Dynamics of Commercial Real Estate Asset Markets, Return Volatility, and the Investment Horizon

Christian Rehring*

Steffen Sebastian**

This version: October 17, 2009

Abstract

We compare the term structures of return volatility for UK and US direct and securitized

commercial real estate using vector autoregressions. For the UK market, we find that direct

real estate and property shares exhibit strong mean reversion, and unexpected returns are pri-

marily driven by news about discount rates. In contrast, US direct real estate shows a strong

mean aversion effect over short investment horizons, after which the term structure of the an-

nualized volatility remains relatively flat. The low short-term standard deviation and the mean

aversion of US direct real estate returns can be explained by the positive correlation between

cash-flow and discount rate news, which can be interpreted as underreaction to cash-flow

news. US REIT returns show slight or strong mean reversion in the medium and long term,

depending on the data sample. UK direct real estate returns remain more predictable than

property shares in the medium and long term, whereas US REIT returns appear to be equally

predictable to direct real estate returns in the medium term.

* University of Regensburg, 93040 Regensburg, Germany, e-mail:

christian.rehring@irebs.de, phone: +49 941 943 5085, fax: +49 941 943 5082.

** University of Regensburg, 93040 Regensburg, Germany, e-mail:

steffen.sebastian@irebs.de, phone: +49 941 943 5081, fax: +49 941 943 5082.