

### **Asian Credit Strategy**

# China HY property weekly: What has happened and what to watch

**Emerging Markets** 

#### Where we are now: valuation

China HY property tightened 137bp WoW to 2,584bp as of Jan 17th, driven by ongoing debt restructuring and more supports for developers' financing. The current spread implies a breakeven default rate of 37% in China HY property, assuming a 70% loss on default. For defaulted HY developers, the WoW average price change was +U\$\$0.4 and +5.4%, in absolute value and percentage (Exhibit 8). In the rest of HY space, China HY non-prop (corp) tightened 99bp WoW to 791bp, but Asia non-China HY slightly widened 1bp WoW to 448bp. Meanwhile, US HY widened 12bp WoW to 362bp. In Asia IG space, Asia non-China IG tightened 4bp WoW to 110bp, China IG non-prop -4bp WoW to 114bp, and China IG property -13bp WoW to 449bp. Meanwhile, US IG tightened 2bp WoW to 102bp.

#### Where we are now: defaults

We did not see default in China property this week. As a result, the LTM default rate by amount/count remained unchanged at 20.8%/7.5% for Asia HY, 37%/14.6% for China HY and 56%/28.6% for China HY property, respectively.

### What has happened

**Policy**: MoHURD and the NFRA made a joint announcement to support developers' financing, and local government will draw up a list of projects eligible for financing support to be sent to financial institutions per media reports. Ping An Bank compiled a list of 41 developers eligible for its funding support, of which more than half are SOE developers. It said to treat all property developers equally and satisfy their reasonable financing needs. China Economic Times called tier-1 cities to gradually relax their home purchase restrictions (HPR). Guangzhou approved the urban village refurbishment plan, aiming to redevelop 165 urban villages by end-2035. Shanghai announced to remove HPR for singles in Qingpu and Fengxian districts. Bond repayment: Agile and its two project companies plan to pay 5% principal plus the accrued interest due on Jan 19, totaling RMB263.5mn on a RMB4bn 5.1% CMBS per Debtwire. Asset sell: Country Garden (COGARD) has reached an agreement to sell its remaining landholdings in Sydney for US\$157mn equivalent. Others: Logan disclosed its offshore restructuring plan. Sino-Ocean released the plan to extend nine onshore bonds by 30 months with installment payments, and at the same time, it met with a group of key offshore bondholder this week per Debtwire. COGARD hired KPMG as adviser for its offshore restructuring. Longfor reported a 7% YoY increase in its recurring revenues in Dec and acquired two land plots for RMB2.9bn incl a land in Hangzhou for RMB2.65bn. S&P withdrew Yanlord's B+ rating at the company's request, and the outlook was negative at the time.

#### What to watch for

Performing HY developers' principal/coupon due by end-Mar'24 are US\$2.1/0.7bn, incl. Yanlord (US\$379mn) due Feb 27 and Radiance (US\$300mn) due Mar 20. Key things to watch are policy support, sales, state-backed bond issuance and restructuring.

Trading ideas and investment strategies discussed herein may give rise to significant risk and are not suitable for all investors. Investors should have experience in relevant markets and the financial resources to absorb any losses arising from applying these ideas or strategies.

BofA Securities does and seeks to do business with issuers covered in its research reports. As a result, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision.

Refer to important disclosures on page 15 to 17.

12647712

#### 19 January 2024

Global Emerging Markets | Corporate Credit Asia

#### **Table of Contents**

China HY property valuation in charts	2
Performance of defaulted HY developers	3
HY Defaults: Asia vs China vs China Property	5
Repayment schedule for Chinese HY developers	9
Top and bottom ten performers	10

#### lovce I iana

Research Analyst Merrill Lynch (Hong Kong) +852 3508 3817 joyce.liang@bofa.com

#### Sirius Chan

Research Analyst Merrill Lynch (Hong Kong) sirius.chan@bofa.com

#### Xiang Gao, CFA

Research Analyst Merrill Lynch (Hong Kong) xiang.gao@bofa.com

#### Di Miao, CFA

Research Analyst Merrill Lynch (Hong Kong) dmiao@bofa.com

#### Suyang Lu

Research Analyst Merrill Lynch (Hong Kong) suyang.lu@bofa.com

#### Jing Peng

Research Analyst Merrill Lynch (Hong Kong) jing.peng2@bofa.com

#### **Abbreviations & Terminology**

NFRA: National Financial Regulatory

Administration

CSRC: China Securities Regulatory

Commission HY: High Yield IG: Investment Grade LPR: Loan Prime Rate LTM: last 12 months

MOHURD: Ministry of Housing and Urban-

Rural Development

NAFMII: National Association of Financial

Market Institutional Investors PBoC: People's Bank of China POE: privately owned enterprise

SASAC: State-owned Assets Supervision and

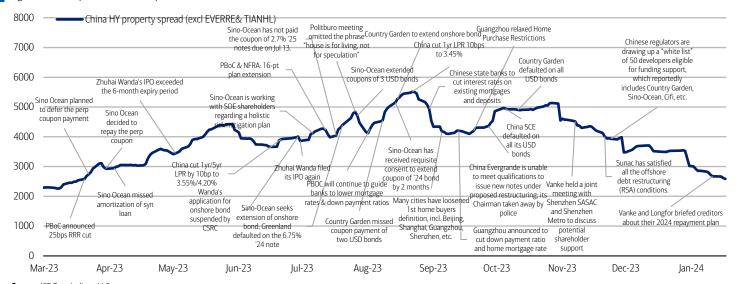
Administration Commission WoW: week on week

Timestamp: 18 January 2024 06:30PM EST

### China HY property valuation in charts

#### Exhibit 1: China HY property (excluding Evergrande) spread movement year to date

China HY property spread retraced more than 4,500bp from the peak of around 6,700bp in early Nov'22 to the low of 2,100bp by Jan'23; it then widened again but tightened following policy easing in late Aug'23; the spread widened again from mid-Sep to end-Oct'23, and then tightened since Nov'23; in the past week, spread tightened 137bp WoW to 2,584bp



Source: ICE Data Indices, LLC

BofA GLOBAL RESEARCH

#### Exhibit 2: China HY property (excluding Evergrande) versus nonproperty spread movement since Sep-2021

WoW, China HY property tightened 137bp to 2,584bp; China HY non property (corp) tightened 99bp to 791bp



BofA GLOBAL RESEARCH

### Exhibit 3: China HY property (excluding Evergrande) spread movement since Sep-2021

WoW, China BB property tightened 45bp to 1,180bp, and China B property -421bp to 4,181bp



Source: ICE Data Indices, LLC

### Exhibit 4: China HY property (ex. Evergrande) spread movement since 2012

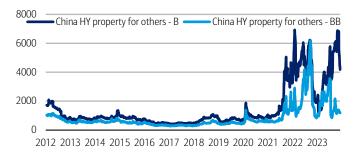
China HY property is now trading at 2,584bp



BofA GLOBAL RESEARCH

### Exhibit 5: China HY property (ex. Evergrande) spread movement since 2012 – BB vs B

China BB property and B property tightened after policy easing in late Aug'23, widened from mid-Sep to end-Oct'23 then tightened since Nov'23



BofA GLOBAL RESEARCH

## Exhibit 6: China non-property HY vs Asia non-China HY spread movement since Sep-2021

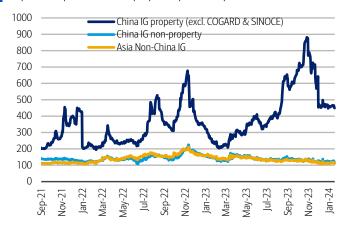
WoW, Asia non-China HY widened 1bp to 448bp, and China HY non-property (corp) tightened 99bp to 791bp



BofA GLOBAL RESEARCH

### Exhibit 7: China IG vs Asia non-China IG spread movement since Sep-2021

WoW, Asia non-China IG tightened 4bp to 110bp, China IG non-prop - 4bp to 114bp, and China IG prop -13bp to 449bp



BofA GLOBAL RESEARCH

### Performance of defaulted HY developers

#### Exhibit 8: Weekly performance of defaulted Chinese developers

WoW on average, the price change of defaulted Chinese developers was +US\$0.4 and +5.4% in absolute value and percentage, respectively

			Amount outstanding			Price (US\$)			WoW cha		YTD 202 chai	
Bond	Ticker	Maturity	(USD mn)	30-Dec-22	30-Nov-23	29-Dec-23	10-Jan-24	17-Jan-24	in US\$	%	in US\$	%
CHFOTN 8.75% 2022	CHFOTN	9/28/2022	330	9.8	0.7	0.2	0.2	0.1	(0.1)	(52.4)	(0.1)	(52.4)
EVERRE 8.25% 2022	<b>EVERRE</b>	3/23/2022	2,025	7.0	1.7	1.6	1.6	1.7	0.0	2.6	0.1	5.9
EVERRE 9.5% 2022	<b>EVERRE</b>	4/11/2022	1,450	7.0	1.8	1.6	1.6	1.5	(0.1)	(7.1)	(0.1)	(4.1)
EVERRE 11.5% 2023	<b>EVERRE</b>	1/22/2023	1,000	7.0	1.7	1.6	1.7	1.5	(0.2)	(9.0)	(0.1)	(4.2)
EVERRE 10% 2023	<b>EVERRE</b>	4/11/2023	850	7.0	1.7	1.7	1.7	1.7	-	-	-	-
EVERRE 7.5% 2023	<b>EVERRE</b>	6/28/2023	1,345	7.0	1.7	1.6	1.7	1.5	(0.2)	(9.2)	(0.1)	(4.4)
EVERRE 12% 2024	<b>EVERRE</b>	1/22/2024	1,000	7.0	1.7	1.6	1.6	1.7	0.0	2.0	0.1	3.2
EVERRE 9.5% 2024	<b>EVERRE</b>	3/29/2024	951	7.0	1.7	1.6	1.6	1.6	(0.0)	(2.6)	0.0	0.1
EVERRE 10.5% 2024	<b>EVERRE</b>	4/11/2024	700	7.0	1.8	1.5	1.6	1.6	0.0	1.7	0.1	6.5
EVERRE 8.75% 2025	<b>EVERRE</b>	6/28/2025	4,680	7.0	1.7	1.5	1.7	1.7	0.0	2.9	0.2	12.6
FTHDGR 7.375% 2021	FTHDGR	10/4/2021	206	8.0	3.7	2.8	2.7	3.0	0.3	11.9	0.2	7.7
FTHDGR 15% 2021	FTHDGR	12/18/2021	291	8.0	3.7	2.9	2.7	3.0	0.3	10.9	0.1	4.7
FTHDGR 6.95% 2021	FTHDGR	12/17/2021	249	8.0	3.7	2.9	2.7	3.0	0.3	10.9	0.1	4.7
FTHDGR 11.75% 2022	FTHDGR	4/17/2022	297	8.0	3.6	2.7	2.6	2.6	(0.0)	(0.0)	(0.2)	(5.5)

**Exhibit 8: Weekly performance of defaulted Chinese developers**WoW on average, the price change of defaulted Chinese developers was +US\$0.4 and +5.4% in absolute value and percentage, respectively

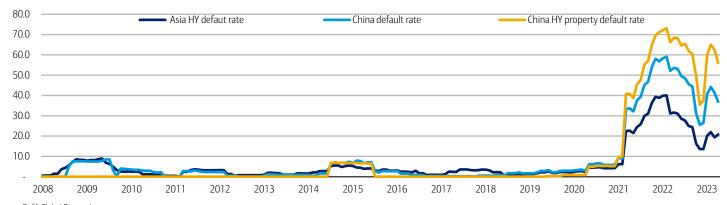
			Amount			Drice (IICE)			WoW			24 Price
Bond	Ticker	Maturity	outstanding (USD mn)	30-Dec-22	30-Nov-23	Price (US\$) 29-Dec-23	10-Jan-24	17-Jan-24	cha in US\$	nge %	cna in US\$	nge %
FTHDGR 7.95% 2022	FTHDGR	7/5/2022	499	8.0	3.8	2.8	2.7	2.9	0.2	9.3	0.2	6.4
FTHDGR 12.25% 2022	FTHDGR	10/18/2022	350	8.0	3.8	2.8	2.7	2.6	(0.1)	(3.6)	(0.2)	(6.0)
FTHDGR 10.875% 2023	FTHDGR	1/9/2023	446	8.0	3.8	2.8	2.6	2.6	0.0	0.1	(0.2)	(6.0)
FTHDGR 11.875% 2023	FTHDGR	6/1/2023	541	8.0	3.9	2.8	3.0	2.9	(0.0)	(0.8)	0.1	3.6
FTHDGR 9.25% 2023	FTHDGR	7/28/2023	344	8.0	3.8	2.8	2.7	2.7	(0.0)	(2.3)	(0.2)	(5.4)
FTHDGR 9.875% 2023	FTHDGR	10/19/2023	303	8.0	3.8	2.8	2.7	2.7	-	(2.5)	(0.2)	(0.6)
FTHDGR 10.875% 2024	FTHDGR	3/2/2024	230	8.0	3.8	3.3	2.7	3.1	0.3	12.5	(0.2)	(5.9)
FTHDGR 14.5% 2024	FTHDGR	6/25/2024	200	8.0	3.8	2.8	2.7	2.7	-	-	(0.2)	(6.2)
KAISAG 6.5% 2021	KAISAG	12/7/2021	400	13.5	4.4	3.8	3.5	3.8	0.3	7.1	-	-
KAISAG 11.25% 2022	KAISAG	4/9/2022	550	13.5	4.5	3.9	3.5	3.7	0.2	4.7	(0.2)	(5.0)
KAISAG 11.25 % 2022 KAISAG 8.5% 2022	KAISAG	6/30/2022	1,147	13.5	4.4	3.8	3.5	3.8	0.2	6.4	(0.2)	(1.3)
KAISAG 8.65% 2022	KAISAG	7/22/2022	200	13.5	4.4	3.9	3.5	3.8	0.2	7.1	(0.1)	(4.0)
KAISAG 0.05 % 2022 KAISAG 10.5% 2022	KAISAG	9/7/2022	300	NA	4.1	3.8	3.5	3.8	0.3	7.1	(0.2)	(1.3)
KAISAG 10.5% 2022 KAISAG 11.95% 2022	KAISAG	10/22/2022	600	13.5	4.6	4.1	3.6	3.8	0.2	5.6	(0.1)	(6.3)
KAISAG 11.95% 2022	KAISAG	10/22/2022	600	14.3	4.3	3.8	3.7	3.9	0.2	5.5	0.1	3.6
KAISAG 11.5% 2022	KAISAG	1/30/2023	700	13.5	4.2	3.8	3.5	3.8	0.2	6.4	(0.1)	(2.3)
KAISAG 11.5% 2023 KAISAG 10.875% 2023	KAISAG	7/23/2023	750	13.5	4.4	3.9	3.8	3.9	0.2	2.4	0.0	0.5
KAISAG 10.875% 2023 KAISAG 9.75% 2023	KAISAG	9/28/2023	980	13.5	4.4	3.9	3.8	3.9 4.0	0.1	4.8	0.0	1.8
KAISAG 11.95% 2023	KAISAG	11/12/2023	500	13.5	4.3	3.5	3.4	3.5	0.2	2.8	0.1	2.5
KAISAG 11.95% 2023 KAISAG 9.375% 2024	KAISAG	6/30/2024	2,247	13.5	4.1	3.8	3.4	3.3 4.0	0.1	2.6 5.5	0.1	2.5 5.4
KAISAG 9.575% 2024 KAISAG 10.5% 2025	KAISAG	1/15/2025	2,247 500	13.5	4.4 4.4	3.6 3.7	3.8 3.7	4.0 3.9	0.2	5.5 5.7	0.2	5. <del>4</del> 7.1
				13.5		3.7 3.5	3.7 3.5	3.9 3.6		5.7 2.4		1.6
KAISAG 11.25% 2025	KAISAG	4/16/2025	700		4.4				0.1		0.1	
KAISAG 9.95% 2025	KAISAG	7/23/2025	500	13.5	4.4	3.6	3.5	3.6	0.1	2.4	(0.1)	(1.5)
KAISAG 11.7% 2025	KAISAG	11/11/2025	1,000	13.5	4.4	3.5	3.5	3.6	0.1	2.4	0.1	1.6
KAISAG 11.65% 2026	KAISAG	6/1/2026	300	13.5	4.4	3.5	3.5	3.6	0.1	2.4	0.1	1.6
KAISAG 10.875% perp	KAISAG	Perpetual	200	8.5	4.7	3.7	3.6	3.9	0.3	9.3	0.2	6.6
LOGPH 7.5% 2022	LOGPH	8/25/2022	279	NA 33.0	7.8	7.0	9.0	10.3	1.3	14.9	3.3	47.0
LOGPH 5.25% 2023	LOGPH	2/23/2023	450	22.0	8.0	6.7	9.0	10.3	1.3	14.3	3.6	53.1
LOGPH 6.5% 2023	LOGPH	7/16/2023	400	22.0	7.8	6.7	8.9	10.2	1.3	15.1	3.5	52.9
LOGPH 6.9% 2024	LOGPH	6/9/2024	280	22.0	8.1	6.4	8.9	10.3	1.4	15.5	3.9	60.6
LOGPH 4.25% 2024	LOGPH	9/17/2024	100	22.0	8.0	6.4	8.9	10.3	1.4	15.5	3.9	61.8
LOGPH 5.75% 2025	LOGPH	1/14/2025	300	22.0	8.1	6.4	8.9	10.3	1.4	15.5	3.9	60.6
LOGPH 4.25% 2025	LOGPH	7/12/2025	300	22.0	8.1	6.4	8.9	10.3	1.4	15.5	3.9	60.6
LOGPH 5.25% 2025	LOGPH	10/19/2025	300	22.0	8.1	6.4	8.9	10.3	1.4	15.5	3.9	60.6
LOGPH 4.7% 2026	LOGPH	7/6/2026	300	22.0	8.1	6.4	8.9	10.3	1.4	15.5	3.9	60.6
LOGPH 4.85% 2026	LOGPH	12/14/2026	300	22.0	8.1	6.4	8.9	10.3	1.4	15.5	3.9	60.6
LOGPH 4.5% 2028	LOGPH	1/13/2028	300	22.0	7.3	6.3	8.9	10.3	1.4	15.5	4.0	64.4
LOGPH 7% perp	LOGPH	Perpetual	350	NA	4.1	3.5	4.5	5.2	0.7	15.2	1.8	50.9
SHIMAO 4.75% 2022	SHIMAO	7/3/2022	1,000	18.0	4.3	4.2	4.4	5.2	0.8	16.9	1.0	23.4
SHIMAO 3.975% 2023	SHIMAO	9/16/2023	300	18.0	4.5	4.2	4.7	5.2	0.4	9.4	0.9	22.0
SHIMAO 6.125% 2024	SHIMAO	2/21/2024	1,000	18.0	4.3	4.2	4.4	5.0	0.7	14.9	0.9	21.0
SHIMAO 5.2% 2025	SHIMAO	1/30/2025	500	18.0	4.3	4.1	4.5	5.0	0.6	12.5	0.9	21.8
SHIMAO 5.6% 2026	SHIMAO	7/15/2026	1,000	18.0	4.3	4.1	4.3	5.0	0.6	14.3	0.9	20.8
SHIMAO 5.2% 2027	SHIMAO	1/16/2027	748	18.0	4.3	4.1	4.3	5.0	0.6	14.7	0.9	21.1
SHIMAO 4.6% 2030	SHIMAO	7/13/2030	300	18.0	4.1	4.0	4.3	5.0	0.7	16.7	1.0	24.1
SHIMAO 3.45% 2031	SHIMAO	1/11/2031	872	18.0	4.0	4.0	4.3	5.0	0.7	16.7	1.0	24.1
TIANHL 11.5% 2022	TIANHL	10/24/2022	2,000	6.0	NA	1.6	1.8	1.8	=	-	0.2	15.1
TIANHL 13% 2022	TIANHL	11/6/2022	645	6.0	NA	1.6	1.7	1.7	(0.1)	(3.1)	0.1	5.1
TIANHL 12% 2023	TIANHL	10/24/2023	2,000	6.0	NA	1.6	1.8	1.7	(0.1)	(4.7)	0.1	5.2
TIANHL 13.75% 2023	TIANHL	11/6/2023	590	6.0	NA	1.6	1.9	1.7	(0.3)	(13.0)	0.1	5.2
Average				12.8	4.4	3.6	4.0	4.4	0.4	5.4	0.8	13.6
Source: Bloomborg												

Source: Bloomberg

# HY Defaults: Asia vs China vs China Property

#### Exhibit 9: LTM default rate by amount: Asia HY versus China HY versus China HY property

As of 19 January, the LTM default rate by amount was 20.8% for Asia HY, 36.9% for China HY, and 56.0% for China HY property

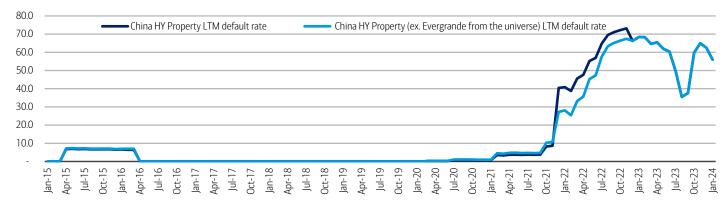


**Source:** BofA Global Research

BofA GLOBAL RESEARCH

#### Exhibit 10: LTM default rate by amount: China HY property vs China HY property (excluding Evergrande)

As of 19 January, LTM default rate by amount was 56.0% for China HY property; as Evergrande (defaulted in December 2021) has been removed from the universe denominator, the LTM default rate excluding Evergrande is the same

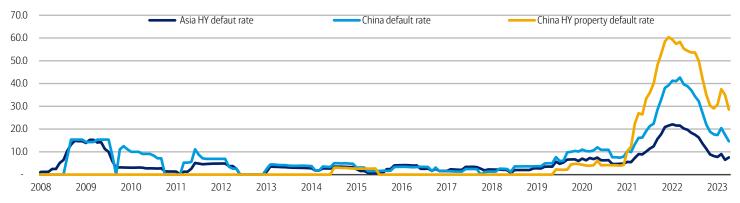


Source: BofA Global Research

BofA GLOBAL RESEARCH

#### Exhibit 11: LTM default rate by count of issuers: Asia HY versus China HY versus China HY property

As of 19 January, LTM default rate by count was 7.5% for Asia HY, 14.6% for China HY, and 28.6% for China HY property



Source: BofA Global Research

#### Exhibit 12: Cumulative default rate by count

The cumulative default rate by count is 78.0%, or 55.4% excluding distress exchange (i.e., hard default only)



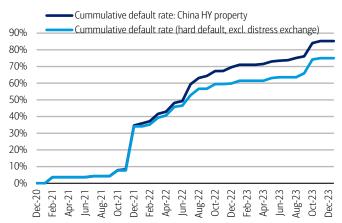
Source: BofA Global Research

Note: based on Dec 2020 universe; adding Shimao, Sino Ocean, County Garden into the universe denominator  $\,$ 

BofA GLOBAL RESEARCH

#### Exhibit 13: Cumulative default rate by amount

The cumulative default rate by amount is 85.3%, or 75.0% excluding distress exchange (i.e., hard default only)



Source: BofA Global Research

Note: based on Dec 2020 universe; adding Shimao, Sino Ocean, County Garden into the universe denominator

BofA GLOBAL RESEARCH

#### Exhibit 14: China property default list since 2015

70 issuers have defaulted on the USD bond market since 2015

Month	Ticker	Issuer Name	Type Of Default	# of Bonds	Amt (US\$mn)	Included in index or not
Apr-15	KAISAG	Kaisa Group Holdings	Missed interest payment	4	1,950	Υ
Jul-18	WUINTL	Wuzhou International Holdings	Cross Default triggered by onshore bond default	1	300	Υ
Mar-20	YIDCHL	Yida China Holdings	Distressed exchange	1	225	Υ
Jul-20	THHTGP	Tahoe Group	Cross Default triggered by onshore bond default	1	530	Υ
Feb-21	CHFOTN	China Fortune Land Development	Missed principal payment and cross default	8	4,360	Υ
May-21	FANHAI	Oceanwide	Missed principal payment	2	344	N
Jul-21	LGUANG	Sichuan Languang	Cross Default triggered by onshore bond default	2	750	Υ
Aug-21	SUNCHN	Sunshine 100 China	Missed interest payment and principal; Cross Default	4	561	N
Oct-21	FTHDGR	Fantasia	Missed principal payment and cross default	9	3,276	Υ
Oct-21	MOLAND	Modern Land	Missed principal payment and cross default	3	898	Υ
Oct-21	XIN	Xinyuan	Distressed exchange	1	229	Υ
Oct-21	CHINPR	China properties	Missed interest payment and principal	1	226	N
Oct-21	SINHLD	Sinic Holdings	Missed principal payment and cross default	3	694	N
Nov-21	SUNSHI	Yango Group	Distressed Exchange	2	550	Υ
Dec-21	KAISAG	KAISA Group Holdings	Missed interest payment and principal	13	10,474	Υ
Dec-21	CAPG	China Aoyuan	Missed private bond principal payment and cross default	6	2,385	Υ
Dec-21	EVERRE & TIANHL	Evergrande	Missed interest payment and cross default	13	19,236	Υ
Dec-21	YANGOG	Fujian Yango	Missed interest payment and cross default	2	600	Υ
Jan-22	SHXREG	Xiang Sheng Overseas Ltd	Distressed Exchange	1	275	N
Jan-22	RISSUN	RiseSun Real Estate	Distressed Exchange	1	500	Υ
Jan-22	GZRFPR	Guangzhou R&F	Distressed Exchange	1	725	Υ
Jan-22	DAFAPG	Dafa property	Distressed Exchange	1	185	Ν
Jan-22	YUZHOU	Yuzhou Group	Distressed Exchange	2	582	Υ
Feb-22	YIDCHL	Yida China Holdings	Distressed exchange	1	191	N
Feb-22	SUNSHI	Yango Group	Missed interest payment and cross default	5	1,497	Υ
Feb-22	GUOPRO	Glory Land	Distressed Exchange	1	324	Υ
Mar-22	DAFAPG	Dafa property	Missed interest payment	1	360	Υ
Mar-22	YUZHOU	Yuzhou Group	Missed interest payment and cross default	10	4,854	Υ
Mar-22	GUOPRO	Glory Land	Missed interest payment	1	5	Υ
Mar-22	JINGRU	Jingrui Holdings	Distressed exchange	1	190	N
Mar-22	ZHPRHK	Zhenro property	Distressed Exchange	1	300	Υ
Mar-22	YANGOG	Fujian Yango	Missed interest payment (cross defaulted earlier)	2	406	Υ
Mar-22	SHNSUN	Shinsun Holdings	Missed interest payment and cross default	3	486	N
Mar-22	REDPRO	Redco Group	Distressed Exchange	1	321	Υ
Apr-22	ZHPRHK	Zhenro property	Missed interest payment and cross default	6	1,963	Υ
Apr-22	GWTH	Golden Wheel	Completed debt restructuring	1	178	Υ

# **Exhibit 14: China property default list since 2015** 70 issuers have defaulted on the USD bond market since 2015

Month	Ticker	Issuer Name	Type Of Default	# of Bonds	Amt (US\$mn)	Included in index or not
May-22	BJHKWY	Beijing Hongkun Weiye Real Estate	Missed interest payment	Donus 1	193	N
May-22	SUNAC	Sunac China	Missed interest payment and cross default	12	7,762	Y
May-22	ZHLGHD	Zhongliang Holdings	Distressed Exchange	1	450	Y
May-22	DTGRHD	Datang Group	Distressed Exchange	1	300	N
lun-22	LEAHOL	Leading Holdings Group Ltd	Distressed Exchange  Distressed Exchange	1	119	N
Jun-22 Jun-22	JIAZHO	Zhongnan Construction	Distressed Exchange	1	73	Y
Jun-22 Jun-22	GRNLGR	Greenland	Distressed Exchange  Distressed Exchange	1	500	Y
•				2	610	Y
Jun-22	JINGRU	Jingrui Holdings	Missed interest payment and cross default	2		Ϋ́Υ
Jun-22	SKYFAM	Skyfame Realty	cross default		566	
Jul-22	SHIMAO	Shimao Group	Missed interest and principal payment and cross default	8	5,720	Y
Jul-22	RONXIN	Roshine China	Missed interest payment and cross default	5	2,072	Y
Jul-22	PWRLNG	Powerlong	Distressed Exchange	1	300	Υ
Jul-22	GZRFPR	Guangzhou R&F	Distressed Exchange	9	4,360	Υ
Jul-22	Xin	Xinyuan	Missed interest and principal payment and cross default	2	531	Υ
Jul-22	SUNKWP	Sunkwan Properties Group	Distressed Exchange	1	210	N
Jul-22	HKJFPC	Junfa Property	Missed interest payment	1	237	N
Jul-22	HUIJHK	Huijing Holdings Co Ltd	Distressed Exchange	1	107	N
Jul-22	SHXREG	Xiang Sheng Overseas Ltd	Distressed Exchange	1	134	N
Jul-22	CSCHCN	China South City	Distressed Exchange	3	1,341	N
Aug-22	LOGPH	Logan Group	Missed interest payment and cross default	10	3,209	Υ
Aug-22	REDSUN	Redsun property	Missed interest payment and cross default	3	1,055	Υ
Aug-22	JIAYUA	Jiayuan International Group Ltd	Missed interest/put payment and cross default	3	776	Y
Aug-22	HONGSL	Hong Seng Ltd	Missed interest payment and principal	1	275	Y
Sep-22	YCINTL	Yincheng International Holding	Distressed Exchange	1	115	N.
Sep-22	KWGPRO	KWG Group Holding	Distressed Exchange	3	1,600	Y
Oct-22	GZFYRE	Guangzhou Fineland Real Estate	Missed interest payment	1	340	Y
Oct-22	CIFIHG		Cross default	8	3,680	Y
		CIFI Holdings Group		1		
Oct-22	HLBCNH	Helenbergh China Holding	Distressed Exchange	1	350	Y
Oct-22	SINOCL	Sino-Ocean Capital	Distressed Exchange		282	N
Oct-22	LSEAGN	Landsea Green Management Ltd	Distressed Exchange	1	119	N
Oct-22	GNGLNG	Ganglong China Property	Distressed Exchange	1	158	N
Nov-22	SUNKWP	Sunkwan Properties Group	Missed payment and cross default	2	362	N
Nov-22	RISSUN	RiseSun Real Estate	Distressed Exchange	2	741	N
Nov-22	JIAZHO	Jiangsu Zhongnan Construction Group	Missed interest payment	1	250	Υ
Nov-22	GWTH	Golden Wheel	Missed interest payment	1	470	N
Nov-22	ZHLGHD	Zhongliang Holdings	Distressed Exchange	3	898	N
Dec-22	GRNLGR	Greenland	Distressed Exchange	8	2,702	Υ
Dec-22	DEXICN	Dexin China Holdings	Distressed Exchange	1	348	Υ
Dec-22	JINKE	Jinke Properties	Missed interest payment	1	325	Υ
Dec-22	REDPRO	Redco Properties	Suspend payment	1	252	Υ
Dec-22	JYGMHD	JY Grandmark	Distressed Exchange	1	152	N
Jan-23	TPHL	Times China	Suspend payment	6	2,650	Υ
Jan-23	HUIJHK	Huijing Holdings Co Ltd	Missed interest payment	1	108	N
Mar-23	YCINTL	Yincheng International Holding	Missed interest payment and principal, and cross default	2	211	N
Apr-23	CENCHI	Central China	Distressed Exchange	2	630	Y
Apr-23	HYDOO	Guangdong-Hongkong Greater Bay Area Holding	Distressed Exchange	2	379	N.
May-23	KWGPRO	KWG Group Holding	Missed interest payment and principal, and cross default	7	2,525	Y
,	DTGRHD		Missed interest payment and principal, and cross default  Missed interest payment and principal	1	2,323	N
May-23	CENCHI	Datang Group	Suspend payment	3		Y
Jun-23		Central China	1 1 3		849	
Jun-23	LEAHOL	Leading Holdings Group Ltd	Missed interest payment and principal	1	119	N
Jul-23	PWRLNG	Powerlong	Distressed Exchange	1	420	Υ
Aug-23	SINOCE	Sino Ocean Group	Distressed Exchange (coupon extension)	3	1,798	Υ
Sep-23	SINOCE	Sino Ocean Group	Suspend payment	3	1,320	Υ
Oct-23	CHINSC	China SCE Group	Cross default triggered by missed payment of a syn loan	4	1,800	Υ
Oct-23	COGARD	Country Garden	Cross default triggered by missed payment of HKD 470mn debt	15	9,913	Υ
Nov-23	DALWAN	Wanda properties	Distressed Exchange	1	600	Υ
Nov-23	PWRLNG	Powerlong	Missed interest payment and cross default	2	1,035	Υ
Dec-23	MOLAND	Modern Land China	Distressed Exchange	5	1606	N

Source: Company data

Note: For companies included in the index, the number only accounts for the No. of bond, and outstanding amounts which are index-eligible.



#### **Exhibit 15: Distressed exchange offers**

Recently proposed exchange offer/ extension and summary of key features

							Amt of Bond subject to exchange /extension	
Completion Date	Ticker	Terms	Incentive	Coupon Cut		New bond	(USD mn)	Status
Oct-21	XIN	Exchange offer	1.0%	N	Option 1: 5% Option 2: 0%	Option 1: 95% Option 2: 100%	229	Completed
Oct-21	MOLAND	Maturity Extension	0.10%	N	35%	N/A	250	Terminated
Nov-21	SUNSHI	Exchange offer	2.50%	N	0%	100%	747	Completed
Nov-21	KAISAG	Exchange offer	2.50%	N	0%	100%	400	Terminated
		O			Option 1: 83%;			
Jan-22	GZRFPR	Maturity Extension	0.10%	N	Option 2: half of bonds tendered to be	N/A	725	Completed
I 22	DICCLIN	F	2 50/ /1 50/ *	N	purchased at par	050/	700	Tamakad
Jan-22	RISSUN	Exchange offer	2.5%/1.5%*	N	5%	95%	780	Terminated
Jan-22	DAFAPG	Exchange offer	1%	N	4%	96%	185	Completed
Jan-22	YUZHOU	Exchange offer	1%	N/Y**	5%	95%	582	Completed
Mar-22	YIDCHL	Maturity Extension	US\$4.6mn***	Υ	0%	N/A	191	Completed
Feb-22	GUOPRO	Exchange offer Consent Solicitation on	2.0%	N	0%	105.13%	324	Completed
Mar-22	ZHPRHK	perp	1.75%	N	0%	N/A	200	Completed
Mar-22	ZHPRHK	Exchange offer	1%/ 0.5% *	N/Y**	0%	100%	1050	Completed
Mar-22	JINGRU	Exchange offer	Option 1: 0% Option 2: 1%	N	Option 1: 0% Option 2: 5%	Option 1: 100% Option 2: 95%	190	Completed
Mar-22	REDPRO	Exchange offer	1.0%	N	0%	100%	652	Completed
May-22	ZHLGHD	Exchange offer	1.0%	N	0%	100%	729	Completed
Jun-22	DTGRHD	Exchange offer	0.0%	N	0%	100%	300	Completed
•		•			5%			Completed
Jun-22	JIAZHO	Exchange offer	1.0%	N/Y**		95%	223	
Jun-22	GRNLGR	Maturity Extension	1%/ 0.5%*	N	10%	N/A	500	Completed
Jun-22	LEAHOL	Exchange offer	0.0%	N	0%	100%	150	Completed
Jul-22	GZRFPR	Exchange offer	0.5%	N/Y**	0%	100%	5060	Completed
Jul-22	HUIJHK	Exchange offer	0.0%	N	0%	100%	107	Completed
Jul-22	PWRLNG	Exchange offer	1.0%	N	5%/0%	95%/100%	450	Completed
Jul-22	SUNKWP	Exchange offer	0.0%	N	0%	100%	210	Completed
Jul-22	CSCHCN	Maturity Extension	1%/ 0.5%*	N	0%	N/A	1566	Completed
Aug-22	JIAYUA	Exchange offer	0.25%	Υ	0%	100%	1305	Terminated
Sep-22	YCINTL	Exchange offer	0.0%	N	0%	100%	110	Completed
Sep-22	KWGPRO	Exchange offer	0.5%	N	5% for '22 notes, 0% for the '23 note	95% for '22 notes, 100% for the '23 note	1600	Completed
Oct-22	LSEAGN	Exchange offer	0.5%	N	10%	90%	169	Completed
Oct-22	SINOCL	Maturity Extension	0.0%	N	0%	100%	247	Completed
Oct-22	HLBCNH	Exchange offer	0.25%	Υ	0%	100%	350	Completed
Oct-22	GNGLNG	Exchange offer	0.0%	N	0%	100%	158	Completed
Nov-22	HLBCNH	Exchange offer	0.0%	Υ	0%	100%	270	Completed
Nov-22	GRNLGR	Maturity Extension	0.5%/ 0.25%*	Υ	5%	N/A	3182	Completed
Nov-22	DEXICN	Exchange offer	0.5%	Υ	2.5%	97.5%	348	Completed
Dec-22	JYGMHD	Exchange offer	0.0%	N	0%	100%	152	Completed
Feb-23	YCINTL	Exchange offer	0.0%	N	0%	100%	96	Terminated
Apr-23	CENCHI	Exchange offer	0.5%	N	0%	100%	897	Completed
Apr-23	HYDOO	Exchange offer	0.0%	Υ	0%	101%/ 100%	379	Completed
Jun-23	XIN	Exchange offer	0.5%/0.3%*	Υ	0%	100%	660	Completed
Jun-23	PWRLNG	Exchange offer	0.25%	N	0%	100%	479	Completed
Jun-23	SINOCL	Maturity Extension	0.0%	Y	0%	100%	497	Completed
Aug-23	GZFYRE	Exchange offer	0.2%	Y	0%	100%	340	Terminated
Aug-23	ZENSUN	Exchange offer	0.0%	Y	0%	100%	113	Completed
Sept-23	GRNLGR	Maturity Extension	0.1%/0.05%*	Y	0%	100%	2989	Completed
Oct-23	RISSUN	Maturity Extension	0.1%	Y	0%	100%	731	Completed
Oct-23	HYD00	Maturity Extension	0.0%	Y	0.1%	99.9%	440	Completed
Nov-23	DALWAN	Maturity Extension	1%/0.25%*	N N/A	0%	100%	600	Completed
Nov-23	MOLAND	Consent Solicitation	0.2%/ 0.002%	N/A	0%	N/A 1000/	1610	Completed
Dec-23	CSCHCN	Maturity Extension	0.5%/0.15%	Υ	0%	100%	1347	Completed

Note \*before/after early expiration date

**Source:** Company announcements



<sup>\*\*</sup> coupon cut different for different bonds in exchange

<sup>\*\*\*:</sup>US\$1.15 in 10 business days after the Effective Time and US\$3.45mn on 6/30/2022

#### Exhibit 16: A-Share placement plans & status after CSRC relaxed equity financing

A-share placement plans after CSRC relaxed equity financing for property sector

	Related				CSRC
Company	Ticker	Amount	Placement size	Status	approved?
CCCG Real Estate	000736.SZ	Up to RMB3.5bn	Up to 30% of current share capital	Not Completed	l Yes
China Merchants Shekou					
Industrial Zone Holdings	001979.SZ	Up to RMB8.5bn	Up to 30% of current share capital	Not Completed	l Yes
China Vanke	000002.SZ	N/A	Up to 1.1bn shares	Terminated	
Greattown Holdings	900940.SH	I Up to RMB2.55bn	Up to 510mn shares	Not Completed	l Yes
Greenland Holdings	600606.SH	I N/A	Up to 30% of current share capital	Not Completed	l Not yet
Huafa Holding	600325.SH	I Up to RMB60bn	Up to 6.35bn shares	Not Completed	l Not yet
Jiangsu Zhongnan Construction	n 000961.SZ	Up to RMB2.8bn	Up to 1.1bn shares	Not Completed	l Not yet
Jinke Property	000656.SZ	N/A	Up to 30% of current share capital	Not Completed	l Not yet
Poly Development	600048.SH	Up to RMB12.5bn	Up to 819.14mn shares	Not Completed	l Yes
Risesun Real Estate	002146.SZ	Up to RMB3bn	Up to 30% of current share capital	Not Completed	l Not yet
		Downsized from up to RMB8bi	Downsized from up to 677mn to		
Seazen Holdings	601155.SH	I to up to RMB4.5bn	up to 451mn shares	Not Completed	l Not yet
Shimao Group	600823.SH	I N/A	Up to 30% of current share capital	Not Completed	l Not yet
Xinhu Zhongbao	600208.SH	I N/A	Up to 20% of current share capital	Not Completed	l Not yet

**Source:** Company announcement

BofA GLOBAL RESEARCH

# Repayment schedule for Chinese HY developers

#### Exhibit 18: Bond repayment & coupon schedule from performing Chinese HY developers by March 2024

Total principal (including put) repayment and coupon payment by performing Chinese HY developers by March 2024 is US\$2.8bn

Company Name	Bond	Offshore Bond Ticker	Currency	Payment date	Coupon or Principal	Payment (USD mn)
Sunac China Holdings Ltd.	SUNAC 6.8'25	SUNAC	CNY	19-Jan-2024	Coupon	14
GLORY LAND	GUOPRO 14.25 '24	GUOPRO	USD	25-Jan-2024	Maturity	9
GLORY LAND	GUOPRO 14.25 '24	GUOPRO	USD	25-Jan-2024	Coupon	1
Road King Infrastructure	ROADKG 5.125 '26	ROADKG	USD	26-Jan-2024	Coupon	13
Greentown China Holdings	GRNCH 2.3 '25	GRNCH	USD	27-Jan-2024	Coupon	5
Greenland HK	GRNLHK 10.21 Perp	GRNLHK	USD	27-Jan-2024	Coupon	6
Dalian Wanda Commercial Management Group	DALWAN 7.25 '24	DALWAN	USD	29-Jan-2024	Coupon	20
EXCELLENCE COM MGMT	EXCECP 4.3 '25	EXCECP	USD	29-Jan-2024	Coupon	2
Agile Property Holding	AGILE 7.875 Perp	AGILE	USD	31-Jan-2024	Coupon	20
CHINA SOUTH CITY HOLDING	CSCHCN 4.5 '27	CSCHCN	USD	31-Jan-2024	Coupon	2
New Metro Global Ltd.	FTLNHD 4.5 '26	FTLNHD	USD	2-Feb-2024	Coupon	9
CHINA SOUTH CITY HOLDING	CSCHCN 9 '24	CSCHCN	USD	12-Feb-2024	Coupon	13
Seazen Group Ltd.	FUTLAN 6 '24	FUTLAN	USD	12-Feb-2024	Coupon	8
Gemdale Ever Prosperity Investment	GEMDAL 4.95 '24	GEMDAL	USD	12-Feb-2024	Coupon	12
Greenland	GRNLGR 6.9 '29	GRNLGR	USD	12-Feb-2024	Coupon	9
Dalian Wanda Commercial Management Group	DALWAN 11 '26	DALWAN	USD	13-Feb-2024	Coupon	22
Road King Infrastructure	ROADKG 7.95 Perp	ROADKG	USD	17-Feb-2024	Coupon	12
Greentown China Holdings	GRNCH 3.28'27	GRNCH	CNY	21-Feb-2024	Coupon	5
EXCELLENCE COM MGMT	EXCECP 4.69'26	EXCECP	CNY	22-Feb-2024	Coupon	3
Gemdale Ever Prosperity Investment	GEMDAL 3.58'25	GEMDAL	CNY	23-Feb-2024	Coupon	8
GLORY LAND	GUOPRO 14.25 '24	GUOPRO	USD	23-Feb-2024	Coupon	24
Shui On Land Development	SHUION 6.15 '24	SHUION	USD	24-Feb-2024	Coupon	15
Greentown China Holdings	GRNCH 3.86'25	GRNCH	CNY	27-Feb-2024	Coupon	3
Yanlord Land	YLLGSP 6.8 '24	YLLGSP	USD	27-Feb-2024	Maturity	400
Yanlord Land	YLLGSP 6.8 '24	YLLGSP	USD	27-Feb-2024	Coupon	14
Gemdale Ever Prosperity Investment	GEMDAL 3.93'26	GEMDAL	CNY	1-Mar-2024	Put	278
Gemdale Ever Prosperity Investment	GEMDAL 3.93'26	GEMDAL	CNY	1-Mar-2024	Coupon	11
Greenland	GRNLGR 7.75 '30	GRNLGR	USD	3-Mar-2024	Coupon	12
Shui On Land Development	SHUION 5.5 '25	SHUION	USD	3-Mar-2024	Coupon	13
Road King Infrastructure	ROADKG 6 '25	ROADKG	USD	4-Mar-2024	Coupon	9
Road King Infrastructure	ROADKG 5.9 '25	ROADKG	USD	5-Mar-2024	Coupon	6
Agile Property Holding	AGILE 13.476 Perp	AGILE	USD	7-Mar-2024	Coupon	34
CHINA SOUTH CITY HOLDING	CSCHCN 9 '24	CSCHCN	USD	9-Mar-2024	Coupon	9



#### Exhibit 18: Bond repayment & coupon schedule from performing Chinese HY developers by March 2024

Total principal (including put) repayment and coupon payment by performing Chinese HY developers by March 2024 is US\$2.8bn

Bond	Offshore Bond Ticker	Currency	Payment date	Coupon or Principal	Payment (USD mn)
GEMDAL 3.96'24	GEMDAL	CNY	10-Mar-2024	Maturity	209
GEMDAL 3.96'24	GEMDAL	CNY	10-Mar-2024	Coupon	8
CCLAND 5.2 '25	CCLAND	USD	20-Mar-2024	Coupon	8
RDHGCL 7.8 '24	RDHGCL	USD	20-Mar-2024	Maturity	300
RDHGCL 7.8 '24	RDHGCL	USD	20-Mar-2024	Coupon	12
DALWAN 6.8'26	DALWAN	CNY	22-Mar-2024	Coupon	14
GEMDAL 3.5'24	GEMDAL	CNY	22-Mar-2024	Maturity	153
GEMDAL 3.5'24	GEMDAL	CNY	22-Mar-2024	Coupon	5
GRNCH 4.07'26	GRNCH	CNY	23-Mar-2024	Coupon	9
EXCECP 2.91 '25	EXCECP	USD	24-Mar-2024	Coupon	1
GEMDAL 3.98'24	GEMDAL	CNY	24-Mar-2024	Maturity	209
GEMDAL 3.98'24	GEMDAL	CNY	24-Mar-2024	Coupon	8
GRNCH 4'25	GRNCH	CNY	24-Mar-2024	Coupon	6
DALWAN 6.6'24	DALWAN	CNY	25-Mar-2024	Maturity	36
DALWAN 6.6'24	DALWAN	CNY	25-Mar-2024	Coupon	2
GRNCH 4.07'26	GRNCH	CNY	25-Mar-2024	Put	229
GRNCH 4'25	GRNCH	CNY	25-Mar-2024	Put	139
GRNLGR 7.75 '29	GRNLGR	USD	26-Mar-2024	Coupon	20
AGILE 7.5'25	AGILE	CNY	28-Mar-2024	Put	70
AGILE 5'25	AGILE	CNY	28-Mar-2024	Put	28
AGILE 7.5'25	AGILE	CNY	28-Mar-2024	Coupon	5
AGILE 5'25	AGILE	CNY	28-Mar-2024	Coupon	1
GRNCH 3.7'25	GRNCH	CNY	28-Mar-2024	Coupon	10
XINHUZ 11 '24	XINHUZ	USD	28-Mar-2024	Coupon	28
RISSUN 3 '28	RISSUN	USD	29-Mar-2024	Coupon	3
RISSUN 3 '28	RISSUN	USD	29-Mar-2024	Coupon	9
ROADKG 6.7 '24	ROADKG	USD	30-Mar-2024	Coupon	12
SUNAC 6 '25	SUNAC	USD	30-Mar-2024	Coupon	15
SUNAC 6.25 '26	SUNAC	USD	30-Mar-2024	Coupon	16
SUNAC 6.5 '27	SUNAC	USD	30-Mar-2024	Coupon	33
SUNAC 6.75 '28	SUNAC	USD	30-Mar-2024	Coupon	51
SUNAC 7 '29	SUNAC	USD	30-Mar-2024	Coupon	53
SUNAC 7.25 '30	SUNAC	USD	30-Mar-2024	Coupon	26
SUNAC 1 '32	SUNAC	USD	30-Mar-2024	Coupon	4
GRNCH 3.87'27	GRNCH	CNY	31-Mar-2024	Coupon	3
	GEMDAL 3.96'24 GEMDAL 3.96'24 CCLAND 5.2 '25 RDHGCL 7.8 '24 RDHGCL 7.8 '24 RDHGCL 7.8 '24 DALWAN 6.8'26 GEMDAL 3.5'24 GEMDAL 3.5'24 GEMDAL 3.5'24 GEMDAL 3.5'24 GEMDAL 3.98'24 GEMDAL 3.98	GEMDAL 3.96'24 GEMDAL GEMDAL 3.96'24 GEMDAL CCLAND 5.2 '25 CCLAND RDHGCL 7.8 '24 RDHGCL RDHGCL 7.8 '24 RDHGCL DALWAN 6.8'26 DALWAN GEMDAL 3.5'24 GEMDAL GEMDAL 3.5'24 GEMDAL GRNCH 4.07'26 GRNCH EXCECP 2.91 '25 EXCECP GEMDAL 3.98'24 GEMDAL GRNCH 4'25 GRNCH DALWAN 6.6'24 DALWAN DALWAN 6.6'24 DALWAN GRNCH 4.07'26 GRNCH GRNCH 4'25 GRNCH GRNCH 5'25 AGILE AGILE 7.5'25 AGILE AGILE 5'25 AGILE SUNAC 1'24 XINHUZ RISSUN 3'28 RISSUN ROADKG 6.7 '24 ROADKG SUNAC 6.25 '27 SUNAC SUNAC 6.75 '28 SUNAC SUNAC 6.75 '28 SUNAC SUNAC 7'29 SUNAC SUNAC 1'32 SUNAC	GEMDAL 3.96'24 GEMDAL CNY GEMDAL 3.96'24 GEMDAL CNY CCLAND 5.2 '25 CCLAND USD RDHGCL 7.8 '24 RDHGCL USD RDHGCL 7.8 '24 RDHGCL USD DALWAN 6.8'26 DALWAN CNY GEMDAL 3.5'24 GEMDAL CNY GEMDAL 3.5'24 GEMDAL CNY GEMDAL 3.5'24 GEMDAL CNY GRNCH 4.07'26 GRNCH CNY EXCECP 2.91 '25 EXCECP USD GEMDAL 3.98'24 GEMDAL CNY GRNCH 4'25 GRNCH CNY GRNCH 4'25 GRNCH CNY DALWAN 6.6'24 DALWAN CNY DALWAN 6.6'24 DALWAN CNY GRNCH 4.07'26 GRNCH CNY GRNCH 4.07'26 GRNCH CNY GRNCH 4.25 GRNCH CNY DALWAN 6.6'24 DALWAN CNY GRNCH 4.07'26 GRNCH CNY GRNCH 5'25 GRNCH CNY GRNCH 5'25 AGILE CNY GRNLGR 7.75 '29 GRNLGR USD AGILE 7.5'25 AGILE CNY AGILE 5'25 AGILE CNY AGILE 5'25 AGILE CNY XINHUZ 11 '24 XINHUZ USD RISSUN 3 '28 RISSUN USD RISSUN 3 '28 RISSUN USD ROADKG 6.7 '24 ROADKG USD SUNAC 6.25 '27 SUNAC USD SUNAC 6.75 '28 SUNAC USD SUNAC 6.75 '29 SUNAC USD SUNAC 7.29 SUNAC USD SUNAC 1 '32 SUNAC USD	GEMDAL 3.96'24 GEMDAL CNY 10-Mar-2024 GEMDAL 3.96'24 GEMDAL CNY 10-Mar-2024 CCLAND 5.2'25 CCLAND USD 20-Mar-2024 RDHGCL 7.8'24 RDHGCL USD 20-Mar-2024 RDHGCL 7.8'24 RDHGCL USD 20-Mar-2024 GEMDAL 3.5'24 GEMDAL CNY 22-Mar-2024 GEMCH 4.07'26 GRNCH CNY 23-Mar-2024 GEMDAL 3.98'24 GEMDAL CNY 24-Mar-2024 GRNCH 4'25 GRNCH CNY 25-Mar-2024 GRNCH 4'25 GRNCH CNY 25-Mar-2024 GRNCH 4.07'26 GRNCH CNY 25-Mar-2024 GRNCH 4.07'26 GRNCH CNY 25-Mar-2024 GRNCH 4'25 GRNCH CNY 25-Mar-2024 GRNCH 4'25 GRNCH CNY 25-Mar-2024 GRNCH 5'25 GRNCH CNY 25-Mar-2024 GRNCH 5'25 GRNCH CNY 28-Mar-2024 GRNCH 5'25 AGILE CNY 28-Mar-2024 AGILE 7.5'25 AGILE CNY 28-Mar-2024 AGILE 5'25 AGILE C	GEMDAL 3.96'24         GEMDAL         CNY         10-Mar-2024         Maturity           GEMDAL 3.96'24         GEMDAL         CNY         10-Mar-2024         Coupon           CCLAND 5.2'25         CCLAND         USD         20-Mar-2024         Coupon           RDHGCL 7.8'24         RDHGCL         USD         20-Mar-2024         Maturity           RDHGCL 7.8'24         RDHGCL         USD         20-Mar-2024         Coupon           DALWAN 6.8'26         DALWAN         CNY         22-Mar-2024         Coupon           GEMDAL 3.5'24         GEMDAL         CNY         22-Mar-2024         Coupon           GEMDAL 3.5'24         GEMDAL         CNY         22-Mar-2024         Coupon           EXCECP 2.91'25         EXCECP         USD         24-Mar-2024         Coupon           EXCECP 2.91'25         EXCECP         USD         24-Mar-2024         Coupon           GEMDAL 3.98'24         GEMDAL         CNY         24-Mar-2024         Coupon           GEMDAL 3.98'24         GEMDAL         CNY         24-Mar-2024         Coupon           GRNCH 4'25         GRNCH         CNY         24-Mar-2024         Coupon           DALWAN 6.6'24         DALWAN         CNY         25-Mar-2024

 $<sup>{}^\</sup>star\!\text{This}$  excludes the amortization payment from exchange offers or consent solicitations

Source: BofA Global Research, Bloomberg, Wind

BofA GLOBAL RESEARCH

### Top and bottom ten performers

**Exhibit 18: Top 10 performers in China property over the last week & YTD on total return basis** Bottom 10 performers in China property in this week & YTD

Issuer	Total Return (1-we	ek) Issuer	Total Return (YTD)
	Investment G	irade China property	
VNKRLE 3.975% 2027	3.37%	VNKRLE 3.5% 2029	1.85%
VNKRLE 3.5% 2029	1.56%	VNKRLE 3.975% 2027	1.83%
VNKRLE 3.15% 2025	1.10%	COGO 2.45% 2026	1.31%
COGO 2.45% 2026	0.63%	GRNCH 2.3% 2025	1.17%
CRHZCH 4.125% 2029	0.43%	CHIOLI 3.45% 2029	0.76%
CHIOLI 3.45% 2029	0.25%	VNKRLE 3.15% 2025	0.72%
CHIOLI 2.75% 2030	0.23%	CRHZCH 4.125% 2029	0.48%
CHIOLI 2.375% 2025	0.20%	CHIOLI 2.375% 2025	0.32%
CHIOLI 3.05% 2029	0.12%	YUEXIU 2.8% 2026	0.14%
CHIOLI 4.75% 2028	0.12%	CHIOLI 4.75% 2028	0.04%
	High Yiel	d China property	
AGILE 5.5% 2025	29.23%	AGILE 6.05% 2025	44.30%
AGILE 6.05% 2025	18.88%	RONXIN 7.1% 2025	42.86%
YLLGSP 5.125% 2026	10.40%	AGILE 5.5% 2025	35.78%
ROADKG 5.125% 2026	8.26%	ROADKG 5.125% 2026	28.19%
DALWAN 11% 2025	7.57%	ROADKG 6% 2025	27.36%

#### Exhibit 18: Top 10 performers in China property over the last week & YTD on total return basis

Bottom 10 performers in China property in this week & YTD

Issuer	Total Return (1-week	) Issuer	Total Return (YTD)
DALWAN 11% 2026	7.03%	YLLGSP 5.125% 2026	25.47%
ROADKG 5.2% 2026	6.32%	ROADKG 5.9% 2025	24.83%
ROADKG 6% 2025	5.59%	ROADKG 5.2% 2026	24.18%
FTLNHD 4.625% 2025	3.66%	DALWAN 11% 2026	19.94%
FTLNHD 4.5% 2026	3.22%	DALWAN 11% 2025	18.32%

**Source**: ICE Data Indices, LLC. (Data as of 17 January)

BofA GLOBAL RESEARCH

## Exhibit 19: Bottom 10 performers in China property over the last week & YTD on total return basis Top 10 performers in China property in this week & YTD

Issuer	Total Return (1-week	) Issuer	Total Return (YTD)						
Investment Grade China property									
CHIOLI 6.45% 2034	-0.41%	CHJMAO 3.2% 2026	-1.00%						
CHIOLI 6.375% 2043	-0.09%	CHIOLI 6.45% 2034	-0.90%						
CHIOLI 5.35% 2042	-0.09%	CHIOLI 5.35% 2042	-0.87%						
GRNCH 2.3% 2025	0.05%	CHIOLI 6.375% 2043	-0.86%						
YUEXIU 2.8% 2026	0.06%	CHIOLI 3.05% 2029	-0.32%						
CHJMAO 3.2% 2026	0.07%	CHIOLI 2.75% 2030	-0.22%						
CHIOLI 4.75% 2028	0.12%	CHIOLI 4.75% 2028	0.04%						
CHIOLI 3.05% 2029	0.12%	YUEXIU 2.8% 2026	0.14%						
CHIOLI 2.375% 2025	0.20%	CHIOLI 2.375% 2025	0.32%						
CHIOLI 2.75% 2030	0.23%	CRHZCH 4.125% 2029	0.48%						



## Exhibit 19: Bottom 10 performers in China property over the last week & YTD on total return basis Top 10 performers in China property in this week & YTD

Issuer	Total Return (1	-week) Issuer	Total Return (YTD)	
High Yield China property				
RONXIN 7.1% 2025	-27.01%	LNGFOR 3.85% 2032	-1.52%	
LNGFOR 3.85% 2032	-4.00%	CHJMAO 6% 2026	0.72%	
CHJMAO 6% 2026	0.09%	FTLNHD 4.625% 2025	2.38%	
PINGRE 3.25% 2025	0.68%	LNGFOR 3.95% 2029	2.48%	
LNGFOR 3.95% 2029	1.07%	GRNCH 4.7% 2025	2.71%	
GRNCH 4.7% 2025	1.19%	FTLNHD 4.5% 2026	3.67%	
LNGFOR 4.5% 2028	1.78%	PINGRE 3.25% 2025	4.02%	
ROADKG 5.9% 2025	1.79%	GRNCH 5.65% 2025	4.50%	
GRNCH 5.65% 2025	1.95%	CHJMAO 4.25% 2029	5.61%	
CHJMAO 4.25% 2029	2.45%	PINGRE 3.45% 2026	6.17%	

**Source:** ICE Data Indices, LLC. (Data as **of** 17 January)

BofA GLOBAL RESEARCH

**Exhibit 20: Summary of key events and policy**Key events and policy that drive China HY property spread performance

	Key credit events and policy that drive spread performance		
1-Feb-21	China Fortune Land defaulted.		
21-Mar-21	Yuzhou announced unexpected profit warning.		
26-May-21	Regulator investigated Evergrande for related transactions with Shengjing Bank.		
25-Jul-21	Announcement of the education policy; ban companies that teach school curriculums		
•	from making profits, raising capital or going public.		
31-Aug-21	Evergrande announced 1H21 results, concerns of default risk.		
End of Sep' 21	Evergrande missed coupon payment, Sinic down from 90 to 45pts in a day.		
4-Oct-21	Fantasia defaulted on USD bonds.		
Mid Oct' 21	Policy on mortgage easing.		
23-Oct-21	Announcement of expansion of property tax pilot project.		
Early Nov' 21	Trust loan defaulted by Kaisa, distressed exchange offer of Yango.		
22-Nov-21	China Aoyuan appointed financial advisor to assess capital structure.		
25-Nov-21	Kaisa proposed distressed exchange offer.		
6-Dec-21	Universal RRR cut announced; effective on 12/15/2021.		
20-Dec-21	5bps 1yr LPR (loan prime rate) cut.		
	Rebalancing of HY index, removal of defaulted issuers (FTHDGR, MOLAND, KAISA,		
31-Dec-21	TIANHL/EVERRE).		
mid-Dec'21 to mid-Jan '22	More developers proposed exchange offers; growing concerns on Shimao; equity/debt		
	raising news of Sunac and Country Garden.		
17-Jan-22	PBoC cut the 1-year MLF (medium-term lending facility) rate by 10bps.		
19-Jan-22	News on easing of presale funds rule.		
20-Jan-22	10bps 1-year LPR (loan prime rate) cut; 5bps 5-year LPR (loan prime rate) cut.		
	News: China financial regulators met several AMCs to discuss about their roles in		
26-Jan-22	developers' asset disposal and M&A.		
27-Jan-22	Evergrande aims to release its restructuring plan within six months.		
20 100 22	Hopson announced that PricewaterhouseCoopers (PwC) resigned as the auditor of the		
28-Jan-22	company.		
0.5.1.22	PBoC and CBIRC announced that loans related to subsidized rental housing constructions		
9-Feb-22	will not be subject to real estate loan caps.		
10.5.1.22	Nationwide presale funds rule has been established: funds beyond the escrow threshold		
10-Feb-22	can be accessible to developers and fund release schedule depends on local government.		
Since mid-Feb' 22	More easing measures rolled out in the property market, incl. lower down payment ratio,		
	lower mortgage rate, relaxation of land auction rules.		
Since mid-Feb' 22	More developers proposed exchange offers, such as Yida, Guorui, Zhenro, Jingrui.		
16-Feb-22	Shimao is in discussion with CITIC Trust to extend CNY6bn loans.		
	Shimao has not reached agreement with CITIC Trust on loan extension and may fail to		
23-Feb-22	repay its onshore ABN due on May 17.		
28-Feb-22			
26-1 eb-22 2-Mar-22	Modern Land proposed offshore bond restructuring plan.		
	Dafa and Shimao appointed financial advisors for the debt restructuring.		
7-Mar-22	Yuzhou defaulted on US\$5.7bn due to missed interest payment and cross default.		
17-Mar-22	Minister of Finance (MoF), China Banking and Insurance Regulatory Commission (CBIRC),		
	China Securities Regulatory Commission, PBoC and State Administration of Foreign		
	Exchange set out positive tones to support property market in response to State Council		
	call on March 16.		
Late Mar' 22	Several developers announced to delay the audited FY21 results publication.		



Exhibit 20: Summary of key events and policy
Key events and policy that drive China HY property spread performance

Date	Key credit events and policy that drive spread performance
25-Mar-22	PwC plans to gradually exit auditing Chinese private property developers per REDD.
15-Apr-22	The People's Bank of China (PBoC) announced on April 15 that it would lower the reserve requirement ratio (RRR) by 25bp, effective on April 25.
12-May-22	Sunac failed to pay coupon on one of its USD bonds and triggered cross defaults.
20-May-22	5Y LPR (loan prime rate) cut by 15bp to 4.45%; with the lower bound of the mortgage rate cut by 20bp.
22-Jun-22	Country Garden was downgraded to Ba1 from Baa3, negative outlook, by Moody's.
4-Jul-22	Shimao default on one of its 2022 note, and triggered cross defaults of all its offshore bonds, totaling US\$5.72bn.
11-Jul-22	Homebuyers of >35 projects in various cities have announced termination of mortgage repayments due to construction suspension and delay.
15-Aug-22	Chinese regulators plan to provide liquidity support to selected developers via state- guaranteed RMB bonds; the list includes Longfor, Gemdale, Country Garden, and CIFI,
_	Seazen, and Sino-Ocean, according to REDD.
22-Aug-22	5-year/1-year LPR is lowered by 15/5bp to 4.3/3.65%.
22-Sep-22	Fed increased policy rate by 75bp, and projects a terminal rate close to 5.0% by early 2023
27-Sep-22	Media reported that CIFI missed payment on a trust product
10-Oct-22	CIFI defaulted on missing CB coupon
8-Nov-22	NAFMII & PBoC announced plans to grant RMB250bn financial support to China POE
11-Nov-22	China cut the quarantine requirement to 8 days
14-Nov-22	China eased the presale regulation: allowing developers to retrieve up to 30% of escrow account fund with bank letter of guarantee.
15-Nov-22	PBoC and CBIRC co-announced 16-point to support property sector
27-Nov-22	Chinese banks start to offer credit lines to developers
29-Nov-22	CSRC relaxed A/H share equity financing for property sector
7-Dec-22	China has further eased Covid restrictions, announcing 10 new measures on Dec 7.
9-Dec-22	CSRC expands C-REIT pilot to include commercial real estate and regular rental apartments.
13-Dec-22	ICBC provides US\$300mn offshore loan to COGARD
19-Dec-22	State Council calls for support for cash-strapped developers to boost economic growth
26-Dec-22	China downgraded COVID management from Class A to Class B infection, a major COVID policy change; quarantine requirements for inbound travelers will be scrapped from Jan 8
5-Jan-23	PBoC loosens mortgage rates for cities with home price declines
10-Jan-23	China PBoC and CBIRC urged banks to help high-quality & systemically important developers reduce risks and improve their balance sheets
20-Feb-23	CSRC launched a pilot program for real estate private equity investment funds
17-Mar-23	The People's Bank of China (PBoC) announced 25bp RRR cut, effective on Mar 27
21-Mar-23	Sino-Ocean planned to defer the perp coupon payment
29-Mar-23	Sino-Ocean decided to repay the perp coupon
31-Mar-23	Sino-Ocean missed amortization of syn loan
30-Apr-23	Zhuhai Wanda's IPO exceeded the 6-month expiry period
20-Jun-23	China cut 1yr/5yr LPR by 10bp to 3.55%/4.20%
28-Jun-23	Dalian Wanda's application for registration of public onshore bonds got suspended by CSRC
29-Jun-23	Zhuhai Wanda filed its IPO again
5-Jul-23	Sino-Ocean is working with its two SOE shareholders (China Life & Dajia Life) regarding a
	holistic risk mitigation plan PBoC & NFRA have announced: (1) existing loans provided to developers maturing before
11-Jul-23	end-'24 (previously May'23) can be extended for 1 year; (2) banks will not adjust downward the risk classification of loans provided to developers before end-'24 (previously May'23)
14-Jul-23	Sino-Ocean has not paid the coupon of 2.7% '25 notes due on Jul 13.
19-Jul-23	Sino-Ocean seeks a 1-year extension for the RMB2bn onshore bond due Aug 2
19-Jul-23	Greenland defaulted on the 6.75% '24 note amortization payment due on June 25
20-Jul-23	Dalian Wanda reportedly has a shortfall of US\$200mn on the 6.875% notes (US\$400mn) maturing on Jun 25
	Politburo meeting omitted the phrase "house is for living, not for speculation", and
25-Jul-23	stressed to 1) optimize and adjust property policies; 2) revitalize the outstanding stocks; 3) refurbishment of urban villages in large cities
26-Jul-23	Sino-Ocean proposed to extend coupons of 3 USD bonds, and has engaged advisers to explore options for offshore debt
	PBOC said that it will continue to guide banks to lower mortgage rates & down payment
1-Aug-23	ratios for housing purchases in 2H23



**Exhibit 20: Summary of key events and policy**Key events and policy that drive China HY property spread performance

Date	Key credit events and policy that drive spread performance
7-Aug-23	Country Garden missed the coupons of two offshore bonds due on Aug 6 (4.2% '26 &
· ·	4.8% '30), and the company is reportedly optimizing its capital arrangements
11-Aug-23	Sino-Ocean has received requisite consent to extend coupon of '24 bond by 2 months
14-Aug-23	Country Garden plans to extend the RMB3.9bn onshore bond by 3yrs with amortization payment according to Bloomberg
21-Aug-23	China cut 1-year LPR by 10bps to 3.45%
30-Aug-23	Chinese state banks are proposing to cut interest rates on existing mortgages and deposits
4-Aug-23	Many cities have announced loosening of definition of 1st home buyers, following Beijing Shanghai, Guangzhou, Shenzhen, etc.
12-Sept-23	Guangzhou announced to cut the min. down payment ratio to 30% (from 50%)/40% (from 70%) for 2nd home buyers have/ haven't paid off mortgages, and also cut the 1st/2nd home mortgage rate to LPR-10bps (from LPR)/LPR+30bps (from LPR+60bps).
19-Sept-23	Guangzhou relaxed Home Purchase Restrictions
	China Evergrande is unable to meet qualifications to issue new notes under the proposed
26-Sept-23	restructuring of its offshore debt, and its Chairman has been taken away by police and is currently under police control
04-Oct-23	China SCE unable to repay an instalment of its syndicated loan, which had resulted in an event of default under its USD bonds.
10-Oct-23	Country Garden failed to make a HKD470mn due payment, and it expects not to be able t meet all of its offshore payment obligations when due/ within the grace periods.
6-Nov-23	Vanke held a call with Shenzhen SASAC and Shenzhen Metro to discuss potential support to Vanke.
15-Nov-23	Moody's downgraded Longfor to Ba1 from Baa3, and downgraded Longfor's senior unsecured debt rating to Ba2 from Baa3, with negative outlook
20-Nov-23	Sunac has satisfied all the offshore debt restructuring (RSA) conditions.
23-Nov-23	Chinese regulators are drawing up a "white list" of 50 developers eligible for funding support, which reportedly includes Country Garden, Sino-Ocean, Cifi, etc.
04-Jan-24	Shenzhen rolled out its drafted guidelines on urban village revitalization (UVR) - the second major city following Guangzhou to publish such guidelines
05-Jan-24	PBoC and NFRA called for financial support for construction and operation of long-term rental housing
10-Jan-24	Vanke briefed creditors about its 2024 repayment plan, and Longfor announced to repay two syndicated loan due in 2025 ahead of schedule
12-Jan-24	MoHURD and the NFRA made a joint announcement to support developers' financing, an local government will draw up a list of projects eligible for financing support to be sent to financial institutions per media reports.
12-Jan-24	Guangzhou approved the urban village refurbishment plan, aiming to redevelop 165 urbar villages by end-2035

Source: Bloomberg, Media news

BofA GLOBAL RESEARCH

### **Special Disclosures**

Some of the securities discussed herein should only be considered for inclusion in accounts qualified for high risk investment.



### **Disclosures**

### **Important Disclosures**

#### **BofA Global Research Credit Opinion Key**

BofA Global Research provides recommendations on an issuer's bonds (including corporate and sovereign external debt securities), loans, capital securities, equity preferreds and CDS as described below. Convertible securities are not rated. An issuer level recommendation may also be provided for an issuer as explained below. BofA Global Research credit recommendations are assigned using a three-month time horizon.

**Issuer Recommendations**: If an issuer credit recommendation is provided, it is applicable to bonds and capital securities of the issuer except bonds and capital securities specifically referenced in the report with a different credit recommendation. Where there is no issuer credit recommendation, only individual bonds and capital securities with specific recommendations are covered. Loans, CDS and equity preferreds are rated separately and issuer recommendations do not apply to them.

BofA Global Research credit recommendations are assigned using a three-month time horizon:

**Overweight:** Spreads and /or excess returns are likely to outperform the relevant and comparable market over the next three months. **Marketweight:** Spreads and/or excess returns are likely to perform in-line with the relevant and comparable market over the next three months.

Underweight: Spreads and/or excess returns are likely to underperform the relevant and comparable market over the next three months.

BofA Global Research uses the following rating system with respect to Credit Default Swaps (CDS):

**Buy Protection:** Buy CDS, therefore going short credit risk. **Neutral:** No purchase or sale of CDS is recommended. **Sell Protection:** Sell CDS, therefore going long credit risk.

Due to the nature of strategic analysis, the issuers or securities recommended or discussed in this report are not continuously followed. Accordingly, investors must regard this report as providing stand-alone analysis and should not expect continuing analysis or additional reports relating to such issuers and/or securities.

BofA Global Research personnel (including the analyst(s) responsible for this report) receive compensation based upon, among other factors, the overall profitability of Bank of America Corporation, including profits derived from investment banking. The analyst(s) responsible for this report may also receive compensation based upon, among other factors, the overall profitability of the Bank's sales and trading businesses relating to the class of securities or financial instruments for which such analyst is responsible.

BofA Securities fixed income analysts regularly interact with sales and trading desk personnel in connection with their research, including to ascertain pricing and liquidity in the fixed income markets

### **Other Important Disclosures**

From time to time research analysts conduct site visits of covered issuers. BofA Global Research policies prohibit research analysts from accepting payment or reimbursement for travel expenses from the issuer for such visits.

Prices are indicative and for information purposes only. Except as otherwise stated in the report, for any recommendation in relation to an equity security, the price referenced is the publicly traded price of the security as of close of business on the day prior to the date of the report or, if the report is published during intraday trading, the price referenced is indicative of the traded price as of the date and time of the report and in relation to a debt security (including equity preferred and CDS), prices are indicative as of the date and time of the report and are from various sources including BofA Securities trading desks.

The date and time of completion of the production of any recommendation in this report shall be the date and time of dissemination of this report as recorded in the report timestamp.

This report may refer to fixed income securities or other financial instruments that may not be offered or sold in one or more states or jurisdictions, or to certain categories of investors, including retail investors. Readers of this report are advised that any discussion, recommendation or other mention of such instruments is not a solicitation or offer to transact in such instruments. Investors should contact their BofA Securities representative or Merrill Global Wealth Management financial advisor for information relating to such instruments.

Rule 144A securities may be offered or sold only to persons in the U.S. who are Qualified Institutional Buyers within the meaning of Rule 144A under the Securities Act of 1933, as amended.

SECURITIES OR OTHER FINANCIAL INSTRUMENTS DISCUSSED HEREIN MAY BE RATED BELOW INVESTMENT GRADE AND SHOULD THEREFORE ONLY BE CONSIDERED FOR INCLUSION IN ACCOUNTS QUALIFIED FOR SPECULATIVE INVESTMENT.

Recipients who are not institutional investors or market professionals should seek the advice of their independent financial advisor before considering information in this report in connection with any investment decision, or for a necessary explanation of its contents.

The securities or other financial instruments discussed in this report may be traded over-the-counter. Retail sales and/or distribution of this report may be made only in states where these instruments are exempt from registration or have been qualified for sale.

Officers of BofAS or one or more of its affiliates (other than research analysts) may have a financial interest in securities of the issuer(s) or in related investments.

This report, and the securities or other financial instruments discussed herein, may not be eligible for distribution or sale in all countries or to certain categories of investors, including retail investors

Information relating to Affiliates of BofAS, MLPF&S and Distribution of Affiliate Research Reports:

Refer to BofA Global Research policies relating to conflicts of interest.

"BofA Securities" includes BofA Securities, Inc. ("BofAS") and its affiliates. Investors should contact their BofA Securities representative or Merrill Global Wealth Management financial advisor if they have questions concerning this report or concerning the appropriateness of any investment idea described herein for such investor. "BofA Securities" is a global brand for BofA Global Research.

BofAS and/or Merrill Lynch, Pierce, Fenner & Smith Incorporated ("MLPF&S") may in the future distribute, information of the following non-US affiliates in the US (short name: legal name, regulator): Merrill Lynch (South Africa): Merrill Lynch South Africa (Pty) Ltd., regulated by The Financial Service Board; MLI (UK): Merrill Lynch International, regulated by the Financial Conduct Authority (FCA) and the Prudential Regulation Authority (PRA); BofASE (France): BofA Securities Europe SA is authorized by the Autorité de Contrôle Prudentiel et de Résolution (ACPR) and regulated by the ACPR and the Autorité des Marchés Financiers (AMF). BofA Securities Europe SA ("BofASE") with registered address at 51, rue La Boétie, 75008 Paris is registered under no 842 602 690 RCS Paris. In accordance with the provisions of French Code Monétaire et Financier (Monetary and Financial Code), BofASE is an établissement de crédit et d'investissement (credit and investment institution) that is authorised and supervised by the European Central Bank and the Autorité de Contrôle Prudentiel et de Résolution (ACPR) and regulated by the ACPR and the Autorité des Marchés Financiers. BofASE's share capital can be found at <a href="https://www.bofaml.com/BofASEdisclaimer">www.bofaml.com/BofASEdisclaimer</a>; BofA Europe (Milan): Bank of America Europe Designated Activity Company, Milan Branch, regulated by the Bank of Italy, the European Central Bank (ECB) and the Central Bank of Ireland (CBI); BofA Europe (Frankfurt): Bank of America Europe Designated Activity Company, Frankfurt Branch regulated by BaFin, the ECB and the CBI; BofA Europe (Madrid): Bank of America Europe Designated Activity Company, Sucursal en España, regulated by the Bank of Spain, the ECB and the CBI; Merrill Lynch (Australia): Merrill Lynch Equities (Australia): Limited, regulated by the Australia): Merrill Lynch (Rosignapore) Pte Ltd., regulated by the Hong Kong Securities and Futures Commission (HKSFC); Merrill Lynch (Singapore): Merrill Lynch (Mexico): Merrill Lynch Mex



India (SEBI); Merrill Lynch (Israel): Merrill Lynch Israel Limited, regulated by Israel Securities Authority; Merrill Lynch (DIFC): Merrill Lynch International (DIFC Branch), regulated by the Dubai Financial Services Authority (DFSA); Merrill Lynch (Brazil): Merrill Lynch S.A. Corretora de Títulos e Valores Mobiliários, regulated by Comissão de Valores Mobiliários; Merrill Lynch KSA Company: Merrill Lynch Kingdom of Saudi Arabia Company, regulated by the Capital Market Authority.

This information: has been approved for publication and is distributed in the United Kingdom (UK) to professional clients and eligible counterparties (as each is defined in the rules of the FCA and the PRA) by MLI (UK), which is authorized by the PRA and regulated by the FCA and the PRA - details about the extent of our regulation by the FCA and PRA are available from us on request; has been approved for publication and is distributed in the European Economic Area (EEA) by BofASE (France), which is authorized by the ACPR and regulated by the ACPR and the AMF; has been considered and distributed in Japan by BofAS Japan, a registered securities dealer under the Financial Instruments and Exchange Act in Japan, or its permitted affiliates; is issued and distributed in Hong Kong by Merrill Lynch (Hong Kong) which is regulated by HKSFC; is issued and distributed in Taiwan by Merrill Lynch (Taiwan); is issued and distributed in India by BofAS India; and is issued and distributed in Singapore to institutional investors and/or accredited investors (each as defined under the Financial Advisers Regulations) by Merrill Lynch (Singapore) (Company Registration No 198602883D). Merrill Lynch (Singapore) is regulated by MAS. Merrill Lynch Equities (Australia) Limited (ABN 65 006 276 795), AFS License 235132 (MLEA) distributes this information in Australia only to "Wholesale' clients as defined by s.761G of the Corporations Act 2001. With the exception of Bank of America N.A., Australia Branch, neither MLEA nor any of its affiliates involved in preparing this information is an Authorised Deposit-Taking Institution under the Banking Act 1959 nor regulated by the Australian Prudential Regulation Authority. No approval is required for publication or distribution of this information in Brazil and its local distribution is by Merrill Lynch (Brazil) in accordance with applicable regulations. Merrill Lynch (DIFC) is authorized and regulated by the DFSA. Information in Germany and is regulated by BaFin, the ECB and the CBI. BofA Securit

This information has been prepared and issued by BofAS and/or one or more of its non-US affiliates. The author(s) of this information may not be licensed to carry on regulated activities in your jurisdiction and, if not licensed, do not hold themselves out as being able to do so. BofAS and/or MLPF&S is the distributor of this information in the US and accepts full responsibility for information distributed to BofAS and/or MLPF&S clients in the US by its non-US affiliates. Any US person receiving this information and wishing to effect any transaction in any security discussed herein should do so through BofAS and/or MLPF&S and not such foreign affiliates. Hong Kong recipients of this information should contact Merrill Lynch (Asia Pacific) Limited in respect of any matters relating to dealing in securities or provision of specific advice on securities or any other matters arising from, or in connection with, this information. Singapore recipients of this information should contact Merrill Lynch (Singapore) Pte Ltd in respect of any matters arising from, or in connection with, this information. For clients that are not accredited investors, expert investors or institutional investors Merrill Lynch (Singapore) Pte Ltd accepts full responsibility for the contents of this information distributed to such clients in Singapore.

#### General Investment Related Disclosures:

Taiwan Readers: Neither the information nor any opinion expressed herein constitutes an offer or a solicitation of an offer to transact in any securities or other financial instrument. No part of this report may be used or reproduced or quoted in any manner whatsoever in Taiwan by the press or any other person without the express written consent of BofA Securities. This document provides general information only, and has been prepared for, and is intended for general distribution to, BofA Securities clients. Neither the information nor any opinion expressed constitutes an offer or an invitation to make an offer, to buy or sell any securities or other financial instrument or any derivative related to such securities or instruments (e.g., options, futures, warrants, and contracts for differences). This document is not intended to provide personal investment advice and it does not take into account the specific investment objectives, financial situation and the particular needs of, and is not directed to, any specific person(s). This document and its content do not constitute, and should not be considered to constitute, investment advice for purposes of ERISA, the US tax code, the Investment Advisers Act or otherwise. Investors should seek financial advice regarding the appropriateness of investing in financial instruments and implementing investment strategies discussed or recommended in this document and should understand that statements regarding future prospects may not be realized. Any decision to purchase or subscribe for securities in any offering must be based solely on existing public information on such security or the information in the prospectus or other offering document issued in connection with such offering, and not on this document.

Securities and other financial instruments referred to herein, or recommended, offered or sold by BofA Securities, are not insured by the Federal Deposit Insurance Corporation and are not deposits or other obligations of any insured depository institution (including, Bank of America, N.A.). Investments in general and, derivatives, in particular, involve numerous risks, including, among others, market risk, counterparty default risk and liquidity risk. No security, financial instrument or derivative is suitable for all investors. Digital assets are extremely speculative, volatile and are largely unregulated. In some cases, securities and other financial instruments may be difficult to value or sell and reliable information about the value or risks related to the security or financial instrument may be difficult to obtain. Investors should note that income from such securities and other financial instruments, if any, may fluctuate and that price or value of such securities and instruments may rise or fall and, in some cases, investors may lose their entire principal investment. Past performance is not necessarily a guide to future performance. Levels and basis for taxation may change.

BofA Securities is aware that the implementation of the ideas expressed in this report may depend upon an investor's ability to "short" securities or other financial instruments and that such action may be limited by regulations prohibiting or restricting "shortselling" in many jurisdictions. Investors are urged to seek advice regarding the applicability of such regulations prior to executing any short idea contained in this report.

This report may contain a trading idea or recommendation which highlights a specific identified near-term catalyst or event impacting a security, issuer, industry sector or the market generally that presents a transaction opportunity, but does not have any impact on the analyst's particular "Overweight" or "Underweight" rating (which is based on a three month trade horizon). Trading ideas and recommendations may differ directionally from the analyst's rating on a security or issuer because they reflect the impact of a near-term catalyst or event.

Certain investment strategies and financial instruments discussed herein may only be appropriate for consideration in accounts qualified for high risk investment.

Foreign currency rates of exchange may adversely affect the value, price or income of any security or financial instrument mentioned in this report. Investors in such securities and instruments effectively assume currency risk.

BofAS or one of its affiliates is a regular issuer of traded financial instruments linked to securities that may have been recommended in this report. BofAS or one of its affiliates may, at any time, hold a trading position (long or short) in the securities and financial instruments discussed in this report.

BofA Securities, through business units other than BofA Global Research, may have issued and may in the future issue trading ideas or recommendations that are inconsistent with, and reach different conclusions from, the information presented herein. Such ideas or recommendations may reflect different time frames, assumptions, views and analytical methods of the persons who prepared them, and BofA Securities is under no obligation to ensure that such other trading ideas or recommendations are brought to the attention of any recipient of this information. In the event that the recipient received this information pursuant to a contract between the recipient and BofAS for the provision of research services for a separate fee, and in connection therewith BofAS may be deemed to be acting as an investment adviser, such status relates, if at all, solely to the person with whom BofAS has contracted directly and does not extend beyond the delivery of this report (unless otherwise agreed specifically in writing by BofAS). If such recipient uses the services of BofAS in connection with the sale or purchase of a security referred to herein, BofAS may act as principal for its own account or as agent for another person. BofAS is and continues to act solely as a broker-dealer in connection with the execution of any transactions, including transactions in any securities referred to herein.

#### Copyright and General Information:

Copyright 2024 Bank of America Corporation. All rights reserved. iQdatabase® is a registered service mark of Bank of America Corporation. This information is prepared for the use of BofA Securities clients and may not be redistributed, retransmitted or disclosed, in whole or in part, or in any form or manner, without the express written consent of BofA Securities. BofA Global Research information is distributed simultaneously to internal and client websites and other portals by BofA Securities and is not publicly-available material. Any unauthorized use or disclosure is prohibited. Receipt and review of this information constitutes your agreement not to redistribute, retransmit, or disclose to others the contents, opinions, conclusion, or information contained herein (including any investment recommendations, estimates or price targets) without first obtaining express permission from an authorized officer of BofA Securities. Materials prepared by BofA Global Research personnel are based on public information. Facts and views presented in this material have not been reviewed by, and may not reflect information known to, professionals in other business areas of BofA Securities, including investment banking personnel. BofA Securities has established information barriers between BofA Global Research and certain business groups. As a result, BofA Securities does not disclose certain client relationships with, or compensation received from, such issuers. To the extent this material discusses any legal proceeding or issues, it has not been prepared as nor is it intended to express any legal conclusion, opinion or advice. Investors should consult their own legal advisers as to issues of law relating to the subject matter of this material. BofA Global Research personnel's knowledge of legal proceedings in which any BofA Securities entity and/or its directors, officers and employees may be plaintiffs, defendants, co-defendants or co-plaintiffs with or involving issuers mentioned in this material is based on public inform



This information has been prepared independently of any issuer of securities mentioned herein and not in connection with any proposed offering of securities or as agent of any issuer of any securities. None of BofAS any of its affiliates or their research analysts has any authority whatsoever to make any representation or warranty on behalf of the issuer(s). BofA Global Research policy prohibits research personnel from disclosing a recommendation, investment rating, or investment thesis for review by an issuer prior to the publication of a research report containing such rating, recommendation or investment thesis.

Any information relating to the tax status of financial instruments discussed herein is not intended to provide tax advice or to be used by anyone to provide tax advice. Investors are urged to seek tax advice based on their particular circumstances from an independent tax professional.

The information herein (other than disclosure information relating to BofA Securities and its affiliates) was obtained from various sources and we do not guarantee its accuracy. This information may contain links to third-party websites. BofA Securities is not responsible for the content of any third-party website or any linked content contained in a third-party website. Content contained on such third-party websites is not part of this information and is not incorporated by reference. The inclusion of a link does not imply any endorsement by or any affiliation with BofA Securities. Access to any third-party website is at your own risk, and you should always review the terms and privacy policies at third-party websites before submitting any personal information to them. BofA Securities is not responsible for such terms and privacy policies and expressly disclaims any liability for them.

All opinions, projections and estimates constitute the judgment of the author as of the date of publication and are subject to change without notice. Prices also are subject to change without notice. BofA Securities is under no obligation to update this information and BofA Securities ability to publish information on the subject issuer(s) in the future is subject to applicable quiet periods. You should therefore assume that BofA Securities will not update any fact, circumstance or opinion contained herein.

Certain outstanding reports or investment opinions relating to securities, financial instruments and/or issuers may no longer be current. Always refer to the most recent research report relating to an issuer prior to making an investment decision.

In some cases, an issuer may be classified as Restricted or may be Under Review or Extended Review. In each case, investors should consider any investment opinion relating to such issuer (or its security and/or financial instruments) to be suspended or withdrawn and should not rely on the analyses and investment opinion(s) pertaining to such issuer (or its securities and/or financial instruments) nor should the analyses or opinion(s) be considered a solicitation of any kind. Sales persons and financial advisors affiliated with BofAS or any of its affiliates may not solicit purchases of securities or financial instruments that are Restricted or Under Review and may only solicit securities under Extended Review in accordance with firm policies.

Neither BofA Securities nor any officer or employee of BofA Securities accepts any liability whatsoever for any direct, indirect or consequential damages or losses arising from any use of this information.

