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Structural breaks and diversification: The impact of the 1997 Asian financial crisis on the integration of Asia-Pacific real estate markets

Richard Gerlach [a], Patrick Wilson [b,*], Ralf Zurbruegg [c]

[a] *Department of Econometrics and Statistics, University of Sydney, City Road, NSW 2006, Australia*
[b] *School of Finance and Economics, University of Technology, Sydney, PO Box 123, Broadway, NSW 2007, Australia*
[c] *School of Commerce, University of Adelaide, Adelaide, South Australia 5005, Australia*

Abstract

Currently, there exists relatively little research on the influence that the 1997 Asian financial crisis has had upon capital flows within the property market and the associated long-run implications of it. This paper examines the impact that the crisis has had upon the integration and dynamic links between a number of Asia-Pacific real estate markets. The results show that Asia-Pacific property markets are integrated, despite a structural shift occurring at the time of the crisis. These results are a particularly important finding for fund managers concerned with the impact of globalization on the performance of their real estate portfolios, showing that in the Asia-Pacific region diversification benefits are actually less than that suggested by an analysis incorrectly ignoring the crisis.

JEL classification: G15; F30; C22; C52

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1. Introduction

International diversification in real estate has recently become a more important issue among academics because the evidence is not entirely clear on the benefits from

* Corresponding author. Tel.: +61 295147777; fax: +61 295147711.
E-mail address: patrick.wilson@uts.edu.au (P. Wilson).

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diversification across property markets. Portfolio managers are faced with the persistent problem of maintaining investment returns while simultaneously reducing risk. This outcome is achieved through portfolio diversification – allocating resources across a number of asset classes and sub-classes as well as across countries. Ideally such managers seek investments in markets that are insulated from each other so that, in particular, the effects of a collapse in one market, or one segment of the market, are not transmitted to investment holdings in other areas. Hence the notion of market segmentation is of prime importance in property portfolio management.

The outcomes from academic research on property markets over the last few years, however, have been unable to reach a firm conclusion on whether international diversification in real estate is beneficial. Much research has centered on the issue of market segmentation/integration. For instance, if international property markets are well integrated then little gain in risk reduction may be achieved through holding internationally diversified investments. Well-integrated property markets can also imply that such markets may respond to the same economic stimuli, thereby providing little gain in diversifying across these markets. On the other hand, if markets are clearly segmented and respond to different economic stimuli, then it is important for portfolio managers not only to diversify, but to be able to allocate resources in a dynamic fashion so as to take advantage of changing conditions in each market.

Moreover, even if markets are integrated, the impact that a shock transmission may have upon these markets may differ. This can be an important issue if there are structural shifts in one or more of the asset series making up the portfolio, since the existence of a structural break may disguise the true nature of any potential relationships between assets within the portfolio. This may be particularly crucial to those portfolio managers concerned with strategic asset allocation, i.e., the diversification strategies to be pursued over the long term.

This study aims to analyze the effect that the 1997 Asian financial crisis had on the interdependence among several Asia-Pacific real estate markets. In particular, the paper is concerned with whether the benefits of diversifying across such real estate markets may have altered because of the crisis. Not only will this contribute to the research on whether property markets are integrated, but also provide a very useful look at how these markets reacted to the Asian crisis.[1] The finding is that failure to take into account the events of 1997 disguises the true nature of the long-run inter-linkages between these property markets. Specifically, if no consideration is given for the 1997 crisis, the real estate markets in the study group show no signs of integration. However, they are found to be significantly cointegrated when allowance is made for the crisis. This finding of cointegration has important implications for property portfolio managers dealing with these markets, as not only do they have to be aware of influencing events within one specific market, but also events in the other cointegrated markets.

The structure of the rest of the paper is as follows: Section 2 briefly reviews some recent literature on diversification in real estate markets; Section 3 considers how the methodology of cointegration can be used to indicate the likely diversification benefits that exist between markets; Section 4 describes the data and results; while Section 5 offers some conclusions.

[1] Some literature argues these property markets were the original catalyst for the crisis itself (see Renaud, 2000 for an overview).