Stocks USA
I/90 - I/95	0,705	0,407
I/91 - I/96	0,613	0,070
I/92 - I/97	0,673	0,190
I/93 - I/98	0,674	-0,105
I/94 - I/99	0,693	0,351
I/95 - I/00	0,507	0,164
I/96 - I/01	0,453	0,226
I/97 - I/02	0,537	0,349
I/98 - I/03	0,602	0,479
I/99 - I/04	0,517	0,402
I/00 - I/05	0,667	0,536
I/01 - I/06	0,688	0,527
mean of correlation	0,613	0,290
standard deviation of correlation	0,105	0,186
coefficient of variation of correlation	0,171	0,641

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

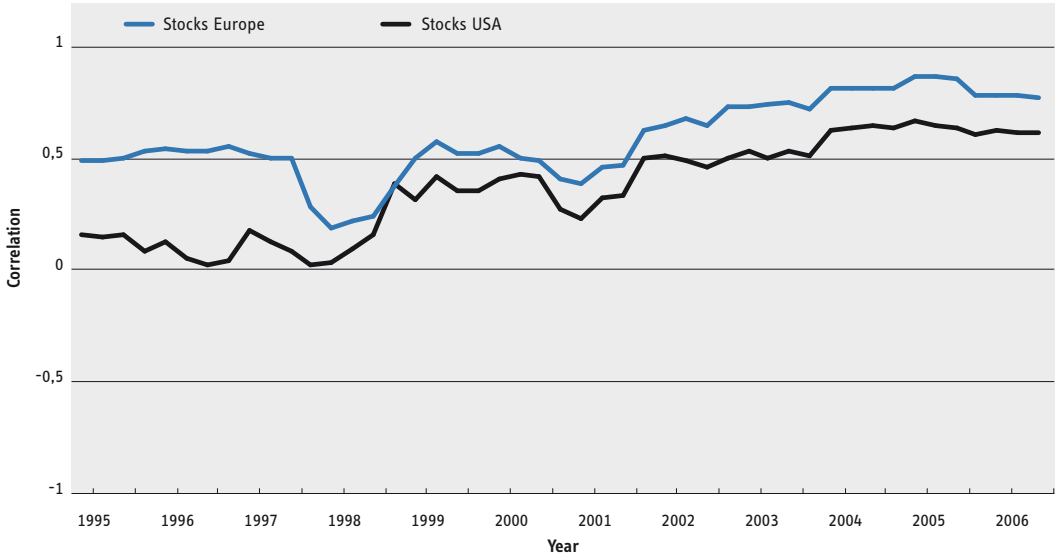
3.1.7 FTSE EPRA/NAREIT Netherlands Total Return Index



period	Stocks Europe	Stocks USA
I/90 - I/95	0,588	0,201
I/91 - I/96	0,724	0,206
I/92 - I/97	0,782	0,243
I/93 - I/98	0,723	0,220
I/94 - I/99	0,720	0,570
I/95 - I/00	0,644	0,589
I/96 - I/01	0,497	0,462
I/97 - I/02	0,465	0,403
I/98 - I/03	0,492	0,379
I/99 - I/04	0,442	0,388
I/00 - I/05	0,513	0,395
I/01 - I/06	0,576	0,461
mean of correlation	0,588	0,368
standard deviation of correlation	0,128	0,143
coefficient of variation of correlation	0,218	0,389

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

3.1.8 FTSE EPRA/NAREIT Sweden Total Return Index

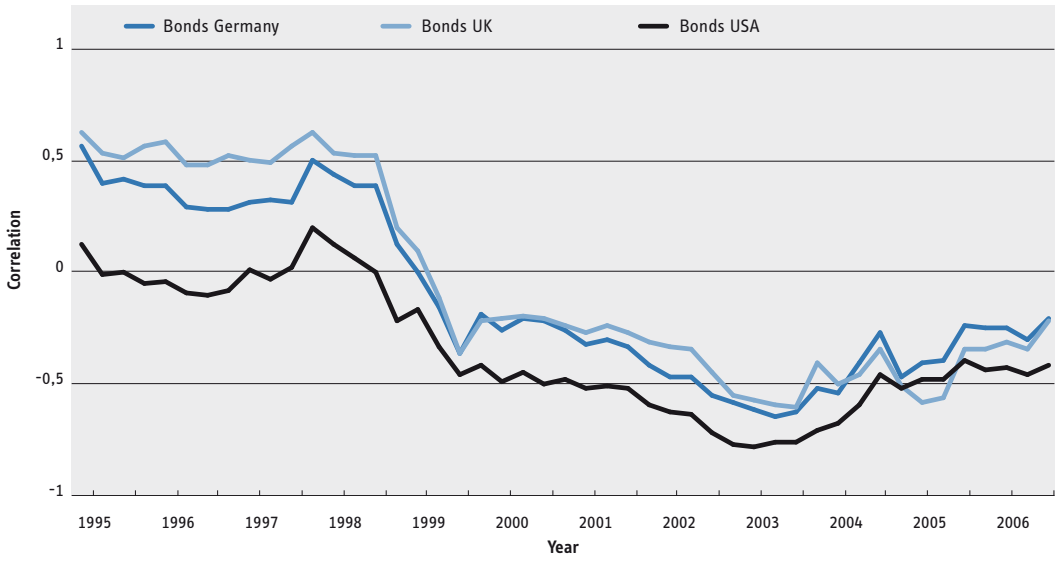


period	Stocks Europe	Stocks USA
I/90 - I/95	0,486	0,145
I/91 - I/96	0,538	0,116
I/92 - I/97	0,516	0,175
I/93 - I/98	0,183	0,021
I/94 - I/99	0,496	0,306
I/95 - I/00	0,542	0,399
I/96 - I/01	0,382	0,228
I/97 - I/02	0,639	0,502
I/98 - I/03	0,730	0,527
I/99 - I/04	0,806	0,622
I/00 - I/05	0,865	0,664
I/01 - I/06	0,777	0,618
mean of correlation	0,582	0,360
standard deviation of correlation	0,179	0,215
coefficient of variation of correlation	0,307	0,599

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

3.2. Correlations with Bonds

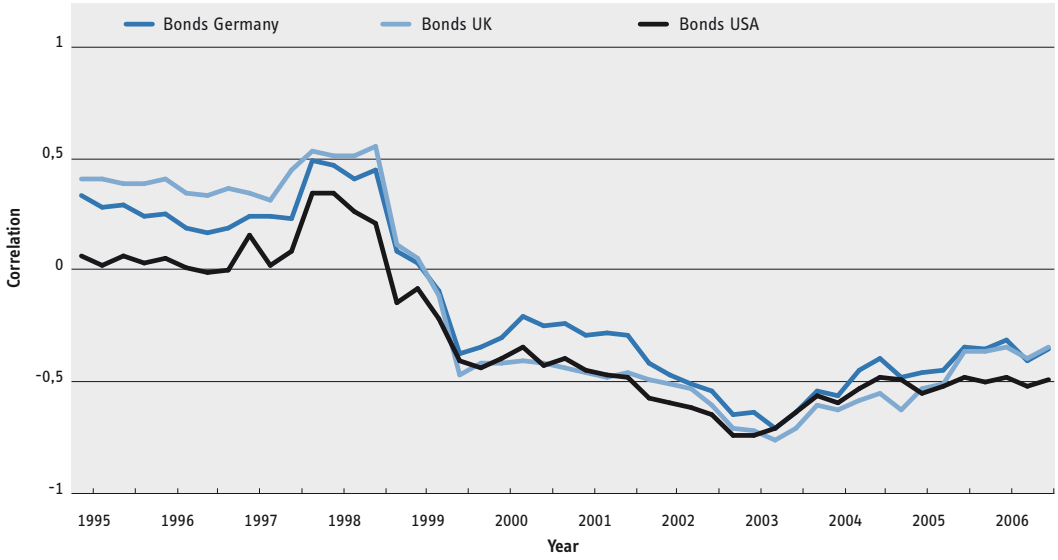
3.2.1 FTSE EPRA/NAREIT Global Total Return Index



period	Bonds Germany	Bonds UK	Bonds USA
I/90 - I/95	0,575	0,631	0,150
I/91 - I/96	0,403	0,594	-0,011
I/92 - I/97	0,329	0,512	0,041
I/93 - I/98	0,448	0,542	0,145
I/94 - I/99	0,031	0,117	-0,136
I/95 - I/00	-0,228	-0,176	-0,445
I/96 - I/01	-0,283	-0,239	-0,477
I/97 - I/02	-0,427	-0,299	-0,581
I/98 - I/03	-0,572	-0,531	-0,730
I/99 - I/04	-0,494	-0,458	-0,630
I/00 - I/05	-0,363	-0,534	-0,440
I/01 - I/06	-0,217	-0,273	-0,392
mean of correlation	-0,086	-0,029	-0,316
standard deviation of correlation	0,363	0,426	0,275
coefficient of variation of correlation	-4,205	-14,861	-0,870

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

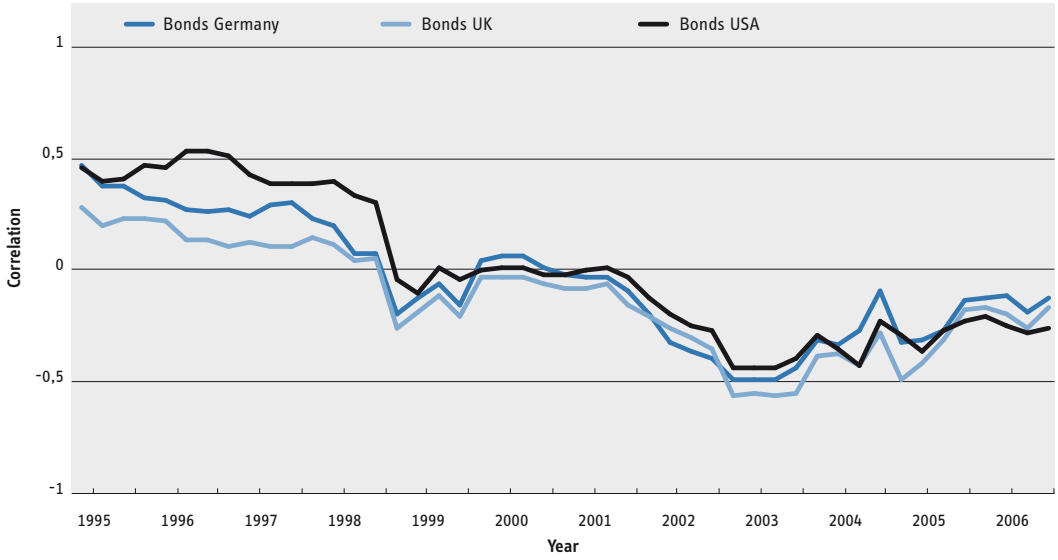
3.2.2 FTSE EPRA/NAREIT Europe Total Return Index



period	Bonds Germany	Bonds UK	Bonds USA
I/90 - I/95	0,350	0,417	0,088
I/91 - I/96	0,266	0,424	0,074
I/92 - I/97	0,256	0,365	0,176
I/93 - I/98	0,484	0,519	0,356
I/94 - I/99	0,053	0,075	-0,055
I/95 - I/00	-0,261	-0,378	-0,355
I/96 - I/01	-0,255	-0,419	-0,405
I/97 - I/02	-0,429	-0,465	-0,549
I/98 - I/03	-0,590	-0,665	-0,691
I/99 - I/04	-0,520	-0,576	-0,550
I/00 - I/05	-0,419	-0,489	-0,506
I/01 - I/06	-0,274	-0,308	-0,441
mean of correlation	-0,133	-0,149	-0,263
standard deviation of correlation	0,347	0,432	0,305
coefficient of variation of correlation	-2,600	-2,895	-1,157

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

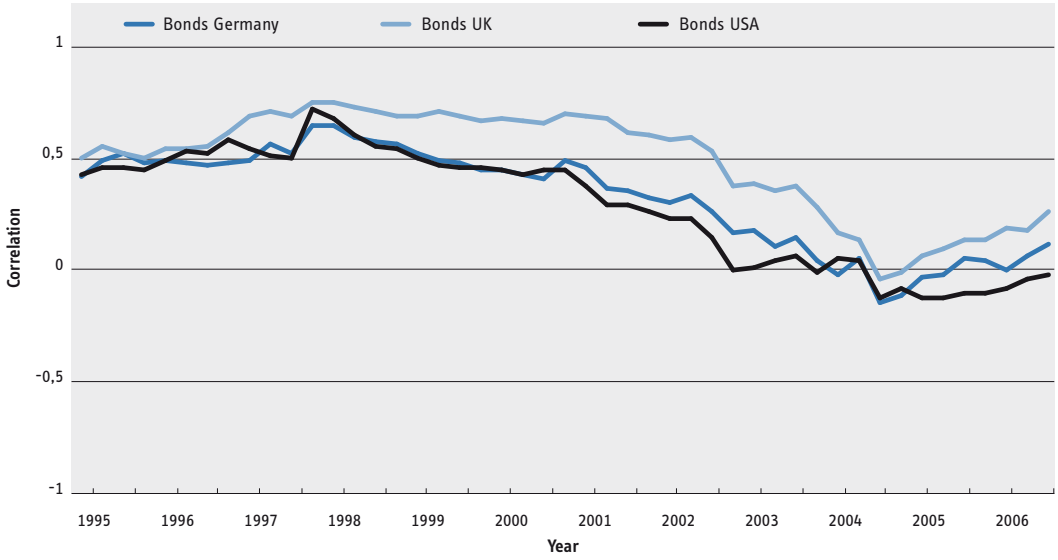
3.2.3 FTSE EPRA/NAREIT United States Total Return Index



period	Bonds Germany	Bonds UK	Bonds USA
I/90 - I/95	0,483	0,304	0,475
I/91 - I/96	0,329	0,240	0,468
I/92 - I/97	0,262	0,144	0,441
I/93 - I/98	0,221	0,135	0,411
I/94 - I/99	-0,090	-0,153	-0,070
I/95 - I/00	0,085	-0,003	0,040
I/96 - I/01	0,001	-0,058	0,025
I/97 - I/02	-0,287	-0,223	-0,168
I/98 - I/03	-0,450	-0,513	-0,397
I/99 - I/04	-0,298	-0,340	-0,312
I/00 - I/05	-0,278	-0,372	-0,326
I/01 - I/06	-0,087	-0,169	-0,215
mean of correlation	-0,020	-0,098	0,030
standard deviation of correlation	0,259	0,233	0,312
coefficient of variation of correlation	-13,256	-2,370	10,431

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

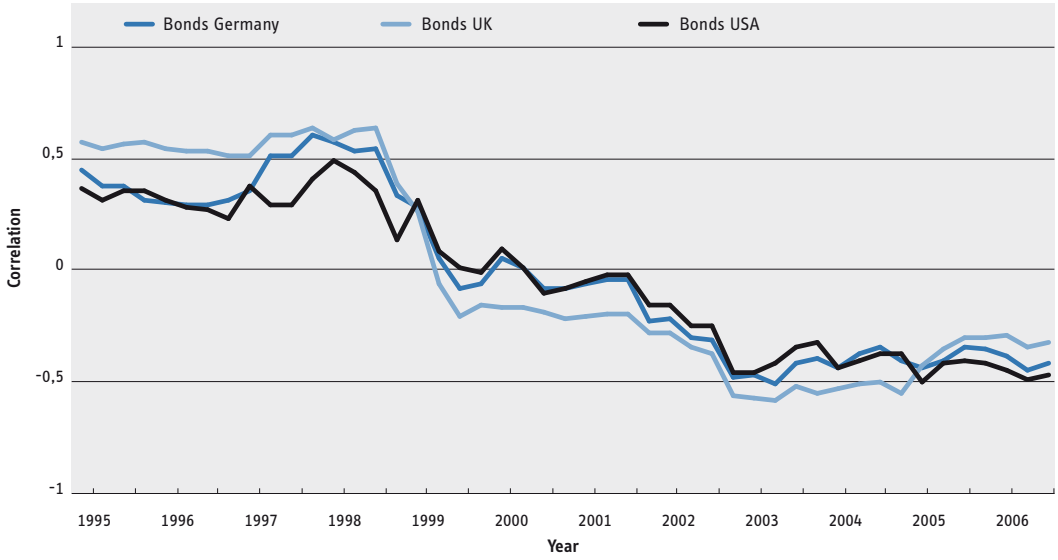
3.2.4 FTSE EPRA/NAREIT Australia Total Return Index



period	Bonds Germany	Bonds UK	Bonds USA
I/90 - I/95	0,423	0,503	0,432
I/91 - I/96	0,487	0,544	0,492
I/92 - I/97	0,493	0,680	0,541
I/93 - I/98	0,644	0,749	0,674
I/94 - I/99	0,527	0,680	0,501
I/95 - I/00	0,448	0,670	0,447
I/96 - I/01	0,457	0,681	0,382
I/97 - I/02	0,311	0,587	0,235
I/98 - I/03	0,189	0,387	0,031
I/99 - I/04	-0,007	0,177	0,065
I/00 - I/05	-0,012	0,079	-0,106
I/01 - I/06	0,012	0,204	-0,069
mean of correlation	0,329	0,488	0,294
standard deviation of correlation	0,219	0,228	0,253
coefficient of variation of correlation	0,666	0,467	0,860

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

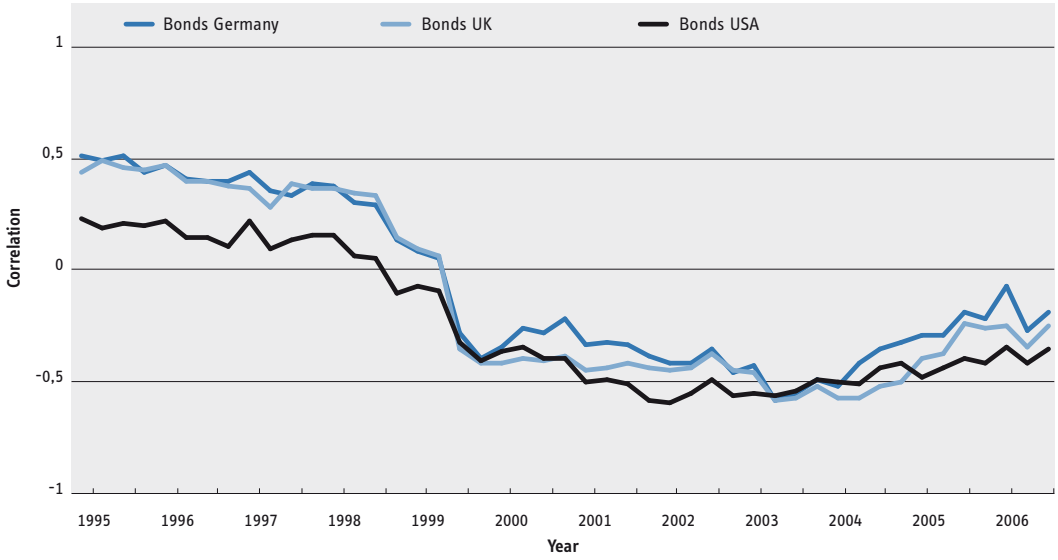
3.2.5 FTSE EPRA/NAREIT United Kingdom Total Return Index



period	Bonds Germany	Bonds UK	Bonds USA
I/90 - I/95	0,460	0,587	0,379
I/91 - I/96	0,322	0,556	0,329
I/92 - I/97	0,369	0,523	0,391
I/93 - I/98	0,585	0,597	0,498
I/94 - I/99	0,296	0,280	0,334
I/95 - I/00	0,076	-0,130	0,117
I/96 - I/01	-0,031	-0,175	-0,024
I/97 - I/02	-0,187	-0,243	-0,128
I/98 - I/03	-0,425	-0,526	-0,420
I/99 - I/04	-0,399	-0,483	-0,395
I/00 - I/05	-0,396	-0,392	-0,461
I/01 - I/06	-0,346	-0,254	-0,410
mean of correlation	0,005	0,006	-0,016
standard deviation of correlation	0,353	0,436	0,317
coefficient of variation of correlation	77,190	78,485	-19,734

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

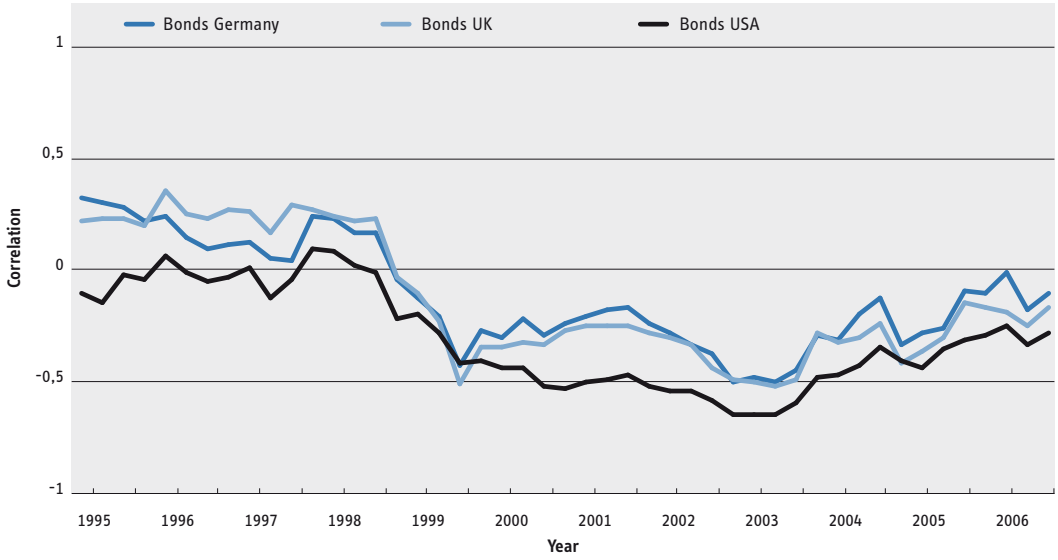
3.2.6 FTSE EPRA/NAREIT France Total Return Index



period	Bonds Germany	Bonds UK	Bonds USA
I/90 - I/95	0,518	0,456	0,252
I/91 - I/96	0,483	0,481	0,243
I/92 - I/97	0,449	0,376	0,241
I/93 - I/98	0,392	0,378	0,177
I/94 - I/99	0,106	0,121	-0,045
I/95 - I/00	-0,311	-0,377	-0,322
I/96 - I/01	-0,299	-0,412	-0,454
I/97 - I/02	-0,375	-0,403	-0,544
I/98 - I/03	-0,385	-0,414	-0,513
I/99 - I/04	-0,481	-0,528	-0,456
I/00 - I/05	-0,260	-0,354	-0,437
I/01 - I/06	-0,046	-0,220	-0,308
mean of correlation	-0,048	-0,097	-0,207
standard deviation of correlation	0,354	0,380	0,288
coefficient of variation of correlation	-7,412	-3,921	-1,393

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

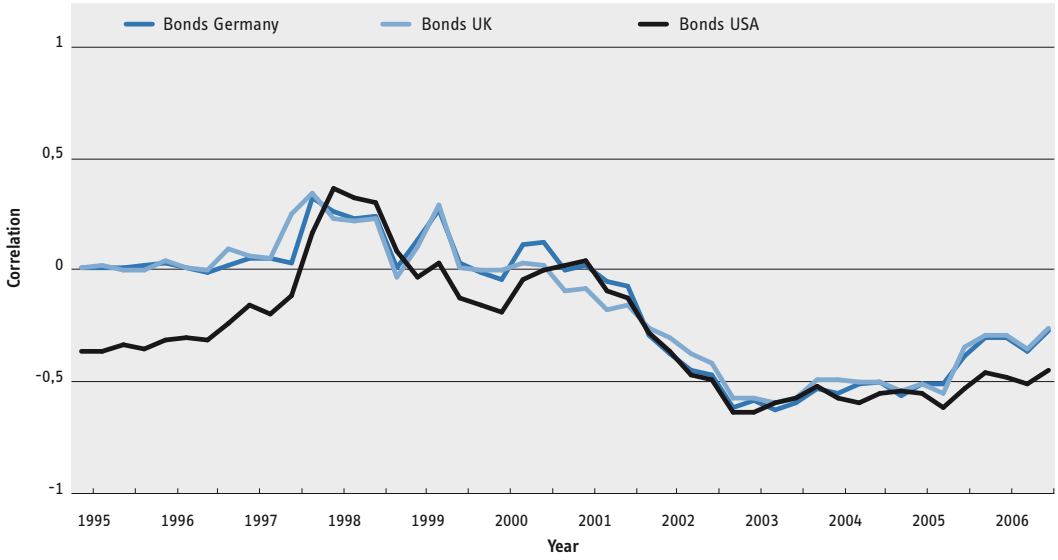
3.2.7 FTSE EPRA/NAREIT Netherlands Total Return Index



period	Bonds Germany	Bonds UK	Bonds USA
I/90 - I/95	0,343	0,240	-0,077
I/91 - I/96	0,256	0,367	0,091
I/92 - I/97	0,145	0,275	0,041
I/93 - I/98	0,245	0,263	0,110
I/94 - I/99	-0,092	-0,070	-0,166
I/95 - I/00	-0,262	-0,308	-0,398
I/96 - I/01	-0,174	-0,218	-0,456
I/97 - I/02	-0,247	-0,262	-0,495
I/98 - I/03	-0,442	-0,455	-0,598
I/99 - I/04	-0,271	-0,284	-0,429
I/00 - I/05	-0,241	-0,323	-0,396
I/01 - I/06	0,014	-0,151	-0,220
mean of correlation	-0,084	-0,098	-0,269
standard deviation of correlation	0,229	0,269	0,218
coefficient of variation of correlation	-2,720	-2,733	-0,810

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

3.2.8 FTSE EPRA/NAREIT Sweden Total Return Index

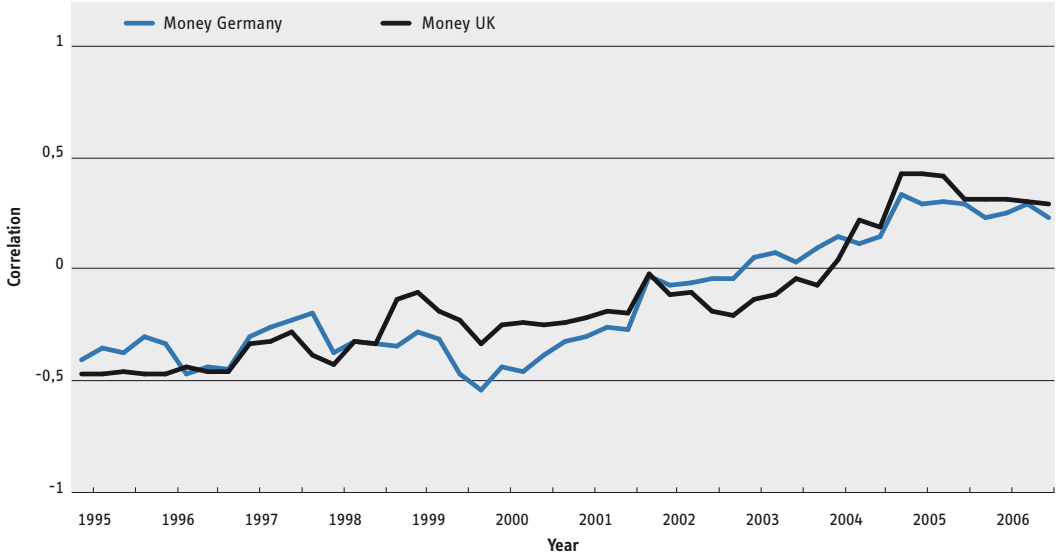


period	Bonds Germany	Bonds UK	Bonds USA
I/90 - I/95	0,032	0,038	-0,327
I/91 - I/96	0,059	0,072	-0,281
I/92 - I/97	0,073	0,089	-0,121
I/93 - I/98	0,284	0,250	0,378
I/94 - I/99	0,160	0,132	-0,001
I/95 - I/00	-0,014	0,029	-0,157
I/96 - I/01	0,050	-0,056	0,067
I/97 - I/02	-0,337	-0,263	-0,328
I/98 - I/03	-0,543	-0,533	-0,587
I/99 - I/04	-0,512	-0,452	-0,531
I/00 - I/05	-0,463	-0,471	-0,508
I/01 - I/06	-0,263	-0,260	-0,440
mean of correlation	-0,127	-0,124	-0,239
standard deviation of correlation	0,279	0,269	0,265
coefficient of variation of correlation	-2,191	-2,165	-1,107

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

3.3. Correlations with Money / Treasury Bonds

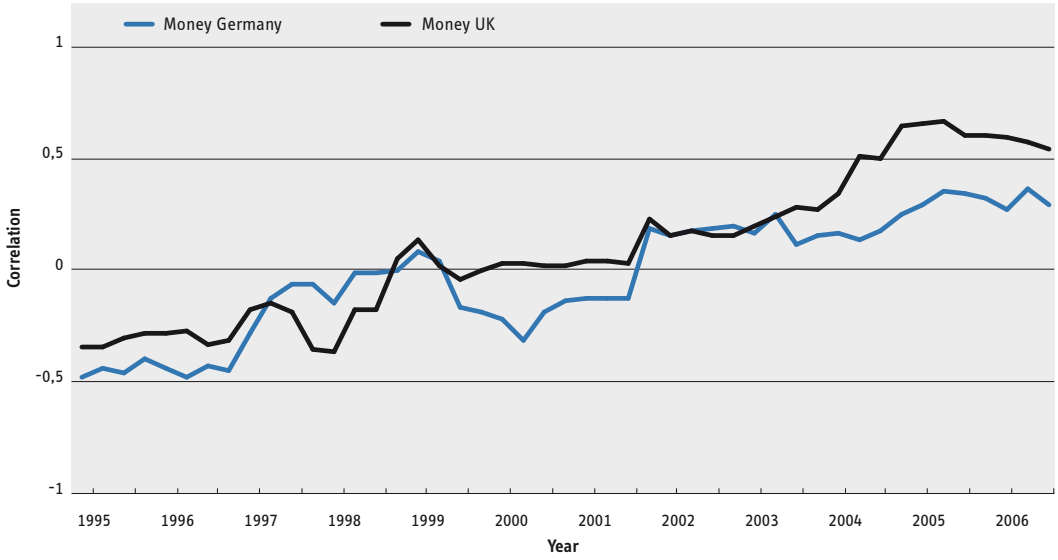
3.3.1 FTSE EPRA/NAREIT Global Total Return Index



period	Money Germany	Money UK
I/90 - I/95	-0,363	-0,432
I/91 - I/96	-0,299	-0,427
I/92 - I/97	-0,266	-0,296
I/93 - I/98	-0,334	-0,390
I/94 - I/99	-0,242	-0,073
I/95 - I/00	-0,400	-0,214
I/96 - I/01	-0,265	-0,189
I/97 - I/02	-0,041	-0,087
I/98 - I/03	0,074	-0,099
I/99 - I/04	0,166	0,069
I/00 - I/05	0,312	0,436
I/01 - I/06	0,266	0,328
mean of correlation	-0,115	-0,105
standard deviation of correlation	0,258	0,267
coefficient of variation of correlation	-2,237	-2,537

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

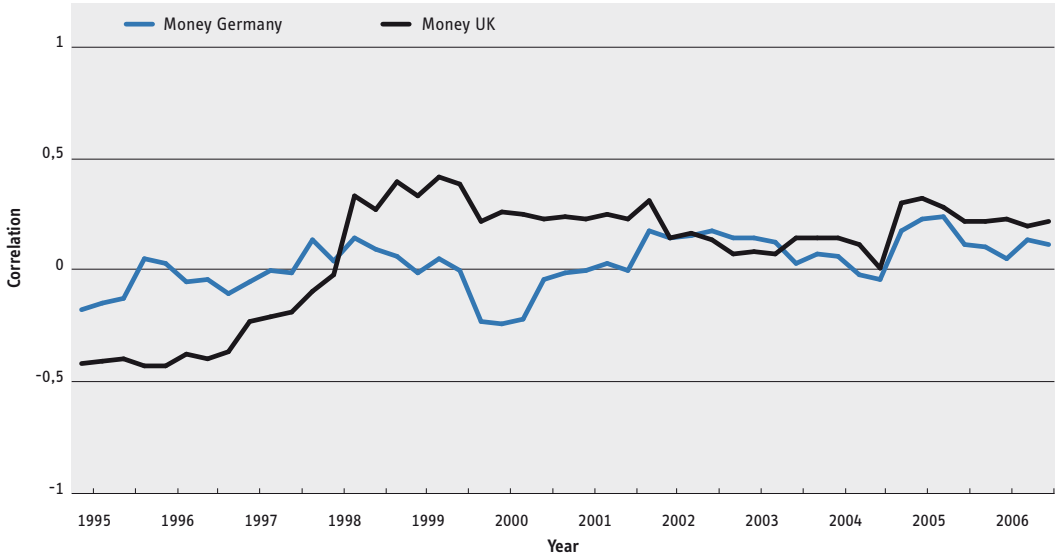
3.3.2 FTSE EPRA/NAREIT Europe Total Return Index



period	Money Germany	Money UK
I/90 - I/95	-0,469	-0,339
I/91 - I/96	-0,425	-0,279
I/92 - I/97	-0,272	-0,171
I/93 - I/98	-0,146	-0,361
I/94 - I/99	0,078	0,125
I/95 - I/00	-0,216	0,027
I/96 - I/01	-0,124	0,032
I/97 - I/02	0,151	0,144
I/98 - I/03	0,157	0,193
I/99 - I/04	0,158	0,332
I/00 - I/05	0,279	0,631
I/01 - I/06	0,259	0,568
mean of correlation	-0,028	0,087
standard deviation of correlation	0,253	0,314
coefficient of variation of correlation	-9,166	3,588

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

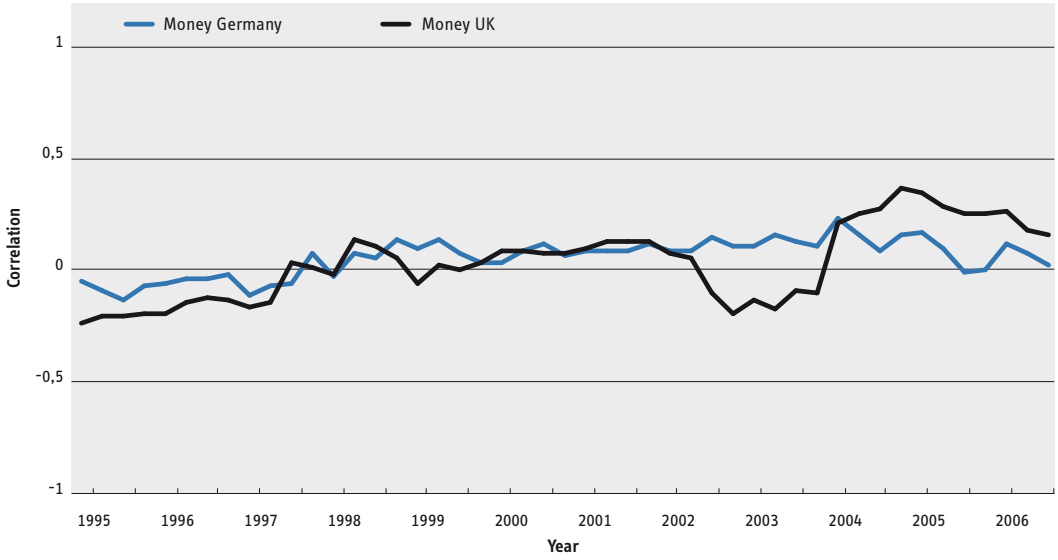
3.3.3 FTSE EPRA/NAREIT United States Total Return Index



period	Money Germany	Money UK
I/90 - I/95	-0,175	-0,409
I/91 - I/96	0,024	-0,418
I/92 - I/97	-0,055	-0,225
I/93 - I/98	0,040	-0,023
I/94 - I/99	-0,010	0,320
I/95 - I/00	-0,232	0,245
I/96 - I/01	-0,005	0,219
I/97 - I/02	0,135	0,141
I/98 - I/03	0,137	0,073
I/99 - I/04	0,059	0,140
I/00 - I/05	0,216	0,312
I/01 - I/06	0,051	0,219
mean of correlation	0,029	0,072
standard deviation of correlation	0,114	0,254
coefficient of variation of correlation	3,977	3,528

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

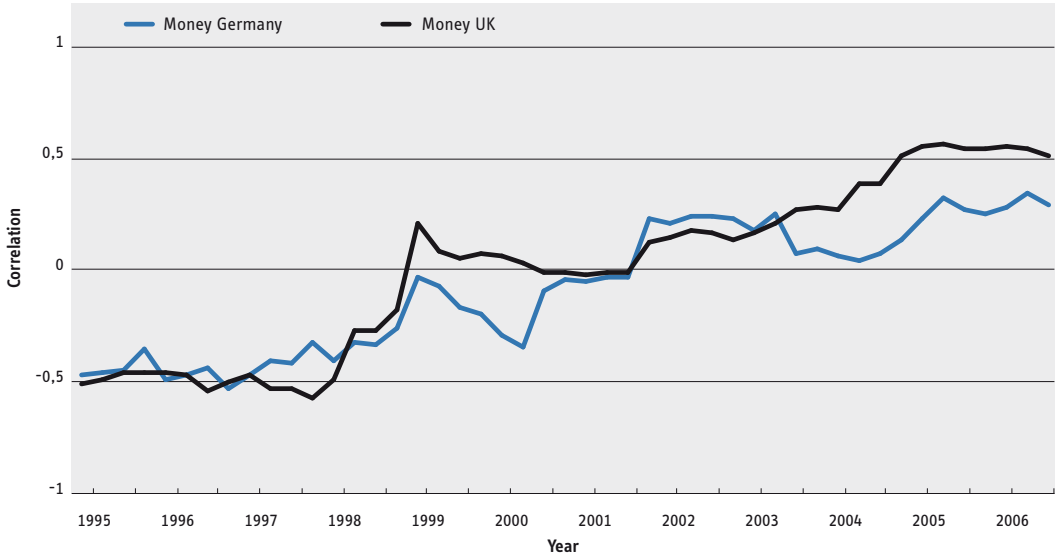
3.3.4 FTSE EPRA/NAREIT Australia Total Return Index



period	Money Germany	Money UK
I/90 - I/95	-0,046	-0,231
I/91 - I/96	-0,049	-0,187
I/92 - I/97	-0,101	-0,158
I/93 - I/98	-0,022	-0,012
I/94 - I/99	0,101	-0,051
I/95 - I/00	0,037	0,087
I/96 - I/01	0,087	0,094
I/97 - I/02	0,092	0,076
I/98 - I/03	0,110	-0,122
I/99 - I/04	0,225	0,209
I/00 - I/05	0,169	0,338
I/01 - I/06	0,119	0,256
mean of correlation	0,058	0,037
standard deviation of correlation	0,081	0,162
coefficient of variation of correlation	1,391	4,432

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

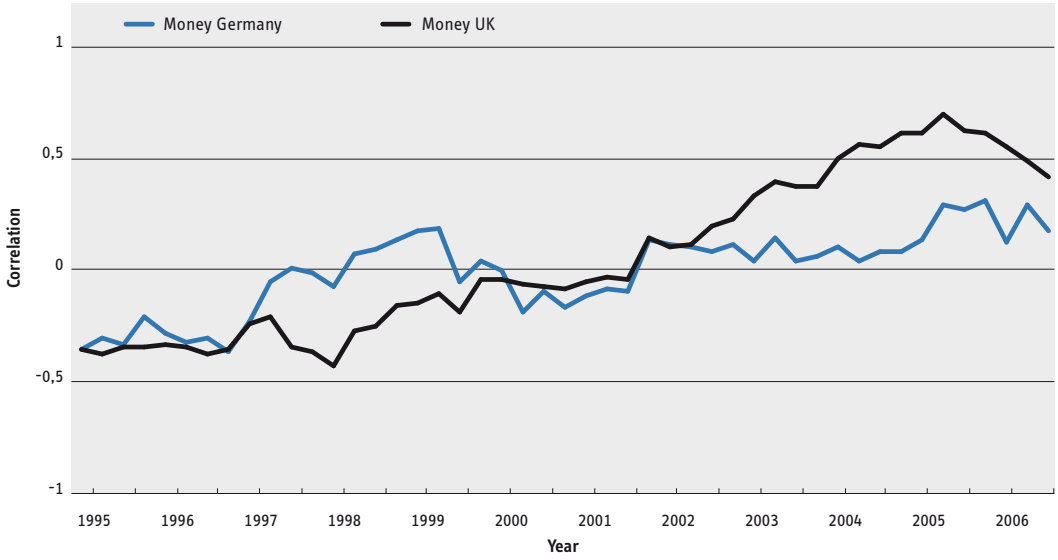
3.3.5 FTSE EPRA/NAREIT United Kingdom Total Return Index



period	Money Germany	Money UK
I/90 - I/95	-0,424	-0,471
I/91 - I/96	-0,444	-0,415
I/92 - I/97	-0,427	-0,425
I/93 - I/98	-0,365	-0,445
I/94 - I/99	-0,006	0,228
I/95 - I/00	-0,255	0,084
I/96 - I/01	-0,023	0,007
I/97 - I/02	0,233	0,168
I/98 - I/03	0,199	0,187
I/99 - I/04	0,084	0,289
I/00 - I/05	0,248	0,562
I/01 - I/06	0,301	0,563
mean of correlation	-0,053	0,033
standard deviation of correlation	0,277	0,364
coefficient of variation of correlation	-5,194	11,085

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

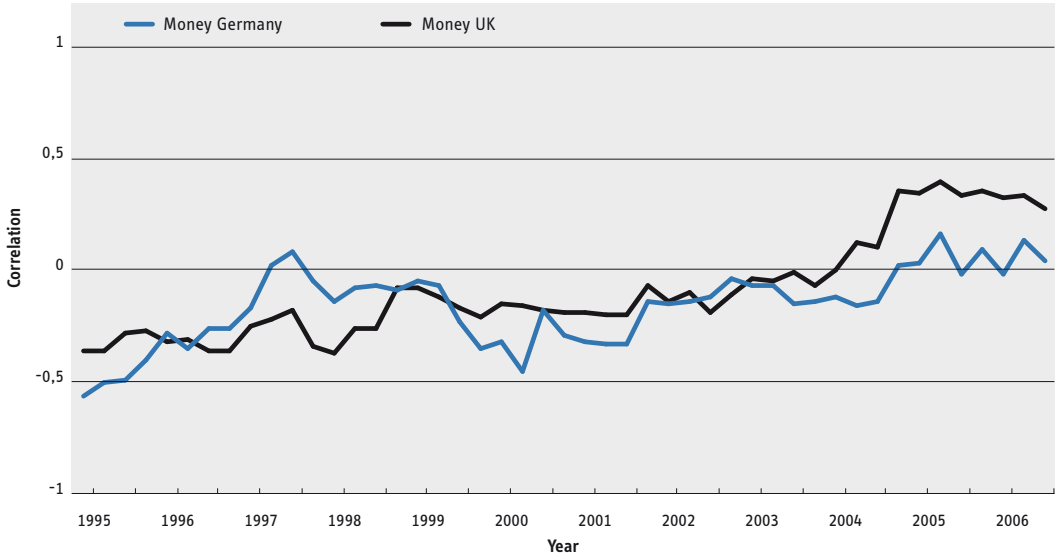
3.3.6 FTSE EPRA/NAREIT France Total Return Index



period	Money Germany	Money UK
I/90 - I/95	-0,348	-0,351
I/91 - I/96	-0,272	-0,325
I/92 - I/97	-0,226	-0,238
I/93 - I/98	-0,072	-0,421
I/94 - I/99	0,171	-0,143
I/95 - I/00	-0,003	-0,046
I/96 - I/01	-0,116	-0,049
I/97 - I/02	0,104	0,095
I/98 - I/03	0,035	0,318
I/99 - I/04	0,095	0,487
I/00 - I/05	0,128	0,592
I/01 - I/06	0,114	0,527
mean of correlation	-0,006	0,049
standard deviation of correlation	0,179	0,348
coefficient of variation of correlation	-28,244	7,105

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

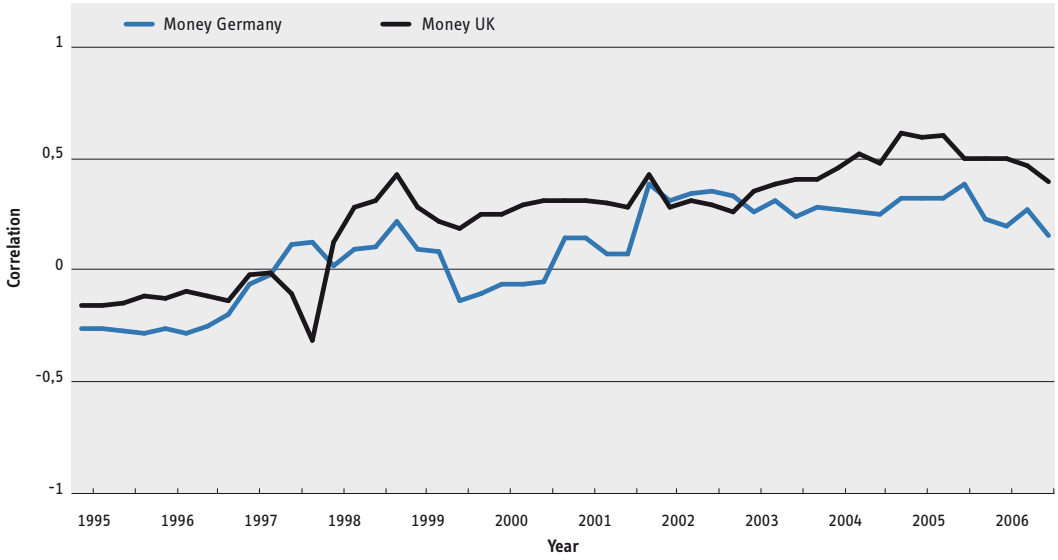
3.3.7 FTSE EPRA/NAREIT Netherlands Total Return Index



period	Money Germany	Money UK
I/90 - I/95	-0,568	-0,362
I/91 - I/96	-0,283	-0,330
I/92 - I/97	-0,173	-0,258
I/93 - I/98	-0,144	-0,375
I/94 - I/99	-0,057	-0,088
I/95 - I/00	-0,322	-0,152
I/96 - I/01	-0,324	-0,199
I/97 - I/02	-0,155	-0,144
I/98 - I/03	-0,078	-0,049
I/99 - I/04	-0,127	-0,006
I/00 - I/05	0,028	0,344
I/01 - I/06	-0,026	0,319
mean of correlation	-0,166	-0,096
standard deviation of correlation	0,172	0,229
coefficient of variation of correlation	-1,036	-2,372

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

3.3.8 FTSE EPRA/NAREIT Sweden Total Return Index

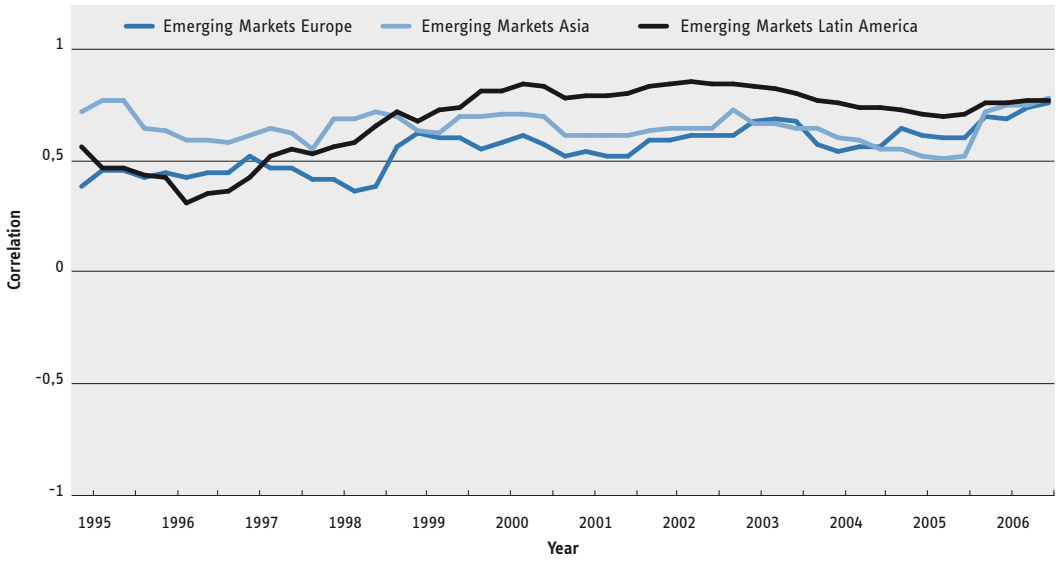


period	Money Germany	Money UK
I/90 - I/95	-0,261	-0,154
I/91 - I/96	-0,260	-0,120
I/92 - I/97	-0,060	-0,024
I/93 - I/98	0,020	0,114
I/94 - I/99	0,092	0,265
I/95 - I/00	-0,064	0,236
I/96 - I/01	0,135	0,296
I/97 - I/02	0,298	0,270
I/98 - I/03	0,249	0,344
I/99 - I/04	0,260	0,444
I/00 - I/05	0,307	0,576
I/01 - I/06	0,188	0,481
mean of correlation	0,090	0,232
standard deviation of correlation	0,205	0,236
coefficient of variation of correlation	2,271	1,016

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

3.4. Correlations with Emerging Market Stocks

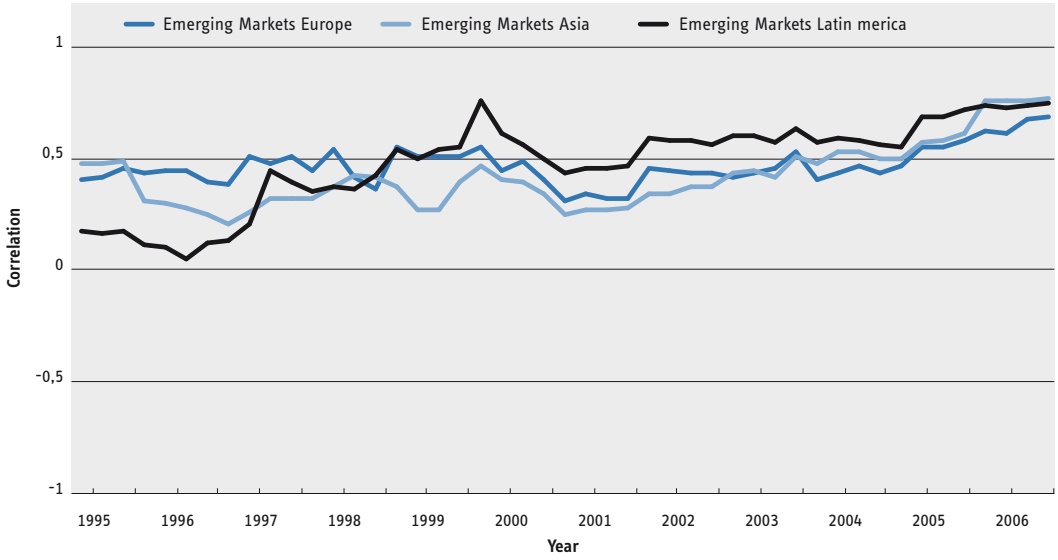
3.4.1 FTSE EPRA/NAREIT Global Total Return Index



period	Emerging Markets Europe	Emerging Markets Asia	Emerging Markets Latin America
I/90 - I/95	0,390	0,712	0,566
I/91 - I/96	0,451	0,632	0,430
I/92 - I/97	0,525	0,612	0,427
I/93 - I/98	0,417	0,684	0,564
I/94 - I/99	0,619	0,632	0,674
I/95 - I/00	0,584	0,709	0,801
I/96 - I/01	0,545	0,617	0,787
I/97 - I/02	0,593	0,639	0,833
I/98 - I/03	0,678	0,662	0,824
I/99 - I/04	0,538	0,601	0,756
I/00 - I/05	0,610	0,523	0,699
I/01 - I/06	0,683	0,741	0,753
mean of correlation	0,553	0,647	0,680
standard deviation of correlation	0,095	0,066	0,150
coefficient of variation of correlation	0,171	0,102	0,221

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

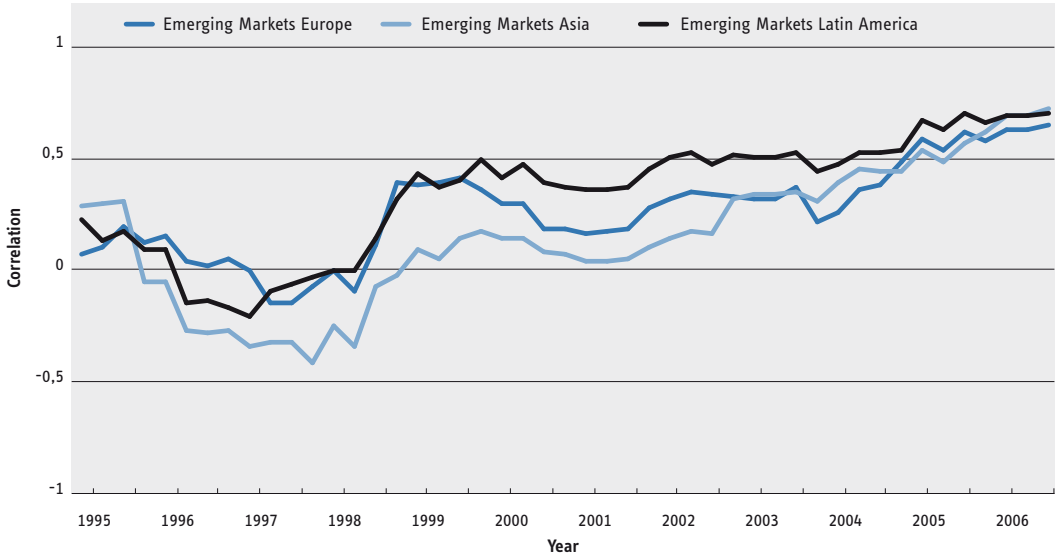
3.4.2 FTSE EPRA/NAREIT Europe Total Return Index



period	Emerging Markets Europe	Emerging Markets Asia	Emerging Markets Latin America
I/90 - I/95	0,410	0,479	0,192
I/91 - I/96	0,455	0,307	0,114
I/92 - I/97	0,512	0,270	0,223
I/93 - I/98	0,539	0,378	0,380
I/94 - I/99	0,512	0,278	0,501
I/95 - I/00	0,448	0,409	0,612
I/96 - I/01	0,354	0,282	0,462
I/97 - I/02	0,450	0,352	0,586
I/98 - I/03	0,444	0,452	0,605
I/99 - I/04	0,439	0,535	0,594
I/00 - I/05	0,556	0,575	0,681
I/01 - I/06	0,618	0,757	0,728
mean of correlation	0,473	0,426	0,485
standard deviation of correlation	0,082	0,140	0,191
coefficient of variation of correlation	0,174	0,328	0,395

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

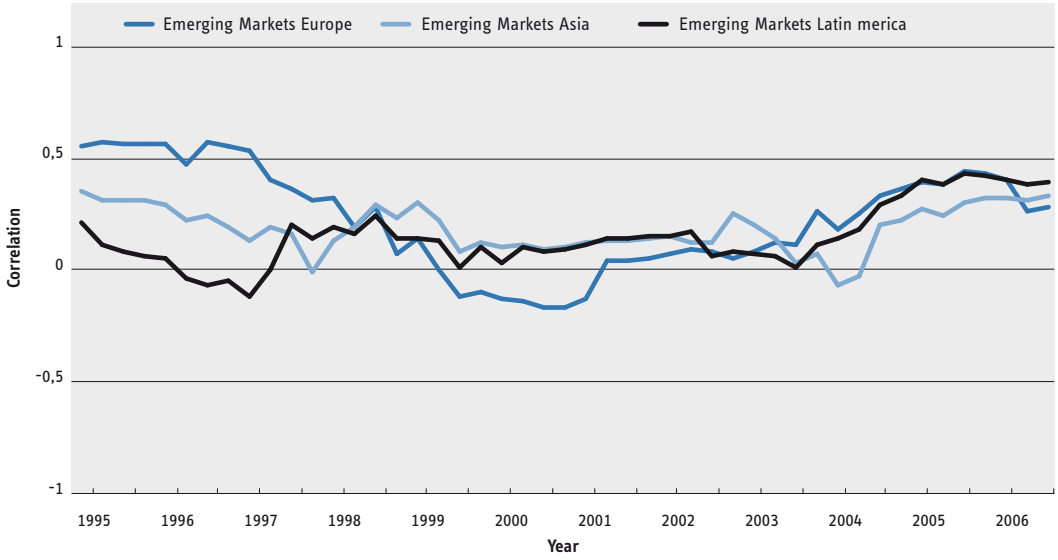
3.4.3 FTSE EPRA/NAREIT United States Total Return Index



period	Emerging Markets Europe	Emerging Markets Asia	Emerging Markets Latin America
I/90 - I/95	0,081	0,294	0,225
I/91 - I/96	0,161	-0,040	0,099
I/92 - I/97	0,011	-0,327	-0,190
I/93 - I/98	0,002	-0,233	0,005
I/94 - I/99	0,385	0,098	0,434
I/95 - I/00	0,300	0,151	0,415
I/96 - I/01	0,164	0,051	0,356
I/97 - I/02	0,322	0,147	0,498
I/98 - I/03	0,325	0,342	0,500
I/99 - I/04	0,264	0,392	0,469
I/00 - I/05	0,583	0,528	0,667
I/01 - I/06	0,620	0,686	0,680
mean of correlation	0,266	0,158	0,341
standard deviation of correlation	0,206	0,298	0,257
coefficient of variation of correlation	0,774	1,884	0,753

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

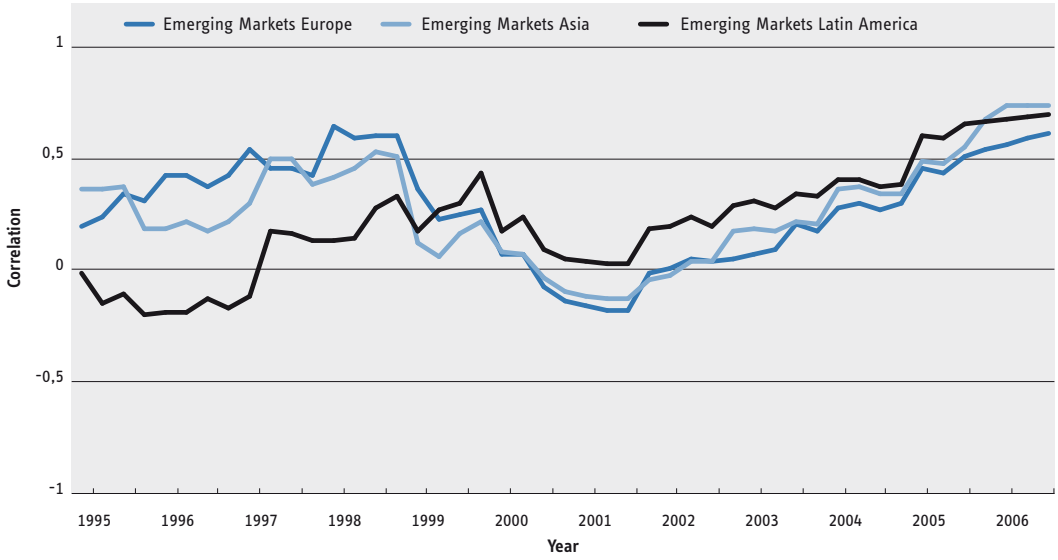
3.4.4 FTSE EPRA/NAREIT Australia Total Return Index



period	Emerging Markets Europe	Emerging Markets Asia	Emerging Markets Latin America
I/90 - I/95	0,566	0,356	0,223
I/91 - I/96	0,570	0,303	0,054
I/92 - I/97	0,539	0,142	-0,111
I/93 - I/98	0,334	0,141	0,199
I/94 - I/99	0,148	0,310	0,147
I/95 - I/00	-0,122	0,103	0,033
I/96 - I/01	-0,123	0,127	0,121
I/97 - I/02	0,078	0,157	0,163
I/98 - I/03	0,090	0,212	0,080
I/99 - I/04	0,187	-0,067	0,152
I/00 - I/05	0,406	0,279	0,408
I/01 - I/06	0,409	0,334	0,406
mean of correlation	0,238	0,193	0,156
standard deviation of correlation	0,233	0,104	0,137
coefficient of variation of correlation	0,981	0,537	0,878

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

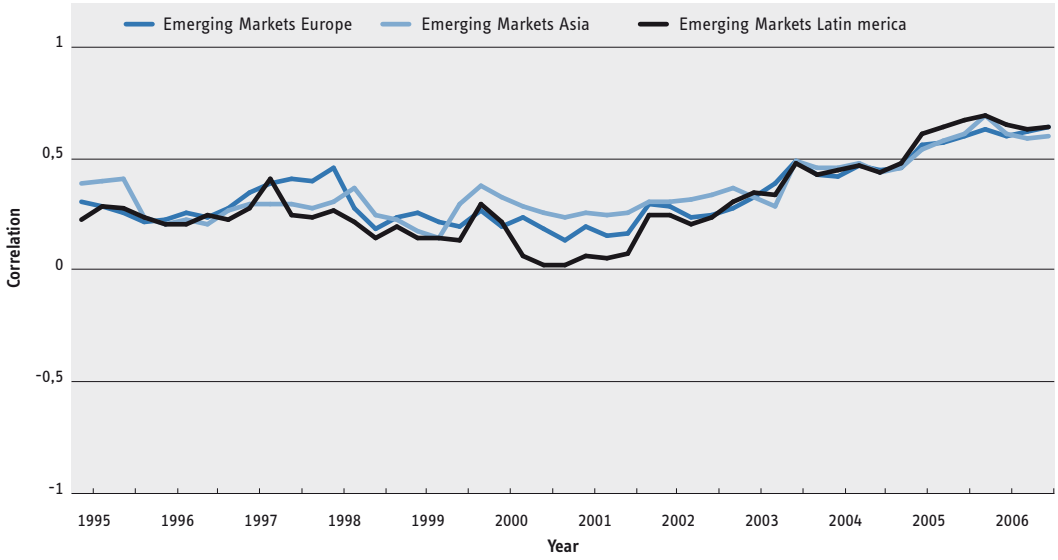
3.4.5 FTSE EPRA/NAREIT United Kingdom Total Return Index



period	Emerging Markets Europe	Emerging Markets Asia	Emerging Markets Latin America
I/90 - I/95	0,205	0,372	0,011
I/91 - I/96	0,428	0,203	-0,165
I/92 - I/97	0,539	0,313	-0,095
I/93 - I/98	0,640	0,418	0,151
I/94 - I/99	0,365	0,142	0,191
I/95 - I/00	0,085	0,096	0,185
I/96 - I/01	-0,137	-0,093	0,054
I/97 - I/02	0,027	-0,002	0,210
I/98 - I/03	0,090	0,202	0,316
I/99 - I/04	0,288	0,372	0,407
I/00 - I/05	0,464	0,487	0,598
I/01 - I/06	0,557	0,732	0,670
mean of correlation	0,288	0,281	0,233
standard deviation of correlation	0,229	0,228	0,244
coefficient of variation of correlation	0,793	0,812	1,046

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

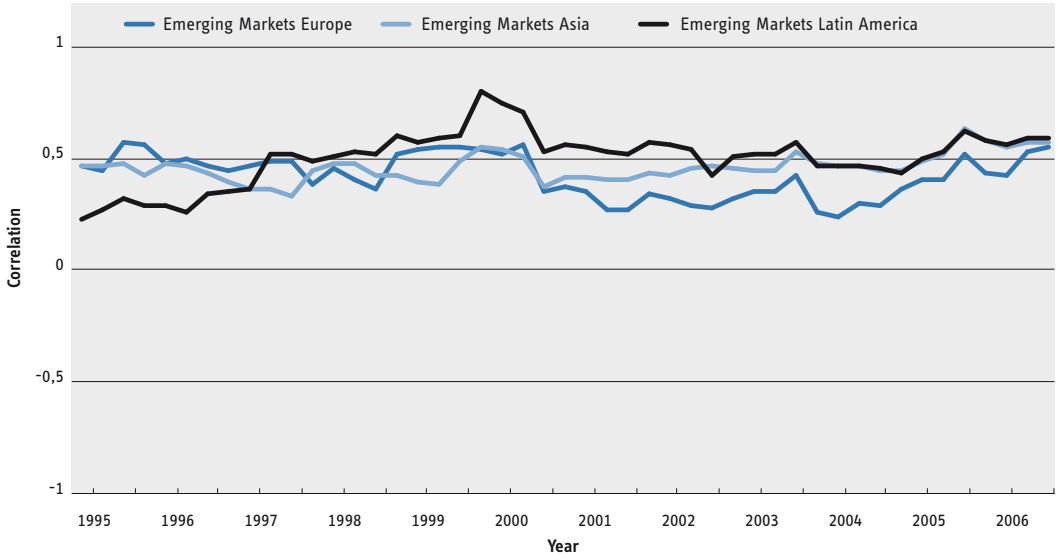
3.4.6 FTSE EPRA/NAREIT France Total Return Index



period	Emerging Markets Europe	Emerging Markets Asia	Emerging Markets Latin America
I/90 - I/95	0,306	0,391	0,232
I/91 - I/96	0,224	0,208	0,204
I/92 - I/97	0,354	0,301	0,284
I/93 - I/98	0,460	0,313	0,265
I/94 - I/99	0,254	0,179	0,152
I/95 - I/00	0,196	0,328	0,216
I/96 - I/01	0,197	0,259	0,066
I/97 - I/02	0,291	0,309	0,251
I/98 - I/03	0,326	0,331	0,348
I/99 - I/04	0,420	0,464	0,447
I/00 - I/05	0,558	0,540	0,610
I/01 - I/06	0,603	0,615	0,648
mean of correlation	0,342	0,359	0,308
standard deviation of correlation	0,145	0,132	0,185
coefficient of variation of correlation	0,423	0,368	0,599

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

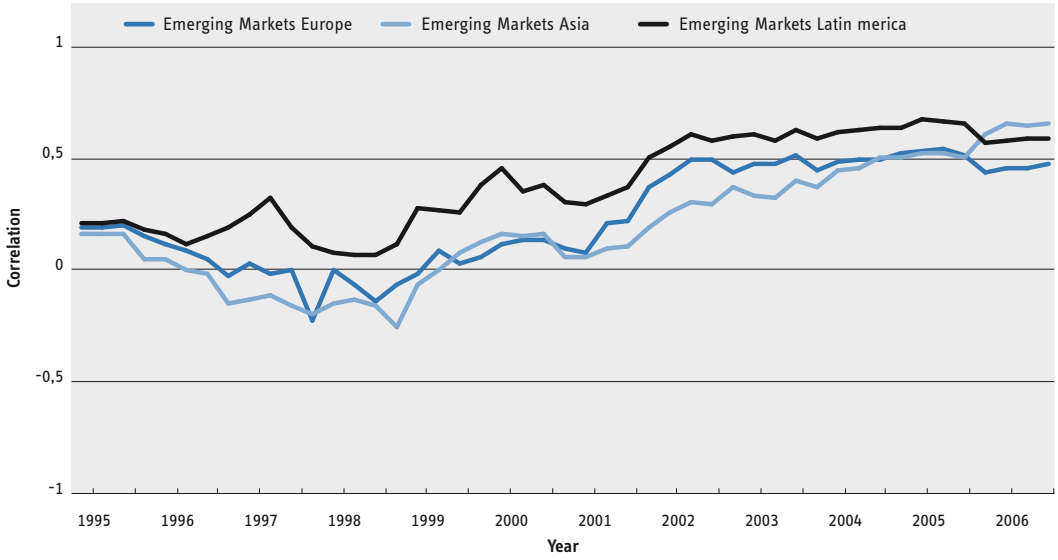
3.4.7 FTSE EPRA/NAREIT Netherlands Total Return Index



period	Emerging Markets Europe	Emerging Markets Asia	Emerging Markets Latin America
I/90 - I/95	0,467	0,467	0,237
I/91 - I/96	0,485	0,480	0,302
I/92 - I/97	0,467	0,373	0,368
I/93 - I/98	0,462	0,485	0,514
I/94 - I/99	0,538	0,399	0,570
I/95 - I/00	0,523	0,542	0,743
I/96 - I/01	0,361	0,420	0,554
I/97 - I/02	0,333	0,429	0,561
I/98 - I/03	0,361	0,454	0,521
I/99 - I/04	0,254	0,475	0,476
I/00 - I/05	0,410	0,490	0,506
I/01 - I/06	0,436	0,552	0,562
mean of correlation	0,427	0,466	0,505
standard deviation of correlation	0,095	0,061	0,118
coefficient of variation of correlation	0,223	0,130	0,234

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

3.4.8 FTSE EPRA/NAREIT Sweden Total Return Index

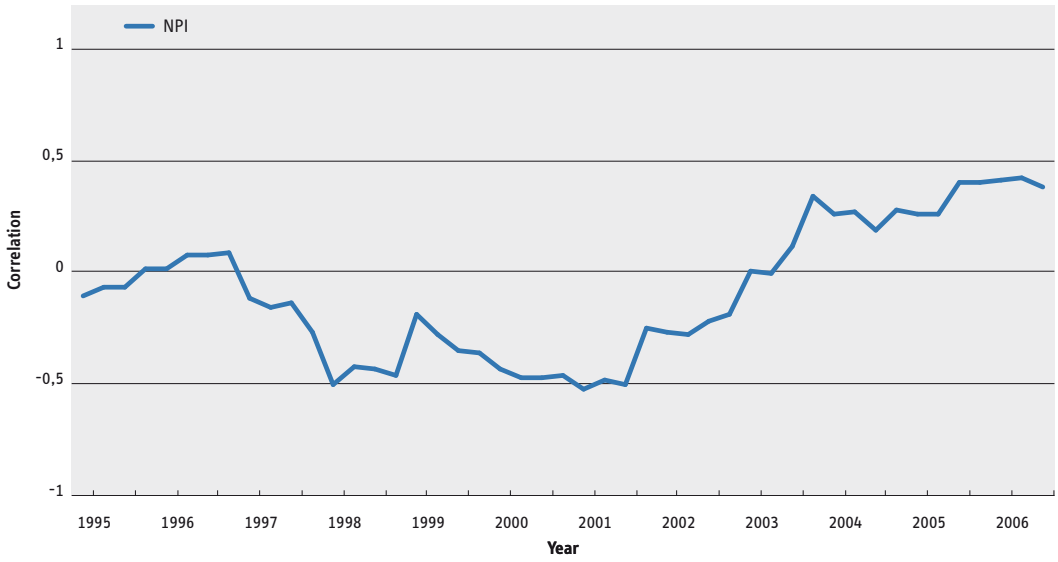


period	Emerging Markets Europe	Emerging Markets Asia	Emerging Markets Latin America
I/90 - I/95	0,192	0,158	0,212
I/91 - I/96	0,110	0,033	0,156
I/92 - I/97	0,020	-0,153	0,249
I/93 - I/98	-0,014	-0,172	0,071
I/94 - I/99	-0,038	-0,081	0,275
I/95 - I/00	0,109	0,157	0,472
I/96 - I/01	0,069	0,043	0,300
I/97 - I/02	0,441	0,262	0,571
I/98 - I/03	0,491	0,341	0,636
I/99 - I/04	0,503	0,465	0,643
I/00 - I/05	0,555	0,540	0,702
I/01 - I/06	0,474	0,679	0,603
mean of correlation	0,239	0,188	0,402
standard deviation of correlation	0,240	0,275	0,217
coefficient of variation of correlation	1,007	1,463	0,539

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

3.5. Correlations with Direct Real Estate

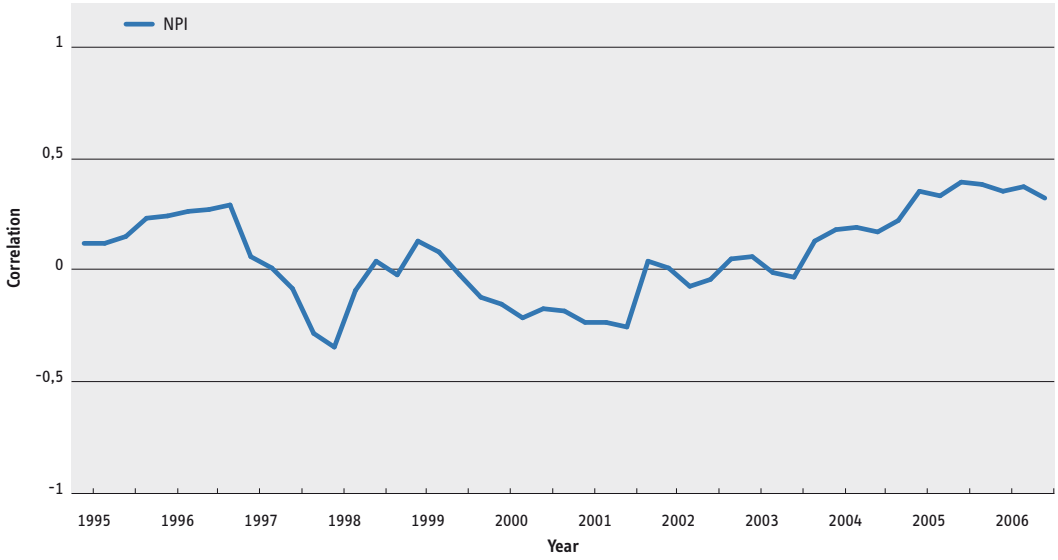
3.5.1 FTSE EPRA/NAREIT Global Total Return Index



period	NPI
I/90 - I/95	-0,108
I/91 - I/96	0,012
I/92 - I/97	-0,118
I/93 - I/98	-0,508
I/94 - I/99	-0,193
I/95 - I/00	-0,431
I/96 - I/01	-0,522
I/97 - I/02	-0,274
I/98 - I/03	0,003
I/99 - I/04	0,251
I/00 - I/05	0,247
I/01 - I/06	
mean of correlation	-0,096
standard deviation of correlation	0,301
coefficient of variation of correlation	-3,147

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

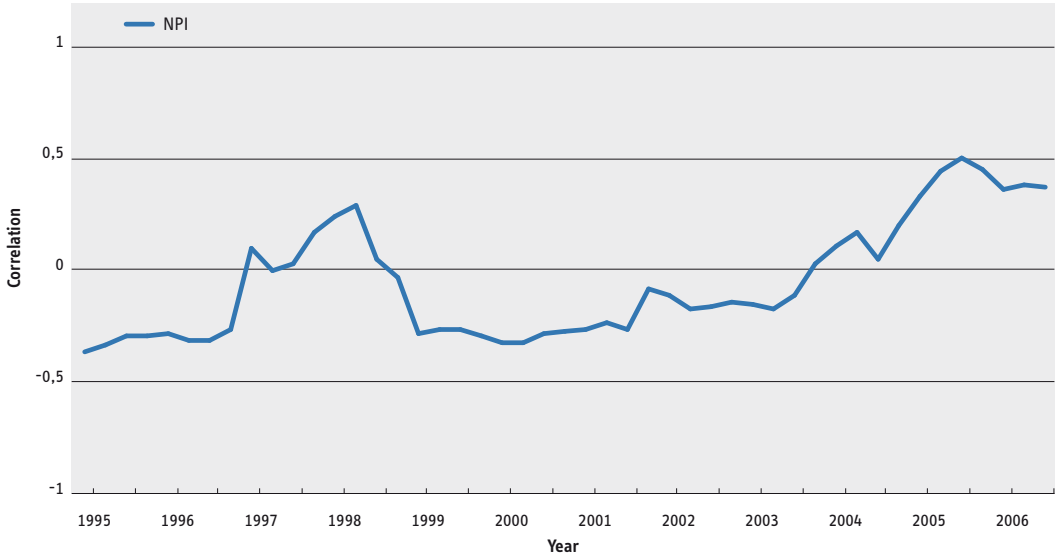
3.5.2 FTSE EPRA/NAREIT Europe Total Return Index



period	NPI
I/90 - I/95	0,120
I/91 - I/96	0,241
I/92 - I/97	0,057
I/93 - I/98	-0,341
I/94 - I/99	0,133
I/95 - I/00	-0,155
I/96 - I/01	-0,238
I/97 - I/02	0,005
I/98 - I/03	0,064
I/99 - I/04	0,180
I/00 - I/05	0,349
I/01 - I/06	
mean of correlation	0,063
standard deviation of correlation	0,200
coefficient of variation of correlation	3,170

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

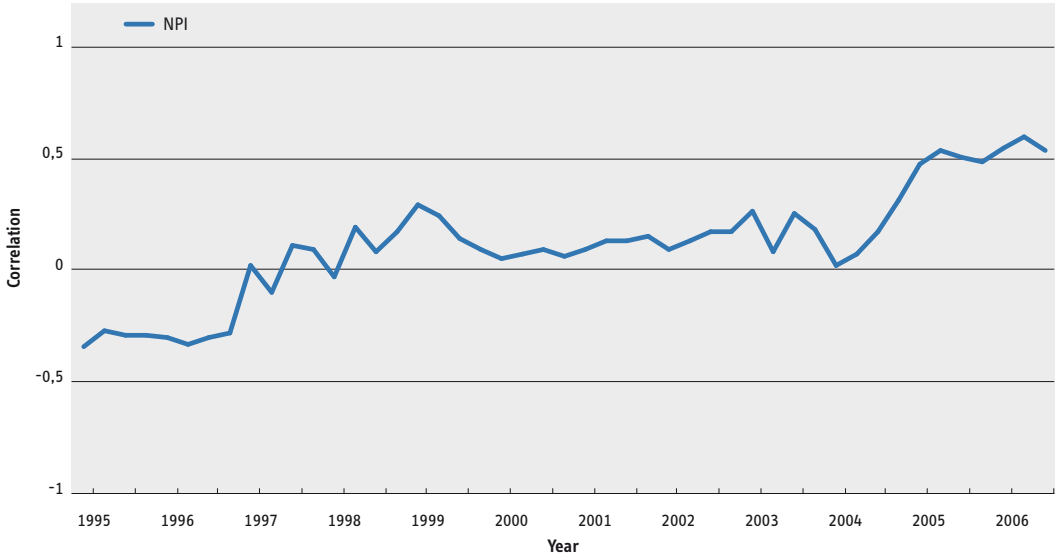
3.5.3 FTSE EPRA/NAREIT United States Total Return Index



period	NPI
I/90 - I/95	-0,364
I/91 - I/96	-0,283
I/92 - I/97	0,100
I/93 - I/98	0,238
I/94 - I/99	-0,281
I/95 - I/00	-0,323
I/96 - I/01	-0,261
I/97 - I/02	-0,111
I/98 - I/03	-0,152
I/99 - I/04	0,108
I/00 - I/05	0,328
I/01 - I/06	
mean of correlation	-0,052
standard deviation of correlation	0,259
coefficient of variation of correlation	-4,997

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

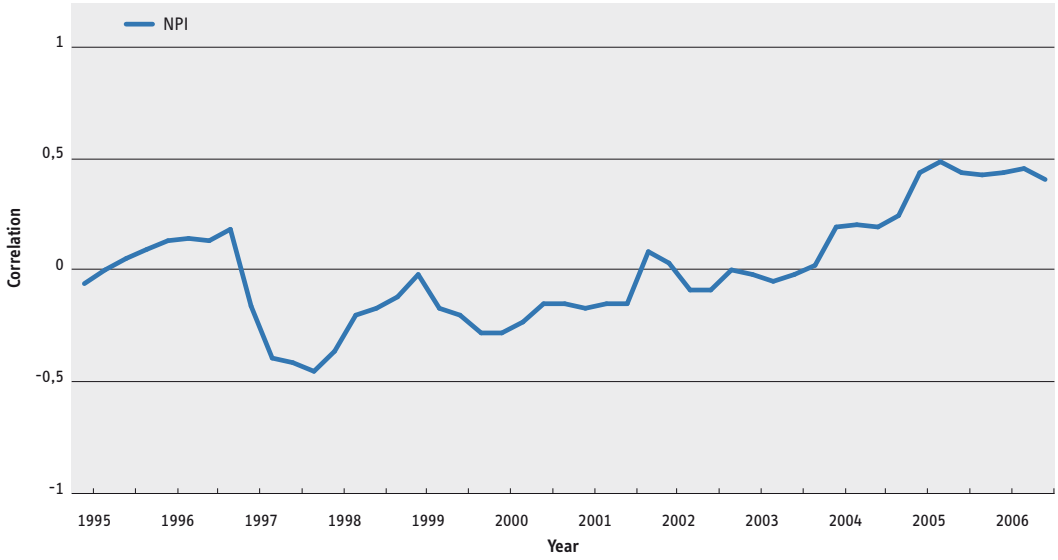
3.5.4 FTSE EPRA/NAREIT Australia Total Return Index



period	NPI
I/90 - I/95	-0,346
I/91 - I/96	-0,302
I/92 - I/97	0,014
I/93 - I/98	-0,036
I/94 - I/99	0,294
I/95 - I/00	0,050
I/96 - I/01	0,089
I/97 - I/02	0,094
I/98 - I/03	0,264
I/99 - I/04	0,019
I/00 - I/05	0,475
I/01 - I/06	
mean of correlation	0,110
standard deviation of correlation	0,248
coefficient of variation of correlation	2,263

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

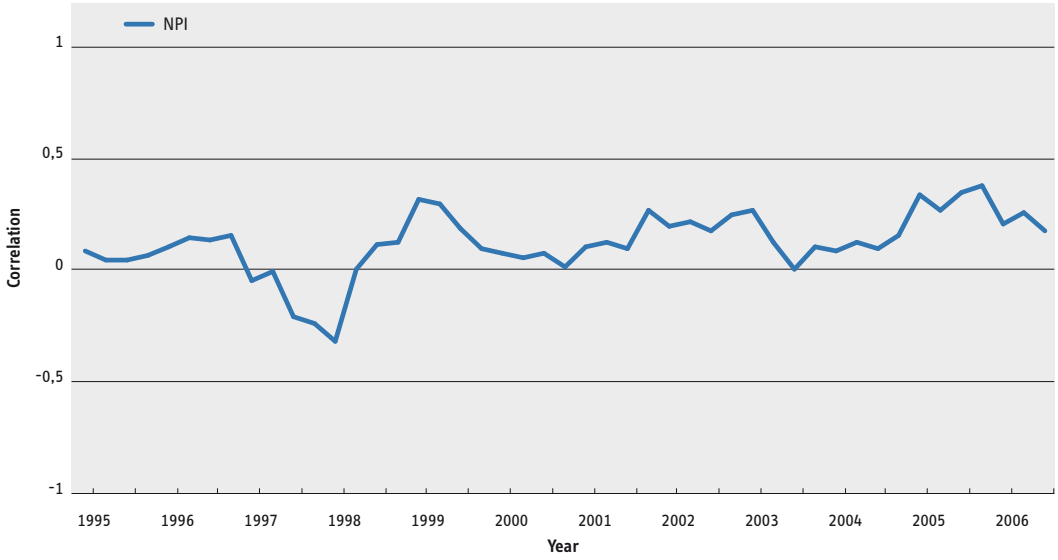
3.5.5 FTSE EPRA/NAREIT United Kingdom Total Return Index



period	NPI
I/90 - I/95	-0,064
I/91 - I/96	0,133
I/92 - I/97	-0,161
I/93 - I/98	-0,363
I/94 - I/99	-0,019
I/95 - I/00	-0,284
I/96 - I/01	-0,169
I/97 - I/02	0,028
I/98 - I/03	-0,018
I/99 - I/04	0,190
I/00 - I/05	0,429
I/01 - I/06	
mean of correlation	0,002
standard deviation of correlation	0,248
coefficient of variation of correlation	115,713

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

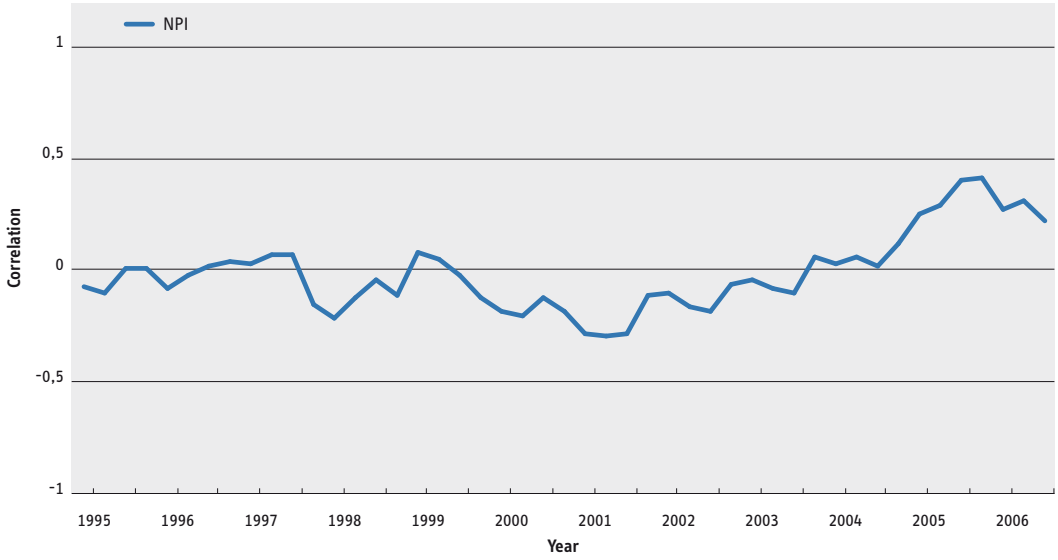
3.5.6 FTSE EPRA/NAREIT France Total Return Index



period	NPI
I/90 - I/95	0,077
I/91 - I/96	0,101
I/92 - I/97	-0,049
I/93 - I/98	-0,326
I/94 - I/99	0,307
I/95 - I/00	0,073
I/96 - I/01	0,097
I/97 - I/02	0,189
I/98 - I/03	0,262
I/99 - I/04	0,074
I/00 - I/05	0,326
I/01 - I/06	
mean of correlation	0,114
standard deviation of correlation	0,141
coefficient of variation of correlation	1,239

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

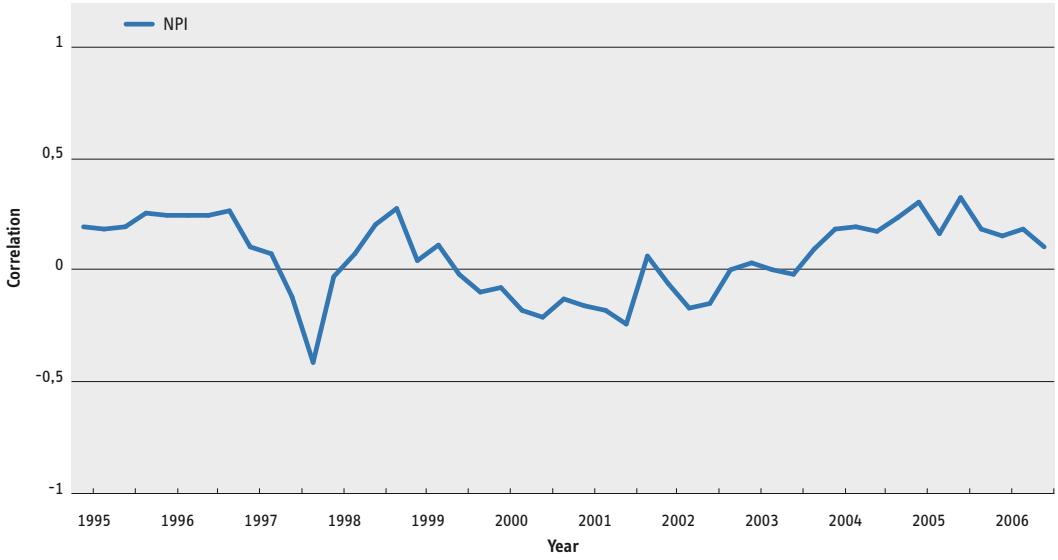
3.5.7 FTSE EPRA/NAREIT Netherlands Total Return Index



period	NPI
I/90 - I/95	-0,081
I/91 - I/96	-0,096
I/92 - I/97	0,021
I/93 - I/98	-0,226
I/94 - I/99	0,073
I/95 - I/00	-0,191
I/96 - I/01	-0,297
I/97 - I/02	-0,114
I/98 - I/03	-0,054
I/99 - I/04	0,014
I/00 - I/05	0,239
I/01 - I/06	
mean of correlation	-0,025
standard deviation of correlation	0,171
coefficient of variation of correlation	-6,897

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

3.5.8 FTSE EPRA/NAREIT Sweden Total Return Index

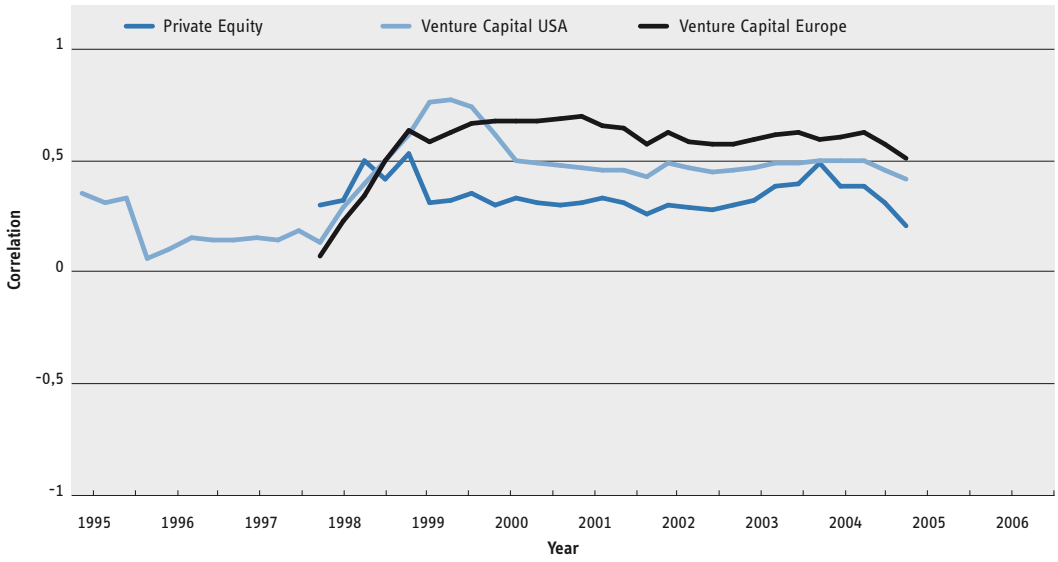


period	NPI
I/90 - I/95	0,177
I/91 - I/96	0,233
I/92 - I/97	0,091
I/93 - I/98	-0,044
I/94 - I/99	0,030
I/95 - I/00	-0,094
I/96 - I/01	-0,176
I/97 - I/02	-0,077
I/98 - I/03	0,019
I/99 - I/04	0,167
I/00 - I/05	0,292
I/01 - I/06	
mean of correlation	0,047
standard deviation of correlation	0,172
coefficient of variation of correlation	3,684

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

3.6. Correlations with Private Equity and Venture Capital

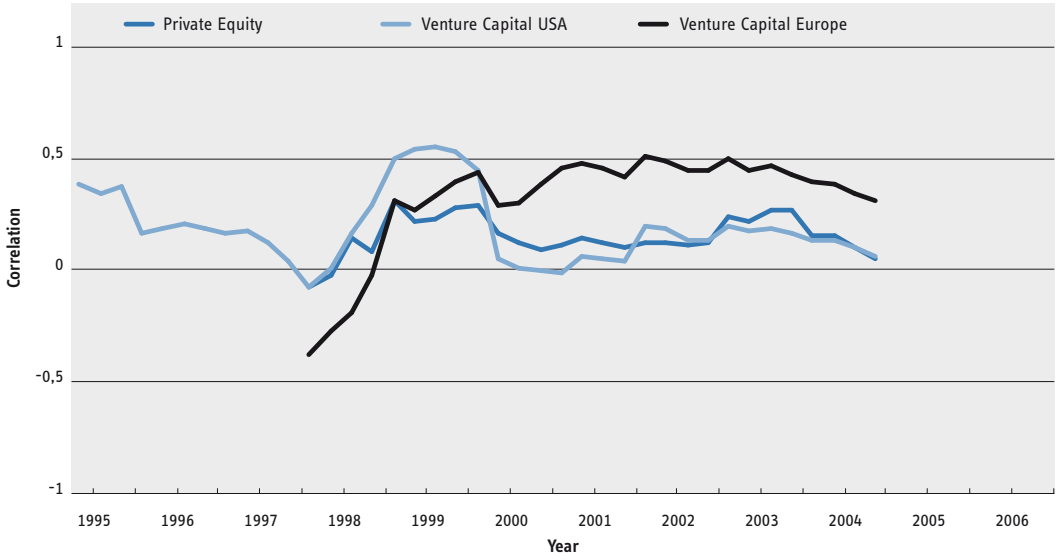
3.6.1 FTSE EPRA/NAREIT Global Total Return Index



period	Private Equity	Venture Capital USA	Venture Capital Europe
I/90 - I/95		0,343	
I/91 - I/96		0,089	
I/92 - I/97		0,140	
I/93 - I/98	0,308	0,280	0,219
I/94 - I/99	0,306	0,754	0,571
I/95 - I/00	0,328	0,488	0,668
I/96 - I/01	0,321	0,453	0,649
I/97 - I/02	0,277	0,456	0,579
I/98 - I/03	0,371	0,478	0,607
I/99 - I/04	0,372	0,495	0,613
I/00 - I/05			
I/01 - I/06			
mean of correlation	0,332	0,397	0,564
standard deviation of correlation	0,072	0,183	0,141
coefficient of variation of correlation	0,217	0,460	0,250

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

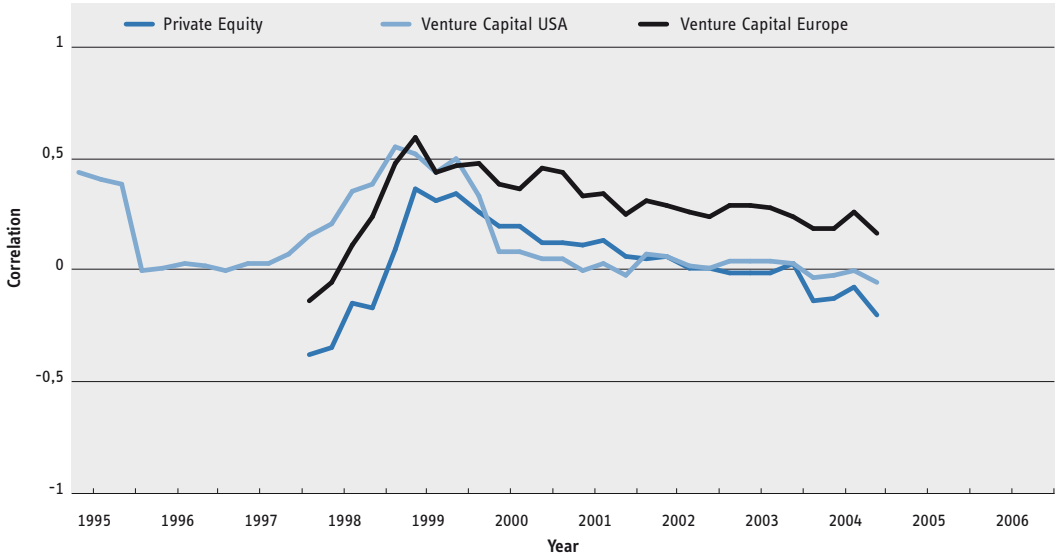
3.6.2 FTSE EPRA/NAREIT Europe Total Return Index



period	Private Equity	Venture Capital USA	Venture Capital Europe
I/90 - I/95		0,380	
I/91 - I/96		0,184	
I/92 - I/97		0,176	
I/93 - I/98	-0,024	0,002	-0,278
I/94 - I/99	0,215	0,539	0,266
I/95 - I/00	0,167	0,045	0,287
I/96 - I/01	0,137	0,053	0,479
I/97 - I/02	0,117	0,180	0,486
I/98 - I/03	0,217	0,168	0,444
I/99 - I/04	0,154	0,127	0,377
I/00 - I/05			
I/01 - I/06			
mean of correlation	0,149	0,184	0,313
standard deviation of correlation	0,091	0,162	0,236
coefficient of variation of correlation	0,610	0,881	0,754

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

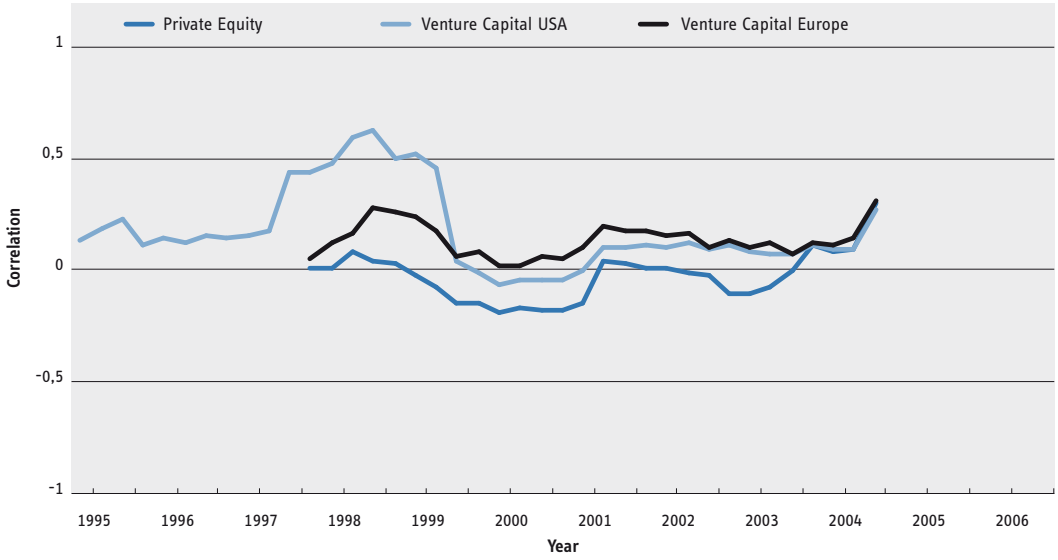
3.6.3 FTSE EPRA/NAREIT United States Total Return Index



period	Private Equity	Venture Capital USA	Venture Capital Europe
I/90 - I/95		0,424	
I/91 - I/96		0,001	
I/92 - I/97		0,018	
I/93 - I/98	-0,354	0,200	-0,062
I/94 - I/99	0,352	0,514	0,585
I/95 - I/00	0,186	0,070	0,379
I/96 - I/01	0,104	-0,017	0,327
I/97 - I/02	0,048	0,050	0,280
I/98 - I/03	-0,018	0,032	0,279
I/99 - I/04	-0,138	-0,034	0,176
I/00 - I/05			
I/01 - I/06			
mean of correlation	0,021	0,126	0,283
standard deviation of correlation	0,187	0,185	0,158
coefficient of variation of correlation	9,050	1,465	0,557

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

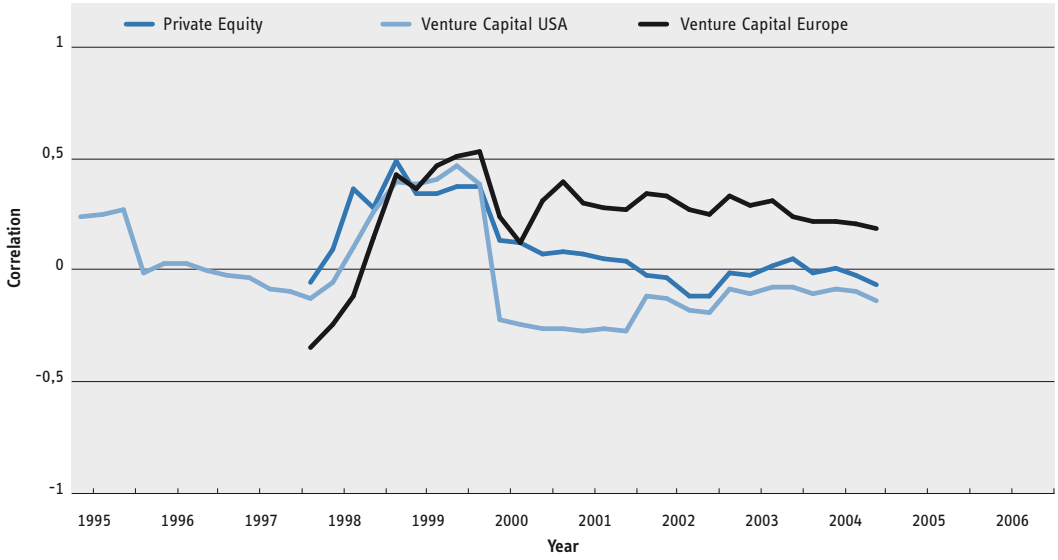
3.6.4 FTSE EPRA/NAREIT Australia Total Return Index



period	Private Equity	Venture Capital USA	Venture Capital Europe
I/90 - I/95		0,126	
I/91 - I/96		0,130	
I/92 - I/97		0,148	
I/93 - I/98	-0,001	0,475	0,113
I/94 - I/99	-0,029	0,515	0,227
I/95 - I/00	-0,200	-0,070	0,010
I/96 - I/01	-0,156	-0,010	0,093
I/97 - I/02	-0,004	0,093	0,146
I/98 - I/03	-0,115	0,075	0,094
I/99 - I/04	0,074	0,085	0,100
I/00 - I/05			
I/01 - I/06			
mean of correlation	-0,036	0,170	0,125
standard deviation of correlation	0,113	0,186	0,075
coefficient of variation of correlation	-3,149	1,094	0,601

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

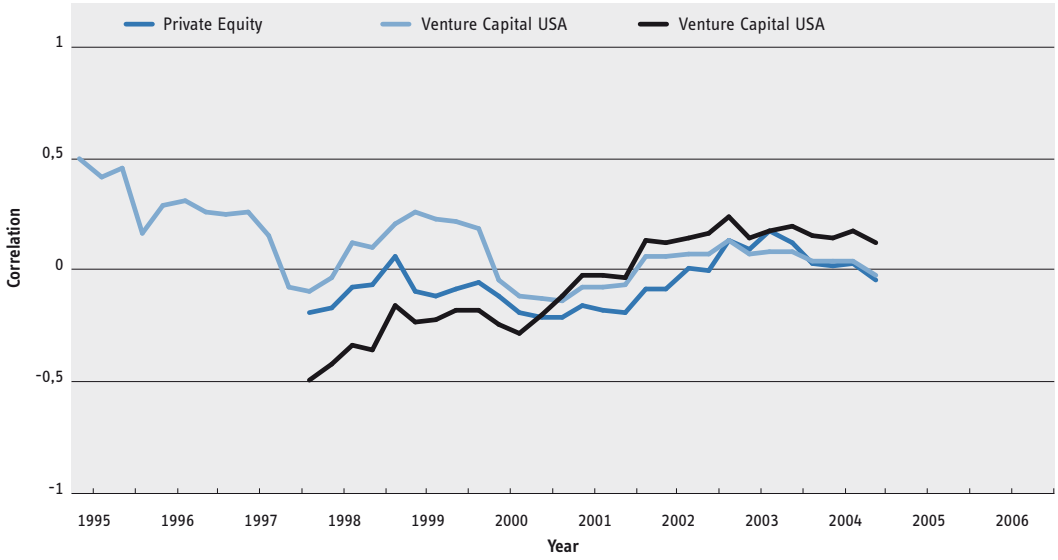
3.6.5 FTSE EPRA/NAREIT United Kingdom Total Return Index



period	Private Equity	Venture Capital USA	Venture Capital Europe
I/90 - I/95		0,227	
I/91 - I/96		0,017	
I/92 - I/97		-0,045	
I/93 - I/98	0,075	-0,070	-0,249
I/94 - I/99	0,330	0,367	0,347
I/95 - I/00	0,118	-0,231	0,225
I/96 - I/01	0,054	-0,286	0,287
I/97 - I/02	-0,051	-0,134	0,316
I/98 - I/03	-0,039	-0,114	0,282
I/99 - I/04	-0,003	-0,096	0,207
I/00 - I/05			
I/01 - I/06			
mean of correlation	0,088	-0,021	0,231
standard deviation of correlation	0,172	0,215	0,197
coefficient of variation of correlation	1,943	-10,023	0,852

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

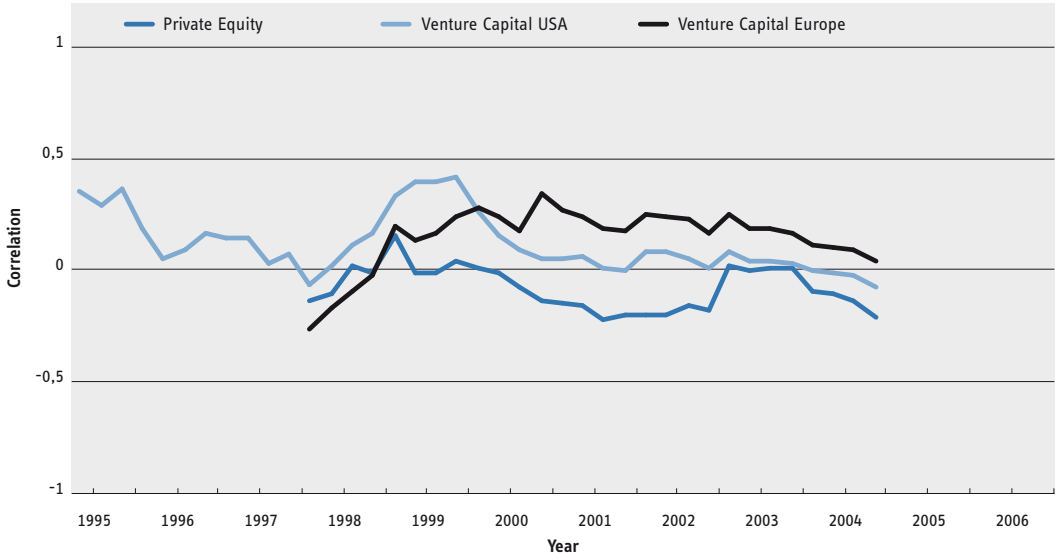
3.6.6 FTSE EPRA/NAREIT France Total Return Index



period	Private Equity	Venture Capital USA	Venture Capital USA
I/90 - I/95		0,491	
I/91 - I/96		0,279	
I/92 - I/97		0,253	
I/93 - I/98	-0,182	-0,048	-0,427
I/94 - I/99	-0,104	0,246	-0,238
I/95 - I/00	-0,127	-0,056	-0,255
I/96 - I/01	-0,164	-0,083	-0,030
I/97 - I/02	-0,100	0,047	0,109
I/98 - I/03	0,086	0,061	0,134
I/99 - I/04	0,011	0,028	0,137
I/00 - I/05			
I/01 - I/06			
mean of correlation	-0,069	0,099	-0,067
standard deviation of correlation	0,113	0,163	0,218
coefficient of variation of correlation	-1,630	1,644	-3,259

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

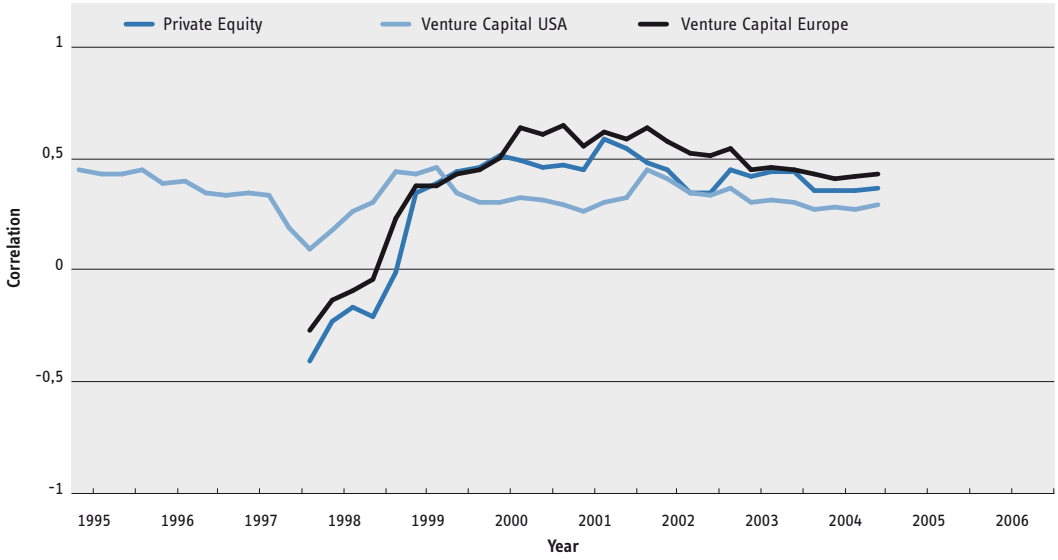
3.6.7 FTSE EPRA/NAREIT Netherlands Total Return Index



period	Private Equity	Venture Capital USA	Venture Capital Europe
I/90 - I/95		0,359	
I/91 - I/96		0,053	
I/92 - I/97		0,150	
I/93 - I/98	-0,103	0,022	-0,169
I/94 - I/99	-0,010	0,397	0,137
I/95 - I/00	-0,008	0,156	0,239
I/96 - I/01	-0,155	0,060	0,243
I/97 - I/02	-0,196	0,081	0,237
I/98 - I/03	0,003	0,044	0,192
I/99 - I/04	-0,109	-0,012	0,107
I/00 - I/05			
I/01 - I/06			
mean of correlation	-0,080	0,120	0,148
standard deviation of correlation	0,098	0,136	0,138
coefficient of variation of correlation	-1,218	1,129	0,934

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

3.6.8 FTSE EPRA/NAREIT Sweden Total Return Index

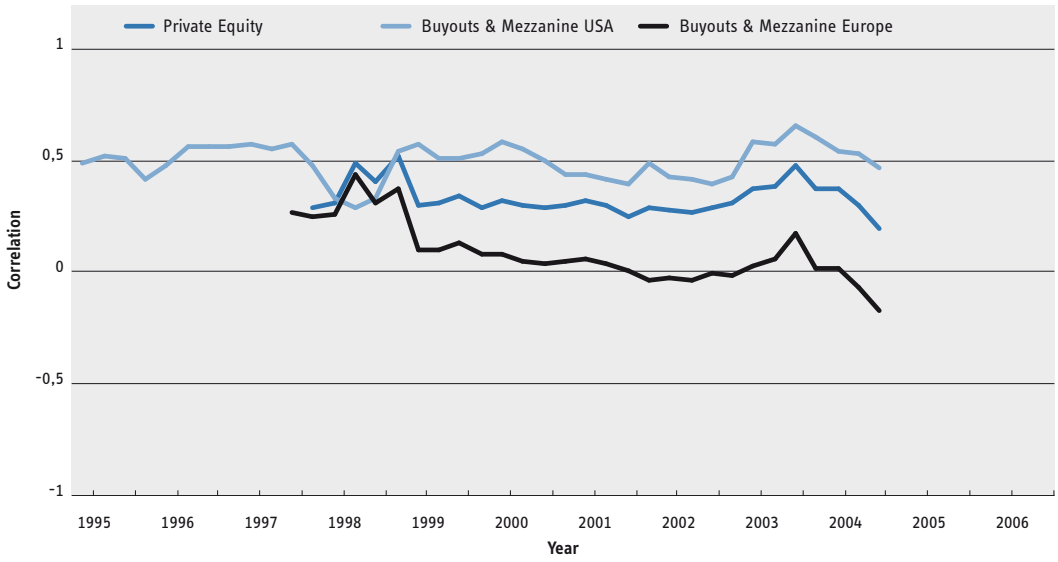


period	Private Equity	Venture Capital USA	Venture Capital Europe
I/90 - I/95		0,453	
I/91 - I/96		0,386	
I/92 - I/97		0,345	
I/93 - I/98	-0,229	0,174	-0,142
I/94 - I/99	0,340	0,430	0,377
I/95 - I/00	0,508	0,304	0,500
I/96 - I/01	0,451	0,255	0,554
I/97 - I/02	0,450	0,410	0,578
I/98 - I/03	0,414	0,304	0,453
I/99 - I/04	0,349	0,276	0,409
I/00 - I/05			
I/01 - I/06			
mean of correlation	0,317	0,331	0,404
standard deviation of correlation	0,262	0,081	0,247
coefficient of variation of correlation	0,827	0,246	0,612

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

3.7. Correlations with Private Equity and Buy Outs & Mezzanine

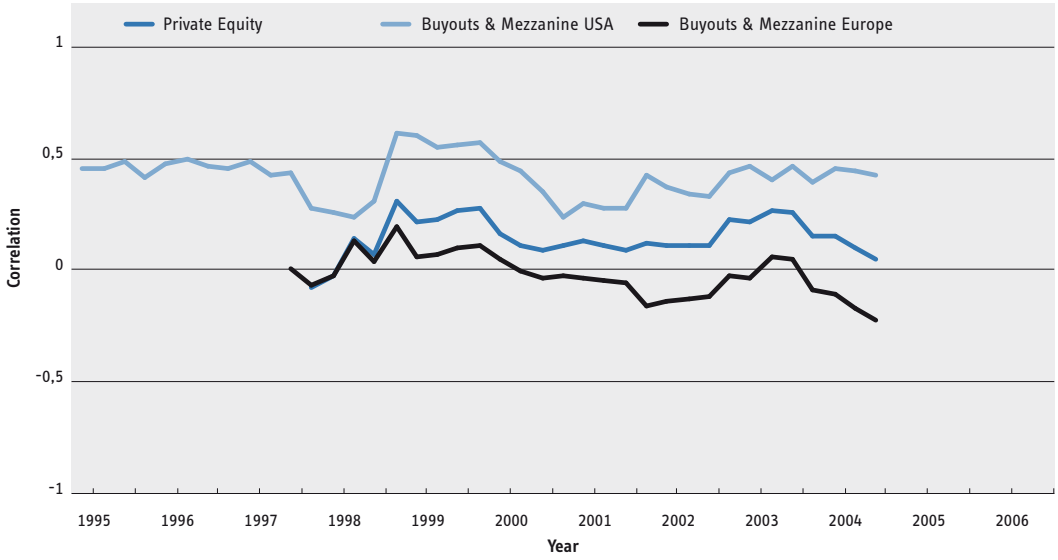
3.7.1 FTSE EPRA/NAREIT Global Total Return Index



period	Private Equity	Buyouts & Mezzanine USA	Buyouts & Mezzanine Europe
I/90 - I/95		0,493	
I/91 - I/96		0,479	
I/92 - I/97		0,576	
I/93 - I/98	0,308	0,329	0,259
I/94 - I/99	0,306	0,579	0,100
I/95 - I/00	0,328	0,580	0,000
I/96 - I/01	0,321	0,434	0,057
I/97 - I/02	0,277	0,424	-0,021
I/98 - I/03	0,371	0,581	0,028
I/99 - I/04	0,372	0,546	0,016
I/00 - I/05			
I/01 - I/06			
mean of correlation	0,332	0,496	0,090
standard deviation of correlation	0,072	0,083	0,138
coefficient of variation of correlation	0,217	0,167	1,537

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

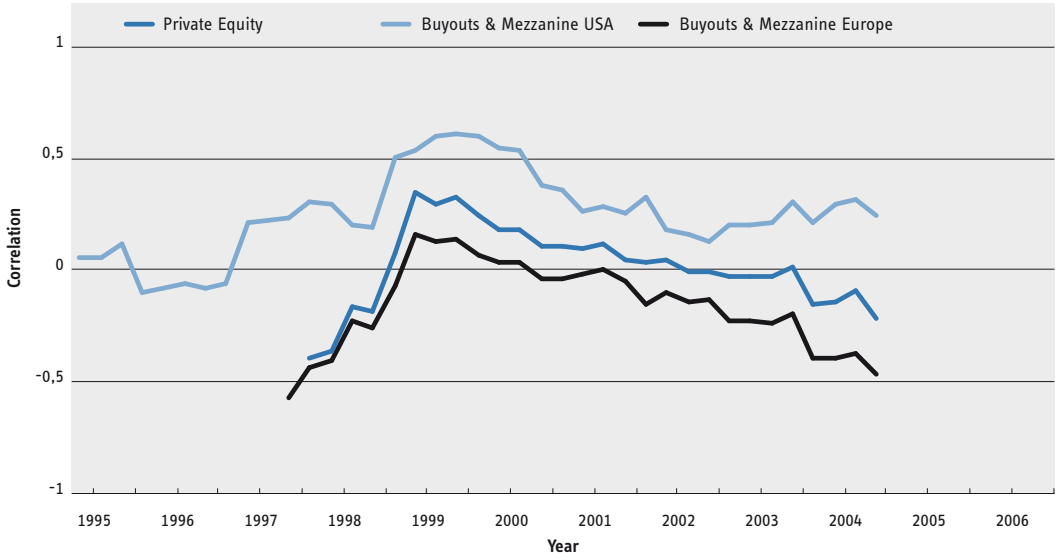
3.7.2 FTSE EPRA/NAREIT Europe Total Return Index



period	Private Equity	Buyouts & Mezzanine USA	Buyouts & Mezzanine Europe
I/90 - I/95		0,459	
I/91 - I/96		0,481	
I/92 - I/97		0,489	
I/93 - I/98	-0,024	0,258	-0,020
I/94 - I/99	0,215	0,602	0,059
I/95 - I/00	0,167	0,494	0,000
I/96 - I/01	0,137	0,301	-0,029
I/97 - I/02	0,117	0,370	-0,139
I/98 - I/03	0,217	0,470	-0,033
I/99 - I/04	0,154	0,462	-0,103
I/00 - I/05			
I/01 - I/06			
mean of correlation	0,149	0,422	-0,020
standard deviation of correlation	0,091	0,099	0,099
coefficient of variation of correlation	0,610	0,234	-4,925

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

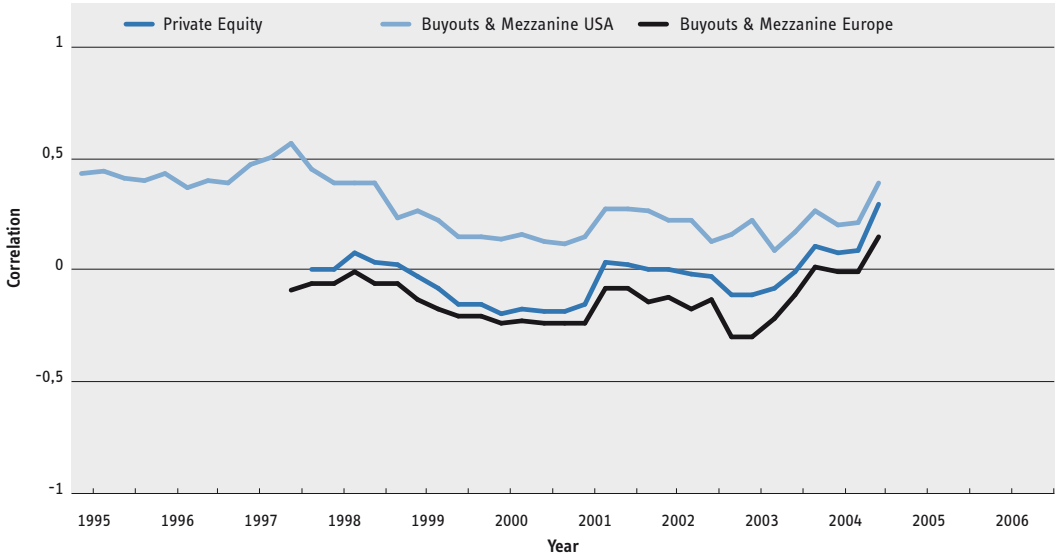
3.7.3 FTSE EPRA/NAREIT United States Total Return Index



period	Private Equity	Buyouts & Mezzanine USA	Buyouts & Mezzanine Europe
I/90 - I/95		0,066	
I/91 - I/96		-0,070	
I/92 - I/97		0,213	
I/93 - I/98	-0,354	0,299	-0,404
I/94 - I/99	0,352	0,540	0,168
I/95 - I/00	0,186	0,554	0,000
I/96 - I/01	0,104	0,275	-0,012
I/97 - I/02	0,048	0,191	-0,091
I/98 - I/03	-0,018	0,212	-0,222
I/99 - I/04	-0,138	0,300	-0,394
I/00 - I/05			
I/01 - I/06			
mean of correlation	0,021	0,257	-0,153
standard deviation of correlation	0,187	0,193	0,198
coefficient of variation of correlation	9,050	0,751	-1,296

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

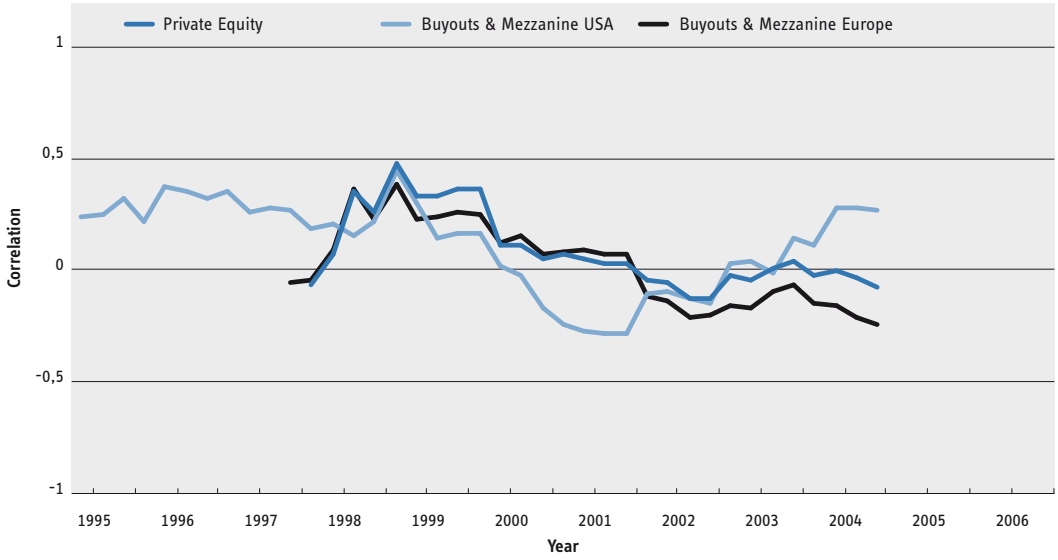
3.7.4 FTSE EPRA/NAREIT Australia Total Return Index



period	Private Equity	Buyouts & Mezzanine USA	Buyouts & Mezzanine Europe
I/90 - I/95		0,431	
I/91 - I/96		0,423	
I/92 - I/97		0,472	
I/93 - I/98	-0,001	0,389	-0,069
I/94 - I/99	-0,029	0,265	-0,141
I/95 - I/00	-0,200	0,132	0,000
I/96 - I/01	-0,156	0,144	-0,237
I/97 - I/02	-0,004	0,220	-0,132
I/98 - I/03	-0,115	0,213	-0,304
I/99 - I/04	0,074	0,202	-0,010
I/00 - I/05			
I/01 - I/06			
mean of correlation	-0,036	0,285	-0,135
standard deviation of correlation	0,113	0,129	0,105
coefficient of variation of correlation	-3,149	0,452	-0,778

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

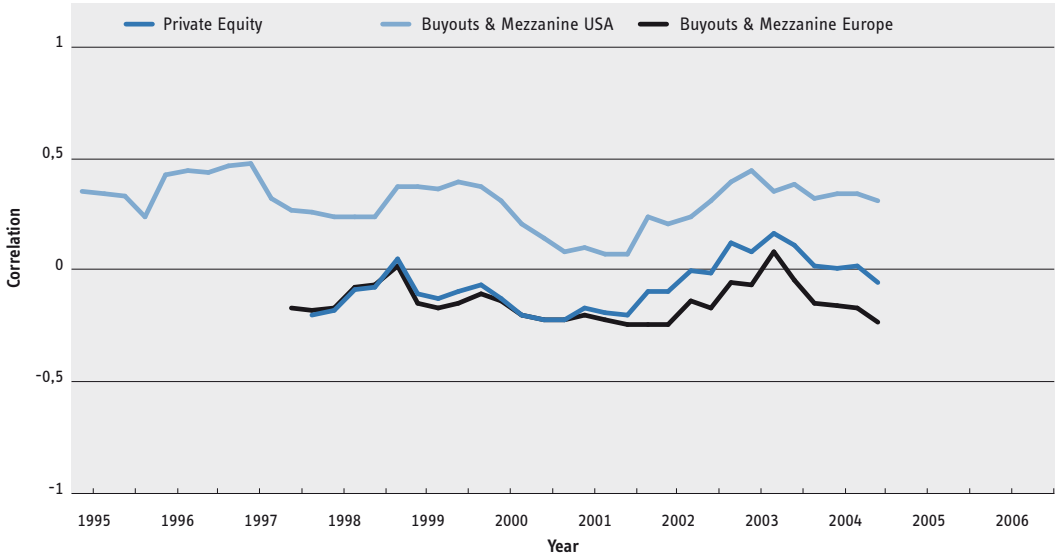
3.7.5 FTSE EPRA/NAREIT United Kingdom Total Return Index



period	Private Equity	Buyouts & Mezzanine USA	Buyouts & Mezzanine Europe
I/90 - I/95		0,242	
I/91 - I/96		0,370	
I/92 - I/97		0,259	
I/93 - I/98	0,075	0,210	0,089
I/94 - I/99	0,330	0,301	0,231
I/95 - I/00	0,118	0,014	0,000
I/96 - I/01	0,054	-0,274	0,089
I/97 - I/02	-0,051	-0,091	-0,133
I/98 - I/03	-0,039	0,043	-0,169
I/99 - I/04	-0,003	0,284	-0,164
I/00 - I/05			
I/01 - I/06			
mean of correlation	0,088	0,120	0,024
standard deviation of correlation	0,172	0,205	0,186
coefficient of variation of correlation	1,943	1,710	7,609

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

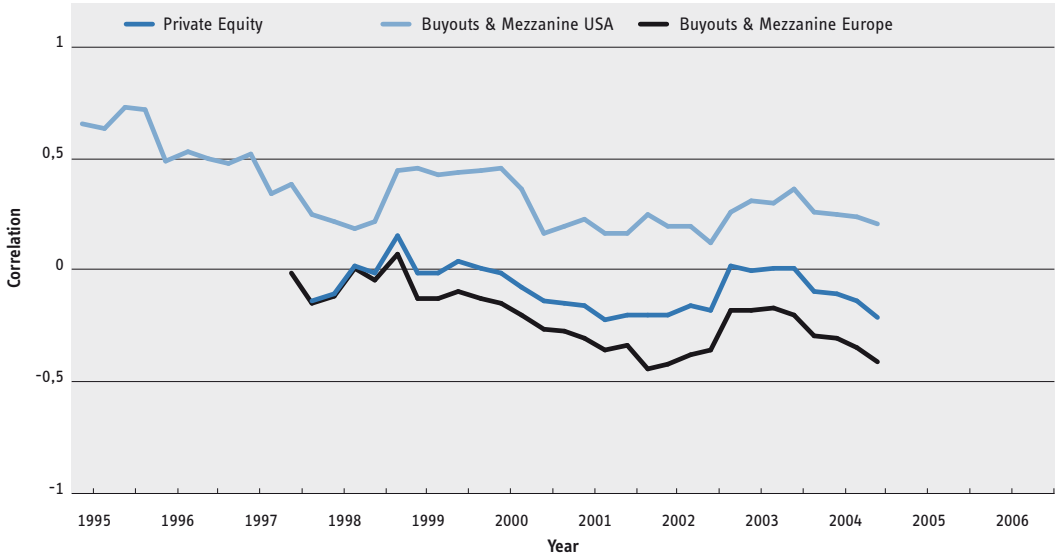
3.7.6 FTSE EPRA/NAREIT France Total Return Index



period	Private Equity	Buyouts & Mezzanine USA	Buyouts & Mezzanine Europe
I/90 - I/95		0,352	
I/91 - I/96		0,424	
I/92 - I/97		0,479	
I/93 - I/98	-0,182	0,238	-0,166
I/94 - I/99	-0,104	0,373	-0,150
I/95 - I/00	-0,127	0,310	0,000
I/96 - I/01	-0,164	0,104	-0,196
I/97 - I/02	-0,100	0,203	-0,237
I/98 - I/03	0,086	0,445	-0,068
I/99 - I/04	0,011	0,341	-0,159
I/00 - I/05			
I/01 - I/06			
mean of correlation	-0,069	0,304	-0,146
standard deviation of correlation	0,113	0,109	0,080
coefficient of variation of correlation	-1,630	0,359	-0,548

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

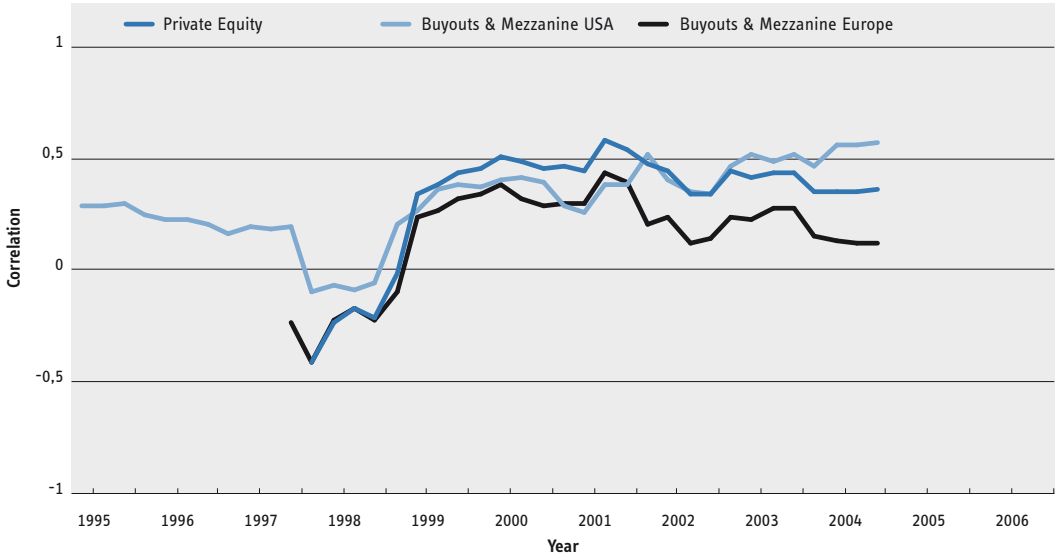
3.7.7 FTSE EPRA/NAREIT Netherlands Total Return Index



period	Private Equity	Buyouts & Mezzanine USA	Buyouts & Mezzanine Europe
I/90 - I/95		0,655	
I/91 - I/96		0,491	
I/92 - I/97		0,523	
I/93 - I/98	-0,103	0,222	-0,112
I/94 - I/99	-0,010	0,456	-0,132
I/95 - I/00	-0,008	0,456	0,000
I/96 - I/01	-0,155	0,232	-0,305
I/97 - I/02	-0,196	0,198	-0,422
I/98 - I/03	0,003	0,309	-0,181
I/99 - I/04	-0,109	0,246	-0,302
I/00 - I/05			
I/01 - I/06			
mean of correlation	-0,080	0,354	-0,217
standard deviation of correlation	0,098	0,164	0,136
coefficient of variation of correlation	-1,218	0,464	-0,629

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

3.7.8 FTSE EPRA/NAREIT Sweden Total Return Index

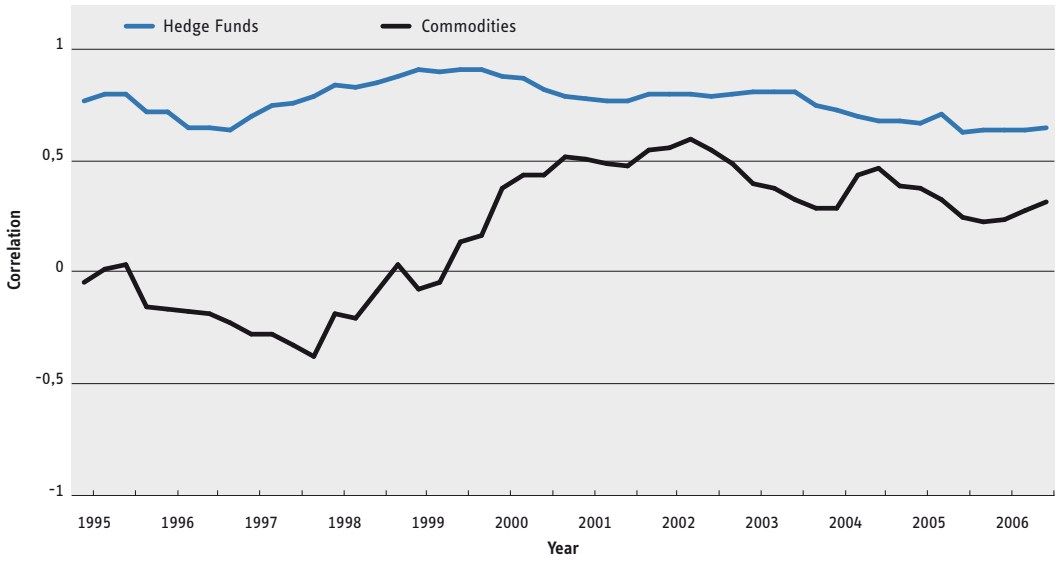


period	Private Equity	Buyouts & Mezzanine USA	Buyouts & Mezzanine Europe
I/90 - I/95		0,296	
I/91 - I/96		0,233	
I/92 - I/97		0,200	
I/93 - I/98	-0,229	-0,061	-0,226
I/94 - I/99	0,340	0,275	0,238
I/95 - I/00	0,508	0,405	0,000
I/96 - I/01	0,451	0,261	0,303
I/97 - I/02	0,450	0,407	0,235
I/98 - I/03	0,414	0,523	0,225
I/99 - I/04	0,349	0,565	0,132
I/00 - I/05			
I/01 - I/06			
mean of correlation	0,317	0,314	0,156
standard deviation of correlation	0,262	0,176	0,219
coefficient of variation of correlation	0,827	0,561	1,401

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

3.8. Correlations with Hedge Funds and Commodities

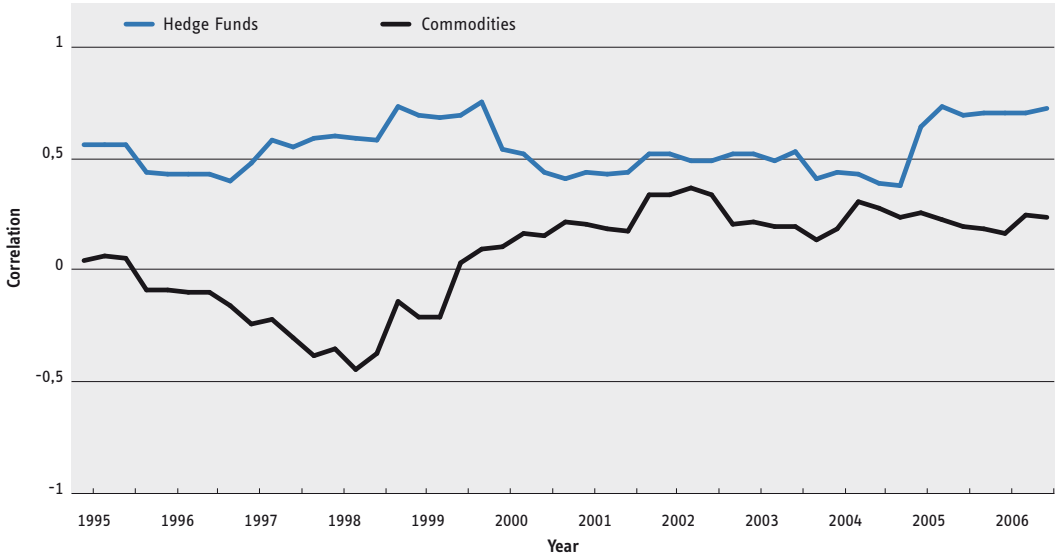
3.8.1 FTSE EPRA/NAREIT Global Total Return Index



period	Hedge Funds	Commodities
I/90 - I/95	0,765	-0,058
I/91 - I/96	0,713	-0,170
I/92 - I/97	0,689	-0,286
I/93 - I/98	0,835	-0,197
I/94 - I/99	0,903	-0,086
I/95 - I/00	0,872	0,369
I/96 - I/01	0,771	0,498
I/97 - I/02	0,798	0,557
I/98 - I/03	0,805	0,386
I/99 - I/04	0,719	0,282
I/00 - I/05	0,659	0,367
I/01 - I/06	0,632	0,229
mean of correlation	0,760	0,174
standard deviation of correlation	0,083	0,292
coefficient of variation of correlation	0,109	1,684

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

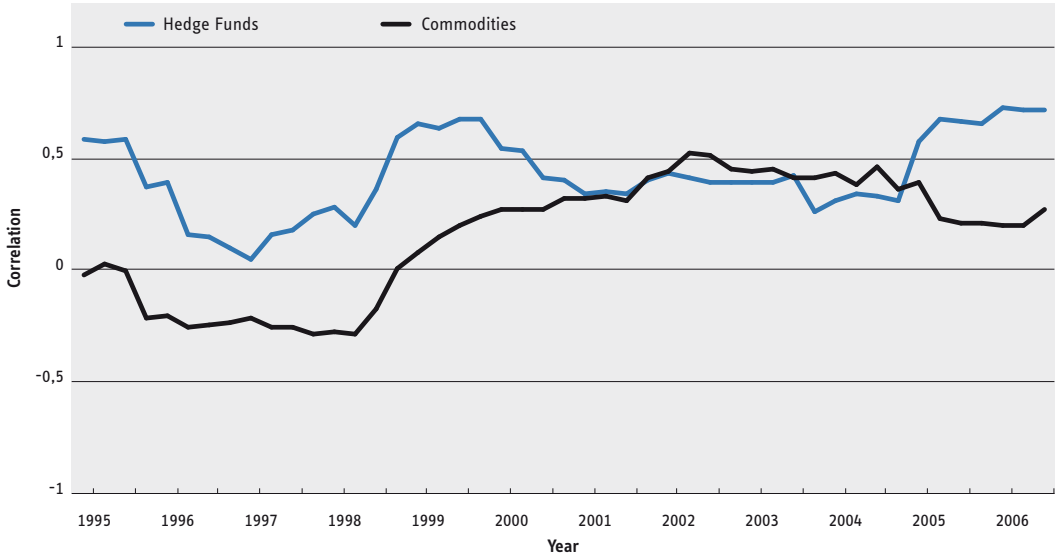
3.8.2 FTSE EPRA/NAREIT Europe Total Return Index



period	Hedge Funds	Commodities
I/90 - I/95	0,550	0,037
I/91 - I/96	0,423	-0,097
I/92 - I/97	0,470	-0,244
I/93 - I/98	0,596	-0,359
I/94 - I/99	0,685	-0,220
I/95 - I/00	0,533	0,094
I/96 - I/01	0,429	0,197
I/97 - I/02	0,512	0,327
I/98 - I/03	0,510	0,213
I/99 - I/04	0,430	0,180
I/00 - I/05	0,631	0,253
I/01 - I/06	0,692	0,161
mean of correlation	0,535	0,056
standard deviation of correlation	0,112	0,223
coefficient of variation of correlation	0,209	3,983

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

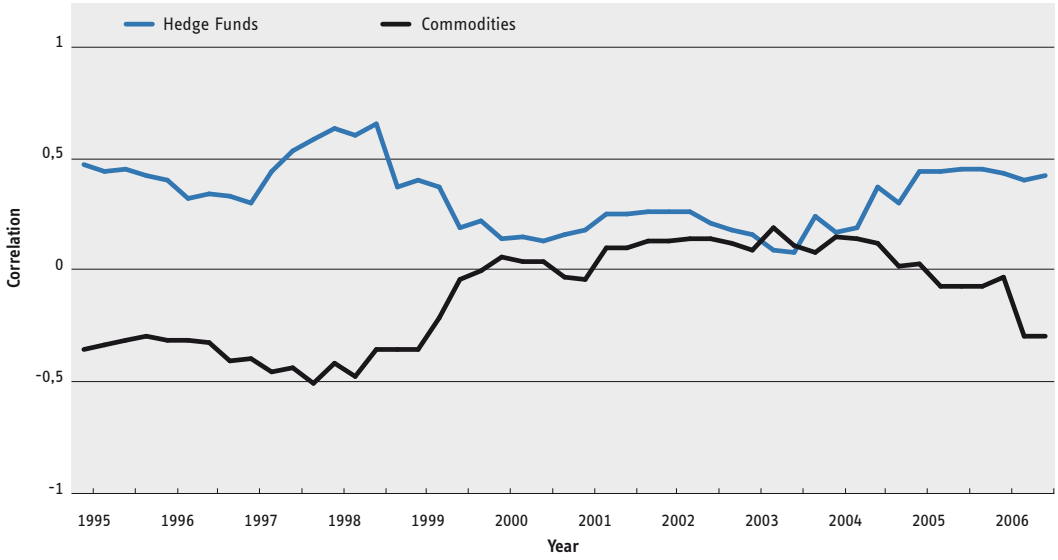
3.8.3 FTSE EPRA/NAREIT United States Total Return Index



period	Hedge Funds	Commodities
I/90 - I/95	0,571	-0,030
I/91 - I/96	0,384	-0,220
I/92 - I/97	0,039	-0,229
I/93 - I/98	0,270	-0,289
I/94 - I/99	0,640	0,068
I/95 - I/00	0,532	0,263
I/96 - I/01	0,334	0,312
I/97 - I/02	0,421	0,430
I/98 - I/03	0,380	0,435
I/99 - I/04	0,303	0,420
I/00 - I/05	0,565	0,377
I/01 - I/06	0,714	0,186
mean of correlation	0,417	0,143
standard deviation of correlation	0,182	0,269
coefficient of variation of correlation	0,437	1,881

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

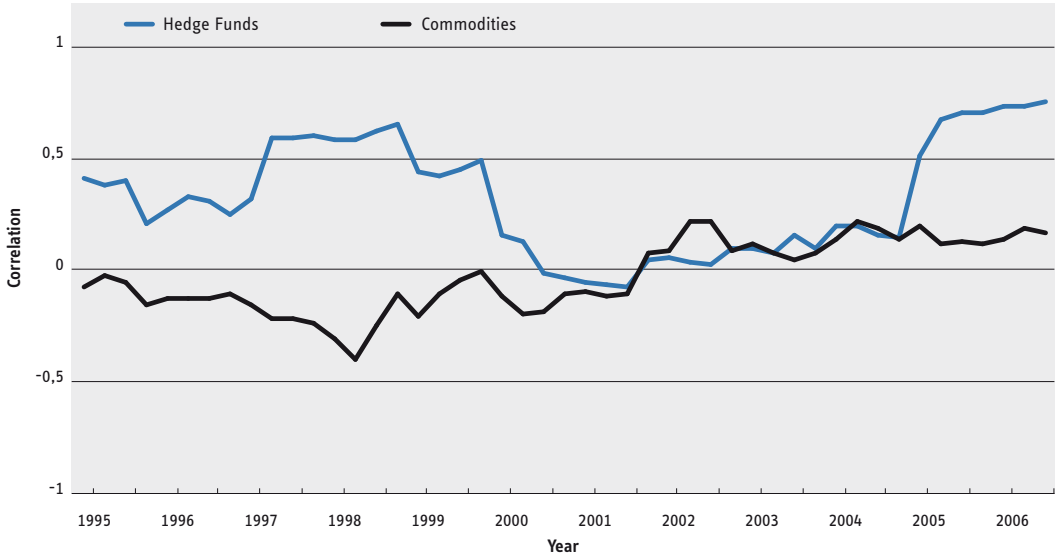
3.8.4 FTSE EPRA/NAREIT Australia Total Return Index



period	Hedge Funds	Commodities
I/90 - I/95	0,461	-0,371
I/91 - I/96	0,394	-0,323
I/92 - I/97	0,294	-0,408
I/93 - I/98	0,621	-0,426
I/94 - I/99	0,393	-0,370
I/95 - I/00	0,124	0,046
I/96 - I/01	0,172	-0,057
I/97 - I/02	0,245	0,120
I/98 - I/03	0,145	0,081
I/99 - I/04	0,161	0,134
I/00 - I/05	0,427	0,020
I/01 - I/06	0,418	-0,045
mean of correlation	0,320	-0,133
standard deviation of correlation	0,148	0,222
coefficient of variation of correlation	0,462	-1,676

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

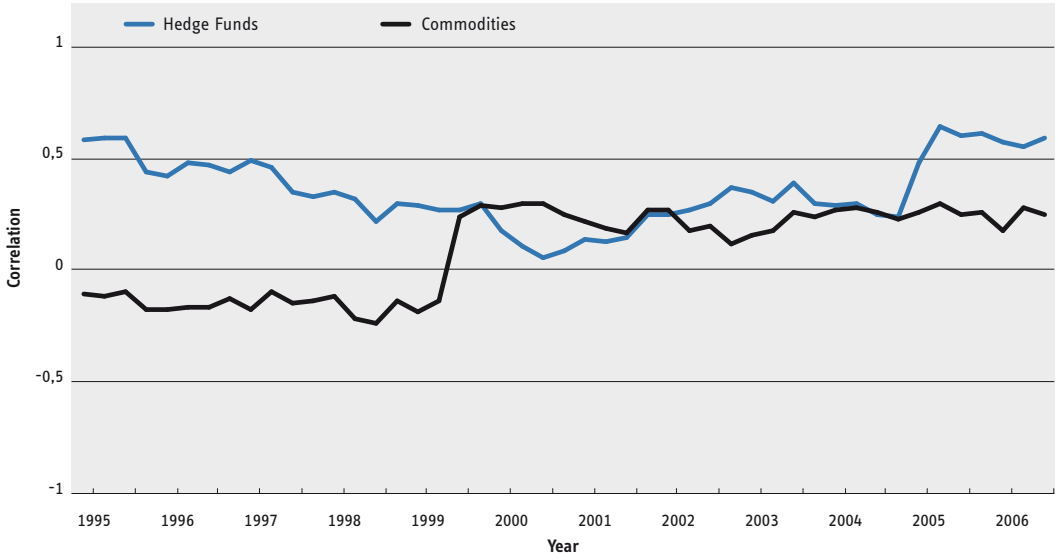
3.8.5 FTSE EPRA/NAREIT United Kingdom Total Return Index



period	Hedge Funds	Commodities
I/90 - I/95	0,396	-0,085
I/91 - I/96	0,256	-0,137
I/92 - I/97	0,309	-0,162
I/93 - I/98	0,569	-0,318
I/94 - I/99	0,429	-0,216
I/95 - I/00	0,145	-0,125
I/96 - I/01	-0,069	-0,109
I/97 - I/02	0,051	0,079
I/98 - I/03	0,083	0,112
I/99 - I/04	0,188	0,128
I/00 - I/05	0,499	0,185
I/01 - I/06	0,722	0,129
mean of correlation	0,312	-0,036
standard deviation of correlation	0,256	0,160
coefficient of variation of correlation	0,822	-4,491

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

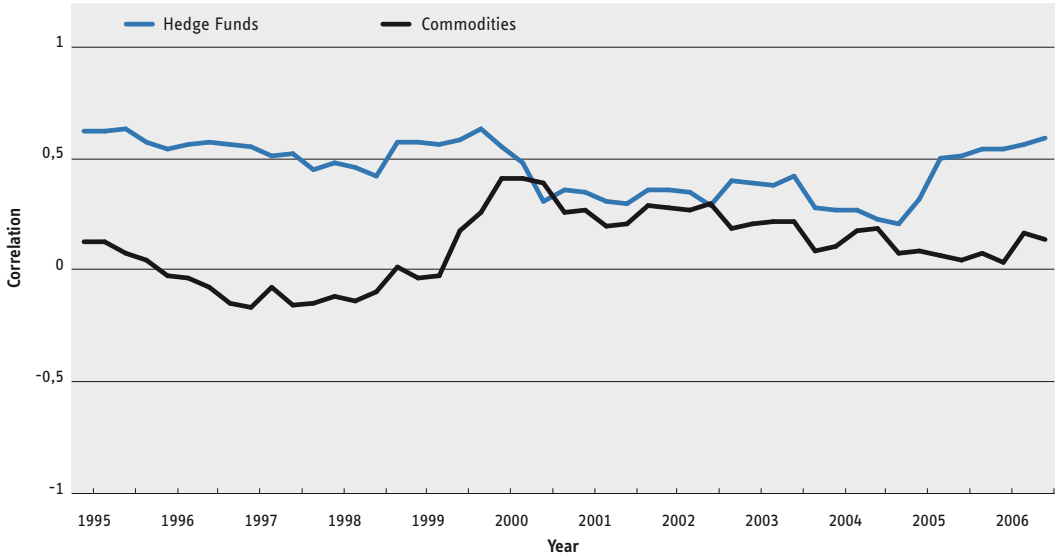
3.8.6 FTSE EPRA/NAREIT France Total Return Index



period	Hedge Funds	Commodities
I/90 - I/95	0,570	-0,117
I/91 - I/96	0,413	-0,182
I/92 - I/97	0,486	-0,182
I/93 - I/98	0,344	-0,120
I/94 - I/99	0,277	-0,197
I/95 - I/00	0,164	0,269
I/96 - I/01	0,132	0,205
I/97 - I/02	0,242	0,261
I/98 - I/03	0,336	0,145
I/99 - I/04	0,284	0,260
I/00 - I/05	0,468	0,248
I/01 - I/06	0,566	0,170
mean of correlation	0,346	0,080
standard deviation of correlation	0,156	0,195
coefficient of variation of correlation	0,451	2,432

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

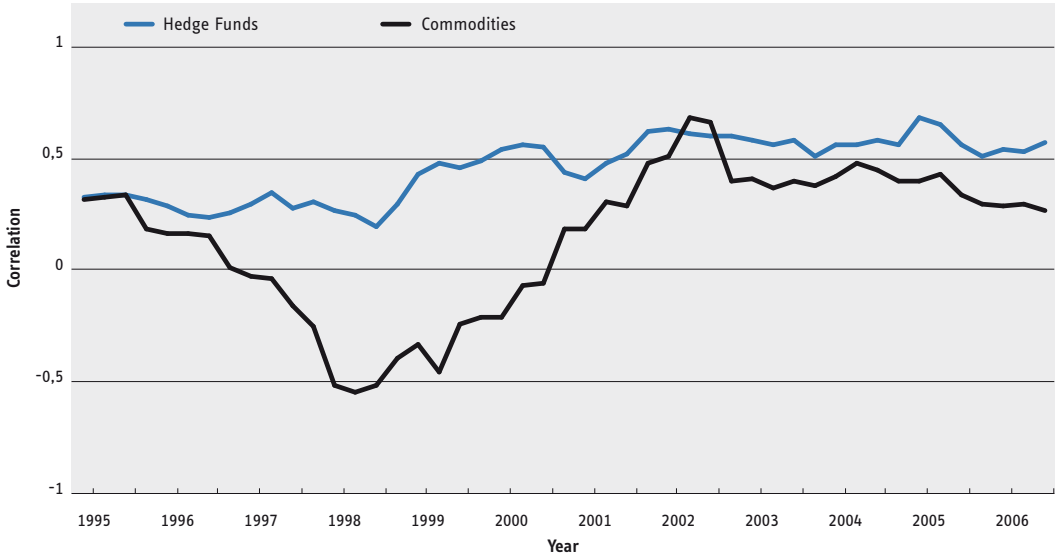
3.8.7 FTSE EPRA/NAREIT Netherlands Total Return Index



period	Hedge Funds	Commodities
I/90 - I/95	0,608	0,116
I/91 - I/96	0,537	-0,037
I/92 - I/97	0,547	-0,173
I/93 - I/98	0,475	-0,122
I/94 - I/99	0,559	-0,047
I/95 - I/00	0,541	0,399
I/96 - I/01	0,344	0,257
I/97 - I/02	0,348	0,273
I/98 - I/03	0,376	0,195
I/99 - I/04	0,256	0,093
I/00 - I/05	0,308	0,080
I/01 - I/06	0,532	0,024
mean of correlation	0,447	0,096
standard deviation of correlation	0,123	0,156
coefficient of variation of correlation	0,276	1,630

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

3.8.8 FTSE EPRA/NAREIT Sweden Total Return Index



period	Hedge Funds	Commodities
I/90 - I/95	0,324	0,313
I/91 - I/96	0,279	0,163
I/92 - I/97	0,294	-0,035
I/93 - I/98	0,261	-0,516
I/94 - I/99	0,417	-0,338
I/95 - I/00	0,530	-0,216
I/96 - I/01	0,398	0,181
I/97 - I/02	0,627	0,505
I/98 - I/03	0,569	0,405
I/99 - I/04	0,550	0,411
I/00 - I/05	0,675	0,389
I/01 - I/06	0,532	0,283
mean of correlation	0,450	0,141
standard deviation of correlation	0,138	0,325
coefficient of variation of correlation	0,306	2,301

Mean of correlation denotes the average correlation of property stocks and the other asset class in the entire considered period. The mean is obtained by dividing the sum of the correlations in the entire considered period by the number of correlations.
Standard deviation of correlation is the average dispersion of the correlation from the mean in the entire considered period.
The coefficient of variation denotes the ratio “standard deviation of correlation / mean of correlation”. In other words, the coefficient of variation is the standard deviation expressed as a percentage of the mean. Consequently, it is a dimensionless number that allows comparison of the variation of populations with different mean values.

Notes

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