

Fannie Mae GeMSTM Guaranteed REMIC

Fannie Mae Multifamily REMIC Trust 2017-M7

Structural and Collateral Term Sheet

\$985,330,959

(Approximate Offered Certificates)

Fannie Mae Pass-Through Certificates Series 2017-M7, Class A1 and A2 Certificates

June 7, 2017

Morgan Stanley

Lead Manager & Sole Bookrunner

Goldman Sachs

Co-Manager

J.P. Morgan

Co-Manager

Mischler Financial Group

Co-Manager

Fannie Mae GeMSTM

This information was prepared by Morgan Stanley sales, trading, banking or other non-research personnel. This is not a research report and the views or information contained herein should not be viewed as independent of the interest of Morgan Stanley trading desks. Such interest may conflict with your interests and recipients should be mindful of such potential conflicts of interest when reviewing this information. The views of the trading desk may differ from those of the Research Department or others at Morgan Stanley. Morgan Stanley may deal as principal in or own or act as market maker or liquidity provider for the securities/instruments (or related derivatives) mentioned herein. The trading desks may engage in a variety of trading activities (which may conflict with the position an investor may have) before or after providing this information, including accumulation of a position in the subject securities/instruments based on the information contained herein or otherwise. Morgan Stanley may also perform or seek to perform investment banking services for the issuers of the securities and instruments mentioned herein. Morgan Stanley is not a municipal advisor and the opinions or views contained herein are not intended to be, and do not constitute, advice, including within the meaning of Section 975 of the Dodd-Frank Wall Street Reform and Consumer Protection Act. Please see additional important information and qualifications at the end of this material.

IMPORTANT NOTICE REGARDING THE CONDITIONS FOR THIS OFFERING OF ASSET-BACKED SECURITIES

The asset-backed securities referred to in these materials are being offered when, as and if issued. In particular, you are advised that asset-backed securities, and the asset pools backing them, are subject to modification or revision (including, among other things, the possibility that one or more classes of securities may be split, combined or eliminated), at any time prior to issuance or availability of a final prospectus. As a result, you may commit to purchase securities that have characteristics that may change, and you are advised that all or a portion of the securities may not be issued that have the characteristics described in these materials. Our obligation to sell securities to you is conditioned on the securities and the underlying transaction having the characteristics described in these materials. If we determine that condition is not satisfied in any material respect, we will notify you, and neither the issuing entity nor the underwriter will have any obligation to you to deliver all or any portion of the securities which you have committed to purchase, and there will be no liability between us as a consequence of the non-delivery.

The information contained in the attached materials (the "Information") has been provided to Morgan Stanley & Co. LLC ("Morgan Stanley") by the Federal National Mortgage Association ("FNMA") and is preliminary and subject to change. The Information does not include all of the information required to be included in the prospectus supplement relating to the securities. As such, the Information may not reflect the impact of all structural characteristics of the securities. The assumptions underlying the Information, including structure and collateral, may be modified from time to time to reflect changed circumstances. Prospective purchasers are recommended to review the final prospectus supplement and the related base prospectus relating to the securities ("Offering Documents") discussed in this communication. Offering Documents contain data that is current as of their publication dates and after publication may no longer be complete or current. Final Offering Documents may be obtained from FNMA by calling toll free 1-800-237-8627 or Morgan Stanley by calling toll-free 1-866-718-1649.

IMPORTANT NOTICE RELATING TO AUTOMATICALLY GENERATED EMAIL DISCLAIMERS

Any legends, disclaimers or other notices that may appear at the bottom of this e-mail or at the bottom of the e-mail communication to which this material may have been attached are not applicable to these materials and should be disregarded. Such legends, disclaimers or other notices have been automatically generated as a result of these materials having been sent via Bloomberg or another email system.

Table of Contents

Table of Contents

Contact Information	4
Certificate Structure	5
Issue Characteristics – Group 1	6
Structural Overview – Group 1	7
Collateral Overview – Group 1	8
Top 10 Mortgage Pools	g
Top 10 Mortgage Pools	10
Collateral Statistics – Group 1 (Continued) ⁽¹⁾	11

Contact Information

Morgan Stanley

CMBS Syndicate / Structuring	Telephone	Email
Nishant Kapur	(212) 761-1483	nishant.kapur@morganstanley.com
Tony Giacin	(212) 761-2912	tony.giacin@morganstanley.com
Newland Baldwin	(212) 761-7265	newland.baldwin@morganstanley.com
Brandon Atkins	(212) 761-4846	brandon.atkins@morganstanley.com
CMBS Trading	Telephone	Email
John McGrath	(212) 761-9680	john.mcgrath1@morganstanley.com
Nicole Pan	(212) 761-7537	nicole.pan@morganstanley.com
Goldman Sachs		
CMBS Syndicate/Trading	Telephone	Email
Scott Walter	(212) 357-8910	scott.walter@gs.com
Alex Smith-Constantine	(212) 902-1070	alex.smith-constantine@gs.com
Joseph Russell	(212) 902-8330	joseph.russell@gs.com
J.P. Morgan		
CMBS Syndicate/Trading	Telephone	Email
Mark Hansen	(212) 834-2296	mark.hansen@jpmorgan.com
Yahli Becker	(212) 834-2296	yahli.h.becker@jpmorgan.com
Kenneth Griggs	(212) 834-2296	kenneth.p.griggs@jpmorgan.com
Allison Cogan	(212) 834-2296	allison.s.cogan@jpmorgan.com
Mischler Financial Group		
Mischler Financial Group CMBS Syndicate and Banking	Telephone	Email
-	Telephone (203) 276-6646	Email rkarr@mischlerfinancial.com
CMBS Syndicate and Banking		

This material was not prepared by the Morgan Stanley research department. Please refer to important information and qualifications at the end of this material.

Certificate Structure

Certificate Structure

Group	Class	Approximate Initial Certificate Balance ⁽¹⁾	% of Initial Group Certificate Balance ⁽²⁾	Expected Weighted Average Life (Years) ⁽³⁾	Expected Principal Window (Months) ⁽⁴⁾	Coupon Type	Pricing Speed
1	A1	\$120,800,000	12.26%	5.80	1 – 114	Fixed	0 CPY
1	A2	\$864,530,959	87.74%	9.58	114-116	Fixed/AFC	0 CPY
1	X ⁽⁵⁾⁽⁶⁾	\$985,330,959	n/a	n/a	n/a	WAC IO	100 CPY

⁽¹⁾ The certificate balances are approximate and on the settlement date may vary by up to 5%. Underlying pools may be removed from or added to the mortgage pool prior to the settlement date within the same maximum permitted variance. Any reduction or increase in the aggregate principal balance of underlying pools within these parameters will result in changes to the initial certificate balance of each class of certificates and to the other statistical data.

⁽²⁾ Approximate as of the settlement date.

⁽³⁾ Calculated at 0 CPY.

⁽⁴⁾ The expected principal window is expressed in months following the settlement date and reflects the period during which distributions of principal would be received at the Pricing Speed.

⁽⁵⁾ The Class X will not be offered.

⁽⁶⁾ The Class X notional amount is equal to the aggregate certificate balances of Classes A1 and A2.

Issue Characteristics

Issue Characteristics - Group 1

Securities: \$985,330,959 (approximate) monthly pay, fixed-rate and variable-rate, multi-class,

commercial mortgage REMIC Pass-Through Certificates (Classes A1, A2 and X).

Lead Manager & Sole Bookrunner: Morgan Stanley & Co. LLC

Co- Managers: Goldman Sachs, J.P. Morgan and Mischler Financial Group

Issuer: Federal National Mortgage Association ("Fannie Mae")

Issuing Entity: Fannie Mae Multifamily REMIC Trust 2017-M7, a trust formed by Fannie Mae

Trustee: Fannie Mae

Cut-Off Date: On or about June 1, 2017

Expected Pricing Date: Week of June 5, 2017

Expected Settle Date: June 30, 2017

Distribution Dates: The 25th calendar day of the month, or if such day is not a business day, the

following business day, July 2017.

Accrual: Each class will accrue interest on a 30/360 basis during the preceding calendar

month.

ERISA: It is expected that all Offered Certificates will be ERISA eligible.

Tax Treatment: Single REMIC Series

Form of Offering: The certificates are exempt from registration under the Securities Act of 1933 and

are "exempted securities" under the Securities Exchange Act of 1934.

Offered Certificates: The Class A1 and Class A2 Certificates.

Optional Termination: None

Minimum Denominations: \$100,000 for the Class X and \$1,000 for Classes A1 and A2, \$1 in excess thereof.

Settlement Terms: Book-Entry except for Class R

Analytics: Cash flows are expected to be available through Bloomberg, L.P., Intex Solutions,

Inc and Trepp LLC

Bloomberg Ticker: FNA 2017-M7 <MTGE><GO>

Risk Factors: THE CERTIFICATES INVOLVE CERTAIN RISKS AND MAY NOT BE SUITABLE

FOR ALL INVESTORS. SEE THE "RISK FACTORS" SECTION OF FANNIE MAE'S

MULTIFAMILY REMIC PROSPECTUS.

Structural Overview - Group 1

Amount of Distributions:

On each Distribution Date, certificateholders will be entitled to receive interest and any principal required to be paid on their certificates on such Distribution Date, distributed from funds available for distribution from the related underlying Group 1 Collateral Pool.

Distribution of Principal:

The Group 1 Principal Distribution Amount for any Distribution Date will be allocated as follows:

 Scheduled and unscheduled principal payments included in the principal distribution for each Group 1 MBS, on an aggregate basis, sequentially to the A1 and A2 Classes, in that order, until retired.

Distribution of Prepayment Premiums:

Any Group 1 prepayment premiums that are included in the Group 1 Collateral Pool distributions for any Distribution Date will be allocated to the A1, A2 and X Classes as follows:

- 1. to each of the A1 and A2 Classes, an amount equal to 30% of the Group 1 prepayment premiums for that Distribution Date multiplied by the percentage equivalent of a fraction, the numerator of which is the principal payable to that Class on that Distribution Date and the denominator of which is the Group 1 Principal Distribution Amount for that Distribution Date:
- 2. to the X Class, an amount equal to 70% of the Group 1 prepayment premiums for that Distribution Date

Call Protection: (1) (2)

86 underlying pools (representing 100% of the Group 1 Collateral Pool) provide for a remaining prepayment premium term, including 86 underlying pools (representing 100% of the Group 1 Collateral Pool) which provide for a remaining yield maintenance term. The Group 1 Collateral Pool has a weighted average remaining prepayment premium term of 109 months.

Guarantee:

All underlying pools will be guaranteed by Fannie Mae with respect to the full and timely payment of interest and principal. Fannie Mae's guarantee does not cover any prepayment premium payments due on the underlying pools.

⁽¹⁾ Remaining prepayment premium term is calculated from the beginning of the month of the Cut-Off Date to the yield maintenance end date/prepayment premium end date and would be one month shorter if calculated from the end of the month of the Cut-Off Date to the yield maintenance end date/prepayment premium end date.

⁽²⁾ For more detail on call protection, see Collateral Overview - Group 1.

Collateral Overview

Collateral Overview - Group 1(1)(2)

Aggregate Cut-Off Date Principal Balance:	\$985,330,959
Number of Mortgage Pools:	86
Average Cut-Off Date Balance per Mortgage Pool:	\$11,457,337
Number of Mortgaged Properties:	88
Approximate Weighted Average Initial Pass-Through Rate:	2.989%
Weighted Average Mortgage Note Rate:	4.365%
% of Group 1 Secured by 5 Largest Mortgage Pools:	23.28%
% of Group 1 Secured by 10 Largest Mortgage Pools:	38.56%
Weighted Average Original Term to Maturity (months):	120
Weighted Average Remaining Term to Maturity (months):	115
Weighted Average Seasoning (months):	5
Weighted Average Original Amortization Term (months) ⁽³⁾ :	359
Weighted Average Remaining Amortization Term (months) ⁽³⁾ :	358
Weighted Average Remaining Prepayment Premium Term ⁽⁴⁾ :	109
% of Group 1 Amortizing Balloon:	24.1%
% of Group 1 Interest Only followed by Amortizing Balloon:	62.7%
% of Group 1 Interest Only:	13.2%
% of Group 1 Fully Amortizing:	0.0%

More information regarding the DUS MBS program can be found on Fannie Mae's website at:

http://www.fanniemae.com/resources/file/mbs/pdf/mbsenger 25yrs.pdf

⁽¹⁾ Unless otherwise indicated, all references to "% of Group 1" in this Term Sheet reflect a percentage of the Group 1 aggregate Cut-off Date Principal Balance, after application of all payments of principal due during or prior to June 2017.

⁽²⁾ The Group 1 Collateral Pool consists of 86 FNMA multifamily MBS pools. All loans underlying the pools are monthly-pay, fixed-rate multifamily mortgages.

³⁾ Excludes pools that are interest-only for the entire term.

⁽⁴⁾ Remaining prepayment premium term is calculated from the beginning of the month of the Cut-off Date to the yield maintenance end date / prepayment premium end date and would be one month shorter if calculated from the end of the month of the Cut-off Date to the yield maintenance end date / prepayment premium end date.

Top 10 Mortgage Pools

Top 10 MBS Pools - Group 1

Loan No.	Pool Number	Property Name	City	State	Property Type	Cut-off Date Balance	% of Group 1	LTV	DSCR ⁽¹⁾
1	AN4816	Highlands Point Apartments	San Ramon	CA	Multifamily	\$64,330,000	6.53%	69.4%	1.25x
2	AN4543	Banneker Homes	San Francisco	CA	Multifamily	\$51,590,000	5.24%	67.7%	1.30x
3	AN3742	Nantucket Apartments	Santa Clara	CA	Multifamily	\$44,460,000	4.51%	57.5%	2.20x
4	AN3932	New Fountains	Fitchburg	WI	Multifamily	\$35,000,000	3.55%	76.6%	1.43x
5	AN4158	Enclave at Lake Underhill	Orlando	FL	Multifamily	\$34,021,000	3.45%	72.2%	1.25x
6	AN3914	Chandler Park	Houston	TX	Multifamily	\$33,450,000	3.39%	64.7%	2.26x
7	AN4411	Promesa Apartment Homes	Austin	TX	Multifamily	\$31,184,000	3.16%	69.2%	1.25x
8	AN4318	The Villa at San Mateo	San Mateo	CA	Multifamily	\$30,358,000	3.08%	64.9%	1.44x
9	AN4148	The Vineyards	Gilroy	CA	Multifamily	\$29,425,000	2.99%	55.0%	2.15x
10	AN3572	Spring Park Apartments	Albuquerque	NM	Multifamily	\$26,130,000	2.65%	78.0%	1.25x
		Total/Weighte	\$379,948,000	38.56%	67.4%	1.56x			

⁽¹⁾ Most Recent Annual DSCR calculations are based on the most recent data using amortizing debt service payments with the exception of the full-term interest-only pools, which are based on interest-only payments.

Collateral Statistics - Group 1 (1)

Cut-off Date Balance (\$)

		Cut-off Date	
	No. of	Principal	% of
	Pools	Balance	Group
300,000 - 2,000,000	11	15,431,649	1.6
2,000,001- 6,000,000	26	105,144,146	10.7
6,000,001- 10,000,000	16	122,112,736	12.4
10,000,001 - 14,000,000	10	116,502,172	11.8
14,000,001 - 18,000,000	6	96,045,445	9.7
18,000,001 - 22,000,000	5	100,591,439	10.2
22,000,001- 26,000,000	2	49,555,374	5.0
26,000,001- 30,000,000	2	55,555,000	5.6
30,000,001- 34,000,000	3	94,992,000	9.6
34,000,001- 64,330,000	5	229,401,000	23.3
Total:	86	\$985,330,959	100.0%
Min: \$300,000 Max:	\$64,330,000	Average:	\$11,457,337

Original Term to Maturity (Mos)

				Cut-off Date	
			No. of	Principal	% of
			Pools	Balance	Group
118			1	4,740,916	0.5
119			1	626,039	0.1
120			83	976,364,798	99.1
125			1	3,599,206	0.4
Total:	•		86	\$985,330,959	100.0%
Min:	118	Max:	125	Wtd Avg:	120

Remaining Term to Maturity (Mos)

Kemamm	g	to matan	., (
				Cut-off Date	
			No. of	Principal	% of
			Pools	Balance	Group
114			2	68,515,374	7.0
115			57	665,187,205	67.5
116			27	251,628,381	25.5
Total:			86	\$985,330,959	100.0%
Min:	114	Max:	116	Wtd Avg:	115

Current Mortgage Rate (%)

	•		Cut-off Date	
		No. of	Principal	% of
		Pools	Balance	Group
3.630 - 3.800		9	165,224,591	16.8
3.801 - 4.100		7	152,908,589	15.5
4.101- 4.400		11	145,411,822	14.8
4.401- 4.700		22	276,806,051	28.1
4.701- 5.000		25	191,032,796	19.4
5.001- 5.300		8	41,172,033	4.2
5.301- 5.800		4	12,775,078	1.3
Total:	·	86	\$985,330,959	100.0%
Min: 3.630%	Max:	5.800%	Wtd Avg:	4.365%

Property Type

		Cut-off Date	
	No. of	Principal	% of
	Pools	Balance	Group
Multifamily	62	795,167,915	80.7
Manufactured Housing	15	95,584,852	9.7
Seniors	2	44,669,812	4.5
Cooperative	1	811,012	0.1
Dedicated Student	6	49,097,368	5.0
Total:	86	\$985,330,959	100.0%

Original Amortization Term (Mos)

			Cut-off Date	
		No. of	Principal	% of
		Pools	Balance	Group
Interest Only		6	130,159,000	13.2
300		3	15,973,768	1.6
360		76	831,243,417	84.4
420		1	7,954,774	0.8
Total:		86	\$985,330,959	100.0%
Non-Zero Min: 300	Max:	420	Non-Zero Wtd Avg:	359

Remaining Amortization Term (Mos)

			Cut-off Date	
		No. of	Principal	% of
		Pools	Balance	Group
Interest Only		6	130,159,000	13.2
295 - 296		3	15,973,768	1.6
350 - 360		76	831,243,417	84.4
415		1	7,954,774	0.8
Total:	•	86	\$985,330,959	100.0%
Non-Zero Min: 295	Max:	415	Non-Zero Wtd Avg:	358

Pass Through Rate (%)

			Cut-off Date	
		No. of	Principal	% of
		Pools	Balance	Group
2.370 - 2.500		7	126,891,817	12.9
2.501- 2.700		7	107,321,436	10.9
2.701- 2.900		3	28,197,467	2.9
2.901 - 3.100		14	289,891,990	29.4
3.101 - 3.300		30	294,145,856	29.9
3.301- 3.500		24	137,241,809	13.9
3.501- 3.570		1	1,640,584	0.2
Total:	•	86	\$985,330,959	100.0%
Min: 2.370%	Max:	3.570%	Wtd Avg:	2.989%

(1) Totals may not add to 100% due to rounding.

Collateral Statistics - Group 1 (Continued)(1)

Origination Date LTV Ratio (%)

			Cut-off Date	
		No. of	Principal	% of
		Pools	Balance	Group
9.4 - 15.0		2	5,911,012	0.6
25.1- 35.0		2	8,362,944	0.8
35.1- 45.0		2	6,558,170	0.7
45.1- 55.0		11	109,708,916	11.1
55.1- 65.0		27	277,673,574	28.2
65.1- 75.0		33	422,764,232	42.9
75.1- 80.0		9	154,352,111	15.7
Total:		86	\$985,330,959	100.0%
Min: 9.4%	Max:	80.0%	Wtd Avg:	66.6%

Most Recent Annual DSCR(2)

			Cut-off Date	
		No. of	Principal	% of
		Pools	Balance	Group
1.25x		14	263,031,272	26.7
1.26x - 1.50x		41	426,080,540	43.2
1.51x - 1.75x		18	105,233,801	10.7
1.76x - 2.00x		4	38,429,559	3.9
2.01x - 2.50x		5	116,215,401	11.8
2.51x - 3.00x		1	24,055,374	2.4
3.01x - 11.90x		3	12,285,012	1.2
Total:		86	\$985,330,959	100.0%
Min: 1.25x	Max:	11.90x	Wtd Avg:	1.56x

Day Count

		Cut-off Date	
	No. of	Principal	% of
	Pools	Balance	Group
Actual/360	86	985,330,959	100.0
Total:	86	\$985,330,959	100.0%

Loan Age (Mos)

				Cut-off Date	
			No. of	Principal	% of
			Pools	Balance	Group
2			1	4,740,916	0.5
3			1	626,039	0.1
4			25	246,261,426	25.0
5			56	661,587,999	67.1
6			2	68,515,374	7.0
10			1	3,599,206	0.4
Total:			86	\$985,330,959	100.0%
Min:	2	Max:	10	Wtd Ava:	5

State

State			
		Cut-off Date	
	No. of	Principal	% of
	Pools	Balance	Group
California	16	281,931,012	28.6
Texas	16	173,087,855	17.6
Florida	7	85,391,484	8.7
New Mexico	4	64,770,000	6.6
Virginia	3	40,064,433	4.1
New York	5	38,727,583	3.9
Wisconsin	1	35,000,000	3.6
Georgia	4	28,926,951	2.9
ldaho	2	27,475,921	2.8
South Carolina	2	26,850,000	2.7
Washington	2	25,290,000	2.6
Indiana	4	23,668,036	2.4
Utah	1	21,432,000	2.2
Michigan	3	17,298,705	1.8
Oregon	3	17,192,105	1.7
Montana	1	14,848,068	1.5
lowa	2	14,759,817	1.5
Arizona	2	13,140,000	1.3
Colorado	2	12,921,312	1.3
Ohio	2	7,452,637	0.8
Alabama	1	5,677,000	0.6
Missouri	1	4,600,000	0.5
Maryland	1	4,200,000	0.4
Minnesota	1	626,039	0.1
Total:	86	\$985,330,959	100.0%

Prefix Type

		Cut-off Date	
	No. of	Principal	% of
	Pools	Balance	Group
HY	81	968,956,675	98.3
H2	5	16,374,284	1.7
Total:	86	\$985,330,959	100.0%

Remaining Prepayment Premium Term (Mos)

				Cut-off Date	
			No. of	Principal	% of
			Pools	Balance	Group
108			2	68,515,374	7.0
109			57	665,187,205	67.5
110			27	251,628,381	25.5
Total:			86	\$985,330,959	100.0%
Min:	108	Max:	110	Wtd Avg:	109
Total:	108	Max:	86	\$985,330,959	100.0

1) Totals may not add to 100% due to rounding.

⁽²⁾ Most Recent Annual DSCR calculations are based on the most recent data using amortizing debt service payments with the exception of the full-term interest-only pools, which are based on interest-only payments

This material was prepared by sales, trading, banking or other non-research personnel of one of the following: Morgan Stanley & Co. LLC, Morgan Stanley & Co. International plc, Morgan Stanley Asia Limited and/or Morgan Stanley MUFG Securities Co., Ltd., and/or Morgan Stanley Capital Group Inc. (together with their affiliates, hereinafter "Morgan Stanley"). This material was not produced by a Morgan Stanley research analyst, although it may refer to a Morgan Stanley research analyst or research report. Unless otherwise indicated, these views (if any) are the author's and may differ from those of the Morgan Stanley fixed income or equity research department or others in the firm.

This material may have been prepared by or in conjunction with Morgan Stanley trading desks that may deal as principal in or own or act as market maker or liquidity provider for the securities/instruments (or related derivatives) mentioned herein. The trading desk may have accumulated a position in the subject securities/instruments based on the information contained herein. Trading desk materials are not independent of the proprietary interests of Morgan Stanley, which may conflict with your interests. Morgan Stanley may also perform or seek to perform investment banking services for the issuers of the securities and instruments mentioned herein.

The information contained in this material is subject to change, completion or amendment from time to time, and the information in this material supersedes information in any other communication relating to the securities referred to in this material.

Prospective purchasers are advised to review the Final Prospectus Supplement and the related Base Prospectus ("Offering Documents") relating to the securities discussed in these materials. The Offering Documents contain data that is current as of their publication dates and after publication may no longer be complete or current. Final Offering Documents may be obtained from Fannie Mae by calling toll free 1-800-237-8627 or by calling Morgan Stanley toll free at 1-866-718-1649.

This material is not a solicitation to participate in any trading strategy, and is not an offer to sell any security or instrument or a solicitation of an offer to buy or sell any security or instrument in any jurisdiction where the offer, solicitation or sale is not permitted.

Unless otherwise set forth in this material, any securities referred to in this material may not have been registered under the U.S. Securities Act of 1933, as amended, and, if not, may not be offered or sold absent an exemption therefrom. Recipients are required to comply with any legal or contractual restrictions on their purchase, holding, sale, exercise of rights or performance of obligations under any securities/instruments transaction.

The securities/instruments discussed in this material may not be suitable for all investors. This material has been prepared and issued by Morgan Stanley for intended distribution to market professionals and institutional investor clients. Other recipients should seek independent investment advice prior to making any investment decision based on this material. This material does not provide individually tailored investment advice or offer tax, regulatory, accounting or legal advice. Prior to entering into any proposed transaction, recipients should determine, in consultation with their own investment, legal, tax, regulatory and accounting advisors, the economic risks and merits, as well as the legal, tax, regulatory and accounting characteristics and consequences, of the transaction. You should consider this material as only a single factor in making an investment decision.

The value of and income from investments may vary because of changes in interest rates, foreign exchange rates, default rates, prepayment rates, securities/instruments prices, market indexes, operational or financial conditions of companies or other factors. There may be time limitations on the exercise of options or other rights in securities/instruments transactions. Past performance is not necessarily a guide to future performance. Estimates of future performance are based on assumptions that may not be realized. Actual events may differ from those assumed and changes to any assumptions may have a material impact on any projections or estimates. Other events not taken into account may occur and may significantly affect the projections or estimates. Certain assumptions may have been made for modeling purposes only to simplify the presentation and/or calculation of any projections or estimates, and Morgan Stanley does not represent that any such assumptions will reflect actual future events. Accordingly, there can be no assurance that estimated returns or projections will be realized or that actual returns or performance results will not materially differ from those estimated herein. Some of the information contained in this document may be aggregated data of transactions in securities or other financial instruments executed by Morgan Stanley that has been compiled so as not to identify the underlying transactions of any particular customer.

Notwithstanding anything herein to the contrary, Morgan Stanley and each recipient hereof agree that they (and their employees, representatives, and other agents) may disclose to any and all persons, without limitation of any kind from the commencement of discussions, the U.S. federal and state income tax treatment and tax structure of the transaction and all materials of any kind (including opinions or other tax analyses) that are provided to it relating to the tax treatment and tax structure. For this purpose, "tax structure" is limited to facts relevant to the U.S. federal and state income tax treatment of the transaction and does not include information relating to the identity of the parties, their affiliates, agents or advisors.

In the UK, this communication is directed to those persons who are market counterparties or intermediate customers (as defined in the UK Financial Services Authority's rules). In Japan, this communication is directed to the sophisticated institutional investors as defined under the Foreign Broker Dealer Law of Japan and the ordinances thereunder. The trademarks and service marks contained herein are the property of their respective owners.

This material may not be sold or redistributed without the prior written consent of Morgan Stanley.