

Bond Rating and Debt Reports Covering Fiscal Year 2022

## **Fitch**Ratings

**RATING ACTION COMMENTARY** 

# Fitch Assigns 'AAA' Rating to \$700MM **TBTA City Sales Tax Rev Bonds; Outlook Stable**

Wed 22 Jun, 2022 - 4:18 PM ET

Fitch Ratings - New York - 22 Jun 2022: Fitch Ratings has assigned a 'AAA' rating to \$700 million in Triborough Bridge and Tunnel Authority (TBTA) (MTA Bridges and Tunnels) sales tax revenue bonds, series 2022A (TBTA capital lockbox - city sales tax).

The bonds are expected to be offered by negotiated sale on or about July 7, 2022. Par amount is subject to change pending final sale.

The Rating Outlook is Stable.

## SECURITY

TBTA city sales tax bonds are secured by a fixed allocation of New York City sales taxes in the amount of \$170 million as of state fiscal year (SFY) 2021, increasing annually thereafter at 101% of the prior year's allocation, collected by the state comptroller, deposited to the TBTA's central business district tolling capital lockbox fund, and transferred by the TBTA to the revenue fund held by the trustee for bondholders.

## **ANALYTICAL CONCLUSION**

The 'AAA' rating on TBTA city sales tax revenue bonds reflects the strong standalone credit quality of the dedicated portion of New York City sales tax allocated to the TBTA for bondholders. The rating is linked to but not capped by New York State's 'AA+' Issuer Default Rating (IDR) based on the state statute authorizing the Central Business District Tolling Program (CBDTP), allocating revenues including the city sales tax to it, and authorizing uses of the funds including for borrowing.

Fitch views the statute and bond documents as meeting the conditions necessary for a state dedicated tax to be rated above the state's IDR based on the narrow nature of the statutory dedication, the specific purpose of borrowing program, and the limitations on use of residual revenues for CBDTP needs and the MTA capital program. The rating is not linked to New York City's 'AA-'/Positive IDR given that the city never takes possession of the dedicated city sales tax, and under statute the city has no right, title or interest in or to the funds.

## **KEY RATING DRIVERS**

RATING LINKED TO STATE IDR: State statute and bond documents structurally segregate city sales taxes pledged to bondholders and support a rating higher than New York State's IDR. State statute authorizes the New York City sales tax and allocates a fixed amount to the TBTA for the CDBTP. The New York State Comptroller collects all sales tax revenue and transfers the allocation to the TBTA, without appropriation.

There is no sunset on the allocation and statutory state non-impairment protects bondholders, although the state retains the right to modify, amend or repeal the tax. New York State has a long history of actions to ensure sufficient resources for the MTA, whose operations are a critical component of the state's economic profile.

NO CITY OR MTA OPERATING RISK EXPOSURE: Bondholders are not exposed to operating risk of New York City or the MTA. The city has no right, title or interest in the portion of city sales tax withheld by the comptroller and transferred to the TBTA first, before remaining collections are transferred to the city. State statute segregates CBDTP monies from other TBTA monies, and the resolution requires the prompt deposit of sales tax to the trustee before remaining receipts become available for other authorized uses. State statute prohibits the MTA or its affiliates from filing for bankruptcy while bonds are outstanding.

SOLID GROWTH PROSPECTS FOR PLEDGED REVENUES: Pledged sales tax revenue benefits from the city's unique economic profile, which centers on its identity as an international center for numerous industries and a major tourist destination. Fitch believes longer-term growth may slow from historical levels but remain above the long-term rate of inflation, consistent with a 'aa' assessment.

AMPLE RESILIENCE DESPITE ECONOMIC SENSITIVITY: The rating assumes the TBTA fully leverages the city sales tax allocation to the maximum debt service supported by the statutorily fixed annual amount of \$170 million in SFY 2021 and rising by 1% annually thereafter; there is otherwise no additional bonds test. City sales taxes as a whole are economically sensitive, but the fixed dedication to bondholders is small relative to the collection base, implying strong resilience to revenue volatility and supporting a 'aaa' resilience assessment.

## **RATING SENSITIVITIES**

Factors that could, individually or collectively, lead to positive rating action/upgrade:

--Not possible given the 'AAA' rating.

Factors that could, individually or collectively, lead to negative rating action/downgrade:

--Negative rating action on New York State's 'AA+'/Stable IDR, although it would not necessarily move with a downgrade;

--A weakening of the city's sales tax revenue growth prospects, reflecting erosion of the tax base and lowered expectations for long-term economic gains;

--A change by the state that materially diminishes the rate or base on which sales taxes are levied.

## **BEST/WORST CASE RATING SCENARIO**

International scale credit ratings of Sovereigns, Public Finance and Infrastructure issuers have a best-case rating upgrade scenario (defined as the 99th percentile of rating transitions, measured in a positive direction) of three notches over a three-year rating horizon; and a worst-case rating downgrade scenario (defined as the 99th

percentile of rating transitions, measured in a negative direction) of three notches over three years. The complete span of best- and worst-case scenario credit ratings for all rating categories ranges from 'AAA' to 'D'. Best- and worst-case scenario credit ratings are based on historical performance. For more information about the methodology used to determine sector-specific best- and worst-case scenario credit ratings, visit https://www.fitchratings.com/site/re/10111579.

## **DEDICATED TAX CREDIT PROFILE**

Fitch considers the bonds to be linked to but not capped by New York State's 'AA+' IDR by virtue of the state's control of the MTA, its TBTA affiliate and the sales tax allocation pledged to the bonds. Fitch views the structure as allowing for notching above the IDR given the narrow nature of the statutory city sales tax dedication, the specific purpose of borrowing, and the use of residual revenues for TBTA and MTA purposes.

New York State has a long history of actions to ensure sufficient resources for the MTA, whose operations are a critical component of the state's economy. Fitch views the 2019 establishment of the CBDTP within this context given the state's goal of providing the MTA with a substantial new stream to support capital needs, once the congestion pricing system is fully implemented.

Likewise, the state retains the right to modify, amend or repeal its authorization for the city sales tax, and controls the collection, distribution and authorized uses of the revenues. The city sales tax is imposed under New York City law, and New York City retains similar rights to modify, amend or repeal the tax, however the city's imposition of the tax and its maximum rate is subject to state statute. Under state law the city has no right, title or interest in the allocation for the CBDTP, the city never takes custody of the receipts and does not receive residuals after the payment of debt service.

Fitch notes the contingent claim on city sales taxes that could be invoked by holders of New York City Transitional Finance Authority (NYCTFA) future tax secured bonds (AAA/Stable) as not representing a material risk given the strong resilience of the future tax secured bond structure and the flow of excess revenues to the city for general operations, reducing the incentive to fully leverage pledged receipts.

**Revenues Pledged to TBTA City Sales Tax Bonds** 

The New York City sales tax is levied on a broad range of goods and services transactions in the large, diverse and wealthy New York City economy. City sales taxes have been authorized by the state and imposed by the city since 1965. The allocation to TBTA was authorized by the state in 2019 and is not derived from a separately levied component, but rather is a statutorily allocation carved from the broader pool of city sales tax collections. The allocation is fixed in statute at \$170 million as of SFY 2021, rising thereafter by 1% annually from the previous year amount: there is no sunset on the allocation.

The city sales tax rate was originally imposed at 3% in 1965, when the state first authorized local sales taxes, subject to state approval. The current maximum rate, at 4.5%, has been in place since 2009. The tax base on which it is levied is also affected by state and local authorizations and has shifted more frequently. Most notably, the base was expanded in 2019 to extend sales taxes on online purchases, following the U.S. Supreme Court's South Dakota vs. Wayfair ruling in 2018. The \$170 million carve-out for the CBDTP was sized at New York City's forecast at the time for incremental collections from taxing online sales.

The TBTA city sales tax allocation was enacted under the 2019 MTA Reform and Traffic Mobility Act (TMA) as part of the broader plan to establish a congestion pricing toll system for vehicular access to Manhattan south of 60th

Street, designated as the central business district (CBD). The TMA established the CBDTP, including a CBDTP capital lockbox trust account to receive authorized revenues and fund related capital and operating needs or broader MTA capital plan needs, beginning with its 2020-2024 capital program; allowable uses include debt service for bonds.

In addition to the TBTA city sales tax allocation, the TMA authorized the deposit to the CBDTP capital lockbox trust account of future congestion pricing tolls, real estate transfer taxes, and a portion of the state sales tax likewise related to online sales. Revenues deposited in the trust account are statutorily required to be held separate from all other funds of the TBTA.

TBTA is a public benefit corporation and affiliate of the MTA, authorized to construct and operate toll bridges, tunnels and other public facilities in New York City. The TBTA city sales tax revenue bonds are unrelated to the TBTA's longstanding toll revenue bond and the more recent payroll mobility tax debt securities.

Under the resolution, city sales tax revenue is subject to the lien immediately upon transfer by the state comptroller to the CBDTP capital lockbox trust account, where it must be deposited to the city sales tax subaccount. The TBTA must promptly transfer city sales tax deposits to the revenue fund held by the trustee, and the trustee transfers receipts thereafter to the senior lien debt service fund. The obligations trust estate pledged to bondholders includes sale proceeds, the revenue fund and the senior lien debt service fund.

The TBTA has covenanted that it will not establish liens more senior to the bonds; the resolution permits the establishment of subordinate liens, but currently there are no plans to do so. Once debt service is paid, residual receipts flow to the excess revenue fund held by the trustee but are no longer subject to the lien and may be used for authorized CBDTP operating or capital costs and the MTA 2020-2024 capital plan and later capital plans, as noted earlier.

## Additional and Contingent Claims

City sales taxes collected by the state are subject to a time-limited additional claim. An annual \$150 million is distributed quarterly to the New York State Agency Trust Fund, Distressed Provider Assistance Account, to support financially distressed hospitals and nursing homes. The quarterly distributions cease in SFY 2025.

Additionally, the NYCTFA has a contingent claim on city sales tax receipts on behalf of future tax-secured bonds. City personal income taxes collected by the state comptroller and transferred to the NYCTFA are the primary pledged revenue source for future tax-secured bonds. However, the state comptroller is authorized to transfer city sales taxes to the NYCTFA in the event that projected coverage of maximum annual debt service (MADS) by pledged personal income taxes dips below 1.5x.

The sales tax backup for NYCTFA future tax-secured bonds is limited to the amount sufficient to bring transfers to the NYCTFA up to the 1.5x MADS level. No such sales tax transfers have ever been required under this provision, but the future tax-secured bonds remain a key component of New York City's borrowing program.

## Solid Growth Prospects for Pledged Revenues

Fitch expects revenue growth for city sales taxes to exceed the long-term rate of inflation, reflecting the large, diverse and wealthy New York City economy, and warranting a 'aa' assessment despite the impact of the pandemic economic shock on recent collections.

Collections benefit from the city's role as the core of the dynamic, tri-state metropolitan region. The daytime commuter population remains sizable despite having diminished considerably since the start of the pandemic; recovery to pre-pandemic commuter patterns is likely years away. Domestic and foreign tourism and meeting activity is also important to the tax base. Recovery in this key sector appears to be somewhat faster, although remains below pre-pandemic levels.

New York City reports that its sales tax revenue totaled \$6.5 billion in city fiscal year (CFY) 2021, down 12.5% from the prior year because of coronavirus pandemic-related disruptions, including the collapse of tourism and the shift to remote work for much of the labor force. The CFY 2021 decline was the second consecutive year of decline, with sales taxes dropping 4.7% in CFY 2020, largely reflecting the initial shock of the pandemic. Over the long-term, historical trends have been more consistently favorable. The 10-year CAGR through 2019 was 5.1%, and including weakness in the last two years, the 10-year CAGR was 1.6%.

## Ample Resilience Despite Economic Sensitivity

Resilience of the structure to potential cyclicality is ample given that the fixed statutory allocation to the TBTA is small relative to the overall city sales tax collection base. The allocation stood at \$170 million in SFY 2021 compared to the \$6.5 billion in revenue in CFY 2021, implying coverage of about 38x. Coverage is likely to increase going forward given that the sales tax base has historically grown faster than the 1% annual increase in the statutory allocation.

Fitch's resilience assessment anticipates the TBTA will fully lever the TBTA city sales tax allocated to it; there is no ABT. The TBTA estimates that the fixed allocation could provide about \$3.9 billion in new borrowing capacity subject to market conditions and assuming relatively long maturities.

To test the resilience of a dedicated tax. Fitch stresses the revenue stream under two scenarios. The first is a moderate recession scenario based on the Fitch Analytical Stress Test (FAST) model, which relates historical collections to GDP and the second is based on the largest historical revenue decline.

For the inaugural sale, final maturity is expected extend to SFY 2052; in that year, Fitch estimates the sales tax allocation will have risen to \$231 million. Assuming MADS at that level, the cushion provided by city sales tax collections in CFY 2021 is 96x the FAST output based on a moderate recession foreseeing a 1% revenue decline, and 5.8x the largest historical decline experienced in CFY 2020 and 2021.

## DATE OF RELEVANT COMMITTEE

## 13 June 2022

In addition to the sources of information identified in Fitch's applicable criteria specified below, this action was informed by information from Lumesis.

## **REFERENCES FOR SUBSTANTIALLY MATERIAL SOURCE CITED AS KEY DRIVER OF RATING**

The principal sources of information used in the analysis are described in the Applicable Criteria.

## **ESG CONSIDERATIONS**

Unless otherwise disclosed in this section, the highest level of ESG credit relevance is a score of '3'. This means ESG issues are credit-neutral or have only a minimal credit impact on the entity, either due to their nature or the way in

which they are being managed by the entity. For more information on Fitch's ESG Relevance Scores, visit www.fitchratings.com/esg.

## **RATING ACTIONS**

ENTITY/DEBT \$	RATING \$
New York, State of (NY) [General Government]	
Triborough Bridge & Tunnel Authority (NY) /Sales Tax Revenues - TBTA/1 LT	LT AAA Rating Outlook Stable New Rating
VIEW ADDITIONAL RATING DETAILS	
FITCH RATINGS ANALYSTS	
Douglas Offerman	
Senior Director	
Primary Rating Analyst	
+1 212 908 0889	
douglas.offerman@fitchratings.com	
Fitch Ratings, Inc.	
Hearst Tower 300 W. 57th Street New Yo	rk, NY 10019
Bryan Quevedo	
Director	
Secondary Rating Analyst	
+1 415 732 7576	
bryan.quevedo@fitchratings.com	
Karen Krop	
Senior Director	
Committee Chairperson	
+1 212 908 0661	
karen.krop@fitchratings.com	
MEDIA CONTACTS	

Sandro Scenga New York +1 212 908 0278 sandro.scenga@thefitchgroup.com

Additional information is available on www.fitchratings.com

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participated in the rating process except that the following issuer(s), if any, did not participate in the rating process, or provide additional information, beyond the issuer's available public disclosure.

## **APPLICABLE CRITERIA**

U.S. Public Finance Tax-Supported Rating Criteria (pub. 04 May 2021) (including rating assumption sensitivity)

## **APPLICABLE MODELS**

Numbers in parentheses accompanying applicable model(s) contain hyperlinks to criteria providing description of model(s).

FAST Econometric API - Fitch Analytical Stress Test Model, v3.0.0 (1)

## **ADDITIONAL DISCLOSURES**

**Dodd-Frank Rating Information Disclosure Form Solicitation Status Endorsement Policy** 

## **ENDORSEMENT STATUS**

Triborough Bridge & Tunnel Authority (NY)

EU Endorsed, UK Endorsed

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**US Public Finance** North America United States



## KBRA Revises Outlook to Stable on the MTA's Transportation Revenue Bonds; Affirms AA Rating

NEW YORK (October 31, 2022) – KBRA revises the Outlook to Stable from Negative on the MTA's outstanding Transportation Revenue Bonds (TRBs) and affirms the long-term rating of AA on the TRBs.

The Outlook revision reflects the ongoing, though still slow, recovery in ridership on MTA transportation assets from the COVID-19 pandemic while operating under a more stable environment as the worst of the pandemic continues to wane. In addition, the Stable Outlook reflects how the MTA's estimated pledged revenue for CY 2022 has exceeded that of KBRA's stress scenarios developed earlier during the pandemic and that debt service requirements for the TRBs are projected to decline in CY 2022 from previously estimated levels.

The long-term rating on the TRBs reflect the following three pillars:

- Pledged revenues are received by the TRB trustee and used to meet pro rata monthly debt service requirements before being released for operations. KBRA does not expect any deviation from the flow of funds specified in MTA's bond documents.
- MTA leadership has consistently demonstrated its ability to navigate financial and political challenges, including its consistent willingness and ability to close outyear budget gaps through various measures.
- The MTA's transportation infrastructure is essential to the New York metropolitan area economy.

A surveillance report will follow.

#### **Key Credit Considerations**

The rating was affirmed because of the following key credit considerations:

Credit Positives

- Gross revenue pledge supporting robust debt service coverage.
- Critical, essential nature of MTA assets, which serve over 15 million people, and enable activities which provide the economic and social underpinning of the New York metropolitan area.
- Management's track record of ultimately achieving fiscal balance and implementing complex, multi-year capital
  improvement programs despite challenging economic environments and unforeseen events.

#### Credit Challenges

- The COVID-19 crisis presents an unprecedented challenge to the MTA's fiscal operations.
- A capital-intensive operation and high fixed costs remain impediments to achieving structural balance.
- The ability to control growth in labor-related costs during the upcoming period of contract negotiations is difficult.

## **Rating Sensitivities**

For upgrade:

• Significant increase in revenues from non-fare revenue streams.

For downgrade:

• Inability to obtain expanded financial support from the State or Federal governments or some new revenue stream would create pressure on the MTA's long-term financial health.

To access ratings and relevant documents, click here.

## **Analytical Contacts**

Cindy Wu, Senior Director (Lead Analyst) +1 (646) 731-2304 cindy.wu@kbra.com

Yang Li, Associate Director +1 (646) 731-1216 yang.li@kbra.com Douglas J. Kilcommons, Managing Director +1 (646) 731-3341 douglas.kilcommons@kbra.com

William Cox, Head of Corporate, Financial and Government Ratings +1 (646) 731-2472 william.cox@kbra.com

Karen Daly, Senior Managing Director (Rating Committee Chair) +1 (646) 731-2347 karen.daly@kbra.com

## **Business Development Contact**

William Baneky, Managing Director +1 (646) 731-2409 william.baneky@kbra.com

James Kissane, Senior Director +1 (213) 806-0026 james.kissane@kbra.com

#### Disclosures

A description of all substantially material sources that were used to prepare the credit rating and information on the methodology(ies) (inclusive of any material models and sensitivity analyses of the relevant key rating assumptions, as applicable) used in determining the credit rating is available in the Information Disclosure Form(s) located <u>here</u>.

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Issuer: Metropolitan Transportation Authority												
Affirmed	Rating(s)	Outlook										
Transportation Revenue Bonds	AA	Stable (from Negative)										
Transportation Revenue Bond Anticipation Notes	K1+	n/a										

For mapping of the long-term rating to the short-term rating, please refer to the <u>short-term KBRA Rating Scale</u>.

#### Methodology

- U.S. Public Toll Roads, Bridges & Tunnels Revenue Bond Rating <u>Methodology</u>
- ESG Global Rating Methodology

#### **Analytical Contacts**

**KBRA** 

Cindy Wu, Senior Director +1 (646) 731-2304 cindy.wu@kbra.com

Yang Li, Associate Director +1 (646) 731-1216 yang.li@kbra.com

Douglas J. Kilcommons, Managing Director +1 (646) 731-3341 douglas.kilcommons@kbra.com

William Cox, Head of Corporate, Financial and Government Ratings +1 (646) 731-2472 william.cox@kbra.com **Rating Summary:** The outlook revision on the MTA's Transportation Revenue Bonds (TRBs) reflects the ongoing, though still slow, recovery in ridership on MTA transportation assets from the COVID-19 pandemic while operating under a more stable environment as the worst of the pandemic continues to wane. In addition, the stable outlook reflects how the MTA's estimated pledged revenue for CY 2022 has exceeded that of KBRA's stress scenarios developed earlier during the pandemic and that debt service requirements for the TRBs are projected to decline in CY 2022 from previously estimated levels (Figure 2).

The long-term rating on the TRBs reflect the following three pillars:

Pledged revenues are received by the TRB trustee and used to meet pro rata monthly debt service requirements before being released for operations. KBRA does not expect any deviation from the flow of funds specified in MTA's bond documents.
 MTA leadership has consistently demonstrated its ability to navigate financial and political challenges, including its consistent willingness and ability to close outyear budget gaps through various measures.

• The MTA's transportation infrastructure is essential to the New York metropolitan area economy.

The last pillar is among the reasons KBRA continues to believe there will be ongoing financial support from the State and or federal governments to help MTA bridge its near term operating and liquidity challenges. Regardless of the timing and magnitude of any such support, the MTA will likely experience permanent changes to its operating and fiscal posture in the future.

The short-term rating assigned to TRB Bond Anticipation Notes (BANs) reflects KBRA's expectation that the MTA will have demonstrated market access at BAN maturity given the TRB's long-term rating.

Per the July Financial Plan (JFP), the MTA's forecast for 2022 ridership represents a decline of 40% from CY 2019. While it is less favorable than forecasted figures presented in the February Financial Plan (FFP), it reflects an improvement from an actual decline of 66% realized in CY 2020 versus CY 2019. The MTA's daily ridership<sup>1</sup> data shows that average monthly ridership during September 2022 recovered to roughly 65% for subways, 64% for bus<sup>2</sup>, and 75% for LIRR/Metro-North, relative to September 2019. While the arc of recovery has been generally flat, ridership recovery exhibited somewhat favorable trends through October 2022, with Metro-North returning to 78% of the pre-pandemic levels.

The loss of a significant portion of farebox revenues and the inability to substantially reduce expenses during the pandemic have created a significant,



Note: reflects miling 3-day average. For buses and shown, figures above represent the percent of comparable per-pandemic equivalent day (between 3/1/19 and 2/29/20). For LIRR and MNRR, figures above are compared to the 2019 monthly weekday/Saturday/Sunday average. Source: MTAS day-to-day ridership numbers, https://new.mta.info/coronavirus/ridership, updated October 27, 202

structural imbalance in the MTA's fiscal operations. Nonetheless, the MTA has continued to set aside funds on a monthly basis for debt service, as required by its indenture.

 <sup>&</sup>lt;sup>1</sup> Day-By-Day Ridership Numbers per MTA website retrieved October 28, 2022.
 <sup>2</sup> Local, Limited, SBS and Express.

Metropolitan Transportation Authority

Since KBRA's January 19, 2022 published <u>report</u>, the MTA released its First Quarterly Update/supplement to the 2022 Annual Disclosure Statement and the 2023 Preliminary Budget/JFP. Highlights include:

- The ridership forecasts through CY 2026 reflect McKinsey's updated midpoint scenario. The updated projections are centered around behavioral changes that began during the pandemic and the degree to which those changes become more permanent or longer lasting.
- Projections show that ridership levels do not return to the pre-pandemic level during the plan period: estimated ridership declines of 32% for CY 2023<sup>4</sup>, 27% for CY 2024<sup>4</sup>, 24% for CY 2025<sup>4</sup>, and 22% for CY 2026<sup>4</sup>. This trend reflects a slower recovery than shown in the prior FFP forecast.
- The biennial 4% fare increase will now occur in 2023 and 2025 versus the previously planned July 2022.
- Despite projecting lower ridership revenues, the MTA expects to balance operations through CY 2024 with the
  proceeds from the \$7.0 billion in federal funding through the American Rescue Plan Act (ARPA).

The MTA reports liquidity resources of approximately \$12.534 billion as of October 26, 2022, which includes \$905 million of cash, \$2.909 billion of Payroll Mobility Tax working capital BANs (including interest), and \$2.487 billion of internal flexible funds. It also includes \$1.2 billion of undrawn external bank lines and available ARPA receipts of approximately \$5.033 billion. Additionally, the MTA is anticipating \$10.5 billion of federal funding over the next 5 years from the Infrastructure Investment and Jobs Act, which will be incorporated into capital programs. The CY 2020-2024 Capital Program already assumes an allocation of \$7.5 billion.

KBRA's breakeven analysis for CY 2022 assumes Special Tax-Supported Operating Subsidies at CY 2020 level (\$4.1 billion) and zero revenues from other revenue categories. The analysis demonstrates that the MTA could withstand a decline of 98.8% in farebox revenues relative to CY 2019 and a decline of 97.2% relative to CY 2020 before its DSC falls below 2.50x (Figure 2). KBRA views this scenario as unlikely given that MTA's CY 2021 farebox revenue was \$3.2 billion, approximately 51.4% lower than CY 2019 farebox revenues.

Per the JFP, CY 2022 DSC is expected to improve to 7.4x from 5.9x in CY 2021.

	Figure 2	2				
FYE December 31 (\$ in millions)	2019	2020	2021	2022 Mid-Year Forecast	2022 KBRA Stress Case Developed in 2020	2022 KBRA Break-Even Analysis
Operating Revenues (including Farebox Revenue)	6,641	2,763	3,230	4,101	4,065	77
% chg. vs 2019	-	-58.4%	-51.4%	-38.2%	-38.8%	-98.8%
% chg. vs 2020		-	16.9%	48.4%	47.1%	-97.2%
% chg. vs 2021 Forecast	-	-	-	27.0%	25.9%	
Special Tax-Supported Operating Subsidies	4,888	4,139	5,111	5,488	4,449	4,139
Non-Operating Revenues	1,366	1,014	1,255	1,303	1,156	-
Revenues from TBTA Surplus	788	495	928	1,153	639	-
Agency Operating Subsidies	340	365	408	376	460	-
NYC Transportation Assistance Fund General Transportation Account	-	2	2	3	-	-
Total Transportation Resolution Pledged Revenues (Gross Revenues)	14,023	8,778	10,934	12,424	10,769	4,216
Gross Revenues as a % chg. vs 2019	-	-37.4%	-22.0%	-11.4%	-23.2%	-69.9%
Gross Revenues as a % chg. vs 2020	-	-	24.6%	41.5%	22.7%	-52.0%
Gross Revenues as a % chg. vs 2021	-	-	-	13.6%	-1.5%	-61.4%
IRB Debt Service	1,751	1,989	1,852	1,686	2,223	1,686
DSCR (Gross)	8.0x	4.4x	5.9x	7.4x	4.8x	2.5x

Source: MTA TRBs Subseries 2005D-2a and 2012G-4 Remarketing Circular | KBRA's Analysis Notes: Totals may not add due to rounding.

#### **Key Credit Considerations**

The rating was affirmed because of the following key credit considerations:

**Credit Positives** 

- Gross revenue pledge supporting robust debt service coverage.
- Critical, essential nature of MTA assets, which serve over 15 million people, and enable activities which provide the economic and social underpinning of the New York metropolitan area.
- Management's track record of ultimately achieving fiscal balance and implementing complex, multi-year capital
  improvement programs despite challenging economic environments and unforeseen events.

Credit Challenges

- The COVID-19 crisis presents an unprecedented challenge to the MTA's fiscal operations.
- A capital-intensive operation and high fixed costs remain impediments to achieving structural balance.
- The ability to control growth in labor-related costs during the upcoming period of contract negotiations is difficult.

#### Rating Sensitivities

 Inability to obtain expanded financial support from the State or Federal governments or some new revenue stream would create pressure on the MTA's long-term financial health.

┿

Rating Determinants (RD)	
1. Size and Scope of Operations	AAA
2. Demand Assessment	AA
3. Regulatory/Management Framework	AA+
4. Financial Profile	AA
5. Security Provisions	AA-

A detailed discussion of each of the abovementioned RDs is provided in KBRA's report dated February 2, 2021.

## **Bankruptcy Analysis**

KBRA has consulted with external counsel regarding the statutory framework for municipal bankruptcy in New York State. KBRA understands that to be a debtor under the municipal bankruptcy provisions of the U.S. Bankruptcy Code ("Chapter 9"), an entity must, among other things, qualify under the definition of "municipality" in the Bankruptcy Code and must be specifically authorized to file a municipal bankruptcy petition by the State in which it is located. It is KBRA's understanding that the MTA likely meets the definition of "municipality" contained in the Bankruptcy Code. KBRA further understands, however, that a public benefit corporation, such as the MTA, is not specifically authorized under New York State law to file a petition under Chapter 9. Additionally, KBRA understands that New York State law further restricts the power of the MTA to file a Chapter 9 petition under Section 1269 of the New York Public Authorities Law, which does not allow a Chapter 9 filing by the MTA so long as bonds or other obligations issued by the MTA pursuant to Section 1269 or 1266-c of the New York Public Authorities Law are outstanding. Furthermore, pursuant to section 1271 of the New York Public Authorities Law, the State of New York has pledged to not alter the rights and remedies of bondholders in a way that would impair such holders, including altering the prohibition against the MTA filing a Chapter 9 petition included in Section 1269.

## **ESG Management**

KBRA typically analyzes Environmental, Social, and Governance (ESG) factors through the lens of how issuers plan for and manage relevant ESG risks and opportunities. More information on KBRA's approach to ESG risk management in public finance ratings can be found <u>here</u>. Over the medium-term, public finance issuers will likely need to prioritize ESG risk management and disclosure with the likelihood of expansions in ESG-related regulation and rising investor focus on ESG issues.

Please refer to KBRA's January 19, 2022 report for MTA's ESG Management.

## Full list of Affirmed Outstanding Transportation Revenue Bond Anticipation Notes

Affirmed	Rating(s)	Outlook
Transportation Revenue Bond Anticipation Notes, Series 2020A, Subseries 2020A-1 (maturing 2/1/2023)	K1+	n/a
Transportation Revenue Bond Anticipation Notes, Series 2020A, Subseries 2020A-2S (maturing 2/1/2022)	K1+	n/a
Transportation Revenue Bond Anticipation Notes, Series 2020B (maturing 8/1/2023)	K1+	n/a

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## MOODY'S INVESTORS SERVICE Rating Action: Moody's upgrades Assured Guaranty's ratings; outlook is stable

## 18 March 2022

New York, March 18, 2022 – Moody's Investors Service ("Moody's") has upgraded the insurance financial strength (IFS) ratings of Assured Guaranty Municipal Corp. (AGM) and Assured Guaranty UK Limited (AGUK) to A1 from A2 and the IFS rating of Assured Guaranty Corp. (AGC) to A2 from A3. Moody's also upgraded the debt ratings of Assured Guaranty US Holdings Inc. (AGUS) (backed senior debt to Baa1 from Baa2), the junior subordinated debt rating of Assured Guaranty Municipal Holdings Inc. (AGMH) to Baa2(hyb) from Baa3(hyb), as well as the long-term issuer rating of Assured Guaranty Ltd. (Assured Guaranty) to Baa1 from Baa2. The outlook for the ratings is stable.

These rating actions also have implications for the various transactions wrapped by AGM, AGC and AGUK as discussed later in this press release.

## RATINGS RATIONALE

The upgrade of Assured Guaranty and its subsidiaries reflects their improved credit profiles following the resolution of the group's exposure to the general obligation bonds issued by the Commonwealth of Puerto Rico and limited expected volatility among its remaining Puerto Rico exposures. Additionally, demand for financial guaranty insurance continues to trend favorably, both in the United States and in Europe, which supports the continued alignment of interests between Assured Guaranty's shareholders and its policyholders and creditors. Moody's also notes that the size of AGM's insured portfolio has stabilized after a long period of amortization and is again growing slowly as new business replaces maturing and refunded bonds. This growth is expected to support the firm's earnings profile going forward, particularly without the drag of loss and loss adjustment expenses incurred on defaulted Puerto Rico exposures over the past several years.

RATING RATIONALE - Assured Guaranty Municipal Corp.

AGM's A1 IFS rating reflects its strong capital profile, conservative underwriting of US municipal and international infrastructure finance risks and leading market position in the financial guaranty insurance sector. These strengths are tempered by the confidence-sensitive nature of the financial guaranty insurance business as well as a number of large single risk exposures relative to capital. AGM is the flagship guarantor within the Assured Guaranty group of companies, producing the majority of group's new business. AGM's ability to organically generate significant capital through premium and investment earnings make its credit profile resilient to a broad range of stress scenarios.

## RATING RATIONALE - Assured Guaranty Corp.

AGC's A2 IFS rating reflects AGC's very strong capital adequacy profile due to an increase in its capital resources resulting from several acquisitions of legacy financial guarantors over the past several years as well as the amortization of its insured portfolio and resolution of certain Puerto Rico exposures and good flow of embedded earnings associated with its unearned premium base. These strengths are tempered by the confidence-sensitive nature of the financial guaranty insurance business and low levels of new business production relative to AGM. Moody's maintains a one notch

rating differential between AGM and AGC to reflect its more limited strategic role within the Assured Guaranty group of companies.

## RATING RATIONALE – Assured Guaranty UK Limited

The A1 IFS rating of AGUK reflects a combination of formal and implicit support from its parent, AGM. Formal support from AGM includes a net worth maintenance agreement and quota share and excess of loss reinsurance arrangements. AGUK is the platform from which Assured Guaranty writes its financial guaranty business in the United Kingdom and certain other non-EU countries.

## **RATING RATIONALE – Debt Ratings**

The Baa1 senior debt rating of AGUS represents a three notch spread between the senior debt rating and AGM's A1 IFS rating, which is consistent with Moody's typical notching practices for U.S. insurance holding company structures. Assured Guaranty's Baa1 long-term issuer rating is aligned with the senior debt rating of AGUS. Assured Guaranty fully and unconditionally guarantees the senior debt of AGUS and guarantees on a junior subordinated basis the junior subordinated debt of AGMH and AGUS.

## FACTORS THAT COULD LEAD TO AN UPGRADE OR DOWNGRADE OF THE RATINGS

Factors that could lead to an upgrade of Assured Guaranty's ratings include: 1) Continued demonstration of very strong risk-adjusted capital adequacy; 2) an increase in demand for financial guaranty insurance (15%+ US municipal market insured penetration and/or annual present value of premiums written in excess of \$600 million) at attractive pricing levels; and 3) continued reductions in below investment grade insured exposures relative to capital.

Conversely, the factors that could lead to a downgrade of Assured Guaranty's ratings include: 1) the extraction of meaningful amounts of capital without an associated reduction of risk; 2) Assured Guaranty's new business production falls to unsustainable levels (less than 25% insured market share or less than \$100 million in annual premiums); and 3) significant deterioration in the credit quality of insured portfolios.

## RATINGS LIST

The following ratings have been upgraded:

Assured Guaranty Ltd. - long-term issuer rating to Baa1 from Baa2;

Assured Guaranty US Holdings Inc. – backed senior unsecured debt to Baa1 from Baa2, backed junior subordinated debt to Baa2(hyb) from Baa3(hyb);

Assured Guaranty Municipal Holdings Inc. - junior subordinated debt to Baa2(hyb) from Baa3(hyb);

Assured Guaranty Municipal Corp. -- insurance financial strength rating to A1 from A2;

Assured Guaranty UK Limited -- insurance financial strength rating to A1 from A2;

Sutton Capital Trusts I, II, III, and IV -- contingent capital securities to Baa1(hyb) from Baa2(hyb);

Assured Guaranty Corp. -- insurance financial strength rating to A2 from A3;

Woodbourne Capital Trusts I, II, III, and IV -- contingent capital securities to Baa2(hyb) from Baa3(hyb);

Outlook Actions:

The outlooks for Assured Guaranty Ltd., Assured Guaranty US Holdings Inc., Assured Guaranty Municipal Holdings Inc., Assured Guaranty Municipal Corp., Assured Guaranty UK Limited, Sutton Capital Trust I, Sutton Capital Trust II, Sutton Capital Trust IV, Assured Guaranty Corp., Woodbourne Capital Trust I, Woodbourne Capital Trust II, Woodbourne Capital Trust II, Woodbourne Capital Trust IV, Assured Trust III, and Woodbourne Capital Trust IV remain stable.

## TREATMENT OF WRAPPED TRANSACTIONS

Moody's ratings on securities that are guaranteed or "wrapped" by a financial guarantor are generally maintained at a level equal to the higher of the following: a) the rating of the guarantor (if rated at the investment grade level); or b) the published underlying rating (and for structured securities, the published or unpublished underlying rating). Moody's approach to rating wrapped transactions is outlined in Moody's methodology "Rating Transactions Based on the Credit Substitution Approach: Letter of Credit-backed, Insured and Guaranteed Debts" (May 2017).

Assured Guaranty Ltd. is a Bermuda-based holding company. Through its subsidiaries, Assured Guaranty provides financial guaranty insurance to the US and international public finance and structured finance markets, and also provides asset management services. As of December 31, 2021, Assured Guaranty had consolidated net par outstanding of approximately \$236 billion, qualified statutory capital of \$6.8 billion, and total claims paying resources of \$11.2 billion.

The principal methodology used in these ratings was Financial Guarantors Methodology published in November 2019 and available at <a href="https://www.moodys.com/researchdocumentcontentpage.aspx?">https://www.moodys.com/researchdocumentcontentpage.aspx?</a> <a href="https://www.moodys.com/researchdocumentcontentpage.aspx?">docid=PBC\_1186098</a>. Alternatively, please see the Rating Methodologies page on www.moodys.com/for a copy of this methodology.

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James Eck VP-Sr Credit Officer Financial Institutions Group Moody's Investors Service, Inc. 250 Greenwich Street New York, NY 10007 U.S.A. JOURNALISTS: 1 212 553 0376 Client Service: 1 212 553 1653

Scott Robinson, CFA Associate Managing Director Financial Institutions Group JOURNALISTS: 1 212 553 0376 Client Service: 1 212 553 1653

Releasing Office: Moody's Investors Service, Inc. 250 Greenwich Street New York, NY 10007 U.S.A. JOURNALISTS: 1 212 553 0376



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Metropolitan Transportation Authority Triborough Bridge and Tunnel Authority New York City Transit Authority

## DEBT REPORT REQUIRED BY SECTION 2800(1)(a)(4)<sup>(1)</sup> OF THE PUBLIC AUTHORITIES LAW

<sup>(1)</sup> Public Authorities Law Section 2800(1)(a) provides, in relevant part, as follows: "For the purpose of furnishing the state with systematic information regarding the status and the activities or public authorities, every state authority or commission...shall submit...within ninety days after the end of its fiscal year, a complete and detailed report or reports setting forth: ...(4) a schedule of its bonds and notes outstanding at the end of its fiscal year, together with a statement of the amounts redeemed and incurred during such fiscal year as part of a schedule of debt issuance that includes the date of issuance, term, amount, interest rate and means of repayment. Additionally the debt schedule shall also include all refinancings, calls, refundings, defeasements and interest rate exchange or other such agreements, and for any debt issued during the reporting year, the schedule shall also include a detailed list of costs of issuance for such debt..."

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#### **DEFINITIONS**

BANS – Bond Anticipation Notes.

- Called Bonds or Notes a call option of which has been exercised during the reporting period for which no prior defeasance has occurred.
- Defeased Bonds or Notes that have been secured by a defeasance obligation, as defined under the applicable bond resolution, and hence, cease to be an MTA debt obligation during the reporting period.
- DTF MTA Dedicated Tax Fund Bonds or Notes.
- GAN- MTA Grant Anticipation Notes.
- HRY Hudson Rail Yards Trust Obligations.
- Matured Bonds or Notes which at the end of the reporting period had zero remaining life left.
- PMT- Payroll Mobility Tax Obligations.
- Redeemed Bonds or Notes that have been purchased by MTA during the reporting period.
- Refinanced Bonds or Notes which have been remarketed by MTA during the reporting period with substantially modified terms.
- STX Sales Tax Revenue Bonds or Notes.
- TRB –MTA Transportation Revenue Bonds or Notes.
- TBTA MTA Bridges and Tunnels Senior Revenue Bonds or Notes.
- TBTA SUB MTA Bridges and Tunnels Subordinate Revenue Bonds or Notes.
- TBTA 2<sup>nd</sup> SUB MTA Bridges and Tunnels Second Subordinate Revenue Bonds or Notes.

## SCHEDULE OF BONDS AND NOTES

		Total Bonds and Notes Issued in 2022 New Money Bonds and Notes Issued in 2022		7,182,400,000 5,402,860,000										
			Refunding Bonds and No		1,779,540,000	Г	Total	3,813,577,500	2,341,805,000	5,188,120,000	51,090,000	597,910,000	48,672,762,500	2,036,995,000
		L	Returning bonus and No	2022	1,775,540,000	L	Total	5,615,577,500	2,541,005,000	5,100,120,000	51,050,000	557,510,000	40,072,702,500	2,030,555,000
	Credit Supported L T										Amount	Amount		Amount Swapped
Underlying L T Ratings	Ratings	S T Ratings						Amount Matured in		Amount Called in	Redeemed in	Refinanced in	Amount Outstanding as	as of December
Mdy/S&P/Ftch/Krll	Mdy/S&P/Ftch/Krll	Mdy/S&P/Ftch/Krll	Series	Date Issued	Amount Issued	Maturity	Coupon	2022	in 2022	2022	2022	2022	of December 31, 2022	<u>31, 2022</u>
NAF/AA/AA/NAF			DTF 2002B-1	3/18/2021	56,385,000	11/1/2022	3.000	56,385,000	-	-	-	-	-	-
NAF/AA/AA/NAF	NAF/AAA/AAA/NAF	NR/A-1+/F1+/NR	DTF 2008A-1	6/1/2022	12,160,000	11/1/2022	4.000		-	-	-	-	-	-
NAF/AA/AA/NAF	NAF/AAA/AAA/NAF	NR/A-1+/F1+/NR	DTF 2008A-1	6/1/2022	12,585,000	11/1/2023	4.000		-	-	-	-	12,585,000	12,396,047
NAF/AA/AA/NAF NAF/AA/AA/NAF	NAF/AAA/AAA/NAF NAF/AAA/AAA/NAF	NR/A-1+/F1+/NR NR/A-1+/F1+/NR	DTF 2008A-1 DTF 2008A-1	6/1/2022 6/1/2022	13,025,000 13,495,000	11/1/2024 11/1/2025	4.000 4.000		-	-	-	-	13,025,000 13,495,000	12,829,441 13,292,384
NAF/AA/AA/NAF	NAF/AAA/AAA/NAF	NR/A-1+/F1+/NR NR/A-1+/F1+/NR	DTF 2008A-1 DTF 2008A-1	6/1/2022	13,495,000	11/1/2025	4.000		-	-	-	-	13,495,000	13,292,384
NAF/AA/AA/NAF	NAF/AAA/AAA/NAF	NR/A-1+/F1+/NR	DTF 2008A-1	6/1/2022	14,465,000	11/1/2020	4.000						14,465,000	14,247,820
NAF/AA/AA/NAF	NAF/AAA/AAA/NAF	NR/A-1+/F1+/NR	DTF 2008A-1	6/1/2022	14,975,000	11/1/2028	4.000		_	_	_	_	14,975,000	14,750,163
NAF/AA/AA/NAF	NAF/AAA/AAA/NAF	NR/A-1+/F1+/NR	DTF 2008A-1	6/1/2022	15,510,000	11/1/2029	4.000		-	-	-	-	15,510,000	15,277,130
NAF/AA/AA/NAF	NAF/AAA/AAA/NAF	NR/A-1+/F1+/NR	DTF 2008A-1	6/1/2022	16,060,000	11/1/2030	4.000		-	-	-	-	16,060,000	15,818,873
NAF/AA/AA/NAF	NAF/AAA/AAA/NAF	NR/A-1+/F1+/NR	DTF 2008A-1	6/1/2022	16,625,000	11/1/2031	4.000	-	-	-	-	-	16,625,000	16,375,390
NAF/AA/AA/NAF	NAF/AAA/AAA/NAF	NAF/A-1+/F1+/NAF	DTF 2008A-2a	6/1/2022	12,155,000	11/1/2022	4.000	12,155,000	-	-	-	12,155,000	-	
NAF/AA/AA/NAF	NAF/AAA/AAA/NAF	NAF/A-1+/F1+/NAF	DTF 2008A-2a	6/1/2022	12,585,000	11/1/2023	4.000	-	-	-	-	12,585,000	12,585,000	12,425,835
NAF/AA/AA/NAF	NAF/AAA/AAA/NAF	NAF/A-1+/F1+/NAF	DTF 2008A-2a	6/1/2022	13,030,000	11/1/2024	4.000	-	-	-	-	13,030,000	13,030,000	12,865,207
NAF/AA/AA/NAF	NAF/AAA/AAA/NAF	NAF/A-1+/F1+/NAF	DTF 2008A-2a	6/1/2022	13,495,000	11/1/2025	4.000	-	-	-	-	13,495,000	13,495,000	13,324,326
NAF/AA/AA/NAF	NAF/AAA/AAA/NAF	NAF/A-1+/F1+/NAF	DTF 2008A-2a	6/1/2022	6,750,000	11/1/2026	4.000		-	-	-	6,750,000	6,750,000	6,664,631
NAF/AA/AA/NAF	NAF/AA+/AAA/NAF	NAF/A-1/F1/NAF	DTF 2008A-2b	10/31/2019	7,220,000	11/1/2026	4.000		-	-	-	-	7,220,000	7,101,943
NAF/AA/AA/NAF	NAF/AA+/AAA/NAF	NAF/A-1/F1/NAF	DTF 2008A-2b	10/31/2019	14,465,000	11/1/2027	4.000		-	-	-	-	14,465,000	14,228,477
NAF/AA/AA/NAF	NAF/AA+/AAA/NAF	NAF/A-1/F1/NAF	DTF 2008A-2b	10/31/2019	14,975,000	11/1/2028	4.000		-	-	-	-	14,975,000	14,730,137
NAF/AA/AA/NAF	NAF/AA+/AAA/NAF	NAF/A-1/F1/NAF	DTF 2008A-2b	10/31/2019	15,510,000	11/1/2029	4.000	-	-	-	-	-	15,510,000	15,256,389
NAF/AA/AA/NAF	NAF/AA+/AAA/NAF	NAF/A-1/F1/NAF	DTF 2008A-2b	10/31/2019	16,055,000	11/1/2030	4.000	-	-	-	-	-	16,055,000	15,792,478
NAF/AA/AA/NAF NAF/AA/AA/NAF	NAF/AA+/AAA/NAF	NAF/A-1/F1/NAF	DTF 2008A-2b DTF 2008B-1	10/31/2019 8/13/2013	16,630,000 5,625,000	11/1/2031 11/15/2022	5.000	5,625,000	-	-	-	-	16,630,000	16,358,076
NAF/AA/AA/NAF			DTF 2008B-1 DTF 2008B-1	8/13/2013	5,745,000	11/15/2022	5.000		-	-	-	-	5,745,000	-
NAF/AA/AA/NAF			DTF 2008B-1	8/13/2013	5,695,000	11/15/2023	5.000						5,695,000	
NAF/AA/AA/NAF			DTF 2008B-1	8/13/2013	5,775,000	11/15/2025	5.000		-	_	-	-	5,775,000	_
NAF/AA/AA/NAF			DTF 2008B-1	8/13/2013	5,820,000	11/15/2026	5.000		-	-	-	-	5,820,000	-
NAF/AA/AA/NAF			DTF 2008B-1	8/13/2013	2,865,000	11/15/2027	4.000		-	-	-	-	2,865,000	-
NAF/AA/AA/NAF			DTF 2008B-1	8/13/2013	5,975,000	11/15/2028	4.000	-	-	-	-	-	5,975,000	-
NAF/AA/AA/NAF			DTF 2008B-1	8/13/2013	12,790,000	11/15/2029	5.000		-	-	-	-	12,790,000	-
NAF/AA/AA/NAF			DTF 2008B-1	8/13/2013	13,085,000	11/15/2030	4.250	-	-	-	-	-	13,085,000	-
NAF/AA/AA/NAF			DTF 2008B-1	8/13/2013	8,965,000	11/15/2031	5.000	-	-	-	-	-	8,965,000	-
NAF/AA/AA/NAF			DTF 2008B-1	8/13/2013	1,435,000	11/15/2033	4.375		-	-	-	-	1,435,000	-
NAF/AA/AA/NAF			DTF 2008B-1	8/13/2013	1,340,000	11/15/2034	4.500		-	-	-	-	1,340,000	-
NAF/AA/AA/NAF			DTF 2008B-3b	10/3/2016	5,850,000	11/15/2028	5.000		-	-	-	-	4,665,000	-
NAF/AA/AA/NAF			DTF 2008B-3b	10/3/2016	31,735,000	11/15/2029	5.000		-	-	-	-	25,325,000	-
NAF/AA/AA/NAF			DTF 2008B-3b	10/3/2016	16,885,000	11/15/2030	5.000		-	-	-	-	13,470,000	-
NAF/AA/AA/NAF	NAF/AA+/AAA/NAF	NAF/A-1/F1/NAF	DTF 2008B-3c	10/31/2019	15,590,000	11/1/2030	4.000		-	-	-	-	15,590,000	-
NAF/AA/AA/NAF	NAF/AA+/AAA/NAF	NAF/A-1/F1/NAF	DTF 2008B-3c DTF 2008B-3c	10/31/2019	22,250,000 3,565,000	11/1/2031	4.000 4.000		-	-	-	-	22,250,000	-
NAF/AA/AA/NAF NAF/AA/AA/NAF	NAF/AA+/AAA/NAF NAF/AA+/AAA/NAF	NAF/A-1/F1/NAF NAF/A-1/F1/NAF	DTF 2008B-3c	10/31/2019 10/31/2019	3,335,000	11/1/2033 11/1/2034	4.000		-	-	-	-	3,565,000 3,335,000	-
NAF/AA/AA/NAF	NAF/AA+/AAA/NAF	INAF/A-1/F1/INAF	DTF 2008B-3C	8/13/2013	13,960,000	11/1/2034	5.000		-	-	-	-	5,555,000	-
NAF/AA/AA/NAF			DTF 2008B-4	8/13/2013	14,265,000	11/15/2022	5.000						14,265,000	
NAF/AA/AA/NAF			DTF 2008B-4	8/13/2013	14,130,000	11/15/2024	5.000		-	_	-	-	14,130,000	_
NAF/AA/AA/NAF			DTF 2008B-4	8/13/2013	9,875,000	11/15/2025	5.000		-	-	-	-	9,875,000	-
NAF/AA/AA/NAF			DTF 2009C Build America Bonds	4/30/2009	250,000,000	11/15/2037	7.336	-	-	-	-	-	250,000,000	-
NAF/AA/AA/NAF			DTF 2009C Build America Bonds	4/30/2009	250,000,000	11/15/2038	7.336	-	-	-	-	-	250,000,000	-
NAF/AA/AA/NAF			DTF 2009C Build America Bonds	4/30/2009	250,000,000	11/15/2039	7.336	-	-	-	-	-	250,000,000	-
NAF/AA/AA/NAF			DTF 2010A-2 Build America Bonds	3/25/2010	12,070,000	11/15/2022	5.255	12,070,000	-	-	-	-	-	-
NAF/AA/AA/NAF			DTF 2010A-2 Build America Bonds	3/25/2010	12,705,000	11/15/2023	5.355		-	-	-	-	12,705,000	-
NAF/AA/AA/NAF			DTF 2010A-2 Build America Bonds	3/25/2010	13,385,000	11/15/2024	5.455		-	-	-	-	13,385,000	-
NAF/AA/AA/NAF			DTF 2010A-2 Build America Bonds	3/25/2010	14,120,000	11/15/2025	5.535		-	-	-	-	14,120,000	-
NAF/AA/AA/NAF			DTF 2010A-2 Build America Bonds	3/25/2010	14,905,000	11/15/2026	5.989		-	-	-	-	14,905,000	-
NAF/AA/AA/NAF			DTF 2010A-2 Build America Bonds	3/25/2010	15,795,000	11/15/2027	5.989		-	-	-	-	15,795,000	-
NAF/AA/AA/NAF			DTF 2010A-2 Build America Bonds	3/25/2010	16,745,000	11/15/2028	5.989		-	-	-	-	16,745,000	-
NAF/AA/AA/NAF			DTF 2010A-2 Build America Bonds	3/25/2010	17,750,000	11/15/2029	5.989		-	-	-	-	17,750,000	-
NAF/AA/AA/NAF NAF/AA/AA/NAF			DTF 2010A-2 Build America Bonds DTF 2010A-2 Build America Bonds	3/25/2010 3/25/2010	18,815,000 19,945,000	11/15/2030 11/15/2031	5.989 6.089		-	-	-	-	18,815,000 19,945,000	
NAF/AA/AA/NAF			DTF 2010A-2 Build America Bonds	3/25/2010	21,160,000	11/15/2031	6.089		-	-	-	-	21,160,000	-
NAF/AA/AA/NAF			DTF 2010A-2 Build America Bonds	3/25/2010	22,450,000	11/15/2032	6.089	-	-	-	-	-	22,450,000	-
NAF/AA/AA/NAF			DTF 2010A-2 Build America Bonds	3/25/2010	23,820,000	11/15/2034	6.089	-	-	-	-	-	23,820,000	-
NAF/AA/AA/NAF			DTF 2010A-2 Build America Bonds	3/25/2010	25,275,000	11/15/2035	6.089		-	-	-	-	25,275,000	-
NAF/AA/AA/NAF			DTF 2010A-2 Build America Bonds	3/25/2010	26,815,000	11/15/2036	6.089	-	-	-	-	-	26,815,000	-
NAF/AA/AA/NAF			DTF 2010A-2 Build America Bonds	3/25/2010	28,450,000	11/15/2037	6.089		-	-	-	-	28,450,000	-
NAF/AA/AA/NAF			DTF 2010A-2 Build America Bonds	3/25/2010	30,185,000	11/15/2038	6.089	-	-	-	-	-	30,185,000	-

Total Bonds and Notes Issued in 2022

			New Money Bonds and No	5,402,860,000	_									
			Refunding Bonds and No	tes Issued in 2022	1,779,540,000	[	Total	3,813,577,500	2,341,805,000	5,188,120,000	51,090,000	597,910,000	48,672,762,500	2,036,995,000
	Credit Supported L T										Amount	Amount		Amount Swapped
Underlying L T Ratings	Ratings	S T Ratings						Amount Matured in			Redeemed in	Refinanced in	Amount Outstanding as	as of December
Mdy/S&P/Ftch/Krll	Mdy/S&P/Ftch/Krll	Mdy/S&P/Ftch/Krll	Series	Date Issued	Amount Issued	Maturity	Coupon	2022	<u>in 2022</u>	2022	2022	2022	of December 31, 2022	<u>31, 2022</u>
NAF/AA/AA/NAF NAF/AA/AA/NAF			DTF 2010A-2 Build America Bonds DTF 2010A-2 Build America Bonds	3/25/2010 3/25/2010	32,030,000 33,980,000	11/15/2039 11/15/2040	6.089 6.089	-	-	-	-	-	32,030,000 33,980,000	-
NAF/AA/AA/NAF			DTF 2010A-2 Build America Bonds DTF 2012A	10/25/2010	8,385,000	11/15/2022	4.000	8,385,000	-	-	-	-	55,960,000	
NAF/AA/AA/NAF			DTF 2012A	10/25/2012	19,360,000	11/15/2022	5.000	19,360,000	-	-	-	-	-	
NAF/AA/AA/NAF			DTF 2012A	10/25/2012	89,275,000	11/15/2023	5.000		-	89,275,000	-	-	-	-
NAF/AA/AA/NAF			DTF 2012A	10/25/2012	5,000,000	11/15/2024	2.500	-	-	-	-	-	5,000,000	-
NAF/AA/AA/NAF			DTF 2012A	10/25/2012	68,265,000	11/15/2024	5.000	-	-	-	-	-	68,265,000	-
NAF/AA/AA/NAF			DTF 2012A	10/25/2012	70,280,000	11/15/2025	5.000	-	-	-	-	-	70,280,000	-
NAF/AA/AA/NAF			DTF 2012A	10/25/2012	73,865,000	11/15/2026	5.000 5.000	-	-	-	-	-	73,865,000	
NAF/AA/AA/NAF NAF/AA/AA/NAF			DTF 2012A DTF 2012A	10/25/2012 10/25/2012	77,560,000 50,000,000	11/15/2027 11/15/2028	3.000	-	-	-		-	77,560,000 50,000,000	
NAF/AA/AA/NAF			DTF 2012A	10/25/2012	33,340,000	11/15/2028	5.000		-	-	-	-	33,340,000	
NAF/AA/AA/NAF			DTF 2012A	10/25/2012	84,400,000	11/15/2029	5.000	-	-	-	-	-	84,400,000	-
NAF/AA/AA/NAF			DTF 2012A	10/25/2012	100,000	11/15/2030	5.000	-	-	-	-	-	100,000	-
NAF/AA/AA/NAF			DTF 2012A	10/25/2012	88,525,000	11/15/2030	-	-	-	-	-	-	88,525,000	-
NAF/AA/AA/NAF			DTF 2012A	10/25/2012	48,320,000	11/15/2031	4.000	-	-	-	-	-	48,320,000	-
NAF/AA/AA/NAF			DTF 2012A	10/25/2012	40,305,000	11/15/2031	5.000	-	-	-	-	-	40,305,000	
NAF/AA/AA/NAF			DTF 2012A	10/25/2012	128,550,000	11/15/2032	-	-	-	-	-	-	128,550,000	-
NAF/AA/AA/NAF NAF/AA/AA/NAF			DTF 2016A DTF 2016A	3/10/2016 3/10/2016	27,415,000 15,270,000	11/15/2022 11/15/2023	5.000 5.000	27,415,000	-			-	15,270,000	
NAF/AA/AA/NAF			DTF 2016A	3/10/2016	1,750,000	11/15/2023	4.000		-	-	-	-	1,750,000	
NAF/AA/AA/NAF			DTF 2016A	3/10/2016	36,000,000	11/15/2024	5.000	-	-	-	-	-	36,000,000	
NAF/AA/AA/NAF			DTF 2016A	3/10/2016	7,500,000	11/15/2025	4.000	-	-	-	-	-	7,500,000	
NAF/AA/AA/NAF			DTF 2016A	3/10/2016	39,300,000	11/15/2025	5.000	-	-	-	-	-	39,300,000	
NAF/AA/AA/NAF			DTF 2016A	3/10/2016	15,750,000	11/15/2026	4.000	-	-	-	-	-	15,750,000	
NAF/AA/AA/NAF			DTF 2016A	3/10/2016	19,160,000	11/15/2026	5.000	-	-	-	-	-	19,160,000	-
NAF/AA/AA/NAF			DTF 2016A	3/10/2016	36,495,000	11/15/2027	5.250	-	-	-	-	-	36,495,000	-
NAF/AA/AA/NAF NAF/AA/AA/NAF			DTF 2016A DTF 2016A	3/10/2016 3/10/2016	38,415,000 40,435,000	11/15/2028 11/15/2029	5.250 5.250	-	-	-	-	-	38,415,000 40,435,000	-
NAF/AA/AA/NAF			DTF 2016A	3/10/2016	45,550,000	11/15/2029	5.250	-	-	-	-	-	45,550,000	
NAF/AA/AA/NAF			DTF 2016A	3/10/2016	47,940,000	11/15/2031	5.250	-	-	-	-	-	47,940,000	
NAF/AA/AA/NAF			DTF 2016A	3/10/2016	41,370,000	11/15/2032	5.250	-	-	-	-	-	41,370,000	
NAF/AA/AA/NAF			DTF 2016A	3/10/2016	6,990,000	11/15/2033	3.125	-	-	-	-	-	6,990,000	
NAF/AA/AA/NAF			DTF 2016A	3/10/2016	22,010,000	11/15/2033	5.250	-	-	-	-	-	22,010,000	
NAF/AA/AA/NAF			DTF 2016A	3/10/2016	1,475,000	11/15/2034	4.000	-	-	-	-	-	1,475,000	
NAF/AA/AA/NAF NAF/AA/AA/NAF			DTF 2016A DTF 2016A	3/10/2016 3/10/2016	37,905,000 2,050,000	11/15/2034 11/15/2035	5.250 4.000	-	-	-	-	-	37,905,000 2,050,000	
NAF/AA/AA/NAF			DTF 2016A	3/10/2016	39,380,000	11/15/2035	5.250	-	-	-	-	-	39,380,000	
NAF/AA/AA/NAF			DTF 2016A	3/10/2016	2,920,000	11/15/2036	3.250		-	-	-	-	2,920,000	
NAF/AA/AA/NAF			DTF 2016A	3/10/2016	17,940,000	11/15/2036	5.250	-	-	-	-	-	17,940,000	
NAF/AA/AA/NAF			DTF 2016B-1	5/26/2016	4,730,000	11/15/2022	5.000	4,730,000	-	-	-	-	-	-
NAF/AA/AA/NAF			DTF 2016B-1	5/26/2016	4,965,000	11/15/2023	5.000	-	-	-	-	-	4,965,000	
NAF/AA/AA/NAF			DTF 2016B-1	5/26/2016	5,215,000	11/15/2024	5.000	-	-	-	-	-	5,215,000	
NAF/AA/AA/NAF			DTF 2016B-1	5/26/2016	5,475,000	11/15/2025	5.000	-	-	-	-	-	5,475,000	
NAF/AA/AA/NAF NAF/AA/AA/NAF			DTF 2016B-1 DTF 2016B-1	5/26/2016 5/26/2016	5,745,000 6,035,000	11/15/2026 11/15/2027	5.000 5.000	-	-	-	-	-	5,745,000 6,035,000	
NAF/AA/AA/NAF			DTF 2016B-1	5/26/2016	6,335,000	11/15/2027	5.000	-	-	-	-	-	6,335,000	
NAF/AA/AA/NAF			DTF 2016B-1	5/26/2016	6,655,000	11/15/2028	5.000	-	-	-	-	-	6,655,000	
NAF/AA/AA/NAF			DTF 2016B-1	5/26/2016	6,985,000	11/15/2030	5.000	-	-	-	-	-	6,985,000	
NAF/AA/AA/NAF			DTF 2016B-1	5/26/2016	7,335,000	11/15/2031	5.000	-	-	-	-	-	7,335,000	-
NAF/AA/AA/NAF			DTF 2016B-1	5/26/2016	7,700,000	11/15/2032	5.000	-	-	-	-	-	7,700,000	-
NAF/AA/AA/NAF			DTF 2016B-1	5/26/2016	8,085,000	11/15/2033	5.000	-	-	-	-	-	8,085,000	-
NAF/AA/AA/NAF			DTF 2016B-1	5/26/2016	8,490,000	11/15/2034	5.000	-	-	-	-	-	8,490,000	-
NAF/AA/AA/NAF			DTF 2016B-1	5/26/2016	8,915,000	11/15/2035	5.000	-	-	-	-	-	8,915,000	-
NAF/AA/AA/NAF NAF/AA/AA/NAF			DTF 2016B-1 DTF 2016B-1	5/26/2016 5/26/2016	198,415,000 3,025,000	11/15/2036 11/15/2037	5.000 5.000	-	-	-	-	-	198,415,000 3,025,000	
NAF/AA/AA/NAF			DTF 2016B-1	5/26/2016	3,175,000	11/15/2037	5.000	-	-	-	-	-	3,175,000	
NAF/AA/AA/NAF			DTF 2016B-1	5/26/2016	3,335,000	11/15/2039	5.000	-	-	-	-	-	3,335,000	
NAF/AA/AA/NAF			DTF 2016B-1	5/26/2016	3,500,000	11/15/2040	5.000	-	-	-	-	-	3,500,000	
NAF/AA/AA/NAF			DTF 2016B-1	5/26/2016	3,675,000	11/15/2041	5.000	-	-	-	-	-	3,675,000	
NAF/AA/AA/NAF			DTF 2016B-1	5/26/2016	3,860,000	11/15/2042	5.000	-	-	-	-	-	3,860,000	
NAF/AA/AA/NAF			DTF 2016B-1	5/26/2016	4,055,000	11/15/2043	5.000	÷	-	-	-	-	4,055,000	-
NAF/AA/AA/NAF			DTF 2016B-1	5/26/2016	4,255,000	11/15/2044	5.000	-	-	-	-	-	4,255,000	-
NAF/AA/AA/NAF NAF/AA/AA/NAF			DTF 2016B-1 DTF 2016B-1	5/26/2016 5/26/2016	4,470,000 4,690,000	11/15/2045 11/15/2046	5.000 5.000	-	-	-	-	-	4,470,000 4,690,000	
NAF/AA/AA/NAF			DTF 2016B-1	5/20/2016	4,090,000	11/15/2046	5.000	-	-	-	-	-	4,090,000	-

Total Bonds and Notes Issued in 2022

	New Money Bonds and Notes Issued in 2022			5,402,860,000	-									
		L	Refunding Bonds and No	tes Issued in 2022	1,779,540,000		Total	3,813,577,500	2,341,805,000	5,188,120,000	51,090,000	597,910,000	48,672,762,500	2,036,995,000
	Credit Supported L T										Amount	Amount		Amount Swapped
Underlying L T Ratings	Ratings	S T Ratings						Amount Matured in			Redeemed in	Refinanced in	Amount Outstanding as	
Mdy/S&P/Ftch/Krll	Mdy/S&P/Ftch/Krll	Mdy/S&P/Ftch/Krll	Series DTF 2016B-1	Date Issued	Amount Issued	Maturity	<u>Coupon</u> 5.000	2022	<u>in 2022</u>	2022	2022	2022	of December 31, 2022	<u>31, 2022</u>
NAF/AA/AA/NAF NAF/AA/AA/NAF			DTF 2016B-1 DTF 2016B-1	5/26/2016 5/26/2016	4,925,000 5,175,000	11/15/2047 11/15/2048	5.000	-	-	-		-	4,925,000 5,175,000	-
NAF/AA/AA/NAF			DTF 2016B-1	5/26/2016	5,430,000	11/15/2049	5.000	-	-	-	-	-	5,430,000	-
NAF/AA/AA/NAF			DTF 2016B-1	5/26/2016	5,705,000	11/15/2050	5.000	-	-	-	-	-	5,705,000	-
NAF/AA/AA/NAF			DTF 2016B-1	5/26/2016	5,990,000	11/15/2051	5.000	-	-	-	-	-	5,990,000	-
NAF/AA/AA/NAF			DTF 2016B-1	5/26/2016	6,285,000	11/15/2052	5.000	-	-	-	-	-	6,285,000	-
NAF/AA/AA/NAF			DTF 2016B-1 DTF 2016B-1	5/26/2016 5/26/2016	6,600,000 6,930,000	11/15/2053	5.000	-	-	-	-	-	6,600,000 6,930,000	-
NAF/AA/AA/NAF NAF/AA/AA/NAF			DTF 2016B-1 DTF 2016B-1	5/26/2016	7,280,000	11/15/2054 11/15/2055	5.000 5.000	-	-	-	-	-	7,280,000	-
NAF/AA/AA/NAF			DTF 2010B-1	5/26/2016	7,640,000	11/15/2055	5.000	-	-	-	-	-	7,640,000	-
NAF/AA/AA/NAF			DTF 2016B-2	5/26/2016	14,170,000	11/15/2026	5.000	-	-	-	-	-	14,170,000	-
NAF/AA/AA/NAF			DTF 2016B-2	5/26/2016	14,875,000	11/15/2027	5.000	-	-	-	-	-	14,875,000	-
NAF/AA/AA/NAF			DTF 2016B-2	5/26/2016	15,615,000	11/15/2028	5.000	-	-	-	-	-	15,615,000	-
NAF/AA/AA/NAF			DTF 2016B-2	5/26/2016	16,400,000	11/15/2029	5.000	-	-	-	-	-	16,400,000	-
NAF/AA/AA/NAF NAF/AA/AA/NAF			DTF 2016B-2 DTF 2016B-2	5/26/2016 5/26/2016	17,220,000	11/15/2030 11/15/2032	5.000 5.000	-	-	-	-	-	17,220,000 7,955,000	-
NAF/AA/AA/NAF			DTF 2016B-2 DTF 2016B-2	5/26/2016	7,955,000 10,900,000	11/15/2032	5.000	-	-	-	-	-	10,900,000	-
NAF/AA/AA/NAF			DTF 2016B-2	5/26/2016	11,445,000	11/15/2034	5.000	-	-	-	-	-	11,445,000	-
NAF/AA/AA/NAF			DTF 2016B-2	5/26/2016	12,020,000	11/15/2035	5.000	-	-	-	-	-	12,020,000	-
NAF/AA/AA/NAF			DTF 2016B-2	5/26/2016	12,615,000	11/15/2036	5.000	-	-	-	-	-	12,615,000	-
NAF/AA/AA/NAF			DTF 2016B-2	5/26/2016	13,250,000	11/15/2037	5.000	-	-	-	-	-	13,250,000	-
NAF/AA/AA/NAF			DTF 2016B-2	5/26/2016	8,865,000	11/15/2038	4.000	-	-	-	-	-	8,865,000	-
NAF/AA/AA/NAF NAF/AA/AA/NAF			DTF 2016B-2 DTF 2016B-2	5/26/2016 5/26/2016	5,045,000 7,220,000	11/15/2038 11/15/2039	5.000 3.000	-	-	-	-	-	5,045,000 7,220,000	-
NAF/AA/AA/NAF			DTF 2010B-2	5/26/2016	7,295,000	11/15/2039	5.000	-	-	-	-	-	7,220,000	-
NAF/AA/AA/NAF			DTF 2017A	2/23/2017	3,580,000	11/15/2022	5.000	3,580,000	-	-	-	-	-	-
NAF/AA/AA/NAF			DTF 2017A	2/23/2017	3,760,000	11/15/2023	5.000	-	-	-	-	-	3,760,000	-
NAF/AA/AA/NAF			DTF 2017A	2/23/2017	3,950,000	11/15/2024	5.000	-	-	-	-	-	3,950,000	-
NAF/AA/AA/NAF			DTF 2017A	2/23/2017	4,145,000	11/15/2025	5.000	-	-	-	-	-	4,145,000	-
NAF/AA/AA/NAF NAF/AA/AA/NAF			DTF 2017A DTF 2017A	2/23/2017 2/23/2017	4,355,000 4,570,000	11/15/2026 11/15/2027	5.000 5.000	-	-	-	-	-	4,355,000 4,570,000	-
NAF/AA/AA/NAF			DTF 2017A	2/23/2017	4,800,000	11/15/2027	5.000	-	-	-	-	-	4,800,000	-
NAF/AA/AA/NAF			DTF 2017A	2/23/2017	5,040,000	11/15/2029	5.000	-	-	-	-	-	5,040,000	-
NAF/AA/AA/NAF			DTF 2017A	2/23/2017	5,290,000	11/15/2030	3.000	-	-	-	-	-	5,290,000	-
NAF/AA/AA/NAF			DTF 2017A	2/23/2017	5,450,000	11/15/2031	5.000	-	-	-	-	-	5,450,000	-
NAF/AA/AA/NAF			DTF 2017A	2/23/2017	5,725,000	11/15/2032	5.000	-	-	-	-	-	5,725,000	-
NAF/AA/AA/NAF NAF/AA/AA/NAF			DTF 2017A DTF 2017A	2/23/2017 2/23/2017	6,010,000 7,750,000	11/15/2033 11/15/2034	5.000 3.500	-	-	-	-	-	6,010,000 7,750,000	-
NAF/AA/AA/NAF			DTF 2017A	2/23/2017	17,250,000	11/15/2034	5.000	-	-	-	-	-	17,250,000	-
NAF/AA/AA/NAF			DTF 2017A	2/23/2017	55,000,000	11/15/2035	5.000	-	-	-	-	-	55,000,000	-
NAF/AA/AA/NAF			DTF 2017A	2/23/2017	15,000,000	11/15/2035	4.000	-	-	-	-	-	15,000,000	-
NAF/AA/AA/NAF			DTF 2017A	2/23/2017	9,355,000	11/15/2036	5.000	-	-	-	-	-	9,355,000	-
NAF/AA/AA/NAF			DTF 2017A	2/23/2017	9,825,000	11/15/2037	5.000	-	-	-	-	-	9,825,000	-
NAF/AA/AA/NAF NAF/AA/AA/NAF			DTF 2017A DTF 2017A	2/23/2017 2/23/2017	10,315,000 1,480,000	11/15/2038 11/15/2039	5.000 4.000	-	-	-	-	-	10,315,000 1,480,000	-
NAF/AA/AA/NAF			DTF 2017A	2/23/2017	9,350,000	11/15/2039	5.000	-	-	-	-	-	9,350,000	-
NAF/AA/AA/NAF			DTF 2017A	2/23/2017	1,540,000	11/15/2040	4.000	-	-	-	-	-	1,540,000	-
NAF/AA/AA/NAF			DTF 2017A	2/23/2017	9,820,000	11/15/2040	5.000	-	-	-	-	-	9,820,000	-
NAF/AA/AA/NAF			DTF 2017A	2/23/2017	1,600,000	11/15/2041	4.000	-	-	-	-	-	1,600,000	-
NAF/AA/AA/NAF			DTF 2017A	2/23/2017	10,310,000	11/15/2041	5.000	-	-	-	-	-	10,310,000	-
NAF/AA/AA/NAF			DTF 2017A	2/23/2017	1,665,000	11/15/2042	4.000	-	-	-	-	-	1,665,000	-
NAF/AA/AA/NAF NAF/AA/AA/NAF			DTF 2017A DTF 2017A	2/23/2017 2/23/2017	10,825,000 13,095,000	11/15/2042 11/15/2043	5.000 5.000	-	-	-	-	-	10,825,000 13,095,000	-
NAF/AA/AA/NAF			DTF 2017A	2/23/2017	13,750,000	11/15/2045	5.000	-	-	-	-	-	13,750,000	-
NAF/AA/AA/NAF			DTF 2017A	2/23/2017	14,440,000	11/15/2045	5.000	-	-	-	-	-	14,440,000	-
NAF/AA/AA/NAF			DTF 2017A	2/23/2017	15,160,000	11/15/2046	5.000	-	-	-	-	-	15,160,000	-
NAF/AA/AA/NAF			DTF 2017A	2/23/2017	15,920,000	11/15/2047	5.000	-	-	-	-	-	15,920,000	-
NAF/AA/AA/NAF			DTF 2017B-1	5/17/2017	1,660,000	11/15/2022	4.000	1,660,000	-	-	-	-	-	-
NAF/AA/AA/NAF NAF/AA/AA/NAF			DTF 2017B-1 DTF 2017B-1	5/17/2017 5/17/2017	1,725,000	11/15/2023 11/15/2024	4.000 4.000	-	-	-	-	-	1,725,000 1,795,000	-
NAF/AA/AA/NAF			DTF 2017B-1 DTF 2017B-1	5/17/2017	1,795,000 1,860,000	11/15/2024	4.000	-	-	-	-	-	1,860,000	-
NAF/AA/AA/NAF			DTF 2017B-1	5/17/2017	2,645,000	11/15/2025	5.000	-	-	-	-	-	2,645,000	-
NAF/AA/AA/NAF			DTF 2017B-1	5/17/2017	14,040,000	11/15/2027	5.000	-	-	-	-	-	14,040,000	-
NAF/AA/AA/NAF			DTF 2017B-1	5/17/2017	6,665,000	11/15/2028	5.000	-	-	-	-	-	6,665,000	-
NAF/AA/AA/NAF			DTF 2017B-1	5/17/2017	12,160,000	11/15/2029	5.000	-	÷	-	-	-	12,160,000	-

Total Bonds and Notes Issued in 2022

			New Money Bonds and No		5,402,860,000			1						
			Refunding Bonds and No	tes Issued in 2022	1,779,540,000		Total	3,813,577,500	2,341,805,000	5,188,120,000	51,090,000	597,910,000	48,672,762,500	2,036,995,000
	Credit Supported L T										Amount	Amount		Amount Swapped
Underlying L T Ratings Mdy/S&P/Ftch/Krll	Ratings	<u>S T Ratings</u> Mdy/S&P/Ftch/Krll	Series	Date Issued	Amount Issued	Maturity	Courses	Amount Matured in 2022	Amount Defeased in 2022	Amount Called in 2022	Redeemed in 2022	Refinanced in 2022	Amount Outstanding as of December 31, 2022	as of December 31, 2022
NAF/AA/AA/NAF	Mdy/S&P/Ftch/Krll	Muy/S&P/Ftch/Khi	DTF 2017B-1	5/17/2017	7,735,000	11/15/2030	<u>Coupon</u> 5.000		<u>III 2022</u>				7,735,000	
NAF/AA/AA/NAF			DTF 2017B-1	5/17/2017	5,585,000	11/15/2031	5.000	-	-	-	-	-	5,585,000	-
NAF/AA/AA/NAF			DTF 2017B-1	5/17/2017	8,090,000	11/15/2032	5.000	-	-	-	-	-	8,090,000	-
NAF/AA/AA/NAF			DTF 2017B-1	5/17/2017	6,870,000	11/15/2033	5.000	-	-	-	-	-	6,870,000	-
NAF/AA/AA/NAF NAF/AA/AA/NAF			DTF 2017B-1 DTF 2017B-1	5/17/2017 5/17/2017	22,470,000 33,940,000	11/15/2034 11/15/2035	5.000 5.000	-	-			-	22,470,000 33,940,000	-
NAF/AA/AA/NAF			DTF 2017B-1	5/17/2017	4,825,000	11/15/2036	5.000	-	-	-	-	-	4,825,000	-
NAF/AA/AA/NAF			DTF 2017B-1	5/17/2017	5,060,000	11/15/2037	5.000	-	-	-	-	-	5,060,000	-
NAF/AA/AA/NAF			DTF 2017B-1	5/17/2017	5,320,000	11/15/2038	3.500	-	-	-	-	-	5,320,000	-
NAF/AA/AA/NAF			DTF 2017B-1	5/17/2017	5,500,000	11/15/2039	5.000	-	-	-	-	-	5,500,000	-
NAF/AA/AA/NAF NAF/AA/AA/NAF			DTF 2017B-1 DTF 2017B-1	5/17/2017 5/17/2017	5,775,000 6,070,000	11/15/2040 11/15/2041	5.000 5.000	-	-			-	5,775,000 6,070,000	-
NAF/AA/AA/NAF			DTF 2017B-1	5/17/2017	6,370,000	11/15/2042	5.000	-	-	-	-	-	6,370,000	-
NAF/AA/AA/NAF			DTF 2017B-1	5/17/2017	6,690,000	11/15/2043	5.000	-	-	-	-	-	6,690,000	-
NAF/AA/AA/NAF			DTF 2017B-1	5/17/2017	7,020,000	11/15/2044	5.000	-	-	-	-	-	7,020,000	-
NAF/AA/AA/NAF			DTF 2017B-1	5/17/2017	7,375,000	11/15/2045	5.000	-	-	-	-	-	7,375,000	-
NAF/AA/AA/NAF NAF/AA/AA/NAF			DTF 2017B-1 DTF 2017B-1	5/17/2017 5/17/2017	7,745,000 8,130,000	11/15/2046 11/15/2047	5.000 5.000	-	-	-	-	-	7,745,000 8,130,000	-
NAF/AA/AA/NAF			DTF 2017B-1 DTF 2017B-1	5/17/2017	200,000	11/15/2047	5.000	-	-	-	-	-	200,000	-
NAF/AA/AA/NAF			DTF 2017B-1	5/17/2017	8,340,000	11/15/2048	4.000	-	-	-	-	-	8,340,000	-
NAF/AA/AA/NAF			DTF 2017B-1	5/17/2017	200,000	11/15/2049	5.000	-	-	-	-	-	200,000	-
NAF/AA/AA/NAF			DTF 2017B-1	5/17/2017	8,685,000	11/15/2049	4.000	-	-	-	-	-	8,685,000	-
NAF/AA/AA/NAF			DTF 2017B-1	5/17/2017	200,000	11/15/2050	5.000	-	-	-	-	-	200,000	-
NAF/AA/AA/NAF NAF/AA/AA/NAF			DTF 2017B-1 DTF 2017B-1	5/17/2017 5/17/2017	9,040,000 200,000	11/15/2050 11/15/2051	4.000 5.000	-	-	-	-	-	9,040,000 200,000	-
NAF/AA/AA/NAF			DTF 2017B-1	5/17/2017	9,415,000	11/15/2051	4.000	-	-	-	-	-	9,415,000	-
NAF/AA/AA/NAF			DTF 2017B-1	5/17/2017	200,000	11/15/2052	5.000	-	-	-	-	-	200,000	-
NAF/AA/AA/NAF			DTF 2017B-1	5/17/2017	9,800,000	11/15/2052	4.000	-	-	-	-	-	9,800,000	-
NAF/AA/AA/NAF			DTF 2017B-1	5/17/2017	10,395,000	11/15/2053	5.250	-	-	-	-	-	10,395,000	-
NAF/AA/AA/NAF			DTF 2017B-1	5/17/2017	10,940,000	11/15/2054	5.250	-	-	-	-	-	10,940,000	-
NAF/AA/AA/NAF			DTF 2017B-1 DTF 2017B-1	5/17/2017 5/17/2017	11,515,000	11/15/2055	5.250 5.250	-	-	-	-	-	11,515,000	-
NAF/AA/AA/NAF NAF/AA/AA/NAF			DTF 2017B-1 DTF 2017B-1	5/17/2017	12,120,000 12,755,000	11/15/2056 11/15/2057	5.250	-	-	-	-	-	12,120,000 12,755,000	-
NAF/AA/AA/NAF			DTF 2017B-2 Refunding Green Bonds	5/17/2017	3,955,000	11/15/2022	5.000	3,955,000	-	-	-	-	-	=
NAF/AA/AA/NAF			DTF 2017B-2 Refunding Green Bonds	5/17/2017	17,815,000	11/15/2023	5.000	-	-	-	-	-	17,815,000	-
NAF/AA/AA/NAF			DTF 2017B-2 Refunding Green Bonds	5/17/2017	18,650,000	11/15/2024	5.000	-	-	-	-	-	18,650,000	-
NAF/AA/AA/NAF			DTF 2017B-2 Refunding Green Bonds	5/17/2017	19,635,000	11/15/2025	5.000	-	-	-	-	-	19,635,000	-
NAF/AA/AA/NAF NAF/AA/AA/NAF			DTF 2017B-2 Refunding Green Bonds DTF 2017B-2 Refunding Green Bonds	5/17/2017 5/17/2017	20,675,000 21,655,000	11/15/2026 11/15/2027	5.000 5.000	-	-	-	-	-	20,675,000 21,655,000	-
NAF/AA/AA/NAF			DTF 2017B-2 Refunding Green Bonds	5/17/2017	19,720,000	11/15/2027	5.000	-	-	-	-	-	19,720,000	-
NAF/AA/AA/NAF			DTF 2017B-2 Refunding Green Bonds	5/17/2017	17,785,000	11/15/2031	5.000	-	-	-	-	-	17,785,000	-
NAF/AA/AA/NAF			DTF 2017B-2 Refunding Green Bonds	5/17/2017	18,675,000	11/15/2032	4.000	-	-	-	-	-	18,675,000	-
NAF/AA/AA/NAF			DTF 2017B-2 Refunding Green Bonds	5/17/2017	45,285,000	11/15/2033	5.000	-	-	-	-	-	45,285,000	-
NAF/AA/AA/NAF			DTF 2017B-2 Refunding Green Bonds	5/17/2017	30,000,000	11/15/2033	3.125	-	-	-	-	-	30,000,000	-
NAF/AA/AA/NAF NAF/AA/AA/NAF			DTF 2017B-2 Refunding Green Bonds DTF 2017B-2 Refunding Green Bonds	5/17/2017 5/17/2017	40,000,000 50,000,000	11/15/2033 11/15/2033	5.250 4.000	-	-	-		-	40,000,000 50,000,000	-
NAF/AA/AA/NAF			DTF 2017B-2 Refunding Green Bonds	5/17/2017	27,190,000	11/15/2033	5.000	-	-	-	-	-	27,190,000	-
NAF/AA/AA/NAF			DTF 2017B-2 Refunding Green Bonds	5/17/2017	20,000,000	11/15/2034	4.000	-	-	-	-	-	20,000,000	-
NAF/AA/AA/NAF		NAF/SP-1+/F1+/NAF	DTF 2019A BANS	3/19/2019	750,000,000	3/1/2022	5.000	-	750,000,000	-	-	-	-	-
NAF/AA/AA/NAF			DTF 2022A	3/1/2022	11,015,000	11/15/2032	5.000	-	-	-	-	-	11,015,000	-
NAF/AA/AA/NAF			DTF 2022A DTF 2022A	3/1/2022 3/1/2022	11,565,000 12,140,000	11/15/2033 11/15/2034	5.000 5.000	-	-	-	-	-	11,565,000	-
NAF/AA/AA/NAF NAF/AA/AA/NAF			DTF 2022A	3/1/2022	12,750,000	11/15/2034	5.000	-	-	-	-	-	12,140,000 12,750,000	-
NAF/AA/AA/NAF			DTF 2022A	3/1/2022	13,385,000	11/15/2035	5.000	-	-	-	-	-	13,385,000	-
NAF/AA/AA/NAF			DTF 2022A	3/1/2022	14,055,000	11/15/2037	5.000	-	-	-	-	-	14,055,000	-
NAF/AA/AA/NAF			DTF 2022A	3/1/2022	14,760,000	11/15/2038	4.000	-	-	-	-	-	14,760,000	-
NAF/AA/AA/NAF			DTF 2022A	3/1/2022	15,350,000	11/15/2039	4.000	-	-	-	-	-	15,350,000	=
NAF/AA/AA/NAF NAF/AA/AA/NAF			DTF 2022A DTF 2022A	3/1/2022 3/1/2022	15,965,000 16,600,000	11/15/2040 11/15/2041	4.000 4.000	-	-	-	-	-	15,965,000 16,600,000	-
NAF/AA/AA/NAF			DTF 2022A DTF 2022A	3/1/2022	17,265,000	11/15/2041	4.000	-	-	-	-	-	17,265,000	-
NAF/AA/AA/NAF			DTF 2022A	3/1/2022	17,955,000	11/15/2043	4.000	-	-	-	-	-	17,955,000	-
NAF/AA/AA/NAF			DTF 2022A	3/1/2022	18,675,000	11/15/2044	5.000	-	-	-	-	-	18,675,000	-
NAF/AA/AA/NAF			DTF 2022A	3/1/2022	19,610,000	11/15/2045	5.000	-	-	-	-	-	19,610,000	-
NAF/AA/AA/NAF			DTF 2022A	3/1/2022	20,590,000	11/15/2046	5.000	-	-	-	-	-	20,590,000	-
NAF/AA/AA/NAF			DTF 2022A	3/1/2022	21,620,000	11/15/2047	5.000	-	-	-	-	-	21,620,000	-

7,182,400,000

Total Bonds and Notes Issued in 2022

Underlying L T Ratings	Credit Supported L T		New Money Bonds and Not Refunding Bonds and Not		5,402,860,000									
Underlying L T Ratings Mdy/S&P/Ftch/Krll NAF/AA/AA/NAF	Credit Supported L T		Kerunung bonus and Nor	tes Issued in 2022	1,779,540,000		Total	3,813,577,500	2,341,805,000	5,188,120,000	51,090,000	597,910,000	48,672,762,500	2,036,995,000
Mdy/S&P/Ftch/Krll NAF/AA/AA/NAF	Ratings	<u>S T Ratings</u>						Amount Matured in	Amount Defeased	Amount Called in	Amount Redeemed in	Amount Refinanced in	Amount Outstanding as	Amount Swapped
	Mdy/S&P/Ftch/Krll	Mdy/S&P/Ftch/Krll	Series	Date Issued	Amount Issued	Maturity	Coupon	2022	in 2022	2022	2022	2022	of December 31, 2022	
			DTF 2022A	3/1/2022	22,700,000	11/15/2048	5.000	-	-	-	-	-	22,700,000	-
INAL / MAY MAY INAL			DTF 2022A	3/1/2022	23,835,000	11/15/2049	5.000	-	-	-	-	-	23,835,000	-
NAF/AA/AA/NAF			DTF 2022A	3/1/2022	25,025,000	11/15/2050	4.000	-	-	-	-	-	25,025,000	-
NAF/AA/AA/NAF			DTF 2022A	3/1/2022	26,025,000	11/15/2051	4.000	-	-	-	-	-	26,025,000	-
NAF/AA/AA/NAF			DTF 2022A	3/1/2022	27,070,000	11/15/2052	4.000	-	-	-	-	-	27,070,000	-
NAF/NAF/NAF/NAF		MIG1/SP-1+/NAF/NAF	Fed Grant 2021A Taxable GANS	12/9/2021	4,000,000,000	11/15/2022	0.777	-	-	4,000,000,000	-	-	-	-
A3/NAF/NAF/A-			HRY 2016A	9/22/2016	307,000,000	11/15/2051	5.000	-	-	-	-	-	307,000,000	-
A3/NAF/NAF/A-			HRY 2016A	9/22/2016	375,430,000	11/15/2056	5.000	-	-	-	-	-	375,430,000	-
NR/NAF/NAF/NR			HRY 2020A	3/27/2020	121,855,000	11/15/2046	5.000	-	-	-	-	-	121,855,000	-
NR/NAF/NAF/NR			HRY 2020A	3/27/2020	5,000,000	11/15/2046	5.000	-	-	-	5,000,000	-	-	-
NR/NAF/NAF/NR			HRY 2020A	3/27/2020	14,340,000	11/15/2046	5.000	-	-	-	14,340,000	-	-	-
NR/NAF/NAF/NR			HRY 2020A	3/27/2020	6,205,000	11/15/2046	5.000	-	-	-	6,205,000	-	-	-
NAF/AA+/AA+/AA+		NAF/NAF/F1+/K1+	PMT 2020A BANS	12/17/2020	2,907,280,000	12/15/2023	1.330	-	-	-	-	-	2,907,280,000	
NAF/AA+/AA+/AA+			PMT 2021A-1	5/5/2021	44,300,000	5/15/2045	4.000	-	-	-	-	-	44,300,000	
NAF/AA+/AA+/AA+			PMT 2021A-1	5/5/2021	86,710,000	5/15/2046	4.000	-	-	-	-	-	86,710,000	
NAF/AA+/AA+/AA+			PMT 2021A-1	5/5/2021	90,710,000	5/15/2047	5.000	-	-	-	-	-	90,710,000	
NAF/AA+/AA+/AA+			PMT 2021A-1	5/5/2021	95,365,000	5/15/2048	5.000	-	-	-	-	-	95,365,000	
NAF/AA+/AA+/AA+			PMT 2021A-1	5/5/2021	100,255,000	5/15/2049	5.000	-	-	-	-	-	100,255,000	
NAF/AA+/AA+/AA+			PMT 2021A-1	5/5/2021	105,395,000	5/15/2050	5.000	-	-	-	-	-	105,395,000	
NAF/AA+/AA+/AA+			PMT 2021A-1	5/5/2021	110,800,000	5/15/2051	5.000	-	-	-	-	-	110,800,000	
NAF/AA+/AA+/AA+			PMT 2021A-2 Rfndg Bonds (24 Put)	5/5/2021	25,535,000	5/15/2041	2.000	-	-	-	-	-	25,535,000	
NAF/AA+/AA+/AA+			PMT 2021A-2 Rfndg Bonds (24 Put)	5/5/2021	26,055,000	5/15/2042	2.000	-	-	-	-	-	26,055,000	
NAF/AA+/AA+/AA+			PMT 2021A-2 Rfndg Bonds (24 Put)	5/5/2021	26,580,000	5/15/2043	2.000	-	-	-	-	-	26,580,000	
NAF/AA+/AA+/AA+			PMT 2021A-2 Rfndg Bonds (24 Put)	5/5/2021	27,120,000	5/15/2044	2.000	-	-	-	-	-	27,120,000	
NAF/AA+/AA+/AA+			PMT 2021A-2 Rfndg Bonds (24 Put)	5/5/2021	13,450,000	5/15/2045	2.000	-	-	-	-	-	13,450,000	
NAF/AA+/AA+/AA+			PMT 2021A-2 Rfndg Bonds (26 Put)	5/5/2021	25,655,000	5/15/2041	2.000	-	-	-	-	-	25,655,000	
NAF/AA+/AA+/AA+			PMT 2021A-2 Rfndg Bonds (26 Put)	5/5/2021	26,175,000	5/15/2042	2.000	-	-	-	-	-	26,175,000	
NAF/AA+/AA+/AA+			PMT 2021A-2 Rfndg Bonds (26 Put)	5/5/2021	26,700,000	5/15/2043	2.000	-	-	-	-	-	26,700,000	
NAF/AA+/AA+/AA+			PMT 2021A-2 Rfndg Bonds (26 Put)	5/5/2021	27,240,000	5/15/2044	2.000	-	-	-	-	-	27,240,000	
NAF/AA+/AA+/AA+			PMT 2021A-2 Rfndg Bonds (26 Put)	5/5/2021	12,975,000	5/15/2045	2.000	-	-	-	-	-	12,975,000	
NAF/AA+/AA+/AA+			PMT 2021A-2 Rfndg Bonds (28 Put)	5/5/2021	25,655,000	5/15/2041	2.000	-	-	-	-	-	25,655,000	
NAF/AA+/AA+/AA+ NAF/AA+/AA+/AA+			PMT 2021A-2 Rfndg Bonds (28 Put) PMT 2021A-2 Rfndg Bonds (28 Put)	5/5/2021 5/5/2021	26,170,000	5/15/2042 5/15/2043	2.000 2.000	-	-	-	-	-	26,170,000 26,705,000	
NAF/AA+/AA+/AA+ NAF/AA+/AA+/AA+			PMT 2021A-2 Rfndg Bonds (28 Put) PMT 2021A-2 Rfndg Bonds (28 Put)		26,705,000		2.000	-	-	-	-	-	26,705,000	
NAF/AA+/AA+/AA+ NAF/AA+/AA+/AA+			PMT 2021A-2 Rfndg Bonds (28 Put) PMT 2021A-2 Rfndg Bonds (28 Put)	5/5/2021 5/5/2021	27,240,000 12,970,000	5/15/2044 5/15/2045	2.000	-	-	-	-	-	27,240,000	
NAF/AA+/AA+/AA+ NAF/AA+/AA+/AA+			PMT 2021A-3 Taxable Refunding Bonds				2.000	-	-	-	-	-		
			PMT 2021A-3 Taxable Refunding Bonds PMT 2021A-3 Taxable Refunding Bonds	5/5/2021	31,955,000	5/15/2033 5/15/2034	2.261	-	-	-	-	-	31,955,000	
NAF/AA+/AA+/AA+ NAF/AA+/AA+/AA+			PMT 2021A-3 Taxable Refunding Bonds PMT 2021A-3 Taxable Refunding Bonds	5/5/2021	32,725,000		2.411 2.511	-	-	-	-	-	32,725,000	
			PMT 2021A-3 Taxable Refunding Bonds	5/5/2021 5/5/2021	33,545,000 34,420,000	5/15/2035	2.511	-	-	-	-	-	33,545,000	
NAF/AA+/AA+/AA+						5/15/2036		-	-	-	-	-	34,420,000	
NAF/AA+/AA+/AA+ NAF/AA+/AA+/AA+			PMT 2021A-3 Taxable Refunding Bonds PMT 2021A-3 Taxable Refunding Bonds	5/5/2021 5/5/2021	35,360,000	5/15/2037 5/15/2040	2.691 2.917	-	-	-	-	-	35,360,000 80,445,000	
NAF/AA+/AA+/AA+			PMT 2021A-S Taxable Kerunung Bonds PMT 2021B-1	8/31/2021	80,445,000 14,735,000	5/15/2036	5.000	-	-	-	-	-	14,735,000	
NAF/AA+/AA+/AA+			PMT 2021B-1 PMT 2021B-1	8/31/2021	8,900,000	5/15/2030	5.000	-	-	-	-	-	8,900,000	
NAF/AA+/AA+/AA+			PMT 2021B-1 PMT 2021B-1	8/31/2021	7,680,000	5/15/2037	5.000	-	-	-	-	-	7,680,000	
NAF/AA+/AA+/AA+			PMT 2021B-1 PMT 2021B-1	8/31/2021	1,700,000	5/15/2038	5.000	-	-	-	-	-	1,700,000	
NAF/AA+/AA+/AA+			PMT 20218-1	8/31/2021	4,250,000	5/15/2041	5.000				-	_	4,250,000	
NAF/AA+/AA+/AA+			PMT 2021B-1	8/31/2021	10,400,000	5/15/2042	5.000	-	-	-	-	-	10,400,000	-
NAF/AA+/AA+/AA+			PMT 20218-1	8/31/2021	10,900,000	5/15/2044	5.000	-	-	-	-	-	10,400,000	
NAF/AA+/AA+/AA+			PMT 20218-1	8/31/2021	11,500,000	5/15/2045	5.000	-	-	-	-	-	11,500,000	
NAF/AA+/AA+/AA+			PMT 2021B-1	8/31/2021	11,890,000	5/15/2046	5.000	_	-			-	11,890,000	
NAF/AA+/AA+/AA+			PMT 2021B-1	8/31/2021	11,040,000	5/15/2052	4.000	_	-			-	11,040,000	
NAF/AA+/AA+/AA+			PMT 2021B-1	8/31/2021	11,545,000	5/15/2052	4.000	_	-			-	11,545,000	
NAF/AA+/AA+/AA+			PMT 2021B-1	8/31/2021	12,075,000	5/15/2054	4.000	-	-	-	_	-	12,075,000	
NAF/AA+/AA+/AA+			PMT 2021B-1	8/31/2021	12,630,000	5/15/2055	4.000	_	-			-	12,630,000	
NAF/AA+/AA+/AA+			PMT 2021B-1	8/31/2021	13,210,000	5/15/2056	4.000	_	-			-	13,210,000	
NAF/AA+/AA+/AA+			PMT 2021B-1	8/31/2021	17,875,000	5/15/2050	5.000	-	-	-	-	-	17,875,000	
NAF/AA+/AA+/AA+			PMT 2021B-1 PMT 2021B-1	8/31/2021	14,875,000	5/15/2051	5.000	-	-	-	-	-	14,875,000	-
NAF/AA+/AA+/AA+			PMT 2021B-1 PMT 2021B-1	8/31/2021	15,530,000	5/15/2052	5.000	-	-	-	-	-	15,530,000	-
NAF/AA+/AA+/AA+			PMT 2021B-1 PMT 2021B-1	8/31/2021	16,220,000	5/15/2055	5.000	-	-	-	-	-	16,220,000	
NAF/AA+/AA+/AA+			PMT 2021B-1	8/31/2021	16,935,000	5/15/2055	5.000	_	_	_	_	-	16,935,000	
NAF/AA+/AA+/AA+			PMT 2021B-1	8/31/2021	17,690,000	5/15/2055	5.000	_	_	_	_	-	17,690,000	
NAF/AA+/AA+/AA+			PMT 2021B-1 PMT 2021B-2	8/31/2021	11,315,000	5/15/2039	5.000	-	-	-	-	-	11,315,000	
NAF/AA+/AA+/AA+			PMT 2021B-2 PMT 2021B-2	8/31/2021	11,845,000	5/15/2039	5.000	-	-	-	-	-	11,845,000	
NAF/AA+/AA+/AA+			PMT 2021B-2 PMT 2021B-2	8/31/2021	10,640,000	5/15/2040	5.000	-	-	-	-	-	10,640,000	
NAF/AA+/AA+/AA+			PMT 2021B-2 PMT 2021B-2	8/31/2021	8,920,000	5/15/2041	5.000	-	-	-	-	-	8,920,000	

			New Money Bonds and No	tes Issued in 2022	5,402,860,000									
			Refunding Bonds and No	tes Issued in 2022	1,779,540,000		Total	3,813,577,500	2,341,805,000	5,188,120,000	51,090,000	597,910,000	48,672,762,500	2,036,995,000
	Credit Supported L T										Amount	Amount		Amount Swapped
Underlying L T Ratings	Ratings	S T Ratings						Amount Matured in	Amount Defeased	Amount Called in	Redeemed in	Refinanced in	Amount Outstanding as	
Mdy/S&P/Ftch/Krll	Mdy/S&P/Ftch/Krll	Mdy/S&P/Ftch/Krll	Series	Date Issued	Amount Issued	Maturity	Coupon	2022	in 2022	2022	2022	2022	of December 31, 2022	31, 2022
NAF/AA+/AA+/AA+			PMT 2021B-2	8/31/2021	3,375,000	5/15/2043	5.000	-	-	-	-	-	3,375,000	-
NAF/AA+/AA+/AA+			PMT 2021B-2	8/31/2021	3,530,000	5/15/2044	5.000	-	-	-	-	-	3,530,000	-
NAF/AA+/AA+/AA+			PMT 2021B-2	8/31/2021	3,625,000	5/15/2045	5.000	-	-	-	-	-	3,625,000	-
NAF/AA+/AA+/AA+			PMT 2021B-2	8/31/2021	3,960,000	5/15/2046	5.000	-	-	-	-	-	3,960,000	-
NAF/AA+/AA+/AA+			PMT 2021B-2	8/31/2021	16,545,000	5/15/2047	5.000	-	-	-	-	-	16,545,000	-
NAF/AA+/AA+/AA+ NAF/AA+/AA+/AA+			PMT 2021B-2 PMT 2021B-2	8/31/2021 8/31/2021	17,325,000 17,910,000	5/15/2048 5/15/2049	5.000 5.000	-	-	-	-	-	17,325,000 17,910,000	-
NAF/AA+/AA+/AA+ NAF/AA+/AA+/AA+			PMT 2021B-2 PMT 2021B-2	8/31/2021 8/31/2021	18,625,000	5/15/2049	5.000	-		-	-	-	17,910,000	-
NAF/AA+/AA+/AA+			PMT 20210-2 PMT 2021C-1a	9/30/2021	16,360,000	5/15/2023	5.000	-	-	_	-	_	16,360,000	_
NAF/AA+/AA+/AA+			PMT 2021C-1a	9/30/2021	5,000,000	5/15/2025	5.000		-	-	-	-	5,000,000	-
NAF/AA+/AA+/AA+			PMT 2021C-1a	9/30/2021	17,500,000	5/15/2037	5.000		-	-	-	-	17,500,000	-
NAF/AA+/AA+/AA+			PMT 2021C-1a	9/30/2021	18,400,000	5/15/2038	5.000		-	-	-	-	18,400,000	-
NAF/AA+/AA+/AA+			PMT 2021C-1a	9/30/2021	19,345,000	5/15/2039	5.000	-	-	-	-	-	19,345,000	-
NAF/AA+/AA+/AA+			PMT 2021C-1a	9/30/2021	20,335,000	5/15/2040	5.000	-	-	-	-	-	20,335,000	-
NAF/AA+/AA+/AA+			PMT 2021C-1a	9/30/2021	21,375,000	5/15/2041	5.000	-	-	-	-	-	21,375,000	-
NAF/AA+/AA+/AA+			PMT 2021C-1a	9/30/2021	22,360,000	5/15/2042	4.000	-	-	-	-	-	22,360,000	-
NAF/AA+/AA+/AA+			PMT 2021C-1a	9/30/2021	23,270,000	5/15/2043	4.000	-	-	-	-	-	23,270,000	-
NAF/AA+/AA+/AA+			PMT 2021C-1a	9/30/2021	24,220,000	5/15/2044	4.000	-	-	-	-	-	24,220,000	-
NAF/AA+/AA+/AA+ NAF/AA+/AA+/AA+			PMT 2021C-1a PMT 2021C-1a	9/30/2021 9/30/2021	25,210,000 26,240,000	5/15/2045 5/15/2046	4.000 4.000		-	-	-	-	25,210,000 26,240,000	-
NAF/AA+/AA+/AA+			PMT 2021C-1a	9/30/2021	13,880,000	5/15/2046	5.000		-	-	-	-	13,880,000	-
NAF/AA+/AA+/AA+			PMT 2021C-1a	9/30/2021	14,605,000	5/15/2047	5.000	-	-	_	-	_	14,605,000	_
NAF/AA+/AA+/AA+			PMT 2021C-1a	9/30/2021	15,370,000	5/15/2049	5.000	-	-	-	-	-	15,370,000	-
NAF/AA+/AA+/AA+			PMT 2021C-1a	9/30/2021	16,180,000	5/15/2050	5.000	-	-	-	-	-	16,180,000	-
NAF/AA+/AA+/AA+			PMT 2021C-1a	9/30/2021	17,030,000	5/15/2051	5.000		-	-	-	-	17,030,000	-
NAF/AA+/AA+/AA+			PMT 2021C-1b	9/30/2021	13,570,000	5/15/2047	5.000	-	-	-	-	-	13,570,000	-
NAF/AA+/AA+/AA+			PMT 2021C-1b	9/30/2021	14,250,000	5/15/2048	5.000	-	-	-	-	-	14,250,000	-
NAF/AA+/AA+/AA+			PMT 2021C-1b	9/30/2021	14,965,000	5/15/2049	5.000		-	-	-	-	14,965,000	-
NAF/AA+/AA+/AA+			PMT 2021C-1b	9/30/2021	15,715,000	5/15/2050	5.000		-	-	-	-	15,715,000	-
NAF/AA+/AA+/AA+			PMT 2021C-1b	9/30/2021	16,500,000	5/15/2051	5.000		-	-	-	-	16,500,000	-
NAF/AA+/AA+/AA+			PMT 2021C-2 Refunding Bonds	9/30/2021	8,360,000	5/15/2022	5.000		-	-	-	-	-	-
NAF/AA+/AA+/AA+			PMT 2021C-2 Refunding Bonds	9/30/2021	10,370,000	5/15/2023	5.000 5.000	-	-	-	-	-	10,370,000	-
NAF/AA+/AA+/AA+ NAF/AA+/AA+/AA+			PMT 2021C-2 Refunding Bonds PMT 2021C-2 Refunding Bonds	9/30/2021 9/30/2021	1,285,000 10,965,000	5/15/2024 5/15/2025	5.000	-	-	-	-	-	1,285,000 10,965,000	-
NAF/AA+/AA+/AA+			PMT 2021C-2 Refunding Bonds	9/30/2021	11,530,000	5/15/2025	5.000						11,530,000	
NAF/AA+/AA+/AA+			PMT 2021C-2 Refunding Bonds	9/30/2021	12,120,000	5/15/2027	5.000	-	-	-	-	-	12,120,000	-
NAF/AA+/AA+/AA+			PMT 2021C-2 Refunding Bonds	9/30/2021	12,700,000	5/15/2028	5.000	-	-	-	-	-	12,700,000	-
NAF/AA+/AA+/AA+			PMT 2021C-2 Refunding Bonds	9/30/2021	5,555,000	5/15/2031	5.000	-	-	-	-	-	5,555,000	-
NAF/AA+/AA+/AA+			PMT 2021C-2 Refunding Bonds	9/30/2021	15,090,000	5/15/2034	4.000	-	-	-	-	-	15,090,000	-
NAF/AA+/AA+/AA+			PMT 2021C-2 Refunding Bonds	9/30/2021	18,970,000	5/15/2035	4.000	-	-	-	-	-	18,970,000	-
NAF/AA+/AA+/AA+			PMT 2021C-2 Refunding Bonds	9/30/2021	4,050,000	5/15/2036	4.000	-	-	-	-	-	4,050,000	-
NAF/AA+/AA+/AA+			PMT 2021C-2 Refunding Bonds	9/30/2021	33,905,000	5/15/2032	3.000	-	-	-	-	-	33,905,000	-
NAF/AA+/AA+/AA+			PMT 2021C-2 Refunding Bonds	9/30/2021	20,625,000	5/15/2033	3.000	-	-	-	-	-	20,625,000	-
NAF/AA+/AA+/AA+			PMT 2021C-2 Refunding Bonds	9/30/2021	14,705,000	5/15/2033	- 2.500	-	-	-	-	-	14,705,000	-
NAF/AA+/AA+/AA+ NAF/AA+/AA+/AA+			PMT 2021C-3 PMT 2021C-3	9/30/2021 9/30/2021	14,260,000 14,620,000	5/15/2047 5/15/2048	2.500	-	-	-	-	-	14,260,000 14,620,000	-
NAF/AA+/AA+/AA+			PMT 2021C-3 PMT 2021C-3	9/30/2021	14,990,000	5/15/2048	2.500	-	-	-	-	-	14,820,000	-
NAF/AA+/AA+/AA+			PMT 2021C-3	9/30/2021	15,370,000	5/15/2049	2.500	-	-	_	-	_	15,370,000	_
NAF/AA+/AA+/AA+			PMT 2021C-3	9/30/2021	15,760,000	5/15/2051	2.500	-	-	-	-	-	15,760,000	-
NAF/AA+/AA+/AA+			PMT 2021C-3	9/30/2021	27,225,000	5/15/2047	3.000	-	-	-	-	-	27,225,000	-
NAF/AA+/AA+/AA+			PMT 2021C-3	9/30/2021	28,055,000	5/15/2048	3.000	-	-	-	-	-	28,055,000	-
NAF/AA+/AA+/AA+			PMT 2021C-3	9/30/2021	28,910,000	5/15/2049	3.000	-	-	-	-	-	28,910,000	-
NAF/AA+/AA+/AA+			PMT 2021C-3	9/30/2021	29,790,000	5/15/2050	3.000	-	-	-	-	-	29,790,000	-
NAF/AA+/AA+/AA+			PMT 2021C-3	9/30/2021	30,695,000	5/15/2051	3.000		-	-	-	-	30,695,000	-
NAF/AA+/AA+/AA+			PMT 2021C-3	9/30/2021	11,980,000	5/15/2047	4.000	-	-	-	-	-	11,980,000	-
NAF/AA+/AA+/AA+			PMT 2021C-3	9/30/2021	12,470,000	5/15/2048	4.000	-	-	-	-	-	12,470,000	-
NAF/AA+/AA+/AA+			PMT 2021C-3	9/30/2021	12,980,000	5/15/2049	4.000	-	-	-	-	-	12,980,000	-
NAF/AA+/AA+/AA+			PMT 2021C-3	9/30/2021	13,510,000	5/15/2050	4.000 4.000	-	-	-	-	-	13,510,000	-
NAF/AA+/AA+/AA+ NAF/AA+/AA+/AA+			PMT 2021C-3 PMT 2022A	9/30/2021 2/10/2022	14,060,000 22,990,000	5/15/2051 5/15/2040	4.000	-	-	-	-	-	14,060,000 22,990,000	-
NAF/AA+/AA+/AA+			PMT 2022A PMT 2022A	2/10/2022	23,930,000	5/15/2040	4.000	-	-	-	-	-	23,930,000	-
NAF/AA+/AA+/AA+			PMT 2022A	2/10/2022	24,905,000	5/15/2041	4.000	-	-	-	-	-	24,905,000	-
NAF/AA+/AA+/AA+			PMT 2022A	2/10/2022	26,055,000	5/15/2042	5.000	-	-	-	-	-	26,055,000	-
NAF/AA+/AA+/AA+			PMT 2022A	2/10/2022	27,390,000	5/15/2044	5.000	-	-	-	-	-	27,390,000	-
NAF/AA+/AA+/AA+			PMT 2022A	2/10/2022	28,795,000	5/15/2045	5.000	-	-	-	-	-	28,795,000	-

7,182,400,000

Total Bonds and Notes Issued in 2022

New Money Bonds and Notes Issued in 2022 5.402.860.000 Refunding Bonds and Notes Issued in 2022 1,779,540,000 Total 3,813,577,500 2,341,805,000 5,188,120,000 51,090,000 597,910,000 48,672,762,500 2,036,995,000 Credit Supported L T Amount Amount Amount Swapped Amount Matured in Amount Defeased Amount Called in Underlying L T Ratings Ratings S T Ratings Redeemed in Refinanced in Amount Outstanding as as of December Mdy/S&P/Ftch/Krll Mdy/S&P/Ftch/Krll Mdy/S&P/Ftch/Krll Series Date Issued Maturity 2022 in 2022 2022 2022 2022 of December 31, 2022 31. 2022 Amount Issued Coupon PMT 20224 NAF/AA+/AA+/AA+ 2/10/2022 30 270 000 5/15/2046 5 000 30 270 000 NAF/AA+/AA+/AA+ PMT 2022A 2/10/2022 31,825,000 5/15/2047 5.000 31,825,000 33,285,000 NAF/AA+/AA+/AA+ PMT 2022A 2/10/2022 33,285,000 5/15/2048 4.000 PMT 2022A 2/10/2022 5/15/2049 34.645.000 NAF/AA+/AA+/AA+ 34.645.000 4.000 NAF/AA+/AA+/AA+ PMT 20224 2/10/2022 36.060.000 5/15/2050 4 000 36.060.000 PMT 2022A 2/10/2022 37,530,000 5/15/2051 4.000 37,530,000 NAF/AA+/AA+/AA+ PMT 2022A 135.000.000 NAF/AA+/AA+/AA+ 2/10/2022 135.000.000 5/15/2052 5.000 NAF/AA+/AA+/AA+ PMT 2022A 2/10/2022 18.100.000 5/15/2053 5.000 18.100.000 NAF/AA+/AA+/AA+ PMT 2022A 2/10/2022 19,000,000 5/15/2054 5.000 19,000,000 NAF/AA+/AA+/AA+ PMT 2022A 2/10/2022 19,950,000 5/15/2055 5.000 19,950,000 20.950.000 NAF/AA+/AA+/AA+ PMT 2022A 2/10/2022 5/15/2056 5.000 20.950.000 NAF/AA+/AA+/AA+ PMT 2022A 2/10/2022 22,000,000 5/15/2057 5.000 22,000,000 NAF/AA+/AA+/AA+ NAF/SP-1+/F1+/K1+ PMT 2022A BANS 9/1/2022 951,370,000 8/15/2024 5.000 951,370,000 NAF/AA+/AA+/AA+ PMT 2022B 8/18/2022 5.000 4.895.000 4.895.000 5/15/2023 NAF/AA+/AA+/AA+ PMT 2022B 8/18/2022 5,135,000 5/15/2024 5.000 5,135,000 NAF/AA+/AA+/AA+ PMT 2022B 5,400,000 8/18/2022 5,400,000 5/15/2025 5.000 NAF/AA+/AA+/AA+ PMT 2022B 8/18/2022 27,425,000 5/15/2026 4.000 27,425,000 NAF/AA+/AA+/AA+ PMT 2022B 8/18/2022 132,575,000 5/15/2026 5.000 132,575,000 NAF/AA+/AA+/AA+ PMT 2022B 8/18/2022 28,925,000 4.000 28,925,000 5/15/2027 PMT 2022B 8/18/2022 91,665,000 5.000 NAF/AA+/AA+/AA+ 5/15/2027 91.665.000 PMT 2022B 8/18/2022 160,000,000 NAF/AA+/AA+/AA+ 160.000.000 5/15/2028 5.000 NAF/AA+/AA+/AA+ PMT 2022B 8/18/2022 160.000.000 5/15/2029 5 000 160.000.000 NAF/AA+/AA+/AA+ PMT 2022B 8/18/2022 160,000,000 5/15/2030 5.000 160,000,000 NAF/AA+/AA+/AA+ PMT 2022B 8/18/2022 105,845,000 5/15/2031 5.000 105,845,000 NAF/AA+/AA+/AA+ PMT 2022B 8/18/2022 45.195.000 5/15/2032 5 000 45 195 000 NAF/AA+/AA+/AA+ PMT 2022B 8/18/2022 5,700,000 5/15/2033 5.000 5,700,000 NAF/AA+/AA+/AA+ PMT 2022B 8/18/2022 8,090,000 5/15/2034 5.000 8,090,000 NAF/AA+/AA+/AA+PMT 2022B 8/18/2022 8 510 000 5/15/2035 5 000 8 510 000 NAF/AA+/AA+/AA+ PMT 2022B 8/18/2022 8,945,000 5/15/2036 5.000 8,945,000 PMT 2022B 9,740,000 NAF/AA+/AA+/AA+ 8/18/2022 9,740,000 5/15/2038 5.000 NAF/AA+/AA+/AA+ PMT 2022B 8/18/2022 10.240.000 5/15/2039 5.000 10.240.000 NAF/AA+/AA+/AA+ PMT 2022B 8/18/2022 8.085.000 5/15/2040 5.000 8.085.000 NAF/AA+/AA+/AA+ PMT 2022B 8/18/2022 8,495,000 5/15/2041 5.000 8,495,000 NAF/AA+/AA+/AA+ PMT 2022B 8/18/2022 5,150,000 5/15/2042 5.000 5,150,000 NAF/AA+/AA+/AA+ NAF/SP-1+/F1+/K1+ PMT 2022B BANS 12/15/2022 766.540.000 12/16/2024 5.000 766.540.000 NAF/AA+/AA+/AA+ PMT 2022C 5/12/2022 63,330,000 5/15/2040 5.000 63,330,000 NAF/AA+/AA+/AA+ PMT 2022C 5/12/2022 57,020,000 5/15/2041 5.250 57,020,000 PMT 2022C 5/12/2022 62.620.000 62.620.000 NAF/AA+/AA+/AA+ 5/15/2042 5.000 NAF/AA+/AA+/AA+ PMT 2022C 5/12/2022 15,570,000 5/15/2043 4.000 15,570,000 NAF/AA+/AA+/AA+ PMT 2022C 5/12/2022 37,650,000 5/15/2043 5.000 37,650,000 NAF/AA+/AA+/AA+ PMT 2022C 5/12/2022 40.955.000 5/15/2044 40.955.000 5.000 NAF/AA+/AA+/AA+ PMT 2022C 5/12/2022 58,510,000 5/15/2045 5.000 58,510,000 NAF/AA+/AA+/AA+ PMT 2022C 5/12/2022 61,510,000 5/15/2046 5.000 61,510,000 NAF/AA+/AA+/AA+ PMT 2022C 5/12/2022 64,665,000 5/15/2047 5.000 64,665,000 NAF/AA+/AA+/AA+ PMT 2022C 5/12/2022 22.060.000 5/15/2048 4.125 22.060.000 NAF/AA+/AA+/AA+ PMT 2022C 5/12/2022 22.990.000 5/15/2049 4.125 22,990,000 NAF/AA+/AA+/AA+ PMT 2022C 5/12/2022 23,960,000 5/15/2050 23,960,000 4.125 NAF/AA+/AA+/AA+ PMT 2022C 5/12/2022 24,965,000 5/15/2051 4.125 24,965,000 NAF/AA+/AA+/AA+ PMT 2022C 5/12/2022 26.020.000 5/15/2052 4 1 2 5 26.020.000 NAF/AA+/AA+/AA+ PMT 2022C 5/12/2022 53,870,000 5/15/2048 5.250 53,870,000 NAF/AA+/AA+/AA+ PMT 2022C 5/12/2022 56,775,000 5/15/2049 5.250 56,775,000 PMT 2022C 5/12/2022 59.835.000 5/15/2050 5 250 59 835 000 NAF/AA+/AA+/AA+ NAF/AA+/AA+/AA+ PMT 2022C 5/12/2022 63,060,000 5/15/2051 5.250 63,060,000 NAF/AA+/AA+/AA+ PMT 2022C 5/12/2022 66,460,000 5/15/2052 5.250 66,460,000 PMT 2022C 5/12/2022 8.280.000 NAF/AA+/AA+/AA+ 8.280.000 5/15/2053 5.250 NAF/AA+/AA+/AA+ PMT 2022C 5/12/2022 8,730,000 5/15/2054 5.250 8.730.000 PMT 2022C 5/12/2022 5/15/2055 9,200,000 NAF/AA+/AA+/AA+ 9,200,000 5.250 NAF/AA+/AA+/AA+ PMT 2022C 5/12/2022 9,695,000 5/15/2056 5.250 9,695,000 NAF/AA+/AA+/AA+ 5/12/2022 10,220,000 10.220.000 PMT 2022C 5/15/2057 5.250 NAF/AA+/AA+/AA+ PMT 2022D-1a 9/15/2022 2,505,000 11/15/2026 5.000 2,505,000 NAF/AA+/AA+/AA+ PMT 2022D-1a 9/15/2022 1,065,000 11/15/2027 5.000 1,065,000 43.570.000 NAF/AA+/AA+/AA+ PMT 2022D-1a 9/15/2022 11/15/2028 5.000 43.570.000 NAF/AA+/AA+/AA+ PMT 2022D-1a 9/15/2022 19,370,000 11/15/2029 5.000 19,370,000 NAF/AA+/AA+/AA+ PMT 2022D-1a 9/15/2022 6,800,000 11/15/2031 5.000 6,800,000 NAF/AA+/AA+/AA+ 7.750.000 11/15/2032 5.000 PMT 2022D-1a 9/15/2022 7.750.000

Total Bonds and Notes Issued in 2022

7 182 400 000

			New Money Bonds and Notes Issued in 2022 Refunding Bonds and Notes Issued in 2022		5,402,860,000	1	Total	3,813,577,500	2 241 805 000	5,188,120,000	51,090,000	597,910,000	48,672,762,500	2,036,995,000
			Refunding Bonds and No	tes issued in 2022	1,779,540,000	l	Total	3,813,577,500	2,341,805,000	5,188,120,000	51,090,000	597,910,000	48,672,762,500	2,036,995,000
Underlying L T Ratings	Credit Supported L T	S T Ratings						Amount Maturad in	Amount Defeased	Amount Called in	Amount Redeemed in	Amount Refinanced in	Amount Outstanding as	Amount Swapped as of December
Mdy/S&P/Ftch/Krll	Ratings Mdy/S&P/Ftch/Krll	Mdy/S&P/Ftch/Krll	Series	Date Issued	Amount Issued	Maturity	Coupon	2022	in 2022	2022	2022	2022	Amount Outstanding as of December 31, 2022	31, 2022
NAF/AA+/AA+/AA+	<u>,</u>		PMT 2022D-1a	9/15/2022	1,785,000	11/15/2033	5.000		-				1,785,000	-
NAF/AA+/AA+/AA+			PMT 2022D-1a	9/15/2022	1,395,000	11/15/2034	5.000		-	-	-	-	1,395,000	-
NAF/AA+/AA+/AA+			PMT 2022D-1a	9/15/2022	25,235,000	11/15/2037	5.000		-	-	-	-	25,235,000	-
NAF/AA+/AA+/AA+			PMT 2022D-1a	9/15/2022	33,940,000	11/15/2038	5.000		-	-	-	-	33,940,000	-
NAF/AA+/AA+/AA+ NAF/AA+/AA+/AA+			PMT 2022D-1a PMT 2022D-1a	9/15/2022 9/15/2022	61,330,000 10,000,000	11/15/2039 11/15/2029	5.000 4.000		-	-	-	-	61,330,000 10,000,000	-
NAF/AA+/AA+/AA+			PMT 2022D-1a	9/15/2022	10,225,000	11/15/2025	4.000		-	_	_	-	10,225,000	_
NAF/AA+/AA+/AA+			PMT 2022D-1a	9/15/2022	3,855,000	11/15/2031	4.000		-	-	-	-	3,855,000	-
NAF/AA+/AA+/AA+			PMT 2022D-1a	9/15/2022	615,000	11/15/2040	4.000	-	-	-	-	-	615,000	-
NAF/AA+/AA+/AA+			PMT 2022D-1a	9/15/2022	640,000	11/15/2041	4.000		-	-	-	-	640,000	-
NAF/AA+/AA+/AA+			PMT 2022D-1a	9/15/2022	665,000	11/15/2042	4.000	-	-	-	-	-	665,000	-
NAF/AA+/AA+/AA+			PMT 2022D-1b	9/15/2022	3,370,000	11/15/2030	-	-	-	-	-	-	3,370,000	-
NAF/AA+/AA+/AA+ NAF/AA+/AA+/AA+			PMT 2022D-1b PMT 2022D-1b	9/15/2022 9/15/2022	1,465,000 25,235,000	11/15/2035 11/15/2036	-	-	-	-	-	-	1,465,000 25,235,000	-
NAF/AA+/AA+/AA+ NAF/AA+/AA+/AA+			PMT 2022D-16 PMT 2022D-16	9/15/2022	7,140,000	11/15/2036	-	-	-	-	-	-	7,140,000	-
NAF/AA+/AA+/AA+			PMT 2022D-2	9/15/2022	24,275,000	5/15/2043	5.250	-	-	-	-	-	24,275,000	-
NAF/AA+/AA+/AA+			PMT 2022D-2	9/15/2022	26,275,000	5/15/2044	5.250		-	-	-	-	26,275,000	-
NAF/AA+/AA+/AA+			PMT 2022D-2	9/15/2022	28,385,000	5/15/2045	5.250		-	-	-	-	28,385,000	-
NAF/AA+/AA+/AA+			PMT 2022D-2	9/15/2022	30,610,000	5/15/2046	5.250	-	-	-	-	-	30,610,000	-
NAF/AA+/AA+/AA+			PMT 2022D-2	9/15/2022	32,950,000	5/15/2047	5.250		-	-	-	-	32,950,000	-
NAF/AA+/AA+/AA+			PMT 2022D-2	9/15/2022	15,000,000	5/15/2043	4.500		-	-	-	-	15,000,000	-
NAF/AA+/AA+/AA+			PMT 2022D-2	9/15/2022	15,000,000	5/15/2044	4.500		-	-	-	-	15,000,000	-
NAF/AA+/AA+/AA+			PMT 2022D-2 PMT 2022D-2	9/15/2022 9/15/2022	15,000,000 15,000,000	5/15/2045	4.500 4.500		-	-	-	-	15,000,000 15,000,000	-
NAF/AA+/AA+/AA+ NAF/AA+/AA+/AA+			PMIT 2022D-2 PMT 2022D-2	9/15/2022	15,000,000	5/15/2046 5/15/2047	4.500		-	-	-	-	15,000,000	-
NAF/AA+/AA+/AA+			PMT 2022D-2	9/15/2022	30,455,000	5/15/2048	5.500		-	-	-	-	30,455,000	-
NAF/AA+/AA+/AA+			PMT 2022D-2	9/15/2022	33,090,000	5/15/2049	5.500		-	-	-	-	33,090,000	-
NAF/AA+/AA+/AA+			PMT 2022D-2	9/15/2022	35,885,000	5/15/2050	5.500		-	-	-	-	35,885,000	-
NAF/AA+/AA+/AA+			PMT 2022D-2	9/15/2022	38,845,000	5/15/2051	5.500	-	-	-	-	-	38,845,000	-
NAF/AA+/AA+/AA+			PMT 2022D-2	9/15/2022	41,965,000	5/15/2052	5.500		-	-	-	-	41,965,000	-
NAF/AA+/AA+/AA+			PMT 2022D-2	9/15/2022	20,000,000	5/15/2048	4.500		-	-	-	-	20,000,000	-
NAF/AA+/AA+/AA+			PMT 2022D-2	9/15/2022	20,000,000	5/15/2049	4.500		-	-	-	-	20,000,000	-
NAF/AA+/AA+/AA+ NAF/AA+/AA+/AA+			PMT 2022D-2 PMT 2022D-2	9/15/2022 9/15/2022	20,000,000 20,000,000	5/15/2050 5/15/2051	4.500 4.500		-	-	-	-	20,000,000 20,000,000	-
NAF/AA+/AA+/AA+			PMT 2022D-2 PMT 2022D-2	9/15/2022	20,000,000	5/15/2051	4.500		-	-	-	-	20,000,000	-
NAF/AA+/AA+/AA+			PMT 2022E-1	11/1/2022	34,135,000	11/15/2053	5.000		-	-	-	-	34,135,000	-
NAF/AA+/AA+/AA+			PMT 2022E-1	11/1/2022	35,845,000	11/15/2054	5.000	-	-	-	-	-	35,845,000	-
NAF/AA+/AA+/AA+			PMT 2022E-1	11/1/2022	37,635,000	11/15/2055	5.000	-	-	-	-	-	37,635,000	-
NAF/AA+/AA+/AA+			PMT 2022E-1	11/1/2022	39,520,000	11/15/2056	5.000		-	-	-	-	39,520,000	-
NAF/AA+/AA+/AA+			PMT 2022E-1	11/1/2022	41,495,000	11/15/2057	5.000		-	-	-	-	41,495,000	-
NAF/AA+/AA+/AA+			PMT 2022E-2a	11/1/2022	28,320,000	11/15/2037	4.000		-	-	-	-	28,320,000	25,533,797
NAF/AA+/AA+/AA+ NAF/AA+/AA+/AA+			PMT 2022E-2a PMT 2022E-2a	11/1/2022 11/1/2022	29,060,000 20,675,000	11/15/2038 11/15/2040	4.000 4.000		-	-	-	-	29,060,000	26,200,993 18,640,934
NAF/AA+/AA+/AA+			PMT 2022E-2a PMT 2022E-2a	11/1/2022	21,505,000	11/15/2040	4.000		-	-	-	-	20,675,000 21,505,000	19,389,276
NAF/AA+/AA+/AA+			PMT 2022E-2b	11/1/2022	5,690,000	11/15/2035	5.000		-	-	-	-	5,690,000	-
NAF/AA+/AA+/AA+			PMT 2022E-2b	11/1/2022	10,290,000	11/15/2036	5.000		-	-	-	-	10,290,000	-
NAF/AA+/AA+/AA+			PMT 2022E-2b	11/1/2022	9,600,000	11/15/2037	5.000		-	-	-	-	9,600,000	-
NAF/AA+/AA+/AA+			PMT 2022E-2b	11/1/2022	13,140,000	11/15/2038	5.000		-	-	-	-	13,140,000	-
NAF/AA+/AA+/AA+			PMT 2022E-2b	11/1/2022	17,980,000	11/15/2040	5.000		-	-	-	-	17,980,000	-
NAF/AA+/AA+/AA+			PMT 2022E-2b PMT 2022E-2b	11/1/2022 11/1/2022	19,250,000 20,410,000	11/15/2041 11/15/2042	5.000 5.000		-	-	-	-	19,250,000 20,410,000	-
NAF/AA+/AA+/AA+ NAF/AA+/AA+/AA+			PMT 2022E-20 PMT 2022E-2b	11/1/2022	15,330,000	11/15/2042	5.000		-	-	-	-	15,330,000	-
NAF/AA+/AA+/AA+			PMT 2022E-20	11/1/2022	15,290,000	11/15/2045	5.000		-	_	_	-	15,290,000	_
NAF/AA+/AA+/AA+			PMT 2022E-2b	11/1/2022	27,675,000	11/15/2036	5.000		-	-	-	-	27,675,000	-
NAF/AA+/AA+/AA+			PMT 2022E-2b	11/1/2022	25,810,000	11/15/2037	5.000		-	-	-	-	25,810,000	-
NAF/AA+/AA+/AA+			PMT 2022E-2b	11/1/2022	35,345,000	11/15/2038	5.000		-	-	-	-	35,345,000	-
NAF/AA+/AA+/AA+			PMT 2022E-2b	11/1/2022	48,360,000	11/15/2040	5.000		-	-	-	-	48,360,000	-
NAF/AA+/AA+/AA+			PMT 2022E-2b	11/1/2022	51,760,000	11/15/2041	5.000		-	-	-	-	51,760,000	-
NAF/AA+/AA+/AA+			PMT 2022E-2b	11/1/2022	54,875,000	11/15/2042	5.000		-	-	-	-	54,875,000	-
NAF/AA+/AA+/AA+ NAF/AA+/AAA/NAF			PMT 2022E-2b STX 2022A	11/1/2022 7/20/2022	41,205,000 2,015,000	11/15/2043 5/15/2025	5.000		-	-	-	-	41,205,000	-
NAF/AA+/AAA/NAF NAF/AA+/AAA/NAF			STX 2022A STX 2022A	7/20/2022	2,015,000 2,455,000	5/15/2025 5/15/2026	5.000 5.000		-	-	-	-	2,015,000 2,455,000	-
NAF/AA+/AAA/NAF			STX 2022A	7/20/2022	2,925,000	5/15/2020	5.000		-				2,925,000	-
NAF/AA+/AAA/NAF			STX 2022A	7/20/2022	3,420,000	5/15/2028	5.000		-	-	-	-	3,420,000	-
NAF/AA+/AAA/NAF			STX 2022A	7/20/2022	3,945,000	5/15/2029	5.000		-	-	-	-	3,945,000	-

7,182,400,000

Total Bonds and Notes Issued in 2022

			New Money Bonds and Notes Issued in 2022		5,402,860,000									
			Refunding Bonds and Notes Issued in 2022		1,779,540,000	Г	Total	3,813,577,500	2,341,805,000	5,188,120,000	51,090,000	597,910,000	48,672,762,500	2,036,995,000
			Refunding Bonus and No	ites issued in 2022	1,779,540,000	L	TULAI	5,615,577,500	2,341,605,000	5,166,120,000	51,090,000	597,910,000	48,072,702,500	2,050,995,000
	Credit Supported L T										Amount	Amount		Amount Swapped
Underlying L T Ratings	Ratings	S T Ratings						Amount Matured in	Amount Defeased	Amount Called in	Redeemed in	Refinanced in	Amount Outstanding as	
Mdy/S&P/Ftch/Krll	Mdy/S&P/Ftch/Krll	Mdy/S&P/Ftch/Krll	Series	Date Issued	Amount Issued	Maturity	Coupon	2022	in 2022	2022	2022	2022	of December 31, 2022	31, 2022
NAF/AA+/AAA/NAF	WILLY SOF / FICH/ KI	Wuy/S&F/Ftch/Km	STX 2022A	7/20/2022	4,495,000	5/15/2030	5.000	2022	111 2022	2022	2022	2022	4,495,000	51, 2022
								-	-	-	-	-		-
NAF/AA+/AAA/NAF			STX 2022A	7/20/2022	5,080,000	5/15/2031	5.000	-	-	-	-	-	5,080,000	-
NAF/AA+/AAA/NAF			STX 2022A	7/20/2022	5,695,000	5/15/2032	5.000	-	-	-	-	-	5,695,000	-
NAF/AA+/AAA/NAF			STX 2022A	7/20/2022	6,350,000	5/15/2033	5.000	-	-	-	-	-	6,350,000	-
NAF/AA+/AAA/NAF			STX 2022A	7/20/2022	7,035,000	5/15/2034	5.000	-	-	-	-	-	7,035,000	-
NAF/AA+/AAA/NAF			STX 2022A	7/20/2022	7,760,000	5/15/2035	5.000		-	-	-	-	7,760,000	-
NAF/AA+/AAA/NAF			STX 2022A	7/20/2022	8,525,000	5/15/2036	5.000	-	-	-	-	-	8,525,000	-
NAF/AA+/AAA/NAF			STX 2022A	7/20/2022	9,335,000	5/15/2037	5.000	-	-	-	-	-	9,335,000	-
NAF/AA+/AAA/NAF			STX 2022A	7/20/2022	10,185,000	5/15/2038	5.000		-	-	-	-	10,185,000	-
NAF/AA+/AAA/NAF			STX 2022A	7/20/2022	11,085,000	5/15/2039	5.000		-	-	-	-	11,085,000	-
NAF/AA+/AAA/NAF			STX 2022A	7/20/2022	12,030,000	5/15/2040	5.000		_	_		_	12,030,000	_
NAF/AA+/AAA/NAF			STX 2022A	7/20/2022	13,030,000	5/15/2040	5.000						13,030,000	
								-	-	-	-	-		-
NAF/AA+/AAA/NAF			STX 2022A	7/20/2022	14,085,000	5/15/2042	5.000	-	-	-	-	-	14,085,000	-
NAF/AA+/AAA/NAF			STX 2022A	7/20/2022	4,100,000	5/15/2043	5.000	-	-	-	-	-	4,100,000	-
NAF/AA+/AAA/NAF			STX 2022A	7/20/2022	16,360,000	5/15/2044	5.000	-	-	-	-	-	16,360,000	-
NAF/AA+/AAA/NAF			STX 2022A	7/20/2022	1,730,000	5/15/2045	3.750	-	-	-	-	-	1,730,000	-
NAF/AA+/AAA/NAF			STX 2022A	7/20/2022	8,000,000	5/15/2045	5.000	-	-	-		-	8,000,000	-
NAF/AA+/AAA/NAF			STX 2022A	7/20/2022	7,720,000	5/15/2046	4.000	-	-	-	-	-	7,720,000	-
NAF/AA+/AAA/NAF			STX 2022A	7/20/2022	7,000,000	5/15/2046	5.000	-	-	-	-	-	7,000,000	-
NAF/AA+/AAA/NAF			STX 2022A	7/20/2022	850,000	5/15/2047	4.000		-	-	-	-	850,000	-
NAF/AA+/AAA/NAF			STX 2022A	7/20/2022	18,985,000	5/15/2047	5.000	-		-			18,985,000	
NAF/AA+/AAA/NAF			STX 2022A	7/20/2022	7,095,000	5/15/2048	4.000		_	_		_	7,095,000	_
NAF/AA+/AAA/NAF			STX 2022A	7/20/2022	7,590,000	5/15/2049	4.000						7,590,000	
								-	-	-	-	-		-
NAF/AA+/AAA/NAF			STX 2022A	7/20/2022	8,095,000	5/15/2050	4.000	-	-	-	-	-	8,095,000	-
NAF/AA+/AAA/NAF			STX 2022A	7/20/2022	8,630,000	5/15/2051	4.000	-	-	-	-	-	8,630,000	-
NAF/AA+/AAA/NAF			STX 2022A	7/20/2022	9,190,000	5/15/2052	4.000	•	-	-	-	-	9,190,000	-
NAF/AA+/AAA/NAF			STX 2022A	7/20/2022	21,315,000	5/15/2048	5.250	-	-	-	-	-	21,315,000	-
NAF/AA+/AAA/NAF			STX 2022A	7/20/2022	22,755,000	5/15/2049	5.250		-	-	-	-	22,755,000	-
NAF/AA+/AAA/NAF			STX 2022A	7/20/2022	24,285,000	5/15/2050	5.250	-	-	-	-	-	24,285,000	-
NAF/AA+/AAA/NAF			STX 2022A	7/20/2022	25,895,000	5/15/2051	5.250		-	-	-	-	25,895,000	-
NAF/AA+/AAA/NAF			STX 2022A	7/20/2022	27,585,000	5/15/2052	5.250		-	-	-	-	27,585,000	-
NAF/AA+/AAA/NAF			STX 2022A	7/20/2022	20,735,000	5/15/2053	4.000		-	-		-	20,735,000	-
NAF/AA+/AAA/NAF			STX 2022A	7/20/2022	21,580,000	5/15/2054	4.000		_	_		_	21,580,000	
NAF/AA+/AAA/NAF			STX 2022A	7/20/2022	22,870,000	5/15/2055	4.000						22,870,000	
								-	-	-	-	-		-
NAF/AA+/AAA/NAF			STX 2022A	7/20/2022	24,210,000	5/15/2056	4.000	-	-	-	-	-	24,210,000	-
NAF/AA+/AAA/NAF			STX 2022A	7/20/2022	25,630,000	5/15/2057	4.000	-	-	-	-	-	25,630,000	-
NAF/AA+/AAA/NAF			STX 2022A	7/20/2022	18,410,000	5/15/2053	5.250	-	-	-	-	-	18,410,000	-
NAF/AA+/AAA/NAF			STX 2022A	7/20/2022	19,920,000	5/15/2054	5.250	-	-	-	-	-	19,920,000	-
NAF/AA+/AAA/NAF			STX 2022A	7/20/2022	21,105,000	5/15/2055	5.250	-	-	-	-	-	21,105,000	-
NAF/AA+/AAA/NAF			STX 2022A	7/20/2022	22,355,000	5/15/2056	5.250	-	-	-		-	22,355,000	-
NAF/AA+/AAA/NAF			STX 2022A	7/20/2022	23,655,000	5/15/2057	5.250	-	-	-	-	-	23,655,000	-
NAF/AA+/AAA/NAF			STX 2022A	7/20/2022	21,595,000	5/15/2058	5.250		-	-	-	-	21,595,000	-
NAF/AA+/AAA/NAF			STX 2022A	7/20/2022	23,005,000	5/15/2059	5.250	-		-			23,005,000	-
NAF/AA+/AAA/NAF			STX 2022A	7/20/2022	24,500,000	5/15/2060	5.250		_	_		_	24,500,000	
NAF/AA+/AAA/NAF			STX 2022A	7/20/2022	26,070,000	5/15/2000	5.250						26,070,000	
NAF/AA+/AAA/NAF			STX 2022A STX 2022A	7/20/2022	27,730,000	5/15/2061	5.250		-	-	-	-	27,730,000	-
									-	-	-	-	27,730,000	-
Aa3/AA-/AA-/AA	Aa1/NR/AAA/NR	VMIG 1/NR/F1+/NR	TBTA 2001C	6/27/2018	6,600,000	1/1/2022	4.000		-	-	-	-		-
Aa3/AA-/AA-/AA	Aa1/NR/AAA/NR	VMIG 1/NR/F1+/NR	TBTA 2001C	6/27/2018	6,865,000	1/1/2023	4.000	-	-	-	-	-	6,865,000	666,303
Aa3/AA-/AA-/AA	Aa1/NR/AAA/NR	VMIG 1/NR/F1+/NR	TBTA 2001C	6/27/2018	7,140,000	1/1/2024	4.000	-	-	-	-	-	7,140,000	692,994
Aa3/AA-/AA-/AA	Aa1/NR/AAA/NR	VMIG 1/NR/F1+/NR	TBTA 2001C	6/27/2018	7,425,000	1/1/2025	4.000	-	-	-	-	-	7,425,000	720,655
Aa3/AA-/AA-/AA	Aa1/NR/AAA/NR	VMIG 1/NR/F1+/NR	TBTA 2001C	6/27/2018	7,725,000	1/1/2026	4.000	-	-	-	-	-	7,725,000	749,773
Aa3/AA-/AA-/AA	Aa1/NR/AAA/NR	VMIG 1/NR/F1+/NR	TBTA 2001C	6/27/2018	8,030,000	1/1/2027	4.000	-	-	-	-	-	8,030,000	779,375
Aa3/AA-/AA-/AA	Aa1/NR/AAA/NR	VMIG 1/NR/F1+/NR	TBTA 2001C	6/27/2018	8,350,000	1/1/2028	4.000		-	-	-	-	8,350,000	810,434
Aa3/AA-/AA-/AA	Aa1/NR/AAA/NR	VMIG 1/NR/F1+/NR	TBTA 2001C	6/27/2018	8,690,000	1/1/2029	4.000	-	-	-	-	-	8,690,000	843,433
Aa3/AA-/AA-/AA	Aa1/NR/AAA/NR	VMIG 1/NR/F1+/NR	TBTA 2001C	6/27/2018	9,035,000	1/1/2020	4.000	_		-	_		9,035,000	876,918
Aa3/AA-/AA-/AA Aa3/AA-/AA-/AA	Aa1/NR/AAA/NR Aa1/NR/AAA/NR	VMIG 1/NR/F1+/NR	TBTA 2001C	6/27/2018	9,395,000	1/1/2030	4.000	-	-	-	-	-	9,395,000	911,859
								-	-	-	-	-		
Aa3/AA-/AA-/AA	Aa1/NR/AAA/NR	VMIG 1/NR/F1+/NR	TBTA 2001C	6/27/2018	9,770,000	1/1/2032	4.000	-	-	-	-	-	9,770,000	948,256
Aa3/AA-/AA-/AA			TBTA 2002F	10/27/2021	8,240,000	11/1/2022	3.000	8,240,000	-	-	-	-		-
Aa3/AA-/AA-/AA			TBTA 2002F	10/27/2021	8,570,000	11/1/2023	4.000	-	-	-	-	-	8,570,000	-
Aa3/AA-/AA-/AA			TBTA 2002F	10/27/2021	8,915,000	11/1/2024	4.000	-	-	-	-	-	8,915,000	-
Aa3/AA-/AA-/AA			TBTA 2002F	10/27/2021	9,270,000	11/1/2025	4.000	-	-	-	-	-	9,270,000	-
Aa3/AA-/AA-/AA			TBTA 2002F	10/27/2021	9,640,000	11/1/2026	5.000	-	-	-	-	-	9,640,000	-
Aa3/AA-/AA-/AA			TBTA 2002F	10/27/2021	10,025,000	11/1/2027	5.000	-	-	-	-	-	10,025,000	-
Aa3/AA-/AA-/AA			TBTA 2002F	10/27/2021	10,430,000	11/1/2028	5.000	-	-	-	-		10,430,000	-
Aa3/AA-/AA-/AA			TBTA 2002F	10/27/2021	10,850,000	11/1/2029	5.000	-	-	-	-	-	10,850,000	-
, ,,					-,	==							.,,	

Total Bonds and Notes Issued in 2022

			I otal Bonds and Notes Issued in 2022 New Money Bonds and Notes Issued in 2022		7,182,400,000									
			New Money Bonds and Notes Issued in 2022 Refunding Bonds and Notes Issued in 2022		5,402,860,000 1,779,540,000	Г	Total	3,813,577,500	2,341,805,000	5,188,120,000	51,090,000	597,910,000	48,672,762,500	2,036,995,000
			Refunding bonus and No	tes issueu în 2022	1,779,540,000	L	TOLAI	5,615,577,500	2,341,805,000	5,188,120,000	51,090,000	597,910,000	48,072,702,500	2,030,995,000
	Credit Supported L T										Amount	Amount		Amount Swapped
Underlying L T Ratings	Ratings	S T Ratings						Amount Matured in	Amount Defeased	Amount Called in	Redeemed in	Refinanced in	Amount Outstanding as	
Mdy/S&P/Ftch/Krll	Mdy/S&P/Ftch/Krll	Mdy/S&P/Ftch/Krll	Series	Date Issued	Amount Issued	Maturity	Coupon	2022	in 2022	2022	2022	2022	of December 31, 2022	31, 2022
Aa3/AA-/AA-/AA			TBTA 2002F	10/27/2021	11,285,000	11/1/2030	5.000						11,285,000	
Aa3/AA-/AA-/AA			TBTA 2002F	10/27/2021	11,740,000	11/1/2031	5.000	-	-	-	-	-	11,740,000	-
Aa3/AA-/AA-/AA			TBTA 2002F	10/27/2021	12,210,000	11/1/2032	5.000	-	-	-	-	-	12,210,000	-
Aa3/AA-/AA-/AA	Aa1/AAA/AA+/NR	VMIG 1/A-1+/F1+/NR		1/19/2022	6,965,000	1/1/2022	4.000	6,965,000	-	-	-	-		-
Aa3/AA-/AA-/AA	Aa1/AAA/AA+/NR	VMIG 1/A-1+/F1+/NR		1/19/2022	7,240,000	1/1/2023	4.000	-,,	-		-	7,240,000	7,240,000	1,441,086
Aa3/AA-/AA-/AA	Aa1/AAA/AA+/NR	VMIG 1/A-1+/F1+/NR		1/19/2022	7,540,000	1/1/2024	4.000	-	-	-	-	7,540,000	7,540,000	1,500,799
Aa3/AA-/AA-/AA	Aa1/AAA/AA+/NR	VMIG 1/A-1+/F1+/NR		1/19/2022	7,835,000	1/1/2025	4.000	-	-	-	-	7,835,000	7,835,000	1,559,518
Aa3/AA-/AA-/AA	Aa1/AAA/AA+/NR			1/19/2022	8,155,000	1/1/2026	4.000	-	-	-	-	8,155,000	8,155,000	1,623,212
Aa3/AA-/AA-/AA	Aa1/AAA/AA+/NR			1/19/2022	8,480,000	1/1/2027	4.000	-	-	-	-	8,480,000	8,480,000	1,687,902
Aa3/AA-/AA-/AA	Aa1/AAA/AA+/NR	VMIG 1/A-1+/F1+/NR		1/19/2022	8,820,000	1/1/2028	4.000	-	-	-	-	8,820,000	8,820,000	1,755,577
Aa3/AA-/AA-/AA	Aa1/AAA/AA+/NR	VMIG 1/A-1+/F1+/NR		1/19/2022	9,165,000	1/1/2029	4.000	-	-	-	-	9,165,000	9,165,000	1,824,247
Aa3/AA-/AA-/AA	Aa1/AAA/AA+/NR	VMIG 1/A-1+/F1+/NR		1/19/2022	9,535,000	1/1/2030	4.000	_	_			9,535,000	9,535,000	1,897,894
Aa3/AA-/AA-/AA	Aa1/AAA/AA+/NR	VMIG 1/A-1+/F1+/NR		1/19/2022	9,920,000	1/1/2031	4.000	_	_			9,920,000	9,920,000	1,974,526
Aa3/AA-/AA-/AA Aa3/AA-/AA-/AA	Aa1/AAA/AA+/NR	VMIG 1/A-1+/F1+/NR VMIG 1/A-1+/F1+/NR		1/19/2022	10,310,000	1/1/2031	4.000					10,310,000	10,310,000	2,052,154
Aa3/AA-/AA-/AA Aa3/AA-/AA-/AA	Aa1/AAA/AA+/NR	VMIG 1/A-1+/F1+/NR		1/19/2022	9,335,000	1/1/2032	4.000	-	-	-	-	9,335,000	9,335,000	1,858,085
Aa3/AA-/AA-/AA Aa3/AA-/AA-/AA	Ad1/AAA/AAT/INK	VIVIO 1/A-1+/11+/INK	TBTA 2003B-1 TBTA 2003B-2	12/3/2019	2,300,000	1/1/2022	4.000	2,300,000	-	-	-	5,555,000	5,555,000	1,858,085
			TBTA 2003B-2 TBTA 2003B-2	12/3/2019	2,390,000	1/1/2022	4.000	2,500,000	-	-	-	-	2,390,000	2,390,000
Aa3/AA-/AA-/AA								-	-	-	-	-		
Aa3/AA-/AA-/AA			TBTA 2003B-2	12/3/2019	2,480,000	1/1/2024	4.000	-	-	-	-	-	2,480,000	2,480,000
Aa3/AA-/AA-/AA			TBTA 2003B-2	12/3/2019	2,580,000	1/1/2025	4.000	-	-	-	-	-	2,580,000	2,580,000
Aa3/AA-/AA-/AA			TBTA 2003B-2	12/3/2019	2,680,000	1/1/2026	4.000	-	-	-	-	-	2,680,000	2,680,000
Aa3/AA-/AA-/AA			TBTA 2003B-2	12/3/2019	2,790,000	1/1/2027	4.000	-	-	-	-	-	2,790,000	2,790,000
Aa3/AA-/AA-/AA			TBTA 2003B-2	12/3/2019	2,900,000	1/1/2028	4.000	-	-	-	-	-	2,900,000	2,900,000
Aa3/AA-/AA-/AA			TBTA 2003B-2	12/3/2019	3,020,000	1/1/2029	4.000	-	-	-	-	-	3,020,000	3,020,000
Aa3/AA-/AA-/AA			TBTA 2003B-2	12/3/2019	3,140,000	1/1/2030	4.000	-	-	-	-	-	3,140,000	3,140,000
Aa3/AA-/AA-/AA			TBTA 2003B-2	12/3/2019	3,260,000	1/1/2031	4.000	-	-	-	-	-	3,260,000	3,260,000
Aa3/AA-/AA-/AA			TBTA 2003B-2	12/3/2019	3,400,000	1/1/2032	4.000	-	-	-	-	-	3,400,000	3,400,000
Aa3/AA-/AA-/AA			TBTA 2003B-2	12/3/2019	3,080,000	1/1/2033	4.000	-	-	-	-	-	3,080,000	3,080,000
Aa3/AA-/AA-/AA	Aa1/AA+/AA+/NR	VMIG 1/A-1/F1/NR	TBTA 2005A	1/24/2020	102,070,000	11/1/2041	4.000	-	-	-	-	-	102,070,000	17,690,000
Aa3/AA-/AA-/AA	Aa1/AAA/AAA/NR	VMIG 1/A-1+/F1+/NR	TBTA 2005B-2a	1/21/2021	600,000	1/1/2022	4.000	600,000	-	-	-	-	-	-
Aa3/AA-/AA-/AA	Aa1/AAA/AAA/NR	VMIG 1/A-1+/F1+/NR	TBTA 2005B-2a	1/21/2021	500,000	1/1/2023	4.000	-	-	-	-	-	500,000	500,000
Aa3/AA-/AA-/AA	Aa1/AAA/AAA/NR	VMIG 1/A-1+/F1+/NR	TBTA 2005B-2a	1/21/2021	5,100,000	1/1/2024	4.000	-	-	-	-	-	5,100,000	5,100,000
Aa3/AA-/AA-/AA	Aa1/AAA/AAA/NR	VMIG 1/A-1+/F1+/NR		1/21/2021	500,000	1/1/2025	4.000	-	-	-	-	-	500,000	500,000
Aa3/AA-/AA-/AA	Aa1/AAA/AAA/NR	VMIG 1/A-1+/F1+/NR		1/21/2021	500,000	1/1/2026	4.000	-	-	-	-	-	500,000	500,000
Aa3/AA-/AA-/AA	Aa1/AAA/AAA/NR	VMIG 1/A-1+/F1+/NR		1/21/2021	600,000	1/1/2027	4.000	-	-	-	-	-	600,000	600,000
Aa3/AA-/AA-/AA	Aa1/AAA/AAA/NR	VMIG 1/A-1+/F1+/NR		1/21/2021	3,200,000	1/1/2028	4.000	-	-	-	-	-	3,200,000	3,200,000
Aa3/AA-/AA-/AA	Aa1/AAA/AAA/NR	VMIG 1/A-1+/F1+/NR		1/21/2021	18,800,000	1/1/2029	4.000	-	-	-	-	-	18,800,000	18,800,000
Aa3/AA-/AA-/AA	Aa1/AAA/AAA/NR	VMIG 1/A-1+/F1+/NR		1/21/2021	19,300,000	1/1/2030	4.000	-	-	-	-	-	19,300,000	19,300,000
Aa3/AA-/AA-/AA	Aa1/AAA/AAA/NR	VMIG 1/A-1+/F1+/NR		1/21/2021	21,900,000	1/1/2031	4.000	_	_			-	21,900,000	21,900,000
Aa3/AA-/AA-/AA	Aa1/AAA/AAA/NR	VMIG 1/A-1+/F1+/NR		1/21/2021	22,600,000	1/1/2032	4.000	_	_			-	22,600,000	22,600,000
Aa3/AA-/AA-/AA	Aa1/AAA/AAA/NR	VMIG 1/A-1+/F1+/NR		1/21/2021	500,000	1/1/2022	4.000	500,000					22,000,000	22,000,000
Aa3/AA-/AA-/AA	Aa1/AAA/AAA/NR Aa1/AAA/AAA/NR	VMIG 1/A-1+/F1+/NR VMIG 1/A-1+/F1+/NR		1/21/2021	600,000	1/1/2022	4.000	300,000					600,000	600,000
Aa3/AA-/AA-/AA Aa3/AA-/AA-/AA				1/21/2021	5,200,000	1/1/2023	4.000	-	-	-	-	-	5,200,000	5,200,000
	Aa1/AAA/AAA/NR	VMIG 1/A-1+/F1+/NR						-	-	-	-	-		
Aa3/AA-/AA-/AA	Aa1/AAA/AAA/NR	VMIG 1/A-1+/F1+/NR		1/21/2021	500,000	1/1/2025	4.000	-	-	-	-	-	500,000	500,000
Aa3/AA-/AA-/AA	Aa1/AAA/AAA/NR	VMIG 1/A-1+/F1+/NR		1/21/2021	500,000	1/1/2026	4.000	-	-	-	-	-	500,000	500,000
Aa3/AA-/AA-/AA Aa3/AA-/AA-/AA	Aa1/AAA/AAA/NR	VMIG 1/A-1+/F1+/NR		1/21/2021 1/21/2021	500,000 3,200,000	1/1/2027 1/1/2028	4.000 4.000	-	-	-	-	-	500,000 3,200,000	500,000
	Aa1/AAA/AAA/NR	VMIG 1/A-1+/F1+/NR						-	-	-	-	-		3,200,000
Aa3/AA-/AA-/AA	Aa1/AAA/AAA/NR	VMIG 1/A-1+/F1+/NR		1/21/2021	18,700,000	1/1/2029	4.000	-	-	-	-	-	18,700,000	18,700,000
Aa3/AA-/AA-/AA	Aa1/AAA/AAA/NR	VMIG 1/A-1+/F1+/NR		1/21/2021	19,400,000	1/1/2030	4.000	-	-	-	-	-	19,400,000	19,400,000
Aa3/AA-/AA-/AA	Aa1/AAA/AAA/NR	VMIG 1/A-1+/F1+/NR		1/21/2021	21,900,000	1/1/2031	4.000	-	-	-	-	-	21,900,000	21,900,000
Aa3/AA-/AA-/AA	Aa1/AAA/AAA/NR	VMIG 1/A-1+/F1+/NR		1/21/2021	22,600,000	1/1/2032	4.000	-	-	-	-	-	22,600,000	22,600,000
Aa3/AA-/AA-/AA	Aa1/NR/AAA/NR	VMIG 1/NR/F1+/NR		6/27/2018	1,100,000	1/1/2022	4.000	1,100,000	-	-	-	-	-	-
Aa3/AA-/AA-/AA	Aa1/NR/AAA/NR	VMIG 1/NR/F1+/NR		6/27/2018	1,100,000	1/1/2023	4.000	-	-	-	-	-	1,100,000	1,100,000
Aa3/AA-/AA-/AA	Aa1/NR/AAA/NR	VMIG 1/NR/F1+/NR		6/27/2018	10,300,000	1/1/2024	4.000	-	-	-	-	-	10,300,000	10,300,000
Aa3/AA-/AA-/AA	Aa1/NR/AAA/NR	VMIG 1/NR/F1+/NR		6/27/2018	1,000,000	1/1/2025	4.000	-	-	-	-	-	1,000,000	1,000,000
Aa3/AA-/AA-/AA	Aa1/NR/AAA/NR	VMIG 1/NR/F1+/NR	TBTA 2005B-3	6/27/2018	1,000,000	1/1/2026	4.000	-	-	-	-	-	1,000,000	1,000,000
Aa3/AA-/AA-/AA	Aa1/NR/AAA/NR	VMIG 1/NR/F1+/NR	TBTA 2005B-3	6/27/2018	1,100,000	1/1/2027	4.000	-	-	-	-	-	1,100,000	1,100,000
Aa3/AA-/AA-/AA	Aa1/NR/AAA/NR	VMIG 1/NR/F1+/NR	TBTA 2005B-3	6/27/2018	6,400,000	1/1/2028	4.000	-	-	-	-	-	6,400,000	6,400,000
Aa3/AA-/AA-/AA	Aa1/NR/AAA/NR	VMIG 1/NR/F1+/NR	TBTA 2005B-3	6/27/2018	37,500,000	1/1/2029	4.000	-	-	-	-	-	37,500,000	37,500,000
Aa3/AA-/AA-/AA	Aa1/NR/AAA/NR	VMIG 1/NR/F1+/NR	TBTA 2005B-3	6/27/2018	38,700,000	1/1/2030	4.000	-	-	-	-	-	38,700,000	38,700,000
Aa3/AA-/AA-/AA	Aa1/NR/AAA/NR	VMIG 1/NR/F1+/NR	TBTA 2005B-3	6/27/2018	43,800,000	1/1/2031	4.000	-	-	-	-	-	43,800,000	43,800,000
Aa3/AA-/AA-/AA	Aa1/NR/AAA/NR	VMIG 1/NR/F1+/NR	TBTA 2005B-3	6/27/2018	45,200,000	1/1/2032	4.000	-	-	-	-	-	45,200,000	45,200,000
Aa3/AA-/AA-/AA			TBTA 2005B-4a	2/1/2021	1,100,000	1/1/2022	4.000	1,100,000	-	-	-	-	-	-
Aa3/AA-/AA-/AA			TBTA 2005B-4a	2/1/2021	1,100,000	1/1/2023	4.000	-	-	-	-	-	1,100,000	1,100,000
Aa3/AA-/AA-/AA			TBTA 2005B-4a	2/1/2021	10,300,000	1/1/2024	4.000	-	-	-	-	-	10,300,000	10,300,000
Aa3/AA-/AA-/AA			TBTA 2005B-4a	2/1/2021	1,000,000	1/1/2025	4.000	-	-	-	-	-	1,000,000	1,000,000
				-, -,	_,,000	_, _,5							_,,,000	_,

Total Bonds and Notes Issued in 2022
			New Money Bonds and No	tes Issued in 2022	5,402,860,000									
			Refunding Bonds and No	tes Issued in 2022	1,779,540,000		Total	3,813,577,500	2,341,805,000	5,188,120,000	51,090,000	597,910,000	48,672,762,500	2,036,995,000
	Cradit Supported LT										Amount	Amount		Amount Swannod
Underlying L T Ratings	Credit Supported L T Ratings	S T Ratings						Amount Matured in	Amount Defeased	Amount Called in	Redeemed in	Amount Refinanced in	Amount Outstanding as	Amount Swapped as of December
Mdy/S&P/Ftch/Krll	Mdy/S&P/Ftch/Krll	Mdy/S&P/Ftch/Krll	Series	Date Issued	Amount Issued	Maturity	Coupon	2022	in 2022	2022	2022	2022	of December 31, 2022	31, 2022
Aa3/AA-/AA-/AA	<u></u>		TBTA 2005B-4a	2/1/2021	1,000,000	1/1/2026	4.000	-					1,000,000	1,000,000
Aa3/AA-/AA-/AA			TBTA 2005B-4a	2/1/2021	1,100,000	1/1/2027	4.000	-	-	-	-	-	1,100,000	1,100,000
Aa3/AA-/AA-/AA			TBTA 2005B-4a	2/1/2021	6,400,000	1/1/2028	4.000	-	-	-	-	-	6,400,000	6,400,000
Aa3/AA-/AA-/AA			TBTA 2005B-4a	2/1/2021	37,500,000	1/1/2029	4.000	-	-	-	-	-	37,500,000	37,500,000
Aa3/AA-/AA-/AA			TBTA 2005B-4a	2/1/2021	45,200,000	1/1/2032	4.000	-	-	-	-	-	45,200,000	45,200,000
Aa3/AA-/AA-/AA		VMIG 1/A-1+/F1+/NR	TBTA 2005B-4c	5/20/2022	38,700,000	1/1/2030	4.000	-	-	-	-	-	38,700,000	38,700,000
Aa3/AA-/AA-/AA Aa3/AA-/AA-/AA	Aa1/AAA/AA+/NR	VMIG 1/A-1+/F1+/NR	TBTA 2005B-4c TBTA 2008B-1	5/20/2022	43,800,000	1/1/2031	4.000 5.000	29,375,000	-	-	-	-	43,800,000	43,800,000
Aa3/AA-/AA-/AA Aa3/AA-/AA-/AA			TBTA 2008B-1 TBTA 2008B-2	11/15/2013 10/27/2021	29,375,000 9,160,000	11/15/2022 11/15/2025	4.000	29,375,000	-	-	-	-	9,160,000	-
Aa3/AA-/AA-/AA Aa3/AA-/AA-/AA			TBTA 2008B-2 TBTA 2008B-2	10/27/2021	28,755,000	11/15/2025	5.000	-	-	-	-		28,755,000	-
Aa3/AA-/AA-/AA			TBTA 2008B-2	10/27/2021	15,090,000	11/15/2027	5.000	-	-	-	-	-	15,090,000	-
Aa3/AA-/AA-/AA			TBTA 2008B-3	11/16/2015	1,790,000	11/15/2033	5.000	-	-	-	-	-	1,550,000	-
Aa3/AA-/AA-/AA			TBTA 2008B-3	11/16/2015	19,115,000	11/15/2034	5.000	-	-	-	-	-	16,580,000	-
Aa3/AA-/AA-/AA			TBTA 2008B-3	11/16/2015	10,080,000	11/15/2035	5.000	-	-	-	-	-	8,740,000	-
Aa3/AA-/AA-/AA			TBTA 2008B-3	11/16/2015	12,485,000	11/15/2036	5.000	-	-	-	-	-	10,830,000	-
Aa3/AA-/AA-/AA			TBTA 2008B-3	11/16/2015	17,385,000	11/15/2037	5.000	-	-	-	-	-	15,080,000	-
Aa3/AA-/AA-/AA			TBTA 2008B-3	11/16/2015	24,170,000	11/15/2038	5.000	-	-	-	-	-	20,965,000	-
Aa3/AA-/AA-/AA			TBTA 2009A-1	11/15/2012	445,000	11/15/2022	3.000	445,000	-	-	-	-	-	-
Aa3/AA-/AA-/AA			TBTA 2009A-1	11/15/2012	415,000	11/15/2023	3.000	-	-	-	-	-	140,000	-
Aa3/AA-/AA-/AA			TBTA 2009A-1 TBTA 2009A-1	11/15/2012	4,205,000 6,580,000	11/15/2024	2.625 5.000	-	-	-	-	-	1,400,000	-
Aa3/AA-/AA-/AA Aa3/AA-/AA-/AA			TBTA 2009A-1 TBTA 2009A-1	11/15/2012 11/15/2012	6,970,000	11/15/2025 11/15/2026	5.000	-	-	-	-	-	2,190,000 2,320,000	-
Aa3/AA-/AA-/AA Aa3/AA-/AA-/AA			TBTA 2009A-1 TBTA 2009A-1	11/15/2012	2,550,000	11/15/2020	5.000						850,000	
Aa3/AA-/AA-/AA			TBTA 2009A-1	11/15/2012	3,700,000	11/15/2028	3.000	-	-	-	-	-	3,700,000	-
Aa3/AA-/AA-/AA			TBTA 2009A-1	11/15/2012	3,925,000	11/15/2029	5.000	-	-	-	-	-	3,925,000	-
Aa3/AA-/AA-/AA			TBTA 2009A-1	11/15/2012	4,140,000	11/15/2030	5.000	-	-	-	-	-	4,140,000	-
Aa3/AA-/AA-/AA			TBTA 2009A-1	11/15/2012	4,380,000	11/15/2031	5.000	-	-	-	-	-	4,380,000	-
Aa3/AA-/AA-/AA			TBTA 2009A-1	11/15/2012	4,635,000	11/15/2032	5.000	-	-	-	-	-	4,635,000	-
Aa3/AA-/AA-/AA			TBTA 2009A-1	11/15/2012	4,965,000	11/15/2033	5.000	-	-	-	-	-	4,965,000	-
Aa3/AA-/AA-/AA			TBTA 2009A-1	11/15/2012	5,250,000	11/15/2034	5.000	-	-	-	-	-	5,250,000	-
Aa3/AA-/AA-/AA			TBTA 2009A-1	11/15/2012	5,565,000	11/15/2035	5.000	-	-	-	-	-	5,565,000	-
Aa3/AA-/AA-/AA			TBTA 2009A-1	11/15/2012	5,910,000	11/15/2036	5.000	-	-	-	-	-	5,910,000	-
Aa3/AA-/AA-/AA Aa3/AA-/AA-/AA			TBTA 2009A-1 TBTA 2009A-1	11/15/2012 11/15/2012	6,235,000 6,650,000	11/15/2037 11/15/2038	5.000 5.000	-	-	-	-	-	6,235,000 6,650,000	-
Aa3/AA-/AA-/AA Aa3/AA-/AA-/AA			TBTA 2009A-1 TBTA 2009B	9/17/2009	35,640,000	11/15/2038	5.420	-	-	-	-		35,640,000	-
Aa3/AA-/AA-/AA			TBTA 2009B	9/17/2009	37,700,000	11/15/2035	5.420	-	-	-	-	-	37,700,000	-
Aa3/AA-/AA-/AA			TBTA 2009B	9/17/2009	39,875,000	11/15/2037	5.500	-	-	-	-	-	39,875,000	-
Aa3/AA-/AA-/AA			TBTA 2009B	9/17/2009	42,175,000	11/15/2038	5.500	-	-	-	-	-	42,175,000	-
Aa3/AA-/AA-/AA			TBTA 2009B	9/17/2009	44,610,000	11/15/2039	5.500	-	-	-	-	-	44,610,000	-
Aa3/AA-/AA-/AA			TBTA 2010A-2 Build America Bonds	10/28/2010	8,870,000	11/15/2022	4.250	8,870,000	-	-	-	-	-	-
Aa3/AA-/AA-/AA			TBTA 2010A-2 Build America Bonds	10/28/2010	9,265,000	11/15/2023	4.500	-	-	-	-	-	9,265,000	-
Aa3/AA-/AA-/AA			TBTA 2010A-2 Build America Bonds	10/28/2010	9,665,000	11/15/2024	4.750	-	-	-	-	-	9,665,000	-
Aa3/AA-/AA-/AA			TBTA 2010A-2 Build America Bonds	10/28/2010	10,095,000	11/15/2025	5.000	-	-	-	-	-	10,095,000	-
Aa3/AA-/AA-/AA			TBTA 2010A-2 Build America Bonds	10/28/2010	10,550,000	11/15/2026	5.150 5.300	-	-	-	-	-	10,550,000	-
Aa3/AA-/AA-/AA Aa3/AA-/AA-/AA			TBTA 2010A-2 Build America Bonds TBTA 2010A-2 Build America Bonds	10/28/2010 10/28/2010	11,105,000 11,695,000	11/15/2027 11/15/2028	5.450	-	-	-	-	-	11,105,000 11,695,000	-
Aa3/AA-/AA-/AA Aa3/AA-/AA-/AA			TBTA 2010A-2 Build America Bonds	10/28/2010	12,315,000	11/15/2028	5.450	_	-	_	_	_	12,315,000	_
Aa3/AA-/AA-/AA			TBTA 2010A-2 Build America Bonds	10/28/2010	12,965,000	11/15/2030	5.450	-	-	-	-	-	12,965,000	-
Aa3/AA-/AA-/AA			TBTA 2010A-2 Build America Bonds	10/28/2010	13,650,000	11/15/2031	5.450	-	-	-	-	-	13,650,000	-
Aa3/AA-/AA-/AA			TBTA 2010A-2 Build America Bonds	10/28/2010	14,395,000	11/15/2032	5.450	-	-	-	-	-	14,395,000	-
Aa3/AA-/AA-/AA			TBTA 2010A-2 Build America Bonds	10/28/2010	15,175,000	11/15/2033	5.550	-	-	-	-	-	15,175,000	-
Aa3/AA-/AA-/AA			TBTA 2010A-2 Build America Bonds	10/28/2010	16,000,000	11/15/2034	5.550	-	-	-	-	-	16,000,000	-
Aa3/AA-/AA-/AA			TBTA 2010A-2 Build America Bonds	10/28/2010	16,870,000	11/15/2035	5.550	-	-	-	-	-	16,870,000	-
Aa3/AA-/AA-/AA			TBTA 2010A-2 Build America Bonds	10/28/2010	17,790,000	11/15/2036	5.550	-	-	-	-	-	17,790,000	-
Aa3/AA-/AA-/AA			TBTA 2010A-2 Build America Bonds	10/28/2010	18,765,000	11/15/2037	5.550	-	-	-	-	-	18,765,000	-
Aa3/AA-/AA-/AA			TBTA 2010A-2 Build America Bonds	10/28/2010	19,800,000	11/15/2038	5.550	-	-	-	-	-	19,800,000	-
Aa3/AA-/AA-/AA Aa3/AA-/AA-/AA			TBTA 2010A-2 Build America Bonds TBTA 2010A-2 Build America Bonds	10/28/2010 10/28/2010	20,885,000 22,035,000	11/15/2039 11/15/2040	5.550 5.550	=	=	-	-	-	20,885,000 22,035,000	-
Aa3/AA-/AA-/AA Aa3/AA-/AA-/AA			TBTA 2010A-2 Build America Bonds TBTA 2011A	10/28/2010 10/13/2011	22,035,000 450,000	11/15/2040	3.000	450,000	-	-	-	-	22,035,000	-
Aa3/AA-/AA-/AA Aa3/AA-/AA-/AA			TBTA 2011A TBTA 2011A	10/13/2011	24,975,000	1/1/2022	5.000	24,975,000	-	-	-	-	-	-
Aa3/AA-/AA-/AA Aa3/AA-/AA-/AA			TBTA 2011A	6/6/2012	5,420,000	11/15/2022	5.000	5,420,000	-		-	-	-	-
Aa3/AA-/AA-/AA			TBTA 2012A	6/6/2012	7,265,000	11/15/2022	3.000	-	-	-	-	-	7,265,000	-
Aa3/AA-/AA-/AA			TBTA 2012A	6/6/2012	7,625,000	11/15/2029	4.000	-	-	-	-	-	7,625,000	-
Aa3/AA-/AA-/AA			TBTA 2012A	6/6/2012	8,005,000	11/15/2030	3.250	-	-	-	-	-	8,005,000	-
Aa3/AA-/AA-/AA			TBTA 2012A	6/6/2012	8,405,000	11/15/2031	4.000	-	-	-	-	-	8,405,000	-

7,182,400,000

Total Bonds and Notes Issued in 2022

New Money Bonds and Notes Issued in 2022 5.402.860.000 Refunding Bonds and Notes Issued in 2022 1,779,540,000 Total 3,813,577,500 2,341,805,000 5,188,120,000 51,090,000 597,910,000 48,672,762,500 2,036,995,000 Credit Supported L T Amount Amount Amount Swapped Amount Matured in Amount Defeased Amount Called in Underlying L T Ratings Ratings S T Ratings Redeemed in Refinanced in Amount Outstanding as as of December Mdy/S&P/Ftch/Krll Mdy/S&P/Ftch/Krll Mdy/S&P/Ftch/Krll Series Maturity 2022 in 2022 2022 2022 2022 of December 31, 2022 31. 2022 Date Issued Amount Issued Coupon TRTA 2012A Aa3/AA-/AA-/AA 6/6/2012 8 830 000 11/15/2032 4 000 8 830 000 Aa3/AA-/AA-/AA TBTA 2012A 6/6/2012 9.270.000 11/15/2033 4 000 9,270,000 9,640,000 Aa3/AA-/AA-/AA TBTA 2012A 6/6/2012 9,640,000 11/15/2034 4.000 TBTA 2012A 10.025.000 11/15/2035 10.025.000 Aa3/AA-/AA-/AA 6/6/2012 4.000 Aa3/AA-/AA-/AA **TBTA 2012A** 6/6/2012 10,425,000 11/15/2036 4 000 10.425.000 TBTA 2012A 6/6/2012 10,845,000 11/15/2037 4.000 10,845,000 Aa3/AA-/AA-/AA 11.275.000 Aa3/AA-/AA-/AA **TBTA 2012A** 6/6/2012 11.275.000 11/15/2038 4.000 11,730,000 Aa3/AA-/AA-/AA **TBTA 2012A** 6/6/2012 11.730.000 11/15/2039 4.000 Aa3/AA-/AA-/AA TBTA 2012A 6/6/2012 12,195,000 11/15/2040 4.000 12,195,000 Aa3/AA-/AA-/AA TBTA 2012A 6/6/2012 12,685,000 11/15/2041 4.000 12,685,000 13,195,000 13,195,000 Aa3/AA-/AA-/AA **TBTA 2012A** 6/6/2012 11/15/2042 4.000 Aa3/AA-/AA-/AA TBTA 2012B 8/23/2012 4,045,000 11/15/2022 4.000 4,045,000 Aa3/AA-/AA-/AA TBTA 2012B 8/23/2012 96,525,000 11/15/2022 5.000 96,525,000 Aa3/AA-/AA-/AA **TBTA 2012B** 8/23/2012 100.100.000 11/15/2023 5.000 100.100.000 Aa3/AA-/AA-/AA **TBTA 2012B** 8/23/2012 60,995,000 11/15/2024 5.000 60,995,000 TBTA 2012B Aa3/AA-/AA-/AA 44,060,000 8/23/2012 44,060,000 11/15/2025 5.000 Aa3/AA-/AA-/AA TBTA 2012B 8/23/2012 20,000,000 11/15/2025 4.000 20,000,000 Aa3/AA-/AA-/AA **TBTA 2012B** 8/23/2012 66,910,000 11/15/2026 5.000 66.910.000 Aa3/AA-/AA-/AA TBTA 2012B 8/23/2012 15,000,000 11/15/2027 15,000,000 TBTA 2012B 8/23/2012 33,620,000 5.000 33,620,000 Aa3/AA-/AA-/AA 11/15/2027 TBTA 2012B 8/23/2012 15,000,000 Aa3/AA-/AA-/AA 15.000.000 11/15/2028 Aa3/AA-/AA-/AA TRTA 2012B 8/23/2012 20.700.000 11/15/2028 5 000 20,700,000 Aa3/AA-/AA-/AA TBTA 2012B 8/23/2012 15,000,000 11/15/2029 15,000,000 Aa3/AA-/AA-/AA TBTA 2012B 8/23/2012 21,730,000 11/15/2029 5.000 21,730,000 Aa3/AA-/AA-/AA TRTA 2012B 8/23/2012 10 000 000 11/15/2030 10 000 000 Aa3/AA-/AA-/AA TBTA 2012B 8/23/2012 12,635,000 11/15/2030 5.000 12,635,000 Aa3/AA-/AA-/AA TBTA 2012B 8/23/2012 10,000,000 11/15/2031 10,000,000 13 260 000 TRTA 2012B 8/23/2012 11/15/2031 5 000 13 260 000 Aa3/AA-/AA-/AA Aa3/AA-/AA-/AA **TBTA 2012B** 8/23/2012 166,500,000 11/15/2032 166,500,000 4.000 Aa3/AA-/AA-/AA **TBTA 2012B** 8/23/2012 37,110,000 11/15/2032 37,110,000 Aa3/AA-/AA-/AA **TBTA 2013B** 1/29/2013 13.045.000 11/15/2022 5.000 13.045.000 Aa3/AA-/AA-/AA **TBTA 2013B** 1/29/2013 20.000.000 11/15/2023 4.000 20.000.000 Aa3/AA-/AA-/AA TBTA 2013B 1/29/2013 34,890,000 11/15/2023 5.000 34,890,000 Aa3/AA-/AA-/AA TBTA 2013B 1/29/2013 18,800,000 11/15/2024 5.000 18,800,000 Aa3/AA-/AA-/AA **TBTA 2013B** 1/29/2013 6.985.000 11/15/2025 5.000 6.985.000 Aa3/AA-/AA-/AA TBTA 2013B 1/29/2013 7,470,000 11/15/2026 5.000 7,470,000 Aa3/AA-/AA-/AA TBTA 2013B 1/29/2013 16,055,000 11/15/2027 5.000 16,055,000 1/29/2013 Aa3/AA-/AA-/AA **TBTA 2013B** 8.025.000 11/15/2028 5.000 8.025.000 Aa3/AA-/AA-/AA TBTA 2013B 1/29/2013 8,425,000 11/15/2029 5.000 8,425,000 Aa3/AA-/AA-/AA TBTA 2013B 1/29/2013 8,845,000 11/15/2030 5.000 8,845,000 Aa3/AA-/AA-/AA TBTA 2013C 4/18/2013 4.505.000 11/15/2022 5.000 4,505,000 Aa3/AA-/AA-/AA TBTA 2013C 4/18/2013 6.340.000 11/15/2029 5.000 6.340.000 Aa3/AA-/AA-/AA TBTA 2013C 4/18/2013 6,660,000 11/15/2030 5.000 6,660,000 Aa3/AA-/AA-/AA TBTA 2013C 4/18/2013 6,990,000 11/15/2031 5.000 6,990,000 Aa3/AA-/AA-/AA **TBTA 2013C** 4/18/2013 7.340.000 11/15/2032 5.000 7.340.000 Aa3/AA-/AA-/AA **TBTA 2013C** 4/18/2013 7.705.000 11/15/2033 5 000 7,705,000 Aa3/AA-/AA-/AA TBTA 2013C 4/18/2013 15,020,000 11/15/2034 5.000 15,020,000 Aa3/AA-/AA-/AA TBTA 2013C 4/18/2013 15,770,000 11/15/2035 5.000 15,770,000 Aa3/AA-/AA-/AA TRTA 2013C 4/18/2013 16.560.000 11/15/2036 5 000 16.560.000 Aa3/AA-/AA-/AA TBTA 2013C 4/18/2013 17,390,000 11/15/2037 5.000 17,390,000 Aa3/AA-/AA-/AA TBTA 2013C 4/18/2013 18,260,000 11/15/2038 5.000 18,260,000 TBTA 2013C 4/18/2013 2.785.000 11/15/2039 3 750 2 785 000 Aa3/AA-/AA-/AA Aa3/AA-/AA-/AA TBTA 2013C 4/18/2013 2,885,000 11/15/2040 3.750 2,885,000 Aa3/AA-/AA-/AA TBTA 2013C 4/18/2013 2,995,000 11/15/2041 3.750 2,995,000 Aa3/AA-/AA-/AA **TBTA 2013C** 4/18/2013 3.110.000 11/15/2042 3.750 3.110.000 Aa3/AA-/AA-/AA **TBTA 2013C** 4/18/2013 3,225,000 11/15/2043 3 750 3,225,000 TBTA 2014A 2/6/2014 5,330,000 11/15/2022 5,330,000 Aa3/AA-/AA-/AA 5.000 Aa3/AA-/AA-/AA TBTA 2014A 2/6/2014 1,895,000 11/15/2023 3.000 1,895,000 11/15/2023 3.700.000 Aa3/AA-/AA-/AA **TBTA 2014A** 2/6/2014 3.700.000 5.000 Aa3/AA-/AA-/AA TBTA 2014A 2/6/2014 7,360,000 11/15/2029 5.000 7,360,000 Aa3/AA-/AA-/AA TBTA 2014A 2/6/2014 7,725,000 11/15/2030 5.000 7,725,000 Aa3/AA-/AA-/AA **TBTA 2014A** 2/6/2014 8.110.000 11/15/2031 5.000 8.110.000 Aa3/AA-/AA-/AA TBTA 2014A 2/6/2014 8,520,000 11/15/2032 4.000 8,520,000 Aa3/AA-/AA-/AA TBTA 2014A 2/6/2014 8,860,000 11/15/2033 5.000 8,860,000 Aa3/AA-/AA-/AA 2/6/2014 9.300.000 11/15/2034 4.000 9.300.000 **TBTA 2014A** 

Total Bonds and Notes Issued in 2022

7 182 400 000

			New Money Bonds and No	tes Issued in 2022	5,402,860,000									
			Refunding Bonds and No	tes Issued in 2022	1,779,540,000	l	Total	3,813,577,500	2,341,805,000	5,188,120,000	51,090,000	597,910,000	48,672,762,500	2,036,995,000
	Credit Supported L T										Amount	Amount		Amount Swapped
Underlying L T Ratings	Ratings	S T Ratings						Amount Matured in			Redeemed in	Refinanced in	Amount Outstanding as	
Mdy/S&P/Ftch/Krll Aa3/AA-/AA-/AA	Mdy/S&P/Ftch/Krll	Mdy/S&P/Ftch/Krll	Series TBTA 2014A	Date Issued 2/6/2014	Amount Issued 9,675,000	Maturity 11/15/2035	<u>Coupon</u> 4.000	2022	in 2022	2022	2022	2022	of December 31, 2022 9,675,000	31, 2022
Aa3/AA-/AA-/AA Aa3/AA-/AA-/AA			TBTA 2014A TBTA 2014A	2/6/2014	485,000	11/15/2035	4.000	-	-	-	-	-	485,000	-
Aa3/AA-/AA			TBTA 2014A	2/6/2014	9,575,000	11/15/2036	5.000	-	-	-	-	-	9,575,000	-
Aa3/AA-/AA-/AA			TBTA 2014A	2/6/2014	505,000	11/15/2037	4.250	-	-	-	-	-	505,000	-
Aa3/AA-/AA-/AA			TBTA 2014A	2/6/2014	10,055,000	11/15/2037	5.000	-	-	-	-	-	10,055,000	-
Aa3/AA-/AA-/AA			TBTA 2014A	2/6/2014	530,000	11/15/2038	4.250		-	-	-	-	530,000	-
Aa3/AA-/AA-/AA			TBTA 2014A	2/6/2014	10,555,000	11/15/2038	5.000	-	-	-	-	-	10,555,000	-
Aa3/AA-/AA-/AA Aa3/AA-/AA-/AA			TBTA 2014A TBTA 2014A	2/6/2014 2/6/2014	550,000 11,085,000	11/15/2039 11/15/2039	4.250 5.000	-	-	-	-	-	550,000 11,085,000	-
Aa3/AA-/AA-/AA Aa3/AA-/AA-/AA			TBTA 2014A TBTA 2014A	2/6/2014	7,615,000	11/15/2039	5.000		-	-	-	-	7,615,000	-
Aa3/AA-/AA-/AA Aa3/AA-/AA-/AA			TBTA 2014A	2/6/2014	4,595,000	11/15/2040	4.375	-	-	-	-	-	4,595,000	-
Aa3/AA-/AA			TBTA 2014A	2/6/2014	8,005,000	11/15/2041	5.000	-	-	-	-	-	8,005,000	-
Aa3/AA-/AA-/AA			TBTA 2014A	2/6/2014	4,790,000	11/15/2041	4.375	-	-	-	-	-	4,790,000	-
Aa3/AA-/AA-/AA			TBTA 2014A	2/6/2014	8,415,000	11/15/2042	5.000	-	-	-	-	-	8,415,000	-
Aa3/AA-/AA-/AA			TBTA 2014A	2/6/2014	4,990,000	11/15/2042	4.375	-	-	-	-	-	4,990,000	-
Aa3/AA-/AA-/AA			TBTA 2014A	2/6/2014	8,840,000	11/15/2043	5.000	-	-	-	-	-	8,840,000	-
Aa3/AA-/AA-/AA			TBTA 2014A	2/6/2014	5,205,000	11/15/2043	4.375	-	-	-	-	-	5,205,000	-
Aa3/AA-/AA-/AA Aa3/AA-/AA-/AA			TBTA 2014A TBTA 2014A	2/6/2014 2/6/2014	9,295,000 5,420,000	11/15/2044 11/15/2044	5.000 4.375		-	-	-	-	9,295,000 5,420,000	-
Aa3/AA-/AA-/AA Aa3/AA-/AA-/AA			TBTA 2014A TBTA 2015A	5/15/2014	3,520,000	11/15/2022	5.000		-	-	-	-	5,420,000	-
Aa3/AA-/AA			TBTA 2015A	5/15/2015	3,695,000	11/15/2023	5.000		-	-	-	-	3,695,000	-
Aa3/AA-/AA-/AA			TBTA 2015A	5/15/2015	3,880,000	11/15/2024	5.000		-	-	-	-	3,880,000	-
Aa3/AA-/AA-/AA			TBTA 2015A	5/15/2015	4,950,000	11/15/2029	5.000	-	-	-	-	-	4,950,000	-
Aa3/AA-/AA-/AA			TBTA 2015A	5/15/2015	5,200,000	11/15/2030	5.000	-	-	-	-	-	5,200,000	-
Aa3/AA-/AA-/AA			TBTA 2015A	5/15/2015	5,460,000	11/15/2031	5.000		-	-	-	-	5,460,000	-
Aa3/AA-/AA-/AA			TBTA 2015A	5/15/2015	5,730,000	11/15/2033	5.000	-	-	-	-	-	5,730,000	-
Aa3/AA-/AA			TBTA 2015A	5/15/2015	6,020,000	11/15/2034	3.250	-	-	-	-	-	6,020,000	-
Aa3/AA-/AA-/AA			TBTA 2015A	5/15/2015	6,215,000	11/15/2035	5.000	-	-	-	-	-	6,215,000	-
Aa3/AA-/AA-/AA Aa3/AA-/AA-/AA			TBTA 2015A TBTA 2015A	5/15/2015 5/15/2015	6,525,000 6,850,000	11/15/2036 11/15/2037	5.000 5.000	-	-	-	-	-	6,525,000 6,850,000	-
Aa3/AA-/AA-/AA Aa3/AA-/AA-/AA			TBTA 2015A	5/15/2015	7,195,000	11/15/2038	5.000	_	_	_	_	_	7,195,000	_
Aa3/AA-/AA-/AA			TBTA 2015A	5/15/2015	7,555,000	11/15/2039	5.000	-	-	-	-	-	7,555,000	-
Aa3/AA-/AA			TBTA 2015A	5/15/2015	7,930,000	11/15/2040	5.000	-	-	-	-	-	7,930,000	-
Aa3/AA-/AA-/AA			TBTA 2015A	5/15/2015	8,330,000	11/15/2041	5.250	-	-	-	-	-	8,330,000	-
Aa3/AA-/AA-/AA			TBTA 2015A	5/15/2015	8,765,000	11/15/2042	5.250		-	-	-	-	8,765,000	-
Aa3/AA-/AA-/AA			TBTA 2015A	5/15/2015	9,225,000	11/15/2043	5.250		-	-	-	-	9,225,000	-
Aa3/AA-/AA-/AA			TBTA 2015A	5/15/2015	9,710,000	11/15/2044	5.250	-	-	-	-	-	9,710,000	-
Aa3/AA-/AA-/AA Aa3/AA-/AA-/AA			TBTA 2015A TBTA 2015A	5/15/2015 5/15/2015	10,220,000 10,755,000	11/15/2045 11/15/2046	5.250 5.000	-	-	-	-	-	10,220,000 10,755,000	-
Aa3/AA-/AA-/AA Aa3/AA-/AA-/AA			TBTA 2015A TBTA 2015A	5/15/2015	11,295,000	11/15/2046	5.000		-	-	-	-	11,295,000	-
Aa3/AA-/AA-/AA Aa3/AA-/AA-/AA			TBTA 2015A	5/15/2015	11,860,000	11/15/2048	5.000		_	_	_	_	11,860,000	_
Aa3/AA-/AA			TBTA 2015A	5/15/2015	12,450,000	11/15/2049	5.000		-	-	-	-	12,450,000	-
Aa3/AA-/AA-/AA			TBTA 2015A	5/15/2015	13,075,000	11/15/2050	5.000		-	-	-	-	13,075,000	-
Aa3/AA-/AA-/AA			TBTA 2015B	11/16/2015	1,425,000	11/15/2022	2.250		-	-	-	-	-	-
Aa3/AA-/AA-/AA			TBTA 2015B	11/16/2015	1,460,000	11/15/2023	5.000		-	-	-	-	1,460,000	-
Aa3/AA-/AA			TBTA 2015B	11/16/2015	1,530,000	11/15/2024	5.000		-	-	-	-	1,530,000	-
Aa3/AA-/AA-/AA			TBTA 2015B	11/16/2015	1,605,000	11/15/2025	5.000		-	-	-	-	1,605,000	-
Aa3/AA-/AA-/AA Aa3/AA-/AA-/AA			TBTA 2015B TBTA 2015B	11/16/2015 11/16/2015	1,685,000 1,770,000	11/15/2026 11/15/2027	5.000 5.000		-	-	-	-	1,685,000 1,770,000	
Aa3/AA-/AA-/AA Aa3/AA-/AA-/AA			TBTA 2015B TBTA 2015B	11/16/2015	1,860,000	11/15/2027	5.000		-	-	-	-	1,860,000	-
Aa3/AA-/AA-/AA Aa3/AA-/AA-/AA			TBTA 2015B	11/16/2015	1,955,000	11/15/2029	5.000	-	-	-	-	-	1,955,000	-
Aa3/AA-/AA-/AA			TBTA 2015B	11/16/2015	2,050,000	11/15/2030	5.000	-	-	-	-	-	2,050,000	-
Aa3/AA-/AA-/AA			TBTA 2015B	11/16/2015	2,155,000	11/15/2031	5.000	-	-	-	-	-	2,155,000	-
Aa3/AA-/AA-/AA			TBTA 2015B	11/16/2015	2,260,000	11/15/2033	5.000	-	-	-	-	-	2,260,000	-
Aa3/AA-/AA-/AA			TBTA 2015B	11/16/2015	2,375,000	11/15/2034	5.000	-	-	-	-	-	2,375,000	-
Aa3/AA-/AA-/AA			TBTA 2015B	11/16/2015	2,495,000	11/15/2035	5.000	-	-	-	-	-	2,495,000	-
Aa3/AA-/AA-/AA Aa3/AA-/AA-/AA			TBTA 2015B TBTA 2015B	11/16/2015 11/16/2015	2,620,000 2,750,000	11/15/2036 11/15/2037	5.000 5.000	=	=	-	-	-	2,620,000 2,750,000	-
Aa3/AA-/AA Aa3/AA-/AA-/AA			TBTA 2015B TBTA 2015B	11/16/2015	2,750,000 2,885,000	11/15/2037	5.000	-	-	-	-	-	2,750,000 2,885,000	
Aa3/AA-/AA-/AA Aa3/AA-/AA-/AA			TBTA 2015B	11/16/2015	3,030,000	11/15/2038	5.000	-	-	-	-	-	3,030,000	-
Aa3/AA-/AA-/AA			TBTA 2015B	11/16/2015	3,180,000	11/15/2040	5.000		-	-	-	-	3,180,000	-
Aa3/AA-/AA-/AA			TBTA 2015B	11/16/2015	3,340,000	11/15/2041	5.000		-	-	-	-	3,340,000	-
Aa3/AA-/AA-/AA			TBTA 2015B	11/16/2015	3,505,000	11/15/2042	5.000		-	-	-	-	3,505,000	-
Aa3/AA-/AA-/AA			TBTA 2015B	11/16/2015	3,685,000	11/15/2043	5.000		-	-	-	-	3,685,000	-
Aa3/AA-/AA-/AA			TBTA 2015B	11/16/2015	3,865,000	11/15/2044	5.000	-	-	-	-	-	3,865,000	-

7,182,400,000

Total Bonds and Notes Issued in 2022

			New Money Bonds and No	tes Issued in 2022	5,402,860,000									
			Refunding Bonds and No	tes Issued in 2022	1,779,540,000	[	Total	3,813,577,500	2,341,805,000	5,188,120,000	51,090,000	597,910,000	48,672,762,500	2,036,995,000
	Credit Supported LT										Amount	A		Amount Swanned
Underlying L T Ratings	Credit Supported L T Ratings	S T Ratings						Amount Matured in	Amount Defeased	Amount Called in	Amount Redeemed in	Amount Refinanced in	Amount Outstanding as	Amount Swapped as of December
Mdy/S&P/Ftch/Krll	Mdy/S&P/Ftch/Krll	Mdy/S&P/Ftch/Krll	Series	Date Issued	Amount Issued	Maturity	Coupon	2022	in 2022	2022	2022	2022	of December 31, 2022	31, 2022
Aa3/AA-/AA-/AA	<u></u>	<u></u>	TBTA 2015B	11/16/2015	4,060,000	11/15/2045	5.000	-					4,060,000	-
Aa3/AA-/AA-/AA			TBTA 2016A	1/28/2016	6,520,000	11/15/2022	5.000	6,520,000	-	-	-	-	-	-
Aa3/AA-/AA-/AA			TBTA 2016A	1/28/2016	46,645,000	11/15/2023	5.000	-	-	-	-	-	46,645,000	-
Aa3/AA-/AA-/AA			TBTA 2016A	1/28/2016	51,315,000	11/15/2024	5.000	-	-	-	-	-	51,315,000	-
Aa3/AA-/AA-/AA			TBTA 2016A	1/28/2016	22,265,000	11/15/2025	5.000	-	-	-	-	-	22,265,000	-
Aa3/AA-/AA-/AA			TBTA 2016A	1/28/2016	21,820,000	11/15/2026	5.000	-	-	-	-	-	21,820,000	-
Aa3/AA-/AA-/AA			TBTA 2016A	1/28/2016	8,275,000	11/15/2027	5.000	-	-	-	-	-	8,275,000	-
Aa3/AA-/AA-/AA			TBTA 2016A	1/28/2016	17,515,000	11/15/2028	5.000	-	-	-	-	-	17,515,000	-
Aa3/AA-/AA-/AA			TBTA 2016A	1/28/2016	18,400,000	11/15/2029	5.000	-	-	-	-	-	18,400,000	-
Aa3/AA-/AA-/AA			TBTA 2016A	1/28/2016	19,315,000	11/15/2030	5.000	-	-	-	-	-	19,315,000	-
Aa3/AA-/AA-/AA			TBTA 2016A	1/28/2016	30,440,000	11/15/2031	5.000	-	-	-	-	-	30,440,000	-
Aa3/AA-/AA-/AA			TBTA 2016A	1/28/2016	20,700,000	11/15/2033	5.000	-	-	-	-	-	20,700,000	-
Aa3/AA-/AA-/AA			TBTA 2016A	1/28/2016	23,325,000	11/15/2034	3.000 5.000	-	-	-	-	-	23,325,000	-
Aa3/AA-/AA-/AA Aa3/AA-/AA-/AA			TBTA 2016A TBTA 2016A	1/28/2016 1/28/2016	10,235,000 24,025,000	11/15/2034 11/15/2035	3.000	-	-	-	-	-	10,235,000 24,025,000	-
Aa3/AA-/AA-/AA Aa3/AA-/AA-/AA			TBTA 2016A TBTA 2016A	1/28/2016	10,745,000	11/15/2035	5.000	-	-	-	-	-	10,745,000	-
Aa3/AA-/AA-/AA Aa3/AA-/AA-/AA			TBTA 2010A TBTA 2016A	1/28/2016	11,280,000	11/15/2036	5.000		-				11,280,000	
Aa3/AA-/AA-/AA Aa3/AA-/AA-/AA			TBTA 2010A TBTA 2016A	1/28/2016	11,845,000	11/15/2030	5.000		-				11,845,000	
Aa3/AA-/AA-/AA			TBTA 2016A	1/28/2016	12,440,000	11/15/2038	5.000	-	-	_	-	-	12,440,000	-
Aa3/AA-/AA-/AA			TBTA 2016A	1/28/2016	13,060,000	11/15/2039	5.000		-	-	-	-	13,060,000	
Aa3/AA-/AA-/AA			TBTA 2016A	1/28/2016	13,715,000	11/15/2040	5.000		-	-	-	-	13,715,000	
Aa3/AA-/AA-/AA			TBTA 2016A	1/28/2016	14,400,000	11/15/2041	5.000		-	-	-	-	14,400,000	
Aa3/AA-/AA-/AA			TBTA 2016A	1/28/2016	15,120,000	11/15/2042	5.000	-	-	-		-	15,120,000	-
Aa3/AA-/AA-/AA			TBTA 2016A	1/28/2016	15,875,000	11/15/2043	5.000	-	-	-		-	15,875,000	-
Aa3/AA-/AA-/AA			TBTA 2016A	1/28/2016	16,670,000	11/15/2044	5.000	-	-	-	-	-	16,670,000	-
Aa3/AA-/AA-/AA			TBTA 2016A	1/28/2016	17,500,000	11/15/2045	5.000	-	-	-	-	-	17,500,000	-
Aa3/AA-/AA-/AA			TBTA 2016A	1/28/2016	18,375,000	11/15/2046	5.000		-	-	-	-	18,375,000	-
Aa3/AA-/AA-/AA	Aa1/AAA/AA+/NR		TBTA 2017A	1/19/2017	13,415,000	11/15/2022	4.000	13,415,000	-	-	-	-	-	-
Aa3/AA-/AA-/AA	Aa1/AAA/AA+/NR		TBTA 2017A	1/19/2017	46,755,000	11/15/2024	5.000	-	-	-	-	-	46,755,000	-
Aa3/AA-/AA-/AA	Aa1/AAA/AA+/NR		TBTA 2017A	1/19/2017	8,165,000	11/15/2025	5.000	-	-	-	-	-	8,165,000	-
Aa3/AA-/AA-/AA	Aa1/AAA/AA+/NR		TBTA 2017A	1/19/2017	8,655,000	11/15/2026	5.000	-	-	-	-	-	8,655,000	-
Aa3/AA-/AA-/AA	Aa1/AAA/AA+/NR		TBTA 2017A	1/19/2017	19,240,000	11/15/2027	5.000	-	-	-	-	-	19,240,000	-
Aa3/AA-/AA-/AA	Aa1/AAA/AA+/NR		TBTA 2017A	1/19/2017	4,565,000	11/15/2030	3.000	-	-	-	-	-	4,565,000	-
Aa3/AA-/AA-/AA	Aa1/AAA/AA+/NR		TBTA 2017A	1/19/2017	9,445,000	11/15/2033	5.000	-	-	-	-	-	9,445,000	-
Aa3/AA-/AA-/AA	Aa1/AAA/AA+/NR		TBTA 2017A	1/19/2017	9,915,000	11/15/2034	5.000	-	-	-	-	-	9,915,000	-
Aa3/AA-/AA-/AA	Aa1/AAA/AA+/NR		TBTA 2017A	1/19/2017	10,410,000	11/15/2035	5.000	-	-	-	-	-	10,410,000	-
Aa3/AA-/AA-/AA	Aa1/AAA/AA+/NR		TBTA 2017A	1/19/2017	9,560,000	11/15/2036	3.375	-	-	-	-	-	9,560,000	-
Aa3/AA-/AA-/AA	Aa1/AAA/AA+/NR		TBTA 2017A	1/19/2017	11,255,000	11/15/2037	5.000	-	-	-	-	-	11,255,000	-
Aa3/AA-/AA-/AA	Aa1/AAA/AA+/NR		TBTA 2017A	1/19/2017	11,815,000	11/15/2038	5.000	-	-	-	-	-	11,815,000	-
Aa3/AA-/AA-/AA	Aa1/AAA/AA+/NR		TBTA 2017A	1/19/2017	12,405,000	11/15/2039	5.000	-	-	-	-	-	12,405,000	-
Aa3/AA-/AA-/AA	Aa1/AAA/AA+/NR		TBTA 2017A	1/19/2017	13,025,000	11/15/2040	5.000	-	-	-	-	-	13,025,000	-
Aa3/AA-/AA-/AA	Aa1/AAA/AA+/NR		TBTA 2017A	1/19/2017	13,680,000	11/15/2041	5.000	-	-	-	-	-	13,680,000	-
Aa3/AA-/AA-/AA	Aa1/AAA/AA+/NR		TBTA 2017A	1/19/2017	14,365,000	11/15/2042	5.000	-	-	-	-	-	14,365,000	-
Aa3/AA-/AA-/AA	Aa1/AAA/AA+/NR		TBTA 2017A	1/19/2017	15,080,000	11/15/2043	5.000	-	-	-	-	-	15,080,000	-
Aa3/AA-/AA-/AA	Aa1/AAA/AA+/NR		TBTA 2017A	1/19/2017	15,835,000	11/15/2044	5.000	-	-	-	-	-	15,835,000	-
Aa3/AA-/AA-/AA	Aa1/AAA/AA+/NR		TBTA 2017A	1/19/2017	16,625,000	11/15/2045	5.000	-	-	-	-	-	16,625,000	-
Aa3/AA-/AA-/AA	Aa1/AAA/AA+/NR		TBTA 2017A	1/19/2017	17,460,000	11/15/2046	5.000	-	-	-	-	-	17,460,000	-
Aa3/AA-/AA-/AA Aa3/AA-/AA-/AA	Aa1/AAA/AA+/NR Aa1/AAA/AA+/NR		TBTA 2017A TBTA 2017B	1/19/2017 1/19/2017	18,330,000 10,940,000	11/15/2047 11/15/2024	5.000 5.000	-	-	-	-	-	18,330,000 10,940,000	-
Aa3/AA-/AA-/AA Aa3/AA-/AA-/AA	Aa1/AAA/AA+/NR Aa1/AAA/AA+/NR		TBTA 2017B TBTA 2017B	1/19/2017	14,305,000	11/15/2024	5.000	-	-	-	-	-	10,940,000	-
Aa3/AA-/AA-/AA Aa3/AA-/AA-/AA	Aa1/AAA/AA+/NR Aa1/AAA/AA+/NR		TBTA 2017B TBTA 2017B	1/19/2017	15,135,000	11/15/2025	5.000	-	-	-	-	-	14,305,000	-
Aa3/AA-/AA-/AA Aa3/AA-/AA-/AA	Aa1/AAA/AA+/NR Aa1/AAA/AA+/NR		TBTA 2017B	1/19/2017	30,725,000	11/15/2020	5.000		-				30,725,000	
Aa3/AA-/AA-/AA	Aa1/AAA/AA+/NR		TBTA 2017B	1/19/2017	63,480,000	11/15/2028	5.000	_	_	_			63,480,000	
Aa3/AA-/AA-/AA	Aa1/AAA/AA+/NR		TBTA 2017B	1/19/2017	82,820,000	11/15/2029	5.000	_	_	_			82,820,000	
Aa3/AA-/AA-/AA	Aa1/AAA/AA+/NR		TBTA 2017B	1/19/2017	88,325,000	11/15/2020	5.000		-	-	-	-	88,325,000	-
Aa3/AA-/AA-/AA	Aa1/AAA/AA+/NR		TBTA 2017B	1/19/2017	92,465,000	11/15/2031	5.000	-	-	-	-	-	92,465,000	-
Aa3/AA-/AA-/AA	Aa1/AAA/AA+/NR		TBTA 2017B	1/19/2017	56,905,000	11/15/2032	5.000	-	-	-	-	-	56,905,000	-
Aa3/AA-/AA-/AA	Aa1/AAA/AA+/NR		TBTA 2017B	1/19/2017	74,450,000	11/15/2033	5.000	-	-	-	-	-	74,450,000	-
Aa3/AA-/AA-/AA	Aa1/AAA/AA+/NR		TBTA 2017B	1/19/2017	49,100,000	11/15/2034	5.000	-	-	-	-	-	49,100,000	-
Aa3/AA-/AA-/AA	Aa1/AAA/AA+/NR		TBTA 2017B	1/19/2017	61,360,000	11/15/2035	5.000	-	-	-	-	-	61,360,000	-
Aa3/AA-/AA-/AA	Aa1/AAA/AA+/NR		TBTA 2017B	1/19/2017	88,595,000	11/15/2036	5.000	-	-	-	-	-	88,595,000	-
Aa3/AA-/AA-/AA	Aa1/AAA/AA+/NR		TBTA 2017B	1/19/2017	88,635,000	11/15/2037	5.000	-	-	-	-	-	88,635,000	-
Aa3/AA-/AA-/AA	Aa1/AAA/AA+/NR		TBTA 2017B	1/19/2017	85,735,000	11/15/2038	5.000	-	-	-	-	-	85,735,000	-
Aa3/AA-/AA-/AA			TBTA 2017C-1 Refunding Bonds	11/17/2017	17,185,000	11/15/2023	5.000	-	-	-	-	-	17,185,000	-
Aa3/AA-/AA-/AA			TBTA 2017C-1 Refunding Bonds	11/17/2017	20,890,000	11/15/2024	5.000	-	-	-	-	-	20,890,000	-

7,182,400,000

Total Bonds and Notes Issued in 2022

			I otal Bonds and No		7,182,400,000									
			New Money Bonds and No		5,402,860,000	F		0.040 577 500		= 100 100 000	54 000 000	503.040.000	10 670 760 500	0.005.005.000
			Refunding Bonds and No	tes Issued in 2022	1,779,540,000	L	Total	3,813,577,500	2,341,805,000	5,188,120,000	51,090,000	597,910,000	48,672,762,500	2,036,995,000
	Condition Commente da L. T.													A
	Credit Supported L T										Amount	Amount		Amount Swapped
Underlying L T Ratings	Ratings	S T Ratings					-	Amount Matured in				Refinanced in	Amount Outstanding as	
Mdy/S&P/Ftch/Krll	Mdy/S&P/Ftch/Krll	Mdy/S&P/Ftch/Krll	Series	Date Issued	Amount Issued	Maturity	Coupon	2022	<u>in 2022</u>	2022	2022	2022	of December 31, 2022	<u>31, 2022</u>
Aa3/AA-/AA-/AA			TBTA 2017C-1 Refunding Bonds	11/17/2017	120,555,000	11/15/2025	5.000	-	-	-	-	-	120,555,000	•
Aa3/AA-/AA-/AA			TBTA 2017C-1 Refunding Bonds	11/17/2017	2,255,000	11/15/2025	3.000	-	-	-	-	-	2,255,000	-
Aa3/AA-/AA-/AA			TBTA 2017C-1 Refunding Bonds	11/17/2017	3,180,000	11/15/2025	4.000	-	-	-	-	-	3,180,000	
Aa3/AA-/AA-/AA			TBTA 2017C-1 Refunding Bonds	11/17/2017	1,955,000	11/15/2026	4.000		-	-	-	-	1,955,000	-
Aa3/AA-/AA-/AA			TBTA 2017C-1 Refunding Bonds	11/17/2017	108,895,000	11/15/2026	5.000	-	-	-	-	-	108,895,000	
Aa3/AA-/AA-/AA			TBTA 2017C-1 Refunding Bonds	11/17/2017	118,110,000	11/15/2027	5.000	-	-	-	-	-	118,110,000	-
Aa3/AA-/AA-/AA			TBTA 2017C-1 Refunding Bonds	11/17/2017	10,400,000	11/15/2027	4.000						10,400,000	_
Aa3/AA-/AA-/AA			TBTA 2017C-1 Refunding Bonds	11/17/2017	117,565,000	11/15/2028	5.000						117,565,000	
			•				5.000							
Aa3/AA-/AA-/AA			TBTA 2017C-2	11/17/2017	46,405,000	11/15/2039		-	-		-	-	46,405,000	-
Aa3/AA-/AA-/AA			TBTA 2017C-2	11/17/2017	48,720,000	11/15/2040	5.000	-	-	-	-	-	48,720,000	-
Aa3/AA-/AA-/AA			TBTA 2017C-2	11/17/2017	51,160,000	11/15/2041	5.000	-	-	-	-	-	51,160,000	-
Aa3/AA-/AA-/AA			TBTA 2017C-2	11/17/2017	53,715,000	11/15/2042	5.000	-	-	-	-	-	53,715,000	•
Aa3/AA-/AA-/AA			TBTA 2018A	2/1/2018	51,830,000	11/15/2043	5.000	-	-	-	-	-	51,830,000	-
Aa3/AA-/AA-/AA			TBTA 2018A	2/1/2018	54,425,000	11/15/2044	5.000						54,425,000	-
Aa3/AA-/AA-/AA			TBTA 2018A	2/1/2018	57,145,000	11/15/2045	5.000		-	-	-	-	57,145,000	-
Aa3/AA-/AA-/AA			TBTA 2018A	2/1/2018	60,005,000	11/15/2046	5.000	-	-	-	-	-	60,005,000	
Aa3/AA-/AA-/AA			TBTA 2018A	2/1/2018	63,005,000	11/15/2047	4.000						63,005,000	-
Aa3/AA-/AA-/AA			TBTA 2018A	2/1/2018	65,520,000	11/15/2048	4.000	_		_		_	65,520,000	
Aa3/AA-/AA-/AA Aa3/AA-/AA-/AA			TBTA 2018A	8/30/2018	18,185,000	11/15/2024	5.000						18,185,000	
			TBTA 2018B				5.000	-	-	-	-	-	17,430,000	-
Aa3/AA-/AA-/AA				8/30/2018	17,430,000	11/15/2025		-	-	-	-	-		-
Aa3/AA-/AA-/AA			TBTA 2018B	8/30/2018	18,400,000	11/15/2026	5.000	-	-	-	-	-	18,400,000	-
Aa3/AA-/AA-/AA			TBTA 2018B	8/30/2018	25,715,000	11/15/2027	5.000	-	-	-	-	-	25,715,000	-
Aa3/AA-/AA-/AA			TBTA 2018B	8/30/2018	45,650,000	11/15/2028	5.000	-	-	-	-	-	45,650,000	•
Aa3/AA-/AA-/AA			TBTA 2018B	8/30/2018	47,620,000	11/15/2029	5.000	-	-	-	-	-	47,620,000	-
Aa3/AA-/AA-/AA			TBTA 2018B	8/30/2018	52,245,000	11/15/2030	5.000	-	-	-	-	-	52,245,000	
Aa3/AA-/AA-/AA			TBTA 2018B	8/30/2018	44,845,000	11/15/2031	5.000	-	-	-	-	-	44,845,000	-
Aa3/AA-/AA-/AA			TBTA 2018C	8/30/2018	10,290,000	11/15/2031	5.000	-	-	-	-	-	10,290,000	-
Aa3/AA-/AA-/AA			TBTA 2018C	8/30/2018	21,920,000	11/15/2033	5.000	-	-	-	-	-	21,920,000	-
Aa3/AA-/AA-/AA			TBTA 2018C	8/30/2018	23,025,000	11/15/2034	5.000			-			23,025,000	
Aa3/AA-/AA-/AA			TBTA 2018C	8/30/2018	20,100,000	11/15/2035	5.000						20,100,000	
			TBTA 2018C	8/30/2018		11/15/2035		-	-	-	-	-	4,075,000	-
Aa3/AA-/AA-/AA					4,075,000		4.000	-	-	-	-	-		-
Aa3/AA-/AA-/AA			TBTA 2018C	8/30/2018	25,330,000	11/15/2036	5.000	-	-	-	-	-	25,330,000	-
Aa3/AA-/AA-/AA			TBTA 2018C	8/30/2018	26,615,000	11/15/2037	5.000	-	-	-	-	-	26,615,000	-
Aa3/AA-/AA-/AA			TBTA 2018C	8/30/2018	10,840,000	11/15/2038	5.000	-	-	-	-	-	10,840,000	-
Aa3/AA-/AA-/AA			TBTA 2018C	8/30/2018	17,085,000	11/15/2038	3.375	-	-	-	-	-	17,085,000	-
Aa3/AA-/AA-/AA			TBTA 2018D	10/1/2020	24,740,000	11/15/2033	5.000	-	-	-	-	-	24,740,000	-
Aa3/AA-/AA-/AA			TBTA 2018D	10/1/2020	32,155,000	11/15/2034	5.000		-	-	-	-	32,155,000	-
Aa3/AA-/AA-/AA			TBTA 2018D	10/1/2020	4,535,000	11/15/2035	5.000	-	-	-	-	-	4,535,000	
Aa3/AA-/AA-/AA			TBTA 2018D	10/1/2020	11,885,000	11/15/2036	5.000	-	-	-	-	-	11,885,000	-
Aa3/AA-/AA-/AA			TBTA 2018D	10/1/2020	11,800,000	11/15/2037	4.000						11,800,000	_
Aa3/AA-/AA-/AA			TBTA 2018D	10/1/2020	13,870,000	11/15/2038	4.000						13,870,000	
	A-4/AA-/AA-/AID	VIDAUC A LA A JEA - JAU						-	-	-	-	40.405.000		46 000 464
Aa3/AA-/AA-/AA	Aa1/AA+/AA+/NR	VMIG 1/A-1/F1+/NI		12/8/2022	18,485,000	11/15/2026	4.000	-	-	-	-	18,485,000	18,485,000	16,833,464
Aa3/AA-/AA-/AA	Aa1/AA+/AA+/NR	VMIG 1/A-1/F1+/NI		12/8/2022	19,330,000	11/15/2027	4.000	-	-	-	-	19,330,000	19,330,000	17,602,968
Aa3/AA-/AA-/AA	Aa1/AA+/AA+/NR	VMIG 1/A-1/F1+/NI		12/8/2022	20,205,000	11/15/2028	4.000	-	-	-	-	20,205,000	20,205,000	18,399,791
Aa3/AA-/AA-/AA	Aa1/AA+/AA+/NR	VMIG 1/A-1/F1+/NI		12/8/2022	21,115,000	11/15/2029	4.000	-	-	-	-	21,115,000	21,115,000	19,228,488
Aa3/AA-/AA-/AA	Aa1/AA+/AA+/NR	VMIG 1/A-1/F1+/NI	TBTA 2018E Taxable	12/8/2022	22,065,000	11/15/2030	4.000	-	-	-	-	22,065,000	22,065,000	20,093,610
Aa3/AA-/AA-/AA	Aa1/AA+/AA+/NR	VMIG 1/A-1/F1+/NI	TBTA 2018E Taxable	12/8/2022	23,050,000	11/15/2031	4.000	-	-	-	-	23,050,000	23,050,000	20,990,606
Aa3/AA-/AA-/AA	Aa1/AA+/AA+/NR	VMIG 1/A-1/F1+/NI	TBTA 2018E Taxable	12/8/2022	24,220,000	11/15/2032	4.000	-	-	-	-	24,220,000	24,220,000	22,056,073
Aa3/AA-/AA-/AA	Aa1/AAA/AA+/NR		TBTA 2019A	5/23/2019	13,685,000	11/15/2041	5.000	-	-	-	-	· · · -	13,685,000	
Aa3/AA-/AA-/AA	Aa1/AAA/AA+/NR		TBTA 2019A	5/23/2019	14,365,000	11/15/2042	5.000						14,365,000	-
Aa3/AA-/AA-/AA	Aa1/AAA/AA+/NR		TBTA 2019A	5/23/2019	15,085,000	11/15/2043	5.000						15,085,000	_
Aa3/AA-/AA-/AA	Aa1/AAA/AA+/NR		TBTA 2019A	5/23/2019	15,840,000	11/15/2044	4.000						15,840,000	
				5/23/2019		11/15/2045		-	-	-	-	-		-
Aa3/AA-/AA-/AA	Aa1/AAA/AA+/NR		TBTA 2019A		16,475,000		5.000	-	-	-	-	-	16,475,000	-
Aa3/AA-/AA-/AA	Aa1/AAA/AA+/NR		TBTA 2019A	5/23/2019	17,295,000	11/15/2046	5.000	-	-	-	-	-	17,295,000	-
Aa3/AA-/AA-/AA	Aa1/AAA/AA+/NR		TBTA 2019A	5/23/2019	18,160,000	11/15/2047	5.000	-	-	-	-	-	18,160,000	-
Aa3/AA-/AA-/AA	Aa1/AAA/AA+/NR		TBTA 2019A	5/23/2019	19,070,000	11/15/2048	5.000	-	-	-	-	-	19,070,000	-
Aa3/AA-/AA-/AA	Aa1/AAA/AA+/NR		TBTA 2019A	5/23/2019	20,025,000	11/15/2049	5.000	-	-	-	-	-	20,025,000	-
Aa3/AA-/AA-/AA			TBTA 2019B Taxable	9/25/2019	102,465,000	11/15/2044	3.427	-	-	-	-	-	102,465,000	-
Aa3/AA-/AA-/AA			TBTA 2019C	12/3/2019	25,000,000	11/15/2040	4.000	-	-	-	-	-	25,000,000	-
Aa3/AA-/AA-/AA			TBTA 2019C	12/3/2019	25,000,000	11/15/2041	4.000	-	-	-	-	-	25,000,000	-
Aa3/AA-/AA-/AA			TBTA 2019C	12/3/2019	25,000,000	11/15/2042	4.000	-	-	-	-	-	25,000,000	-
Aa3/AA-/AA-/AA			TBTA 2019C	12/3/2019	25,000,000	11/15/2043	4.000	-	-	-	-	-	25,000,000	-
Aa3/AA-/AA-/AA Aa3/AA-/AA-/AA			TBTA 2019C	12/3/2019	25,000,000	11/15/2045	3.000		-			-	25,000,000	_
Aa3/AA-/AA-/AA Aa3/AA-/AA-/AA			TBTA 2019C	12/3/2019	25,000,000	11/15/2045	3.000	-	-	-	-	-	25,000,000	-
							3.000	-	-	-	-	-		-
Aa3/AA-/AA-/AA			TBTA 2019C	12/3/2019	25,000,000	11/15/2047	3.000	-	-	-	-	-	25,000,000	-

Total Bonds and Notes Issued in 2022

7,182,400,000

New Money Bonds and Notes Issued in 2022 5.402.860.000 Refunding Bonds and Notes Issued in 2022 1,779,540,000 Total 3,813,577,500 2,341,805,000 5,188,120,000 51,090,000 597,910,000 48,672,762,500 2,036,995,000 Credit Supported L T Amount Amount Amount Swapped Amount Matured in Amount Defeased Amount Called in Underlying L T Ratings Ratings S T Ratings Redeemed in Refinanced in Amount Outstanding as as of December Mdy/S&P/Ftch/Krll Mdy/S&P/Ftch/Krll Mdy/S&P/Ftch/Krll Series Date Issued Maturity 2022 in 2022 2022 2022 2022 of December 31, 2022 31. 2022 Amount Issued Coupon TRTA 2019C Aa3/AA-/AA-/AA 12/3/2019 25 000 000 11/15/2048 3 000 25 000 000 Aa3/AA-/AA-/AA **TBTA 2020A** 5/27/2020 41,990,000 11/15/2045 5.000 41,990,000 44,090,000 Aa3/AA-/AA-/AA **TBTA 2020A** 5/27/2020 44,090,000 11/15/2046 5.000 TBTA 2020A 5/27/2020 11/15/2047 46.295.000 Aa3/AA-/AA-/AA 46.295.000 5.000 Aa3/AA-/AA-/AA **TBTA 2020A** 5/27/2020 48.610.000 11/15/2048 5 000 48.610.000 TBTA 2020A 5/27/2020 51,040,000 11/15/2049 5.000 51,040,000 Aa3/AA-/AA-/AA 5/27/2020 26.000.000 Aa3/AA-/AA-/AA **TBTA 2020A** 26.000.000 11/15/2050 5.000 11/15/2051 Aa3/AA-/AA-/AA **TBTA 2020A** 5/27/2020 26.000.000 5.000 26.000.000 Aa3/AA-/AA-/AA TBTA 2020A 5/27/2020 26,000,000 11/15/2052 5.000 26,000,000 Aa3/AA-/AA-/AA TBTA 2020A 5/27/2020 26,000,000 11/15/2053 5.000 26,000,000 Aa3/AA-/AA-/AA **TBTA 2020A** 5/27/2020 26.000.000 11/15/2054 5.000 26.000.000 Aa3/AA-/AA-/AA TBTA 2020A 5/27/2020 27,590,000 11/15/2050 4.000 27,590,000 Aa3/AA-/AA-/AA TBTA 2020A 5/27/2020 29,995,000 11/15/2051 4.000 29,995,000 Aa3/AA-/AA-/AA 5/27/2020 32,495,000 4.000 32,495,000 **TBTA 2020A** 11/15/2052 Aa3/AA-/AA-/AA **TBTA 2020A** 5/27/2020 35,095,000 11/15/2053 4.000 35,095,000 Aa3/AA-/AA-/AA TBTA 2020A 5/27/2020 37,800,000 11/15/2054 4.000 37,800,000 Aa3/AA-/AA-/AA **TBTA 2021A** 3/31/2021 28,155,000 11/15/2046 5.000 28,155,000 Aa3/AA-/AA-/AA **TBTA 2021A** 3/31/2021 29,565,000 11/15/2047 5.000 29.565.000 Aa3/AA-/AA-/AA TBTA 2021A 3/31/2021 31,040,000 11/15/2048 5.000 31,040,000 TBTA 2021A 3/31/2021 32,595,000 5.000 32,595,000 Aa3/AA-/AA-/AA 11/15/2049 TBTA 2021A 3/31/2021 11/15/2050 34,225,000 Aa3/AA-/AA-/AA 34.225.000 5.000 Aa3/AA-/AA-/AA **TBTA 2021A** 3/31/2021 35.935.000 11/15/2051 5 000 35.935.000 Aa3/AA-/AA-/AA TBTA 2021A 3/31/2021 18,100,000 11/15/2052 4.000 18,100,000 Aa3/AA-/AA-/AA TBTA 2021A 3/31/2021 19,000,000 11/15/2053 4.000 19,000,000 Aa3/AA-/AA-/AA TRTA 2021A 3/31/2021 19 955 000 11/15/2054 4 000 19 955 000 Aa3/AA-/AA-/AA TBTA 2021A 3/31/2021 20,950,000 11/15/2055 4.000 20,950,000 Aa3/AA-/AA-/AA TBTA 2021A 3/31/2021 21,995,000 11/15/2056 4.000 21,995,000 3/31/2021 TRTA 2021A 19 630 000 11/15/2052 5 000 19 630 000 A23/AA-/AA-/AA Aa3/AA-/AA-/AA **TBTA 2021A** 3/31/2021 20,615,000 11/15/2053 5.000 20,615,000 TBTA 2021A Aa3/AA-/AA-/AA 3/31/2021 21,645,000 11/15/2054 5.000 21,645,000 Aa3/AA-/AA-/AA **TBTA 2021A** 3/31/2021 22.730.000 11/15/2055 5.000 22.730.000 Aa3/AA-/AA-/AA **TBTA 2021A** 3/31/2021 23.865.000 11/15/2056 5.000 23.865.000 Aa3/AA-/AA-/AA TBTA 2022A 8/18/2022 25,060,000 11/15/2040 5.000 25,060,000 Aa3/AA-/AA-/AA TBTA 2022A 8/18/2022 26,310,000 11/15/2041 5.000 26,310,000 Aa3/AA-/AA-/AA **TBTA 2022A** 8/18/2022 27.630.000 11/15/2042 5.000 27.630.000 Aa3/AA-/AA-/AA TBTA 2022A 8/18/2022 18,540,000 11/15/2045 5.000 18,540,000 Aa3/AA-/AA-/AA TBTA 2022A 8/18/2022 19,470,000 11/15/2046 5.000 19,470,000 20.440.000 20.440.000 Aa3/AA-/AA-/AA **TBTA 2022A** 8/18/2022 11/15/2047 5.000 Aa3/AA-/AA-/AA **TBTA 2022A** 8/18/2022 21,465,000 11/15/2048 4.000 21,465,000 Aa3/AA-/AA-/AA **TBTA 2022A** 8/18/2022 22,320,000 11/15/2049 4.000 22,320,000 Aa3/AA-/AA-/AA TBTA 2022A 8/18/2022 23.215.000 11/15/2050 23.215.000 4.000 Aa3/AA-/AA-/AA **TBTA 2022A** 8/18/2022 24,145,000 11/15/2051 4.000 24,145,000 Aa3/AA-/AA-/AA **TBTA 2022A** 8/18/2022 25,110,000 11/15/2052 4.000 25,110,000 Aa3/AA-/AA-/AA **TBTA 2022A** 8/18/2022 26,210,000 11/15/2053 5.500 26,210,000 Aa3/AA-/AA-/AA **TBTA 2022A** 8/18/2022 27.655.000 11/15/2054 5.500 27.655.000 Aa3/AA-/AA-/AA **TBTA 2022A** 8/18/2022 29.175.000 11/15/2055 5 500 29.175.000 Aa3/AA-/AA-/AA TBTA 2022A 8/18/2022 30,780,000 11/15/2056 5.500 30,780,000 Aa3/AA-/AA-/AA TBTA 2022A 8/18/2022 32,475,000 11/15/2057 5.500 32,475,000 A1/NAF/A+/NAF TRTA 2nd SUB 2021A BANS 6/10/2021 192.835.000 11/1/2025 5 000 192,835,000 A1/A+/A+/AA-TBTA SUB 2013A 1/29/2013 5,550,000 11/15/2022 4.000 5,550,000 A1/A+/A+/AA-TBTA SUB 2013A 1/29/2013 46,800,000 11/15/2022 5.000 46,800,000 10 680 000 TRTA SUB 2013A 1/29/2013 10 680 000 11/15/2023 4 000 A1/A+/A+/AA-A1/A+/A+/AA-TBTA SUB 2013A 1/29/2013 45,540,000 11/15/2023 5.000 45.540.000 A1/A+/A+/AA-TBTA SUB 2013A 1/29/2013 57,270,000 11/15/2024 5.000 57,270,000 1/29/2013 60.465.000 TBTA SUB 2013A 60.465.000 11/15/2025 5.000 A1/A+/A+/AA-A1/A+/A+/AA-TBTA SUB 2013A 1/29/2013 63,460,000 11/15/2026 5 000 63.460.000 1/29/2013 15,010,000 15,010,000 A1/A+/A+/AA-TBTA SUB 2013A 11/15/2027 4.000 A1/A+/A+/AA-TBTA SUB 2013A 1/29/2013 51,905,000 11/15/2027 5.000 51,905,000 11,175,000 A1/A+/A+/AA-TBTA SUB 2013A 1/29/2013 11/15/2028 4.000 11,175,000 A1/A+/A+/AA-TBTA SUB 2013A 1/29/2013 59,130,000 11/15/2028 5.000 59,130,000 A1/A+/A+/AA-TBTA SUB 2013A 1/29/2013 15,000,000 11/15/2029 5.000 15,000,000 A1/A+/A+/AA-TBTA SUB 2013A 1/29/2013 58,760,000 11/15/2029 58,760,000 A1/A+/A+/AA-TBTA SUB 2013A 1/29/2013 59,720,000 11/15/2030 59,720,000 A1/A+/A+/AA-TBTA SUB 2013A 1/29/2013 15,000,000 11/15/2030 5.000 15,000,000 A1/A+/A+/AA-1/29/2013 59.775.000 TBTA SUB 2013A 59.775.000 11/15/2031

Total Bonds and Notes Issued in 2022

7 182 400 000

			New Money Bonds and No	tes Issued in 2022	5,402,860,000									
			Refunding Bonds and No		1,779,540,000		Total	3,813,577,500	2,341,805,000	5,188,120,000	51,090,000	597,910,000	48,672,762,500	2,036,995,000
						_								
	Credit Supported L T										Amount	Amount		Amount Swapped
Underlying L T Ratings	Ratings	S T Ratings	Carlas	Bata lawad	A		<b>6</b>	Amount Matured in			Redeemed in	Refinanced in	Amount Outstanding as	
Mdy/S&P/Ftch/Krll A1/A+/A+/AA-	Mdy/S&P/Ftch/Krll	Mdy/S&P/Ftch/Krll	Series TBTA SUB 2013A	Date Issued 1/29/2013	Amount Issued 15,000,000	Maturity 11/15/2031	<u>Coupon</u> 3.125	2022	<u>in 2022</u>	2022	2022	2022	of December 31, 2022 15,000,000	<u>31, 2022</u>
A1/A+/A+/AA-			TBTA SUB 2013A TBTA SUB 2013A	1/29/2013	47,015,000	11/15/2031	5.125	-	-	-	-	-	47,015,000	-
A1/A+/A+/AA-			TBTA SUB 2013A	1/29/2013	15,000,000	11/15/2032	3.125	-	-	-	-		15,000,000	-
A1/A+/A+/AA-			TBTA SUB 2013D-1 Taxable	12/19/2013	23,975,000	11/15/2022	3.884	23,975,000	-	-	-	-	-	-
A1/A+/A+/AA-			TBTA SUB 2013D-1 Taxable	12/19/2013	24,895,000	11/15/2023	4.134		-	-	-	-	24,895,000	-
A1/A+/A+/AA-			TBTA SUB 2013D-1 Taxable	12/19/2013	16,790,000	11/15/2024	4.284	-	-	-	-	-	16,790,000	-
A1/A+/A+/AA-			TBTA SUB 2013D-1 Taxable	12/19/2013	17,605,000	11/15/2025	4.434	-	-	-	-	-	17,605,000	
A3/BBB+/A-/AA			TRB 2002D-1	5/9/2012	28,970,000	11/1/2022	5.000	28,970,000	-	-	-	-	-	-
A3/BBB+/A-/AA			TRB 2002D-1	5/9/2012	7,000,000	11/1/2022	4.000	7,000,000	-	-	-	-	-	-
A3/BBB+/A-/AA	A1/AA/A/AA+		TRB 2002D-1	5/9/2012	5,000,000	11/1/2022	4.000	5,000,000	-	-	-	-	-	-
A3/BBB+/A-/AA			TRB 2002D-1	5/9/2012	15,415,000	11/1/2023	5.000	-	-	15,415,000	-	-	-	-
A3/BBB+/A-/AA			TRB 2002D-1	5/9/2012	2,875,000	11/1/2023	3.000	-	-	-	-	-	2,875,000	-
A3/BBB+/A-/AA			TRB 2002D-1	5/9/2012	14,455,000	11/1/2024	5.000	-	-	-	-	-	14,455,000	-
A3/BBB+/A-/AA	A1/AA/A/AA+		TRB 2002D-1	5/9/2012	5,000,000	11/1/2024	3.000	-	-	-	-	-	5,000,000	-
A3/BBB+/A-/AA			TRB 2002D-1	5/9/2012	20,775,000	11/1/2025	5.000	-	-	-	-	-	20,775,000	-
A3/BBB+/A-/AA			TRB 2002D-1	5/9/2012	21,665,000	11/1/2026	5.000	-	21,665,000	-	-	-	-	-
A3/BBB+/A-/AA			TRB 2002D-1	5/9/2012	23,120,000	11/1/2027	5.000	-	23,120,000	-	-	-	-	-
A3/BBB+/A-/AA			TRB 2002D-1	5/9/2012	24,680,000	11/1/2028	5.000	-	24,680,000	-	-	-	-	-
A3/BBB+/A-/AA A3/BBB+/A-/AA	A1/AA/A/AA+		TRB 2002D-1 TRB 2002D-1	5/9/2012 5/9/2012	2,000,000 3,770,000	11/1/2029 11/1/2029	3.750 3.625	-	2,000,000 3,770,000	-	-	-	-	-
A3/BBB+/A-/AA	A1/AA/A/AAA		TRB 2002D-1 TRB 2002D-2a-1	3/31/2021	5,700,000	11/1/2029	4.000		3,770,000			_	5,700,000	5,700,000
A3/BBB+/A-/AA			TRB 2002D-2a-1	3/31/2021	7,850,000	11/1/2020	4.000	-	-	-	_	-	7,850,000	7,850,000
A3/BBB+/A-/AA			TRB 2002D-2a-1	3/31/2021	7,750,000	11/1/2030	4.000	-	-	-	_	-	7,750,000	7,750,000
A3/BBB+/A-/AA			TRB 2002D-2a-1	3/31/2021	28,700,000	11/1/2032	4.000	-	-	-	_	-	28,700,000	28,700,000
A3/BBB+/A-/AA			TRB 2002D-2a-2	4/6/2021	5,700,000	11/1/2029	4.000	-	-	-	-	-	5,700,000	5,700,000
A3/BBB+/A-/AA			TRB 2002D-2a-2	4/6/2021	7,850,000	11/1/2030	4.000	-	-	-	-	-	7,850,000	7,850,000
A3/BBB+/A-/AA			TRB 2002D-2a-2	4/6/2021	7,750,000	11/1/2031	4.000	-	-	-	-	-	7,750,000	7,750,000
A3/BBB+/A-/AA			TRB 2002D-2a-2	4/6/2021	28,700,000	11/1/2032	4.000	-	-	-	-	-	28,700,000	28,700,000
A3/BBB+/A-/AA			TRB 2002D-2b	4/1/2021	11,400,000	11/1/2029	4.000	-	-	-	-	-	11,400,000	11,400,000
A3/BBB+/A-/AA			TRB 2002D-2b	4/1/2021	15,700,000	11/1/2030	4.000	-	-	-	-	-	15,700,000	15,700,000
A3/BBB+/A-/AA			TRB 2002D-2b	4/1/2021	15,500,000	11/1/2031	4.000	-	-	-	-	-	15,500,000	15,500,000
A3/BBB+/A-/AA			TRB 2002D-2b	4/1/2021	57,400,000	11/1/2032	4.000	-	-	-	-	-	57,400,000	57,400,000
A3/BBB+/A-/AA			TRB 2002G-1f Refunding Bonds	6/30/2021	5,035,000	11/1/2022	4.000	5,035,000	-	-	-	-	-	· · ·
A3/BBB+/A-/AA			TRB 2002G-1f Refunding Bonds	6/30/2021	5,235,000	11/1/2023	4.000	-	-	-	-	-	5,235,000	5,235,000
A3/BBB+/A-/AA			TRB 2002G-1f Refunding Bonds	6/30/2021	5,445,000	11/1/2024	4.000	-	-	-	-	-	5,445,000	5,445,000
A3/BBB+/A-/AA			TRB 2002G-1f Refunding Bonds	6/30/2021	5,665,000	11/1/2025	4.000	-	-	-	-	-	5,665,000	5,665,000
A3/BBB+/A-/AA			TRB 2002G-1f Refunding Bonds	6/30/2021	2,925,000	11/1/2026	4.000	-	-	-	-	-	2,925,000	2,925,000
A3/BBB+/A-/AA	Aa1/AA+/AA+/AA+	VMIG1/A-1+/F1+/NR	TRB 2002G-1g	10/12/2021	5,030,000	11/1/2022	4.000	5,030,000	-	-	-	-	-	-
A3/BBB+/A-/AA	Aa1/AA+/AA+/AA+	VMIG1/A-1+/F1+/NR	TRB 2002G-1g	10/12/2021	5,235,000	11/1/2023	4.000	-	-	-	-	-	5,235,000	5,235,000
A3/BBB+/A-/AA	Aa1/AA+/AA+/AA+	VMIG1/A-1+/F1+/NR	TRB 2002G-1g	10/12/2021	5,440,000	11/1/2024	4.000	-	-	-	-	-	5,440,000	5,440,000
A3/BBB+/A-/AA	Aa1/AA+/AA+/AA+	VMIG1/A-1+/F1+/NR	TRB 2002G-1g	10/12/2021	5,660,000	11/1/2025	4.000	-	-	-	-	-	5,660,000	5,660,000
A3/BBB+/A-/AA	Aa1/AA+/AA+/AA+	VMIG1/A-1+/F1+/NR	TRB 2002G-1g	10/12/2021	2,920,000	11/1/2026	4.000	-	-	-	-	-	2,920,000	2,920,000
A3/BBB+/A-/AA			TRB 2002G-1h	2/1/2022	6,730,000	11/1/2022	4.000	6,730,000	-	-	-	6,730,000	-	-
A3/BBB+/A-/AA			TRB 2002G-1h	2/1/2022	6,995,000	11/1/2023	4.000	-	-	-	-	6,995,000	6,995,000	6,995,000
A3/BBB+/A-/AA			TRB 2002G-1h	2/1/2022	7,275,000	11/1/2024	4.000	-	-	-	-	7,275,000	7,275,000	7,275,000
A3/BBB+/A-/AA			TRB 2002G-1h	2/1/2022	7,565,000	11/1/2025	4.000	-	-	-	-	7,565,000	7,565,000	7,565,000
A3/BBB+/A-/AA			TRB 2002G-1h	2/1/2022	3,910,000	11/1/2026	4.000	47 525 000	-	-	-	3,910,000	3,910,000	3,910,000
A3/BBB+/A-/AA	A1/AA/A/AA+		TRB 2003A	5/14/2003	17,525,000	11/15/2022	5.500	17,525,000	-	-	-	-	-	-
A3/BBB+/A-/AA	A1/AA/A/AA+		TRB 2003A	5/14/2003 7/1/2005	17,460,000 24,485,000	11/15/2023 11/15/2022	5.500 5.250	-	-	-	-	-	17,460,000	-
A3/BBB+/A-/AA	A1/A+/A/AA+		TRB 2005B		25,770,000	11/15/2022	5.250	24,485,000	-	-	-	-	25 770 000	-
A3/BBB+/A-/AA A3/BBB+/A-/AA	A1/A+/A/AA+ A1/A+/A/AA+		TRB 2005B TRB 2005B	7/1/2005 7/1/2005	27,120,000	11/15/2023	5.250	-	-	-	-	-	25,770,000 27,120,000	-
A3/BBB+/A-/AA	A1/A+/A/AA+		TRB 2005D-1	6/30/2021	6,500,000	11/1/2022	4.000	6,500,000	-	-	-	-	27,120,000	-
A3/BBB+/A-/AA A3/BBB+/A-/AA			TRB 2005D-1 TRB 2005D-1	6/30/2021	6,775,000	11/1/2022	4.000	0,500,000	-	-	-	-	6,775,000	6,775,000
A3/BBB+/A-/AA			TRB 2005D-1	6/30/2021	7,050,000	11/1/2023	4.000	-	-	-	-	-	7,050,000	7,050,000
A3/BBB+/A-/AA			TRB 2005D-1	6/30/2021	7,325,000	11/1/2025	4.000	-	-	-	-		7,325,000	7,325,000
A3/BBB+/A-/AA			TRB 2005D-1	6/30/2021	7,625,000	11/1/2026	4.000	-	-	-	-	-	7,625,000	7,625,000
A3/BBB+/A-/AA			TRB 2005D-1	6/30/2021	7,925,000	11/1/2027	4.000	-	-	-	-	-	7,925,000	7,925,000
A3/BBB+/A-/AA			TRB 2005D-1	6/30/2021	8,250,000	11/1/2028	4.000	-	-	-	-	-	8,250,000	8,250,000
A3/BBB+/A-/AA			TRB 2005D-1	6/30/2021	8,575,000	11/1/2029	4.000	-	-	-	-	-	8,575,000	8,575,000
A3/BBB+/A-/AA			TRB 2005D-1	6/30/2021	8,925,000	11/1/2030	4.000	-	-	-	-	-	8,925,000	8,925,000
A3/BBB+/A-/AA			TRB 2005D-1	6/30/2021	9,250,000	11/1/2031	4.000	-	-	-	-	-	9,250,000	9,250,000
A3/BBB+/A-/AA			TRB 2005D-1	6/30/2021	9,625,000	11/1/2032	4.000	-	-	-	-	-	9,625,000	9,625,000
A3/BBB+/A-/AA			TRB 2005D-1	6/30/2021	10,025,000	11/1/2033	4.000	-	-	-	-	-	10,025,000	10,025,000
A3/BBB+/A-/AA			TRB 2005D-1	6/30/2021	10,425,000	11/1/2034	4.000	-	-	-	-	-	10,425,000	10,425,000

7,182,400,000

Total Bonds and Notes Issued in 2022

			I otal Bonds and Not		7,182,400,000 5,402,860,000									
			New Money Bonds and Not Refunding Bonds and Not		1,779,540,000		Total	3,813,577,500	2,341,805,000	5,188,120,000	51,090,000	597,910,000	48,672,762,500	2,036,995,000
			Refunding Bonds and Not	les issued in 2022	1,779,540,000	L	TOLAI	5,615,577,500	2,541,605,000	5,166,120,000	51,090,000	597,910,000	48,072,702,500	2,050,995,000
	Credit Supported L T										Amount	Amount		Amount Swapped
Underlying L T Ratings	Ratings	S T Ratings						Amount Matured in	Amount Defeased	Amount Called in	Redeemed in	Refinanced in	Amount Outstanding as	
Mdy/S&P/Ftch/Krll	Mdy/S&P/Ftch/Krll	Mdy/S&P/Ftch/Krll	Series	Date Issued	Amount Issued	Maturity	Coupon	2022	in 2022	2022	2022	2022	of December 31, 2022	31, 2022
A3/BBB+/A-/AA			TRB 2005D-1	6/30/2021	10,825,000	11/1/2035	4.000						10,825,000	10,825,000
A3/BBB+/A-/AA	Aa1/AA-/AA-/NAF	VMIG 1/A-1/F1+/NAF		11/1/2022	4,325,000	11/1/2022	4.000	4,325,000	-	-	-	4,325,000		
A3/BBB+/A-/AA	Aa1/AA-/AA-/NAF	VMIG 1/A-1/F1+/NAF		11/1/2022	4,500,000	11/1/2023	4.000	-	-	-		4,500,000	4,500,000	4,500,000
A3/BBB+/A-/AA	Aa1/AA-/AA-/NAF			11/1/2022	4,700,000	11/1/2024	4.000	-	-	-		4,700,000	4,700,000	4,700,000
A3/BBB+/A-/AA	Aa1/AA-/AA-/NAF			11/1/2022	4,875,000	11/1/2025	4.000	-	-	-		4,875,000	4,875,000	4,875,000
A3/BBB+/A-/AA	Aa1/AA-/AA-/NAF			11/1/2022	5,075,000	11/1/2026	4.000	-	-	-		5,075,000	5,075,000	5,075,000
A3/BBB+/A-/AA	Aa1/AA-/AA-/NAF			11/1/2022	5,275,000	11/1/2027	4.000	-	-	-	-	5,275,000	5,275,000	5,275,000
A3/BBB+/A-/AA	Aa1/AA-/AA-/NAF			11/1/2022	5,500,000	11/1/2028	4.000	-	-	-	-	5,500,000	5,500,000	5,500,000
A3/BBB+/A-/AA	Aa1/AA-/AA-/NAF	VMIG 1/A-1/F1+/NAF	TRB 2005D-2	11/1/2022	5,700,000	11/1/2029	4.000	-	-	-	-	5,700,000	5,700,000	5,700,000
A3/BBB+/A-/AA	Aa1/AA-/AA-/NAF	VMIG 1/A-1/F1+/NAF	TRB 2005D-2	11/1/2022	5,950,000	11/1/2030	4.000	-	-	-	-	5,950,000	5,950,000	5,950,000
A3/BBB+/A-/AA	Aa1/AA-/AA-/NAF	VMIG 1/A-1/F1+/NAF	TRB 2005D-2	11/1/2022	6,175,000	11/1/2031	4.000	-	-	-	-	6,175,000	6,175,000	6,175,000
A3/BBB+/A-/AA	Aa1/AA-/AA-/NAF	VMIG 1/A-1/F1+/NAF	TRB 2005D-2	11/1/2022	6,425,000	11/1/2032	4.000	-	-	-	-	6,425,000	6,425,000	6,425,000
A3/BBB+/A-/AA	Aa1/AA-/AA-/NAF	VMIG 1/A-1/F1+/NAF	TRB 2005D-2	11/1/2022	6,675,000	11/1/2033	4.000	-	-	-	-	6,675,000	6,675,000	6,675,000
A3/BBB+/A-/AA	Aa1/AA-/AA-/NAF	VMIG 1/A-1/F1+/NAF	TRB 2005D-2	11/1/2022	6,975,000	11/1/2034	4.000	-	-	-	-	6,975,000	6,975,000	6,975,000
A3/BBB+/A-/AA	Aa1/AA-/AA-/NAF	VMIG 1/A-1/F1+/NAF	TRB 2005D-2	11/1/2022	7,275,000	11/1/2035	4.000	-	-	-	-	7,275,000	7,275,000	7,275,000
A3/BBB+/A-/AA	Aa2/AA-/A+/NR	VMIG 1/A-1/F1/NR	TRB 2005E-1	8/18/2021	7,610,000	11/1/2022	4.000	7,610,000	-	-	-	-	-	-
A3/BBB+/A-/AA	Aa2/AA-/A+/NR	VMIG 1/A-1/F1/NR	TRB 2005E-1	8/18/2021	7,910,000	11/1/2023	4.000	-	-	-	-	-	7,910,000	4,745,699
A3/BBB+/A-/AA	Aa2/AA-/A+/NR	VMIG 1/A-1/F1/NR	TRB 2005E-1	8/18/2021	8,210,000	11/1/2024	4.000	-	-	-	-	-	8,210,000	4,925,688
A3/BBB+/A-/AA	Aa2/AA-/A+/NR	VMIG 1/A-1/F1/NR	TRB 2005E-1	8/18/2021	8,560,000	11/1/2025	4.000	-	-	-	-	-	8,560,000	5,135,674
A3/BBB+/A-/AA	Aa2/AA-/A+/NR	VMIG 1/A-1/F1/NR	TRB 2005E-1	8/18/2021	8,890,000	11/1/2026	4.000	-	-	-	-	-	8,890,000	5,333,662
A3/BBB+/A-/AA	Aa2/AA-/A+/NR	VMIG 1/A-1/F1/NR	TRB 2005E-1	8/18/2021	9,240,000	11/1/2027	4.000	-	-	-	-	-	9,240,000	5,543,648
A3/BBB+/A-/AA	Aa2/AA-/A+/NR	VMIG 1/A-1/F1/NR	TRB 2005E-1	8/18/2021	9,610,000	11/1/2028	4.000	-	-	-	-	-	9,610,000	5,765,634
A3/BBB+/A-/AA	Aa2/AA-/A+/NR	VMIG 1/A-1/F1/NR	TRB 2005E-1	8/18/2021	10,010,000	11/1/2029	4.000	-	-	-	-	-	10,010,000	6,005,619
A3/BBB+/A-/AA	Aa2/AA-/A+/NR	VMIG 1/A-1/F1/NR	TRB 2005E-1	8/18/2021	10,380,000	11/1/2030	4.000	-	-	-	-	-	10,380,000	6,227,605
A3/BBB+/A-/AA	Aa2/AA-/A+/NR	VMIG 1/A-1/F1/NR	TRB 2005E-1	8/18/2021	10,830,000	11/1/2031	4.000	-	-	-	-	-	10,830,000	6,497,588
A3/BBB+/A-/AA	Aa2/AA-/A+/NR	VMIG 1/A-1/F1/NR		8/18/2021	11,250,000	11/1/2032	4.000	-	-	-	-	-	11,250,000	6,749,572
A3/BBB+/A-/AA	Aa2/AA-/A+/NR	VMIG 1/A-1/F1/NR	TRB 2005E-1	8/18/2021	11,705,000	11/1/2033	4.000	-	-	-	-	-	11,705,000	7,022,555
A3/BBB+/A-/AA	Aa2/AA-/A+/NR	VMIG 1/A-1/F1/NR	TRB 2005E-1	8/18/2021	12,145,000	11/1/2034	4.000	-	-	-	-	-	12,145,000	7,286,538
A3/BBB+/A-/AA	Aa2/AA-/A+/NR	VMIG 1/A-1/F1/NR	TRB 2005E-1	8/18/2021	12,635,000	11/1/2035	4.000	-	-	-	-	-	12,635,000	7,580,519
A3/BBB+/A-/AA	Aa1/AA+/AA+/AA+	VMIG 1/A-1/F1+/NAF		11/22/2021	3,262,500	11/1/2022	4.000	3,262,500	-	-	-	-	-	-
A3/BBB+/A-/AA	Aa1/AA+/AA+/AA+	VMIG 1/A-1/F1+/NAF	TRB 2005E-2	11/22/2021	3,390,000	11/1/2023	4.000	-	-	-	-	-	3,390,000	2,033,910
A3/BBB+/A-/AA	Aa1/AA+/AA+/AA+			11/22/2021	3,517,500	11/1/2024	4.000	-	-	-	-	-	3,517,500	2,110,406
A3/BBB+/A-/AA	Aa1/AA+/AA+/AA+			11/22/2021	3,667,500	11/1/2025	4.000	-	-	-	-	-	3,667,500	2,200,402
A3/BBB+/A-/AA	Aa1/AA+/AA+/AA+			11/22/2021	3,810,000	11/1/2026	4.000	-	-	-	-	-	3,810,000	2,285,898
A3/BBB+/A-/AA	Aa1/AA+/AA+/AA+			11/22/2021	3,960,000	11/1/2027	4.000	-	-	-	-	-	3,960,000	2,375,894
A3/BBB+/A-/AA	Aa1/AA+/AA+/AA+			11/22/2021	4,117,500	11/1/2028	4.000	-	-	-	-	-	4,117,500	2,470,390
A3/BBB+/A-/AA	Aa1/AA+/AA+/AA+	VMIG 1/A-1/F1+/NAF		11/22/2021	4,290,000	11/1/2029	4.000	-	-	-	-	-	4,290,000	2,573,886
A3/BBB+/A-/AA	Aa1/AA+/AA+/AA+	VMIG 1/A-1/F1+/NAF		11/22/2021	4,447,500	11/1/2030	4.000	-	-	-	-	-	4,447,500	2,668,382
A3/BBB+/A-/AA	Aa1/AA+/AA+/AA+	VMIG 1/A-1/F1+/NAF		11/22/2021	4,642,500	11/1/2031	4.000	-	-	-	-	-	4,642,500	2,785,376
A3/BBB+/A-/AA	Aa1/AA+/AA+/AA+			11/22/2021	4,822,500	11/1/2032	4.000	-	-	-	-	-	4,822,500	2,893,372
A3/BBB+/A-/AA	Aa1/AA+/AA+/AA+	VMIG 1/A-1/F1+/NAF		11/22/2021	5,017,500	11/1/2033	4.000	-	-	-	-	-	5,017,500	3,010,366
A3/BBB+/A-/AA	Aa1/AA+/AA+/AA+	VMIG 1/A-1/F1+/NAF		11/22/2021	5,205,000	11/1/2034	4.000	-	-	-	-	-	5,205,000	3,122,861
A3/BBB+/A-/AA	Aa1/AA+/AA+/AA+	VMIG 1/A-1/F1+/NAF		11/22/2021	5,415,000	11/1/2035	4.000	-	-	-	-	-	5,415,000	3,248,856
A3/BBB+/A-/AA	A1/AA/A/AA+		TRB 2006B	12/20/2006	72,645,000	11/15/2026	5.250	-	-	-	-	-	72,645,000	-
A3/BBB+/A-/AA			TRB 2008B-2	11/15/2012	24,820,000	11/15/2022	5.000	24,820,000	-	-	-	-	-	-
A3/BBB+/A-/AA			TRB 2008B-2	11/15/2012	9,545,000	11/15/2023	5.000	-	-	4,300,000	-	-	-	-
A3/BBB+/A-/AA			TRB 2008B-3	11/15/2013	19,780,000	11/15/2023	5.000		-	-	-	-	17,385,000	-
A3/BBB+/A-/AA			TRB 2009A-1 Build America Bonds	10/15/2009	17,490,000	11/15/2022	5.113	17,490,000	-	-	-	-	-	-
A3/BBB+/A-/AA			TRB 2009A-1 Build America Bonds	10/15/2009	24,330,000	11/15/2029	5.871	-	-	-	-	-	24,330,000	-
A3/BBB+/A-/AA			TRB 2009A-1 Build America Bonds	10/15/2009	25,260,000	11/15/2030	5.871	-	-	-	-	-	25,260,000	-
A3/BBB+/A-/AA			TRB 2009A-1 Build America Bonds	10/15/2009	26,220,000	11/15/2031	5.871	-	-	-	-	-	26,220,000	-
A3/BBB+/A-/AA			TRB 2009A-1 Build America Bonds	10/15/2009	27,220,000	11/15/2032	5.871	-	-	-	-	-	27,220,000	-
A3/BBB+/A-/AA			TRB 2009A-1 Build America Bonds	10/15/2009	28,260,000	11/15/2033	5.871	-	-	-	-	-	28,260,000	-
A3/BBB+/A-/AA			TRB 2009A-1 Build America Bonds	10/15/2009	29,340,000	11/15/2034	5.871	-	-	-	-	-	29,340,000	-
A3/BBB+/A-/AA			TRB 2009A-1 Build America Bonds	10/15/2009	30,460,000	11/15/2035	5.871	-	-	-	-	-	30,460,000	-
A3/BBB+/A-/AA			TRB 2009A-1 Build America Bonds	10/15/2009	31,620,000	11/15/2036	5.871	-	-	-	-	-	31,620,000	-
A3/BBB+/A-/AA			TRB 2009A-1 Build America Bonds	10/15/2009	32,830,000	11/15/2037	5.871 5.871	-	-	-	-	-	32,830,000 34,080,000	-
A3/BBB+/A-/AA A3/BBB+/A-/AA			TRB 2009A-1 Build America Bonds TRB 2009A-1 Build America Bonds	10/15/2009 10/15/2009	34,080,000 35,380,000	11/15/2038 11/15/2039	5.871	-	-	-	-	-	34,080,000	-
A3/BBB+/A-/AA A3/BBB+/A-/AA			TRB 2009A-1 Build America Bonds TRB 2010A	10/15/2009	35,380,000 45,655,000	11/15/2039	5.871	-	-	-	-	-	35,380,000 45,655,000	-
A3/BBB+/A-/AA A3/BBB+/A-/AA			TRB 2010A TRB 2010A	1/13/2010	45,655,000	11/15/2033	6.668	-	-	-	-	-	45,655,000	-
A3/BBB+/A-/AA A3/BBB+/A-/AA			TRB 2010A TRB 2010A	1/13/2010	49,670,000	11/15/2034	6.668	-	-	-	-	-	49,670,000	-
A3/BBB+/A-/AA A3/BBB+/A-/AA			TRB 2010A TRB 2010A	1/13/2010	49,870,000 51,810,000	11/15/2035	6.668	-	-	-	-	-	49,870,000 51,810,000	-
A3/BBB+/A-/AA A3/BBB+/A-/AA			TRB 2010A	1/13/2010	54,035,000	11/15/2030	6.668	-	-	-	-	-	54,035,000	-
A3/BBB+/A-/AA			TRB 2010A	1/13/2010	56,365,000	11/15/2038	6.668	-	-	_	-	_	56,365,000	-
AS DOD TA TAA			110 2010A	1, 13/ 2010	50,505,000	11, 13, 2000	0.008		-				50,505,000	

Total Bonds and Notes Issued in 2022

7,182,400,000

			New Money Bonds and No	tes issued in 2022	5,402,860,000									
			Refunding Bonds and No		1,779,540,000	F	Tota	3.813.577.500	2.341.805.000	5.188.120.000	51,090,000	597.910.000	48,672,762,500	2.036.995.000
			Retaining bonus and No	103 133000 111 2022	1,775,540,000	L	1014	3,013,577,500	2,541,005,000	5,100,120,000	51,050,000	557,510,000	40,072,702,500	2,030,555,000
	Credit Supported L T										Amount	Amount		Amount Swapped
Underlying L T Ratings	Ratings	S T Ratings						Amount Matured in	Amount Defeased	Amount Called in	Redeemed in	Refinanced in	Amount Outstanding as	
Mdy/S&P/Ftch/Krll	Mdy/S&P/Ftch/Krll	Mdy/S&P/Ftch/Krll	Series	Date Issued	Amount Issued	Maturity	Coupon	2022	in 2022	2022	2022	2022	of December 31, 2022	31, 2022
A3/BBB+/A-/AA			TRB 2010A	1/13/2010	58,790,000	11/15/2039	6.668						58,790,000	
A3/BBB+/A-/AA			TRB 2010B-1 Build America Bonds	2/11/2010	13,345,000	11/15/2022	5.654		-		-	-		-
A3/BBB+/A-/AA			TRB 2010B-1 Build America Bonds	2/11/2010	31,905,000	11/15/2023	5.754		-	-	-	-	31,905,000	-
A3/BBB+/A-/AA			TRB 2010B-1 Build America Bonds	2/11/2010	460,000	11/15/2024	6.548		-	-	-	-	460,000	-
A3/BBB+/A-/AA			TRB 2010B-1 Build America Bonds	2/11/2010	14,785,000	11/15/2024	5.854		-		-	-	14,785,000	-
A3/BBB+/A-/AA			TRB 2010B-1 Build America Bonds	2/11/2010	15,830,000	11/15/2025	6.548		-		-	-	15,830,000	-
A3/BBB+/A-/AA			TRB 2010B-1 Build America Bonds	2/11/2010	16,510,000	11/15/2026	6.548		-		-	-	16,510,000	-
A3/BBB+/A-/AA			TRB 2010B-1 Build America Bonds	2/11/2010	17,215,000	11/15/2027	6.548		-		-	-	17,215,000	-
A3/BBB+/A-/AA			TRB 2010B-1 Build America Bonds	2/11/2010	17,950,000	11/15/2028	6.548		-		-	-	17,950,000	-
A3/BBB+/A-/AA			TRB 2010B-1 Build America Bonds	2/11/2010	58,155,000	11/15/2029	6.548		-		-	-	58,155,000	-
A3/BBB+/A-/AA			TRB 2010B-1 Build America Bonds	2/11/2010	60,640,000	11/15/2030	6.548		-		-	-	60,640,000	-
A3/BBB+/A-/AA			TRB 2010B-1 Build America Bonds	2/11/2010	63,240,000	11/15/2031	6.548	_	_	_		_	63,240,000	
A3/BBB+/A-/AA			TRB 2010B-1 Build America Bonds	2/11/2010	65,945,000	11/15/2032	6.648	_	_			_	65,945,000	
A3/BBB+/A-/AA			TRB 2010B-1 Build America Bonds	2/11/2010	23,150,000	11/15/2032	6.648						23,150,000	
A3/BBB+/A-/AA			TRB 2010B-1 Build America Bonds	2/11/2010	24,170,000	11/15/2033	6.648		-	-	-	-	24,170,000	-
A3/BBB+/A-/AA			TRB 2010B-1 Build America Bonds	2/11/2010	25,230,000	11/15/2034	6.648						25,230,000	
A3/BBB+/A-/AA			TRB 2010B-1 Build America Bonds	2/11/2010	26,345,000	11/15/2035	6.648		-	-	-	-	26,345,000	-
A3/BBB+/A-/AA A3/BBB+/A-/AA			TRB 2010B-1 Build America Bonds	2/11/2010		11/15/2030	6.648		-	-	-	-	27,505,000	-
					27,505,000				-	-	-	-		-
A3/BBB+/A-/AA A3/BBB+/A-/AA			TRB 2010B-1 Build America Bonds	2/11/2010	28,715,000	11/15/2038 11/15/2039	6.648 6.648		-	-	-	-	28,715,000	-
			TRB 2010B-1 Build America Bonds	2/11/2010	29,980,000				-	-	-	-	29,980,000	-
A3/BBB+/A-/AA A3/BBB+/A-/AA			TRB 2010C-1 Build America Bonds	7/7/2010 7/7/2010	14,120,000 14,995,000	11/15/2022 11/15/2023	6.200 6.200		-	-	-	-	14,995,000	-
A3/BBB+/A-/AA			TRB 2010C-1 Build America Bonds TRB 2010C-1 Build America Bonds	7/7/2010	15,930,000	11/15/2023	6.200		-	-	-	-	15,930,000	-
A3/BBB+/A-/AA A3/BBB+/A-/AA			TRB 2010C-1 Build America Bonds TRB 2010C-1 Build America Bonds	7/7/2010	16,915,000	11/15/2024	6.200		-	-	-	-		-
									-	-	-	-	16,915,000	-
A3/BBB+/A-/AA			TRB 2010C-1 Build America Bonds	7/7/2010	17,965,000	11/15/2026	6.200	-	-	-	-	-	17,965,000	-
A3/BBB+/A-/AA			TRB 2010C-1 Build America Bonds	7/7/2010	5,980,000	11/15/2027	6.587	-	-	-	-	-	5,980,000	-
A3/BBB+/A-/AA			TRB 2010C-1 Build America Bonds	7/7/2010	6,370,000	11/15/2028	6.587		-	-	-	-	6,370,000	-
A3/BBB+/A-/AA			TRB 2010C-1 Build America Bonds	7/7/2010	6,790,000	11/15/2029	6.587		-	-	-	-	6,790,000	-
A3/BBB+/A-/AA			TRB 2010C-1 Build America Bonds	7/7/2010	7,240,000	11/15/2030	6.587		-	-	-	-	7,240,000	-
A3/BBB+/A-/AA			TRB 2010C-1 Build America Bonds	7/7/2010	21,310,000	11/15/2031	6.687		-	-	-	-	21,310,000	-
A3/BBB+/A-/AA			TRB 2010C-1 Build America Bonds	7/7/2010	22,730,000	11/15/2032	6.687		-	-	-	-	22,730,000	-
A3/BBB+/A-/AA			TRB 2010C-1 Build America Bonds	7/7/2010	24,250,000	11/15/2033	6.687		-	-	-	-	24,250,000	-
A3/BBB+/A-/AA			TRB 2010C-1 Build America Bonds	7/7/2010	25,870,000	11/15/2034	6.687		-	-	-	-	25,870,000	-
A3/BBB+/A-/AA			TRB 2010C-1 Build America Bonds	7/7/2010	27,600,000	11/15/2035	6.687	-	-	-	-	-	27,600,000	-
A3/BBB+/A-/AA			TRB 2010C-1 Build America Bonds	7/7/2010	29,445,000	11/15/2036	6.687	-	-	-	-	-	29,445,000	-
A3/BBB+/A-/AA			TRB 2010C-1 Build America Bonds	7/7/2010	31,410,000	11/15/2037	6.687	-	-	-	-	-	31,410,000	-
A3/BBB+/A-/AA			TRB 2010C-1 Build America Bonds	7/7/2010	33,505,000	11/15/2038	6.687	-	-	-	-	-	33,505,000	-
A3/BBB+/A-/AA			TRB 2010C-1 Build America Bonds	7/7/2010	35,745,000	11/15/2039	6.687		-	-	-	-	35,745,000	-
A3/BBB+/A-/AA			TRB 2010C-1 Build America Bonds	7/7/2010	38,135,000	11/15/2040	6.687		-	-	-	-	38,135,000	-
A3/BBB+/A-/AA			TRB 2010E Build America Bonds	12/29/2010	5,500,000	11/15/2026	6.734		-	-	-	-	5,500,000	-
A3/BBB+/A-/AA			TRB 2010E Build America Bonds	12/29/2010	5,740,000	11/15/2027	6.734		-	-	-	-	5,740,000	-
A3/BBB+/A-/AA			TRB 2010E Build America Bonds	12/29/2010	5,990,000	11/15/2028	6.734		-	-	-	-	5,990,000	-
A3/BBB+/A-/AA			TRB 2010E Build America Bonds	12/29/2010	6,250,000	11/15/2029	6.734		-	-	-	-	6,250,000	-
A3/BBB+/A-/AA			TRB 2010E Build America Bonds	12/29/2010	6,520,000	11/15/2030	6.734		-	-	-	-	6,520,000	-
A3/BBB+/A-/AA			TRB 2010E Build America Bonds	12/29/2010	45,115,000	11/15/2031	6.814		-	-	-	-	45,115,000	-
A3/BBB+/A-/AA			TRB 2010E Build America Bonds	12/29/2010	47,110,000	11/15/2032	6.814		-	-	-	-	47,110,000	-
A3/BBB+/A-/AA			TRB 2010E Build America Bonds	12/29/2010	49,195,000	11/15/2033	6.814	-	-	-	-	-	49,195,000	-
A3/BBB+/A-/AA			TRB 2010E Build America Bonds	12/29/2010	51,370,000	11/15/2034	6.814		-	-	-	-	51,370,000	-
A3/BBB+/A-/AA			TRB 2010E Build America Bonds	12/29/2010	53,640,000	11/15/2035	6.814	-	-	-	-	-	53,640,000	-
A3/BBB+/A-/AA			TRB 2010E Build America Bonds	12/29/2010	56,010,000	11/15/2036	6.814	-	-	-	-	-	56,010,000	-
A3/BBB+/A-/AA			TRB 2010E Build America Bonds	12/29/2010	58,485,000	11/15/2037	6.814	-	-	-	-	-	58,485,000	-
A3/BBB+/A-/AA			TRB 2010E Build America Bonds	12/29/2010	61,070,000	11/15/2038	6.814	-	-	-	-	-	61,070,000	-
A3/BBB+/A-/AA			TRB 2010E Build America Bonds	12/29/2010	63,770,000	11/15/2039	6.814	-	-	-	-	-	63,770,000	-
A3/BBB+/A-/AA			TRB 2010E Build America Bonds	12/29/2010	66,585,000	11/15/2040	6.814	-	-	-	-	-	66,585,000	-
A3/BBB+/A-/AA			TRB 2011B	10/20/2017	18,380,000	11/1/2037	4.000	-	-	18,380,000	-	-	-	-
A3/BBB+/A-/AA			TRB 2011B	10/20/2017	19,120,000	11/1/2038	4.000	- 1	-	19,120,000	-	-	-	-
A3/BBB+/A-/AA			TRB 2011B	10/20/2017	19,880,000	11/1/2039	4.000	- 1	-	19,880,000	-	-	-	-
A3/BBB+/A-/AA			TRB 2011B	10/20/2017	20,675,000	11/1/2040	4.000	- 1	-	20,675,000	-	-	-	-
A3/BBB+/A-/AA			TRB 2011B	10/20/2017	21,505,000	11/1/2041	4.000	- 1	-	21,505,000	-	-	-	-
A3/BBB+/A-/AA			TRB 2012A-1	5/15/2013	50,000,000	11/15/2040	5.000		-	-	-	-	50,000,000	-
A3/BBB+/A-/AA	Aa1/AA+/AA+/NR	VMIG1/A-1/F1+/NI	R TRB 2012A-2	5/26/2022	50,000,000	11/15/2041	4.000	- 1	-	-	-	-	50,000,000	-
A3/BBB+/A-/AA			TRB 2012A-3	2/1/2022	50,000,000	11/15/2042	4.000		-	-	-	50,000,000	50,000,000	-
A3/BBB+/A-/AA			TRB 2012B	3/15/2012	7,015,000	11/15/2022	5.000	7,015,000	-	-	-	-	-	-
A3/BBB+/A-/AA			TRB 2012B	3/15/2012	7,660,000	11/15/2024	3.000		-	-	-	-	7,660,000	-
A3/BBB+/A-/AA			TRB 2012B	3/15/2012	8,005,000	11/15/2025	3.000		-	-	-	-	8,005,000	-
-,,-,,,,,,,,				.,,	-,,-50	, -,	2.000						2,222,500	

Total Bonds and Notes Issued in 2022

7,182,400,000

			New Money Bonds and No		5,402,860,000	F		2 042 577 5	2 244 005 05-	F 400 400 00-	F4 000 05-	F07 040 6	40 670 760 655	2 026 005 677
			Refunding Bonds and No	tes Issued in 2022	1,779,540,000	L	Total	3,813,577,500	2,341,805,000	5,188,120,000	51,090,000	597,910,000	48,672,762,500	2,036,995,000
	Credit Supported L T										Amount	Amount		Amount Swapped
Underlying L T Ratings	Ratings	S T Ratings	Carles	Data lawad	Amount losued	Maturity	Courses	2022	Amount Defeased in 2022	2022	Redeemed in 2022	Refinanced in 2022	Amount Outstanding as of December 31, 2022	as of December 31, 2022
Mdy/S&P/Ftch/Krll A3/BBB+/A-/AA	Mdy/S&P/Ftch/Krll	Mdy/S&P/Ftch/Krll	Series TRB 2012B	Date Issued 3/15/2012	Amount Issued 8,365,000	Maturity 11/15/2026	<u>Coupon</u> 3.250	2022	111 2022	2022	2022	2022	8,365,000	51, 2022
A3/BBB+/A-/AA			TRB 2012B	3/15/2012	8,780,000	11/15/2027	3.500	-	-	_	_	-	8,780,000	-
A3/BBB+/A-/AA			TRB 2012B	3/15/2012	9,680,000	11/15/2029	4.000	-	9,680,000	-	-	-	-	
A3/BBB+/A-/AA			TRB 2012B	3/15/2012	10,165,000	11/15/2030	4.000	-	10,165,000	-	-	-	-	-
A3/BBB+/A-/AA			TRB 2012B	3/15/2012	10,675,000	11/15/2031	4.000	-	10,675,000	-	-		-	-
A3/BBB+/A-/AA			TRB 2012B	3/15/2012	11,210,000	11/15/2032	4.000	-	11,210,000	-	-	-	-	-
A3/BBB+/A-/AA			TRB 2012B	3/15/2012	11,770,000	11/15/2033	4.000	-	-	-	-	-	11,770,000	-
A3/BBB+/A-/AA			TRB 2012B	3/15/2012	12,355,000	11/15/2034	4.000	-	-	-	-	-	12,355,000	-
A3/BBB+/A-/AA			TRB 2012B	3/15/2012	12,975,000	11/15/2035	4.000	-	-	-	-	-	12,975,000	-
A3/BBB+/A-/AA			TRB 2012B	3/15/2012	13,625,000	11/15/2036	4.000	-	-	-	-	-	13,625,000	-
A3/BBB+/A-/AA A3/BBB+/A-/AA			TRB 2012B TRB 2012B	3/15/2012 3/15/2012	14,305,000 15,020,000	11/15/2037 11/15/2038	4.250 4.250	-	-	-	-	-	14,305,000 15,020,000	-
A3/BBB+/A-/AA			TRB 2012B	3/15/2012	15,770,000	11/15/2038	4.250	-	-	-	-	-	15,770,000	-
A3/BBB+/A-/AA			TRB 2012D	5/3/2012	11,495,000	11/15/2022	5.000	11,495,000	_	_	_	_	-	_
A3/BBB+/A-/AA			TRB 2012C	5/3/2012	11,335,000	11/15/2027	3.500	-	-	-	-	-	11,335,000	-
A3/BBB+/A-/AA			TRB 2012C	5/3/2012	56,630,000	11/15/2028	5.000	-	40,385,000	-	-	-	,,	-
A3/BBB+/A-/AA			TRB 2012C	5/3/2012	59,455,000	11/15/2029	5.000	-	42,400,000	-	-	-	-	-
A3/BBB+/A-/AA			TRB 2012C	5/3/2012	62,425,000	11/15/2030	5.000	-	44,520,000	-	-	-	-	-
A3/BBB+/A-/AA			TRB 2012C	5/3/2012	4,755,000	11/15/2031	4.000	-	4,755,000	-	-	-	-	-
A3/BBB+/A-/AA			TRB 2012C	5/3/2012	60,790,000	11/15/2031	5.000	-	41,990,000	-	-	-	-	-
A3/BBB+/A-/AA			TRB 2012C	5/3/2012	20,725,000	11/15/2033	4.000	-	-	-	-	-	20,725,000	-
A3/BBB+/A-/AA			TRB 2012C	5/3/2012	23,765,000	11/15/2036	5.000	-	23,765,000	-	-	-	-	-
A3/BBB+/A-/AA			TRB 2012C	5/3/2012	24,955,000	11/15/2037	5.000	-	24,955,000	-	-	-	-	-
A3/BBB+/A-/AA A3/BBB+/A-/AA			TRB 2012C TRB 2012C	5/3/2012 5/3/2012	26,205,000 27,515,000	11/15/2038 11/15/2039	5.000 5.000	-	26,205,000 27,515,000	-	-	-	-	-
A3/BBB+/A-/AA			TRB 2012C	5/3/2012	19,980,000	11/15/2039	4.250	-	27,515,000	-	-	-	19,980,000	-
A3/BBB+/A-/AA			TRB 2012C	5/3/2012	31,695,000	11/15/2041	4.250	_	_	_	_	_	31,695,000	_
A3/BBB+/A-/AA			TRB 2012D	8/20/2012	1,500,000	11/15/2022	4.000	1,500,000	-	-	-	-	-	-
A3/BBB+/A-/AA			TRB 2012D	8/20/2012	2,300,000	11/15/2023	4.000	_,,	-	2,300,000	-	-	-	-
A3/BBB+/A-/AA			TRB 2012D	8/20/2012	3,000,000	11/15/2023	5.000	-	-	3,000,000	-	-	-	-
A3/BBB+/A-/AA			TRB 2012D	8/20/2012	10,000,000	11/15/2024	5.000	-	-	-	-	-	10,000,000	-
A3/BBB+/A-/AA			TRB 2012D	8/20/2012	92,000,000	11/15/2025	5.000	-	-	-	-	-	92,000,000	-
A3/BBB+/A-/AA			TRB 2012D	8/20/2012	30,000,000	11/15/2026	5.000	-	30,000,000	-	-	-	-	-
A3/BBB+/A-/AA			TRB 2012D	8/20/2012	25,000,000	11/15/2027	5.000	-	25,000,000	-	-	-	-	-
A3/BBB+/A-/AA			TRB 2012D	8/20/2012	77,640,000	11/15/2028	5.000	-	77,640,000	-	-	-	-	-
A3/BBB+/A-/AA			TRB 2012D	8/20/2012	82,000,000	11/15/2029	5.000	-	82,000,000	-	-	-	-	-
A3/BBB+/A-/AA			TRB 2012D	8/20/2012	20,540,000 82,000,000	11/15/2030 11/15/2030	4.000	-	20,540,000	-	-	-	-	-
A3/BBB+/A-/AA A3/BBB+/A-/AA			TRB 2012D TRB 2012D	8/20/2012 8/20/2012	52,410,000	11/15/2030	5.000 4.000	-	82,000,000 52,410,000	-	-	-	-	-
A3/BBB+/A-/AA			TRB 2012D	8/20/2012	17,785,000	11/15/2032	4.000	_	17,785,000	_	_	_	-	_
A3/BBB+/A-/AA			TRB 2012D	8/20/2012	19,355,000	11/15/2032	5.000	-	19,355,000	-	-			-
A3/BBB+/A-/AA			TRB 2012E	7/20/2012	15,610,000	11/15/2022	5.000	15,610,000		-	-	-	-	-
A3/BBB+/A-/AA			TRB 2012E	7/20/2012	19,925,000	11/15/2027	3.500	-	-	-	-	-	19,925,000	-
A3/BBB+/A-/AA			TRB 2012E	7/20/2012	25,065,000	11/15/2032	3.500	-	-	-	-	-	25,065,000	-
A3/BBB+/A-/AA			TRB 2012E	7/20/2012	25,945,000	11/15/2033	4.000	-	-	-	-	-	25,945,000	-
A3/BBB+/A-/AA			TRB 2012E	7/20/2012	26,980,000	11/15/2034	4.000	-	-	-	-	-	26,980,000	-
A3/BBB+/A-/AA			TRB 2012E	7/20/2012	28,060,000	11/15/2035	4.000	-	-	-	-	-	28,060,000	-
A3/BBB+/A-/AA			TRB 2012E	7/20/2012	29,185,000	11/15/2036	4.000	-	-	-	-	-	29,185,000	-
A3/BBB+/A-/AA			TRB 2012E	7/20/2012	30,350,000	11/15/2037	4.000	-	-	-	-	-	30,350,000	-
A3/BBB+/A-/AA	A1/AA/A/AA.		TRB 2012E	7/20/2012	31,565,000	11/15/2038	4.000 5.000	-	5,800,000	-	-	-	31,565,000	-
A3/BBB+/A-/AA A3/BBB+/A-/AA	A1/AA/A/AA+		TRB 2012E TRB 2012E	7/20/2012 7/20/2012	5,800,000 27,030,000	11/15/2039 11/15/2039	5.000	-	27,030,000	-	-	-	-	-
A3/BBB+/A-/AA A3/BBB+/A-/AA			TRB 2012E	9/28/2012	3,375,000	11/15/2039	4.000	3,375,000	27,050,000	-	-	-	-	-
A3/BBB+/A-/AA			TRB 2012F	9/28/2012	80,025,000	11/15/2022	5.000	80,025,000	-	-	-	-	-	-
A3/BBB+/A-/AA			TRB 2012F	9/28/2012	1,685,000	11/15/2023	4.000	-	-	1,685,000	-	-	-	-
A3/BBB+/A-/AA			TRB 2012F	9/28/2012	72,485,000	11/15/2023	5.000	-	-	72,485,000	-	-	=	-
A3/BBB+/A-/AA			TRB 2012F	9/28/2012	119,355,000	11/15/2024	5.000	-	-	-	-	-	119,355,000	-
A3/BBB+/A-/AA			TRB 2012F	9/28/2012	20,000,000	11/15/2025	3.125	-	-	-	-	-	20,000,000	-
A3/BBB+/A-/AA			TRB 2012F	9/28/2012	103,750,000	11/15/2025	5.000	-	-	-	-	-	103,750,000	-
A3/BBB+/A-/AA			TRB 2012F	9/28/2012	3,830,000	11/15/2026	4.000	-	-	-	-	-	3,830,000	-
A3/BBB+/A-/AA			TRB 2012F	9/28/2012	128,355,000	11/15/2026	5.000	-	128,355,000	-	-	-	-	-
A3/BBB+/A-/AA			TRB 2012F	9/28/2012	10,000,000	11/15/2027	4.000	-	10,000,000	-	-	-	-	-
A3/BBB+/A-/AA			TRB 2012F	9/28/2012	51,845,000	11/15/2027	5.000	-	51,845,000	-	-	-	-	-
A3/BBB+/A-/AA			TRB 2012F	9/28/2012	22,635,000	11/15/2028	4.000	-	22,635,000	-	-	-	-	-
A3/BBB+/A-/AA			TRB 2012F	9/28/2012	87,625,000	11/15/2028	5.000	-	87,625,000	-	-	-	-	-

			New Money Bonds and No Refunding Bonds and No		5,402,860,000 1,779,540,000	Γ	Total	3,813,577,500	2,341,805,000	5,188,120,000	51,090,000	597,910,000	48,672,762,500	2,036,995,000
Underlying L T Ratings	Credit Supported L T Ratings	S T Ratings						Amount Matured in	Amount Defeased	Amount Called in	Amount Redeemed in	Amount Refinanced in	Amount Outstanding as	Amount Swapped as of December
Mdy/S&P/Ftch/Krll	Mdy/S&P/Ftch/Krll	Mdy/S&P/Ftch/Krll	Series	Date Issued	Amount Issued	Maturity	Coupon	2022	in 2022	2022	2022	2022	of December 31, 2022	<u>31, 2022</u>
A3/BBB+/A-/AA			TRB 2012F	9/28/2012	19,375,000	11/15/2029	4.000	-	19,375,000	-	-	-	-	-
A3/BBB+/A-/AA			TRB 2012F	9/28/2012	70,715,000	11/15/2029	5.000	-	70,715,000	-	-	-	-	-
A3/BBB+/A-/AA			TRB 2012F	9/28/2012	7,990,000	11/15/2030	4.000	-	7,990,000	-	-	-	-	-
A3/BBB+/A-/AA			TRB 2012F	9/28/2012	28,100,000	11/15/2030	5.000	-	28,100,000	-	-	-	-	
A3/BBB+/A-/AA	Aa2/AA/AA+/NR	VMIG1/A-1/F1/NR	TRB 2012G-1	10/31/2019	84,450,000	11/1/2032	4.000	-	-	-	-	-	84,450,000	84,450,000
A3/BBB+/A-/AA		VMIG1/A-1+/F1+/NR	TRB 2012G-2	10/12/2021 10/12/2021	89,925,000	11/1/2031 11/1/2032	4.000	-	-	-	-	-	89,925,000	89,925,000
A3/BBB+/A-/AA A3/BBB+/A-/AA		VMIG1/A-1+/F1+/NR	TRB 2012G-2 TRB 2012G-3	2/3/2020	35,075,000 10,750,000	11/1/2032	4.000 4.000	-	-	-	-	-	35,075,000 10,750,000	35,075,000 10,750,000
A3/BBB+/A-/AA			TRB 2012G-3	2/3/2020	64,250,000	11/1/2030	4.000						64,250,000	64,250,000
A3/BBB+/A-/AA	4a1/44-/44-/NAF	VMIG 1/A-1/F1+/NAF	TRB 2012G-4	11/1/2022	450,000	11/1/2022	4.000	450,000	-	-	_	450.000	-	-
A3/BBB+/A-/AA			TRB 2012G-4	11/1/2022	475,000	11/1/2023	4.000	-	-	-	-	475,000	475,000	475,000
A3/BBB+/A-/AA		VMIG 1/A-1/F1+/NAF	TRB 2012G-4	11/1/2022	500,000	11/1/2024	4.000	-	-	-	-	500,000	500,000	500,000
A3/BBB+/A-/AA		VMIG 1/A-1/F1+/NAF	TRB 2012G-4	11/1/2022	525,000	11/1/2025	4.000	-	-	-	-	525,000	525,000	525,000
A3/BBB+/A-/AA		VMIG 1/A-1/F1+/NAF	TRB 2012G-4	11/1/2022	550,000	11/1/2026	4.000	-	-	-	-	550,000	550,000	550,000
A3/BBB+/A-/AA		VMIG 1/A-1/F1+/NAF	TRB 2012G-4	11/1/2022	575,000	11/1/2027	4.000	-	-	-	-	575,000	575,000	575,000
A3/BBB+/A-/AA		VMIG 1/A-1/F1+/NAF	TRB 2012G-4	11/1/2022	12,725,000	11/1/2028	4.000	-	-	-	-	12,725,000	12,725,000	12,725,000
A3/BBB+/A-/AA	Aa1/AA-/AA-/NAF	VMIG 1/A-1/F1+/NAF	TRB 2012G-4	11/1/2022	13,525,000	11/1/2029	4.000	-	-	-	-	13,525,000	13,525,000	13,525,000
A3/BBB+/A-/AA	Aa1/AA-/AA-/NAF	VMIG 1/A-1/F1+/NAF	TRB 2012G-4	11/1/2022	41,750,000	11/1/2030	4.000	-	-	-	-	41,750,000	41,750,000	41,750,000
A3/BBB+/A-/AA			TRB 2012H	11/15/2012	8,530,000	11/15/2022	4.000	3,840,000	-	-	-	-		
A3/BBB+/A-/AA			TRB 2012H	11/15/2012	3,820,000	11/15/2023	5.000	-	-	1,720,000	-	-	-	-
A3/BBB+/A-/AA			TRB 2012H	11/15/2012	5,050,000	11/15/2023	4.000	-	-	5,050,000	-	-	-	-
A3/BBB+/A-/AA			TRB 2012H	11/15/2012	9,265,000	11/15/2024	5.000	-	-	-	-	-	4,170,000	-
A3/BBB+/A-/AA			TRB 2012H	11/15/2012	9,730,000	11/15/2025	5.000	-	-	-	-	-	4,380,000	-
A3/BBB+/A-/AA			TRB 2012H	11/15/2012	10,215,000	11/15/2026	5.000	-	4,600,000	-	-	-	-	-
A3/BBB+/A-/AA			TRB 2012H	11/15/2012	10,725,000	11/15/2027	5.000	-	4,830,000	-	-	-	-	-
A3/BBB+/A-/AA			TRB 2012H	11/15/2012	11,260,000	11/15/2028	3.000	-	6,290,000	-	-	-	4,970,000	-
A3/BBB+/A-/AA			TRB 2012H	11/15/2012	11,600,000	11/15/2029	5.000	-	5,220,000	-	-	-	-	-
A3/BBB+/A-/AA			TRB 2012H	11/15/2012	12,180,000	11/15/2030	5.000	-	5,485,000	-	-	-	-	-
A3/BBB+/A-/AA			TRB 2012H	11/15/2012	12,790,000	11/15/2031	5.000	-	5,760,000	-	-	-	-	-
A3/BBB+/A-/AA			TRB 2012H	11/15/2012	13,430,000	11/15/2032	3.250	-	7,500,000	-	-	-	5,930,000	-
A3/BBB+/A-/AA			TRB 2012H	11/15/2012	13,865,000	11/15/2033	5.000	-	6,240,000	-	-	-	-	-
A3/BBB+/A-/AA			TRB 2012H	11/15/2012	14,555,000	11/15/2034	4.000	-	8,125,000	-	-	-	6,430,000	-
A3/BBB+/A-/AA			TRB 2012H	11/15/2012	15,140,000	11/15/2035	3.625	-	8,455,000	-	-	-	6,685,000	-
A3/BBB+/A-/AA			TRB 2012H	11/15/2012	15,690,000	11/15/2036	3.625	-	8,760,000	-	-	-	6,930,000	-
A3/BBB+/A-/AA			TRB 2012H	11/15/2012	16,255,000	11/15/2037	3.625	-	-	-	-	-	16,255,000	-
A3/BBB+/A-/AA			TRB 2012H	11/15/2012	16,845,000	11/15/2038	5.000	-	16,845,000	-	-	-	-	-
A3/BBB+/A-/AA			TRB 2012H	11/15/2012	17,690,000	11/15/2039	5.000	-	17,690,000	-	-	-	-	-
A3/BBB+/A-/AA			TRB 2012H	11/15/2012	18,575,000	11/15/2040	5.000	-	8,360,000	-	-	-	-	-
A3/BBB+/A-/AA			TRB 2012H	11/15/2012	19,500,000	11/15/2041	5.000	-	8,775,000	-	-	-	-	-
A3/BBB+/A-/AA A3/BBB+/A-/AA			TRB 2012H TRB 2013A	11/15/2012 1/24/2013	20,475,000	11/15/2042 11/15/2022	5.000 5.000	5,520,000	9,215,000	-	-	-	-	-
					5,520,000		4.000	5,520,000	-	-	-	-	2.045.000	-
A3/BBB+/A-/AA			TRB 2013A	1/24/2013 1/24/2013	3,945,000	11/15/2023 11/15/2023		-	-	-	-	-	3,945,000	-
A3/BBB+/A-/AA A3/BBB+/A-/AA			TRB 2013A TRB 2013A	1/24/2013	7,595,000 6,315,000	11/15/2025	5.000 4.000	-	-	-	-	-	7,595,000 6,315,000	-
A3/BBB+/A-/AA			TRB 2013A TRB 2013A	1/24/2013	2,720,000	11/15/2028	4.000	-	-	-	-	-	2,720,000	-
A3/BBB+/A-/AA			TRB 2013A	1/24/2013	15,940,000	11/15/2033	5.000	-	-	-	-	-	15,940,000	-
A3/BBB+/A-/AA			TRB 2013A	1/24/2013	19,565,000	11/15/2033	5.000	-	-	-	-	-	19,565,000	-
A3/BBB+/A-/AA			TRB 2013A	1/24/2013	20,545,000	11/15/2035	5.000		-	-	-	-	20,545,000	-
A3/BBB+/A-/AA			TRB 2013A	1/24/2013	21,570,000	11/15/2036	5.000	-	-	-	-	-	21,570,000	-
A3/BBB+/A-/AA			TRB 2013A	1/24/2013	22,650,000	11/15/2037	5.000	-	-	-	-	-	22,650,000	-
A3/BBB+/A-/AA			TRB 2013A	1/24/2013	23,785,000	11/15/2038	5.000	-	-	-	-	-	23,785,000	-
A3/BBB+/A-/AA			TRB 2013A	1/24/2013	24,970,000	11/15/2039	5.000	-	-	-	-	-	24,970,000	-
A3/BBB+/A-/AA			TRB 2013A	1/24/2013	26,220,000	11/15/2040	5.000	-	-	-	-	-	26,220,000	-
A3/BBB+/A-/AA			TRB 2013A	1/24/2013	27,530,000	11/15/2041	5.000	-	-	-	-	-	27,530,000	-
A3/BBB+/A-/AA			TRB 2013A	1/24/2013	28,910,000	11/15/2042	5.000	-	-	-	-	-	28,910,000	-
A3/BBB+/A-/AA			TRB 2013B	4/2/2013	9,410,000	11/15/2022	5.000	9,410,000	-	-	-	-	-	-
A3/BBB+/A-/AA			TRB 2013B	4/2/2013	5,200,000	11/15/2023	4.000	-	-	-	-	-	5,200,000	-
A3/BBB+/A-/AA			TRB 2013B	4/2/2013	6,325,000	11/15/2023	5.000	-	-	-	-	-	6,325,000	-
A3/BBB+/A-/AA			TRB 2013B	4/2/2013	1,630,000	11/15/2028	4.000	-	-	-	-	-	1,630,000	-
A3/BBB+/A-/AA			TRB 2013B	4/2/2013	18,670,000	11/15/2033	5.000	-	-	-	-	-	18,670,000	-
A3/BBB+/A-/AA			TRB 2013B	4/2/2013	19,605,000	11/15/2034	5.000	-	-	-	-	-	19,605,000	-
A3/BBB+/A-/AA			TRB 2013B	4/2/2013	20,585,000	11/15/2035	5.000	-	-	-	-	-	20,585,000	-
A3/BBB+/A-/AA			TRB 2013B	4/2/2013	21,615,000	11/15/2036	5.000	-	-	-	-	-	21,615,000	-
			TRB 2013B	4/2/2013	22,695,000	11/15/2037	5.000	_					22,695,000	_
A3/BBB+/A-/AA			TRB 2013B	1/2/2010	22,033,000	11/15/2038	5.000						23,830,000	

7,182,400,000

Total Bonds and Notes Issued in 2022

			New Money Bonds and Not	es Issued in 2022	5,402,860,000									
			Refunding Bonds and Not		1,779,540,000		Total	3,813,577,500	2,341,805,000	5,188,120,000	51,090,000	597,910,000	48,672,762,500	2,036,995,000
	Credit Supported L T										Amount	Amount		Amount Swapped
Underlying L T Ratings Mdy/S&P/Ftch/Krll	Ratings Mdy/S&P/Ftch/Krll	<u>S T Ratings</u> Mdy/S&P/Ftch/Krll	Series	Date Issued	Amount Issued	Maturity	Courson	Amount Matured in 2022	Amount Defeased in 2022	Amount Called in 2022	Redeemed in 2022	Refinanced in 2022	Amount Outstanding as of December 31, 2022	as of December 31, 2022
A3/BBB+/A-/AA	Widy/Joer/Fich/Kill	Muy/Sor/Fich/Kill	TRB 2013B	4/2/2013	25,020,000	11/15/2039	<u>Coupon</u> 5.000		-				25,020,000	
A3/BBB+/A-/AA			TRB 2013B	4/2/2013	26,270,000	11/15/2040	5.000	-	-	-	-	-	26,270,000	-
A3/BBB+/A-/AA			TRB 2013B	4/2/2013	15,335,000	11/15/2041	4.000	-	-	-	-	-	15,335,000	-
A3/BBB+/A-/AA			TRB 2013B	4/2/2013	12,250,000	11/15/2041	5.000	-	-	-	-	-	12,250,000	-
A3/BBB+/A-/AA			TRB 2013B	4/2/2013	15,945,000	11/15/2042	4.000	-	-	-	-	-	15,945,000	-
A3/BBB+/A-/AA			TRB 2013B	4/2/2013	12,865,000	11/15/2042	5.000	-	-	-	-	-	12,865,000	-
A3/BBB+/A-/AA A3/BBB+/A-/AA			TRB 2013B TRB 2013B	4/2/2013 4/2/2013	16,585,000 13,505,000	11/15/2043 11/15/2043	4.000 5.000	-	-	-	-	-	16,585,000 13,505,000	-
A3/BBB+/A-/AA			TRB 2013B	6/11/2013	10,990,000	11/15/2045	5.000	10,990,000	-	-	-	-	13,505,000	-
A3/BBB+/A-/AA			TRB 2013C	6/11/2013	1,775,000	11/15/2022	3.000	-	-	-	-	-	1,775,000	-
A3/BBB+/A-/AA			TRB 2013C	6/11/2013	9,760,000	11/15/2023	5.000	-	-	-	-	-	9,760,000	-
A3/BBB+/A-/AA			TRB 2013C	6/11/2013	18,740,000	11/15/2033	4.000	-	-	-	-	-	18,740,000	-
A3/BBB+/A-/AA			TRB 2013C	6/11/2013	19,485,000	11/15/2034	5.000	-	-	-	-	-	19,485,000	-
A3/BBB+/A-/AA			TRB 2013C	6/11/2013	20,460,000	11/15/2035	5.000	-	-	-	-	-	20,460,000	-
A3/BBB+/A-/AA			TRB 2013C	6/11/2013	21,485,000	11/15/2036	5.000	-	-	-	-	-	21,485,000	-
A3/BBB+/A-/AA			TRB 2013C	6/11/2013	22,560,000	11/15/2037	5.000	-	-	-	-	-	22,560,000	-
A3/BBB+/A-/AA			TRB 2013C	6/11/2013	23,685,000	11/15/2038	5.000	-	-	-	-	-	23,685,000	-
A3/BBB+/A-/AA A3/BBB+/A-/AA			TRB 2013C TRB 2013C	6/11/2013 6/11/2013	24,870,000 26,115,000	11/15/2039 11/15/2040	5.000 5.000	-	-	-	-	-	24,870,000 26,115,000	-
A3/BBB+/A-/AA			TRB 2013C	6/11/2013	27,420,000	11/15/2040	5.000		-	-	-	-	27,420,000	-
A3/BBB+/A-/AA			TRB 2013C	6/11/2013	28,790,000	11/15/2042	5.000	-	-	-	-	-	28,790,000	-
A3/BBB+/A-/AA			TRB 2013C	6/11/2013	30,230,000	11/15/2043	4.000	-	-	-	-	-	30,230,000	-
A3/BBB+/A-/AA			TRB 2013D	7/11/2013	7,295,000	11/15/2022	5.000	795,000	-	-	-	-	-	-
A3/BBB+/A-/AA			TRB 2013D	7/11/2013	7,660,000	11/15/2023	5.000	-	-	-	-	-	7,660,000	-
A3/BBB+/A-/AA			TRB 2013D	7/11/2013	13,350,000	11/15/2034	5.000	-	-	-	-	-	13,350,000	-
A3/BBB+/A-/AA			TRB 2013D	7/11/2013	14,020,000	11/15/2035	5.000	-	-	-	-	-	14,020,000	-
A3/BBB+/A-/AA A3/BBB+/A-/AA			TRB 2013D TRB 2013D	7/11/2013	14,720,000 15,455,000	11/15/2036 11/15/2037	5.000 5.000	-	-	-	-	-	14,720,000	-
A3/BBB+/A-/AA A3/BBB+/A-/AA			TRB 2013D TRB 2013D	7/11/2013 7/11/2013	16,230,000	11/15/2037	5.000	-	-	-	-	-	15,455,000 16,230,000	-
A3/BBB+/A-/AA			TRB 2013D	7/11/2013	17,040,000	11/15/2039	4.750	_	_	_	_	_	17,040,000	_
A3/BBB+/A-/AA			TRB 2013D	7/11/2013	17,850,000	11/15/2040	5.000	-	-	-	-	-	17,850,000	-
A3/BBB+/A-/AA			TRB 2013D	7/11/2013	18,740,000	11/15/2041	5.000	-	-	-	-	-	18,740,000	-
A3/BBB+/A-/AA			TRB 2013D	7/11/2013	19,680,000	11/15/2042	5.000	-	-	-	-	-	19,680,000	-
A3/BBB+/A-/AA			TRB 2013D	7/11/2013	20,665,000	11/15/2043	5.000	-	-	-	-	-	20,665,000	-
A3/BBB+/A-/AA			TRB 2013E	11/15/2013	9,425,000	11/15/2022	5.000	9,425,000	-	-	-	-	-	-
A3/BBB+/A-/AA			TRB 2013E	11/15/2013	3,120,000	11/15/2023	4.000	-	-	-	-	-	3,120,000	-
A3/BBB+/A-/AA A3/BBB+/A-/AA			TRB 2013E TRB 2013E	11/15/2013 11/15/2013	8,545,000 18,050,000	11/15/2023 11/15/2032	5.000 5.000	-	-	-	-	-	8,545,000 18,050,000	-
A3/BBB+/A-/AA			TRB 2013E	11/15/2013	18,950,000	11/15/2032	5.000	-	-	-	-	-	18,950,000	-
A3/BBB+/A-/AA			TRB 2013E	11/15/2013	19,900,000	11/15/2033	5.000		-	-	-	-	19,900,000	-
A3/BBB+/A-/AA			TRB 2013E	11/15/2013	20,895,000	11/15/2035	5.000	-	-	-	-	-	20,895,000	-
A3/BBB+/A-/AA			TRB 2013E	11/15/2013	21,940,000	11/15/2036	5.000	-	-	-	-	-	21,940,000	-
A3/BBB+/A-/AA			TRB 2013E	11/15/2013	23,035,000	11/15/2037	5.000	-	-	-	-	-	23,035,000	-
A3/BBB+/A-/AA			TRB 2013E	11/15/2013	24,190,000	11/15/2038	5.000	-	-	-	-	-	24,190,000	-
A3/BBB+/A-/AA			TRB 2013E	11/15/2013	25,400,000	11/15/2039	5.000	-	-	-	-	-	25,400,000	-
A3/BBB+/A-/AA			TRB 2013E	11/15/2013	26,670,000	11/15/2040	5.000	-	-	-	-	-	26,670,000	-
A3/BBB+/A-/AA A3/BBB+/A-/AA			TRB 2013E TRB 2013E	11/15/2013 11/15/2013	28,000,000 29,400,000	11/15/2041 11/15/2042	5.000 5.000	-	-	-	-	-	28,000,000 29,400,000	-
A3/BBB+/A-/AA			TRB 2013E	11/15/2013	30,870,000	11/15/2042	5.000	_	_	_	_	_	30,870,000	_
A3/BBB+/A-/AA			TRB 2014A-1	2/28/2014	11,255,000	11/15/2023	5.000	-	-	-	-	-	11,255,000	-
A3/BBB+/A-/AA			TRB 2014A-1	2/28/2014	4,475,000	11/15/2032	5.000	-	-	-	-	-	4,475,000	-
A3/BBB+/A-/AA			TRB 2014A-1	2/28/2014	3,630,000	11/15/2033	5.000	-	-	-	-	-	3,630,000	-
A3/BBB+/A-/AA			TRB 2014A-1	2/28/2014	3,870,000	11/15/2034	5.000	-	-	-	-	-	3,870,000	-
A3/BBB+/A-/AA			TRB 2014A-1	2/28/2014	15,200,000	11/15/2035	5.250	-	-	-	-	-	15,200,000	-
A3/BBB+/A-/AA			TRB 2014A-1	2/28/2014	15,340,000	11/15/2036	5.250	-	-	-	-	-	15,340,000	-
A3/BBB+/A-/AA			TRB 2014A-1	2/28/2014	16,875,000	11/15/2037	5.250	-	-	-	-	-	16,875,000	-
A3/BBB+/A-/AA A3/BBB+/A-/AA			TRB 2014A-1 TRB 2014A-1	2/28/2014 2/28/2014	13,685,000 13,025,000	11/15/2038 11/15/2039	5.250 5.250	-	-	-	-	-	13,685,000 13,025,000	-
A3/BBB+/A-/AA A3/BBB+/A-/AA			TRB 2014A-1 TRB 2014A-1	2/28/2014 2/28/2014	12,910,000	11/15/2039	5.000	-	-	-	-	-	13,025,000	-
A3/BBB+/A-/AA			TRB 2014A-1	2/28/2014	13,655,000	11/15/2040	5.000	-	-	-		_	13,655,000	
A3/BBB+/A-/AA			TRB 2014A-1	2/28/2014	14,585,000	11/15/2042	5.000	-	-	=	-	-	14,585,000	-
A3/BBB+/A-/AA			TRB 2014A-1	2/28/2014	13,040,000	11/15/2043	5.000	-	-	-	-	-	13,040,000	-
A3/BBB+/A-/AA			TRB 2014A-1	2/28/2014	14,005,000	11/15/2044	5.000	<del>.</del>	-	=	-	-	14,005,000	-
A3/BBB+/A-/AA			TRB 2014A-2 Refunding Bonds	2/28/2014	25,520,000	11/15/2022	5.000	25,520,000	-	-	-	-	-	-
A3/BBB+/A-/AA			TRB 2014A-2 Refunding Bonds	2/28/2014	7,835,000	11/15/2032	5.000	-	-	-	-	-	7,835,000	-

### Metropolitan Transportation Authority

Disclosure for Fiscal Year Ended 12/31/2022 Total Bonds and Notes Issued in 2022 7.182.400.000 New Money Bonds and Notes Issued in 2022 5.402.860.000 Refunding Bonds and Notes Issued in 2022 1,779,540,000 Total 3,813,577,500 2,341,805,000 5,188,120,000 51,090,000 597,910,000 Credit Supported L T Amount Amount Amount Matured in Amount Defeased Amount Called in Underlying L T Ratings Ratings S T Ratings Redeemed in Refinanced in Mdy/S&P/Ftch/Krll Mdy/S&P/Ftch/Krll Mdy/S&P/Ftch/Krll Series Maturity 2022 in 2022 2022 2022 2022 Date Issued Amount Issued Coupon TRR 2014R  $\Delta 3/RRR+/\Delta -/\Delta \Delta$ 4/17/2014 10 375 000 11/15/2022 5 000 10 375 000 A3/BBB+/A-/AA TRB 2014B 4/17/2014 10,890,000 11/15/2023 5.000 A3/BBB+/A-/AA TRB 2014B 4/17/2014 11,435,000 11/15/2024 5.000 A3/BBB+/A-/AA 4/17/2014 11/15/2028 TRB 2014B 4.085.000 3.750 A3/BBB+/A-/AA TRB 2014B 4/17/2014 15,270,000 11/15/2030 5 000 A3/BBB+/A-/AA TRB 2014B 4/17/2014 6,350,000 11/15/2031 4.000 4/17/2014 A3/BBB+/A-/AA TRB 2014B 9.685.000 11/15/2031 5.000 A3/BBB+/A-/AA 16,775,000 11/15/2032 TRB 2014B 4/17/2014 5.250 A3/BBB+/A-/AA TRB 2014B 4/17/2014 17,655,000 11/15/2033 5.250 A3/BBB+/A-/AA TRB 2014B 4/17/2014 18,580,000 11/15/2034 5.250 19.555.000 A3/BBB+/A-/AA TRB 2014B 4/17/2014 11/15/2035 5.250 A3/BBB+/A-/AA TRB 2014B 4/17/2014 3,450,000 11/15/2036 4.250 A3/BBB+/A-/AA TRB 2014B 4/17/2014 17,135,000 11/15/2036 5.250 A3/BBB+/A-/AA 4/17/2014 21.630.000 5.250 TRB 2014B 11/15/2037 A3/BBB+/A-/AA TRB 2014B 4/17/2014 22,765,000 11/15/2038 5.250 A3/BBB+/A-/AA 23,960,000 TRB 2014B 4/17/2014 11/15/2039 5.250 A3/BBB+/A-/AA TRB 2014B 4/17/2014 12,640,000 11/15/2040 5.000 A3/BBB+/A-/AA TRB 2014B 4/17/2014 12.580.000 11/15/2040 5.250 A3/BBB+/A-/AA TRB 2014B 4/17/2014 13,275,000 11/15/2041 5.000 A3/BBB+/A-/AA 4/17/2014 5.250 TRB 2014B 13,235,000 11/15/2041 4/17/2014 A3/BBB+/A-/AA TRB 2014B 13.935.000 11/15/2042 5.000 A3/BBB+/A-/AA TRB 2014B 4/17/2014 13.935.000 11/15/2042 5 250 A3/BBB+/A-/AA TRB 2014B 4/17/2014 14,635,000 11/15/2043 5.000 A3/BBB+/A-/AA TRB 2014B 4/17/2014 14,665,000 11/15/2043 5.250  $\Delta 3/RRR + /\Delta - /\Delta \Delta$ TRB 2014B 4/17/2014 15 365 000 11/15/2044 5 000 A3/BBB+/A-/AA TRB 2014B 4/17/2014 15,435,000 11/15/2044 5.250 A3/BBB+/A-/AA TRB 2014C 6/26/2014 43,500,000 11/15/2022 5.000 27,670,000 36 025 000 5 000  $\Delta 3/BBB+/\Delta -/\Delta \Delta$ TRB 2014C 6/26/2014 11/15/2023 A3/BBB+/A-/AA TRB 2014C 6/26/2014 47,575,000 11/15/2024 5.000 A3/BBB+/A-/AA TRB 2014C 6/26/2014 15,510,000 11/15/2030 5.000 A3/BBB+/A-/AA TRB 2014C 6/26/2014 16.285.000 11/15/2031 5.000 A3/BBB+/A-/AA TRB 2014C 6/26/2014 17.100.000 11/15/2032 5.000 A3/BBB+/A-/AA TRB 2014C 6/26/2014 17,955,000 11/15/2033 5.000 A3/BBB+/A-/AA TRB 2014C 6/26/2014 23,855,000 11/15/2034 4.000 A3/BBB+/A-/AA TRB 2014C 6/26/2014 18,210,000 11/15/2035 5.000 A3/BBB+/A-/AA TRB 2014C 6/26/2014 3,000,000 11/15/2036 5.000 A3/BBB+/A-/AA TRB 2014D-1 11/4/2014 11,155,000 11/15/2030 5.000 11/4/2014 A3/BBB+/A-/AA TRB 2014D-1 11.715.000 11/15/2031 5.000 A3/BBB+/A-/AA TRB 2014D-1 11/4/2014 12,295,000 11/15/2032 5.000 A3/BBB+/A-/AA TRB 2014D-1 11/4/2014 12,910,000 11/15/2033 5.000 A3/BBB+/A-/AA TRB 2014D-1 11/4/2014 11/15/2034 515.000 5.000 A3/BBB+/A-/AA TRB 2014D-1 11/4/2014 955,000 11/15/2035 5.000 A3/BBB+/A-/AA TRB 2014D-1 11/4/2014 4,960,000 11/15/2036 5.000 A3/BBB+/A-/AA TRB 2014D-1 11/4/2014 37,330,000 11/15/2037 5.000 A3/BBB+/A-/AA TRB 2014D-1 11/4/2014 39.190.000 11/15/2038 5.000 A3/BBB+/A-/AA TRB 2014D-1 11/4/2014 40.415.000 11/15/2039 5.000 A3/BBB+/A-/AA TRB 2014D-1 11/4/2014 22,445,000 11/15/2040 5.250 A3/BBB+/A-/AA TRB 2014D-1 11/4/2014 23,565,000 11/15/2041 5.250 A3/BBB+/A-/AA TRB 2014D-1 11/4/2014 24.745.000 11/15/2042 5 250 A3/BBB+/A-/AA TRB 2014D-1 11/4/2014 25,980,000 11/15/2043 5.250 A3/BBB+/A-/AA TRB 2014D-1 11/4/2014 27,280,000 11/15/2044 5.250

8.345.000

14,880,000

27,670,000

20,675,000

21,640,000

22,635,000

23.685.000

24,780,000

17,530,000

15,040,000

19,285,000

1.390.000

3.365.000

690.000

TRB 2014D-2

TRB 2015A-1

TRB 2015A-1

TRB 2015A-1

TRB 2015A-1

TRB 2015A-1

11/3/2017

11/3/2017

11/3/2017

11/3/2017

11/3/2017

11/3/2017

11/3/2017

11/3/2017

11/3/2017

1/22/2015

1/22/2015

1/22/2015

1/22/2015

1/22/2015

48,672,762,500

of December 31, 2022

Amount Outstanding as as of December

10,890,000

11,435,000

4.085.000

15,270,000

6,350,000

9.685.000

16.775.000

17,655,000

18,580,000

19.555.000

17,135,000

21.630.000

22,765,000

23,960,000

12,640,000

12,580,000

13,275,000

13.235.000

13,935,000

13.935.000

14,635,000

14,665,000

15 365 000

15,435,000

36 025 000

47,575,000

15,510,000

16.285.000

17.100.000

17,955,000

23,855,000

18,210,000

11,155,000

11.715.000

12,295,000

12,910,000

515.000

955.000

4,960,000

37,330,000

39.190.000

40.415.000

22,445,000

23,565,000 24,745,000

25,980,000

27,280,000

3.365.000

15,040,000

19,285,000

1.390.000

8 345 000

14,880,000 27,670,000

20,675,000

21.640.000

22,635,000

23.685.000

24,780,000

690.000

3,000,000

3,450,000

2,036,995,000

Amount Swapped

31. 2022

 $\Delta 3/RRR + /\Delta - /\Delta \Delta$ 

A3/BBB+/A-/AA

11/15/2034

11/15/2035

11/15/2036

11/15/2039

11/15/2040

11/15/2041

11/15/2042

11/15/2043

11/15/2044

11/15/2022

11/15/2023

11/15/2023

11/15/2024

11/15/2025

4 000

4.000

4.000

4.000

4 000

4.000

4.000

4.000

4.000

5.000

4.000

5.000

5.000

3.000

17,530,000

New Money Bonds and Notes Issued in 2022 5.402.860.000 Refunding Bonds and Notes Issued in 2022 1,779,540,000 Total 3,813,577,500 2,341,805,000 5,188,120,000 51,090,000 597,910,000 48,672,762,500 2,036,995,000 Credit Supported L T Amount Amount Amount Swapped Amount Matured in Amount Defeased Amount Called in Underlying L T Ratings Ratings S T Ratings Redeemed in Refinanced in Amount Outstanding as as of December Mdy/S&P/Ftch/Krll Mdy/S&P/Ftch/Krll Mdy/S&P/Ftch/Krll Series Date Issued Maturity 2022 in 2022 2022 2022 2022 of December 31, 2022 31. 2022 Amount Issued Coupon TRR 20154-1  $\Delta 3/RRR+/\Delta -/\Delta \Delta$ 1/22/2015 18 870 000 11/15/2025 5 000 18 870 000 A3/BBB+/A-/AA TRB 2015A-1 1/22/2015 5,515,000 11/15/2026 5.000 5,515,000 A3/BBB+/A-/AA 8,600,000 TRB 2015A-1 1/22/2015 8,600,000 11/15/2027 5.000 TRB 2015A-1 1/22/2015 11/15/2028 495.000 A3/BBB+/A-/AA 495.000 5.000 A3/BBB+/A-/AA TRB 2015A-1 1/22/2015 7,260,000 11/15/2029 5 000 7.260.000 A3/BBB+/A-/AA TRB 2015A-1 1/22/2015 5,500,000 11/15/2030 5.000 5,500,000 TRB 2015A-1 1/22/2015 A3/BBB+/A-/AA 435.000 11/15/2031 5.000 435.000 A3/BBB+/A-/AA TRB 2015A-1 1/22/2015 750.000 11/15/2032 5.000 750.000 A3/BBB+/A-/AA TRB 2015A-1 1/22/2015 8,370,000 11/15/2033 5.000 8,370,000 A3/BBB+/A-/AA TRB 2015A-1 1/22/2015 9,690,000 11/15/2034 5.000 9,690,000 1/22/2015 9.625.000 A3/BBB+/A-/AA TRB 2015A-1 11/15/2035 5.000 9.625.000 A3/BBB+/A-/AA TRB 2015A-1 1/22/2015 20,770,000 11/15/2036 5.000 20,770,000 A3/BBB+/A-/AA TRB 2015A-1 1/22/2015 25,550,000 11/15/2037 5.000 25,550,000 A3/BBB+/A-/AA TRB 2015A-1 1/22/2015 26.775.000 5.000 11/15/2038 26.775.000 A3/BBB+/A-/AA TRB 2015A-1 1/22/2015 28,050,000 11/15/2039 5.000 28,050,000 A3/BBB+/A-/AA 40,680,000 40,680,000 TRB 2015A-1 1/22/2015 11/15/2040 5.000 A3/BBB+/A-/AA TRB 2015A-1 1/22/2015 39,800,000 11/15/2041 5.000 39,800,000 A3/BBB+/A-/AA TRB 2015A-1 1/22/2015 41,785,000 11/15/2042 5.000 41.785.000 A3/BBB+/A-/AA TRB 2015A-1 1/22/2015 43,875,000 11/15/2043 5.000 43,875,000 A3/BBB+/A-/AA TRB 2015A-1 46,070,000 5.000 46,070,000 1/22/2015 11/15/2044 TRB 2015A-1 1/22/2015 48,365,000 A3/BBB+/A-/AA 48.365.000 11/15/2045 5.000 A3/BBB+/A-/AA TRB 2015A-2 5/14/2020 25.975.000 11/15/2038 5 000 25.975.000 A3/BBB+/A-/AA TRB 2015A-2 5/14/2020 27,275,000 11/15/2039 5.000 27,275,000 A3/BBB+/A-/AA TRB 2015A-2 5/14/2020 28,640,000 11/15/2040 5.000 28,640,000 11/15/2041  $\Delta 3/RRR + /\Delta - /\Delta \Delta$ TRB 20154-2 5/14/2020 30.070.000 5 000 30 070 000 A3/BBB+/A-/AA TRB 2015A-2 5/14/2020 31,575,000 11/15/2042 5.000 31,575,000 A3/BBB+/A-/AA TRB 2015A-2 5/14/2020 33,150,000 11/15/2043 5.000 33,150,000  $\Delta 3/BBB+/\Delta -/\Delta \Delta$ TRB 20154-2 5/14/2020 34 810 000 11/15/2044 5 000 34 810 000 A3/BBB+/A-/AA TRB 2015A-2 5/14/2020 36,550,000 11/15/2045 5.000 36,550,000 A3/BBB+/A-/AA TRB 2015B 3/19/2015 3,220,000 11/15/2022 5.000 3,220,000 A3/BBB+/A-/AA TRB 2015B 3/19/2015 3.385.000 11/15/2023 5.000 3.385.000 A3/BBB+/A-/AA TRB 2015B 3/19/2015 3.555.000 11/15/2024 5.000 3.555.000 A3/BBB+/A-/AA TRB 2015B 3/19/2015 3,730,000 11/15/2025 5.000 3,730,000 A3/BBB+/A-/AA TRB 2015B 3/19/2015 4,110,000 11/15/2027 3.000 4,110,000 A3/BBB+/A-/AA TRB 2015B 3/19/2015 4.445.000 11/15/2029 5.000 4.445.000 A3/BBB+/A-/AA TRB 2015B 3/19/2015 4,670,000 11/15/2030 3.250 4,670,000 A3/BBB+/A-/AA TRB 2015B 3/19/2015 4,820,000 11/15/2031 5.000 4,820,000 3/19/2015 5.065.000 5.065.000 A3/BBB+/A-/AA TRB 2015B 11/15/2032 5.000 A3/BBB+/A-/AA TRB 2015B 3/19/2015 5,315,000 11/15/2033 5.000 5,315,000 TRB 2015B A3/BBB+/A-/AA 3/19/2015 5,580,000 11/15/2034 3.500 5,580,000 A3/BBB+/A-/AA TRB 2015B 3/19/2015 5.775.000 11/15/2035 5.775.000 5.000 A3/BBB+/A-/AA TRB 2015B 3/19/2015 6,065,000 11/15/2036 5.000 6,065,000 A3/BBB+/A-/AA TRB 2015B 3/19/2015 6,370,000 11/15/2037 5.000 6,370,000 A3/BBB+/A-/AA TRB 2015B 3/19/2015 6,685,000 11/15/2038 5.000 6,685,000 A3/BBB+/A-/AA TRB 2015B 3/19/2015 7.020.000 11/15/2039 5.000 7.020.000 A3/BBB+/A-/AA TRB 2015B 3/19/2015 7.370.000 11/15/2040 5.000 7.370.000 A3/BBB+/A-/AA TRB 2015B 3/19/2015 7,740,000 11/15/2041 4.000 7,740,000 A3/BBB+/A-/AA TRB 2015B 3/19/2015 8,050,000 11/15/2042 4.000 8,050,000 A3/BBB+/A-/AA TRB 2015B 3/19/2015 8.375.000 11/15/2043 4 000 8.375.000 A3/BBB+/A-/AA TRB 2015B 3/19/2015 8,705,000 11/15/2044 4.000 8,705,000 A3/BBB+/A-/AA TRB 2015B 3/19/2015 9,055,000 11/15/2045 4.000 9,055,000 TRB 2015B 3/19/2015 9 420 000 11/15/2046 5 250 9.420.000  $\Delta 3/RRR + /\Delta - /\Delta \Delta$ A3/BBB+/A-/AA TRB 2015B 3/19/2015 9,910,000 11/15/2047 5.250 9,910,000 A3/BBB+/A-/AA TRB 2015B 3/19/2015 10,435,000 11/15/2048 5.250 10,435,000 10.980.000 10.980.000 A3/BBB+/A-/AA TRB 2015B 3/19/2015 11/15/2049 5.250 A3/BBB+/A-/AA TRB 2015B 3/19/2015 11,555,000 11/15/2050 5.250 11,555,000 A3/BBB+/A-/AA TRB 2015B 3/19/2015 5.250 12,165,000 11/15/2051 12.165.000 A3/BBB+/A-/AA TRB 2015B 3/19/2015 12,800,000 11/15/2052 5.250 12,800,000 13,475,000 A3/BBB+/A-/AA TRB 2015B 3/19/2015 11/15/2053 5.250 13,475,000 A3/BBB+/A-/AA TRB 2015B 3/19/2015 14,180,000 11/15/2054 5.250 14,180,000 A3/BBB+/A-/AA TRB 2015B 3/19/2015 14,925,000 11/15/2055 5.250 14,925,000 A3/BBB+/A-/AA TRB 2015C-1 8/18/2015 5.315.000 11/15/2025 5.000 5.315.000 A3/BBB+/A-/AA TRB 2015C-1 8/18/2015 16,235,000 11/15/2026 5.000 16,235,000 A3/BBB+/A-/AA TRB 2015C-1 8/18/2015 44,430,000 11/15/2027 5.000 44,430,000 A3/BBB+/A-/AA 24.760.000 11/15/2028 5.000 24,760,000 TRB 2015C-1 8/18/2015

Total Bonds and Notes Issued in 2022

7.182.400.000

New Money Bonds and Notes Issued in 2022 5.402.860.000 Refunding Bonds and Notes Issued in 2022 1,779,540,000 Total 3,813,577,500 2,341,805,000 5,188,120,000 51,090,000 597,910,000 48,672,762,500 2,036,995,000 Credit Supported L T Amount Amount Amount Swapped Amount Matured in Amount Defeased Amount Called in Underlying L T Ratings Ratings S T Ratings Redeemed in Refinanced in Amount Outstanding as as of December Mdy/S&P/Ftch/Krll Mdy/S&P/Ftch/Krll Mdv/S&P/Ftch/Krll Series Date Issued Maturity 2022 in 2022 2022 2022 2022 of December 31, 2022 31. 2022 Amount Issued Coupon TRB 2015C-1  $\Delta 3/RRR+/\Delta -/\Delta \Delta$ 8/18/2015 7 205 000 11/15/2028 3 1 2 5 7 205 000 A3/BBB+/A-/AA TRB 2015C-1 8/18/2015 30,195,000 11/15/2028 5.250 30,195,000 A3/BBB+/A-/AA TRB 2015C-1 8/18/2015 22,420,000 11/15/2029 5.000 22,420,000 TRB 2015C-1 11/15/2029 41.535.000 A3/BBB+/A-/AA 8/18/2015 41.535.000 5.250 A3/BBB+/A-/AA TRB 2015C-1 8/18/2015 43.980.000 11/15/2030 5 250 43.980.000 TRB 2015C-1 17,145,000 5.000 17,145,000 A3/BBB+/A-/AA 8/18/2015 11/15/2030 10.200.000 A3/BBB+/A-/AA TRB 2015C-1 8/18/2015 10.200.000 11/15/2030 3.400 A3/BBB+/A-/AA TRB 2015C-1 8/18/2015 17.590.000 11/15/2031 5.000 17.590.000 A3/BBB+/A-/AA TRB 2015C-1 8/18/2015 45,110,000 11/15/2031 5.250 45,110,000 A3/BBB+/A-/AA TRB 2015C-1 8/18/2015 63,170,000 11/15/2034 5.000 63,170,000 A3/BBB+/A-/AA TRB 2015C-1 8/18/2015 11.025.000 11/15/2034 3.700 11.025.000 A3/BBB+/A-/AA TRB 2015C-1 8/18/2015 76,795,000 11/15/2035 5.000 76,795,000 A3/BBB+/A-/AA TRB 2015D-1 9/17/2015 6,575,000 11/15/2024 5.000 6,575,000 TRB 2015D-1 9/17/2015 13.500.000 5.000 13.500.000 A3/BBB+/A-/AA 11/15/2026 A3/BBB+/A-/AA TRB 2015D-1 9/17/2015 13,500,000 11/15/2027 5.000 13,500,000 A3/BBB+/A-/AA TRB 2015D-1 9/17/2015 24,935,000 11/15/2028 5.000 24,935,000 A3/BBB+/A-/AA TRB 2015D-1 9/17/2015 27,435,000 11/15/2029 5.000 27,435,000 A3/BBB+/A-/AA TRB 2015D-1 9/17/2015 24.730.000 11/15/2030 5.000 24,730,000 A3/BBB+/A-/AA TRB 2015D-1 9/17/2015 38,110,000 11/15/2031 38,110,000 5.000 TRB 2015D-1 25,000,000 A3/BBB+/A-/AA 9/17/2015 11/15/2032 5.000 25.000.000 TRB 2015D-1 9/17/2015 20,885,000 A3/BBB+/A-/AA 20.885.000 11/15/2032 5.000 A3/BBB+/A-/AA TRR 2015D-1 9/17/2015 25.000.000 11/15/2033 5 000 25.000.000 A3/BBB+/A-/AA TRB 2015D-1 9/17/2015 21,925,000 11/15/2033 5.000 21,925,000 A3/BBB+/A-/AA TRB 2015D-1 9/17/2015 20,000,000 11/15/2034 5.000 20,000,000  $\Delta 3/RRR + /\Delta - /\Delta \Delta$ TRR 2015D-1 9/17/2015 17 785 000 11/15/2035 5 000 17 785 000 A3/BBB+/A-/AA TRB 2015D-1 9/17/2015 8,155,000 11/15/2035 3.375 8,155,000 A3/BBB+/A-/AA Aa2/AA-/A+/NR VMIG 1/A-1/F1/NR TRB 2015E-1 8/18/2021 5,230,000 11/15/2029 4.000 5,230,000 VMIG 1/A-1/F1/NR  $\Delta 3/BBB+/\Delta -/\Delta \Delta$  $\Delta_{2}/\Delta_{-}/\Delta_{+}/NR$ TRB 2015E-1 8/18/2021 5 440 000 11/15/2030 4 000 5 440 000 A3/BBB+/A-/AA Aa2/AA-/A+/NR VMIG 1/A-1/F1/NR TRB 2015E-1 8/18/2021 5,655,000 11/15/2031 4.000 5,655,000 A3/BBB+/A-/AA Aa2/AA-/A+/NR VMIG 1/A-1/F1/NR TRB 2015E-1 8/18/2021 5,885,000 11/15/2032 4.000 5,885,000 A3/BBB+/A-/AA Aa2/AA-/A+/NR VMIG 1/A-1/F1/NR TRB 2015E-1 8/18/2021 6.115.000 11/15/2033 4.000 6.115.000 A3/BBB+/A-/AA Aa2/AA-/A+/NR VMIG 1/A-1/F1/NR TRB 2015E-1 8/18/2021 6.360.000 11/15/2034 4.000 6.360.000 A3/BBB+/A-/AA Aa2/AA-/A+/NR VMIG 1/A-1/F1/NR TRB 2015E-1 8/18/2021 6,620,000 11/15/2035 4.000 6,620,000 A3/BBB+/A-/AA Aa2/AA-/A+/NR VMIG 1/A-1/F1/NR TRB 2015E-1 8/18/2021 6,885,000 11/15/2036 4.000 6,885,000 A3/BBB+/A-/AA Aa2/AA-/A+/NR VMIG 1/A-1/F1/NR TRB 2015E-1 8/18/2021 7.155.000 11/15/2037 4.000 7,155,000 A3/BBB+/A-/AA Aa2/AA-/A+/NR VMIG 1/A-1/F1/NR TRB 2015E-1 8/18/2021 7,445,000 11/15/2038 4.000 7,445,000 A3/BBB+/A-/AA Aa2/AA-/A+/NR VMIG 1/A-1/F1/NR TRB 2015E-1 8/18/2021 7,735,000 11/15/2039 4.000 7,735,000 Aa2/AA-/A+/NR 8.050.000 A3/BBB+/A-/AA VMIG 1/A-1/F1/NR TRB 2015E-1 8/18/2021 11/15/2040 4.000 8.050.000 A3/BBB+/A-/AA Aa2/AA-/A+/NR VMIG 1/A-1/F1/NR TRB 2015E-1 8/18/2021 8,370,000 11/15/2041 4.000 8,370,000 A3/BBB+/A-/AA Aa2/AA-/A+/NF VMIG 1/A-1/F1/NR TRB 2015E-1 8/18/2021 8,705,000 11/15/2042 4.000 8,705,000 A3/BBB+/A-/AA Aa2/AA-/A+/NR VMIG 1/A-1/F1/NR 8/18/2021 9.055.000 11/15/2043 9.055.000 TRB 2015E-1 4.000 A3/BBB+/A-/AA Aa2/AA-/A+/NR VMIG 1/A-1/F1/NR TRB 2015E-1 8/18/2021 9.420.000 11/15/2044 4.000 9,420,000 A3/BBB+/A-/AA Aa2/AA-/A+/NR VMIG 1/A-1/F1/NR TRB 2015E-1 8/18/2021 9,795,000 11/15/2045 4.000 9,795,000 A3/BBB+/A-/AA Aa2/AA-/A+/NR VMIG 1/A-1/F1/NR TRB 2015E-1 8/18/2021 4,405,000 11/15/2046 4.000 4,405,000 A3/BBB+/A-/AA Aa2/AA-/A+/NR VMIG 1/A-1/F1/NR TRB 2015E-1 8/18/2021 4.580.000 11/15/2047 4.000 4.580.000 A3/BBB+/A-/AA Aa2/AA-/A+/NR VMIG 1/A-1/F1/NR TRB 2015E-1 8/18/2021 4.765.000 11/15/2048 4 000 4.765.000 A3/BBB+/A-/AA Aa2/AA-/A+/NR VMIG 1/A-1/F1/NR TRB 2015E-1 8/18/2021 4,955,000 11/15/2049 4,955,000 4.000 A3/BBB+/A-/AA Aa2/AA-/A+/NR VMIG 1/A-1/F1/NR TRB 2015E-1 8/18/2021 5,150,000 11/15/2050 4.000 5,150,000 A3/BBB+/A-/AA TRB 2015E-2 9/5/2018 5.650.000 11/15/2029 4 000 5.650.000 A3/BBB+/A-/AA TRB 2015E-2 9/5/2018 5,880,000 11/15/2030 4.000 5,880,000 A3/BBB+/A-/AA TRB 2015E-2 9/5/2018 6,115,000 11/15/2031 4.000 6,115,000 TRR 2015E-2 6 360 000 11/15/2032 6 360 000  $\Delta 3/RRR + /\Delta - /\Delta \Delta$ 9/5/2018 4 000 A3/BBB+/A-/AA TRB 2015E-2 9/5/2018 6,610,000 11/15/2033 4.000 6,610,000 A3/BBB+/A-/AA TRB 2015E-2 9/5/2018 6,875,000 11/15/2034 4.000 6,875,000 7.150.000 A3/BBB+/A-/AA TRB 2015E-2 9/5/2018 7.150.000 11/15/2035 4.000 A3/BBB+/A-/AA TRB 2015E-2 9/5/2018 7,440,000 11/15/2036 4 000 7.440.000 TRB 2015E-2 7,735,000 A3/BBB+/A-/AA 9/5/2018 7,735,000 11/15/2037 4.000 A3/BBB+/A-/AA TRB 2015E-2 9/5/2018 8,045,000 11/15/2038 4.000 8,045,000 8.365.000 A3/BBB+/A-/AA TRB 2015E-2 9/5/2018 8.365.000 11/15/2039 4.000 A3/BBB+/A-/AA TRB 2015E-2 9/5/2018 8,700,000 11/15/2040 4.000 8,700,000 A3/BBB+/A-/AA TRB 2015E-2 9/5/2018 9,050,000 11/15/2041 4.000 9,050,000 A3/BBB+/A-/AA TRB 2015E-2 9/5/2018 9.410.000 11/15/2042 4.000 9.410.000 A3/BBB+/A-/AA TRB 2015E-2 9/5/2018 9,785,000 11/15/2043 4.000 9,785,000 A3/BBB+/A-/AA TRB 2015E-2 9/5/2018 10,180,000 11/15/2044 4.000 10,180,000 A3/BBB+/A-/AA 10.585.000 11/15/2045 4.000 10.585.000 TRB 2015E-2 9/5/2018

Total Bonds and Notes Issued in 2022

7 182 400 000

International problem         Number of the second problem         Number				Total Bonds and No		5,402,860,000									
							Г	T-4-1	2 042 577 500	2 244 005 000	5 400 400 000	54 000 000	503.040.000	40 (72 762 500	2 026 005 000
			l	Refunding Bonds and No	ites issued in 2022	1,779,540,000	L	lotal	3,813,577,500	2,341,805,000	5,188,120,000	51,090,000	597,910,000	48,672,762,500	2,036,995,000
		Credit Connected I T										A.m.a.unt	A.m.o.unt		Amount Suconnod
Modeller and Antice and An	Understation of T Destinant		C T Detines						• · · · · · • • • • • • • • • • • • • •	A	Amount Collection			A	
Mathird															
Mather / Ac         Market / Ac <thmarket ac<="" th=""> <thmarket ac<="" th=""></thmarket></thmarket>		Mdy/S&P/Ftch/Krll	Mdy/S&P/Ftch/Krll							<u>in 2022</u>	2022	2022	2022		<u>31, 2022</u>
Matter         Mather										-	-	-	-		-
Mather Mathand Mather Mather Mather Mather Mather Mather Mathe										-	-	-	-		-
	A3/BBB+/A-/AA			TRB 2015E-2	9/5/2018	11,905,000	11/15/2048	4.000	-	-	-	-	-	11,905,000	-
AleshoveAleshoveMakeso	A3/BBB+/A-/AA			TRB 2015E-2	9/5/2018	12,385,000	11/15/2049	4.000	-	-	-	-	-	12,385,000	-
AleshoveAleshoveMakeso	A3/BBB+/A-/AA			TRB 2015E-2	9/5/2018	12,880,000	11/15/2050	4.000		-	-	-	-	12,880,000	-
Alber of Market Alber of Mark		Aa1/AA+/AA+/AA+	VMIG1/A-1/F1+/NAF							-	-	-	-		-
AlgebrowAlgebr												-	-		-
Autombody     Autombody     Match Autombody     Babello     Bubble										_			_		_
Autor         Autor         Walk         Walk         Particle         Paritite         Paritite<															
Abs         Abs <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td></td> <td>-</td>										-	-	-	-		-
A.M.M.A.M.A.M.A.M.A.M.A.M.A.M.A.M.A.M.A										-	-	-	-		-
Allower/Add Allower/Add Allower/Add Allower/Add Allower/Add Allower/Add Allower/AddMather/Add Allower/Ad										-	-	-	-		-
A.M.B.M.A.M.         WGDA-3-3-M.M.         TB 20121         6.1000         1.14/1000         4.000         -         -         -         6.10000         -           A.M.B.M.A.M.         WGDA-3-19-M.M.         TB 20121         6.0000         1.14/1000         4.000         -         -         6.40000         -           A.M.B.M.A.M.         WGDA-3-19-M.M.         TB 20121         6.0000         1.14/1000         4.00         -         -         6.40000         -         -         6.40000         -         7.200000         -         7.200000         -         7.200000         -         7.200000         -         7.200000         -         7.200000         -         7.200000         -         7.200000         -         7.200000         -         7.200000         -         7.200000         -         7.200000         -         7.200000         -         1.400000         -         1.400000         -         1.400000         -         1.400000         -         1.400000         -         1.4000000         -         1.4000000         -         1.40000000         -         1.40000000         -         1.4000000000000000000000000000000000000										-	-	-	-		-
A.Mash-A.M.         WGDA-3-3-MA         PP 2026         9/2020         0.000         1/10/200         0.000         0         0.0000        0.0000        0.0000 </td <td>A3/BBB+/A-/AA</td> <td>Aa1/AA+/AA+/AA+</td> <td>VMIG1/A-1/F1+/NAF</td> <td>TRB 2015E-3</td> <td>9/5/2018</td> <td>5,950,000</td> <td>11/15/2036</td> <td>4.000</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>5,950,000</td> <td>-</td>	A3/BBB+/A-/AA	Aa1/AA+/AA+/AA+	VMIG1/A-1/F1+/NAF	TRB 2015E-3	9/5/2018	5,950,000	11/15/2036	4.000	-	-	-	-	-	5,950,000	-
Autor         Autor         Mathematical Science         Signal	A3/BBB+/A-/AA	Aa1/AA+/AA+/AA+	VMIG1/A-1/F1+/NAF	TRB 2015E-3	9/5/2018	6,190,000	11/15/2037	4.000	-		-	-	-	6,190,000	-
Algebra       Algebra       Marker Algebra       Marker Algebra       Marker Algebra	A3/BBB+/A-/AA	Aa1/AA+/AA+/AA+	VMIG1/A-1/F1+/NAF	TRB 2015E-3	9/5/2018	6,435,000	11/15/2038	4.000	-	-	-	-	-	6,435,000	-
Algebra       Algebra       Marker Algebra       Marker Algebra       Marker Algebra	A3/BBB+/A-/AA	Aa1/AA+/AA+/AA+	VMIG1/A-1/F1+/NAF	TRB 2015E-3	9/5/2018	6.695.000	11/15/2039	4.000	-	-	-	-	-	6.695.000	-
Alless-Mark       Multiple J-19-MAP       T120151       97,200       1,202014       4.00       -       -       -       7,200,000       -         Alless-Mark       Alless-Mark       Multiple J-19-MAP       T1201524       4.00       -												-			-
AMBERIA         AMBARAMANAN         WIRLIA JARIAMANAN         WIRLIA JARIAMANAN         TABBERIA         TABBERIA         AMBARAMANAN         TABBERIA         TABBERIA <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>_</td><td></td><td></td><td>_</td><td></td><td>_</td></t<>										_			_		_
MMBB//-M       MML/A/MA/MA       MML/A/MA/MA/MA       MML/A/MA/MA       MML/A/MA/MA/MA       MML/A/MA/MA															
A ABBE       A ABBE       A BLAN ALANA       A BLAN ALAN										-	-	-	-		-
AABBE         /AABBE         /AABBE         /ABBE         <									-	-	-	-	-		-
AABBBH, AA       AABBH, AA									-	-	-	-	-		-
ANBBE       ANBBE <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td></td><td>-</td></td<>									-	-	-	-	-		-
AABBBH/AA       AABBH/AA       AABBH/AA       MABBL/AA       BAD25A       9/5/2018       9.530.00       1/15/204       4.000       -       -       -       9.550.00       -       -       9.550.00       -       -       1.0.500.00       -       1.									-	-	-	-	-		-
ADBBH-/AA       MIXD/AA-A	A3/BBB+/A-/AA	Aa1/AA+/AA+/AA+	VMIG1/A-1/F1+/NAF	TRB 2015E-3	9/5/2018	9,160,000	11/15/2047	4.000	-	-	-	-	-	9,160,000	-
Albesh         Albesh         Vision         TB 2016-1         95/001         1015200         1015200         -         -         -         Babesh           Albesh         TB 2019-1         12/15/20         12/15/20         100         -         -         -         -         -         -         13.800         -           Albesh         TB 2019         12/17/201         12.0500         10.11200         -         -         -         13.800         -         -         -         13.800         -         -         -         13.800         -         -         -         13.800         -         -         -         13.800         -         -         -         13.800         -         -         -         13.800         -         -         -         13.800         -         -         -         13.800         -         -         -         13.800         -         -         13.800         -         -         -         13.800         -         -         13.800         -         -         13.800         -         -         13.800         -         -         13.800         -         -         13.800         -         -         13.800 <t< td=""><td>A3/BBB+/A-/AA</td><td>Aa1/AA+/AA+/AA+</td><td>VMIG1/A-1/F1+/NAF</td><td>TRB 2015E-3</td><td>9/5/2018</td><td>9,525,000</td><td>11/15/2048</td><td>4.000</td><td>-</td><td></td><td>-</td><td>-</td><td>-</td><td>9,525,000</td><td>-</td></t<>	A3/BBB+/A-/AA	Aa1/AA+/AA+/AA+	VMIG1/A-1/F1+/NAF	TRB 2015E-3	9/5/2018	9,525,000	11/15/2048	4.000	-		-	-	-	9,525,000	-
Ak/889/A/A       THE 20157       12/17/2815       13.289.000       11/15/2021       5.00       1.2.89.000       1       1.2.89.000       1.1.9	A3/BBB+/A-/AA	Aa1/AA+/AA+/AA+	VMIG1/A-1/F1+/NAF	TRB 2015E-3	9/5/2018	9,905,000	11/15/2049	4.000	-	-	-	-	-	9,905,000	-
Ak/889/A/A       THE 20157       12/17/2815       13.289.000       11/15/2021       5.00       1.2.89.000       1       1.2.89.000       1.1.9	A3/BBB+/A-/AA	Aa2/AA/AA+/AA+	VMIG1/A-1/F1/NAF	TRB 2015E-3	9/5/2018	10.305.000	11/15/2050	4.000	-	-	-	-	-	10.305.000	-
Al/BBB       THE 2055       21/17/035       3.132.500       1.15.2234       5.00       -       -       -       1.32.500       -         Al/BBB       THE 2055       21/17/035       3.390       1.15.2234       5.00       -       -       -       1.32.500       -         Al/BBB       THE 2055       21/17/035       1.466.00       11/15/2025       5.00       -       -       -       1.42.65.00       -         Al/BBB       THE 2055       21/17/035       3.03       1.15.2293       5.00       -       -       -       3.03.65.00       -       -       3.03.65.00       -       -       3.03.65.00       -       -       3.03.65.00       -       -       3.03.65.00       -       -       3.03.65.00       -       -       3.03.65.00       -       -       3.03.65.00       -       -       3.03.65.00       -       -       3.03.65.00       -       -       3.03.65.00       -       -       3.03.65.00       -       -       3.03.65.00       -       -       3.03.65.00       -       -       3.03.65.00       -       -       3.03.65.00       -       -       3.03.65.00       -       -       3.03.65.00       -       -			- / / /						12.695.000	-	-	-	-	-	-
Al/BBB-/A/A       TB8 2015       12/17205       14,980.00       11/15/2024       5.00       -       -       14,980.00       -       4,880.00       -       4,880.00       -       4,880.00       -       4,880.00       -       4,880.00       -       4,880.00       -       4,880.00       -       4,880.00       -       4,880.00       -       4,880.00       -       4,880.00       -       4,880.00       -       4,880.00       -       4,880.00       -       4,880.00       -       -       4,880.00       -       4,880.00       -       4,880.00       -       -       4,880.00       -       4,880.00       -       4,880.00       -       -       -       4,880.00       -       -       4,880.00       -       4,880.00       -       -       4,880.00       -       -       4,880.00       -       -       4,880.00       -       -       4,880.00       -       -       4,880.00       -       -       4,880.00       -       -       4,880.00       -       -       4,800.00       -       -       4,800.00       -       -       4,800.00       -       -       4,800.00       -       -       -       -       -       -       -											-	-	_	13 325 000	_
A/888-/A/A       TR 2015       12/17/205       9.00       -       -       -       -       4,948.0         A/888-/A/A       TR 2015       12/17/205       16,04000       11/15/202       5.00       -       -       -       -       16,04000       -         A/888-/A/A       TR 2015       12/17/203       11/15/202       5.00       -       -       -       16,04000       -       -       16,04000       -       -       16,04000       -       -       16,04000       -       -       16,04000       -       -       16,04000       -       -       16,04000       -       -       16,04000       -       16,04000       -       16,01000       -       -       16,01000       -       16,01000       11/15/203       5.00       -       -       -       2,0000       -       -       4,0000       -       16,01000       11/15/203       5.00       -       -       -       16,01000       -       16,01000       11/15/203       5.00       -       -       -       16,01000       -       16,01000       -       16,01000       -       16,01000       -       16,01000       -       16,01000       -       16,01000       -															
AX/888-/AAA       THE 2015       12/17/2015       9.465,000       11/15/2026       5.000       -       -       -       9.45,000       -         AX/888-/AAA       THE 2015       12/17/2015       10.5000       11/15/2028       5.000       -       -       -       1.715,5000       11         AX/888-/AAA       THE 2015       12/17/2015       10.5000       11/15/2028       5.000       -       -       -       3.7170,500       -         AX/888-/AAA       THE 2015       12/17/2015       10.5000       11/15/2018       3.500       -       -       -       -       1.910,5000       -         AX/888-/AAA       THE 2015       12/17/2015       10.5000       11/15/2013       3.500       -       -       -       4.50,000       -       -       4.50,000       -       -       4.50,000       -       -       4.50,000       -       -       4.50,000       -       -       4.50,000       -       -       4.50,000       -       -       4.50,000       -       -       4.50,000       -       -       4.50,000       -       -       4.50,000       -       -       4.50,000       -       -       4.50,000       -       -       4.50,															
Al/888-/A-AA       THE 2055       1/1/7015       1/5.4000       1/1/5202       5.000       -       -       -       -       1.775,000       1/1/7015         Al/888-/A-AA       THE 2055       1/1/7015       1.00,000       1/1/5202       5.000       -       -       -       -       -       0.00       1.01,000       -       -       -       -       0.00       1.01,000       -       -       -       -       0.00       1.01,000       -       -       -       0.00       1.01,000       -       -       -       0.00       1.01,000       -       -       0.00       -       0.00       -       0.00       -       0.00       -       0.00       0.00       -       0.00       0.00       -       0.00       -       0.00										-	-	-	-		-
A/1086-(h/AA       TB8 2015*       17,055,000       17,152,020       5.00       -       -       -       17,055,000       -         A/1086-(h/AA       TB8 2015*       12/17/2015       0.30,000       11/15/2029       5.00       -       -       -       0.30,000       -         A/1086-(h/AA       TB8 2015*       12/17/2015       0.30,000       11/15/203       3.250       -       -       -       0.30,000       -         A/1086-(h/AA       TB8 2015*       12/17/2015       0.40,000       11/15/203       5.00       -       -       -       0.40,000       -       -       0.40,000       -       -       0.40,000       -       -       0.40,000       -       -       0.40,0										-	-	-	-		-
A1/889:///A       TH2 2015       11/17/2015       3.3.3.0.00       11/15/203       3.250       -       -       -       1.7.7.0.00       -         A1/889:///AA       TH2 2015       12/17/2015       1.3.3.0.00       11/15/203       3.250       -       -       -       2.0.1.0.0.00       -         A1/889:///AA       TH2 2015       12/17/2015       2.0.0.0.00       11/15/203       5.00       -       -       -       4.0.10.0.0.00       -         A1/889:///AA       TH2 2015       12/17/2015       5.00.00       11/15/203       3.20       -       -       -       4.50.0.0.0       -         A1/889:///AA       TH2 2015       12/17/2015       1.50.0.00       11/15/203       3.20       -       -       -       4.50.0.0.0       -         A1/889:///AA       TH2 2015       12/17/2015       1.47.00.00       11/15/203       3.00       -       -       -       2.5.0.0.0.0.0       -       -       4.7.00.0.0.0       -       -       4.7.00.0.0.0.0       -       -       4.7.00.0.0.0.0       -       -       4.7.00.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0										-	-	-	-		-
Al/BBP-//AA       TR 2015       11/17/2015       11/15/2013       12/15/2013										-	-	-	-		-
A3/BBB://AA       TBE 2015'       12/17/2015       19.38.000       11/15/2012       5.00       -       -       -       19.38.000       -         A3/BBB://AA       TBE 2015'       12/17/2015       45.00.00       11/15/2012       5.00       -       -       -       4.50.00.00       -         A3/BBB://AA       TBE 2015'       12/17/2015       15.51.000       11/15/2014       5.00       -       -       -       7.000.00       -         A3/BBB://AA       TBE 2015'       12/17/2015       12/17/2015       5.00       -       -       -       7.000.00       -       -       1.000.00       -       -       1.000.00       -       -       1.000.00       -       -       1.000.00       -       -       1.000.00       -       1.000.00       -       1.000.00       -       1.000.00       -       1.000.00       -       1.000.00       -       1.000.00       -       1.000.00       -       1.000.00       -       1.000.00       -       1.000.00       -       1.000.00       -       1.000.00       -       1.000.00       -       1.000.00       -       1.000.00       -       1.000.00       -       1.000.00       -       1.000.00       -										-	-	-	-		-
A3/885///AA       TR8 2015*       12/17/2015       4.5000       11/15/2023       5.00       -       -       -       -       4.5000,000       -         A3/885///AA       TR8 2015*       12/17/2015       15,510,000       11/15/2023       3.26       -       -       -       -       6.500,000       -       -       4.500,000       -       -       7.000,000       -       -       7.000,000       -       -       7.000,000       -       -       -       7.000,000       -       -       -       7.000,000       -       -       -       7.000,000       -       -       -       7.000,000       -       -       -       7.000,000       -       -       -       -       7.000,000       -       -       -       -       -       7.000,000       -       -       -       -       -       7.000,000       -	A3/BBB+/A-/AA			TRB 2015F	12/17/2015	18,770,000		3.250	-	-	-	-	-	18,770,000	-
A3/889/A/AA       TR8 2015       12/17/015       4.500,000       11/15/033       5.00       -       -       -       -       4.500,000       -       -       -       -       -       6.500,000       -       -       -       -       6.500,000       -       -       -       -       -       6.500,000       -       -       -       7.000,000       -       -       -       -       7.000,000       -       -       -       -       7.000,000       -       -       -       -       -       7.000,000       -       -       -       -       7.000,000       -       -       -       -       -       7.000,000       -       -       -       -       -       7.000,000       -       -       -       -       7.000,000       -       -       -       -       7.000,000       -       <	A3/BBB+/A-/AA			TRB 2015F	12/17/2015	19,380,000	11/15/2031	3.250	-		-	-	-	19,380,000	-
A)/BBb /A/AA       TB 2015       12/17/2015       7.0000       11/15/203       3.250       -       -       -       16,510.000       -         A)/BBb /A/AA       TB 2015       12/17/2015       7.0000       11/15/2034       3.375       -       -       -       14,770.000       -         A)/BBb /A/AA       TB 2015       12/17/2015       2.2000       11/15/2034       5.000       -       -       -       2.252.000       -         A)/BBb /A/AA       TB 2015       12/17/2015       2.2000       11/15/2034       5.000       -       -       -       2.3750.000       -       -       -       2.3750.000       - <td>A3/BBB+/A-/AA</td> <td></td> <td></td> <td>TRB 2015F</td> <td>12/17/2015</td> <td>20,010,000</td> <td>11/15/2032</td> <td>5.000</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>20,010,000</td> <td>-</td>	A3/BBB+/A-/AA			TRB 2015F	12/17/2015	20,010,000	11/15/2032	5.000	-	-	-	-	-	20,010,000	-
A)/BBb /A/AA       TB 2015       12/17/2015       7.0000       11/15/203       3.250       -       -       -       16,510.000       -         A)/BBb /A/AA       TB 2015       12/17/2015       7.0000       11/15/2034       3.375       -       -       -       14,770.000       -         A)/BBb /A/AA       TB 2015       12/17/2015       2.2000       11/15/2034       5.000       -       -       -       2.252.000       -         A)/BBb /A/AA       TB 2015       12/17/2015       2.2000       11/15/2034       5.000       -       -       -       2.3750.000       -       -       -       2.3750.000       - <td>A3/BBB+/A-/AA</td> <td></td> <td></td> <td>TRB 2015F</td> <td>12/17/2015</td> <td>4,500,000</td> <td>11/15/2033</td> <td>5.000</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>4.500.000</td> <td>-</td>	A3/BBB+/A-/AA			TRB 2015F	12/17/2015	4,500,000	11/15/2033	5.000	-	-	-	-	-	4.500.000	-
A2/BBB-/A-/AA       TBB 2015       12/12/2015       7.000.000       11/15/2043       5.00         7.000.000          A2/BBB-/A-/AA       TBB 20155       12/12/2015       22.620.000       11/15/2034       5.00         2.2620.000          A2/BBB-/A-/AA       TBB 20156       12/12/2015       22.620.000       11/15/2034       5.000         2.26320.000         2.26320.000         2.26320.000         2.475.000         2.475.000         2.475.000          2.475.000										-	-	-	-		-
AY(88+/+/AA       TRE 0215       1/1/7/015       22,670,00       1/15/034       3.375       -       -       -       -       2,70,000       -       -       2,70,000       -       -       2,70,000       -       -       -       2,70,000       -       -       -       2,70,000       -       -       -       2,70,000       -       -       -       2,70,000       -       -       -       2,70,000       -       -       -       -       2,70,000       -       -       -       -       2,70,000       -       -       -       -       2,70,000       -       -       -       -       2,70,000       -										_			_		_
A3/08B-//AA       TR8 2015*       12/1/7/015       22,620,00       1.11/5/025       5.00       -       -       -       2,262,000       -         A3/08B-//AA       TR8 2015A-1       27/5/2016       5.237,500,00       1.11/5/202       5.00       5,420,000       -															
A3/88b-//AA       TR8 20164       12/3/2015       32,375,000       11/15/2036       5,000										-	-	-	-		-
Až/BBB·/A/AA       TRB 2016A-1       2/25/2016       5,420,000       1/15/2023       5,000       5,420,000       -       -       -       -       -       5,690,000       -       -       -       -       5,690,000       -       -       -       -       5,690,000       -       -       -       -       5,690,000       -       -       -       -       5,690,000       -       -       -       -       -       5,690,000       -       -       -       -       -       5,690,000       -       -       -       -       -       5,690,000       -										-	-	-	-		-
A3/BB9/A/AA       TB2 2016A-1       2/25/2016       5,690,000       1/15/2023       5,000       -       -       -       -       5,690,000       -         A3/BB9/A/AA       TB2 2016A-1       2/25/2016       5,975,000       1/15/2025       2,500       -       -       -       5,957,000       -         A3/BB9/A/AA       TB2 2016A-1       2/25/2016       6,275,000       1/15/2025       5,000       -       -       -       6,275,000       -         A3/BB9/A/AA       TB2 2016A-1       2/25/2016       6,750,000       1/15/2025       5,000       -       -       -       6,750,000       -         A3/BB9/A/AA       TB2 2016A-1       2/25/2016       7,040,000       1/15/2025       5,000       -       -       -       7,450,000       -         A3/BB9/A/AA       TB2 2016A-1       2/25/2016       7,445,000       1/15/2025       5,000       -       -       -       7,451,000       -       -       -       7,451,000       -       -       -       7,451,000       -       -       -       8,051,000       -       -       -       7,451,000       -       -       -       8,051,000       -       -       3,051,000       -       -										-	-	-	-	23,750,000	-
A3/889+/A/AA       TR8 2016A-1       2/25/2016       5,975,000       11/15/2026       5,000       -       -       -       -       5,975,000       -       -       -       6,275,000       -       -       -       6,275,000       -       -       6,275,000       -       -       -       7,445,000       -       -       -       7,445,000       -       -       6,275,000       -       -       -       7,445,000       -       -       -       7,445,000       - <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></td<>										-	-	-	-	-	-
A3/BBB-/A/AA       TBB 2016A-1       2/25/2016       6,275,000       11/15/2025       2.500       -       -       -       -       6,275,000       -       -       6,275,000       -       -       6,275,000       -       -       6,275,000       -       -       6,275,000       -       6,275,000       -       6,275,000       -       6,275,000       -       6,275,000       -       6,275,000       -       6,275,000       -       6,275,000       -       6,275,000       -       6,275,000       -       6,275,000       -       6,275,000       -       6,275,000       -       6,275,000       -       6,275,000       -       6,275,000       -       6,275,000       -       6,275,000       -       7,451,000       -       7,451,000       -       7,451,000       -       7,451,000       -       7,451,000       -       7,451,000       -       7,451,000       -       7,451,000       -       4,3/884,4/AA       788,20,4/A       -       7,251,2016       8,205,000       1/15/2031       5,000       -       -       -       8,205,000       -       -       4,3/844,4/A       -       7,251,2016       8,205,000       1/15/2031       5,000       -       -       -       <										-	-	-	-		-
A3/8Bb+/A-/AA       TR8 2016A-1       2/25/2016       6,430,000       11/15/2026       5.000       -       -       -       -       6,430,000       -         A3/8Bb+/A-/AA       TR8 2016A-1       2/25/2016       6,750,000       11/15/2027       5.000       -       -       -       6,750,000       -         A3/8Bb+/A-/AA       TR8 2016A-1       2/25/2016       7,445,000       11/15/2028       5.000       -       -       -       -       7,445,000       -         A3/8Bb+/A-/AA       TR8 2016A-1       2/25/2016       7,415,000       11/15/2028       5.000       -       -       -       -       7,445,000       -       -       -       7,485,000       -       -       -       7,485,000       -       -       -       7,485,000       -       -       -       7,485,000       -       -       -       7,485,000       -       -       -       7,485,000       -       -       -       7,485,000       -       -       -       8,205,000       -       -       -       -       8,205,000       -       -       -       -       8,205,000       -       -       -       8,205,000       -       -       -       8,205,000	A3/BBB+/A-/AA			TRB 2016A-1	2/25/2016	5,975,000	11/15/2024	5.000	-	-	-	-	-	5,975,000	-
A3/BBB+/A-/AA       TRB 2016A-1       2/25/2016       6,750,000       11/15/2027       5,000       -       -       -       -       6,750,000       -         A3/BBB+/A-/AA       TRB 2016A-1       2/25/2016       7,049,000       11/15/2028       5,000       -       -       -       -       7,445,000       -         A3/BBB+/A-/AA       TRB 2016A-1       2/25/2016       7,445,000       11/15/203       5,000       -       -       -       -       7,445,000       -         A3/BBB+/A-/AA       TRB 2016A-1       2/25/2016       7,815,000       11/15/203       5,000       -       -       -       -       8,205,000       -       -       A3/BBH-/A-/AA       -       8,205,000       11/15/203       5,000       -       -       -       8,205,000       -       -       -       8,205,000       -       -       -       8,205,000       -       -       -       8,205,000       -       -       -       8,205,000       -       -       -       -       8,205,000       -       -       -       8,205,000       -       -       -       8,205,000       -       -       -       8,205,000       -       -       -       8,205,000       <	A3/BBB+/A-/AA			TRB 2016A-1	2/25/2016	6,275,000	11/15/2025	2.500	-		-	-	-	6,275,000	-
A3/BBB+/A-/AA       TRB 2016A-1       2/25/2016       6,750,000       11/15/2027       5,000       -       -       -       -       6,750,000       -         A3/BBB+/A-/AA       TRB 2016A-1       2/25/2016       7,049,000       11/15/2028       5,000       -       -       -       -       7,445,000       -         A3/BBB+/A-/AA       TRB 2016A-1       2/25/2016       7,445,000       11/15/203       5,000       -       -       -       -       7,445,000       -         A3/BBB+/A-/AA       TRB 2016A-1       2/25/2016       7,815,000       11/15/203       5,000       -       -       -       -       8,205,000       -       -       A3/BBH-/A-/AA       -       8,205,000       11/15/203       5,000       -       -       -       8,205,000       -       -       -       8,205,000       -       -       -       8,205,000       -       -       -       8,205,000       -       -       -       8,205,000       -       -       -       -       8,205,000       -       -       -       8,205,000       -       -       -       8,205,000       -       -       -       8,205,000       -       -       -       8,205,000       <	A3/BBB+/A-/AA			TRB 2016A-1	2/25/2016	6,430,000	11/15/2026	5.000	-	-	-	-	-	6,430,000	-
A3/BBB+/A/AA       TB 2016A-1       2/25/2016       7,090,000       11/15/2028       5.000       -       -       -       -       7,090,000       -         A3/BBB+/A/AA       TB 2016A-1       2/25/2016       7,445,000       11/15/2029       5.000       -       -       -       -       7,445,000       -         A3/BBB+/A/AA       TB 2016A-1       2/25/2016       7,815,000       11/15/2032       5.000       -       -       -       -       8,205,000       -         A3/BBB+/A/AA       TB 2016A-1       2/25/2016       8,205,000       11/15/2032       5.000       -       -       -       -       8,205,000       -         A3/BBB+/A/AA       TB 2016A-1       2/25/2016       8,620,000       11/15/2033       5.000       -       -       -       -       8,205,000       -         A3/BBB+/A/AA       TB 2016A-1       2/25/2016       8,75,000       11/15/2033       5.000       -       -       -       8,175,000       -       -       A,345,00,000       -								5.000		-	-	-	-		-
A3/BBB+/A/AA       TB 2016A-1       2/25/2016       7,445,000       11/15/203       5,000       -       -       -       -       7,445,000       -         A3/BBB+/A/AA       TB 2016A-1       2/25/2016       7,2016       7,2016       7,2010       5,000       -       -       -       -       7,445,000       -         A3/BBB+/A/AA       TB 2016A-1       2/25/2016       8,620,000       11/15/203       5,000       -       -       -       -       8,620,000       -         A3/BBB+/A/AA       TB 2016A-1       2/25/2016       8,620,000       11/15/203       5,000       -       -       -       -       8,620,000       -       -       A3/BBH,/A/AA       TB 2016A-1       2/25/2016       8,75,000       -       -       -       -       8,75,000       -       -       A3/BBH,/A/AA       TB 2016A-1       2/25/2016       8,75,000       -       -       -       -       9,415,000       -       -       A3/BBH,/A/AA       -       -										-	-	-	-		-
A3/BBB+/A-/AA       TB 2016A-1       2/25/2016       7,815,000       11/15/2030       5,000       -       -       -       -       7,815,000       -         A3/BBB+/A-/AA       TB 2016A-1       2/25/2016       8,205,000       11/15/2031       5,000       -       -       -       -       8,205,000       -         A3/BBB+/A-/AA       TB 2016A-1       2/25/2016       8,205,000       11/15/2033       5,000       -       -       -       -       8,205,000       -         A3/BBB+/A-/AA       TB 2016A-1       2/25/2016       8,75,000       11/15/2033       5,000       -       -       -       -       8,205,000       -       -       A,820,000       -       -       A,9415,000       -       A,9415,000       -       A,9415,000       -       A,9415,000       -       A,9415,000       -       A,9415,000 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>_</td><td></td><td></td><td>_</td><td></td><td>_</td></td<>										_			_		_
A3/BBB+/A/AA       TB 2016A-1       2/25/2016       8,205,000       11/15/2031       5,000       -       -       -       -       8,205,000       -         A3/BBB+/A-/AA       TB 2016A-1       2/25/2016       8,620,000       11/15/2032       5,000       -       -       -       -       -       8,205,000       -         A3/BBB+/A-/AA       TB 2016A-1       2/25/2016       8,75,000       11/15/2033       5,000       -       -       -       -       8,205,000       -         A3/BBB+/A-/AA       TB 2016A-1       2/25/2016       8,75,000       11/15/2033       4,000       -       -       -       -       8,175,000       -       -       A,3/BBH-/A-/A       -       8,175,000       1/15/2033       3,000       -       -       -       -       8,175,000       -       -       A,3/BBH-/A-/A       -       -       1,0,15/2033       3,000       -       -       -       -       4,3/4,000       -       -       -       4,3/4,000       -       -       A,3/BBH-/A-/A       -       -       1,0,000       -       -       A,3/4,000       -       -       A,3/4,000       -       -       A,3/4,000       -       -       A,3/4,000 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>															
A3/BBB+/A/AA       TB 2016A-1       2/25/2016       8,620,000       11/15/2033       5,000       -       -       -       -       8,620,000       -         A3/BBB+/A-/AA       TB 2016A-1       2/25/2016       875,000       11/15/2033       5,000       -       -       -       -       -       8,75,000       -         A3/BBB+/A-/AA       TB 2016A-1       2/25/2016       8,75,000       11/15/2033       4,000       -       -       -       -       8,75,000       -         A3/BBB+/A-/AA       TB 2016A-1       2/25/2016       8,175,000       11/15/2033       3,000       -       -       -       -       9,415,000       -         A3/BBB+/A-/AA       TB 2016A-1       2/25/2016       9,415,000       11/15/2035       5,000       -       -       -       -       9,415,000       -         A3/BBB+/A-/AA       TB 2016A-1       2/25/2016       3,500,000       11/15/2035       5,000       -       -       -       -       3,540,000       -       -       A3/BBH,A       -       -       -       3,540,000       -       -       A3/BBH,A       -       -       -       -       5,000,000       -       -       A3/BBH,A       -									-	-	-	-	-		-
A/8BB+/A-/AA       TR 2016A-1       2/25/2016       875,000       11/15/2033       5.000       -       -       -       -       -       875,000       -         A3/BBB+/A-/AA       TR 2016A-1       2/25/2016       8,175,000       11/15/2033       4.000       -       -       -       -       8,75,000       -         A3/BBB+/A-/AA       TR 2016A-1       2/25/2016       9,415,000       11/15/2034       3.000       -       -       -       -       9,415,000       -         A3/BBB+/A-/AA       TR 2016A-1       2/25/2016       1,160,000       11/15/2034       5.000       -       -       -       -       9,415,000       -         A3/BBB+/A-/AA       TR 2016A-1       2/25/2016       1,160,000       11/15/2035       5.000       -       -       -       -       3,540,000       -         A3/BBB+/A-/AA       TR 2016A-1       2/25/2016       5,000,000       11/15/2035       4.000       -       -       -       -       5,000,000       -       -       A3/BBH-/A-/A       -       5,000,000       -       -       -       -       5,000,000       -       -       A3/BBH-/A-/A       -       A3/BBH-/A-/A       -       A3/BBH-/A-/A       - <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td></td> <td>-</td>										-	-	-	-		-
A3/BBB+/A/AA       TB 2016A-1       2/25/2016       8,175,000       11/15/2033       4.000       -       -       -       -       8,175,000       -         A3/BBB+/A-/AA       TB 2016A-1       2/25/2016       9,415,000       11/15/2034       3.000       -       -       -       -       -       9,415,000       -         A3/BBB+/A-/AA       TB 2016A-1       2/25/2016       1,160,000       11/15/2035       3.000       -       -       -       -       9,415,000       -         A3/BBB+/A-/AA       TB 2016A-1       2/25/2016       3,540,000       11/15/2035       3.000       -       -       -       -       3,540,000       -         A3/BBB+/A-/AA       TB 2016A-1       2/25/2016       5,000,000       11/15/2035       3.000       -       -       -       -       3,540,000       -         A3/BBB+/A-/AA       TB 2016A-1       2/25/2016       5,000,000       11/15/2035       3.000       -       -       -       -       5,000,000       -       -       A3/BBH-/A       -       5,000,000       -       -       -       -       5,000,000       -       -       A3/000       -       -       A3/000       -       A3/000       - <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td></td> <td>-</td>										-	-	-	-		-
A3/BBB+/A-/AA       TB 2016A-1       2/25/2016       9,415,000       11/15/2034       3,000       -       -       -       -       9,415,000       -       -       A3/BBB+/A-/AA       TB 2016A-1       2/25/2016       1,160,000       11/15/2035       5,000       -       -       -       -       -       1,40,000       -       -       A3/BBB+/A-/AA       TB 2016A-1       2/25/2016       1,40,000       1/15/2035       3,000       -       -       -       -       4,36,000       -       -       A3/BBB+/A-/AA       TB 2016A-1       2/25/2016       5,000,000       11/15/2035       3,000       -       -       -       -       -       5,000,000       -       -       A3/BBB+/A-/AA       TB 2016A-1       2/25/2016       1,0070,000       11/15/2035       5,000       -       -       -       -       5,000,000       -       -       A3/BBB+/A-/AA       -       1,0070,000       1/15/2035       5,000       -       -       -       -       1,0070,000       -       -       A3/BBH-/A-/AA       -       1,0270,000       -       -       A3/BBH-/A-/AA       -       2,25/2016       -       6,020,000       -       -       A3/BBH-/A-/AA       -       4,555,000       -       -<										-	-	-	-		-
A3/BBB+/A-/AA       TRB 2016A-1       2/25/2016       1,160,000       11/15/2035       5.000       -       -       -       -       1,160,000       -       -       A3/BBB+/A-/AA       TRB 2016A-1       2/25/2016       3,00,000       11/15/2035       3.100       -       -       -       -       -       3,540,000       -       -       -       -       -       3,540,000       -       -       -       -       -       3,540,000       -       -       -       -       -       3,500,000       -       -       -       -       -       5,000,000       -       -       -       -       -       5,000,000       -       -       -       -       -       5,000,000       -       -       -       -       -       5,000,000       -       -       -       -       -       5,000,000       -       -       -       -       -       5,000,000       -       -       -       -       -       1,007,000       -       -       -       -       1,007,000       -       -       -       1,007,000       -       -       -       1,007,000       -       -       -       1,007,000       -       -       -       1										-	-	-	-		-
A3/BBB+/A-/AA       TRB 2016A-1       2/25/2016       3,540,000       11/15/2035       3.100       -       -       -       -       -       -       -       3,540,000       -         A3/BBB+/A-/AA       TRB 2016A-1       2/25/2016       5,000,000       11/15/2035       4.000       -       -       -       -       -       -       3,540,000       -       -       -       -       -       3,540,000       -       -       -       -       -       3,540,000       -       -       -       -       -       3,540,000       -       -       -       -       -       5,000,000       -       -       -       -       -       5,000,000       -       -       -       -       -       5,000,000       -       -       -       -       1,007,000       -       -       -       -       -       6,020,000       -       -       -       -       6,020,000       -       -       -       -       -       6,020,000       -       -       -       -       -       6,020,000       -       -       -       4,555,000       -       -       -       -       4,555,000       -       -       -       4,555,										-	-	-	-	9,415,000	-
A3/BBB+/A-/AA       TRB 2016A-1       2/25/2016       3,540,000       11/15/2035       3.100       -       -       -       -       -       -       -       3,540,000       -         A3/BBB+/A-/AA       TRB 2016A-1       2/25/2016       5,000,000       11/15/2035       4.000       -       -       -       -       -       -       3,540,000       -       -       -       -       -       3,540,000       -       -       -       -       -       3,540,000       -       -       -       -       -       3,540,000       -       -       -       -       -       5,000,000       -       -       -       -       -       5,000,000       -       -       -       -       -       5,000,000       -       -       -       -       1,007,000       -       -       -       -       -       6,020,000       -       -       -       -       6,020,000       -       -       -       -       -       6,020,000       -       -       -       -       -       6,020,000       -       -       -       4,555,000       -       -       -       -       4,555,000       -       -       -       4,555,	A3/BBB+/A-/AA			TRB 2016A-1	2/25/2016	1,160,000	11/15/2035	5.000	-	-	-	-	-	1,160,000	-
A3/BBB+/A-/AA       TRB 2016A-1       2/25/2016       5,000,000       11/15/2035       4.000       -       -       -       -       -       -       5,000,000       -       -       -       -       -       -       5,000,000       -										-	-	-	-		
A3/BBB/A./AA       TR 2016A-1       2/25/2016       10,070,000       11/15/2036       5.000       -       -       -       -       -       10,070,000       -         A3/BBB/A./AA       TR 2016A-1       2/25/2016       6,020,000       11/15/2037       3.500       -       -       -       -       6,020,000       -         A3/BBB/A./AA       TR 2016A-1       2/25/2016       4,555,000       11/15/2037       5.000       -       -       -       4,555,000       -         A3/BBB/A./AA       TR 2016A-1       2/25/2016       4,555,000       11/15/2037       5.000       -       -       -       4,555,000       -										-	-	-	-		-
A3/BBB+/A-/AA       TRB 2016A-1       2/25/2016       6,020,000       11/15/2037       3.500       -       -       -       -       6,020,000       -         A3/BBB+/A-/AA       TRB 2016A-1       2/25/2016       4,555,000       11/15/2037       5.000       -       -       -       4,555,000       -										-	-	-	-		-
A3/BBB+/A-/AA TRB 2016A-1 2/25/2016 4,555,000 11/15/2037 5.000 4,555,000 - 4,555,000 -										-	_	-	-		-
										-	-	-	-		
Agdobr/A-yaa ikk2010A-1 2/25/2010 0,230,000 11/15/2038 3,500 0,230,000 0,230,000 -										-	-	-	-		-
	A3/BBB+/A-/AA			ткв 2016А-1	2/25/2016	6,230,000	11/15/2038	3.500	-	-	-	-	-	6,230,000	-

Total Bonds and Notes Issued in 2022

7,182,400,000

New Money Bonds and Notes Issued in 2022 5.402.860.000 Refunding Bonds and Notes Issued in 2022 1,779,540,000 Total 3,813,577,500 2,341,805,000 5,188,120,000 51,090,000 597,910,000 48,672,762,500 2,036,995,000 Credit Supported L T Amount Amount Amount Swapped Amount Matured in Amount Defeased Amount Called in Underlying L T Ratings Ratings S T Ratings Redeemed in Refinanced in Amount Outstanding as as of December Mdy/S&P/Ftch/Krll Mdy/S&P/Ftch/Krll Mdy/S&P/Ftch/Krll Series Date Issued Maturity 2022 in 2022 2022 2022 2022 of December 31, 2022 31. 2022 Amount Issued Coupon TRB 20164-1  $\Delta 3/RRR+/\Delta -/\Delta \Delta$ 2/25/2016 4 780 000 11/15/2038 5 000 4 780 000 A3/BBB+/A-/AA TRB 2016A-1 2/25/2016 6,450,000 11/15/2039 3 500 6,450,000 A3/BBB+/A-/AA 5,020,000 TRB 2016A-1 2/25/2016 5,020,000 11/15/2039 5.000 A3/BBB+/A-/AA TRB 2016A-1 2/25/2016 11/15/2040 6.670.000 6.670.000 3.500 A3/BBB+/A-/AA TRB 2016A-1 2/25/2016 5,275,000 11/15/2040 5 000 5,275,000 A3/BBB+/A-/AA TRB 2016A-1 2/25/2016 11/15/2041 3.500 6,905,000 6,905,000 2/25/2016 A3/BBB+/A-/AA TRB 2016A-1 5.535.000 11/15/2041 5.000 5.535.000 A3/BBB+/A-/AA 11/15/2042 TRB 2016A-1 2/25/2016 9.960.000 5.000 9.960.000 A3/BBB+/A-/AA TRB 2016A-1 2/25/2016 3,000,000 11/15/2042 4.000 3,000,000 A3/BBB+/A-/AA TRB 2016A-1 2/25/2016 10,580,000 11/15/2043 5.000 10,580,000 A3/BBB+/A-/AA TRB 2016A-1 2/25/2016 3.000.000 11/15/2043 4.000 3.000.000 A3/BBB+/A-/AA TRB 2016A-1 2/25/2016 11,230,000 11/15/2044 5.000 11,230,000 A3/BBB+/A-/AA TRB 2016A-1 2/25/2016 3,000,000 11/15/2044 4.000 3,000,000 A3/BBB+/A-/AA TRB 2016A-1 2/25/2016 11.910.000 5.000 11.910.000 11/15/2045 A3/BBB+/A-/AA TRB 2016A-1 2/25/2016 3,000,000 11/15/2045 4.000 3,000,000 A3/BBB+/A-/AA TRB 2016A-1 12,625,000 2/25/2016 12,625,000 11/15/2046 5.000 A3/BBB+/A-/AA TRB 2016A-1 2/25/2016 3,000,000 11/15/2046 4.000 3,000,000 A3/BBB+/A-/AA TRB 2016A-1 2/25/2016 13,750,000 11/15/2047 5.250 13,750,000 A3/BBB+/A-/AA TRB 2016A-1 2/25/2016 14,475,000 11/15/2048 5.250 14,475,000 A3/BBB+/A-/AA TRB 2016A-1 15,235,000 5.250 15,235,000 2/25/2016 11/15/2049 TRB 2016A-1 2/25/2016 16,035,000 A3/BBB+/A-/AA 16.035.000 11/15/2050 5.250 A3/BBB+/A-/AA TRB 2016A-1 2/25/2016 16.875.000 11/15/2051 5 250 16.875.000 A3/BBB+/A-/AA TRB 2016A-1 2/25/2016 17,760,000 11/15/2052 5.250 17,760,000 A3/BBB+/A-/AA TRB 2016A-1 2/25/2016 18,695,000 11/15/2053 5.250 18,695,000  $\Delta 3/RRR + /\Delta - /\Delta \Delta$ TRB 20164-1 2/25/2016 19.675.000 11/15/2054 5 250 19 675 000 A3/BBB+/A-/AA TRB 2016A-1 2/25/2016 20,705,000 11/15/2055 5.250 20,705,000 A3/BBB+/A-/AA TRB 2016A-1 2/25/2016 21,795,000 11/15/2056 5.250 21,795,000 33 675 000  $\Delta 3/BBB+/\Delta -/\Delta \Delta$ TRB 20164-2 2/25/2016 33 675 000 11/15/2022 5 000 A3/BBB+/A-/AA TRB 2016A-2 2/25/2016 35,365,000 11/15/2023 5.000 35.365.000 34,860,000 A3/BBB+/A-/AA TRB 2016A-2 2/25/2016 34,860,000 11/15/2024 5.000 A3/BBB+/A-/AA TRB 2016A-2 2/25/2016 46.400.000 11/15/2025 5.000 46.400.000 A3/BBB+/A-/AA TRB 2016A-2 2/25/2016 7.590.000 11/15/2025 4.000 7.590.000 A3/BBB+/A-/AA TRB 2016A-2 2/25/2016 1,840,000 11/15/2026 4.000 1,840,000 A3/BBB+/A-/AA TRB 2016A-2 2/25/2016 36,515,000 11/15/2026 5.000 36,515,000 A3/BBB+/A-/AA TRB 2016A-2 2/25/2016 40.255.000 11/15/2027 5.000 40,255,000 A3/BBB+/A-/AA TRB 2016A-2 2/25/2016 1,255,000 11/15/2028 2.500 1,255,000 A3/BBB+/A-/AA TRB 2016A-2 2/25/2016 26,715,000 11/15/2028 5.000 26,715,000 2.340.000 A3/BBB+/A-/AA TRB 2016B 6/30/2016 2.340.000 11/15/2022 4.000 A3/BBB+/A-/AA TRB 2016B 6/30/2016 20,590,000 11/15/2022 5.000 20,590,000 A3/BBB+/A-/AA TRB 2016B 6/30/2016 990,000 11/15/2023 4.000 990,000 A3/BBB+/A-/AA TRB 2016B 6/30/2016 23.065.000 11/15/2023 5.000 23,065,000 A3/BBB+/A-/AA TRB 2016B 6/30/2016 1,045,000 11/15/2024 4.000 1,045,000 A3/BBB+/A-/AA TRB 2016B 6/30/2016 24,200,000 11/15/2024 5.000 24,200,000 A3/BBB+/A-/AA TRB 2016B 6/30/2016 5,195,000 11/15/2025 4.000 5,195,000 A3/BBB+/A-/AA TRB 2016B 6/30/2016 21.300.000 11/15/2025 5.000 21.300.000 A3/BBB+/A-/AA TRB 2016B 6/30/2016 6.245.000 11/15/2026 4 000 6.245.000 A3/BBB+/A-/AA TRB 2016B 6/30/2016 21,525,000 11/15/2026 5.000 21,525,000 A3/BBB+/A-/AA TRB 2016B 6/30/2016 29,095,000 11/15/2027 5.000 29,095,000 11.060,000 A3/BBB+/A-/AA TRB 2016B 6/30/2016 11.060.000 11/15/2028 5 000 A3/BBB+/A-/AA TRB 2016B 6/30/2016 14,630,000 11/15/2029 5.000 14,630,000 A3/BBB+/A-/AA TRB 2016B 6/30/2016 7,500,000 11/15/2030 5.000 7,500,000 TRB 2016B 6/30/2016 1 855 000 11/15/2031 5 000 1 855 000  $\Delta 3/RRR + /\Delta - /\Delta \Delta$ A3/BBB+/A-/AA TRB 2016B 6/30/2016 2,175,000 11/15/2032 5.000 2,175,000 A3/BBB+/A-/AA TRB 2016B 6/30/2016 15,720,000 11/15/2033 5.000 15,720,000 A3/BBB+/A-/AA TRB 2016B 6/30/2016 18.060.000 11/15/2034 4.000 18.060.000 A3/BBB+/A-/AA TRB 2016B 6/30/2016 20,415,000 11/15/2034 5 000 20.415.000 A3/BBB+/A-/AA TRB 2016B 6/30/2016 46,570,000 5.000 46,570,000 11/15/2035 A3/BBB+/A-/AA TRB 2016B 6/30/2016 46,225,000 11/15/2035 5.000 46,225,000 A3/BBB+/A-/AA TRB 2016B 6/30/2016 98.000.000 11/15/2036 4.000 98.000.000 A3/BBB+/A-/AA TRB 2016B 6/30/2016 105,850,000 11/15/2037 5.000 105,850,000 A3/BBB+/A-/AA TRB 2016C-1 7/28/2016 5,955,000 11/15/2022 5.000 5,955,000 A3/BBB+/A-/AA TRB 2016C-1 7/28/2016 6.255.000 11/15/2023 5.000 6.255.000 A3/BBB+/A-/AA TRB 2016C-1 7/28/2016 6,570,000 11/15/2024 5.000 6,570,000 A3/BBB+/A-/AA TRB 2016C-1 7/28/2016 6,895,000 11/15/2025 5.000 6,895,000 A3/BBB+/A-/AA 7/28/2016 7.240.000 11/15/2026 4.000 7.240.000 TRB 2016C-1

Total Bonds and Notes Issued in 2022

7.182.400.000

New Money Bonds and Notes Issued in 2022 5.402.860.000 Refunding Bonds and Notes Issued in 2022 1,779,540,000 Total 3,813,577,500 2,341,805,000 5,188,120,000 51,090,000 597,910,000 48,672,762,500 2,036,995,000 Credit Supported L T Amount Amount Amount Swapped Amount Matured in Amount Defeased Amount Called in Underlying L T Ratings Ratings S T Ratings Redeemed in Refinanced in Amount Outstanding as as of December Mdy/S&P/Ftch/Krll Mdy/S&P/Ftch/Krll Mdy/S&P/Ftch/Krll Series Date Issued Maturity 2022 in 2022 2022 2022 2022 of December 31, 2022 31. 2022 Amount Issued Coupon TRB 2016C-1  $\Delta 3/RRR+/\Delta -/\Delta \Delta$ 7/28/2016 7 530 000 11/15/2027 5 000 7 530 000 A3/BBB+/A-/AA TRB 2016C-1 7/28/2016 7,905,000 11/15/2028 5.000 7,905,000 A3/BBB+/A-/AA 8,305,000 TRB 2016C-1 7/28/2016 8,305,000 11/15/2029 5.000 TRB 2016C-1 7/28/2016 11/15/2030 8,720,000 A3/BBB+/A-/AA 8.720.000 5.000 A3/BBB+/A-/AA TRB 2016C-1 7/28/2016 9,155,000 11/15/2031 5 000 9.155.000 TRB 2016C-1 7/28/2016 9,610,000 11/15/2032 5.000 9,610,000 A3/BBB+/A-/AA 10.090.000 A3/BBB+/A-/AA TRB 2016C-1 7/28/2016 10.090.000 11/15/2033 5.000 A3/BBB+/A-/AA 11/15/2034 10,595,000 TRB 2016C-1 7/28/2016 10.595.000 5.000 A3/BBB+/A-/AA TRB 2016C-1 7/28/2016 11,125,000 11/15/2035 5.000 11,125,000 A3/BBB+/A-/AA TRB 2016C-1 7/28/2016 11,680,000 11/15/2036 5.000 11,680,000 12,265,000 A3/BBB+/A-/AA TRB 2016C-1 7/28/2016 11/15/2037 4.000 12.265.000 A3/BBB+/A-/AA TRB 2016C-1 7/28/2016 12,755,000 11/15/2038 4.000 12,755,000 A3/BBB+/A-/AA TRB 2016C-1 7/28/2016 13,265,000 11/15/2039 5.000 13,265,000 A3/BBB+/A-/AA 7/28/2016 13.930.000 4.000 13,930,000 TRB 2016C-1 11/15/2040 A3/BBB+/A-/AA TRB 2016C-1 7/28/2016 14,485,000 11/15/2041 4.000 14,485,000 A3/BBB+/A-/AA 4,650,000 4,650,000 TRB 2016C-1 7/28/2016 11/15/2042 5.000 A3/BBB+/A-/AA TRB 2016C-1 7/28/2016 5,540,000 11/15/2042 4.000 5,540,000 A3/BBB+/A-/AA TRB 2016C-1 7/28/2016 4,875,000 11/15/2042 3.000 4,875,000 A3/BBB+/A-/AA TRB 2016C-1 4,885,000 11/15/2043 4,885,000 7/28/2016 5.000 A3/BBB+/A-/AA TRB 2016C-1 5,760,000 4.000 5,760,000 7/28/2016 11/15/2043 TRB 2016C-1 5,020,000 5,020,000 A3/BBB+/A-/AA 7/28/2016 11/15/2043 3.000 A3/BBB+/A-/AA TRB 2016C-1 7/28/2016 5.125.000 11/15/2044 5 000 5.125.000 A3/BBB+/A-/AA TRB 2016C-1 7/28/2016 5,990,000 11/15/2044 4.000 5,990,000 A3/BBB+/A-/AA TRB 2016C-1 7/28/2016 5,175,000 11/15/2044 3.000 5,175,000 11/15/2045  $\Delta 3/RRR + /\Delta - /\Delta \Delta$ TRB 2016C-1 7/28/2016 5 385 000 5 000 5 385 000 A3/BBB+/A-/AA TRB 2016C-1 7/28/2016 6,230,000 11/15/2045 4.000 6,230,000 A3/BBB+/A-/AA TRB 2016C-1 7/28/2016 5,330,000 11/15/2045 3.000 5,330,000  $\Delta 3/BBB+/\Delta -/\Delta \Delta$ TRB 2016C-1 7/28/2016 5 655 000 11/15/2046 5 000 5 655 000 A3/BBB+/A-/AA TRB 2016C-1 7/28/2016 6,480,000 11/15/2046 4.000 6,480,000 5,485,000 A3/BBB+/A-/AA TRB 2016C-1 7/28/2016 5,485,000 11/15/2046 3.000 A3/BBB+/A-/AA TRB 2016C-1 7/28/2016 7.950.000 11/15/2047 5.000 7.950.000 A3/BBB+/A-/AA TRB 2016C-1 7/28/2016 10.380.000 11/15/2047 5.250 10.380.000 A3/BBB+/A-/AA TRB 2016C-1 7/28/2016 8,350,000 11/15/2048 5.000 8,350,000 A3/BBB+/A-/AA TRB 2016C-1 7/28/2016 10,920,000 11/15/2048 5.250 10,920,000 8.765,000 A3/BBB+/A-/AA TRB 2016C-1 7/28/2016 8,765,000 11/15/2049 5.000 A3/BBB+/A-/AA TRB 2016C-1 7/28/2016 11,495,000 11/15/2049 5.250 11,495,000 A3/BBB+/A-/AA TRB 2016C-1 7/28/2016 9,205,000 11/15/2050 5.000 9,205,000 12.100.000 12.100.000 A3/BBB+/A-/AA TRB 2016C-1 7/28/2016 11/15/2050 5.250 A3/BBB+/A-/AA TRB 2016C-1 7/28/2016 9,665,000 11/15/2051 5.000 9,665,000 A3/BBB+/A-/AA TRB 2016C-1 7/28/2016 12,735,000 11/15/2051 5.250 12,735,000 A3/BBB+/A-/AA 7/28/2016 10.145.000 11/15/2052 10.145.000 TRB 2016C-1 5.000 A3/BBB+/A-/AA TRB 2016C-1 7/28/2016 13,405,000 11/15/2052 5.250 13,405,000 A3/BBB+/A-/AA TRB 2016C-1 7/28/2016 10,655,000 11/15/2053 5.000 10,655,000 A3/BBB+/A-/AA TRB 2016C-1 7/28/2016 14,105,000 11/15/2053 5.250 14,105,000 A3/BBB+/A-/AA TRB 2016C-1 7/28/2016 11.185.000 11/15/2054 5.000 11.185.000 A3/BBB+/A-/AA TRB 2016C-1 7/28/2016 14.850.000 11/15/2054 5.250 14.850.000 A3/BBB+/A-/AA TRB 2016C-1 7/28/2016 11,745,000 11/15/2055 5.000 11,745,000 A3/BBB+/A-/AA TRB 2016C-1 7/28/2016 15,630,000 11/15/2055 5.250 15,630,000 7/28/2016 A3/BBB+/A-/AA TRB 2016C-1 12,335,000 11/15/2056 5 000 12.335.000 A3/BBB+/A-/AA TRB 2016C-1 7/28/2016 16,445,000 11/15/2056 5.250 16,445,000 A3/BBB+/A-/AA TRB 2016C-2a 7/28/2016 26,390,000 11/15/2038 3.000 26,390,000 TRB 2016C-2a 7/28/2016 29 730 000 11/15/2038 4 000 29,730,000  $\Delta 3/RRR + /\Delta - /\Delta \Delta$ A3/BBB+/A-/AA TRB 2016D 10/26/2016 19,375,000 11/15/2022 5.000 19,375,000 A3/BBB+/A-/AA TRB 2016D 10/26/2016 13,725,000 11/15/2024 4.000 13,725,000 A3/BBB+/A-/AA TRB 2016D 10/26/2016 14.510.000 11/15/2026 5.000 14.510.000 A3/BBB+/A-/AA TRB 2016D 10/26/2016 57,015,000 11/15/2027 5 000 57.015.000 A3/BBB+/A-/AA TRB 2016D 10/26/2016 30,895,000 5.000 30,895,000 11/15/2028 A3/BBB+/A-/AA TRB 2016D 10/26/2016 57,805,000 11/15/2029 5.000 57,805,000 A3/BBB+/A-/AA TRB 2016D 10/26/2016 60.700.000 11/15/2030 5.000 60.700.000 A3/BBB+/A-/AA TRB 2016D 10/26/2016 52,730,000 11/15/2031 5.000 52,730,000 A3/BBB+/A-/AA TRB 2016D 10/26/2016 11,000,000 11/15/2031 5.250 11,000,000 31,595,000 A3/BBB+/A-/AA TRB 2016D 10/26/2016 11/15/2032 3.000 31.595.000 A3/BBB+/A-/AA TRB 2016D 10/26/2016 29,005,000 11/15/2032 4.000 29,005,000 A3/BBB+/A-/AA TRB 2016D 10/26/2016 19,845,000 11/15/2033 4.000 19,845,000 A3/BBB+/A-/AA 10/26/2016 20.635.000 11/15/2034 4.000 20.635.000 TRB 2016D

Total Bonds and Notes Issued in 2022

7.182.400.000

Refunding Bonds and Notes Issued in 2022 1,779,540,000 Total 3,813,577,500 2,341,805,000 5,188,120,000 51,090,000 597,910,000 48,672,762,500 2,036,995,000 Credit Supported L T Amount Amount Amount Swapped Amount Matured in Amount Defeased Amount Called in Amount Outstanding as as of December Underlying L T Ratings Ratings S T Ratings Redeemed in Refinanced in Mdy/S&P/Ftch/Krll Mdy/S&P/Ftch/Krll Mdy/S&P/Ftch/Krll Series Date Issued Maturity 2022 in 2022 2022 2022 2022 of December 31, 2022 31. 2022 Amount Issued Coupon TRB 2016D  $\Delta 3/RRR+/\Delta -/\Delta \Delta$ 10/26/2016 21 465 000 11/15/2035 3 1 2 5 21.465.000 A3/BBB+/A-/AA TRB 2017A-1 3/16/2017 2,065,000 11/15/2022 5.000 2,065,000 A3/BBB+/A-/AA TRB 2017A-1 3/16/2017 2,170,000 11/15/2023 5.000 2,170,000 A3/BBB+/A-/AA TRB 2017A-1 11/15/2024 2.255.000 3/16/2017 2.255.000 4.000 A3/BBB+/A-/AA TRB 2017A-1 3/16/2017 2,365,000 11/15/2025 5 000 2.365.000 TRB 2017A-1 3/16/2017 2,485,000 11/15/2026 5.000 2,485,000 A3/BBB+/A-/AA 2.610.000 A3/BBB+/A-/AA TRB 2017A-1 3/16/2017 2.610.000 11/15/2027 5.000 A3/BBB+/A-/AA 11/15/2028 TRB 2017A-1 3/16/2017 2.740.000 5.000 2.740.000 A3/BBB+/A-/AA TRB 2017A-1 3/16/2017 2,875,000 11/15/2029 5.000 2,875,000 A3/BBB+/A-/AA TRB 2017A-1 3/16/2017 3,020,000 11/15/2030 3.250 3,020,000 A3/BBB+/A-/AA TRB 2017A-1 3/16/2017 3.120.000 11/15/2031 5.000 3.120.000 A3/BBB+/A-/AA TRB 2017A-1 3/16/2017 3,275,000 11/15/2032 5.000 3,275,000 A3/BBB+/A-/AA TRB 2017A-1 3/16/2017 3,440,000 11/15/2033 3.500 3,440,000 A3/BBB+/A-/AA 3/16/2017 3.560.000 11/15/2034 5.000 3.560.000 TRB 2017A-1 A3/BBB+/A-/AA TRB 2017A-1 3/16/2017 3,735,000 11/15/2035 5.000 3,735,000 A3/BBB+/A-/AA TRB 2017A-1 3/16/2017 3,925,000 11/15/2036 5.000 3,925,000 A3/BBB+/A-/AA TRB 2017A-1 3/16/2017 4,050,000 11/15/2037 5.000 4,050,000 A3/BBB+/A-/AA TRB 2017A-1 3/16/2017 4.320.000 11/15/2038 4.000 4,320,000 A3/BBB+/A-/AA TRB 2017A-1 3/16/2017 4,495,000 11/15/2039 4.000 4,495,000 A3/BBB+/A-/AA TRB 2017A-1 4,675,000 4.000 4,675,000 3/16/2017 11/15/2040 TRB 2017A-1 4,860,000 A3/BBB+/A-/AA 3/16/2017 4.860.000 11/15/2041 4.000 A3/BBB+/A-/AA TRB 2017A-1 3/16/2017 5.055.000 11/15/2042 4 000 5.055.000 A3/BBB+/A-/AA TRB 2017A-1 3/16/2017 5,255,000 11/15/2043 4.000 5,255,000 A3/BBB+/A-/AA TRB 2017A-1 3/16/2017 5,470,000 11/15/2044 4.000 5,470,000  $\Delta 3/RRR + /\Delta - /\Delta \Delta$ TRB 20174-1 3/16/2017 5 685 000 11/15/2045 4 000 5 685 000 A3/BBB+/A-/AA TRB 2017A-1 3/16/2017 5,915,000 11/15/2046 4.000 5,915,000 A3/BBB+/A-/AA TRB 2017A-1 3/16/2017 1,070,000 11/15/2047 5.000 1,070,000  $\Delta 3/BBB+/\Delta -/\Delta \Delta$ TRB 20174-1 3/16/2017 5 080 000 11/15/2047 4 000 5 080 000 A3/BBB+/A-/AA TRB 2017A-1 3/16/2017 6,405,000 11/15/2048 4.000 6,405,000 A3/BBB+/A-/AA TRB 2017A-1 3/16/2017 6,665,000 11/15/2049 5.000 6,665,000 A3/BBB+/A-/AA TRB 2017A-1 3/16/2017 6.995.000 11/15/2050 5.000 6.995.000 A3/BBB+/A-/AA TRB 2017A-1 3/16/2017 7,345,000 11/15/2051 5.000 7.345.000 A3/BBB+/A-/AA TRB 2017A-1 3/16/2017 7,715,000 11/15/2052 5.250 7,715,000 A3/BBB+/A-/AA TRB 2017A-1 3/16/2017 8,120,000 11/15/2053 5.250 8,120,000 A3/BBB+/A-/AA TRB 2017A-1 3/16/2017 8,545,000 11/15/2054 5.250 8,545,000 A3/BBB+/A-/AA TRB 2017A-1 3/16/2017 8,995,000 11/15/2055 5.250 8,995,000 A3/BBB+/A-/AA TRB 2017A-1 3/16/2017 9,465,000 11/15/2056 5.250 9,465,000 9.960.000 A3/BBB+/A-/AA TRB 2017A-1 3/16/2017 11/15/2057 5.250 9.960.000 A3/BBB+/A-/AA TRB 2017A-2 Refunding Bonds 3/16/2017 10,875,000 11/15/2024 5.000 10,875,000 A3/BBB+/A-/AA TRB 2017A-2 Refunding Bonds 3/16/2017 22,955,000 11/15/2025 5.000 22,955,000 A3/BBB+/A-/AA 3/16/2017 24.105.000 11/15/2026 24.105.000 TRB 2017A-2 Refunding Bonds 5.000 A3/BBB+/A-/AA TRB 2017A-2 Refunding Bonds 3/16/2017 25,305,000 11/15/2027 5.000 25,305,000 A3/BBB+/A-/AA TRB 2017A-2 Refunding Bonds 3/16/2017 24,940,000 11/15/2028 5.000 24,940,000 A3/BBB+/A-/AA TRB 2017A-2 Refunding Bonds 3/16/2017 13,880,000 11/15/2029 5.000 13,880,000 A3/BBB+/A-/AA TRB 2017A-2 Refunding Bonds 3/16/2017 14.575.000 11/15/2030 5.000 14.575.000 A3/BBB+/A-/AA TRB 2017B 9/28/2017 4.235.000 11/15/2022 4.000 4.235.000 A3/BBB+/A-/AA TRB 2017B 9/28/2017 53,405,000 11/15/2022 5.000 53,405,000 A3/BBB+/A-/AA TRB 2017B 9/28/2017 3,190,000 11/15/2023 4.000 3,190,000 A3/BBB+/A-/AA TRB 2017B 9/28/2017 167.310.000 11/15/2023 5 000 167.310.000 A3/BBB+/A-/AA TRB 2017B 9/28/2017 2,515,000 11/15/2023 3.000 2,515,000 A3/BBB+/A-/AA TRB 2017B 9/28/2017 145,940,000 11/15/2024 5.000 145,940,000 TRB 2017B 9/28/2017 2 690 000 11/15/2024 4 000 2.690.000  $\Delta 3/RRR + /\Delta - /\Delta \Delta$ A3/BBB+/A-/AA TRB 2017B 9/28/2017 103,250,000 11/15/2025 5.000 103,250,000 A3/BBB+/A-/AA TRB 2017B 9/28/2017 54,855,000 11/15/2026 5.000 54,855,000 A3/BBB+/A-/AA TRB 2017B 9/28/2017 1.810.000 11/15/2027 4.000 1.810.000 A3/BBB+/A-/AA TRB 2017B 9/28/2017 42,925,000 11/15/2027 5 000 42.925.000 A3/BBB+/A-/AA TRB 2017B 9/28/2017 46,955,000 46,955,000 11/15/2028 5.000 A3/BBB+/A-/AA TRB 2017C-1 12/14/2017 44,980,000 11/15/2023 5.000 44,980,000 11/15/2024 A3/BBB+/A-/AA TRB 2017C-1 12/14/2017 4.265.000 3.000 4.265.000 A3/BBB+/A-/AA TRB 2017C-1 12/14/2017 4,310,000 11/15/2024 4.000 4,310,000 A3/BBB+/A-/AA TRB 2017C-1 12/14/2017 96,725,000 11/15/2024 5.000 96,725,000 A3/BBB+/A-/AA TRB 2017C-1 12/14/2017 133.575.000 11/15/2025 5.000 133,575,000 A3/BBB+/A-/AA TRB 2017C-1 12/14/2017 1,125,000 11/15/2025 4.000 1,125,000 A3/BBB+/A-/AA TRB 2017C-1 12/14/2017 1,600,000 11/15/2025 3.000 1,600,000 A3/BBB+/A-/AA 12/14/2017 11/15/2026 4.000 4.300.000 TRB 2017C-1 4.300.000

7.182.400.000

5.402.860.000

Total Bonds and Notes Issued in 2022

New Money Bonds and Notes Issued in 2022

New Money Bonds and Notes Issued in 2022 5.402.860.000 Refunding Bonds and Notes Issued in 2022 1,779,540,000 Total 3,813,577,500 2,341,805,000 5,188,120,000 51,090,000 597,910,000 48,672,762,500 2,036,995,000 Credit Supported L T Amount Amount Amount Swapped Amount Matured in Amount Defeased Amount Called in Underlying L T Ratings Ratings S T Ratings Redeemed in Refinanced in Amount Outstanding as as of December Mdy/S&P/Ftch/Krll Mdy/S&P/Ftch/Krll Mdy/S&P/Ftch/Krll Series Date Issued Maturity 2022 in 2022 2022 2022 2022 of December 31, 2022 31. 2022 Amount Issued Coupon TRB 2017C-1  $\Delta 3/RRR+/\Delta -/\Delta \Delta$ 12/14/2017 1 825 000 11/15/2026 3 000 1 825 000 A3/BBB+/A-/AA TRB 2017C-1 12/14/2017 173,050,000 11/15/2026 5.000 173,050,000 A3/BBB+/A-/AA 95,205,000 TRB 2017C-1 12/14/2017 95,205,000 11/15/2027 5.000 TRB 2017C-1 11/15/2028 146.960.000 A3/BBB+/A-/AA 12/14/2017 146.960.000 5.000 A3/BBB+/A-/AA TRB 2017C-1 12/14/2017 158,000,000 11/15/2029 5 000 158.000.000 TRB 2017C-1 12/14/2017 124,225,000 5.000 124,225,000 A3/BBB+/A-/AA 11/15/2030 153.135.000 A3/BBB+/A-/AA TRB 2017C-1 12/14/2017 153.135.000 11/15/2031 5.000 A3/BBB+/A-/AA 11/15/2031 TRB 2017C-1 12/14/2017 68.945.000 4.000 68.945.000 A3/BBB+/A-/AA TRB 2017C-1 12/14/2017 99,240,000 11/15/2032 4.000 99,240,000 A3/BBB+/A-/AA TRB 2017C-1 12/14/2017 70,020,000 11/15/2033 5.000 70,020,000 21.840.000 A3/BBB+/A-/AA TRB 2017C-1 12/14/2017 11/15/2034 4.000 21.840.000 A3/BBB+/A-/AA TRB 2017C-1 12/14/2017 85,385,000 11/15/2034 5.000 85,385,000 A3/BBB+/A-/AA TRB 2017C-1 12/14/2017 85,030,000 11/15/2035 4.000 85,030,000 A3/BBB+/A-/AA 12/14/2017 11.580.000 4.000 TRB 2017C-1 11/15/2036 11.580.000 A3/BBB+/A-/AA TRB 2017C-1 12/14/2017 76,830,000 11/15/2036 3.250 76,830,000 A3/BBB+/A-/AA 49,405,000 TRB 2017C-1 12/14/2017 49,405,000 11/15/2037 4.000 A3/BBB+/A-/AA TRB 2017C-1 12/14/2017 28,775,000 11/15/2037 3.375 28,775,000 A3/BBB+/A-/AA TRB 2017C-1 12/14/2017 81.130.000 11/15/2038 4.000 81,130,000 A3/BBB+/A-/AA TRB 2017C-2 12/14/2017 28,315,000 11/15/2027 28,315,000 A3/BBB+/A-/AA 62,075,000 62,075,000 TRB 2017C-2 12/14/2017 11/15/2029 TRB 2017C-2 11/15/2032 70,000,000 A3/BBB+/A-/AA 12/14/2017 70.000.000 A3/BBB+/A-/AA TRB 2017C-2 12/14/2017 43.785.000 11/15/2033 43.785.000 A3/BBB+/A-/AA TRB 2017C-2 12/14/2017 84,370,000 11/15/2039 84,370,000 A3/BBB+/A-/AA TRB 2017C-2 12/14/2017 62,930,000 11/15/2040 62,930,000  $\Delta 3/RRR + /\Delta - /\Delta \Delta$ TRB 2017D 12/21/2017 4 820 000 11/15/2023 5 000 4 820 000 A3/BBB+/A-/AA TRB 2017D 12/21/2017 6,285,000 11/15/2024 5.000 6,285,000 A3/BBB+/A-/AA TRB 2017D 12/21/2017 6,620,000 11/15/2025 5.000 6,620,000  $\Delta 3/BBB+/\Delta -/\Delta \Delta$ TRB 2017D 12/21/2017 7 310 000 11/15/2026 5 000 7 310 000 A3/BBB+/A-/AA TRB 2017D 12/21/2017 7,675,000 11/15/2027 5.000 7,675,000 A3/BBB+/A-/AA TRB 2017D 12/21/2017 8,035,000 11/15/2028 5.000 8,035,000 A3/BBB+/A-/AA TRB 2017D 12/21/2017 2.055.000 11/15/2029 5.000 2.055.000 A3/BBB+/A-/AA TRB 2017D 12/21/2017 73,225,000 11/15/2030 5.000 73.225.000 A3/BBB+/A-/AA TRB 2017D 12/21/2017 17,980,000 11/15/2031 5.000 17,980,000 A3/BBB+/A-/AA TRB 2017D 12/21/2017 47,080,000 11/15/2032 5.000 47,080,000 A3/BBB+/A-/AA TRB 2017D 12/21/2017 1.630.000 11/15/2032 3.000 1.630.000 A3/BBB+/A-/AA TRB 2017D 12/21/2017 42,435,000 11/15/2033 5.000 42,435,000 A3/BBB+/A-/AA TRB 2017D 12/21/2017 12,770,000 11/15/2034 5.000 12,770,000 25,295,000 25.295.000 A3/BBB+/A-/AA TRB 2017D 12/21/2017 11/15/2035 5.000 A3/BBB+/A-/AA TRB 2017D 12/21/2017 2,790,000 11/15/2036 5.000 2,790,000 TRB 2017D A3/BBB+/A-/AA 12/21/2017 2,930,000 11/15/2037 5.000 2,930,000 A3/BBB+/A-/AA TRB 2017D 12/21/2017 3.080.000 11/15/2038 3.080.000 3.250 A3/BBB+/A-/AA TRB 2017D 12/21/2017 3,180,000 11/15/2039 3.250 3,180,000 A3/BBB+/A-/AA TRB 2017D 12/21/2017 98,295,000 11/15/2040 4.000 98,295,000 A3/BBB+/A-/AA TRB 2017D 12/21/2017 95,495,000 11/15/2041 4.000 95,495,000 A3/BBB+/A-/AA TRB 2017D 12/21/2017 60.135.000 11/15/2042 4.000 60.135.000 A3/BBB+/A-/AA TRB 2017D 12/21/2017 48.215.000 11/15/2043 4 000 48.215.000 A3/BBB+/A-/AA TRB 2017D 12/21/2017 18,275,000 11/15/2044 4.000 18,275,000 A3/BBB+/A-/AA TRB 2017D 12/21/2017 19,005,000 11/15/2045 4.000 19,005,000 14.920,000 A3/BBB+/A-/AA TRB 2017D 12/21/2017 14.920.000 11/15/2046 4 000 A3/BBB+/A-/AA TRB 2017D 12/21/2017 4,850,000 11/15/2046 3.375 4,850,000 A3/BBB+/A-/AA TRB 2017D 12/21/2017 8,710,000 11/15/2047 3.375 8,710,000 TRB 20184-2 1/23/2018 92 540 000 11/15/2046 92 540 000  $\Delta 3/RRR + /\Delta - /\Delta \Delta$ 5 000 A3/BBB+/A-/AA TRB 2018A-2 1/23/2018 92,535,000 11/15/2047 5.000 92,535,000 92,535,000 A3/BBB+/A-/AA TRB 2018A-2 1/23/2018 92,535,000 11/15/2048 5.000 8/23/2018 A3/BBB+/A-/AA TRB 2018B 7.415.000 11/15/2022 5.000 7.415.000 A3/BBB+/A-/AA TRB 2018B 8/23/2018 17.080.000 11/15/2023 5 000 17 080 000 A3/BBB+/A-/AA 8/23/2018 TRB 2018B 21,365,000 11/15/2024 5.000 21.365.000 A3/BBB+/A-/AA TRB 2018B 8/23/2018 26,870,000 11/15/2025 5.000 26,870,000 37,995,000 A3/BBB+/A-/AA TRB 2018B 8/23/2018 11/15/2026 5.000 37.995.000 A3/BBB+/A-/AA TRB 2018B 8/23/2018 31,985,000 11/15/2027 5.000 31,985,000 A3/BBB+/A-/AA TRB 2018B 8/23/2018 35,180,000 11/15/2028 5.000 35,180,000 A3/BBB+/A-/AA TRB 2019A-1 2/6/2019 93.340.000 11/15/2047 5.000 93.340.000 A3/BBB+/A-/AA TRB 2019A-1 2/6/2019 98,005,000 11/15/2048 5.000 98,005,000 A3/BBB+/A-/AA TRB 2019A-2 2/6/2019 79,415,000 11/15/2044 5.000 79,415,000 A3/BBB+/A-/AA 2/6/2019 11/15/2045 5.000 83.390.000 TRB 2019A-2 83.390.000

Total Bonds and Notes Issued in 2022

7.182.400.000

			New Money Bonds and Not	os Issued in 2022	5,402,860,000									
						Г	Total	3,813,577,500	2,341,805,000	E 188 120 000	51,090,000	597,910,000	48,672,762,500	2,036,995,000
			Refunding Bonds and Not	es issued in 2022	1,779,540,000		Iotai	3,813,577,500	2,341,805,000	5,188,120,000	51,090,000	597,910,000	48,672,762,500	2,036,995,000
	Credit Supported L T										Amount	Amount		Amount Swapped
Underlying LT Detings		6 T Datings						Amount Motured in	Amount Defeased	Amount Colled in		Refinanced in	Amount Outstanding on	
Underlying L T Ratings	Ratings	ST Ratings	Carlas	Deter leaved	A		<b>6</b>			Amount Called in	Redeemed in		Amount Outstanding as	
Mdy/S&P/Ftch/Krll	Mdy/S&P/Ftch/Krll	Mdy/S&P/Ftch/Krll	Series	Date Issued	Amount Issued	Maturity	Coupon	2022	<u>in 2022</u>	2022	2022	2022	of December 31, 2022	<u>31, 2022</u>
A3/BBB+/A-/AA			TRB 2019A-3	2/6/2019	100,000,000	11/15/2046	4.000	-	-	-	-	-	100,000,000	-
A3/BBB+/A-/AA			TRB 2019B	5/14/2019	41,620,000	11/15/2049	4.000	-	-	-	-	-	41,620,000	-
A3/BBB+/A-/AA			TRB 2019B	5/14/2019	43,285,000	11/15/2050	4.000	-	-	-	-	-	43,285,000	•
A3/BBB+/A-/AA			TRB 2019B	5/14/2019	45,015,000	11/15/2051	5.000	-	-	-	-	-	45,015,000	-
A3/BBB+/A-/AA			TRB 2019B	5/14/2019	47,265,000	11/15/2052	5.000	-	-	-	-	-	47,265,000	
A3/BBB+/A-/AA		MIG2/SP-2/F2/K1+	TRB 2019B-1 BANS	5/22/2019	1,000,000,000	5/15/2022	5.000	1,000,000,000	-	-	-	-	-	-
A3/BBB+/A-/AA			TRB 2019C	8/14/2019	26,800,000	11/15/2038	5.000	-	-	-	-	-	26,800,000	
A3/BBB+/A-/AA			TRB 2019C	8/14/2019	28,140,000	11/15/2039	5.000		-	-	-	-	28,140,000	
A3/BBB+/A-/AA			TRB 2019C	8/14/2019	29,545,000	11/15/2040	5.000		-	-	-		29,545,000	
A3/BBB+/A-/AA			TRB 2019C	8/14/2019	31,020,000	11/15/2041	5.000	-	_	_	_		31,020,000	
A3/BBB+/A-/AA			TRB 2019C	8/14/2019	32,575,000	11/15/2042	5.000						32,575,000	
							5.000	-	-	-	-	-		-
A3/BBB+/A-/AA			TRB 2019C	8/14/2019	34,200,000	11/15/2043		-	-	-	-	-	34,200,000	-
A3/BBB+/A-/AA			TRB 2019C	8/14/2019	35,910,000	11/15/2044	5.000	-	-	-	-	-	35,910,000	-
A3/BBB+/A-/AA			TRB 2019C	8/14/2019	37,710,000	11/15/2045	4.000	-	-	-	-	-	37,710,000	•
A3/BBB+/A-/AA			TRB 2019C	8/14/2019	39,215,000	11/15/2046	4.000	-	-	-	-	-	39,215,000	-
A3/BBB+/A-/AA			TRB 2019C	8/14/2019	40,785,000	11/15/2047	4.000	-	-	-	-	-	40,785,000	-
A3/BBB+/A-/AA			TRB 2019C	8/14/2019	42,415,000	11/15/2048	4.000	-	-	-	-	-	42,415,000	-
A3/BBB+/A-/AA			TRB 2019C	8/14/2019	44,115,000	11/15/2049	4.000	-	-	-	-	-	44,115,000	
A3/BBB+/A-/AA	A1/AA/NR/AA+		TRB 2019D-1	11/7/2019	68,450,000	11/15/2033	5.000			-	-	-	68,450,000	-
A3/BBB+/A-/AA	A1/AA/NR/AA+		TRB 2019D-1	11/7/2019	71,870,000	11/15/2034	5.000	-	-	-	-		71,870,000	
A3/BBB+/A-/AA	/12//04/1119/01	MIG2/SP-2/F2/K1+	TRB 2019D-1 BANS	9/6/2019	1,000,000,000	9/1/2022	5.000	1,000,000,000	_	_	_		, 1,0,0,000	
A3/BBB+/A-/AA	A1/AA/NR/AA+	141132/31 2/12/11	TRB 2019D-2 Taxable	11/7/2019	32,640,000	11/15/2046	3.500						32,640,000	
								-	-	-	-	-		-
A3/BBB+/A-/AA	A1/AA/NR/AA+		TRB 2019D-2 Taxable	11/7/2019	33,785,000	11/15/2047	3.600	-	-	-	-	-	33,785,000	-
A3/BBB+/A-/AA	A1/AA/NR/AA+		TRB 2019D-2 Taxable	11/7/2019	35,000,000	11/15/2048	3.540	-	-	-	-	-	35,000,000	-
A3/BBB+/A-/AA		MIG2/SP-2/F2/K1+	TRB 2019F BANS	12/10/2019	200,000,000	11/15/2022	5.000	-	200,000,000	-	-	-	-	•
A3/BBB+/A-/AA	A1/AA/NR/AA+		TRB 2020A-1	1/16/2020	33,835,000	11/15/2040	4.000	-	-	-	-	-	33,835,000	-
A3/BBB+/A-/AA	A1/AA/NR/AA+		TRB 2020A-1	1/16/2020	35,190,000	11/15/2041	4.000	-	-	-	-	-	35,190,000	
A3/BBB+/A-/AA	A1/AA/NR/AA+		TRB 2020A-1	1/16/2020	36,595,000	11/15/2042	4.000	-	-	-	-	-	36,595,000	-
A3/BBB+/A-/AA	A1/AA/NR/AA+		TRB 2020A-1	1/16/2020	38,060,000	11/15/2043	4.000	-	-	-	-	-	38,060,000	
A3/BBB+/A-/AA	A1/AA/NR/AA+		TRB 2020A-1	1/16/2020	39,585,000	11/15/2044	4.000	-	-	-	-	-	39,585,000	-
A3/BBB+/A-/AA	A1/AA/NR/AA+		TRB 2020A-1	1/16/2020	41,165,000	11/15/2045	4.000	-	-	-	-		41,165,000	
A3/BBB+/A-/AA	A1/AA/NR/AA+		TRB 2020A-1	1/16/2020	42,810,000	11/15/2046	4.000						42,810,000	
A3/BBB+/A-/AA A3/BBB+/A-/AA	A1/AA/NR/AA+		TRB 2020A-1 TRB 2020A-1	1/16/2020	44,525,000	11/15/2046	5.000	-	-	-	-	-	44,525,000	-
								-	-	-	-	-		-
A3/BBB+/A-/AA	A1/AA/NR/AA+		TRB 2020A-1	1/16/2020	46,750,000	11/15/2048	5.000	-	-	-	-	-	46,750,000	-
A3/BBB+/A-/AA	A1/AA/NR/AA+		TRB 2020A-1	1/16/2020	49,090,000	11/15/2049	5.000	-	-	-	-	-	49,090,000	-
A3/BBB+/A-/AA	A1/AA/NR/AA+		TRB 2020A-1	1/16/2020	51,555,000	11/15/2050	4.000	-	-	-	-	-	51,555,000	•
A3/BBB+/A-/AA	A1/AA/NR/AA+		TRB 2020A-1	1/16/2020	53,615,000	11/15/2051	4.000	-	-	-	-	-	53,615,000	-
A3/BBB+/A-/AA	A1/AA/NR/AA+		TRB 2020A-1	1/16/2020	55,760,000	11/15/2052	4.000	-	-	-	-	-	55,760,000	-
A3/BBB+/A-/AA	A1/AA/NR/AA+		TRB 2020A-1	1/16/2020	57,995,000	11/15/2053	4.000	-	-	-	-	-	57,995,000	-
A3/BBB+/A-/AA	A1/AA/NR/AA+		TRB 2020A-1	1/16/2020	60,310,000	11/15/2054	4.000	-	-	-	-	-	60,310,000	
A3/BBB+/A-/AA		MIG2/SP-2/F2/K1+	TRB 2020A-1 BANS	1/8/2020	800,000,000	2/1/2023	5.000	-	-	-	-	-	800,000,000	-
A3/BBB+/A-/AA			TRB 2020A-2 Refunding Bonds	1/16/2020	11,210,000	11/15/2028	5.000	-	-	-	-		11,210,000	
A3/BBB+/A-/AA			TRB 2020A-2 Refunding Bonds	1/16/2020	11,615,000	11/15/2029	5.000						11,615,000	
A3/BBB+/A-/AA			TRB 2020A-2 Refunding Bonds	1/16/2020	29,255,000	11/15/2029	5.000						29,255,000	
			TRB 2020A-2 Refunding Bonds				5.000	-	-	-	-	-	55,480,000	-
A3/BBB+/A-/AA				1/16/2020	55,480,000	11/15/2031		-	-	-	-	-		-
A3/BBB+/A-/AA			TRB 2020A-2 Refunding Bonds	1/16/2020	50,970,000	11/15/2032	5.000	-	-	-	-	-	50,970,000	-
A3/BBB+/A-/AA			TRB 2020A-2 Refunding Bonds	1/16/2020	38,940,000	11/15/2033	5.000		-	-	-	-	38,940,000	-
A3/BBB+/A-/AA			TRB 2020A-2 Refunding Bonds	1/16/2020	40,440,000	11/15/2034	5.000		-	-	-	-	40,440,000	-
A3/BBB+/A-/AA		MIG2/SP-2/F1/K1+	TRB 2020A-2S BANS	1/8/2020	700,000,000	2/1/2022	4.000	700,000,000	-	-	-	-	-	
A3/BBB+/A-/AA		MIG2/SP-2/F1/K1+	TRB 2020B BANS	8/26/2020	450,720,000	8/1/2023	1.930	-	-	450,720,000	-	-	-	-
A3/BBB+/A-/AA	Aa2/AA-/A+/NR	VMIG 1/A-1/F1/NR	TRB 2020B-1	3/24/2022	59,740,000	11/15/2046	4.000	-	-	-	-	-	59,740,000	-
A3/BBB+/A-/AA	Aa2/AA-/A+/NR	VMIG 1/A-1/F1/NR	TRB 2020B-2	3/24/2022	62,115,000	11/15/2046	4.000	-	-	-	-	62,115,000	62,115,000	
A3/BBB+/A-/AA			TRB 2020B-2	3/27/2020	5,000,000	11/15/2046	4.000			-	5,000,000	-		-
A3/BBB+/A-/AA	Aa2/AA-/A+/NR	VMIG 1/A-1/F1/NR	TRB 2020B-2	3/24/2022	14,340,000	11/15/2046	4.000	-		-	14,340,000			-
			TRB 2020B-2 TRB 2020B-2			11/15/2046	4.000	-	-	-		-	-	-
A3/BBB+/A-/AA	Aa2/AA-/A+/NR	VMIG 1/A-1/F1/NR		3/24/2022	6,205,000			-	-	-	6,205,000	-	-	-
A3/BBB+/A-/AA			TRB 2020C-1	5/14/2020	38,260,000	11/15/2038	4.750	-	-	-	-	-	38,260,000	-
A3/BBB+/A-/AA			TRB 2020C-1	5/14/2020	40,185,000	11/15/2039	4.750	-	-	-	-	-	40,185,000	-
A3/BBB+/A-/AA			TRB 2020C-1	5/14/2020	42,200,000	11/15/2040	4.750	-	-	-	-	-	42,200,000	-
A3/BBB+/A-/AA			TRB 2020C-1	5/14/2020	44,315,000	11/15/2041	4.750	-	-	-	-	-	44,315,000	-
A3/BBB+/A-/AA			TRB 2020C-1	5/14/2020	46,530,000	11/15/2042	4.750	-	-	-	-	-	46,530,000	-
A3/BBB+/A-/AA			TRB 2020C-1	5/14/2020	48,850,000	11/15/2043	4.750	-	-	-	-	-	48,850,000	-
A3/BBB+/A-/AA			TRB 2020C-1	5/14/2020	51,275,000	11/15/2044	4.750	-	-	-	-	-	51,275,000	-
A3/BBB+/A-/AA			TRB 2020C-1	5/14/2020	53,820,000	11/15/2045	4.750	-	-	-	-	-	53,820,000	-
A3/BBB+/A-/AA			TRB 2020C-1	5/14/2020	67,225,000	11/15/2046	5.000		-	-	-	-	67,225,000	-
A3/BBB+/A-/AA			TRB 2020C-1	5/14/2020	70,165,000	11/15/2040	5.000		-				70,165,000	_
, SJ DDD J A JAA			110 20200-1	5, 17, 2020	.0,105,000	11, 13, 2047	5.000						,0,103,000	

Total Bonds and Notes Issued in 2022

7,182,400,000

			Total Bonds and No New Money Bonds and No	tes Issued in 2022	7,182,400,000 5,402,860,000	_	-							
			Refunding Bonds and No	tes Issued in 2022	1,779,540,000	L	Total	3,813,577,500	2,341,805,000	5,188,120,000	51,090,000	597,910,000	48,672,762,500	2,036,995,000
	Credit Supported L T										Amount	Amount		Amount Swappe
Underlying L T Ratings	Ratings	ST Ratings								Amount Called in	Redeemed in	Refinanced in	Amount Outstanding as	
Mdy/S&P/Ftch/Krll A3/BBB+/A-/AA	Mdy/S&P/Ftch/Krll	Mdy/S&P/Ftch/Krll	Series TRB 2020C-1	Date Issued 5/14/2020	Amount Issued	Maturity	Coupon 5.000	2022	in 2022	2022	2022	2022	of December 31, 2022 73,250,000	<u>31, 2022</u>
A3/BBB+/A-/AA			TRB 2020C-1 TRB 2020C-1		73,250,000	11/15/2048 11/15/2049	5.000	-	-	-	-	-	76,490,000	-
A3/BBB+/A-/AA			TRB 2020C-1 TRB 2020C-1	5/14/2020 5/14/2020	76,490,000 79,890,000	11/15/2050	5.000	-	-	-	-	-	78,490,000	-
A3/BBB+/A-/AA			TRB 2020C-1 TRB 2020C-1	5/14/2020	79,890,000	11/15/2050	5.250	-	-	-	-	-	79,890,000	-
A3/BBB+/A-/AA			TRB 2020C-1 TRB 2020C-1	5/14/2020	74,145,000	11/15/2051	5.250	-	-	-	-	-	74,145,000	-
A3/BBB+/A-/AA			TRB 2020C-1 TRB 2020C-1	5/14/2020	74,143,000	11/15/2052	5.250	-	-	-	-	-	74,143,000	-
A3/BBB+/A-/AA			TRB 2020C-1	5/14/2020	82,650,000	11/15/2054	5.250	-	-	-	-	-	82,650,000	-
A3/BBB+/A-/AA			TRB 2020C-1	5/14/2020	87,250,000	11/15/2055	5.250			-			87,250,000	
A3/BBB+/A-/AA			TRB 2020C-2 Taxable	5/14/2020	196,410,000	11/15/2047	5.175		_	_	_	_	196,410,000	_
A3/BBB+/A-/AA			TRB 2020C-2 Taxable	5/14/2020	196,410,000	11/15/2048	5.175		_	_	_	_	196,410,000	_
A3/BBB+/A-/AA			TRB 2020C-2 Taxable	5/14/2020	196,405,000	11/15/2049	5.175		_	_	_	_	196,405,000	_
A3/BBB+/A-/AA			TRB 2020C-2 Taxable	5/14/2020	3,590,000	11/15/2047	5.525		_	_	_	_	3,590,000	_
A3/BBB+/A-/AA			TRB 2020C-2 Taxable	5/14/2020	3,590,000	11/15/2048	5.525		_	_	_	_	3,590,000	_
A3/BBB+/A-/AA			TRB 2020C-2 Taxable	5/14/2020	3,595,000	11/15/2049	5.525		_	_	_	_	3,595,000	_
A3/BBB+/A-/AA			TRB 2020D	9/18/2020	100,000,000	11/15/2043	5.000		_	_	_	_	100,000,000	_
A3/BBB+/A-/AA			TRB 2020D	9/18/2020	100,000,000	11/15/2044	5.000		_	_	_	_	100,000,000	_
A3/BBB+/A-/AA			TRB 2020D	9/18/2020	100,000,000	11/15/2045	5.000		_	_	_	_	100,000,000	_
A3/BBB+/A-/AA			TRB 2020D	9/18/2020	100,000,000	11/15/2046	4.000		_	_	_	_	100,000,000	_
A3/BBB+/A-/AA			TRB 2020D	9/18/2020	100,000,000	11/15/2047	4.000		_	_	_	_	100,000,000	_
A3/BBB+/A-/AA			TRB 2020D	9/18/2020	100,000,000	11/15/2048	4.000	-	-	_	_	-	100,000,000	_
A3/BBB+/A-/AA			TRB 2020D	9/18/2020	150,000,000	11/15/2049	4.000	-	-	_	_	-	150,000,000	-
A3/BBB+/A-/AA			TRB 2020D	9/18/2020	150,000,000	11/15/2050	4.000	-	-	_	_	-	150,000,000	-
A3/BBB+/A-/AA			TRB 2020E	11/13/2020	28,505,000	11/15/2026	4.000	-	-	-	-	-	28,505,000	-
A3/BBB+/A-/AA			TRB 2020E	11/13/2020	29,640,000	11/15/2027	5.000	-	-	-	-	-	29,640,000	-
A3/BBB+/A-/AA			TRB 2020E	11/13/2020	31,115,000	11/15/2028	5.000	-	-	-	-	-	31,115,000	-
A3/BBB+/A-/AA			TRB 2020E	11/13/2020	32,665,000	11/15/2029	5.000	-	-	_	_	-	32,665,000	-
A3/BBB+/A-/AA			TRB 2020E	11/13/2020	34,295,000	11/15/2030	5.000	-	-	-	-	-	34,295,000	-
A3/BBB+/A-/AA			TRB 2020E	11/13/2020	32,790,000	11/15/2032	5.000	-	-	-	-	-	32,790,000	-
A3/BBB+/A-/AA			TRB 2020E	11/13/2020	34,330,000	11/15/2033	5.000	-	-	-	-	-	34,330,000	-
A3/BBB+/A-/AA			TRB 2020E	11/13/2020	98,745,000	11/15/2044	4.000	-	-	-	-	-	98,745,000	-
A3/BBB+/A-/AA			TRB 2020E	11/13/2020	97,830,000	11/15/2045	4.000	-	-	-	-	-	97,830,000	-
A3/BBB+/A-/AA			TRB 2021A-1 Green Bonds	2/12/2021	62,670,000	11/15/2044	4.000	-	-	-	-	-	62,670,000	-
A3/BBB+/A-/AA			TRB 2021A-1 Green Bonds	2/12/2021	65,180,000	11/15/2045	4.000	-	-	-	-	-	65,180,000	-
A3/BBB+/A-/AA			TRB 2021A-1 Green Bonds	2/12/2021	67,785,000	11/15/2046	4.000	-	-	-	-	-	67,785,000	-
A3/BBB+/A-/AA			TRB 2021A-1 Green Bonds	2/12/2021	70,500,000	11/15/2047	4.000	-	-	-	-	-	70,500,000	-
A3/BBB+/A-/AA			TRB 2021A-1 Green Bonds	2/12/2021	73,315,000	11/15/2048	4.000	-	-	-	-	-	73,315,000	-
A3/BBB+/A-/AA			TRB 2021A-1 Green Bonds	2/12/2021	76,250,000	11/15/2049	4.000	-	-	-	-	-	76,250,000	-
A3/BBB+/A-/AA			TRB 2021A-1 Green Bonds	2/12/2021	79,300,000	11/15/2050	4.000	-	-	-	-	-	79,300,000	-
A3/BBB+/A-/AA			TRB 2021A-2	2/12/2021	65,670,000	11/15/2041	4.000	-	-	-	-	-	65,670,000	-
A3/BBB+/A-/AA			TRB 2021A-2	2/12/2021	68,300,000	11/15/2042	4.000	-	-	-	-	-	68,300,000	-
A3/BBB+/A-/AA			TRB 2021A-2	2/12/2021	71,030,000	11/15/2043	4.000	-	-	-	-	-	71,030,000	-
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					-				-	-	-		-	

## INTEREST RATE EXCHANGE AGREEMENTS-MTA

### As of December 31, 2022 (\$ in millions)

	Metropolitan Transportation Authority								
Related Bonds	Notional Amount as of 12/31/22	Effective Date	Maturity Date	Terms	Counterparty and Ratings(S&P / Moody's / Fitch)	Fair Value as of 12/31/22			
TRB 2002D-2	\$ 200.000	01/01/07	11/01/32	Pay 4.45%; receive 69% 1M LIBOR	JPMorgan Chase Bank, NA (A+ / Aa2 / AA)	\$ (26.627)			
TRB 2005D & 2005E	225.225	11/02/05	11/01/35	Pay 3.561%; receive 67% 1M LIBOR	UBS AG (A+ / Aa3 / AA-)	(13.855)			
TRB 2005E	75.075	11/02/05	11/01/35	Pay 3.561%; receive 67% 1M LIBOR	AIG Financial Products <sup>(1)</sup> (BBB+ / Baa2 / BBB+)	(4.618)			
TRB 2012G	355.075	11/15/12	11/01/32	Pay 3.563%; receive 67% 1M LIBOR	JPMorgan Chase Bank, NA (A+ / Aa2 / AA)	(26.709)			
DTF 2008A	257.495	03/24/05	11/01/31	Pay 3.156%; receive 67% 1M LIBOR	Bank of New York Mellon (AA- / Aa2 / AA)	(8.948)			
Total	\$ 1,112.870					\$ (80.757)			

<sup>1</sup>Guarantor: American International Group, Inc., parent of AIG Financial Products.

## INTEREST RATE EXCHANGE AGREEMENTS-TBTA

As of December 31, 2022 (\$ in millions)

	MTA Bridges and Tunnels								
Related Bonds	Notional Amount as of 12/31/22	Effective Date	Maturity Date	Terms	Counterparty and Ratings (S&P / Moody's / Fitch)	Fair Value as of 12/31/22			
TBTA 2018E & 2003B <sup>4</sup>	\$186.100	07/07/05	01/01/32	Pay 3.076%; receive 67% 1M LIBOR	Citibank, N.A. (A+ / Aa3/ A+)	\$ (6.851)			
TBTA 2005B-2	186.100	07/07/05	01/01/32	Pay 3.076%; receive 67% 1M LIBOR	JPMorgan Chase Bank, NA (A+ / Aa2 / AA)	(6.851)			
TBTA 2005B-3	186.100	07/07/05	01/01/32	Pay 3.076%; receive 67% 1M LIBOR	BNP Paribas North America (A+ / Aa3 / AA-)	(6.851)			
TBTA 2005B-4	186.100	07/07/05	01/01/32	Pay 3.076%; receive 67% 1M LIBOR	UBS AG (A+ / Aa3 / AA-)	(6.851)			
TRB 2002G-1 & 2022E TBTA 2005A & 2001C <sup>2</sup>	89863 <sup>3</sup>	04/01/16	01/01/30	Pay 3.52%; receive 67% 1M LIBOR	U.S. Bank N.A. (AA- / A1/ AA-)	(2.342) <sup>3</sup>			
TRB 2002G-1 & 2022E TBTA 2005A & 2001C <sup>2</sup>	89862 <sup>3</sup>	04/01/16	01/01/30	Pay 3.52%; receive 67% 1M LIBOR	Wells Fargo Bank, N.A. (A+ / Aa2 / AA-)	$(2.342)^3$			
Total	\$ 924.125					\$ (32.087)			

<sup>1</sup>Guarantor: BNP Paribas.

<sup>2</sup>Between November 22, 2016 and December 5, 2016, the Variable Rate Certificates of Participation, Series 2004A were redeemed. <sup>3</sup>Corresponding notional amounts from the Series 2004A COPs were reassigned to MTA Bridges and Tunnels General Revenue Variable Rate Bonds, Series 2001C.

<sup>4</sup>Pursuant to an Interagency Agreement (following novations from UBS in April 2016), MTA New York City Transit is responsible for 68.7%, MTA is responsible for 21.0%, and TBTA is responsible for 10.3% of the transaction. On November 1, 2022 the 2011B were refunded with 2022-E2a bonds. The portion of the U.S. Bank and Wells Fargo Swap associated with 2011B bonds were allocated to the 2022E-2a bonds.

<sup>5</sup>On October 27, 2021 the 2002F bonds were changed to fixed-rate mode and a portion of the Citi swap was reassigned to the 2018E bonds.

Series	DTF 2022A	TBTA 2022A	TBTA Sales Tax 2022A	PMT BANs 2022A	PMT BANs 2022B	PMT 2022A	PMT 2022B	SubTotal <sup>3</sup>
Dated Issued	3/1/2022	8/18/2022	7/12/2022	9/1/2022	12/15/2022	2/10/2022	8/18/2022	Subiotai
Issue Amount	\$377,955,000	\$400,000,000	\$700,000,000	\$951,370,000	\$766,540,000	\$592,680,000	\$1,000,015,000	\$4,788,560,000
NYS Bond Issuance Fee	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Financial Advisor	0	82,000	164,000	82,000	82,000	328,000	82,000	\$820,000
Bond Insurance	0	0	0	0	0	0	0	\$0
Underwriter's Discount/ Counsel	617,121	1,901,199	3,310,965	440,531	440,579	2,795,178	3,767,679	\$13,273,251
Bond Counsel	220,000	250,000	850,000	300,000	300,000	450,000	450,000	\$2,820,000
Disclosure Counsel	100,000	100,000	175,000	150,000	150,000	150,000	150,000	\$975,000
Rating Agency	98,000	215,000	130,000	44,500	44,500	150,000	225,002	\$907,002
Verification/Auction Agent	0	0	0	0	0	5,000	1,000	\$6,000
Trustee	10,000	290,000	10,000	20,000	20,000	5,000	5,000	\$360,000
Printing and Distribution	4,500	4,500	5,000	40,000	40,000	4,750	4,750	\$103,500
Green Bond Certification	0	0	0	0	0	0	0	\$0
Independent Engineer and Miscellaneous	1,000	279,000	1,500	1,500	1,500	1,500	1,500	\$287,500
Total	\$1,050,621	\$3,121,699	\$4,646,465	\$1,078,531	\$1,078,579	\$3,889,428	\$4,686,930	\$19,552,253

<sup>1</sup> Includes cost of issuance estimates when actual data is not available.

<sup>2</sup> In addition to the cost of issuance related to bonds and notes issued in 2022 as detailed in the table above, MTA incurred \$534,159 of cost of issuance related to variable rate bond remarketings and \$24.8 million of on-going debt support costs, which include liquidity fees on letters of credit, rating agency surveillance fees, remarketing agent fees, and trustee fees. Additionally, in 2022 a one-time payment of \$13.2 million was made related to the refinancing of the TRB 2020B-1 BANs.

<sup>3</sup> Totals may not add due to rounding.

## COST OF ISSUANCE – 2022<sup>123</sup>

Series	PMT 2022C	PMT 2022D	PMT 2022E			
Dated Issued	5/12/2022	9/15/2022	11/1/2022	Subtotal	Total <sup>3</sup>	
Issue Amount	\$927,950,000	\$765,690,000	\$700,200,000	\$2,393,840,000	\$7,182,400,000	
NYS Bond Issuance Fee	\$0	\$0	\$0	\$0	\$0	
Financial Advisor	410,000	82,000	0	492,000	\$1,312,000	
Bond Insurance	0	0	0	0	\$0	
Underwriter's Discount/ Counsel	4,344.037	3,414,199	2,840,474	10,598,710	\$23,871,961	
Bond Counsel	350,000	370,000	400,000	1,120,000	\$3,940,000	
Disclosure Counsel	125,000	175,000	195,000	495,000	\$1,470,000	
Rating Agency	197,795	165,000	155,020	517,815	\$1,424,817	
Verification/Auction Agent	0	5,000	0	5,000	\$11,000	
Trustee	5,000	5,000	6,500	16,500	\$376,500	
Printing and Distribution	4,750	5,000	6,500	16,250	\$119,750	
Green Bond Certification	0	7,486	7,002	14,488	\$14,488	
Independent Engineer and Miscellaneous	6,324	21,500	2,000	29,824	\$317,324	
Total	\$5,442,907	\$4,250,681	\$3,612,496	\$13,306,084	\$32,858,337	

<sup>1</sup> Includes cost of issuance estimates when actual data is not available. <sup>2</sup> In addition to the cost of issuance related to bonds and notes issued in 2022 as detailed in the table above, MTA incurred \$534,159 of cost of issuance related to variable rate bond remarketings and \$24.8 million of on-going debt support costs, which include liquidity fees on letters of credit, rating agency surveillance fees, remarekting agent fees, and trustee fees. Additionally, in 2002 a one-time payment of \$13.2 million was made related to the refinancing of the TRB 2020B-1 BANs. <sup>3</sup> Totals may not add due to rounding.



# **RatingsDirect**<sup>®</sup>

## **Summary:**

## Triborough Bridge & Tunnel Authority, New York; Sales Tax

Primary Credit Analyst: Nora G Wittstruck, New York + (212) 438-8589; nora.wittstruck@spglobal.com

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Secondary Contact: Ladunni M Okolo, Dallas + 1 (212) 438 1208; ladunni.okolo@spglobal.com

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## **Summary:**

## Triborough Bridge & Tunnel Authority, New York; Sales Tax

## Credit Profile

US\$700.0 mil sales tax rev bnds (Tbta Capital Lockbox - City Sales Tax) ser 2022A due 05/15/2052 Long Term Rating AA+/Stable New

## **Rating Action**

S&P Global Ratings assigned its 'AA+' long-term rating to the Triborough Bridge & Tunnel Authority (TBTA), N.Y.'s approximately \$700 million series 2022A (MTA Bridges and Tunnels) sales tax revenue bonds (TBTA Capital Lockbox – City Sales Tax). The outlook is stable.

The bonds are secured by pledged revenue consisting of a statutory allocation withheld from New York City's total sales tax collections. In state fiscal year 2022 (ended March 31), the statutory allocation equaled \$171.1 million and will increase 1% annually. Pledged revenue becomes subject to a statutory lien immediately when transferred from the state comptroller to the central business district tolling program (CBDTP) lockbox. The state comptroller transfers to the lockbox equal monthly installments of pledged revenue, which are not subject to appropriation. Bond proceeds will fund a portion of the Metropolitan Transportation Authority's (MTA) 2020 to 2024 (and subsequent) capital programs as authorized by the Traffic Mobility Act enacted by the state legislature in April 2019.

The long-term rating on the bonds is based on our "Priority-Lien Tax Revenue Debt" criteria (published Oct. 22, 2018, on RatingsDirect), which take into account both the strength and stability of the pledged revenue as well as the general credit quality of the obligor where taxes are collected, in this case, New York City. We believe the statutory and legal mechanisms that separate control of pledged revenue from the city supports an obligor linkage that we view as remote. However, risks remain that tether the priority lien rating to the obligor's creditworthiness, which is equivalent to the city's general obligation (GO) rating. The City of New York GO rating is 'AA' and is constrained by the city's very weak debt and contingent liability profile, offset by strong and well-embedded management practices.

## Credit overview

The city levies a 4.5% sales tax on a broad range of economic activity, including retail sales (also online sales), utilities, communication sales, services, and manufacturing. In addition, it levies a 6% tax on receipts from parking, garaging, or storing motor vehicles. Taxable sales within the city grew 31.3% from 2014 to 2020 to nearly \$183 billion. From March 1, 2020 through Feb. 28, 2021, taxable sales declined, but this was during the peak period of the economic shutdown stemming from the pandemic and they rebounded 30% in 2022 to reach near pre-pandemic levels (data through April 28, 2022).

The state comptroller transfers the amounts to the CBDTP lockbox for the benefit of series 2022A bondholders, which minimizes interference from the city to divert pledged revenue for operations. The lockbox is a subaccount held in

trust and not commingled with other TBTA money. Pledged revenue is unavailable for city or MTA operations and, after payment of debt service, may only be used for CBDTP capital or operating costs. The TBTA has covenanted not to create a more senior lien on the statutory allocation and the resolution only allows for the issuance of fixed-rate debt.

Our key credit considerations include:

- Strong to very strong coverage and liquidity reflecting the nearly 30x coverage of the available resources, which provide for the statutory allocation to pay debt service on the bonds after consideration of competing claims on the city's sales tax revenue. However, our analysis also includes TBTA's expectation to fully leverage the statutory allocation to 1.0x maximum annual debt service (MADS) within the next two to three years to generate between \$3.6 billion and \$3.9 billion in resources to fund the MTA's 2020 to 2024 (and subsequent) capital programs;
- Very strong economic fundamentals as represented by the city's substantial and resilient economy that underscores sales tax revenue and ultimately the statutory allocation securing debt service;
- Low volatility based on pledged revenue derived by the city's sales tax collections and the relative historical stability in the trend over the past 10 years; and
- Our view of the general creditworthiness of New York City.

## Environmental, social, and governance

We view the environmental, social, and governance factors that we incorporate into our credit rating analysis and that could affect the city's economic base as particularly exposed to severe weather events and other chronic physical climate risks that could disrupt economic activity or pledged revenue collections. However, the city is ahead of peers by integrating various climate scenarios underscored by local scientific projections into its climate resiliency design guidelines that consider climate hazards, including heat, precipitation, flooding, and sea level rise. Furthermore, the more than \$20 billion OneNYC resiliency plan includes various infrastructure projects to help protect vulnerable areas and buffer residents from the effects of climate change. The city has developed key performance indicators to monitor its sustainability and resiliency efforts and plans to annually report progress toward its goals. The emergence of COVID-19 variants and the potential for them to incrementally curtail some social activities demonstrates that health and safety social risks could stall the city's economic momentum and pose greater uncertainty for sales tax collections. However, we think that given the extensive economic base from which sales taxes are generated and from which the statutory allocation is withheld largely insulates series 2022A bondholders from this risk. Finally, we view the governance structure provided by the statutory and legal mechanisms positively, as it protects the rights of bondholders and limits the city's ability to divert revenue prior to debt service payment. (For more information, see "ESG U.S. Public Finance Report Card: Tri-State Region Governments And Not-For-Profit Enterprises," published Oct. 28, 2020 on RatingsDirect.)

## Stable Outlook

## Downside scenario

We could lower the rating or revise the outlook to negative should the city's GO rating materially deteriorate due to economic or financial stress or should a substantial change in sales tax revenue occur that results in an inadequate

pool of revenue available to cover the statutory allocation securing the bonds.

## Upside scenario

We do not expect to raise the rating stemming from TBTA's expectation to fully leverage the statutory allocation in the next two to three years.

## **Credit Opinion**

## Coverage and liquidity: Strong to very strong

Our rating incorporates the substantial pool available from the city's total sales tax revenue from which the statutory allocation securing the 2022A bonds is withheld. However, our coverage and liquidity analysis also reflects a claim on the city's sales tax revenue by the New York City's Transitional Finance Authority's (TFA) future tax-secured (FTS) bondholders. The city's personal income tax collections have always covered FTS debt service, revenue that in fiscal 2021 provided 4.9x annual debt service coverage. That said, there is a negligible risk that sales tax could be required to pay TFA debt service equaling about \$3.5 billion annually. If this were to occur, fiscal 2022 sales tax revenue would still provide nearly 30x the statutory allocation.

In addition, our view is informed by TBTA's projection to fully leverage the statutory allocation over the next two to three years equal to 1.0x MADS and no debt service reserve fund (DSRF). Finally, there is no prohibition on the state or city making additional statutory allocations from its sales tax collections for other programs similar to the distressed hospitals and the MTA's CBDTP that could reduce the overall city sales tax resource pool.

We believe this risk is relatively minor given the city's reliance on sales tax revenue to fund its operations and that the statutory allocation securing debt service on the bonds represents a small fraction of the city's total sales tax resources available. Although the statutory allocation increases by 1% annually, the city's forecast for total sales tax revenue is estimated to grow by nearly \$1.4 billion, or 16%, from fiscal 2023 to fiscal 2026 (based on the June 2022 financial plan). We believe the lack of a DSRF is mitigated by the substantial amount available to pay the statutory allocation.

The city's sales tax revenue has increased by about 2.0% on average annually over the past 10 years, which incorporates a significant decline of 12.4% in fiscal 2021 (based on the city's fiscal year ended June 30), the year most affected by the social and tourism restrictions implemented to contain the spread of the COVID-19 virus. However, based on positive year-to-date economic and tourist activity, job growth, and return-to-office trends, the city's sales tax forecast for fiscal 2022 shows more than 28% growth to \$8.4 billion (after statutory amounts are withheld for the distressed hospitals program [\$150 million annually] and the series 2022A bonds) -- surpassing the pre-pandemic high from fiscal 2019.

### Economic fundamentals: Very strong

We view the city's economic fundamentals supporting its sales tax base as very strong. Despite challenges caused by the pandemic, which could be classified as one of the most difficult times for its management team in recent history, New York City's significance as a global business and international tourist destination has helped it remain one of the largest economies in the world. In addition, the city's employment base typically accounts for about half of the jobs in New York State and over half of the gross state product, and the population across Bronx, Kings, Queens, Richmond,

and New York counties is larger than that of 39 U.S. states.

In 2020, the New York City metropolitan area's GDP remained the highest across the 10 largest metropolitan areas, at \$1.8 trillion. The city projects national GDP growth to decline to 3.3% in 2022 after rebounding to 5.7% in 2021. This modified forecast underscores the adopted fiscal 2023 budget and June 2022 financial plan, which takes a cautious approach to growth in order to reflect economic headwinds stemming from inflation, the likelihood of higher energy and gas prices, and equity markets uncertainty. This updated forecast is largely aligned with S&P Global Economics' baseline scenario updated in the report "Economic Outlook U.S. Q2 2022: Spring Chills," published March 29, 2022, which shows U.S. GDP for 2022 of 3.2% (revised down 0.7 percentage point).

In addition, a positive revision to job growth for calendar 2021 as well as solid tourist activity and hiring led to the city's modifying its pre-pandemic job recovery forecast to third-quarter 2024. Furthermore, technology and other service sector companies such as Facebook, Amazon, TikTok, and Google signing large leases in midtown Manhattan and Google's building purchase in the Manhattan West development indicate the city's success in diversifying its corporate tax base and bode well for ongoing employment growth consistent with the city's updated recovery forecast. Finally, the city's excellent universities, access to first-class health care providers, investments by venture capitalists in technology startups, and attractiveness as a leisure and business travel destination, support the city's economic rebound and resilient sales tax trends.

## Volatility: Low

We assess the volatility of revenue to determine the likelihood of the availability of revenue during different economic cycles. We have two levels of volatility assessment: macro and micro.

Our macro volatility assessment begins with an assessment of the historical volatility of the economic activity being taxed, and includes an analysis of societal, demographic, political, and other factors that could affect these activities. Based on the variance of national economic activity that we believe most closely represents the taxing base over multiple economic cycles, it is used to inform our opinion on expectations of future volatility.

The city's large and resilient sales tax base available for the statutory allocation supports our initial view of low volatility. Although the city's sales tax revenue has experienced modest volatility, we believe there is a low probability that there would be insufficient funds available annually to provide for the statutory allocation.

## **Obligor linkage: Remote**

The City of New York GO rating serves as an assessment of the city's overall creditworthiness and is a key determinant of the TBTA's ability to pay bonds secured by the statutory allocation. While the high investment-grade rating denotes little risk of the city falling into distress, in our view, the potential for lowering the city GO rating cannot be disregarded.

For more information on New York City, see our report published May 12, 2022.

## **Related Research**

Through The ESG Lens 3.0: The Intersection Of ESG Credit Factors And U.S. Public Finance Credit Factors, March 2,

### 2022

Certain terms used in this report, particularly certain adjectives used to express our view on rating relevant factors, have specific meanings ascribed to them in our criteria, and should therefore be read in conjunction with such criteria. Please see Ratings Criteria at www.standardandpoors.com for further information. Complete ratings information is available to subscribers of RatingsDirect at www.capitaliq.com. All ratings affected by this rating action can be found on S&P Global Ratings' public website at www.standardandpoors.com. Use the Ratings search box located in the left column.

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## RatingsDirect®

## Metropolitan Transportation Authority Inc., NY 2005D-2 Revenue Variable-Rate Bond Short-Term Rating Raised To 'A-1'

March 28, 2022

CHICAGO (S&P Global Ratings) March 28, 2022--S&P Global Ratings raised its short-term component of the rating on Metropolitan Transportation Authority Inc., N.Y.'s series 2005D-2 transport revenue variable-rate bonds to 'A-1' from 'A-2'.

S&P Global Ratings affirmed the 'AA-' long-term component of the rating.

The rating action follows S&P Global Ratings' raising of the ratings on Landesbank Hessen-Thueringen Girozentrale on March 22, 2022. (For more information, see the article, titled "S-Finanzgruppe Hessen-Thueringen Upgraded To 'A/A-1' On Group Support From Nationwide Savings Banks; Outlook Stable," published March 22, 2022, on RatingsDirect.)

The long-term component of the rating reflects the application of our joint criteria and assumes low correlation between the obligor, MTA, and our long-term issuer credit rating (ICR) on Landesbank Hessen-Thueringen Girozentrale; it also addresses our expectation of full and timely interest-and-principal payments when bondholders have not exercised the put option. The short-term component of our rating reflects the short-term ICR on Landesbank Hessen-Thueringen Girozentrale and addresses our expectation of full and timely interest-and-principal payments when bondholders have exercised the put option.

Changes to the ratings on these bonds could result from, among other things, changes to the ratings on the support providers, the correlation assumptions, the expiration or termination of support agreements, or the amendments to transaction terms.

Certain terms used in this report, particularly certain adjectives used to express our view on rating relevant factors, have specific meanings ascribed to them in our criteria, and should therefore be read in conjunction with such criteria. Please see Ratings Criteria at www.standardandpoors.com for further information. Complete ratings information is available to subscribers of RatingsDirect at www.capitaliq.com. All ratings affected by this rating action can be found on S&P Global Ratings' public website at www.standardandpoors.com. Use the Ratings search box located in the left column.

#### PRIMARY CREDIT ANALYST

#### John C Mante

Chicago + 1 (312) 233 7058 john.mante @spglobal.com

### SECONDARY CONTACT

James Ho New York + 1 (212) 438 1306 james.ho @spglobal.com

#### **RESEARCH CONTRIBUTOR**

Nalini Singh

CRISIL Global Analytical Center, an S&P affiliate, Mumbai

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## METROPOLITAN TRANSPORTATION AUTHORITY Transportation Revenue Variable Rate Bonds, Subseries 2005D-2

	Outstanding Principal			
Maturity	Amount	CUSIP <sup>1</sup>		
November 1, 2035	\$79,425,000	59259Y AE9		

## **MATERIAL EVENT NOTICE**

NOTICE IS HEREBY GIVEN pursuant to (i) Rule 15c2-12 of the Securities Exchange Act of 1934, as amended, and (ii) the Continuing Disclosure Agreement, dated as of November 2, 2005, by and between the Metropolitan Transportation Authority ("MTA") and The Bank of New York Mellon, as trustee (the "Trustee"), in connection with MTA's Transportation Revenue Variable Rate Bonds, Subseries 2005D-2, as more particularly identified above (the "Subseries 2005D-2 Bonds").

The payment of principal of and interest on, as well as the purchase price on any optional or mandatory purchase date, relating to the Subseries 2005D-2 Bonds is secured by an irrevocable direct-pay letter of credit (the "Credit Facility") issued by Landesbank Hessen-Thuringen Girozentrale ("Helaba"), acting through its New York Branch (the "Credit Facility Issuer").

MTA has been notified by S&P Global Ratings ("S&P") that, on July 20, 2022, the current enhanced long-term and short-term ratings on the Subseries 2005D-2 Bonds were withdrawn. Such withdrawal is a result of S&P's withdrawal of its "A/A-1" long-term and short-term ratings on Helaba, at the request of Helaba, on July 1, 2022. The Credit Facility is scheduled to expire on November 10, 2022.

The S&P underlying long-term rating on the Subseries 2005D-2 Bonds of "BBB+" is not affected by the withdrawal of the Helaba ratings described above.

DATED this 20<sup>th</sup> day of July, 2022.

## METROPOLITAN TRANSPORTATION AUTHORITY

<sup>&</sup>lt;sup>1</sup> No representation is made as to the accuracy of the CUSIP number either as printed on the Subseries 2005D-2 Bonds or as set forth herein.
Federal Agency	CFDA Number	MTA Agency	Fiscal Year 2021	Fiscal Year 2022	2022 Activity
	CFDA 20.316	Commuter	690,869,771	690,869,771	0
	Total CFDA - 20.316		690,869,771	690,869,771	0
	CFDA 20.319	Commuter	294,781,579	294,781,579	0
	Total CFDA - 20.319		294,781,579	294,781,579	0
	CFDA 20.326	Commuter	0	50,157	50,157
	Total CFDA - 20.326		0	50,157	50,157
	Total FRA Grants		986,148,577	986,607,215	458,638
FTA Grant Activity	CFDA 20.321	Transit	0	0	0
		Commuter	443,876	665,469	221,593
	Total CFDA 20.321		443,876	665,469	221,593
	CFDA 20.500	Transit	1,642,811,161	1,654,381,030	11,569,869
		Commuter	2,585,664,789	2,610,873,290	25,208,502
		MTA Bus	0	0	0
	Total CFDA 20.500		4,228,475,950	4,265,254,321	36,778,371

Federal Agency	CFDA Number	MTA Agency	Fiscal Year 2021	Fiscal Year 2022	2022 Activity
	CFDA 20.507	Transit	5,950,838,240	13,580,491,507	7,629,653,267
		Commuter	1,931,413,899	4,412,668,684	2,481,254,785
		MTA Bus	668,016,482	1,501,458,495	833,442,013
	Total CFDA 20.507		8,550,268,621	19,494,618,686	10,944,350,066
	CFDA 20.514	Commuter	0	0	0
		Transit	697,014	786,198	89,184
	Total CFDA 20.514		697,014	786,198	89,184
	CFDA 20.521	Commuter	1,522,505	1,548,663	26,157
	Total CFDA 20.521		1,522,505	1,548,663	26,157
	CFDA 20.525	Transit	1,484,236,003	1,908,828,122	424,592,119
		Commuter	764,366,459	906,183,826	141,817,367
	Total CFDA 20.525		2,248,602,462	2,815,011,948	566,409,485
	CFDA 20.526	Transit	26,431,353	41,704,828	15,273,475
		MTA Bus	1,853,320	46,386,448	44,533,128

Federal Agency	CFDA Number	MTA Agency	Fiscal Year 2021	Fiscal Year 2022	2022 Activity
	Total CFDA 20.526		28,284,673	88,091,275	59,806,602
	CFDA 20.527	Transit	2,857,025,404	3,138,893,081	281,867,677
		Commuter	555,171,726	582,554,655	27,382,929
		MTA Bus	9,832,406	9,872,271	39,865
	Total CFDA 20.527		3,422,029,536	3,731,320,007	309,290,471
	CFDA 20.530	Transit	0	806,694	806,694
		Commuter	0	0	0
	Total CFDA 20.530		0	806,694	806,694
	Total FTA Grants		18,480,324,637	30,398,103,262	11,917,778,625
Department of	CFDA 97.036	Transit	0	0	0
omeland Security/FEMA		Commuter	0	0	0
		MTA Bus	0	0	0
		ТВТА	0	2,169,057	2,169,057
		MTAHQ	0	0	0

Federal Agency	CFDA Number	MTA Agency	Fiscal Year 2021	Fiscal Year 2022	2022 Activity
		LI BUS	0	0	0
	Total CFDA 97.036	3	0	2,169,057	2,169,057
	CFDA 97.056	Transit	0	0	0
		Commuter	0	0	0
		ТВТА	61,194	464,508	403,313
		MTA Police	0	0	0
		MTA Bus	0	0	0
		MTAHQ	0	0	0
	Total CFDA 97.056	;	61,194	464,508	403,313
	CFDA 97.075	Transit	3,719,815	9,591,452	5,871,638
		Commuter	7,455,200	7,466,944	11,744
		ТВТА	0	0	0
		MTA Police	4,878,387	15,493,107	10,614,720
		MTA Bus	0	0	0

Federal Agency	CFDA Number	MTA Agency	Fiscal Year 2021	Fiscal Year 2022	2022 Activity
		MTAHQ	24,776,133	36,896,679	12,120,546
	Total CFDA 97.075		40,829,535	69,448,183	28,618,647
	Total DHS/FEMA Gra	ants	40,890,730	72,081,747	31,191,018
	TOTAL FEDERAL G	RANTS	19,507,363,944	31,456,792,224	11,949,428,280

CFDA Number	Program Description/Grant Title	Grant Number	Grant Agreement Date	 TRANSIT 2021 BALANCE	TRANSIT 2022 BALANCE	TRANSIT 2022 ACTIVITY	COMMUTER 2021 BALANCE	COMMUTER 2022 BALANCE	COMMUTER 2022 ACTIVITY	Federal Expenditures
	Federal Railroad Administration ("FRA") VIA NYSDOT									
20.319	Harold Interlocking - Northeast Corridor Congestion Relief Project	FRX935.93.371	08/22/11	\$ 0	0	0	294,781,579	294,781,579	0	0
	Subtotal 20.319			\$ 0	0	0	294,781,579	294,781,579	0	0

CFDA Number	Program Description/Grant Title	Grant Number	Grant Agreement Date	:	TRANSIT 2021 BALANCE	TRANSIT 2022 BALANCE		TRANSIT 2022 ACTIVITY	COMMUTER 2021 BALANCE	COMMUTER 2022 BALANCE	COMMUTER 2022 ACTIVITY	Federal Expenditures
	Federal Railroad Administration ("FRA")											
20.326	Federal-State Partnership For Intercity Passenger Rail	FR-FSP-0008-21	09/23/21	\$	0		0	0	0	50,157	50,157	50,157
	Subtotal 20.326			\$	0		0	0	0	50,157	50,157	50,157

CFDA Number	Program Description/Grant Title	Grant Number	Grant Agreement Date	TRANSIT 2021 BALANCE	TRANSIT 2022 BALANCE	TRANSIT 2022 ACTIVITY	COMMUTER 2021 BALANCE	COMMUTER 2022 BALANCE	COMMUTER 2022 ACTIVITY	Federal Expenditures
	Federal Railroad Administration ("FRA") VIA NYSDOT									
20.301	Railroad Safety Infrastructure Improvement Grant Program ("RSIIG")	FRA-D036246	01/01/19	\$0	0	0	497,227	905,708	408,481	408,481
	Subtotal 20.301		:	\$ 0	0	0	497,227	905,708	408,481	408,481

CFDA Number	Program Description/Grant Title	Grant Number	Grant Agreement Date	RANSIT 2021 ALANCE	TRANSIT 2022 BALANCE	TRANSIT 2022 ACTIVITY	COMMUTER 2021 BALANCE	COMMUTER 2022 BALANCE	COMMUTER 2022 ACTIVITY	Federal Expenditures
	Federal Railroad Administration ("FRA") VIA NYSDOT									
20.316	Positive Train Control Project	Z C-2015X RRIF	04/28/16	\$ 0	0	0	690,869,771	690,869,771	0	0
	Subtotal 20.316			\$ 0	0	0	690,869,771	690,869,771	0	0

CFDA Number	Program Description/Grant Title	Grant Number	Grant Agreement Date	TRANSIT 2021 BALANCE	TRANSIT 2022 BALANCE	TRANSIT 2022 ACTIVITY	COMMUTER 2021 BALANCE	COMMUTER 2022 BALANCE	COMMUTER 2022 ACTIVITY	Federal Expenditures
	MNR CRISI Program PTC Grant	NY-2019-049	08/20/19	0	0	0	443,876	665,469	221,593	221,593
	Subtotal 20.321		\$	0	0	0	443,876	665,469	221,593	221,593

CFDA Number	Program Description/Grant Title	Grant Number	Grant Agreement Date	TRANSIT 2021 BALANCE	TRANSIT 2022 BALANCE	TRANSIT 2022 ACTIVITY	COMMUTER 2021 BALANCE	COMMUTER 2022 BALANCE	COMMUTER 2022 ACTIVITY	MTA BUS CO 2021 BALANCE	MTA BUS CO 2022 BALANCE	MTA BUS CO 2022 ACTIVITY	Federal Expenditures
	MTA CCC East side Access (Cont'd)	NY-03-0344	08/01/07	\$0	0	0	2,436,703,701	2,436,703,701	0	0	0	0	0
	Second Avenue Subway Final Design	NY-03-0408	08/04/06	1,209,082,061	1,215,984,440	6,902,379	0	0	0	0	0	0	6,902,379
	MTA NYCT Bus Radio & Command Center	NY-04-0086	09/12/12	81,398,403	86,065,894	4,667,491	0	0	0	0	0	0	4,667,491
	MTA FY12 FGM LIRR/MNR/NYCT Projects	NY-05-0116	11/06/12	352,330,697	352,330,697	0	107,166,425	111,938,588	4,772,163	0	0	0	4,772,163
	ARP Act MTA FY21 ESA	NY-2021-037	08/23/21	0	0	0	41,794,662	62,231,001	20,436,339	0	0	0	20,436,339
	Subtotal 20.500		\$	1,642,811,161	1,654,381,030	11,569,869	2,585,664,789	2,610,873,290	25,208,502	0	0	0	36,778,371

American Recovery & Reinvestment Act 2009 Grant

CFDA Number	Program Description/Grant Title	Grant Number	Grant Agreement Date	TRANSIT 2021 BALANCE	TRANSIT 2022 BALANCE	2022 TRANSIT ACTIVITY	COMMUTER 2021 BALANCE	COMMUTER 2022 BALANCE	2022 COMMUTER ACTIVITY	MTA BUS CO 2021 BALANCE	MTA BUS CO 2022 BALANCE	2022 MTA BUS CO ACTIVITY	Federal Expenditures
	Federal Transit Administration ("FTA")												
20.507	Capital Assistance - Section 9 and 9A Formular Grants and Operating Assistance Grants:												
	MTA Bus Sec 5307 FFY06 and 07 / Security Projects	NY-90-X594	09/24/08	0	0	0	0	0	0	46,068,802	46,081,692	12,891	12,891
	MTA Bus §5307 FFY08 and FFY 09	NY-90-X620	09/01/10	0	0	0	0	0	0	54,916,397	54,972,856	56,458	56,458
	MTA FY10 §5307 LIRR/MNR/NYCT Projects	NY-90-X663	09/13/11	508,959,368	508,345,396	-613,972	90,878,040	90,878,040	0	0	0	0	-613,972
	MTA FY11 §5307 LIRR/MNR/NYCT Projects	NY-90-X674	07/10/12	491,967,797	491,967,797	0	96,574,953	96,574,953	0	0	0	0	0
	MTA Bus FY13 Formula	NY-90-X703	07/10/13	0	0	0	0	0	0	29,218,908	32,001,968	2,783,060	2,783,060
	MTA FY 12 5307 LIRR/MN/NYCT Projects	NY-90-X722	09/19/13	362,767,092	367,079,891	4,312,799	137,555,388	137,710,578	155,190	0	0	0	4,467,989
	MTA FY13 §5307 LIRR/MNR/NYCT Projects	NY-90-X727	07/31/14	384,377,103	385,932,067	1,554,963	167,516,214	170,187,457	2,671,243	0	0	0	4,226,206
	MTA Bus Radio Cmd Ctr (Cont'd)	NY-90-X738	09/19/14	0	0	0	0	0	0	25,701,159	26,288,360	587,201	587,201
	MTA FY14 §5307 LIRR/MNR/NYCT Projects	NY-90-X749	03/13/15	159,362,041	158,868,644	-493,397	148,156,787	158,170,632	10,013,845	0	0	0	9,520,447
	MTA FLEX FFY 2012	NY-95-X037	01/04/13	68,766,000	68,766,000	0	23,716,382	23,716,382	0	0	0	0	0
	MTA FLEX FFY 2013	NY-95-X042	11/01/13	33,023,461	33,950,000	926,539	37,335,646	37,335,646	0	0	0	0	926,539
	MTA Bus Sec 5307 10-14 Balance	NY-2016-025	08/24/16	0	0	0	0	0	0	24,578,514	26,244,307	1,665,793	1,665,793
	MTA Bus - Bus Radio System Funding	NY-2016-029	08/24/16	0	0	0	0	0	0	16,695,364	18,746,791	2,051,427	2,051,427
	MTA Bus - Section 5307 - 2016 Projects	NY-2016-046	07/30/18	0	0	0	0	0	0	84,161,694	90,282,160	6,120,466	6,120,466
	MTA NYCT and MNR (Sixth Capital Program) 5307	NY-2017-044	09/18/17	103,524,957	104,438,860	913,903	5,626,944	5,654,228	27,283	0	0	0	941,186
	MTA FY16-17 5307 NYCT/MNR/LIRR	NY-2017-047	09/18/17	123,314,022	129,497,238	6,183,216	108,570,679	122,132,533	13,561,854	0	0	0	19,745,070
	MTA Flex Second Avenue Subway, Phase 1	NY-2017-053	09/22/17	163,087,732	165,000,000	1,912,268	0	0	0	0	0	0	1,912,268
	MTA Flexible Funds FFY 2017	NY-2018-013	06/13/18	0	0	0	3,400,000	3,400,000	0	0	0	0	0
	MTA NYCT Section 5307 R211 Subway Car Procurement - Par	tia NY-2018-059	09/11/18	27,073,094	39,127,967	12,054,874	0	0	0	0	0	0	12,054,874
	MTA FY17 / FY18 § 5307 NYCT/MNR/LIRR	NY-2018-071	09/05/18	65,349,529	86,434,100	21,084,571	98,124,249	104,816,413	6,692,164	0	0	0	27,776,735
	MTA NYCT/MNR (Flex)	NY-2019-052	09/03/19	0	19,555,155	19,555,155	3,100,000	3,100,000	0	0	0	0	19,555,155
	MTA MNR Croton Falls Parking - CMAQ	NY-2019-055	08/26/19	0	0	0	4,036,879	4,929,080	892,201	0	0	0	892,201
	MTA Bus Section 5307- 2017/2018	NY-2019-057	08/23/19	0	0	0	0	0	0	6,987,818	14,780,055	7,792,237	7,792,237
	MTA Bus Section 5307 - 2018	NY-2019-058	08/22/19	0	0	0	0	0	0	236,560	611,102	374,542	374,542
	MTA FY18 / FY19 § 5307 NYCT/MNR/LIRR	NY-2019-067	09/11/19	136,171,134	154,337,480	18,166,346	25,723,640	28,337,318	2,613,678	0	0	0	20,780,024
	MTA Section 5307 CARES ACT Operating	NY-2020-011	06/25/20	2,853,857,008	2,853,846,867	-10,141	820,128,229	820,128,229	0	335,484,180	335,484,180	0	-10,141
	MTA FY19 / FY20 § 5307 NYCT/MNR/LIRR	NY-2020-069	09/02/20	13,573,313	18,216,959	4,643,647	12,301,429	34,101,908	21,800,479	0	0	0	26,444,125
	MTA FY 2020 Flex	NY-2020-073	09/02/20	27,432,973	105,504,644	78,071,672	0	399,973	399,973	0	0	0	78,471,645
	MTA FY20 Section 5307 NYCT/MNR/LIRR - Stations/ADA	NY-2020-074	07/02/21	0	10,282,764	10,282,764	0	0	0	0	0	0	10,282,764
	MTA FY19 / FY20 § 5307 NYCT/LIRR	NY-2020-077	08/26/20	525,307	15,630,466	15,105,159	12,676,745	34,865,566	22,188,821	0	0	0	37,293,980
	MTA FY21 Section 5307 NYCT/MNR/LIRR	NY-2021-018	06/15/21	35,217	25,067,262	25,032,045	12,886,110	38,445,103	25,558,993	0	0	0	50,591,038
	MTA Bus Section 5307 - 2021 - 110 Standard Bus Buy Remain	in! NY-2021-038	08/12/21	0	0	0	0	0	0	0	1,441	1,441	1,441
	MTA FY21 Section 5307 NYCT - Stations	NY-2021-041	08/18/21	0	24,593,985	24,593,985	0	0	0	0	0	0	24,593,985

CFDA Number	Program Description/Grant Title	Grant Number	Grant Agreement Date	TRANSIT 2021 BALANCE	TRANSIT 2022 BALANCE	2022 TRANSIT ACTIVITY	COMMUTER 2021 BALANCE	COMMUTER 2022 BALANCE	2022 COMMUTER ACTIVITY	MTA BUS CO 2021 BALANCE	MTA BUS CO 2022 BALANCE	2022 MTA BUS CO ACTIVITY	Federal Expenditures
	MTA FY21 Section 5307 NYCT/MNR/LIRR - Stations/ADA	NY-2021-043	08/18/21	0	25,673,866	25,673,866	0	0	0	0	0	0	25,673,866
	MTA FY21 § 5307 NYCT/MNR/LIRR 2	NY-2021-045	08/18/21	0	24,526,612	24,526,612	252,563	3,198,059	2,945,495	0	0	0	27,472,107
	MTA FY 2021 CMAQ (Flex 2)	NY-2021-054	09/03/21	0	8,266,664	8,266,664	0	0	0	0	0	0	8,266,664
	MTA FY 2021 Flex	NY-2021-055	09/03/21	0	7,573,005	7,573,005	0	0	0	0	0	0	7,573,005
	MTA FY21 Section 5307 NYCT/MNR/LIRR	NY-2021-056	09/03/21	0	15,636,299	15,636,299	122,947	1,330,524	1,207,577	0	0	0	16,843,876
	MTA Section 5307 CRRSAA Operating Assistance	NY-2022-001	12/08/21	427,671,093	2,826,551,026	2,398,879,933	122,730,075	979,560,743	856,830,668	43,967,087	308,539,607	264,572,520	3,520,283,121
	MTA Section 5307 ARP Operating Assistance	NY-2022-002	01/04/22	0	4,353,584,862	4,353,584,862	0	1,357,464,322	1,357,464,322	0	485,198,250	485,198,250	6,196,247,434
	MTA 5307 ARP Additional Assistance Discretionary (90) Opera	ti NY-2022-042	09/09/22	0	552,235,631	552,235,631	0	154,735,907	154,735,907	0	62,225,726	62,225,726	769,197,264
	MTA FY21 § 5307 NYCT/MNR/LIRR	NY-2022-048	09/14/22	0	0	0	0	472,628	472,628	0	0	0	472,628
	MTA FY22 § 5307 NYCT/LIRR/MNR	NY-2022-065	09/16/22	0	0	0	0	1,022,464	1,022,464	0	0	0	1,022,464
	Subtotal 20.507			5,950,838,240	13,580,491,507	7,629,653,267	1,931,413,899	4,412,668,684	2,481,254,785	668,016,482	1,501,458,495	833,442,013	10,944,350,066

\* American Recovery & Reinvestment Act 2009 Grant

			Grant	TRANSIT	TRANSIT	TRANSIT	COMMUTER	COMMUTER	COMMUTER	
CFDA		Grant	Agreement	2021	2022	2022	2021	2022	2022	Federal
Number	Program Description/Grant Title	Number	Date	BALANCE	BALANCE	ACTIVITY	BALANCE	BALANCE	ACTIVITY	Expenditures

## Federal Transit Administration ("FTA")

20.514 Public Transportation Research

MTA NYCT Bus Mirror Configuration Safety Research and Demonstration (SRD) Program	NY-2017-050	09/18/17	697,014	786,198	89,184	0	0	0	89,184
Subtotal 20.514		\$	697,014	786,198	89,184	0	0	0	89,184

CFDA Number	Program Description/Grant Title	Grant Number	Grant Agreement Date	TRANSIT 2021 BALANCE	TRANSIT 2022 BALANCE	TRANSIT 2022 ACTIVITY	COMMUTER 2021 BALANCE	COMMUTER 2022 BALANCE	COMMUTER 2022 ACTIVITY	Federal Expenditures
	Federal Transit Administration ("FTA	<b>\"</b> )								
20.516	Job Access reverse Commuter	NY-37-X068	09/24/09 \$	0	0	0	2,000,000	2,000,000	0	0
		NY-37-X085		5,948,062	5,948,062	0	0	0	0	0
	MN JARC NH Line Larch/Mamar	NY-37-X082	09/28/10	0	0	0	8,390,000	8,390,000	0	0
	Subtotal 20.516		\$	5,948,062	5,948,062	0	10,390,000	10,390,000	0	0

CFDA Number	Program Description/Grant Title	Grant Number	Grant Agreement Date	TRANSIT 2021 BALANCE	TRANSIT 2022 BALANCE	TRANSIT 2022 ACTIVITY	COMMUTER 2021 BALANCE	COMMUTER 2022 BALANCE	COMMUTER 2022 ACTIVITY	Federal Expenditures
	Federal Transit Administration ("FTA")									
20.521	ESA CONCOURSE GCT ELEVATORS	NY-57-X018	09/20/10	0	0	0	1,522,505	1,548,663	26,157	26,157
	Subtotal 20.521		\$	0	0	0	1,522,505	1,548,663	26,157	26,157

CFDA Number	Program Description/Grant Title	Grant Number	Grant Agreement Date	TRANSIT 2021 BALANCE	TRANSIT 2022 BALANCE	TRANSIT 2022 ACTIVITY	COMMUTER 2021 BALANCE	COMMUTER 2022 BALANCE	COMMUTER 2022 ACTIVITY	MTA BUS CO 2021 BALANCE	MTA BUS CO 2022 BALANCE	MTA BUS CO 2022 ACTIVITY	Federal Expenditures
	Federal Transit Administration ("FTA")												
20.525	MTA FY13 SGR LIRR/MNR/NYCT §5337	NY-54-0001	05/07/14	360,623,764	361,858,091	1,234,327	93,040,015	93,040,015	0	0	0	0	1,234,327
	MTA FY14 SGR LIRR/MNR/NYCT §5337	NY-54-0004	03/03/15	345,880,740	345,293,001	-587,739	73,737,514	77,267,487	3,529,973	0	0	0	2,942,235
	MTA FY16-17 SGR LIRR/MNR/NYCT §5337	NY-2017-043	09/12/17	107,454,936	107,454,936	0	136,000,185	141,802,833	5,802,648	0	0	0	5,802,648
	MTA FY15 SGR LIRR/MNR/NYCT §5337	NY-2017-046	08/24/15	103,702,202	108,900,000	5,197,798	0	0	0	0	0	0	5,197,798
	MTA NYCT Section 5337 R211 Subway Ca	r NY-2018-060	09/11/18	151,429,385	199,713,681	48,284,296	0	0	0	0	0	0	48,284,296
	MTA FY17/FY18 § 5337 NYCT/MNR/LIRR	NY-2018-072	09/20/18	154,094,502	162,888,528	8,794,026	79,694,178	81,229,443	1,535,265	0	0	0	10,329,291
	MTA § 5337 NYCT ADA and Reconstructio	on NY-2019-014	07/24/19	159,792,911	188,549,738	28,756,827	0	0	0	0	0	0	28,756,827
	MNR - Locomotive Purchase	NY-2019-047	08/26/19	0	0	0	78,499,326	99,900,554	21,401,228	0	0	0	21,401,228
	MTA FY18/FY19 § 5337 NYCT/LIRR	NY-2019-050	08/27/19	75,176,180	123,486,752	48,310,572	70,100,964	70,171,790	70,827	0	0	0	48,381,398
	MTA FY18 / FY19 § 5337 NYCT/MNR/LIRR	II NY-2019-065	09/23/19	24,437,549	81,530,727	57,093,178	42,516,190	46,752,508	4,236,318	0	0	0	61,329,496
	MTA FY20 § 5337 NYCT/MNR/LIRR	NY-2020-083	08/26/20	1,573,784	18,141,289	16,567,505	142,809,684	173,867,893	31,058,210	0	0	0	47,625,714
	MTA FY21 § 5337 NYCT/MNR/LIRR	NY-2021-016	06/21/21	0	35,918,208	35,918,208	47,426,305	62,491,377	15,065,072	0	0	0	50,983,279
	MTA FY21 § 5337 NYCT/MNR/LIRR 2	NY-2021-042	08/18/21	0	0	0	492,782	2,419,575	1,926,793	0	0	0	1,926,793
	MTA FY21 Section 5337 NYCT/LIRR - Stati	o NY-2021-046	08/18/21	70,052	10,987,835	10,917,782	49,317	132,807	83,490	0	0	0	11,001,272
	MTA FY21 § 5337 NYCT/LIRR 2	NY-2022-012	07/07/22	0	0	0	0	585,100	585,100	0	0	0	585,100
	MTA FY22 § 5337 NYCT - Rolling Stock R2	21NY-2022-014	08/02/22	0	164,105,339	164,105,339	0	0	0	0	0	0	164,105,339
	MTA FY22 § 5337 LIRR	NY-2022-045	09/14/22	0	0	0	0	56,522,443	56,522,443	0	0	0	56,522,443
	Subtotal 20.525			1,484,236,003	1,908,828,122	424,592,119	764,366,459	906,183,826	141,817,367	0	0	0	566,409,485

CFDA Number	Program Description/Grant Title	Grant Number	Grant Agreement Date	TRANSIT 2021 BALANCE	TRANSIT 2022 BALANCE	2022 TRANSIT ACTIVITY	COMMUTER 2021 BALANCE	COMMUTER 2022 BALANCE	2022 COMMUTER ACTIVITY	MTA BUS CO 2021 BALANCE	MTA BUS CO 2022 BALANCE	2022 MTA BUS CO ACTIVITY	Federal Expenditures
	Federal Transit Administration ("FTA")												
20.526	MTA BUS Sec.5339	NY-2016-040	09/16/16	0	0	0	0	0	0	1,853,320	3,632,504	1,779,184	1,779,184
	MTA NYCT Section 5339 - Two Projects	NY-2016-042	09/20/16	14,276,214	25,077,757	10,801,543	0	0	0	0	0	0	10,801,543
	MTA NYCT Sec. 5339 Bus Radio and Bus Command Center	NY-2017-045	09/14/18	12,155,140	15,949,082	3,793,943	0	0	0	0	0	0	3,793,943
	MTA BUS Sec.5339	NY-2019-056	09/24/19	0	0	0	0	0	0	0	42,753,944	42,753,944	42,753,944
	MTA NYCT Sec.5339	NY-2021-036	08/10/21	0	677,988	677,988	0	0	0	0	0	0	677,988
	Subtotal 20.526			26,431,353	41,704,828	15,273,475	0	0	0	1,853,320	46,386,448	44,533,128	59,806,602

CFDA Number	Program Description/Grant Title	Grant Number	Grant Agreement Date	TRANSIT 2021 BALANCE	TRANSIT 2022 BALANCE	TRANSIT 2022 ACTIVITY	COMMUTER 2021 BALANCE	COMMUTER 2022 BALANCE	COMMUTER 2022 ACTIVITY	MTA BUS 2021 BALANCE	MTA BUS 2022 BALANCE	MTA BUS 2022 ACTIVITY	Federal Expenditures
	Federal Transit Administration ("FTA")												
20.527	NY MTA Hurricane Sandy Relief 5324	NY-44-X007	01/28/14	536,416,131	537,303,622	887,490	245,418,697	253,994,015	8,575,319	0	0	0	9,462,809
	NY MTA Hurricane Sandy Relief 5324	NY-44-X008	09/23/14	457,070,024	460,074,989	3,004,964	148,069,692	154,885,768	6,816,076	0	0	0	9,821,040
	NY MTA Hurricane Sandy Relief 5324	NY-44-X011	05/11/15	280,967,655	280,967,655	0	0	0	0	0	0	0	0
	NY MTA Hurricane Sandy Relief 5324	NY-44-X012	02/12/15	593,283,003	630,615,802	37,332,799	52,555,542	56,978,222	4,422,680	9,832,406	9,872,271	39,865	41,795,345
	MNR Power&Signals Resiliency Improvement	NY-44-X015	08/18/15	0	0	0	18,411,549	20,487,304	2,075,756	0	0	0	2,075,756
	Emergency Communications Enhancements	NY-44-X016	09/02/15	33,575,697	42,711,820	9,136,123	0	0	0	0	0	0	9,136,123
	Internal Station Hardening NYCT	NY-44-X017	09/02/15	3,482,884	3,482,884	0	0	0	0	0	0	0	0
	MTA NYCT CR Protection of Street Level Openin	nç NY-2017-032	08/22/17	112,456,339	120,021,588	7,565,250	0	0	0	0	0	0	7,565,250
	MTA NYCT CR Sec. 5324 Emergency Communic	a NY-2017-033	08/24/17	0	0	0	4,080,257	4,080,257	0	0	0	0	0
	MTA LIRR Flood Resiliency for Long Island City	YNY-2017-034	08/24/17	0	0	0	371,040	3,321,426	2,950,386	0	0	0	2,950,386
	NY MTA Hurricane Sandy Relief 5324	NY-2017-052	08/31/17	546,473,854	672,172,959	125,699,105	83,251,534	84,921,834	1,670,299	0	0	0	127,369,404
	MTA MNR CR Power and Signals Resiliency Imp	or NY-2018-016	06/13/18	0	0	0	911,391	911,391	0	0	0	0	0
	MTA NYCT CR Sec. 5324 Internal Station Harder	ni NY-2018-017	06/20/18	12,303,682	12,446,195	142,513	0	0	0	0	0	0	142,513
	MTA NYCT CR Sec. 5324 Pumping Capacity Imp	or: NY-2018-019	07/13/18	3,376,172	8,248,258	4,872,086	0	0	0	0	0	0	4,872,086
	MTA NYCT Rockaway Line Protection CR - (Part	t 1NY-2018-025	07/17/18	17,413,196	17,506,687	93,491	0	0	0	0	0	0	93,491
	MTA NYCT CR Sec. 5324 Protection of Tunnel P	o NY-2018-028	07/17/18	14,552,501	14,982,442	429,941	0	0	0	0	0	0	429,941
	MTA NYCT CR Sec. 5324 Right-of-Way (ROW) E	q: NY-2018-038	08/10/18	10,349,611	10,584,924	235,312	0	0	0	0	0	0	235,312
	MTA LIRR CR Sec. 5324 New York-New Jersey F	Ri NY-2018-039	09/05/18	0	0	0	1,894,741	2,022,527	127,786	0	0	0	127,786
	MTA NYCT CR Sec. 5324 Flood Mitigation in Yar	rd NY-2018-052	08/17/18	151,870,416	224,791,301	72,920,885	0	0	0	0	0	0	72,920,885
	MTA NYCT CR Sec. 5324 Flood Resiliency for C	ri NY-2019-020	07/23/19	18,313,164	19,316,295	1,003,131	0	0	0	0	0	0	1,003,131
	MTA NYCT CR Sec. 5324 Flood Resiliency for C	ri NY-2019-028	07/29/19	5,579,009	11,617,502	6,038,494	0	0	0	0	0	0	6,038,494
	MTA NYCT CR Sec. 5324 Hardening of Substation	or NY-2019-044	08/14/19	1,075,344	1,659,606	584,262	0	0	0	0	0	0	584,262
	MTA FY2020 MTA Bus 5339	NY-2019-066	08/19/20	58,466,721	70,388,552	11,921,831	207,283	951,910	744,628	0	0	0	12,666,458
	Subtotal 20.527		•	2,857,025,404	3,138,893,081	281,867,677	555,171,726	582,554,655	27,382,929	9,832,406	9,872,271	39,865	309,290,471

CFDA Number	Program Description/Grant Title	Grant Number	Grant Agreement Date	TRANSIT 2021 BALANCE	TRANSIT 2022 BALANCE	TRANSIT 2022 ACTIVITY	COMMUTER 2021 BALANCE	COMMUTER 2022 BALANCE	COMMUTER 2022 ACTIVITY	Federal Expenditures
	Federal Transit Administration ("FTA")									
20.530	Public Transportation Research									
	FY20 SRD - Designed for Impact - Safety & Collision Fatality Reduction	NY-2021-009	08/25/21	0	676,694	676,694	0	0	0	676,694
	MTA FFY 21 Section 5312 Transit's Path Forward in a Pandemic	NY-2021-014	06/25/21	0	130,000	130,000	0	0	0	130,000
	Subtotal 20.530		\$	0	806,694	806,694	0	0	0	806,694

CFDA Number	Program Description/Grant Title	Grant Number	Grant Agreement Date	TRANSIT 2021 BALANCE	TRANSIT 2022 BALANCE	TRANSIT 2022 ACTIVITY	COMMUTER 2021 BALANCE	COMMUTER 2022 BALANCE	COMMUTER 2022 ACTIVITY	TBTA 2021 BALANCE	TBTA 2022 BALANCE	TBTA 2022 ACTIVITY	MTA BUS 2021 BALANCE	MTA BUS 2022 BALANCE	MTA BUS 2022 ACTIVITY	MTA HQ 2021 BALANCE	MTA HQ 2022 BALANCE	MTA HQ 2022 ACTIVITY	LI BUS 2021 BALANCE	LI BUS 2022 BALANCE	LI BUS 2022 ACTIVITY	Federal Expenditur	
	TMENT OF HOMELAND SECURITY/ ERGENCY MANAGEMENT																						
97.036	FEMA REIMBURSEMENT - NEMO	DR4111	6/28/2013	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(	1	0
	FEMA REIMBURSEMENT - March 12, 2010 Storm (2010 & 2011)	DR1899	6/23/2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(	1	0
	FEMA REIMBURSEMENT - September 16, 2010 Storm (2011)	DR1943	12/13/2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(	1	0
	FEMA REIMBURSEMENT - April 2007 Storms - MNR (2007 & 2010)	DR1692	5/21/2007	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(	I.	0
	FEMA REIMBURSEMENT - December 2010 Storm (2011)	DR1957	4/5/2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(	)	0
	FEMA REIMBURSEMENT - IRENE 2015	DR3328/4020	11/29/2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(	1	0
	FEMA REIMBURSEMENT - SANDY 2015 (CAPITAL)	4085DRNY	1/20/2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(	1	0
	FEMA REIMBURSEMENT - SANDY 2015 (CAPITAL) - MARINE PKWY	4085DRNYM	1/23/2014	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(	1	0
	FEMA REIMBURSEMENT - SANDY 2015 (CAPITAL) - VERRAZANO E	4085DRNYV	4/25/2013	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(	1	0
	FEMA REIMBURSEMENT - SANDY 2015 (CAPITAL) - CROSS BAY B	4085DRNYC	2/24/2017	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(	1	0
	FEMA REIMBURSEMENT - SANDY 2015 (OPERATING)	DR4085	11/23/2012	0	0	0	0	0	0	0	2,169,057	2,169,057	0	0	0	0	0	0	0	0	(	2,169,05	157
	Subtotal 97.036			0	0	0	0	0	0	0	2,169,057	2,169,057	0	0	0	0	0	0	0	0		2,169,05	57

CFDA Number 97.075	Program Description/Grant Title U.S. Department of Homeland Security	Grant Number	Grant Agreement Date	TRANSIT 2021 BALANCE	TRANSIT 2022 BALANCE	TRANSIT 2022 ACTIVITY	COMMUTER 2021 BALANCE	COMMUTER 2022 BALANCE	COMMUTER 2022 ACTIVITY	MTA POLICE 2021 BALANCE	MTA POLICE 2022 BALANCE	MTA POLICE 2022 ACTIVITY	
	Port Security Grant	FE2019-PU-00158	09/01/19	0	0	0	0	0	0	0	0	0	
				0	0	0	0	0	0	0	0	0	
				TBTA 2021 BALANCE	TBTA 2022 BALANCE	TBTA 2022 ACTIVITY	MTA Bus Co. 2021 BALANCE	MTA Bus Co. 2022 BALANCE	MTA Bus Co. 2022 ACTIVITY	MTAHQ 2021 BALANCE	MTAHQ 2022 BALANCE	MTAHQ 2022 ACTIVITY	Federal Expenditures
	Port Security Grant	FE2019-PU-00158	09/01/19	61,194	464,508	403,313	0	0	0	0	0	0	403,313
	Subtotal 97.056		•	61,194	464,508	403,313	0	0	0	0	0	0	403,313

CFDA Number	Program Description/Grant Title	Grant Number	Grant Agreement Date	TRANSIT 2021 BALANCE	TRANSIT 2022 BALANCE	TRANSIT 2022 ACTIVITY	COMMUTER 2021 BALANCE	COMMUTER 2022 BALANCE	COMMUTER 2022 ACTIVITY	MTA POLICE 2021 BALANCE	MTA POLICE 2022 BALANCE	MTA POLICE 2022 ACTIVITY	
97.075	U.S. Department of Homeland Securit	ty											
	Rail and Transit Security Grant	FE2017-RA-00024	09/01/17	682,205	682,205	0	6,292,592	6,292,592	0	4,808,287	4,808,287	0	
	Rail and Transit Security Grant	FE2018-RA-00017	09/14/18	880,255	880,255	0	1,162,609	1,174,352	11,744	0	5,606,589	5,606,589	
	Rail and Transit Security Grant	FE2019-RA-00004	09/01/19	1,849,830	3,935,814	2,085,984	0	0	0	70,100	5,070,100	5,000,000	
	Rail and Transit Security Grant	FE2020-RA-00005	12/11/20	307,525	4,093,178	3,785,654	0	0	0	0	8,131	8,131	
				3,719,815	9,591,452	5,871,638	7,455,200	7,466,944	11,744	4,878,387	15,493,107	10,614,720	
				TBTA 2021 BALANCE	TBTA 2022 BALANCE	TBTA 2022 ACTIVITY	MTA Bus Co. 2021 BALANCE	MTA Bus Co. 2022 BALANCE	MTA Bus Co. 2022 ACTIVITY	MTAHQ 2021 BALANCE	MTAHQ 2022 BALANCE	MTAHQ 2022 ACTIVITY	Federal Expenditures
	Rail and Transit Security Grant	FE2017-RA-00024	09/01/17	0	0	0	0	0	0	9,201,448	9,201,448	0	0
	Rail and Transit Security Grant	FE2018-RA-00017	09/14/18	0	0	0	0	0	0	13,971,560	19,124,928	5,153,368	10,771,700
	Rail and Transit Security Grant	FE2019-RA-00004	09/01/19	0	0	0	0	0	0	1,603,125	4,901,420	3,298,295	10,384,279
	Rail and Transit Security Grant	FE2020-RA-00005	12/11/20	0	0	0	0	0	0	0	3,668,883	3,668,883	7,462,668
	Subtotal 97.075			0	0	0	0	0	0	24,776,133	36,896,679	12,120,546	28,618,647