

Rating Research Services

Taiwan Real Estate Asset Trust Rating Criteria

Primary Credit Analyst:

Aaron Lei; (886) 2 8722-5852; aaron.lei@taiwanratings.com.tw

Secondary Contacts:

Joe Lin; (886) 2 8722-5856; joe.lin@taiwanratings.com.tw

Andrea Lin; (886) 2 8722-5853; andrea.lin@taiwanratings.com.tw

Table Of Contents

SCOPE OF THE CRITERIA

METHODOLOGY

RELATED CRITERIA AND RESEARCH

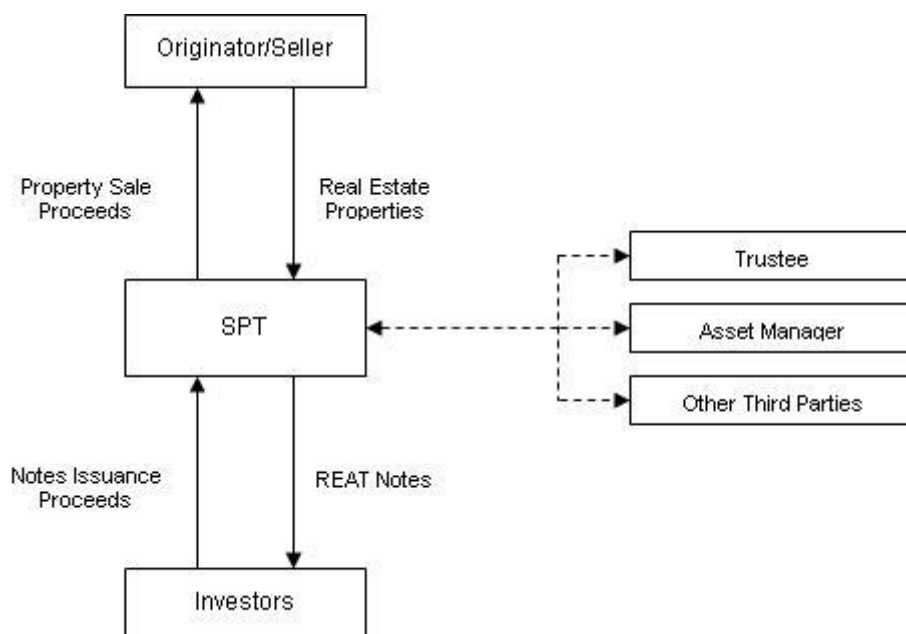
Taiwan Real Estate Asset Trust Rating Criteria

(Editor's note: We originally published this criteria article on Dec. 25, 2012. We are republishing this article following our periodic review completed on Dec. 22, 2014. The referenced criteria and research are updated in this article.)

1. This criteria article outlines the ratings criteria and methodology underlying our analysis of real estate asset trust (REAT) transactions in Taiwan. This article is related to the principles discussed in "Principles Of Credit Ratings," published Feb. 16, 2011.

SCOPE OF THE CRITERIA

2. The criteria apply to all existing and future ratings on REAT transactions in Taiwan. Real estate asset trusts (REATs) involve the issuance of rated notes into the capital markets that are supported by the capital value and income-generating capacity of the underlying real estate properties. Taiwan enacted the Real Estate Securitization Law in 2003, which regulate the issuance of REAT in Taiwan.
3. As the Real Estate Securitization Law indicates in Taiwan, a REAT transaction will involve originators / sellers selling properties to a special purpose trust (SPT), which at the same time issues REAT notes to fund the purchase of the properties (see figure below). Collections from the properties, including the income they generate periodically and the refinancing proceeds upon deal maturity, will be used to satisfy payment obligations of transaction expenses and notes interest and principal.



METHODOLOGY

4. Rating analyses of domestic REAT transactions share a large degree of similarity with that of commercial mortgage-backed securities (CMBS). While CMBS structures relate to loans secured by mortgages on real estate properties and therefore do not involve the physical transfer of these properties, REAT transactions in Taiwan usually involve the outright sale and transfer of the properties from the originator to the SPT. However, in our opinion, the credit risk for both

transaction types is primarily related to the underlying real estate and the sustainable revenue it generates, and not to the originator or mortgage loan borrower.

5. In analyzing the likelihood of noteholders' receipt of timely interest payments and ultimate repayment of principal, Taiwan Ratings primarily considers the property's capacity to service issued notes during the transaction life and to repay the principal balance of the notes on or before the final maturity of the notes. To determine a rating opinion on a given REAT transaction, we will evaluate the properties that act as a transaction's collateral and the primary source of cash flow, conduct a credit and cash flow evaluation on REAT notes, and review relevant legal and structural risks embedded in a transaction.

Property Evaluation

6. Real estate collateralized in REAT transactions may include a variety of property types. For analytical purposes, Taiwan Ratings classifies securitized assets into four categories--office buildings, multi-family property, retail property, and industrial property. We will consider the different characteristics of each property type when evaluating the property features, market condition, competition, occupancy, net cash flow, capitalization rate, and property value. Taiwan Ratings' opinion of the rating implications of leverage and cash flow coverage levels may vary among property types.

Property Review

7. Property analysis involves a review of various property features and market conditions. To facilitate this review, the originator / arranger usually prepares a profile for each property in the asset pool. Components of the property profile generally include:
 - **Asset summary**
An asset summary consists of a narrative of the property, detailing its location, operating history, registered usage, available space, a description of the current owner, and legal proof of ownership.
 - **Historical performance**
Historical performance data generally consists of at least three years of financial statements or a summary of financial performance.
Historical cash flow data, particularly historical data on expenses, are especially useful in estimating future expenses. Taiwan Ratings will also review the tenant turnover rates and the periods required for re-tenanting.
 - **Details of any mortgages and legal rights on the property, if any**
 - **Copies of the lease abstracts of major tenants**
 - **The current rent roll**
The rent roll is required to show the tenant's name, space occupied, rent paid, beginning and ending lease dates, and other pertinent lease data.
 - **Insurance certificates**
 - **Management agreements, ground lease, and other related operation agreements, if any**
8. Taiwan Ratings will generally conduct an on-site review of the properties, the nearby area, and the competing properties, if applicable. We typically meet with the property managers and relevant parties to gain more insight about their operational capability, because property management has a meaningful effect on property condition, tenancy, cash flow, and ultimately the property value. In addition, we will usually meet the management team with regard to their business and financial policies, investment strategy, tenancy and lease management, operating and financial history, organization structure, management experience, and past performance.

Third-Party Report

9. In the process of analyzing a transaction's underlying properties, Taiwan Ratings may review the following reports in addition to the property profiles provided, the on-site visit, and management interviews. In some cases, we may seek information other than that in the reports listed below.
 - **Real estate appraisal report**
Taiwan Ratings will typically review an independent real estate appraisal report for each securitized property. Taiwan Ratings focuses not only on the appraisal result, but also on the relevant data and appraisal procedure that leads to the appraisal value, which might provide important information to property evaluation.
 - **Engineering report**
An engineering report prepared by a certified third party will assist our understanding of the property's condition and provide guidance on the forecast of future capital expenditure. Taiwan Ratings will also consider factors as deferred maintenance costs, building code compliance, environmental risk, seismic risk, and the estimated replacement cost and period in the report.
 - **Market report**
Taiwan Ratings may request the submission of market reports when the arranger / originator cannot provide adequate data and information on the property for analysis.

Stabilized Net Cash Flow

10. To estimate the stabilized net cash flow we begin by adjusting the property's current revenue and current expenses to produce the net operating income. Cash flow from securitized properties is a function of the leases already signed by current tenants, and any leases that may be signed by future tenants for vacant space. This cash flow is reduced by the expenses incurred from property management, vacant space and general operating expenses of the property. The pertinent aspects of each lease--length, concessions given to the tenant, timing and amounts of set-ups, and provisions for expense pass-throughs--are analyzed to determine the effect each will have on cash flows. In addition, rental rates and expenses are analyzed to determine if they are at supportable market levels.
11. The expected annualized average of capital expenditures and leasing commission / re-tenanting costs, which might not accrue every year on a regular basis, is then deducted from net operating income to derive the stabilized net cash flow.
12. In estimating the stabilized net cash flow, Taiwan Ratings does not rely solely on a forecast of revenues and expenses or a property's performance in a worst-case scenario. We consider the determinants of stabilized net cash flow on a comprehensive review of a wide variety of information and analysis. These include historical performance, adjustments to actual rental rates, expected vacancy, non-recoverable outgoings, leasing commissions, plans for future revenues and expenses, and tenant improvements. It may also include capital expenditure funds, the competitiveness of the property, the demand and supply balance of the real estate market, current economic conditions and future prospects, and opinions expressed in the real estate appraisal reports and engineering reports.

Determination Of Taiwan Ratings' Opinion Of Property's Capital Value

13. Various property features and market conditions can affect property evaluation. Our analysis includes qualitative aspects, such as location, the property's condition, occupancy trend, market competition, economic projections, demographic changes, and other factors that may affect a property's performance over time and possibly impair its value. Most of these considerations will be captured by applying an appropriate capitalization rate to the derived stabilized net cash flow to reflect risks or strengths inherent in each property, which determine our assessed capital value of the property.

Credit Evaluation and Debt Amount

14. Our analysis of the amount of debt that can be supported at a particular rating level includes consideration of the LTV and DSCR threshold rates for the ratings sought, and the transaction arrangement on cash flow collection and distribution.

LTV And DSCR Threshold Rates

- **LTV**
LTV is the ratio of debt securities issued to the assessed capital value of properties, expressed as a percentage.
 - **DSCR**
DSCR is the ratio of stabilized net cash flow generated by properties each year against the yearly debt service amount of debt securities issued.
15. The debt service amount per year includes not only the interest payments, but also the amortized principal. The debt service amount might be calculated with stressed interest rate scenarios to evaluate the transaction's ability to meet debt service obligations in different interest rate scenarios. The debt service amount will also be calculated based on an assumed refinance rate, which may be prevailing when the properties are to be refinanced or sold. The assumed refinance rate reflects an assessment of the market rate, risk premium, and characteristics of the properties, among other factors.
16. We compare a transaction's LTV and DSCR with relevant threshold levels. Table 1 details indicative threshold levels, which generally would be applied to Taiwan Ratings' assessment of office buildings' capital value at each given rating level. These levels are indicative only and actual levels will depend on the specifics of the transaction and the real estate involved.
17. The selection of appropriate LTV and DSCR threshold levels to apply at each rating level (within or outside the indicative range) can include, but is not limited to, property types, whether the properties are cross-collateralized, property age and condition, historical real estate market performance, market volatility and historical stresses on rental cash flows achieved and capital value movements, diversity of location, tenancy profile, and quality of management. We also consider the terms and conditions, amortization, and refinancing arrangement of the proposed transaction structure.
18. For transactions collateralized by properties other than office buildings, we will consider applicable LTV and DSCR threshold levels separately.

Table 1

Indicative LTV and DSCR Threshold Levels for Office Buildings

Rating Category	LTV Range (%)	DSCR Range
'twAAA'	40 ~ 55	1.70 ~ 2.10
'twAA'	45 ~ 60	1.50 ~ 1.70
'twA'	50 ~ 65	1.40 ~ 1.60
'twBBB'	55 ~ 70	1.25 ~ 1.45

Cash Flow Analysis

19. The estimated stabilized net cash flow provides the basis for our transaction cash flow analysis. We evaluate the payment mechanisms that allow the proceeds from the properties to pass through to senior expense items and noteholders, in accordance with corresponding seniority in the transaction's distribution waterfall. We will also consider the effects of any changes to the priority

- of payments resulting from trigger events that may be built into the transaction structures.
20. A REAT transaction might adopt one of the following profiles--notes with amortizing principal repayment during transaction life, notes bearing interest only with a balloon repayment upon maturity, and zero-coupon notes with accrual interests becoming principal--and occasionally a combination of the three. Taiwan Ratings will assess the impact on the refinancing requirement from the amortization arrangement on the transaction's notes.
 21. If an external credit support, such as a notes insurance policy or explicit guarantee supports the transaction by obligating a third party / cash facility to make note payments when necessary, Taiwan Ratings will analyze the support coverage and related terms and conditions to its use. We will also evaluate support from a transaction's reserves and liquidity arrangement(s).

Structural Risk And Legal Risk Analysis

22. In addition to the aforementioned debt amount analysis, Taiwan Ratings will consider the inherent risk of the transaction structure and associated legal risk, because the underlying asset pool's cash flow and the transaction structure are closely related to each other when supporting the REAT payment obligations.

Structural Risk Analysis

Protection from earthquakes

23. An evaluation of earthquake risks is an integral part of our REAT analysis as damage to buildings due to earthquakes is a risk throughout Taiwan. Our structural risk analysis reflects our concern that a major earthquake could cause damage to the property backing a REAT transaction, which in turn might result in additional costs including repairs to the building and the cost of business interruptions during this period, as well as potential for loss of value. As a result, earthquake damage could affect the payment of interest on the notes and redemption of the principal.
24. Taiwan Ratings will review any seismic risk analysis in the engineering report. We typically review insurance policies, which we expect will be maintained with certified insurance companies against the risk of loss due to an earthquake. In Taiwan Ratings' opinion, the minimum rating of these insurance counterparties to participate in a 'twAAA' rated REAT transaction is a long-term rating of 'twA'. We also expect the insurance policy coverage to be an amount equal to the replacement cost of the property.
25. We also evaluate the risk of loss of rental income during the repair or replacement period. The transaction might address such business loss through use of insurance coverage, a liquidity arrangement, or other specific transaction arrangements.

Insurance

26. REAT transactions generally maintain insurance policies to cover the full replacement of the properties due to fire and natural catastrophe and the effects of business interruption or loss of rental on the cash flows of the properties.
27. Taiwan Ratings will also evaluate whether the protection from insurance policies or other arrangements is sufficient to cover the transaction's contingent public liabilities. These include the required indemnification, fine, and other legal obligations to claims of bodily injury/death, property damage, and environment contamination attributable to the transaction assets.
28. The aforementioned insurance policies need to be held with appropriately rated counterparties commensurate with the transactions ratings sought. Taiwan Ratings believes the minimum commensurate rating of these insurance counterparties to participate in a 'twAAA' rated REAT transaction is a long-term rating of 'twA'.

Capital expenditure

29. A real estate property requires continuous management and maintenance. In evaluating a transactions' ability to maintain the relevant properties in good condition, Taiwan Ratings will review the related engineering reports, and the capability of management from the property manager and the trustee.
30. Property management includes routine management, repair, and maintenance of the assets. Taiwan Ratings will factor a sinking fund allowance consistent with prudent property-management practice into the stabilized net cash flow calculation. Moreover, as the cost of capital works might arise on a non-regular basis, the rating analysis considers the transaction's access to on-time cash to cover such a cost.

Transaction liquidity

31. REAT transactions might require ready cash reserves or other liquidity arrangements to ensure the timely payment of senior expenses and interest on notes when the property cash flow is temporarily interrupted for a variety of reasons. Our analysis on a transaction's liquidity and the respective mitigating measures would depend on factors including property quality, the number of properties under management, tenancy distribution, payment frequency, and managers' re-tenanting ability. For instance, during a property manager / servicer transition, collections might be delayed. To mitigate this possible delay, a transaction might provide coverage for a period of six or more months of REAT senior expenses and stressed interest on notes through a liquidity reserve either in cash or from a third party provider.
32. In addition, if the tenants of REAT properties are concentrated in a particular entity or an industry, a transaction's cash flow might be severely affected when a major tenant leaves or fails, or when the major tenant industry experiences stress. It is usually more difficult to find new tenants to rent a large vacant space in a short period to enable the rent cash flow to continue. The same difficulty will occur if a large percentage of leases roll over at the same time. REAT transactions exhibiting certain concentration of tenants or lease rolling dates might moderate this potential risk by posting additional cash reserves.

Refinancing arrangement and tail period

33. Collateral refinancing arrangements are critical to our analysis because REAT transactions might be structured with a bullet repayment or the majority of principal repayments upon expected maturity of the notes. Taiwan Ratings will review the proposed refinancing arrangement in terms of any preconditions for refinancing, timeliness, and amount to be covered. If the transaction structure contemplates the collateralized properties to be sold for the refinancing, we will review the related procedures and evaluate the likelihood the property could be sold in an orderly manner within the designated time frame.
34. The length of the period between the expected maturity date or liquidation kick-off date and the legal final maturity date (tail period) is designed to allow for the orderly sale of assets so that noteholders could be repaid in full no later than the legal final maturity date. In Taiwan Ratings' opinion, for general office buildings, it may take several months or even years for the trustee to sell them in an orderly manner. We expect a minimum tail period of two years in Taiwan REAT transactions. It should be noted that this is only a minimum requirement and each transaction will be considered on an individual basis. Analysis of factors such as property characteristics, transaction structure, number of properties in the transaction pool, transaction size, transaction leverage ratio, and the liquidity of potential resale, might contribute to a longer tail period. This general requirement might also change along with future market and economic conditions.
35. During the tail period, the transaction must still demonstrate its ability to service notes interest (or if applicable principal) payment obligations on the agreed transaction terms.

Legal And Regulatory Risk

36. A structured finance rating is based primarily on the creditworthiness and cash generating ability of securitized assets, without regard to the creditworthiness of the originators or sellers. The structured finance arrangement also seeks to mitigate any counterparty exposures from entities that are either unrated or rated lower than the targeted transaction ratings.
37. Key legal concerns include the effectiveness of the asset transfer from the originator / seller to the issuance entity. Taiwan Ratings will also evaluate whether any parties have relevant recourse to or any forms of legal right on the transferred properties, and if so how this would impact REAT note holders in terms of their security ranking, as well as the timely payment of interest and principal on the notes. REAT issuers will be considered in light of our special-purpose entity criteria and whether the issuer is bankruptcy remote. A bankruptcy-remote special-purpose entity should be unlikely to become insolvent or be subject to the claims of creditors (who may file an involuntary petition against the entity).
38. We will also assume a worst-case scenario that a non-bankruptcy remote transaction party goes into insolvency immediately after the deal closing. Taiwan Ratings will consider whether the cash flow from properties is still available to pay the transaction's debt in a timely manner under such circumstances. If the transaction has designated back-up transaction parties at the time of closing for the transaction's continuity upon the failure of original parties to fulfill their responsibility, Taiwan Ratings will review the successor qualifications and replacement process. The additional cost related to such a replacement arrangement will also be stressed and analyzed.
39. We consider most legal concerns in light of Taiwan's domestic laws and regulations, particularly the Civil Code and Real Estate Securitization Law, as well as transaction documents, and opinions from transaction counsels. For matters relating to taxation, we will consider the issuer's ability to pay its taxes through the cash flow based on tax treatment opinions from the transaction's legal counsel / accountant.

RELATED CRITERIA AND RESEARCH

- **Understanding Taiwan Ratings' Rating Definitions**, www.taiwanratings.com, Nov. 18, 2014
- **CMBS: Global Rating Methodology for Credit – Tenant Lease Transactions**, July. 22, 2013
- **CMBS: European CMBS Methodology and Assumptions**, Nov. 7, 2012
- **CMBS: Global Property Evaluation Methodology**, Sept. 5, 2012
- **CMBS: Rating Methodology and Assumptions for U.S. and Canadian CMBS**, Sept. 5, 2012
- **Principles Of Credit Ratings**, Feb. 16, 2011

(Unless otherwise stated, these articles are published on www.standardandpoors.com, access to which requires a registered account)

Copyright © 2015 by Taiwan Ratings Corporation (TRC). All rights reserved.

No content (including ratings, credit-related analyses and data, valuations, model, software or other application or output therefrom) or any part thereof (Content) may be modified, reverse engineered, reproduced or distributed in any form by any means, or stored in a database or retrieval system, without the prior written permission of TRC. The Content shall not be used for any unlawful or unauthorized purposes. TRC and any third-party providers, as well as their directors, officers, shareholders, employees or agents (collectively TRC Parties) do not guarantee the accuracy, completeness, timeliness or availability of the Content. TRC Parties are not responsible for any errors or omissions (negligent or otherwise), regardless of the cause, for the results obtained from the use of the Content, or for the security or maintenance of any data input by the user. The Content is provided on an "as is" basis. TRC DISCLAIMS ANY AND ALL EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE, FREEDOM FROM BUGS, SOFTWARE ERRORS OR DEFECTS, THAT THE CONTENT'S FUNCTIONING WILL BE UNINTERRUPTED OR THAT THE CONTENT WILL OPERATE WITH ANY SOFTWARE OR HARDWARE CONFIGURATION. In no event shall TRC be liable to any party for any direct, indirect, incidental, exemplary, compensatory, punitive, special or consequential damages, costs, expenses, legal fees, or losses (including, without limitation, lost income or lost profits and opportunity costs or losses caused by negligence) in connection with any use of the Content even if advised of the possibility of such damages.

Credit-related and other analyses, including ratings, and statements in the Content are statements of opinion as of the date they are expressed and not statements of fact. TRC credit ratings are opinions about relative credit risk. TRC's opinions, analyses and rating acknowledgment decisions (described below) are not recommendations to purchase, hold, or sell any securities or to make any investment decisions, and do not address the suitability of any security. TRC assumes no obligation to update the Content following publication in any form or format. The Content should not be relied on and is not a substitute for the skill, judgment and experience of the user, its management, employees, advisors and/or clients when making investment and other business decisions. TRC does not act as a fiduciary or an investment advisor except where registered as such. While TRC has obtained information from sources it believes to be reliable, TRC does not perform an audit and undertakes no duty of due diligence or independent verification of any information it receives. TRC cannot guarantee the accuracy, completeness, or timeliness of the information relied on in connection with a rating or the results obtained from the use of such information.

To the extent that regulatory authorities allow a rating agency to acknowledge in one jurisdiction a rating issued in another jurisdiction for certain regulatory purposes, TRC reserves the right to assign, withdraw or suspend such acknowledgement at any time and in its sole discretion. TRC disclaims any duty whatsoever arising out of the assignment, withdrawal or suspension of an acknowledgment as well as any liability for any damage alleged to have been suffered on account thereof.

TRC keeps certain activities of its business units separate from each other in order to preserve the independence and objectivity of their respective activities. As a result, certain business units of TRC may have information that is not available to other TRC business units. TRC has established policies and procedures to maintain the confidentiality of certain non-public information received in connection with each analytical process.

TRC may receive compensation for its ratings and certain analyses, normally from issuers or underwriters of securities or from obligors. TRC reserves the right to disseminate its opinions and analyses. TRC's public ratings and analyses are made available on its Web sites, www.taiwanratings.com (free of charge), and rrs.taiwanratings.com.tw (subscription), and may be distributed through other means, including via TRC publications and third-party redistributors.