

NEVADA ECONOMIC FORUM

APRIL 2021

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

Prepared by

Dan White
Director / Economic Research
+610.235.5249

Haley Curtin
Associate Economist
+610.235.5224

Nevada Economic Forum

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

BY DAN WHITE AND HALEY CURTIN

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. Sales tax collections and gaming percentage fee collections plummeted in fiscal 2020 as policymakers, consumers and businesses responded to the emergence of COVID-19. Severely reduced travel and emergency business restrictions delivered an even harsher blow to gaming percentage fee collections. Distribution of COVID-19 vaccines is set to provide the turning point for the economy's recovery, with herd immunity on track to be reached by the end of the summer. Revenues will rebound in earnest with the broader economy in the second half of fiscal 2021, fueling a return to pre-pandemic levels over the next several years.

Regional economy

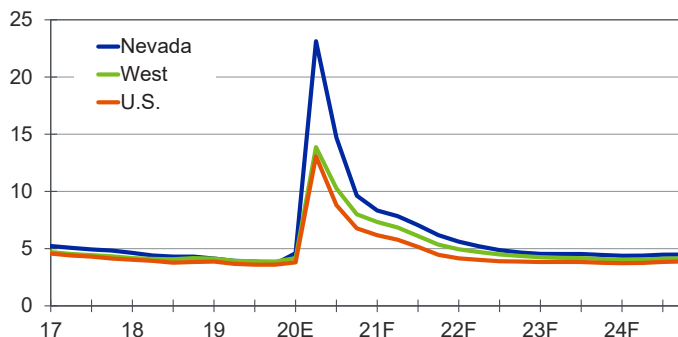
There is light at the end of the tunnel for Nevada's economy as it continues to make its way out of the COVID-19 recession. Nevada was among the hardest hit at the peak of the pandemic, and annual benchmark revisions show that the plunge in employment was even worse than initially estimated. However,

the state has been adding jobs back on pace with the West and U.S. averages in recent months. 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 8% as of March, closing the gap between the U.S. and West averages (see Chart 1).

restrictions have weighed on activity into the new year. In contrast, the retail industry has already regained all of its pandemic losses and then some, and manufacturing employment is nearing its pre-pandemic peak as well (see Chart 2). The performance of the public sector has been typical for the U.S., with job losses concentrated at the local level as school districts navigate a return to fully in-person instruction.

Chart 1: Labor Market Will See Relief

Unemployment rate, %, Apr 2020 baseline forecast



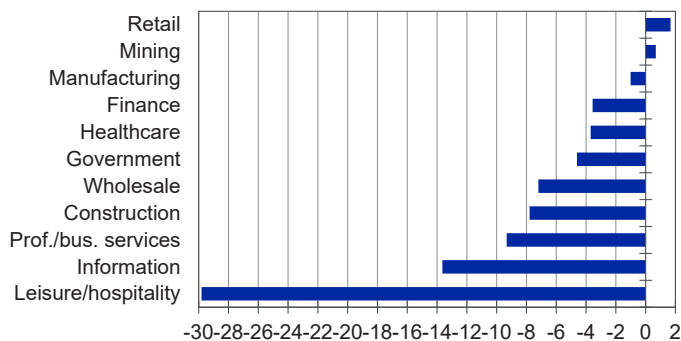
Sources: BLS, Moody's Analytics

As of March, payrolls had recouped nearly 57% of COVID-19 related losses. This trails the U.S. average of 62% but is ahead of the average western state. Tourism-dependent, leisure/hospitality payrolls have not found their stride yet as the state's COVID-19

The pandemic will weigh on hospitality and especially accommodations for years, but conditions are improving. Passenger volume at McCarran International Airport and Reno-Tahoe International Airport has been picking up but remains about 50% below precrisis levels (see Chart 3). Capacity limits at casinos, bars and restaurants have been increased with employee vaccination rates ultimately determining when occupancy can increase further. Conventions, conferences and trade shows with more than 250 people may also now have up to 50% capacity, the beginning of the recovery for a crucial source

Chart 2: Tourism Still Struggling

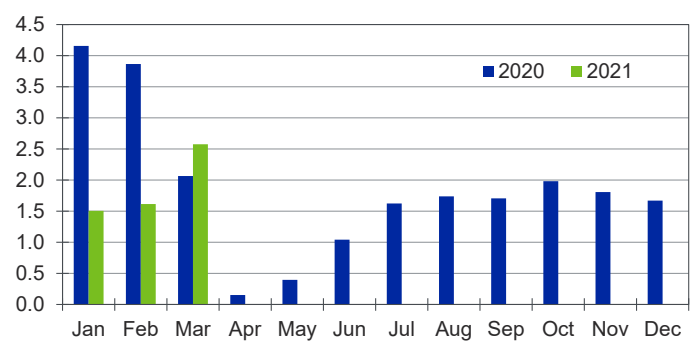
Nevada, % change in jobs from Feb 2020 by industry, Mar 2021



Sources: BLS, Moody's Analytics

Chart 3: Traveler Confidence Is Improving

Total air passenger volume, mil



Sources: McCarran International Airport, Moody's Analytics

of visitors and spending. Nevada's vaccination rollout is on par with the nation's, and the state will likely reach herd immunity by late summer. As Nevada lifts more restrictions and tourist travel picks up, leisure/hospitality job growth will accelerate past the U.S. average later this year and continue to outperform through at least next year.

This acceleration will carry forward to the rest of Nevada's economy in the coming months. As herd immunity is achieved, reduced epidemiological risks, pent-up demand, and excess savings will fuel consumer spending nationwide (see Chart 4). As the state's primary economic engine revs up, employment in most of Nevada's secondary industries will begin to return to pre-pandemic levels as well. Professional/business services will step on the gas as gradual reopenings increase the need for administrative and support jobs. Healthcare employment will also get back on track as the industry hires to meet pent-up demand for elective procedures. Though, it will be another few years before the jobless rate returns to the norms of the previous decade.

Population growth will remain well above average, but demand for housing will soften over the near term. Record low mortgage rates drove homebuyers to compete for homes in the state's already undersupplied housing market during the pandemic. As a result, single-family house prices have spiked more than 10% over the past year. Rising mortgage rates will gradually curb demand for new homes even as developers increase building activity. The pace of growth in housing-related industries will cool over the next few quarters in turn.

The baseline outlook makes some important U.S. level macroeconomic assumptions that are material to Nevada's revenue outlook. The first assumption is that the vaccination process will continue at a fast enough pace to get the country to herd immunity by the end of the summer. Though the pace of overall vaccinations will slow a bit as higher-risk populations are already vaccinated, the U.S. is far enough along in the process where this appears to be a very low-risk assumption. However, there is always a possibility that new strains of the virus prove resistant enough to the current vaccines that numbers start to tick back up. Such a possibility remains a remote, but important, risk to the forecast.

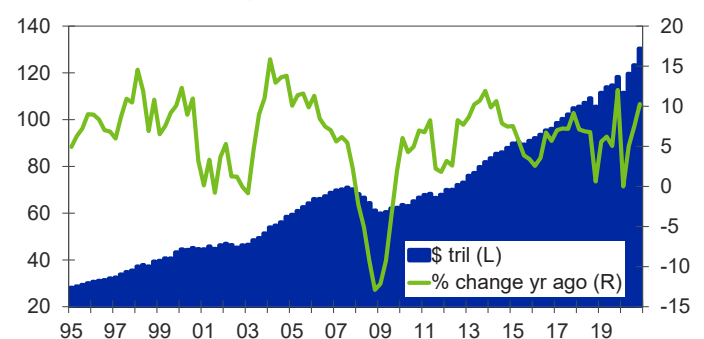
Second, the baseline forecast assumes that more stimulus is on the way in the form of a reconciliation bill this fall. The most likely scenario is that Democrats enact a "Build Back Better" package via reconciliation that includes roughly \$2 trillion in infrastructure investments and \$1 trillion in social spending over the next 10 years. That spending is assumed to be paid for in part by increases in personal and corporate income taxes, which will offset some of the boost to overall economic growth. This assumption is less impactful to the Nevada revenue

forecast as most of the economic boost from infrastructure will not be realized until late in the next biennium. Nonetheless, risks around this assumption are to the downside. Should federal policymakers fail to get anything enacted in the fall, it could have a material impact on consumer confidence which would lower potential sales and gaming revenues.

To help account for some of these downside risks, we have constructed a more pessimistic downside scenario as part of this forecasting exercise. You will see it referred to throughout this document as the Alternative Downside scenario. This scenario assumes that the incidence of infections, hospitalizations and deaths from COVID-19 remains significantly more elevated than the baseline through the end of this year, causing businesses to reopen much more slowly than anticipated in the baseline (see Chart 5). More infections and stricter limitations on consumers and businesses would repre-

Chart 4: Savings Will Fuel Spending

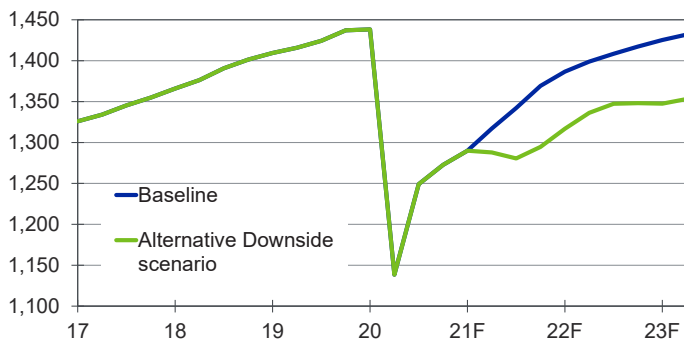
Total household wealth, U.S.



Sources: Federal Reserve, Moody's Analytics

Chart 5: Accounting for Downside Risks

Nevada payroll employment, ths, SA



Sources: BLS, Moody's Analytics

sent a major downside to the outlook for jobs, incomes, confidence and spending. Similarly, the alternative scenario assumes that disagreements in Congress result in a much smaller and less impactful federal stimulus package enacted in the fall.

Sales and use taxes

Forecast. Sales tax collections plummeted in the second half of fiscal 2020 and first half of fiscal 2021 as policies to flatten the curve of COVID-19 dramatically reduced

fiscal 2021, with the vaccination rollout along with the easing of travel restrictions a turning point for the economy's momentum. Gains in the last two quarters of the fiscal year will make up for the slow start as full-year revenues are forecast to come in 4.2% higher than fiscal 2020. The pace of economic and thus collections growth is projected to pick up even more considerably as the economy gets back fully on its feet. Collections will return to just above their 2019 prerecession level by the end of fiscal

economic activity. Revenues in fiscal 2020 were only down 1.7% thanks to a strong pre-pandemic performance and collections from online purchases, but the first two quarters of fiscal 2021 averaged a year-over-year decline of 6.9%.

The baseline forecast calls for a strong recovery over the second half of

2021, before recovery picks up in earnest in fiscal 2022 (see Table 1a).

Under the Alternative Downside scenario, a lack of hiring and eroding consumer confidence from stubbornly high virus statistics would limit the pace of recovery well into the next biennium. Fiscal 2021 would still experience 3.3% growth for the year because of gains that have already been booked, but would be followed by a mere 0.1% gain in fiscal 2022 as conditions deteriorate (see Table 1b).

Drivers. 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 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.

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 in the first quarter of calendar year 2021 as pent-up demand was released when restrictions on economic activity eased. Rapid job growth, further reductions in the restrictions on activity, and confidence of consumers to move about as vaccines are administered will be catalysts for consumer spending through the end of the year (see Chart 6).

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 fell much harder on service providers and are still hurting demand for in-person entertainment. Although some of this demand is being transferred to sales of goods, much of it is disappearing altogether.

We have tried to account for this change in consumer behavior by relying on Nevada personal consumption expenditures as an explanatory variable in the model. This has helped during the pandemic to gauge not only consumers' means to spend on tax-

Table 1a: Baseline 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	320.20	312.43	333.76	1,266.18
% change yr ago	-6.78	-7.11	9.90	26.36	4.24
Fiscal 2022, \$ mil	332.03	347.13	323.72	342.05	1,344.93
% change yr ago	10.76	8.41	3.61	2.48	6.22
Fiscal 2023, \$ mil	339.58	351.93	329.07	350.24	1,370.82
% change yr ago	2.27	1.38	1.65	2.39	1.92

Sources: Nevada Legislative Counsel Bureau, Moody's Analytics

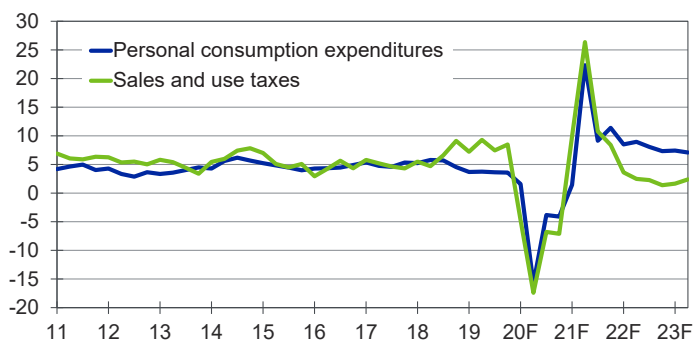
Table 1b: Sales and Use Tax Forecast - Alternative Downside Scenario

	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	320.20	312.43	321.87	1,254.29
% change yr ago	-6.78	-7.11	9.90	21.86	3.26
Fiscal 2022, \$ mil	311.47	321.73	301.48	320.50	1,255.17
% change yr ago	3.90	0.48	-3.51	-0.43	0.07
Fiscal 2023, \$ mil	319.51	330.04	307.66	328.38	1,285.59
% change yr ago	2.58	2.58	2.05	2.46	2.42

Sources: Nevada Legislative Counsel Bureau, Moody's Analytics

Chart 6: Consumers Will Fuel Collections

Nevada, % change yr ago



Sources: BEA, Nevada Legislative Counsel Bureau, Moody's Analytics

next two fiscal years as well. The inclusion of wage and salary income helps to account for changes in the labor market and long-term economic recovery, by controlling for onetime stimulus income and other aid, which would show up as transfer payments from the government.

sales taxes and any gains will be coming off of a severely depressed base. As a result, the estimated performance of gaming percentage fee collections in fiscal 2020 through fiscal 2021 represents a larger drop than during and after the Great Recession.

This summer will be a turning point for the recovery in percentage fee collections as herd immunity is reached and domestic travel picks up. As a result, collections will turn around quickly in fiscal 2022 and fiscal 2023 (see Table 2a).

Under the more pessimistic Alternative Downside scenario, consumer spending on air travel, hotel stays and in entertainment establishments remains subdued for a much longer period of time, representing close to a worst-case scenario for gaming percentage fees (see Table 2b).

Drivers. 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 impacted service spending more than goods spending. However, as vaccination levels increase, infection rates are falling, and restrictions on travel and business activity are being lifted. Combined with a record level of federal fiscal support, the trajectory for consumer spending is very favorable for gaming percentage fees by this summer.

While domestic travel is picking up, uncertainty surrounding international travel creates headwinds for this forecast. Data on air traffic at McCarran International Airport point to a rebound in traveler confidence as there was a 60% increase in passenger volume from February to March. However, the importance of international travelers returning cannot be overlooked. In February, international passenger traffic was down 95%, year over year. This decline was felt in gaming more than anywhere else. House winnings from baccarat were down more than 56% compared with February 2020. The pace of recovery in gaming percentage fees will remain limited until in-

able items, but also their willingness and ability to spend in the face of unprecedented uncertainty and business restrictions. As incomes continue to rise and savings rates decline with the level of uncertainty in the economy, this variable produces a healthy recovery in Nevada sales and use tax collections.

Similarly, the means to spend as measured by U.S. wage and salary income are helping to push the forecast higher over the

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 push gaming percentage fee collections in the right direction, but improvement is likely to be more gradual than with

Table 2a: April 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	120.17	135.22	535.25
% change yr ago	-41.63	-15.29	-37.55	263.27	-13.57
Fiscal 2022, \$ mil	133.20	170.10	146.31	170.10	619.72
% change yr ago	19.77	0.86	21.76	25.80	15.78
Fiscal 2023, \$ mil	155.29	173.36	165.25	186.54	680.43
% change yr ago	16.59	1.91	12.95	9.66	9.80

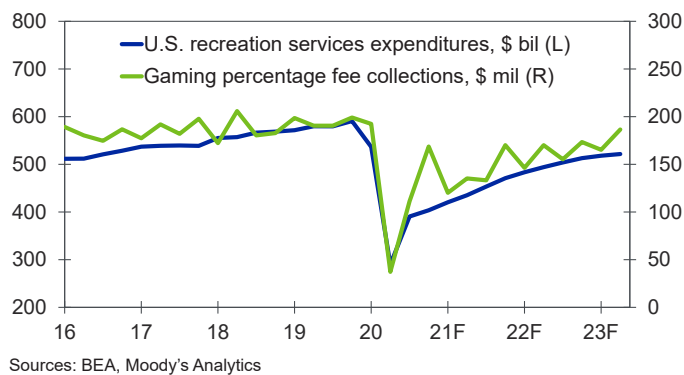
Sources: Nevada Legislative Counsel Bureau, Moody's Analytics

Table 2b: April 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	111.21	168.65	120.17	120.40	520.43
% change yr ago	-41.63	-15.29	-37.55	223.46	-15.96
Fiscal 2022, \$ mil	112.79	127.95	121.76	138.87	501.37
% change yr ago	1.42	-24.13	1.33	15.34	-3.66
Fiscal 2023, \$ mil	125.41	139.71	133.41	151.53	550.05
% change yr ago	11.18	9.19	9.56	9.12	9.71

Sources: Nevada Legislative Counsel Bureau, Moody's Analytics

Chart 7: Gaming Slower to Recover



ternational travel, particularly between the U.S. and Asia, is able to resume in earnest (see Chart 7).

Outside of the economic impacts, several structural issues will also play a part

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

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

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 and online betting will further moderate Nevada's share of gaming in the years ahead. 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 increase at the expense of gaming percentage fees.

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.

© 2021 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 FINANCIAL 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 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. 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 RECOMMENDATIONS 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 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, 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 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, 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 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 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.

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 JPY125,000 to approximately JPY550,000,000.

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

Agenda Item XI - Moody's Analytics