

International Valuation White Paper

The Valuation of Real Estate Serving As Collateral for Securitised Instruments

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1.0 Introduction

- 1.1 The securitisation of property-backed assets has progressed at an accelerating pace since its inception over four decades ago. By the beginning of the 21st century, the securitisation industry gained global dimensions. By providing an additional means of capitalising real estate investment, securitisation has significantly expanded the liquidity of real estate investment capital markets.
- 1.2 Assemblers and managers of securities portfolios, investment bankers, portfolio insurers, risk-rating agencies, and other market participants such as the buyers and sellers of securitised assets depend on valuations and periodic revaluations of the properties that provide collateral for securities and investment portfolios. Valuations and revaluations of such properties have become frequent assignments for Valuers.
- 1.3 Securitised property assets may represent either debt or equity interests in real estate. Securitised debt instruments include various categories of *property-related asset-backed securities* (PRABSs), such as *Residential Mortgage-Backed Securities* (RMBSs), *Commercial Mortgage-Backed Securities* (CMBSs), and other property-backed securities where the asset is the property itself. Examples of securitised equity instruments include *Real Estate Investment Trusts* (REITs), *Property Trusts* or *Property Unit Trusts*, and *Real Estate Operating Companies* (REOCs).
- 1.4 Many securitised property assets are listed and traded in public securities markets. Others are bought and sold in private transactions between institutional investors, such as pension funds, insurance companies, and investment partnerships and corporations. The issuing, offering and disclosure of assets in public and private markets are subject to governmental regulation. There are both public and private markets for the trading of debt and equity instruments. It is customary, therefore, to refer to a *four-quadrant investment capital market in real estate*, consisting of publicly traded debt instruments, publicly traded equity instruments, privately traded debt instruments, and privately traded equity instruments.
- 1.5 Valuations of the property assets, backing publicly traded equity instruments, are required before the security can be issued in an *initial public offering* (IPO). The value of the equity instrument is thereafter determined by market trading. Periodic revaluations of the property assets backing the security, however, are often sought to determine the premium or discount at which the equity instrument is trading.
- 1.6 Valuers often assist in risk-rating debt instruments by developing risk profiles of the properties that serve as collateral for the mortgages in a portfolio and a risk profile of the aggregate portfolio. The *Market Value* of the properties and of the aggregate portfolio reflects these risk profiles. Portfolio theory and management models help inform

portfolio-specific risk analysis. The analysis of capital markets and factors facilitating capitalisation, however, is beyond the scope of specific portfolio valuations.

- 1.7 In many States, regulatory agencies oversee the issuing of shares of real estate-backed investment portfolios. In the US, property securities (unless exempt) must be registered with the federal Securities and Exchange Commission (SEC). All offerings are subject to SEC disclosure requirements. The SEC is also empowered to review the financial position of companies issuing securities. In Japan, the public trading of real estate securities is regulated by the Real Estate Investment Trust Act, IPO criteria of the Tokyo Stock Exchange, and Standards set by the Japanese Association of Investment Trusts, which call for periodic revaluations of real estate assets backing securities such as REITs. In Europe, there are also requirements for the registration of real estate securities. Each State within the European Union, however, determines its own standards for admission to trading.
- 1.8 The provisions of the Global Investment Performance Standards (GIPS), published by the Chartered Financial Analyst Institute (CFA Institute), have been adopted voluntarily in many markets and compliance may often be required by auditors. GIPS apply to publicly traded real estate securities; commercial mortgage-backed securities (CMBSs); private equity interests where returns are primarily from the holding, trading, development, or management of real estate assets; and private debt instruments, including commercial and residential loans where the expected return is solely related to contractual interest rates without any participation in the economic performance of the underlying real estate.
- 1.9 Recently, the European Public Real Estate Association (EPRA), the British Property Federation (BPF), and the US National Association of Real Estate Investment Trusts (NAREIT) launched a joint initiative to lobby for uniformity in taxation legislation applying to REITs.

2.0 Definitions

- 2.1 *Collateralised Mortgage Obligations (CMOs)*. In the US, a type of residential mortgage-backed security (RMBS); CMOs are bonds that are collateralised by pools of mortgages issued by quasi-governmental agencies, popularly known as Ginnie Mae (Government National Mortgage Association), Fannie Mae (Federal National Mortgage Association), and Freddie Mac (Federal Home Loan Mortgage Association). CMOs are often divided into several *tranches*, and returns to investors are paid sequentially according to the risk rating of the tranche in which they are invested. See also Property-Related Asset-Backed Security (PRABS).
- 2.2 *Commercial Mortgage-Backed Security (CMBS)*. See *Property-Related Asset-Backed Security (PRABS)*.
- 2.3 *Four-Quadrant Investment Capital Market in Real Estate*. The four-quadrant division of the investment capital market in securitised real estate instruments, consisting of publicly traded real estate debt (CMBSs, RMBSs and CMOs); publicly traded real estate equity

(REITs and REOCs); privately traded real estate debt (commercial mortgages and high-yield CMBSs); and privately traded real estate equity (private REITs, and separate and commingled accounts).

- 2.4 *Initial Public Offering (IPO)*. The first occasion a securitised asset is issued for sale to the public.
- 2.5 *Mortgage Lending Value*. The value of the property as determined by a prudent assessment of the future marketability of the property taking into account long-term sustainable aspects of the property, the normal and local market conditions, and the current use and alternative appropriate uses of the property. Speculative elements shall not be taken into account in the assessment of the mortgage lending value. The mortgage lending value shall be documented in a transparent and clear manner. Pursuant to the Basel II Accord, a European Union Capital Requirements Directive (EU CAD) is currently being drafted. The above definition is cited in Council of the European Union, *Proposal for Directives of the European Parliament and of the Council*, 12890/05 Add. 4, Annex VIII, Section 1.5, paragraph 65. This definition has been agreed by 25 governments with the European Parliament. The definition has not yet been formally adopted, but adoption is anticipated imminently.
- 2.6 *Net Asset Value (NAV)*. A measure of the aggregate value of assets, less all liabilities.
- Net asset value is estimated for mutual funds, investment trusts and other securitised instruments. An estimate of net asset value is often used to determine the premium or discount at which a securitised investment vehicle such as a REIT is currently trading. Such a premium or discount may reflect the experience of the REIT management, the ease of rapid diversification available through the REIT, the anticipation of future acquisitions or development projects by the REIT, and/or the activity of the capital market.
- 2.7 *Property-Related Asset-Backed Security (PRABS)*. A securitised investment instrument backed by pools of cash flow-generating assets, which are then sold to a bankruptcy-remote *special purpose vehicle* (SPV). Such instruments may be Residential Mortgage-Backed Securities (RMBSs), Commercial Mortgage-Backed Securities (CMBSs), or property-backed securities where the asset is the property itself. There can also be hybrids such as PRABSs of receivables from property projects. Property-Related Asset-Backed Securities are bond-like instruments.
- 2.8 *Real Estate Investment Trust (REIT), Property Trust, or Property Unit Trust*. A securitised instrument, generally backed by pools of investment funds in real estate equity though a significant fraction of REITs are mortgage-backed. A REIT constitutes not only real estate assets but also an operating company, which assembles and manages the portfolio of properties backing the REIT. Many REITs are similar to mutual funds or open-end investment vehicles for real estate. A REIT must generally distribute most of its profit as dividends to shareholders. See also Real Estate Operating Company (REOC).

- 2.9 *Real Estate Operating Company (REOC)*. In the US, a securitised investment instrument similar to a Real Estate Investment Trust except in two regards: the absence of the tax pass-through benefit afforded REITs and exemption from the requirement that REITs pay back 95% of income to shareholders.
- 2.10 *Residential Mortgage-Backed Security (RMBS)*. See *Property-Related Asset-backed Security (PRABS)*.
- 2.11 *Risk Profile*. A detailed synopsis of the risks associated with a property or mix of properties, serving as mortgage collateral. Risk may be broken down into six categories: market-specific, locational, property-specific, development-specific, fiscal and legal, and financial. The concept is employed by originators, risk rating agencies, portfolio insurers and investors, where a property asset serves as security or collateral (securitised debt instruments).
- 2.12 *Risk Rating*. The ranking of a mortgaged asset or an entire portfolio of mortgaged assets in relation to potential exposure to loan defaults, foreclosure, or tenant/covenant risk. Generally, the greater the overall quality of mortgaged properties in a portfolio, the more tolerable the risk level of the aggregate portfolio.
- 2.13 *Securitisation*. The creation and sale of assets, assembled from debt and equity interests in real property, managed by financial professionals, and priced in the securities markets. See also Property-Related Asset-Backed Security (PRABS) and Real Estate Investment Trust (REIT), Property Trust, or Property Unit Trust.
- 2.14 *Special Purpose Vehicle (SPV) or Special Purpose Entity (SPE)*. An organisation created for the purpose of acquiring and financing specific assets. An SPV/SPE is usually a subsidiary company, whose special legal status makes its obligations secure even if the parent company goes bankrupt. Also called a Bankruptcy-Remote Entity.
- 2.15 *Tranche*. A layer or slice of cash flow generated by a securitised asset such as a bond or CMO, assigned to pay the return to a specific group of investors. Overall cash flow from the securitised asset is broken down into a series of tranches according to the specific level of risk associated with each layer. Returns to investors are paid sequentially according to the rating of the tranche in which they are invested. AAA- or AA-rated senior tranches, are the most secure and are first paid. A- or BBB-rated mezzanine tranches, yield a higher return but are riskier, and are paid after the senior tranches. Residual or subordinate tranches with a BB- and below rating are highly speculative, and are paid last.

3.0 Discussion

- 3.1 Market trading determines the day-to-day value of securitised instruments backed by real estate assets. The value the market ascribes to a securitised instrument reflects several factors, among which are the performance of the property assets backing the security, the

experience of the operating company that assembles and manages the security portfolio, and the activity of the capital market, which must be considered a significant externality.

- 3.2 Valuers are frequently called upon to estimate the value of the real estate assets backing securitised instruments. An estimate of the aggregate value of the real estate and other assets backing these instruments, less the liabilities (*Net Asset Value*), is used to determine the premium or discount at which the securitised instrument is trading. Such a premium or discount may reflect the performance of the operating company and/or the activity of the capital market.
- 3.3 The approach of securities analysts to measuring the *Market Value* of securitised instruments, backed by real estate assets, is usually the direct capitalisation of net operating income (NOI) from the properties, backing the investment portfolio, by a single overall capitalisation rate (R_0). Valuers generally apply this accepted and well-used method as well. Direct capitalization, however, only implicitly considers changes in anticipated income and expenses. Discounted cash flow (DCF) analysis addresses this concern, and therefore, is considered especially appropriate. Examination of comparable sales properties in the geographic market(s), where the properties backing the securitised investment portfolio are located, may also lend greater support to a *Market Value* estimate.
- 3.4 The purpose of valuations and revaluations of properties, serving as collateral for mortgages in investment portfolios, is to provide information essential to the development of a risk profile for the portfolio. The specific information required covers a wide range of items from market analysis and property-specific analysis to risk-related factors such as tenant quality, sustainability of debt service, borrower rating, and financial capacity of the insurer/guarantor. The information gathered will vary according to differences between the types of mortgage portfolios.

4.0 Recommendations

- 4.1 In situations where the valuation will be used to secure a loan to develop a property or properties intended to back a securitised instrument, Valuers will normally estimate the *Market Value* of the prospective property or properties. In States where required, the Valuer may also estimate the mortgage lending value.
- 4.2 Valuers performing valuations or revaluations of real estate and other assets, backing a securitised instrument, normally estimate the *Net Asset Value* of the instrument (see para. 3.2).
- 4.3 Where Valuers are instructed by portfolio managers to base the value estimate upon specific assumptions, full disclosure of the precise nature of those assumptions will be provided. The Valuation Report or Certificate sets forth the valuation in a manner that would not be considered by reasonable people as misleading. The valuation conclusion is reported in compliance with IVS 3, Valuation Reporting.

- 4.4 Valuers examine the market to ascertain the *Market Rent* generated by the real estate, backing a securitised instrument, or the *Market Rent* to be generated by a prospective property or properties, intended to back a securitised instrument. The Valuer should investigate any information, provided by a portfolio manager about prospective contractual rent, to ensure that the data is indeed accurate. Estimates of contract rents, which are unrealisable, are engineered rents; valuations based on engineered rents will not result in *Market Value*.
- 4.5 The return on many property-related asset backed securities is paid by a specific tranche of the cash flow generated by the property. Valuers, however, undertake valuations of whole properties, not tranches. In such circumstances, Valuers may need to have an understanding of the financial structure of the securitised instrument.
- 4.6 Valuers performing valuations or revaluations of real estate, backing securitised equity instruments, set the valuation within the context of the market for those properties and do an assessment of the risks attaching to those properties. Any unusual volatility in the value of the subject properties or in the market for comparable properties should be mentioned in the Valuation Report or Certificate.
- 4.7 Valuations of portfolios of mortgages on residential properties, held by private investors, are generally done for clusters of properties in the portfolio. The criteria for clustering may be property age, income level, location or other characteristics. The Valuer determines the *Market Value* for both the clusters and the aggregate portfolio. Valuations of portfolios of mortgages on residential properties and commercial or mixed-use properties, held by commercial or institutional investors, are generally done for each of the mortgaged properties in the portfolio. Information on cash flow and tenant/covenant risk is compiled on a property-to-property basis. The Valuer determines the *Market Value* for each property and then for the aggregate portfolio. To estimate the mortgage lending value for mortgage-backed securities, the same procedure is advised.
- 4.8 In valuing portfolios of securities backed by real estate equity interests such as REITs, Valuers may disaggregate a portfolio into groups of property assets according to similarity in age, location, quality, expense ratios, and lease characteristics. On the basis of the relative weighting of these asset groups, a weighted R_O may be derived for the entire portfolio. In this way, the R_O applied to the multi-asset portfolio can be fitted to the mix of the different properties within.
- 4.9 Valuations or revaluations of real estate, backing securitised instruments, may fall under the regulation of national agencies. It is advisable that Valuers understand and comply with all special requirements pertaining to such valuations.

5.0 Date of Issue

This International Valuation White Paper was issued 1 July 2006.