

Global Real Estate Securities Education

Tom Toth, CFA
Managing Director

February 2012

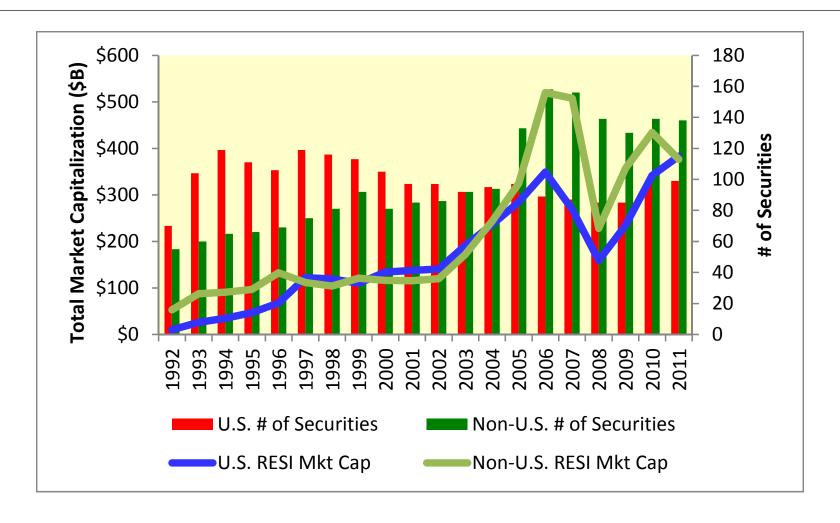
Agenda



- Currently, the Systems invest in the U.S. real estate securities market. The following presentation seeks to explore the advantages to expanding that mandate to the global real estate securities market by examining;
 - The growth of the U.S. versus Non-U.S. real estate securities market;
 - The structure of the non-U.S. real estate securities market;
 - The size of the non-U.S. real estate securities market;
 - Which countries outside the U.S. securitize real estate; and
 - Whether there are diversification benefits outside the U.S.

Growth of U.S. vs. Non-U.S. Real Estate Markets

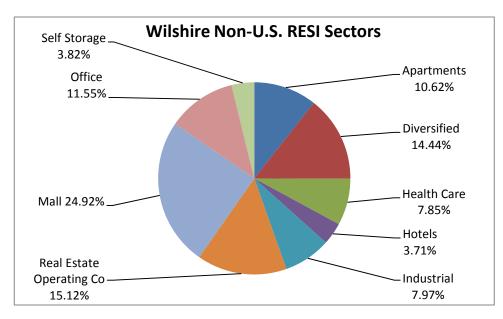


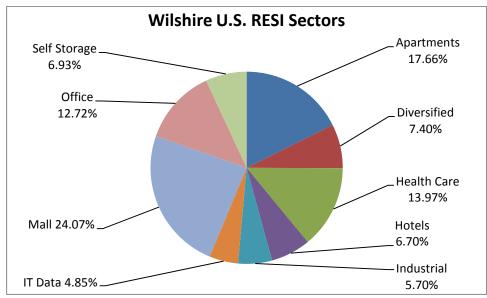


- The non-U.S. real estate securities market, as represented by the Wilshire Non-U.S. RESI (Real Estate Securities Index), has generally been a larger investment opportunity set than the U.S. real estate securities market as represented by the Wilshire U.S. RESI (Real Estate Securities Index)
- Additionally, the number of investment opportunities or number of securities in the non-U.S. market has been greater since 2005

Wilshire Global RESI versus Wilshire U.S. RESI Sectors



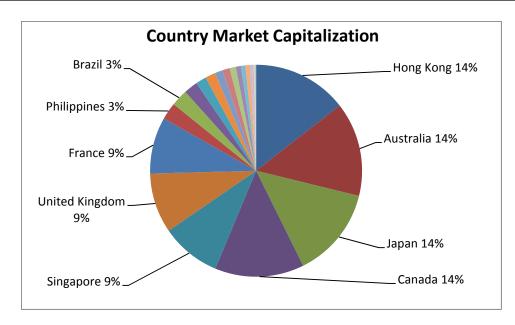


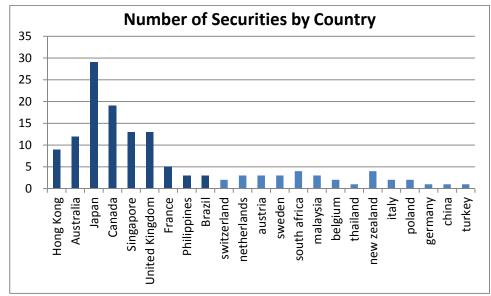


- Globally, while the market for publicly traded real estate securities is fairly diverse, U.S. and non-U.S. markets are dominated by similar sector exposures to Mall, Office, and Apartments
- Focusing in on the Non-U.S. market however, the Real Estate Operating Company (REOC) structure is a significant presence but does not represent a single identifiable sector and thus when combined with the diversified sector allocation represents the largest Non-U.S. exposure
- One of the largest differences between U.S. and non-U.S. exposure is the number of securities which currently make up the respective universes as defined by the Wilshire Non-U.S. RESI with 138 underlying securities and the Wilshire U.S. RESI with 99 securities

Wilshire Non-U.S. Real Estate Securities Index Country Coverage



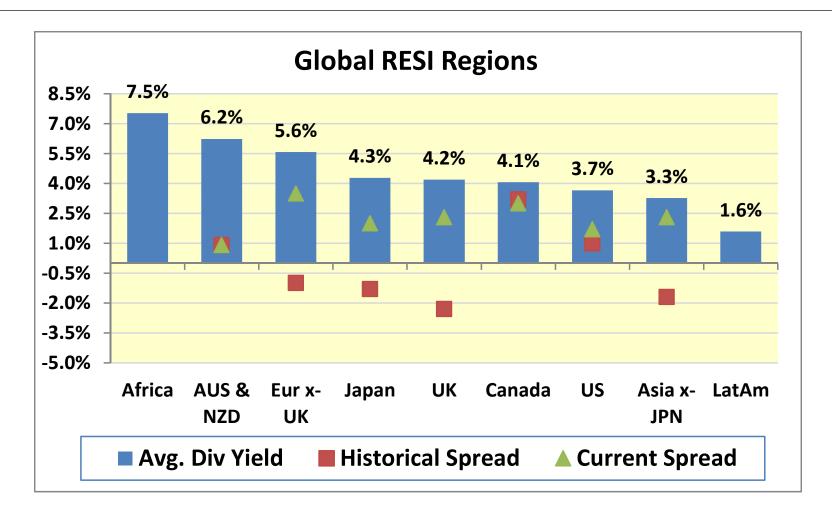




- In total 23 countries are represented in the Wilshire Non-U.S. RESI index
- Of the 23 countries, nine countries represent over 88% of the universe's market capitalization and 77% of the available securities
- Within the nine countries that represent the largest percentage of market capitalization, some countries are relatively concentrated such as Hong Kong with 14.5% of the universe concentrated in 9 securities while other countries such as Japan are relatively diverse with 13.8% of the market capitalization spread between 29 securities

Global Real Estate Securities' Dividend Yield by Region





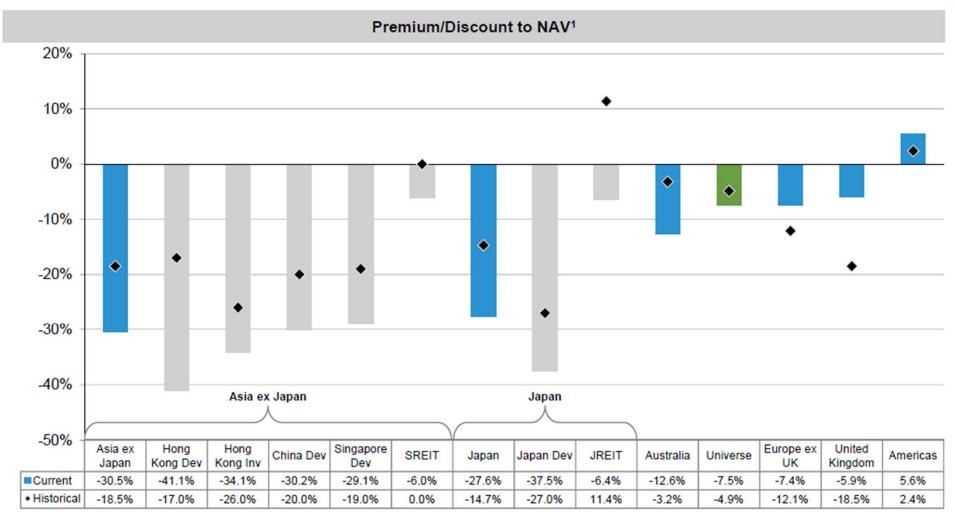
- Relative to the global real estate security universe, the U.S. pays a low dividend yield
- While most large capitalization markets tend toward the center of the dividend yield distribution, Australia & New Zealand offer a fairly high average dividend yield
- Historical and current spreads indicate different levels of valuation among the regions and perhaps further evidence of diversification benefits

Private Real Estate Fair Valuations



Fair Valuations Relative to Private Real Estate

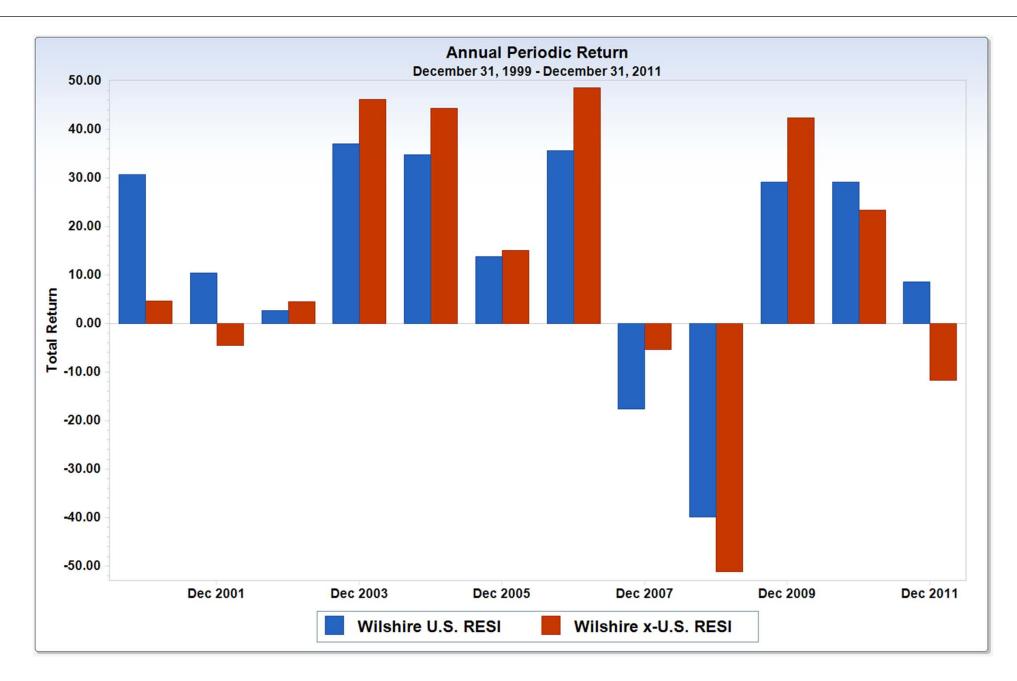
Premium/Discounts To Net Asset Value



 Premium/Discounts to private real estate market NAV's also appear to support the existence of valuation differences across the major global regions and the potential for diversification benefits

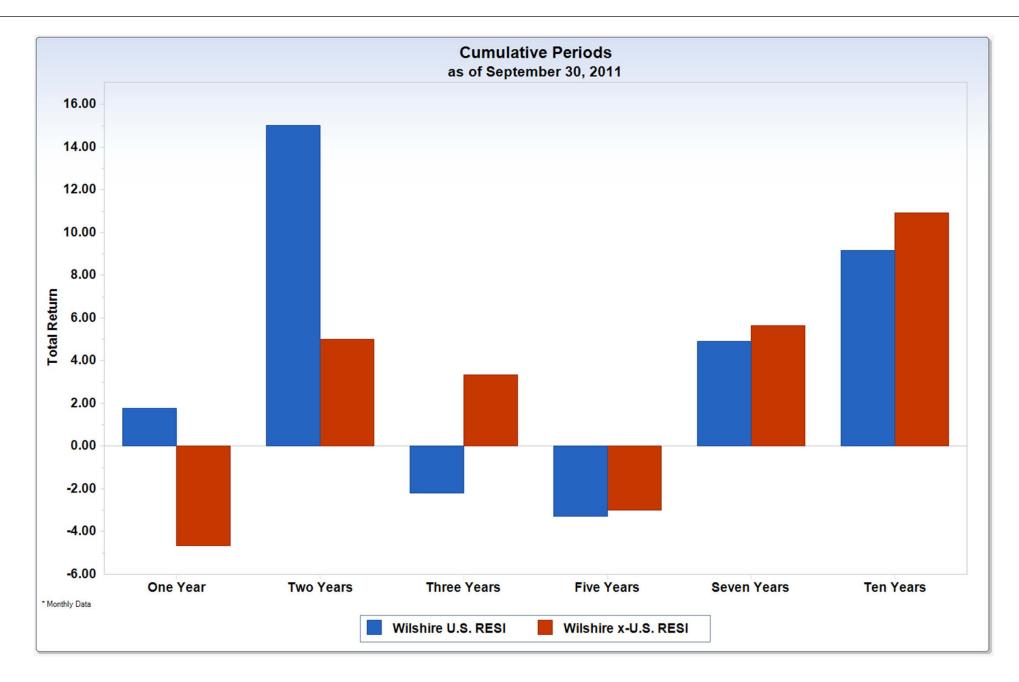
Annual Returns to U.S. and Non-U.S. REITS





Cumulative Returns to U.S. and Non-U.S. REITS





Rolling 36 Month Risk to U.S. and Non-U.S. REITS Wilshire

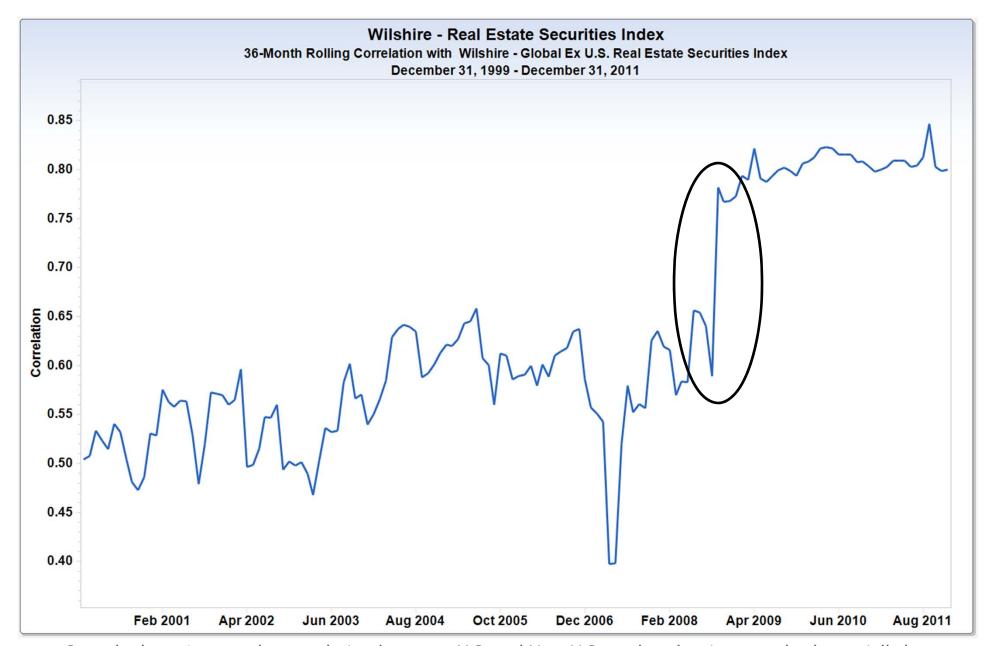




While the risk trend of the two universes is similar, the relative risk profiles of the two universes are not static

36 Month Rolling Correlation of U.S. versus Non-U.S. Wilshire Real Estate Securities Indexes





 Over the last 13 years, the correlation between U.S. and Non-U.S. markets has increased substantially however much of the increase may be attributable to the real estate bubble and thus look different going forward

Summary



- Approximately half of the world's publicly traded securities capitalization resides outside the U.S.
- The non-U.S. real estate securities market is fairly well spread between the major regions of the developed world; i.e. Asia x-Japan (28%), Europe x-UK (17%), Australia/New Zealand (15%), Canada (14%), Japan (14%), and the UK (9%)
- Mall, Office, and Apartment sectors are significant exposures both domestically and abroad
- Nine countries out of the 28 non-U.S. real estate securities markets represent 88% of the non-U.S. market capitalization
- Market capitalization weighted dividend yields for the major regions display a large range; 1.6% to 7.5%
- Premium/Discounts to private real estate market NAV's also appear to support the existence of valuation differences across the major global regions and the potential for diversification benefits
- While correlations between the Wilshire U.S. RESI and Non-U.S. RESI have converged recently, historical absolute returns and risk have differed substantially

Important Information



This material contains confidential and proprietary information of Wilshire Consulting, and is intended for the exclusive use of the person to whom it is provided. It may not be modified, sold or otherwise provided, in whole or in part, to any other person or entity without prior written permission from Wilshire Consulting. The information contained herein has been obtained from sources believed to be reliable. Wilshire Consulting gives no representations or warranties as to the accuracy of such information, and accepts no responsibility or liability (including for indirect, consequential or incidental damages) for any error, omission or inaccuracy in such information and for results obtained from its use. Information and opinions are as of the date indicated, and are subject to change without notice.

This material is intended for informational purposes only and should not be construed as legal, accounting, tax, investment, or other professional advice.

This presentation represents the current opinion of the firm based on sources deemed reliable. The information and statistical data contained herein are based on sources believed to be reliable. Wilshire does not represent that it is accurate and should not be relied on as such or be the basis for an investment decision. This Presentation is for information purposes only. Past performance is no guarantee of future results.

Any opinions expressed in this Presentation are current only as of the time made and are subject to change without notice. Wilshire assumes no duty to update any such statements. Any holdings of a particular company or security discussed herein are under periodic review by the author and are subject to change at any time, without notice.

This report may include estimates, projections and other "forward-looking statements." Due to numerous factors, actual events may differ substantially from those presented.

This presentation is not to be used or considered as an offer to sell, or a solicitation to an offer to buy, any security. Nothing contained herein should be considered a recommendation or advice to purchase or sell any security. Wilshire, its officers, directors, employees or clients may have positions in securities or investments mentioned in this publication, which positions may change at any time, without notice.

Wilshire® is a registered service mark of Wilshire Associates Incorporated, Santa Monica, California. All other trade names, trademarks, and/or service marks are the property of their respective holders.

Copyright © 2011 Wilshire Associates Incorporated. All rights reserved.