

Revenue Outlook: State 2% Sales and Use Tax, Gaming Percentage Fees

Prepared by
Sarah Crane
Economist
+610.235.5160

Nevada Economic Forum

Revenue Outlook: State 2% Sales and Use Tax, Gaming Percentage Fees

BY SARAH CRANE

The following revenue forecasts link Nevada's general sales and use tax revenues (NRS 372) and its gaming percentage fee revenues (NRS 463) to measures of underlying economic growth. The pandemic has darkened the near-term outlook. Sales tax collections and gaming percentage fee collections plummeted in fiscal 2020 despite an impressive first half as policymakers, consumers and businesses responded to the emergence of COVID-19. The dramatic decline in economic activity will reduce sales tax revenues this year and early next year. Severely reduced tourism and business closures delivered an even harsher blow to gaming percentage fee collections. Revenues will rebound in earnest with the broader economy in 2022, but it will be the middle of the decade before they return to precrisis levels.

Regional economy

The COVID-19 pandemic has crippled Nevada's once outperforming economy. The hit to tourism-dependent industries has weakened the state's main source of employment, income and revenue. Measures restricting travel, social interactions and business activity spurred mass layoffs this spring and sent the state unemployment rate up to a record

30% in April, the highest in the nation. It has since fallen to 12% as of October, still well above the U.S. average.

Employment in October was 8.5% lower than in February, slightly worse than in the rest of the West and the nation. The downturn has been far more severe in Las Vegas than in the rest of the state, which has navigated the crisis about as well as the U.S.,

if not better (see Chart 1). Although reopening businesses have boosted hiring since May, Nevada's tourism-centric economy suffered a remarkably severe contraction from February to April. Visits to the state all but vanished when businesses and casinos shut their doors, causing the leisure/hospitality industry

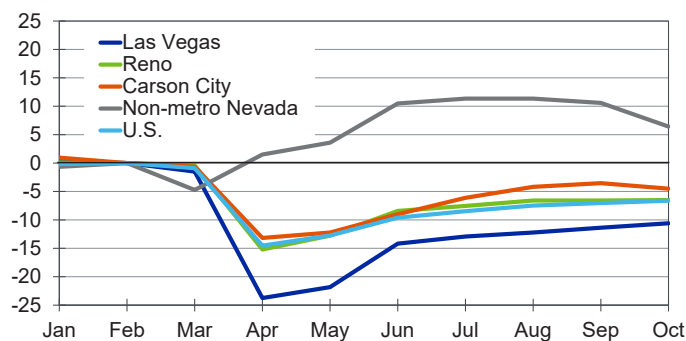
to shed the largest share of workers by far (see Chart 2).

Industry payrolls have increased marginally since June, after casino reopenings brought back some tourists and jobs. The recession was less damaging to manufacturing, but factory employment has not rebounded like it has in most states. The performance of the public sector has been typical for the U.S., with job losses concentrated in local governments as many school districts shifted from in-person instruction to remote learning.

The pandemic will weigh on hospitality and especially accommodations for years. Nevada's hotel occupancy rate averaged 44% in the three months ended in October versus 71% during the same period in 2019. The average room rate was also down by about 23% from a year earlier. Passenger volume at McCarran International Airport and Reno-Tahoe International Airport has been picking up, but it is less than half of what it was a year earlier. Travel will remain muted as businesses maintain capacity constraints, events are canceled or postponed, international travel is restricted, and

Chart 1: Las Vegas Paying Heaviest Toll

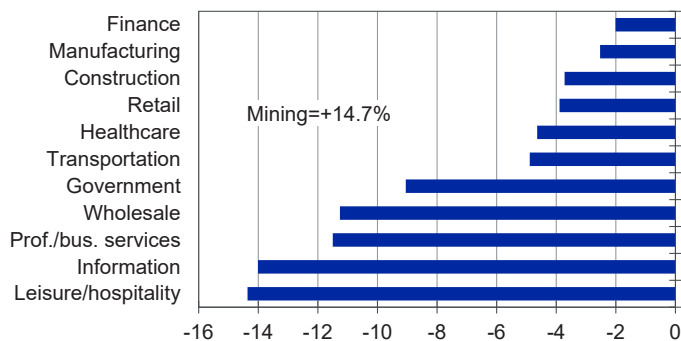
Nonfarm employment, % change from Feb 2020



Sources: BLS, Moody's Analytics

Chart 2: Tourism Leading Declines

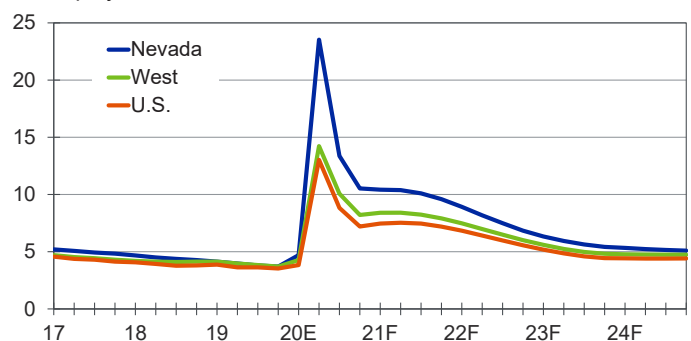
Nevada, % change in jobs from Feb 2020 by industry, Oct 2020



Sources: BLS, Moody's Analytics

Chart 3: Joblessness Will Stay Elevated

Unemployment rate, %, Nov 2020 baseline forecast



Sources: BLS, Moody's Analytics

people remain cautious about the spread of the virus. Further, convention and trade shows will temporarily move to a virtual format, costing Nevada a crucial source of visitors and spending. Business and international travelers have an especially high rate of spending per visitor.

Economic growth in Nevada is set to slacken in the coming months as uncertainty about the pandemic's path causes households and businesses to spend more cautiously. New COVID-19 cases have accelerated in most parts of the country and federal government support has all but expired, factors that will temper the pace of recovery in the near term. The state unemployment rate will keep slowly declining and drop into the single digits in the second half of 2021, significantly later than in the rest of the U.S. (see Chart 3). It will be another few years before the jobless rate returns to the norms of the previous decade. Though population growth will remain well above average, the extraordinary degree of economic uncertainty will crimp the normally robust pipeline of new residents.

This will slow the pace of household formation and growth in housing-related industries over the next few quarters.

Once a vaccine or highly effective medical treatment for COVID-19 has been approved and widely distributed, Nevada's economy will regain momentum. The baseline forecast now counts on a faster rollout beginning in early 2021, taking several months to gain acceptance. This would allow Nevada to once again best the rest of the nation by most gauges of economic growth beginning in 2022, though it will take some time to make up all of the ground that has been lost. Any delay in the rollout and acceptance of a vaccine beyond what is assumed in the baseline would result in weaker revenue collections than projected in this forecast.

While secondary industries will make a greater contribution to Nevada's growth over the near term, the economy's heavy reliance on tourism, historical cyclicity, and worsening infection incidence leave it extremely exposed to pandemic-related risks (see Chart 4). A

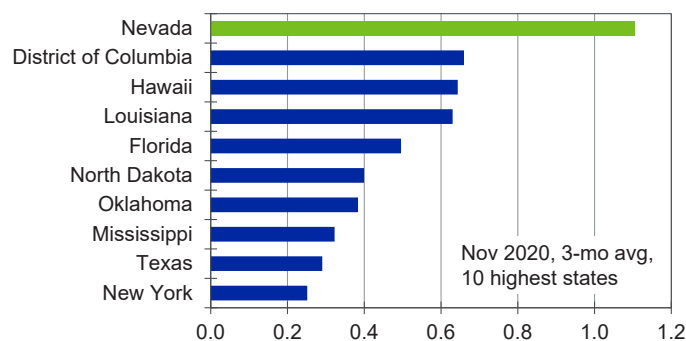
resurgence in infection rates statewide and nationally poses a rising threat to the fragile recovery, as Moody's Analytics research finds a clear link between containing the outbreak and the economy's performance. Even without widespread shutdowns, consumers and businesses are likely to pull back if the pandemic remains unchecked, resulting in significant economic damage.

Our baseline outlook holds that the economy will avoid an outright double-dip recession. This optimism rests on the assumption that the new Biden administration and Congress will quickly come to terms on another sizable fiscal rescue package of \$1.5 trillion by mid-February.

Our more pessimistic downside scenario assumes that the incidence of infections, hospitalizations and deaths from COVID-19 rises significantly more than expected in the baseline. More infections and stricter limitations on consumers and businesses would be ominous for jobs, incomes, confidence and spending (see Chart 5). Further, policymakers are not

Chart 4: Nevada Is Extremely Vulnerable

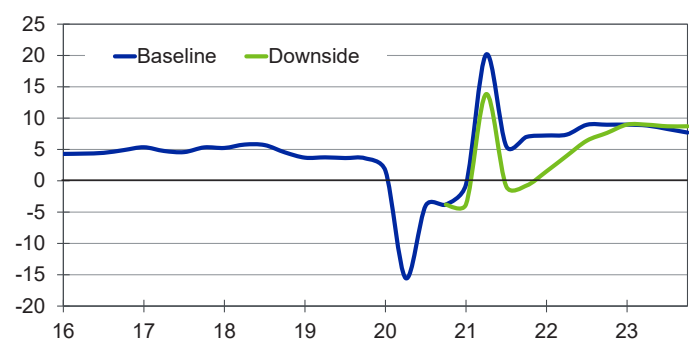
Economic exposure to COVID-19, # of std dev from mean, 0=avg



Source: Moody's Analytics

Chart 5: Spending Rebound Will Slump

Nevada personal consumption expenditures, % change yr ago

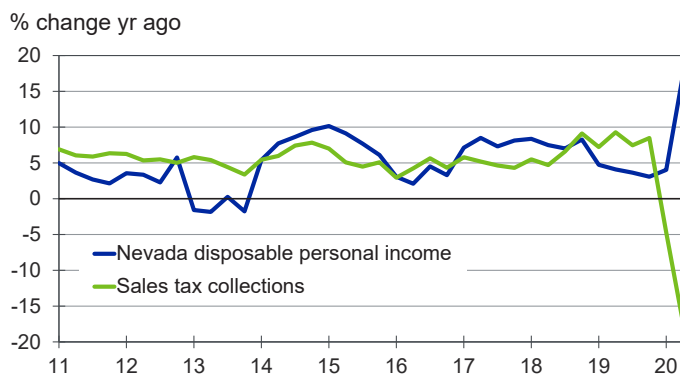


Sources: BEA, Moody's Analytics

Table 1a: December Sales and Use Tax Forecast

	Q1	Q2	Q3	Q4	Total
Fiscal 2020, \$ mil	321.60	344.69	284.28	264.13	1,214.70
% change yr ago	7.46	8.48	-4.71	-17.41	-1.65
Fiscal 2021, \$ mil	299.79	308.83	287.50	306.22	1,202.34
% change yr ago	-6.78	-10.40	1.13	15.93	-1.02
Fiscal 2022, \$ mil	298.99	310.68	290.56	309.98	1,210.22
% change yr ago	-0.26	0.60	1.07	1.23	0.66
Fiscal 2023, \$ mil	310.78	324.45	305.65	327.89	1,268.77
% change yr ago	3.94	4.43	5.19	5.78	4.84

Sources: Nevada Legislative Counsel Bureau, Moody's Analytics

Chart 6: Divergence of Income and Sales

Sources: BEA, Moody's Analytics

able or willing to provide additional timely fiscal support to the economy. The decline in consumer spending causes real GDP to decline through the third quarter of 2021, and the unemployment rate starts to rise again.

Sales and use taxes

Forecast. Sales tax collections plummeted in fiscal 2020 as policies to flatten the curve of COVID-19 dramatically reduced economic activity. Revenues for the full year were down

1.7%. The removal of many business restrictions caused sales tax collections to jump a bit in the first quarter of fiscal 2021, but on a year-ago basis declines will remain severe.

Full-year revenues are forecast to come in 1% lower in fiscal 2021. The pace of economic and thus collections growth is projected to pick up considerably as the economy gets

back on its feet. Given the severity of the initial drop, however, collections in fiscal 2023 are projected to be only slightly higher than in fiscal 2019 (see Table 1a).

The double-dip recession envisaged by the alternative downside scenario would be much more damaging for sales tax revenues, causing a 4.7% decline in fiscal 2021 and a 9.8% drop in fiscal 2022 (see Table 1b). Collections at the end of the forecast period would be on par with levels last seen in fiscal 2017.

Table 1b: December Sales and Use Tax Forecast - Alternative Downside Scenario

	Q1	Q2	Q3	Q4	Total
Fiscal 2020, \$ mil	321.60	344.69	284.28	264.13	1,214.70
% change yr ago	7.46	8.48	-4.71	-17.41	-1.65
Fiscal 2021, \$ mil	299.79	308.83	272.17	276.89	1,157.67
% change yr ago	-6.78	-10.40	-4.26	4.83	-4.69
Fiscal 2022, \$ mil	264.03	269.47	246.54	264.29	1,044.33
% change yr ago	-11.93	-12.74	-9.42	-4.55	-9.79
Fiscal 2023, \$ mil	266.19	278.95	264.91	287.33	1,097.38
% change yr ago	0.82	3.52	7.45	8.72	5.08

Sources: Nevada Legislative Counsel Bureau, Moody's Analytics

Drivers. The main driver of sales and use tax collections is Nevada personal consumption expenditures, which shed light on residents' willingness to spend and tourism in Las Vegas. Another significant variable determining the trajectory of the sales tax forecast is U.S. wage and salary income. Wages and salaries make up more than half of personal income and help determine consumers' ability to spend in the U.S. economy. National wage and salary income also serves as a helpful proxy for changes in the overall business cycle.

The COVID-19 recession and recovery have turned many traditional economic patterns on their heads. The crisis has temporarily weakened the relationship between personal income growth and sales tax collections. The combination of stimulus checks and extended and expanded unemployment insurance payments through July was more than enough to offset the declines in wages and salaries. This surge was accompanied by a dive in spending and sales tax revenues as consumers saved at unprecedented rates (see Chart 6).

This was partly because there were fewer spending opportunities as business restrictions and stay-at-home orders went into effect, and partly because of consumer caution. Spending surged as pent-up demand was released when restrictions on economic activity eased. However, after that initial rush, the reality of lost income, increased uncertainty around the virus and public safety, and limits on in-person activity will continue to keep activity below precrisis levels for some time.

The composition of consumer spending during the economic downturn has also shifted. So far, the biggest hit to spending has come to previously stable services, while goods spending, which is normally more volatile, has bounced back strongly. Policies to flatten the curve of infections are falling much harder on service providers, and fears of the virus are hurting demand for in-person entertainment. Although some of this demand is being transferred to sales of goods, much of it is disappearing altogether.

There are a number of unquantifiable risks to the forecast for sales tax collections. To the upside, the state began to collect sales taxes on online purchases in 2019, but the forecast does not explicitly account for any changes in the way that Nevada collects online sales taxes. To the downside, though many of the economic effects have been built into the

Table 2a: December Gaming Percentage Fee Forecast

	Q1	Q2	Q3	Q4	Total
Fiscal 2020, \$ mil	190.53	199.10	192.42	37.22	619.27
% change yr ago	5.65	8.93	-3.08	-80.46	-17.67
Fiscal 2021, \$ mil	111.22	165.39	116.06	136.28	528.95
% change yr ago	-41.63	-16.93	-39.68	266.11	-14.58
Fiscal 2022, \$ mil	123.34	137.29	129.36	151.37	541.36
% change yr ago	10.90	-16.99	11.46	11.07	2.35
Fiscal 2023, \$ mil	137.38	152.74	145.72	172.59	608.42
% change yr ago	11.38	11.25	12.65	14.02	12.39

Sources: Nevada Legislative Counsel Bureau, Moody's Analytics

baseline outlook, this revenue forecast has not been add-factored to explicitly account for the direct effects of the sales tax arrangement between the state and Tesla.

Gaming percentage fees

Forecast. The pandemic-induced downturn wiped out the momentum in gaming percentage fee collections growth in fiscal 2020. Casino closures and the sharp drop in visitor numbers reduced annual collections by 17.7% from fiscal 2019. The relaxation of restrictions on casinos and other recreation services will attract visitors and push gaming percentage fee collections in the right direction, but they will be coming off of a severely depressed base. Therefore, annual collections in fiscal 2021 will be down 14.6% from the previous year. This represents a significantly larger drop than during and after the Great Recession.

The recovery in percentage fee collections will be gradual because of persistent restrictions on international visitors and new realities in business travel. As a result, collections in fiscal 2023 are projected to remain 19% lower than in fiscal 2019 (see Table 2a). Under the more pessimistic forecast, consumer

spending on air travel, hotel stays and in entertainment establishments is subdued for a long time. This scenario would cause a 16.2% decline in gaming percentage fee collections in fiscal 2021 and an 8.6% drop in fiscal 2022 (see Table 2b).

Drivers. The cyclical drivers for Nevada's gaming percentage fees are similar to sales and use taxes but with a few exceptions. Gaming percentage fees tend to have a higher correlation with national and global economic trends, whereas sales are highly dependent on local consumer spending. National recreational service spending remains the best predictor of gaming percentage fee collections.

Consumer spending fell sharply during the brief recession and restrictions on activity are impacting service spending more than goods spending. The trajectory for consumer spending is favorable for growth this quarter, but with finances weakened for many and in some cases decimated, any recovery will be modest even after the latest surge of infections passes. Tourism, still the key driver in the gaming space, will take years to return to pre-pandemic levels (see Chart 7).

Further, fears about virus contagion will conspire with restricted international travel to pressure tourism, and gaming percentage fee collections in turn. Would-be tourists will remain cautious until a widely available treatment or vaccine restores confidence. Data on air traffic at McCarran International Airport point to a particularly sharp drop in international visitors this year. The Asia-Pacific region has thus far had more success containing the virus than the U.S., and gamblers from this region may be reluctant to vacation in Las Vegas even after travel restrictions loosen. The reduction in foreign visitors will undermine casinos and gaming percentage fee collections, given the importance of international high rollers to baccarat volume in particular.

The amusement and gambling industries will benefit meaningfully from a COVID-19 vaccine. Once a vaccine is approved, it may be a while before it has an impact on the economy, as it will take time to produce it for mass distribution and potentially even longer for it to gain wide acceptance among Americans. Because of the gradual nature of this acceptance, rather than as a discrete event, the support to gaming percentage fees from an effective vaccine will be spread out over a period of several years.

Outside of the economic impacts, several structural issues will also play a part in the forecast. It remains to be seen how the expansion of legal sports betting across the country will affect Nevada's gaming industry, though the loss of monopoly power has not slowed the state down so far. Nevada sportsbooks continued to lead the way and sports wagers hit another record high in 2019, a sign that the Silver State maintains its appeal to sports fans. The development is unlikely to be a game changer for gaming percentage fees, since revenue from sports betting pales in comparison to that from other types of gambling.

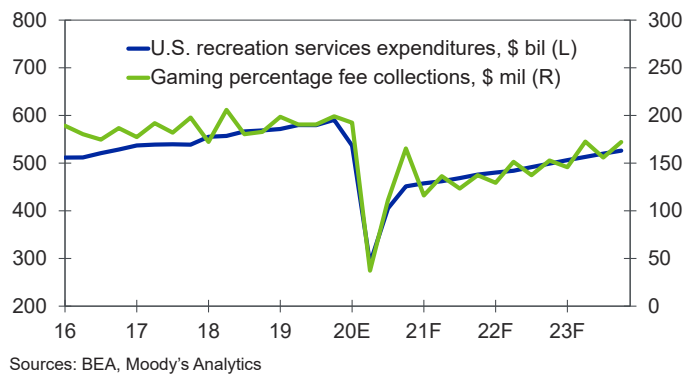
Longer term, the structural break in the historical relationship between recreational spending and gaming is becoming increasingly clear and drives a large part of the disparity in forecast growth rates for gaming compared with sales and use taxes. Increased competition from other states, international destinations such as Macau, and even online betting will further moderate Nevada's share of gaming in the years

Table 2b: December Gaming Percentage Fee Forecast - Alternative Downside Scenario

	Q1	Q2	Q3	Q4	Total
Fiscal 2020, \$ mil	190.53	199.10	192.42	37.22	619.27
% change yr ago	5.65	8.93	-3.08	-80.46	-17.67
Fiscal 2021, \$ mil	111.22	165.39	112.03	130.08	518.72
% change yr ago	-41.63	-16.93	-41.78	249.45	-16.24
Fiscal 2022, \$ mil	113.81	120.42	110.84	129.29	474.35
% change yr ago	2.33	-27.19	-1.06	-0.61	-8.55
Fiscal 2023, \$ mil	115.75	127.24	120.39	141.86	505.24
% change yr ago	1.70	5.67	8.62	9.72	6.51

Sources: Nevada Legislative Counsel Bureau, Moody's Analytics

Chart 7: Long Road Back to Normal



diversifying beyond its traditional gaming image and branding itself more as a comprehensive vacation destination that appeals to a wider range of visitors. As a result, live entertainment and sales and use taxes will increase at the expense of gaming percentage fees.

changed in recent years, which is rather unusual. Actual gaming percentage fee collections since 2016 have not followed their long-standing seasonal pattern of hitting their peak in the second quarter and then falling off heading into the fall. It is yet unclear what might be contributing to this change in seasonality, or whether the causes are economic or noneconomic. What is certain, though, is that the lack of seasonal uniformity is causing greater variance in quarterly fluctuations within the gaming collections forecast model. Moody's Analytics will keep a close eye on this issue as more data become available to see what, if any, adjustments should be made to our modeling methodology in future forecast cycles.

ahead. Las Vegas tourism has been relatively successful in addressing the changing gambling and entertainment landscape by

Complicating the forecast is the fact that the seasonal pattern inherent in historical gaming collections data has

About Moody's Analytics

Moody's Analytics provides financial intelligence and analytical tools supporting our clients' growth, efficiency and risk management objectives. The combination of our unparalleled expertise in risk, expansive information resources, and innovative application of technology helps today's business leaders confidently navigate an evolving marketplace. We are recognized for our industry-leading solutions, comprising research, data, software and professional services, assembled to deliver a seamless customer experience. Thousands of organizations worldwide have made us their trusted partner because of our uncompromising commitment to quality, client service, and integrity.

Concise and timely economic research by Moody's Analytics supports firms and policymakers in strategic planning, product and sales forecasting, credit risk and sensitivity management, and investment research. Our economic research publications provide in-depth analysis of the global economy, including the U.S. and all of its state and metropolitan areas, all European countries and their subnational areas, Asia, and the Americas. We track and forecast economic growth and cover specialized topics such as labor markets, housing, consumer spending and credit, output and income, mortgage activity, demographics, central bank behavior, and prices. We also provide real-time monitoring of macroeconomic indicators and analysis on timely topics such as monetary policy and sovereign risk. Our clients include multinational corporations, governments at all levels, central banks, financial regulators, retailers, mutual funds, financial institutions, utilities, residential and commercial real estate firms, insurance companies, and professional investors.

Moody's Analytics added the economic forecasting firm Economy.com to its portfolio in 2005. This unit is based in West Chester PA, a suburb of Philadelphia, with offices in London, Prague and Sydney. More information is available at www.economy.com.

Moody's Analytics is a subsidiary of Moody's Corporation (NYSE: MCO). Further information is available at www.moodyanalytics.com.

DISCLAIMER: Moody's Analytics, a unit of Moody's Corporation, provides economic analysis, credit risk data and insight, as well as risk management solutions. Research authored by Moody's Analytics does not reflect the opinions of Moody's Investors Service, the credit rating agency. To avoid confusion, please use the full company name "Moody's Analytics", when citing views from Moody's Analytics.

About Moody's Corporation

Moody's Analytics is a subsidiary of Moody's Corporation (NYSE: MCO). MCO reported revenue of \$4.8 billion in 2019, employs more than 11,000 people worldwide and maintains a presence in more than 40 countries. Further information about Moody's Analytics is available at www.moodyanalytics.com.

© 2020 Moody's Corporation, Moody's Investors Service, Inc., Moody's Analytics, Inc. and/or their licensors and affiliates (collectively, "MOODY'S"). All rights reserved.

CREDIT RATINGS ISSUED BY MOODY'S INVESTORS SERVICE, INC. AND ITS RATINGS AFFILIATES ("MIS") ARE MOODY'S CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES, AND MOODY'S PUBLICATIONS MAY INCLUDE MOODY'S CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES. MOODY'S DEFINES CREDIT RISK AS THE RISK THAT AN ENTITY MAY NOT MEET ITS CONTRACTUAL, FINANCIAL OBLIGATIONS AS THEY COME DUE AND ANY ESTIMATED FINANCIAL LOSS IN THE EVENT OF DEFAULT. CREDIT RATINGS DO NOT ADDRESS ANY OTHER RISK, INCLUDING BUT NOT LIMITED TO: LIQUIDITY RISK, MARKET VALUE RISK, OR PRICE VOLATILITY. CREDIT RATINGS AND MOODY'S OPINIONS INCLUDED IN MOODY'S PUBLICATIONS ARE NOT STATEMENTS OF CURRENT OR HISTORICAL FACT. MOODY'S PUBLICATIONS MAY ALSO INCLUDE QUANTITATIVE MODEL-BASED ESTIMATES OF CREDIT RISK AND RELATED OPINIONS OR COMMENTARY PUBLISHED BY MOODY'S ANALYTICS, INC. CREDIT RATINGS AND MOODY'S PUBLICATIONS DO NOT CONSTITUTE OR PROVIDE INVESTMENT OR FINANCIAL ADVICE, AND CREDIT RATINGS AND MOODY'S PUBLICATIONS ARE NOT AND DO NOT PROVIDE RECOMMENDATIONS TO PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. NEITHER CREDIT RATINGS NOR MOODY'S PUBLICATIONS COMMENT ON THE SUITABILITY OF AN INVESTMENT FOR ANY PARTICULAR INVESTOR. MOODY'S ISSUES ITS CREDIT RATINGS AND PUBLISHES MOODY'S PUBLICATIONS WITH THE EXPECTATION AND UNDERSTANDING THAT EACH INVESTOR WILL, WITH DUE CARE, MAKE ITS OWN STUDY AND EVALUATION OF EACH SECURITY THAT IS UNDER CONSIDERATION FOR PURCHASE, HOLDING, OR SALE.

MOODY'S CREDIT RATINGS AND MOODY'S PUBLICATIONS ARE NOT INTENDED FOR USE BY RETAIL INVESTORS AND IT WOULD BE RECKLESS AND INAPPROPRIATE FOR RETAIL INVESTORS TO USE MOODY'S CREDIT RATINGS OR MOODY'S PUBLICATIONS WHEN MAKING AN INVESTMENT DECISION. IF IN DOUBT YOU SHOULD CONTACT YOUR FINANCIAL OR OTHER PROFESSIONAL ADVISER.

ALL INFORMATION CONTAINED HEREIN IS PROTECTED BY LAW, INCLUDING BUT NOT LIMITED TO, COPYRIGHT LAW, AND NONE OF SUCH INFORMATION MAY BE COPIED OR OTHERWISE REPRODUCED, REPACKAGED, FURTHER TRANSMITTED, TRANSFERRED, DISSEMINATED, REDISTRIBUTED OR RESOLD, OR STORED FOR SUBSEQUENT USE FOR ANY SUCH PURPOSE, IN WHOLE OR IN PART, IN ANY FORM OR MANNER OR BY ANY MEANS WHATSOEVER, BY ANY PERSON WITHOUT MOODY'S PRIOR WRITTEN CONSENT.

All information contained herein is obtained by MOODY'S from sources believed by it to be accurate and reliable. Because of the possibility of human or mechanical error as well as other factors, however, all information contained herein is provided "AS IS" without warranty of any kind. MOODY'S adopts all necessary measures so that the information it uses in assigning a credit rating is of sufficient quality and from sources MOODY'S considers to be reliable including, when appropriate, independent third-party sources. However, MOODY'S is not an auditor and cannot in every instance independently verify or validate information received in the rating process or in preparing the Moody's publications.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability to any person or entity for any indirect, special, consequential, or incidental losses or damages whatsoever arising from or in connection with the information contained herein or the use of or inability to use any such information, even if MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers is advised in advance of the possibility of such losses or damages, including but not limited to: (a) any loss of present or prospective profits or (b) any loss or damage arising where the relevant financial instrument is not the subject of a particular credit rating assigned by MOODY'S.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability for any direct or compensatory losses or damages caused to any person or entity, including but not limited to by any negligence (but excluding fraud, willful misconduct or any other type of liability that, for the avoidance of doubt, by law cannot be excluded) on the part of, or any contingency within or beyond the control of, MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers, arising from or in connection with the information contained herein or the use of or inability to use any such information.

NO WARRANTY, EXPRESS OR IMPLIED, AS TO THE ACCURACY, TIMELINESS, COMPLETENESS, MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF ANY SUCH RATING OR OTHER OPINION OR INFORMATION IS GIVEN OR MADE BY MOODY'S IN ANY FORM OR MANNER WHATSOEVER.

Moody's Investors Service, Inc., a wholly-owned credit rating agency subsidiary of Moody's Corporation ("MCO"), hereby discloses that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by Moody's Investors Service, Inc. have, prior to assignment of any rating, agreed to pay to Moody's Investors Service, Inc. for appraisal and rating services rendered by it fees ranging from \$1,000 to approximately \$2,700,000. MCO and MIS also maintain policies and procedures to address the independence of MIS's ratings and rating processes. Information regarding certain affiliations that may exist between directors of MCO and rated entities, and between entities who hold ratings from MIS and have also publicly reported to the SEC an ownership interest in MCO of more than 5%, is posted annually at www.moody's.com under the heading "Investor Relations — Corporate Governance — Director and Shareholder Affiliation Policy."

Additional terms for Australia only: Any publication into Australia of this document is pursuant to the Australian Financial Services License of MOODY'S affiliate, Moody's Investors Service Pty Limited ABN 61 003 399 657 AFSL 336969 and/or Moody's Analytics Australia Pty Ltd ABN 94 105 136 972 AFSL 383569 (as applicable). This document is intended to be provided only to "wholesale clients" within the meaning of section 761G of the Corporations Act 2001. By continuing to access this document from within Australia, you represent to MOODY'S that you are, or are accessing the document as a representative of, a "wholesale client" and that neither you nor the entity you represent will directly or indirectly disseminate this document or its contents to "retail clients" within the meaning of section 761G of the Corporations Act 2001. MOODY'S credit rating is an opinion as to the creditworthiness of a debt obligation of the issuer, not on the equity securities of the issuer or any form of security that is available to retail investors. It would be reckless and inappropriate for retail investors to use MOODY'S credit ratings or publications when making an investment decision. If in doubt you should contact your financial or other professional adviser.

Additional terms for Japan only: Moody's Japan K.K. ("MJKK") is a wholly-owned credit rating agency subsidiary of Moody's Group Japan G.K., which is wholly-owned by Moody's Overseas Holdings Inc., a wholly-owned subsidiary of MCO. Moody's SF Japan K.K. ("MSFJ") is a wholly-owned credit rating agency subsidiary of MJKK. MSFJ is not a Nationally Recognized Statistical Rating Organization ("NRSRO"). Therefore, credit ratings assigned by MSFJ are Non-NRSRO Credit Ratings. Non-NRSRO Credit Ratings are assigned by an entity that is not a NRSRO and, consequently, the rated obligation will not qualify for certain types of treatment under U.S. laws. MJKK and MSFJ are credit rating agencies registered with the Japan Financial Services Agency and their registration numbers are FSA Commissioner (Ratings) No. 2 and 3 respectively.

MJKK or MSFJ (as applicable) hereby disclose that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by MJKK or MSFJ (as applicable) have, prior to assignment of any rating, agreed to pay to MJKK or MSFJ (as applicable) for appraisal and rating services rendered by it fees ranging from JPY125,000 to approximately JPY250,000,000.

MJKK and MSFJ also maintain policies and procedures to address Japanese regulatory requirements.