

APRIL 2023

NEVADA ECONOMIC FORUM

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

Prepared by Emily Mandel Senior Economist +610.235.5136

Haley Curtin Associate Economist +610.235.5224

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

BY EMILY MANDEL AND HALEY CURTIN

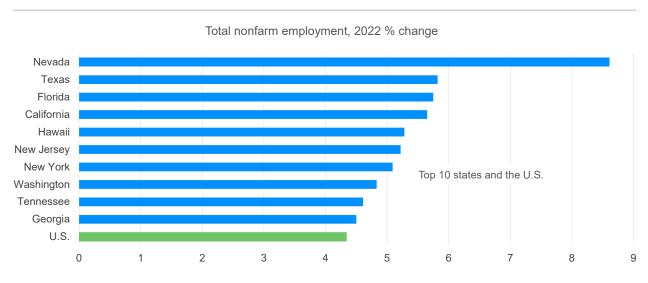
he following revenue forecasts link Nevada's general sales and use tax revenues (NRS 372) and its gaming percentage fee revenues (NRS 463) to measures of underlying economic growth. Sales tax collections made an impressive rebound from the hit sustained during the COVID-19 pandemic and surpassed precrisis levels by the end of fiscal 2021. Growth remained robust with pent-up demand and a rapidly growing economy pushing sales tax collections higher through the end of fiscal 2022. Since the end of the initial recovery period, revenue growth from the sales and use tax has cooled slightly through the first half of fiscal 2023 and will gradually slow to match pre-pandemic rates in the next several years. Though the recovery in gaming percentage fee collections started behind that of sales and use tax revenues, they also rebounded fully as restrictions were lifted. Gaming percentage fee revenues will hold on to the bulk of recent gains, but near-term progress will be slower as consumers pull back on recreational spending nationally.

Regional economy

Nevada's economy is one of the top performers in the country. Total nonfarm employment growth is outpacing that in every other state on a year-ago basis (see Chart 1). Strong tourist demand has allowed leisure and hospitality payrolls to finally regain pre-pandemic levels. However, construction, manufacturing and healthcare have been the real showstoppers driving the outperformance. The unemployment rate remains low despite upward pressure from extraordinary labor force growth during the last year. The housing market is a dim spot in an otherwise bright economy. Single-family house prices have decreased nearly 10% from their 2022 peak as the market begins to correct after two years of exceptional appreciation.

After a record-setting 2022, the near-term outlook for the outsize tourism industry is bright. Job growth in leisure and hospitality will slow compared with last year as higher wages and limited worker availability will hold back hiring, but payrolls will continue to climb beyond their pre-pandemic level. Data from the Las Vegas Convention and Visitors Authority show a nearly 25% increase from the prior record of economic output related to visitor spending set in 2019—and gaming revenues are at an all-time high. The tourism industry is still capitalizing on strong demand for travel financed in part by household savings built up through the pandemic. Domestic passenger volume at Harry Reid International Airport and Reno-Tahoe

Chart 1: Job Growth Ranks Highest in U.S.

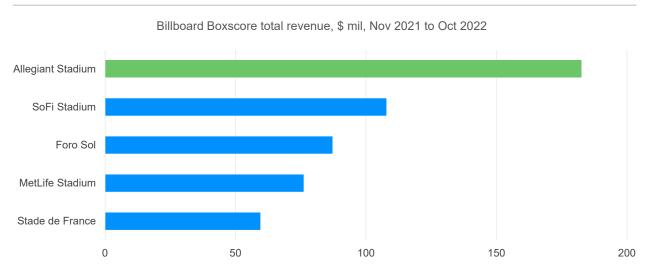


Sources: BLS, Moody's Analytics

International Airport is consistently above pre-pandemic levels and per-trip visitor spending increased more than 30% compared with 2019 spending levels.

While the tourism industry is highly vulnerable to economic downturns, additional high-profile concerts, conventions, conferences, trade shows, and major sporting events on the calendar will mitigate risk and keep visitor counts high. For example, the multiday Formula 1 Las Vegas Grand Prix will bring visitors to the city in November. The 2024 Super Bowl will be another major draw. The game will be played in Allegiant Stadium, which has brought in significant revenue after opening in 2020 (see Chart 2). This is good news for the state's economic outlook as the state's overall performance will be closely linked to the tourism industry. According to the Nevada Resort Association, tourism generates more than a third of the state's general fund tax revenue and contributes a quarter of total employment.

Chart 2: Investment in Allegiant Stadium Is Paying Dividends



Sources: Billboard, Moody's Analytics

Tourism will remain the cornerstone of the economy, but growth in most of Nevada's secondary industries will also impress. Manufacturing and nonresidential construction will be reliable job creators for the economy. Two major projects are in the works to bring thousands of mid- to high-wage manufacturing jobs to the state: a \$2 billion battery material center that will create clean-energy union jobs, and a \$3.6 billion Tesla battery and heavy-duty truck manufacturing facility where the tech giant will begin producing its electric semi-truck. This will expand Tesla's Nevada footprint as the state is already home to a large Gigafactory. These new projects will create thousands of construction jobs through the buildout stage and thousands of permanent jobs once completed. Industry payrolls will grow faster than the regional and national averages through the extended forecast. The burgeoning tech hub will also lend support and help diversify the state's economy. Nevada will appeal to tech companies with its relatively low business costs, large population of young professionals, and advantageous location. The state's concentration in tech-related manufacturing, particularly clean energy, will help it avoid the downturn currently being experienced by services-heavy tech hubs (see Chart 3). The healthcare industry will also be a standout thanks to strong demographics that will increase demand for health services. The state's hospitals and other healthcare providers will expand their payrolls faster than the national average to meet the needs of its thriving patient pool. Together, these growing secondary industries will reduce the state's overreliance on tourism and offer additional stability during economic downturns.

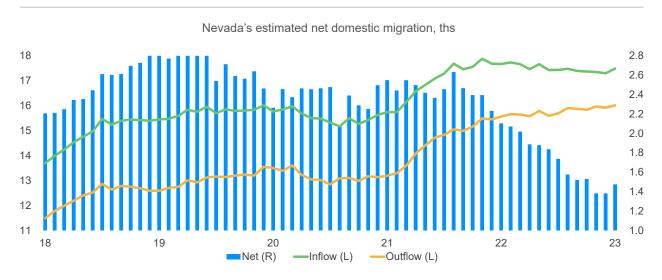
High-tech employment, % change yr ago 15 10 -5 -10 18 19 20 21 22 23F 24F 25F Nevada West —U.S.

Chart 3: Nevada's Tech Industry Will Outperform

Sources: BLS, Moody's Analytics

Well-above-average population growth will bolster Nevada's long-term potential, though high-frequency data point to a near-term slowdown of net migration into the state. From 2016 to 2021, Nevada was the third-fastest-growing state in the U.S., but the rapid runup in housing costs in the past two years has severely eroded the state's housing affordability. As a result, out-migration has ticked up in recent months even as in-migration of new residents has plateaued (see Chart 4). Still, as housing costs fall during the next several years and the overvalued market corrects, affordability will improve along with in-migration. Nevada's high quality of life and tax climate with no state income tax and relatively low property taxes make the state an attractive place to live. Population growth well above the West and U.S. averages will keep demand for consumer services and healthcare high. Companies looking to set up shop or expand will also be attracted to the state's healthy labor force growth.

Chart 4: Higher Costs Weaken Nevada's Appeal to New Residents



Sources: Equifax, Moody's Analytics

Sales and use taxes

Forecast. Sales tax collections rebounded strongly throughout fiscal 2022 as the full reopening of the economy, higher nominal prices, and consumers' release of pent-up demand sent collections soaring 21.7% on a year-ago basis. Job and wage growth well above the West and U.S. averages supported consumer spending by Nevadans, while strength in tourism and record levels of visitor spending also contributed to the outperformance. With half of fiscal 2023 in the books, momentum has carried into the new year, albeit at a slightly reduced pace. The first- and second-quarter sales tax collections both increased nearly 9% on a year-ago basis—higher-than-average growth by pre-pandemic standards.

The forecast calls for growth in collections to decelerate further through the remainder of fiscal 2023 and into fiscal 2024, slowly returning to pre-pandemic norms as the rebound from the COVID-19 pandemic comes to an end. While consumers have spent much of their excess savings, Nevada's strong labor market and burgeoning population will support consumer spending. Still, in part because of nominal gains caused by inflation, full-year revenues for fiscal 2023 will come in 7.6% higher than the prior year. The pace of economic growth—and thus, collections—is projected to slow to a more moderate pace as higher interest rates weigh on demand for credit and cool the labor market. Growth in collections will ease in fiscal 2024 and fiscal 2025 to align with its historical performance (see Table 1).

This baseline forecast assumes that while the economy slows by the end of the year, an outright recession is avoided. This outlook assumes only one additional interest rate hike by the Federal Reserve. With inflation headed back into the Fed's target with increasing certainty, the job market easing, and the banking system fragile, more intervention by the Fed comes with a heightened risk of pushing the economy into recession.

Drivers. The main driver of sales and use tax collections is Nevada personal consumption expenditures on goods. This series captures organic growth in spending driven by Nevada's rapidly expanding population and contributions from Las Vegas tourism. Collections will benefit from the swift recovery in the tourism industry and greater spending tied to business travel as well as entertainment such as conventions, concerts and sporting events. Personal consumption expenditures also capture purchases of large durable goods such

Table 1: April 2023 Sales and Use Tax Forecast

	Q1	Q2	Q3	Q4	Total
Fiscal 2020, \$ mil	321.60	344.69	284.28	264.13	1214.70
% change yr ago	7.46	8.48	-4.71	-17.41	-1.65
Fiscal 2021, \$ mil	299.79	320.20	320.70	385.13	1325.81
% change yr ago	-6.78	-7.11	12.81	45.81	9.15
Fiscal 2022, \$ mil	385.42	412.13	386.92	428.88	1613.34
% change yr ago	28.56	28.71	20.65	11.36	21.69
Fiscal 2023, \$ mil	419.91	448.77	419.85	447.28	1735.81
% change yr ago	8.95	8.89	8.51	4.29	7.59
Fiscal 2024, \$ mil	443.87	463.33	433.50	463.57	1804.27
% change yr ago	5.71	3.24	3.25	3.64	3.94
Fiscal 2025, \$ mil	461.53	481.03	450.43	482.20	1875.19
% change yr ago	3.98	3.82	3.91	4.02	3.93

Sources: Nevada Legislative Counsel Bureau, Moody's Analytics

as vehicles. These sales are set to climb quickly as supply chains settle after China's end to its zero-COVID policy earlier this year and global producers adjust to the disruptions caused by Russia's war with Ukraine. Global vehicle production is already picking up and inventories are climbing from their low levels.

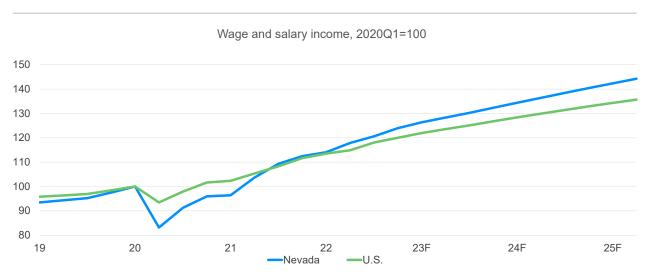
Despite these supports, total growth in goods spending will slow from the rates seen during the recovery as it struggles under the weight of high interest rates and a weakening housing market. As higher mortgage rates drive a lull in home construction and sales, the state will benefit less from accompanying taxable goods sales. Meanwhile, consumer balance sheets are starting to show some stress, with default rates for categories of debt tied to consumer spending rising above pre-pandemic levels. Given banks' tightening lending standards and higher rates discouraging borrowing, consumers will be more constrained in debt-financed spending.

Another significant variable determining the trajectory of the sales tax forecast is Nevada's wage and salary income. Wages and salaries make up more than half of personal income and are a major determinant of consumers' ability to spend. Solid employment growth coupled with wage pressures from a tight labor market has accelerated wage and salary growth. Accordingly, Nevadans have increased spending to keep up with higher prices. As incomes keep rising while the savings rate declines as consumers' spending habits return to pre-pandemic normalcy, this variable will produce a healthy outlook for Nevada sales and use tax collections (see Chart 5).

Gaming percentage fees

Forecast. Gaming percentage fee collections had a record year in fiscal 2022 as growth in collections increased 40.7% from the previous year. The first full year of lifted restrictions from casinos and pent-up demand for tourism drove a remarkably rapid rebound in activity. This placed collections for fiscal 2022 significantly above their pre-pandemic level; thus, fiscal 2023 is well on its way to surpassing last year's total. After a year of exceptional growth and confronting weakness in the global economy, gaming percentage fee collections retrenched slightly in the first half of fiscal 2023, declining 4.5% and 1.9% in the first and second quarters, respectively. However, the third quarter came back strongly as collections rose 15.4% from

Chart 5: Above-Average Income Growth Will Support Spending



Sources: BEA, Moody's Analytics

a year earlier. Thanks to the strong third quarter, growth will average 1.9% for the year before coming to a near-standstill in fiscal 2024. As the economy moves past the current monetary tightening cycle, revenues will gain momentum again in fiscal 2025 (see Table 2).

Table 2: April 2023 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	111.21	168.65	121.12	284.16	685.14
% change yr ago	-41.63	-15.29	-37.06	663.38	10.64
Fiscal 2022, \$ mil	256.53	239.53	208.67	259.48	964.21
% change yr ago	130.67	42.03	72.29	-8.69	40.73
Fiscal 2023, \$ mil	245.03	234.89	240.89	262.03	982.84
% change yr ago	-4.48	-1.94	15.44	0.98	1.93
Fiscal 2024, \$ mil	229.58	248.47	230.86	275.19	984.11
% change yr ago	-6.31	5.78	-4.16	5.03	0.13
Fiscal 2025, \$ mil	240.96	260.27	241.46	287.44	1030.13
% change yr ago	4.96	4.75	4.59	4.45	4.68

Sources: Nevada Legislative Counsel Bureau, Moody's Analytics

Drivers. Gaming percentage fees tend to have a high correlation with national and global economic trends in contrast to sales taxes, which are highly dependent on local consumer spending. Gaming percentage fees are also more sensitive to the business cycle. National recreational service spending remains the best predictor of gaming percentage fee collections.

Restrictions on activity severely affected spending on recreational services during the brief recession. Following the vaccine rollout and the full reopening of the economy, consumers unleashed their pent-up

savings and demand for vacations. With many Americans now having spent a large portion of the savings accumulated during the pandemic, and with inflation further pressuring their budgets, they will be forced to cut back on discretionary spending. Strength in the labor market will prevent a severe contraction in expenditures, but weaker recreational services spending will cause gaming percentage fees to plateau near their current level during the next year and a half.

Domestic travel has been the main driver of Nevada's tourism recovery. Harry Reid International Airport was the first airport to surpass its pre-pandemic level of passenger volume in the country, handling more than 52 million passengers in 2022 and easily topping the earlier record set in 2019. However, air traffic data point to a mixed rebound in visitors when comparing domestic and international visitors. From March 2023 to May 2023, nearly 90% of the routes at Harry Reid International Airport are domestic, as international demand has not fully recovered. Las Vegas visitor volume has not completely reached its pre-pandemic level, though visitors are wagering more, enabling gaming revenue to far outstrip its earlier high (see Chart 6).

Las Vegas 1,200 5.0 1,000 4.0 35 800 3.0 600 2.5 2.0 400 1.5 1.0 200 0.5 0 0.0 19 20 21 22 23 Gaming revenue, \$ mil (L) Visitor volume, mil (R)

Chart 6: Revenues Hit Records Despite Incomplete Visitor Recovery

Sources: Las Vegas Convention & Visitors Authority, Moody's Analytics

While the recent surge in domestic travel and higher per-trip spending by visitors has fueled the gaming industry's recent recovery, longer term, the industry would greatly benefit from a boost in international visitors. According to the Las Vegas Convention and Visitors Authority, international visitors made up 14% of total visitors in 2019 and these visitors spend more on average than their domestic counterparts. However, recent data suggest the international recovery is underway as February saw a 125% increase in international travelers compared with February 2022. A more complete return of international travelers is crucial for the gaming industry's long-term prospects. China's recent reopening adds upside risk for international tourist demand, but with a possible recession in much of Europe and Latin America, this upside will be tempered in the near term.

Outside of the economic impacts, several structural issues will 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 yet slowed down the state. As of early 2023, 33 states have

legalized sports betting, with more still considering legalization. The Silver State used to be the only legal sports betting market, but in 2022 it ranked fourth in legal sports wagers behind New York, New Jersey and Illinois. However, this development is unlikely to be a game-changer for gaming percentage fees since revenue from sports betting pales in comparison to revenue from other types of gambling.

Longer term, the structural break in the historical relationship between recreational spending and gaming is becoming increasingly clear, driving the bulk of the disparity in forecast growth rates for gaming compared with sales and use taxes. Moreover, increased competition from other states and online betting will further moderate Nevada's share of gaming in the years ahead. Yet Las Vegas tourism has been relatively successful in addressing the changing gambling and entertainment landscape by 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 grow at the expense of gaming percentage fees.

About the Authors

Emily Mandel is a senior economist at Moody's Analytics where she leads public sector revenue forecasting projects and produces research around public finance as well as state and local government fiscal policy. In this capacity she works closely with a number of governments in an advisory role. In addition, Emily is responsible for covering the economies of Vermont and New Mexico and regularly produces regional macroeconomic forecasts and written analysis. Emily received a master's degree in international and development economics from Yale University and holds a bachelor's degree in economics and international studies from Dickinson College.

Haley Curtin is an associate economist in the research division at Moody's Analytics. She works with state and local government clients to produce custom tax revenue forecasts and analysis. Additionally, she covers the economies of Latvia, Lithuania, Nevada, and the District of Columbia, as well as several U.S. metro areas. Haley received her a master's degree in economics from George Mason University and graduated cum laude from Villanova University, where she received a bachelor's degree in economics.

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.moodysanalytics.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 \$5.5 billion in 2022, employs approximately 14,000 people worldwide and maintains a presence in more than 40 countries. Further information about Moody's Analytics is available at www.moodysanalytics.com.

© 2023 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 CREDIT RATINGS AFFILIATES ARE THEIR CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES, AND MATERIALS, PRODUCTS, SERVICES AND INFORMATION PUBLISHED BY MOODY'S (COLLECTIVELY, "PUBLICATIONS") MAY INCLUDE SUCH CURRENT OPINIONS. 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 FINAN-CIAL LOSS IN THE EVENT OF DEFAULT OR IMPAIRMENT. SEE APPLICABLE MOODY'S RATING SYMBOLS AND DEFINITIONS PUBLICATION FOR INFORMATION ON THE TYPES OF CONTRACTUAL FINANCIAL OBLIGATIONS ADDRESSED BY MOODY'S CREDIT RATINGS. CREDIT RATINGS DO NOT ADDRESS ANY OTHER RISK, INCLUDING BUT NOT LIMITED TO: LIQUIDITY RISK, MARKET VALUE RISK, OR PRICE VOLATILITY. CREDIT RATINGS, NON-CREDIT ASSESSMENTS ("ASSESSMENTS"), AND OTHER OPINIONS INCLUDED IN MOODY'S PUBLICATIONS ARE NOT STATE-MENTS 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. AND/OR ITS AFFILIATES. MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS DO NOT CONSTITUTE OR PROVIDE INVESTMENT OR FINANCIAL ADVICE, AND MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS ARE NOT AND DO NOT PROVIDE REC-OMMENDATIONS TO PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS DO NOT COMMENT ON THE SUITABILITY OF AN INVESTMENT FOR ANY PARTICULAR INVESTOR. MOODY'S ISSUES ITS CREDIT RATINGS, ASSESSMENTS AND OTHER OPINIONS AND PUBLISHES ITS PUBLICATIONS WITH THE EXPECTATION AND UNDERSTAND-ING THAT EACH INVESTOR WILL, WITH DUE CARE, MAKE ITS OWN STUDY AND EVALUATION OF EACH SECURITY THAT IS UNDER CONSID-ERATION FOR PURCHASE, HOLDING, OR SALE.

MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS, AND 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, ASSESSMENTS, OTHER OPINIONS OR 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.

MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS ARE NOT INTENDED FOR USE BY ANY PERSON AS A BENCHMARK AS THAT TERM IS DEFINED FOR REGULATORY PURPOSES AND MUST NOT BE USED IN ANY WAY THAT COULD RESULT IN THEM BEING CONSIDERED A BENCHMARK.

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 credit rating process or in preparing its 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, will-ful 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 CREDIT RATING, ASSESSMENT, 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 credit rating, agreed to pay to Moody's Investors Service, Inc. for credit ratings opinions and services rendered by it fees ranging from \$1,000 to approximately \$5,000,000. MCO and Moody's Investors Service also maintain policies and procedures to address the independence of Moody's Investors Service credit ratings and credit rating processes. Information regarding certain affiliations that may exist between directors of MCO and rated entities, and between entities who hold credit ratings from Moody's Investors Service, Inc. and have also publicly reported to the SEC an ownership interest in MCO of more than 5%, is posted annually at www.moodys.com under the heading "Investor Relations — Corporate Governance — Charter Documents 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 657AFSL 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.

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 credit rating, agreed to pay to MJKK or MSFJ (as applicable) for credit ratings opinions and services rendered by it fees ranging from JPY100,000 to approximately JPY550,000,000.

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