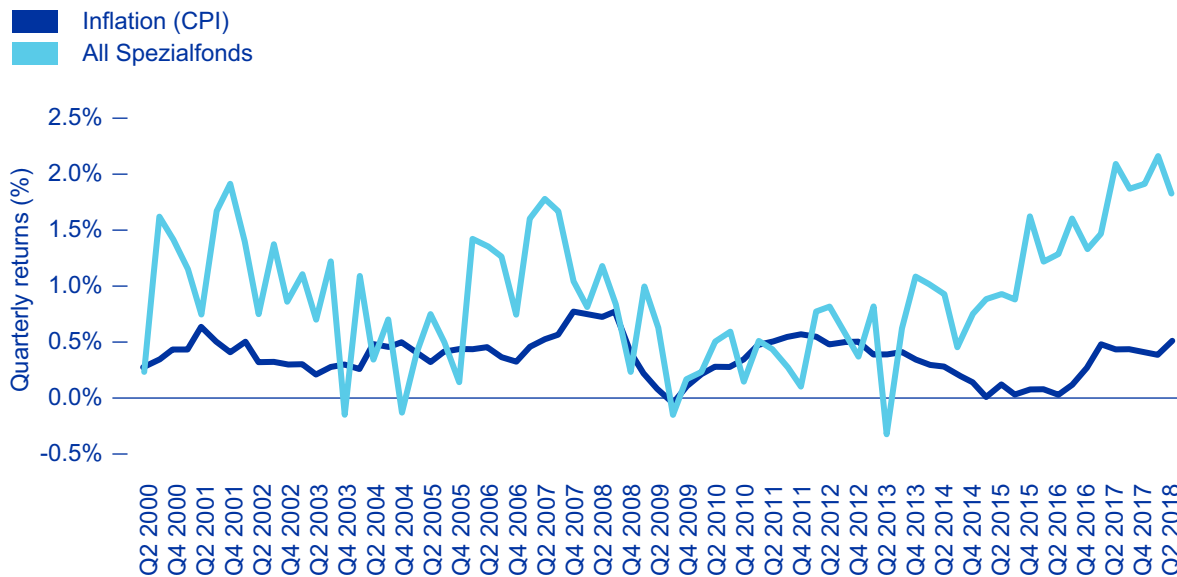


Performance of Spezialfonds was triple that of inflation in Germany

- > The Spezialfonds sector has tripled in size over the past eight years
- > Spezialfonds' returns have outperformed inflation over most of the research period
- > Correlation between the two is weak, suggesting potential inflation hedging abilities

Figure 1: Performance of inflation and Spezialfonds



Source: INREV German Vehicles Index Q2 2018, OECD

Spezialfonds are commonly used investment structures in the German non-listed real estate market, that are available specifically for institutional investors. The sector has almost tripled in size over the last eight years and now represents around €83.7 billion in AUM (BVI, Sep. 2018).

Spezialfonds are subject to the widely-used valuation methodology in Germany. Therefore, returns tend to be more stable as the focus is on long-term sustainable levels. As such, the impact of ad-hoc market shocks is limited, resulting in a fairly stable and smoothed return time series.

Spezialfonds is the tax-efficient vehicle of choice for many German institutional investors, especially those looking to invest in real estate to boost their overall portfolio returns in order to relieve inflationary pressures.

This study explores the relationship between Spezialfonds and inflation from a German investor's perspective for that reason the analysis adopts the German CPI as the inflation measure.

Based on the INREV German Vehicles Quarterly Index, Spezialfonds outperformed German inflation with an average quarterly performance of 0.91% over the research period, almost triple that of inflation at 0.36%. Volatility in returns was also higher at 0.58% compared with a standard deviation (S.D.) of 0.18% for inflation.

To assess the relationship between the returns of Spezialfonds and German inflation, the study employed a mix of correlation and regression analyses. The regression model is further enhanced by an impulse response function.

The findings indicate that Spezialfonds as a whole are independent of changes in inflation and correlation estimates show that the relationship between Spezialfonds and inflation is weak across most categories of Spezialfonds.

Across country / region strategies the correlation between returns and inflation is weakly positive for Spezialfonds targeting Germany, Europe, and Europe – ex Germany, while there is a negative correlation between inflation and the returns of Spezialfonds with a global strategy.

This can be explained by a sharp decline in returns across several quarters for these vehicles. Despite this, the performance of all country / region strategies outperformed inflation over the research period.

Analysis by sector strategy shows a divide in the relationships with inflation. While

correlation estimates between inflation and the retail and office sectors are weakly positive, the opposite is true for industrial / logistics and residential where the correlation estimates observed was negative. This is largely due to the index-linked nature of some of the retail and office leases.

Whether assessed by style, sector or structure Spezialfonds exhibit weakly positive or slightly negative correlations with inflation.

In summary Spezialfonds sustainably outperform inflation but with higher return volatilities and weak correlations. Regression estimates further show that only 17.0% of

Spezialfonds' performance variability can be explained by a combination of inflation and lagged returns. These estimates provide early indications that Spezialfonds exhibit inflation hedging characteristics.

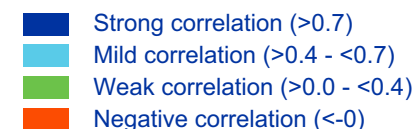
Therefore, Spezialfonds could prove attractive for institutional investors interested in offsetting their inflation-linked investments over the longer term.

For further details contact research@inrev.org

The full report is available to members at inrev.org/research

Table 1: Correlation estimates

	All Spezial-fonds	Core	Value Added	Germany	Europe	Europe – ex Germany	Global	Closed End	Open End	Office	Retail	Industrial/ Logistics	Residential	Multi-sector	Inflation (CPI)
All Spezialfonds	1.00														
Core	0.99	1.00													
Value Added	0.42	0.33	1.00												
Germany	0.66	0.65	0.23	1.00											
Europe	0.95	0.95	0.36	0.62	1.00										
Europe – ex Germany	0.85	0.85	0.42	0.30	0.91	1.00									
Global	0.57	0.57	0.20	0.20	0.34	0.32	1.00								
Closed End	-0.01	-0.08	0.67	-0.29	-0.06	0.11	0.12	1.00							
Open End	1.00	1.00	0.37	0.64	0.96	0.86	0.56	-0.08	1.00						
Office	0.57	0.56	0.22	0.31	0.57	0.64	0.25	-0.07	0.58	1.00					
Retail	0.51	0.50	0.23	0.31	0.50	0.49	0.22	-0.17	0.51	0.47	1.00				
Industrial/Logistics	0.49	0.48	0.34	0.43	0.53	0.50	0.13	0.09	0.48	0.41	0.41	1.00			
Residential	0.67	0.68	-0.05	0.76	0.68	0.53	0.31	-0.27	0.67	0.43	0.41	0.33	1.00		
Multi-sector	0.93	0.93	0.41	0.57	0.84	0.74	0.72	0.07	0.92	0.33	0.34	0.44	0.57	1.00	
Inflation(CPI)	0.09	0.09	0.14	0.11	0.14	0.18	-0.10	0.23	0.10	0.21	0.35	-0.02	-0.03	0.01	1.00



Source: INREV Spezialfonds Quarterly Index Q2 2018, OECD