# INTERNATIONAL VALUATION COMMENTARY – VALUATION OF MORTGAGE PORTFOLIOS FOR SECURITISATION PURPOSES

*Comments to be received by 31 December 2002*

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**CommentLetters@ivsc.org** or addressed to:
**International Valuation Standards Committee**
**12 Great George Street, Parliament Square, London SW1P 3AD**
**United Kingdom**
**Fax: +44 (0) 1442 879306**

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## BACKGROUND INFORMATION

Background information to the Commentary is set out in the following paragraphs.

The *Commentary on Valuation of Mortgage Portfolios for Securitisation Purposes* is the first instalment of an ongoing IVSC project on securitisation-related valuation issues. The present *Commentary* was developed on the basis of discussions in two meetings of an Expert Group, held in London on 4 September 2001 and 7 February 2002.

The group addressed the importance of risk rating for portfolios of pooled securities, backed by residential and commercial mortgage. The discussants identified the users of valuations (rating agencies, mortgage originators, investment bankers, portfolio managers, and the buyers and sellers of portfolio shares), the purposes of valuations (portfolio assemblage, portfolio modeling or engineering, and portfolio insurance), and the importance of valuations to risk rating and share pricing. The various approaches to risk rating (via individual properties, select clusters, or aggregate portfolios) and specific indicators used to rate portfolios (debt coverage ratios, loan-to-value ratios, NOIs, market-adjusted capitalisation rates) were noted as well as current deficiencies in portfolio valuations, where the final product is neither transparent nor the reported items, standardised. The objective set by the Group was to improve the categories and reliability of information Valuers provide clients of portfolio valuations.

To iron out the peaks and troughs of portfolio performance, default risk, market volatility, and refinancing spurred by rate changes, the rating agencies seek a median value or position believed to be achievable over the life of the loans constituting a portfolio. The achievable performance of any portfolio determines its *sustainable (net) asset value*. While the group members conceded that the *Market Value* concept addresses anticipated risk at a given point in time, several also endorsed the concept of *sustainable (net) asset value*, as employed by bankers and raters, seeking to define expectations of long-term performance.

Toward the goal of improving portfolio valuations, several group members recommended the use of sample checklists, which might serve as guidelines for minimum informational requirements. It was claimed that publication of one such standardised checklist by the Commercial Mortgage Securities Association in the US has contributed to an increase in investor confidence and market liquidity in North America. Of the four checklists that were tabled, three are customized or bespoken to the risks associated with properties providing collateral for mortgages that make up the three principal portfolio categories. The fourth is tailored to non-property-specific risks such as tenant quality, sustainability of debt service, borrower rating, and financial quality or capacity of the insurer/guarantor.

To address the various categories of securitised equity instruments, the IVSC plans to issue future papers in the valuation for securitisation project. The first of these categories are variously known as property trusts, property unit trusts, or real estate investment trusts (REITs); the second comprises shares in Real Estate Operating Companies (REOCs); and the third, Real Estate Mortgage Investment Conduits (REMICs), are a debt/equity hybrid (equity instruments issued by investment banks; REMIC certificates represent a proportionate share of ownership in a pool of mortgages).

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# International Valuation Commentary
# Valuation of Mortgage Portfolios for Securitisation Purposes

(Part I of a Current IVSC Project on Securitisation-Related Valuation Issues)

## 1.0 Introduction

1.1 The securitisation of residential and commercial mortgages has progressed at an accelerating pace since its inception four decades ago. By the onset of the $21^{st}$ century, the securitisation industry assumed global dimensions. Risk rating agencies, portfolio assemblers, investment bankers, portfolio insurers, and other market participants such as the buyers and sellers of portfolios depend on valuations and periodic revaluations of the properties that provide collateral for the mortgages assembled in investment portfolios. Portfolio valuations and revaluations have become frequent assignments for Valuers.

1.2 The objectives of this Commentary are to help improve the kinds of information Valuers provide the risk rating agencies and other clients of portfolio valuations, and to promote transparency and standardisation among Valuers in reporting the kinds of information required by their clients. Greater transparency is a pre-condition for better risk management. Greater risk transparency contributes to an increase in investor confidence, and consequently to more reasonable share prices and greater market liquidity.

1.3 The scope of this Commentary extends to valuations of properties, serving as collateral for mortgages securitised in portfolios. In particular, it prescribes comprehensive checklists of informational items that Valuers can provide in portfolio valuations to assist risk raters, portfolio assemblers, investment bankers, portfolio insurers, and the buyers and sellers of portfolios in decision-making. The use of standardised checklists also facilitates the Valuer's task of making annual updates of portfolio valuations. While the kinds of information listed in the sample checklists are examined at the behest of the various clients of mortgage portfolio valuations, the same informational items are normally investigated in valuations for other purposes and intents (valuations on Market and non-Market Value bases). Such informational items must also be considered in market, feasibility, and highest and best use analyses.

1.4 This Commentary deals only with property-related asset-backed securities, and specifically three major categories of mortgage portfolios (see paragraph 3.3 below). Securitised equity instruments such as property trusts, property unit trusts, and REITs will be the subject of a subsequent IVSC paper.

1.5 The checklists of informational items for portfolio valuations represent a foundation for developing risk profiles of the individual properties that serve as collateral for the mortgages in a portfolio, as well as the risk profile of the aggregate portfolio. In turn, the risk profile will allow Valuers to determine the *Market Value* of individual properties and/or portfolios as well as the *sustainable (net) asset value* of these properties/portfolios by identifying market- and property-related risks. The *sustainable (net) asset value* is required by rating agencies as one of the inputs they consider in rating the loan portfolio


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to be securitised. The complex process of analysing the risk profile of an aggregate portfolio relates to the risk profiles of the individual properties within the portfolio as well as the diversity of those properties in terms of geographical location and property type. Portfolio theory and mathematical models help inform portfolio-specific risk analysis. While the analysis of capital markets and factors facilitating capitalisation is beyond the scope of specific portfolio valuations, capital market activity is considered a significant externality affecting securitisation.

1.6 In some States, regulatory agencies oversee the issuing of shares of mortgage portfolios. In the US, real 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 positions 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. In Europe, there are requirements for the registration of mortgage-backed securities. Each State within the European Union, however, determines its own standards for admission to trading.

## 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). See also Property-Related Asset-Backed Security.

2.2 *Commercial Mortgage-Backed Security (CMBS).* See Property-Related Asset-Backed Security.

2.3 *Debt Coverage Ratio (DCR).* The ratio between annual net operating income (income remaining after deduction of all property-related costs from effective gross income) and annual debt service; an indication of the ability of a property to meet its debt service out of net operating income. A property's debt coverage ratio is a significant consideration in risk rating. See also Loan-to-Value Ratio.

2.4 *Loan-to-Value (LTV) Ratio*. The ratio between the mortgage loan principal and the value of the property pledged as security. The loan-to-value ratio is an important consideration in determining credit risk. While lower loan-to-value ratios are generally associated with better risk ratings, this correlation may not always apply to real estate. The loan-to-value ratio for a property is only one criterion among several used to determine its risk rating. See also Debt Coverage Ratio.

2.5 *Mortgage Lending Value*. The value of a property as determined by the Valuer, making a prudent assessment of the future marketability of the property by 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 may not be taken into account in the assessment of mortgage lending value. *Mortgage lending value* is a 'value at risk' concept. The *mortgage lending value* of a property may be considered a property value, which is sustainable over the


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long term and independent of market cycles. *Mortgage Lending Value* is a Non-Market Value. See also Sustainable (Net) Asset Value.

2.6 *Property-Related Asset-Backed Security (ABS).* A securitised investment instrument backed by pools of mortgages on real estate. Such an instrument may either be a Residential Mortgage-Backed Security (RMBS) or a Commercial Mortgage-Backed Security (CMBS). Property-Related Asset-Backed Securities are bond-like instruments.

2.7 *Property Trust, Property Unit Trust, or Real Estate Investment Trust (REIT).* A securitised investment instrument backed by equity in real estate; a mutual fund or open-ended investment vehicle for real estate. N.b., equity instruments are beyond the scope of this Commentary.

2.8 *Residential Mortgage-Backed Security (RMBS).* See Property-Related Asset-Backed Security.

2.9 *Risk Profile*. A detailed synopsis of the risks associated with a property or mix of properties, serving as mortgage collateral. There are six general risk categories: 1) market risks, which depend on property type, property classification (owner-occupancy vs investment property), and market characteristics (stable vs volatile; phase in ongoing real estate cycle); 2) locational risks (site-specific characteristics; district and regional competition); 3) property-specific risks (tenant mix; building class); 4) partnership risks, generally during the development phase; 5) fiscal and legal risks, and 6) financial risks.

2.10 *Risk Rating.* The ranking of a mortgaged asset or an entire portfolio of mortgaged assets in relation to potential exposure to loan default, 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.

2.11 *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 and Property Trust, Property Unit Trust, or Real Estate Investment Trust (REIT).

2.12 *Sustainable (Net) Asset Value*. The sustainable value that an asset may be expected to achieve or maintain over the long term. The concept is employed by originators, risk rating agencies, portfolio insurers and investors. *Sustainable (net) asset value* is estimated either by reference to mortgage lending value or by making variable adjustments to *Market Value*, depending on the phase in the ongoing market cycle, and potentially destabilising factors such as market volatility and speculative activity. The estimate should reflect the cyclical forecast, and expectations of volatility and speculation, characteristic of the specific property market. In concept, similar to *mortgage lending value*. *Sustainable (net) asset value* is a Non-Market Value. Also called Long-term Sustainable Value.

## 3.0 **Discussion**

3.1 Banks initially turned to securitisation as a means of releasing and re-employing capital tied up in residential mortgages. Portfolios of residential mortgages were assembled and sold to investors. This practice was then extended to mortgages on commercial property. Over time, however, the banks came to understand securitisation

more as a risk management tool to diffuse risk through the pooling of assets. Securitisation has served another important function. By providing an additional means of capitalising real estate investment, securitisation expands liquidity.

3.2 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 varies because of differences between the types of mortgage portfolios.

3.3 Portfolios of real estate mortgages may be broken down into three principal categories: 1) portfolios of mortgages on residential properties, held by private investors; 2) portfolios of mortgages on residential properties, usually held by commercial or institutional investors; and 3) portfolios of mortgages on commercial or mixed use properties, usually held by commercial or institutional investors (portfolios in the first category include hundreds to thousands of residential units where any one mortgagor may hold a maximum of three units; portfolios in the second category generally comprise less than 200 properties with three or more residential units; portfolios in the third category normally include less than 100 properties).

3.3.1 Checklists tailored to the needs of identifying the risks associated with each of the three kinds of mortgage portfolios are useful tools for ensuring that all requisite informational items are covered.

3.3.2 The *Market Value* and *sustainable (net) asset value* of an aggregate portfolio are determined by analysis of the data compiled for each of the properties, or for clusters of the properties, serving as collateral for the mortgages in the portfolio (see paragraphs 4.1 and 4.2 below).

3.4 An additional category of requisite information involves risks that are not related to specific property types or to valuations. These risks pertain to tenant quality, the sustainability of debt service, borrower rating, and the financial quality or capacity of the insurer/guarantor. A checklist related to these risks is helpful to credit officers.

3.5 Throughout the world as well as within state boundaries, there may be considerable differences in the level and quality of data reported by Valuers in portfolio valuations. In view of this situation, it is recommended that Valuers of mortgage portfolios make use of the checklists discussed herein to ensure that all informational items requisite to the needs of their clients are covered.

3.6 Valuation Update. Valuations should be periodically reviewed by means of a simple procedure, focusing on the main value-determining parameters. *Market Values* may thereby be adjusted to the current market situation and recognizable long-term market trends. *Sustainable (net) asset values* are based on the long-term sustainable aspects of property, and therefore may require updating on a less regular basis.

## 4.0 Recommendations

4.1 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 age, income level, location, or other characteristics. The *Market Value* is determined for clusters of properties and for the aggregate portfolio. The s*ustainable*

*(net) asset value* is also established for clusters of properties and then for the aggregate portfolio. Once *Market Values* and *sustainable (net) asset values* have been determined, the risk profile of the clusters, individual properties, and aggregate portfolio may be analysed. (Such risk profiles are not normally included in reports of valuations undertaken with the objective of estimating *Market Value*.)

4.2 Valuations of the two kinds of portfolios, usually 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 by property basis. The *Market Value* for each property and then for the aggregate portfolio is determined. The *sustainable (net) asset value* is also established for each property and then for the aggregate portfolio. Once *Market Values* and *sustainable (net) asset values* have been determined, the risk profile of the clusters, individual properties, and aggregate portfolio may be analysed. (Such risk profiles are not normally included in reports of valuations undertaken with the objective of estimating *Market Value*.)

4.3 For portfolios of residential property, held by private investors, data requisite to developing a risk profile includes information on the following items:

- 4.3.1 demographics--population dynamics and age cohorts,
- 4.3.2 macroeconomic development--growth/decline; employment/unemployment; price, discount and interest rate trends,
- 4.3.3 political and financial conditions (stability/instability),
- 4.3.4 region--susceptibility to floods, earthquakes, soil sinkage,
- 4.3.5 market--structure, size, classification (owner-occupant, investor), and supply-demand analysis (current market capacity, absorption, anticipated competition)
- 4.3.6 property siting--location, zoning, property suitability, accessibility, soil, environment,
- 4.3.7 income--rent (market rent, contract/passing rent) and quality of tenant or covenant strength,
- 4.3.8 operating expenses/outgoings,
- 4.3.9 mortgage capitalisation rates (mortgage constants) and mortgage yield rates, and
- 4.3.10 property-specific information--age, type, construction, number of floors, number of units, building condition, marketability (subleaseholds held by third parties), potential for renovation.

4.4 For portfolios of residential mortgages, usually held by commercial or institutional investors, data requisite to developing a risk profile includes information on the following items:

- 4.4.1 demographics
- 4.4.2 macroeconomic development
- 4.4.3 political and financial conditions (legislation involving leases and taxation)
- 4.4.4 region
- 4.4.5 market
- 4.4.6 property siting
- 4.4.7 rent
- 4.4.8 operating expenses/outgoings

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4.4.9 mortgage capitalisation rates (mortgage constants) and mortgage yield rates
4.4.10 property-specific information

4.5 For portfolios of commercial mortgages, usually held by commercial or institutional investors, data requisite to developing a risk profile includes information on the following items:

4.5.1 long-term factors—demographics, economic sector
4.5.2 macroeconomic development
4.5.3 political and financial conditions
4.5.4 region
4.5.5 market
4.5.6 property siting
4.5.7 rent
4.5.8 operating expenses/outgoings
4.5.9 mortgage capitalisation rates (mortgage constants) and mortgage yield rates
4.5.10 property-specific information

4.6 The fourth checklist of items involving risks that are not related to specific property types or to valuations include the following information:

4.6.1 tenant quality
4.6.2 property management
4.6.3 loan-to-value ratio of the property
4.6.4 liquidity of the mortgagor
4.6.5 sustainability of debt service
4.6.6 marketability of the property
4.6.7 borrower rating (overall probability of default, given the total debt profile of the borrower), and
4.6.8 financial quality or capacity of the insurer/guarantor.

## 5.0 Date of Issue

This International Valuation Commentary was issued for comment on 10 July 2002.