

Class 18: Chinese Bond Market 中国利率债市场

Financial Markets, Spring 2020, SAIF

Jun Pan

**Shanghai Advanced Institute of Finance (SAIF)
Shanghai Jiao Tong University**

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Outline

- The Chinese bond market, with amount outstanding of 100T, provides financing to
 - ▶ Central government and policy banks: 32%.
 - ▶ Local governments: 22%.
 - ▶ Financial and non-financial firms and Chengtou.
- Trading takes place in both the interbank market and the exchange.
 - ▶ Poor liquidity, especial of gov't bonds, limits the effectiveness of the market.
 - ▶ Volatile trading volumes, often comoving with bond prices, affect stability.
- The presence of Chinese government bonds is limited due to
 - ▶ Its limited size and poor liquidity.
 - ▶ Market participants rely instead on the CDB curve.
 - ▶ Monetary policy in China.
- Potential attraction for foreign investors:
 - ▶ Recent inclusion to Barclays global aggregate bond index.
 - ▶ Low correlation with UST and stability in CNY.
 - ▶ Currently spreading at 200 basis points above UST 10Y.

Chinese Bond Market

债市概览

债市总存量
100.40万亿
较年初: +3.31万亿

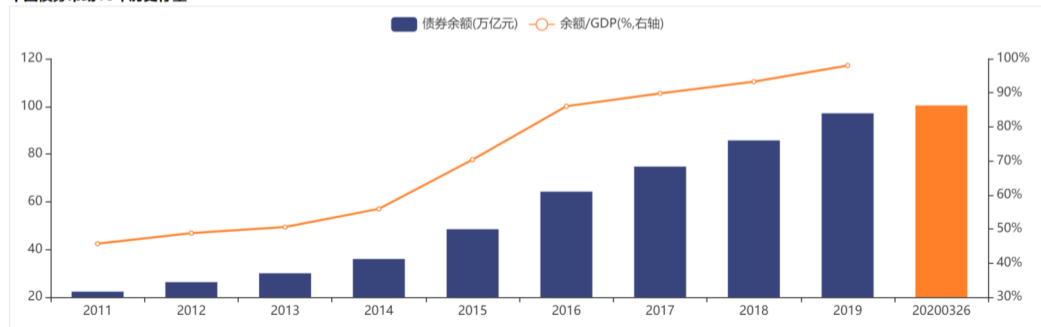
利率债存量
55.35万亿
较年初: +1.87万亿

信用债存量
34.61万亿
较年初: +1.72万亿

同业存单存量
10.44万亿
较年初: -0.28万亿

地方债务
31.91万亿
较年初: +1.91万亿

中国债券市场10年历史存量

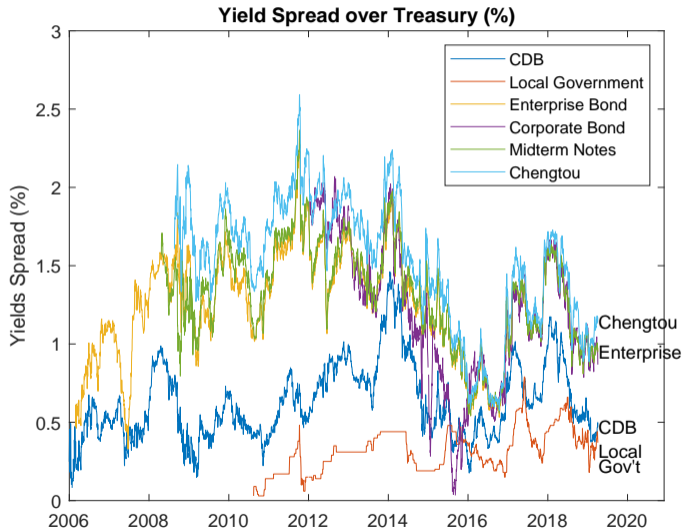


Rates and Credit 利率债和信用债

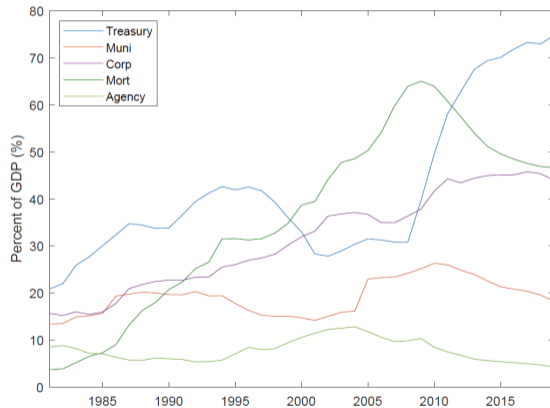
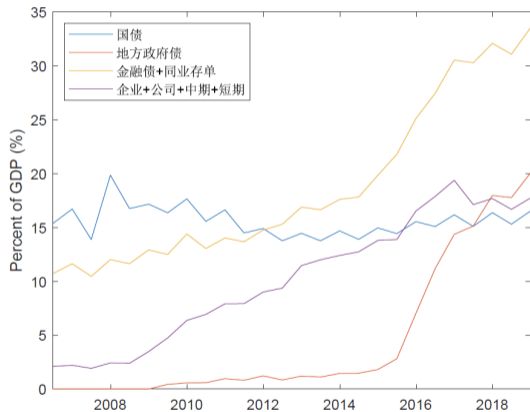
(Amount Outstanding Apr 2020)

	类别	只数	余额 (亿)	余额比重(%)
利率债	国债	277	168,997.34	16.70
	政策银行债	296	160,321.93	15.85
	地方政府债	5349	226,250.46	22.36
	央行票据	4	185.00	0.02
信用债	金融债	1759	75,191.89	7.43
	企业债	2510	22,945.45	2.27
	公司债	7285	75,889.67	7.50
	中期票据	5613	69,715.44	6.89
	短期融资券	2646	26,172.49	2.59
	定向工具	2831	21,289.82	2.10
	国际机构债	17	299.60	0.03
	政府支持机构债	159	16,525.00	1.63
	资产支持证券	7298	35,946.59	3.55
	可转债	292	3,983.83	0.39
	可交换债	134	2,224.76	0.22

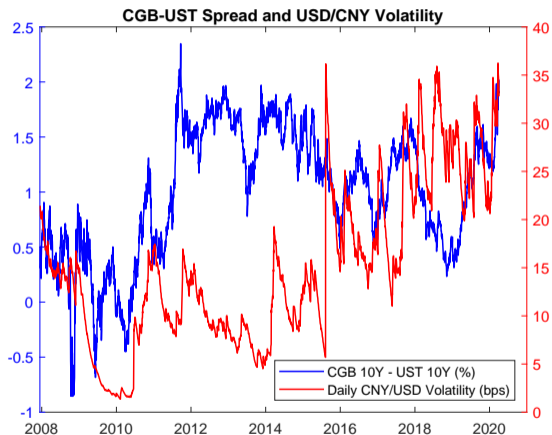
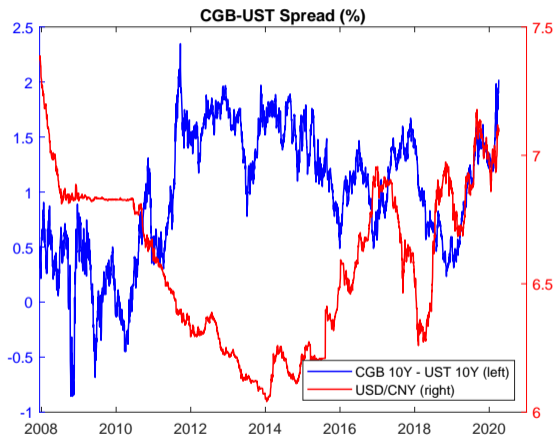
各类债券和国债的收益率差 (5-Year Spread)



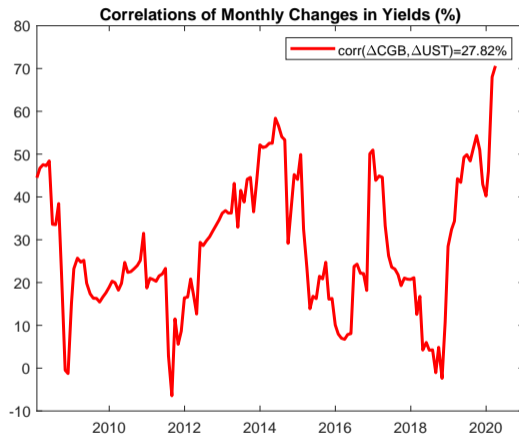
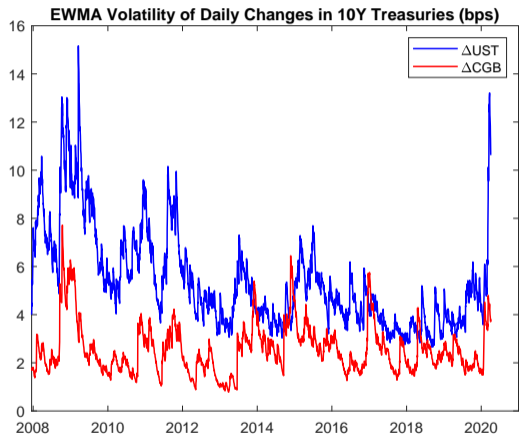
Bond Market to GDP (%), China and US



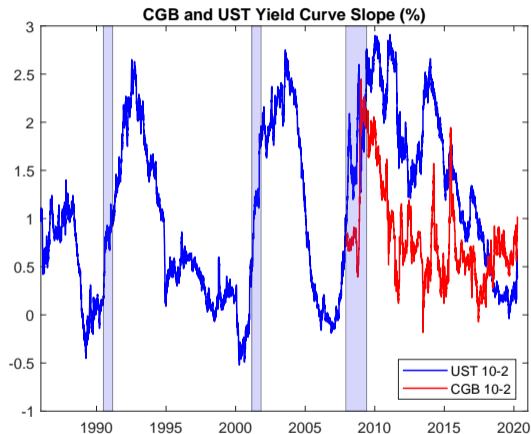
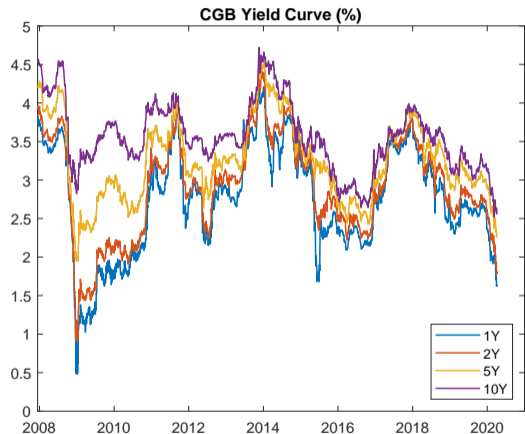
The CGB-UST Spread



CGB and UST, Volatility and Correlation



Slope of the Yield Curve



CGB vs CDB Yields (2006-2019)

	1y	5y	10y	20y	30y
CDB avg (y) (%)	3.23	3.88	4.16	4.59	4.71
CGB avg (y) (%)	2.68	3.25	3.57	4.00	4.12
CDB std(Δy) (bps)	3.88	3.53	3.22	2.58	2.50
CGB std(Δy) (bps)	3.55	3.22	2.81	2.26	2.26
	1y	5y	10y	20y	30y
correlations in y (%)	96.10	96.25	94.76	93.95	93.88
correlations in Δy (%)	53.38	67.19	73.39	75.87	73.89

The Benchmark Role of Treasury Yield Curve in the US

- Market participants rely on the Treasury curve to assess the cost of funds at different borrowing horizons.
- Price discovery about inflation prospects and other macroeconomic fundamentals occurred mainly in the Treasury market.
- This benchmark status derives from features unique to Treasuries:
 - ▶ The most credit-worthy, essentially free of default risk.
 - ▶ Large amount outstanding, highly liquid.
 - ▶ A wide range of maturities, facilitating the construction of yield curves.
 - ▶ Well developed repo and derivatives markets for Treasuries, enabling long and short positions to reflect views of future interest rates.

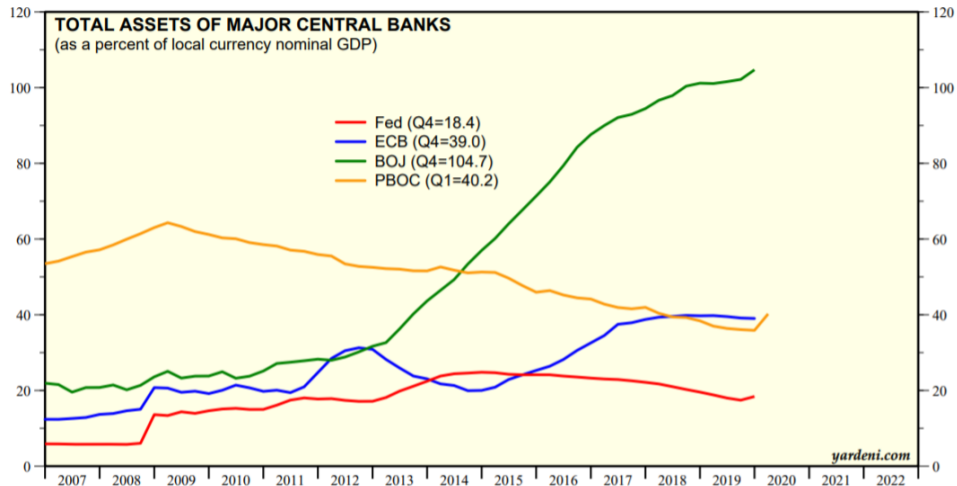
国债在中国金融市场的地位

- 国债应该是金融市场的核心：
 - ▶ 一个健康的国债市场可以通过市场参与者的交易，及时有效的反应市场供求关系，为金融市场的定价提供基准利率曲线。
 - ▶ 国债也是中央银行实施货币政策的主要渠道。
- 目前，国债市场没有起应有的作用：
 - ▶ 作为基准利率，国开债的利率被更广泛的采用。
 - ▶ 基准利率曲线的宽度很有限，尤其是长期资金定价缺乏权威的“锚”。
 - ▶ 国债也没有成为央行的货币政策的主要工具。
- 提高国债的深度，广度，和流通性，让中国金融市场有一个“健全反应市场供求关系的国债收益曲线”，应该是政府决策者优先考虑的一个问题。

A Snapshot of Key PBoC Indicators

Policy		Snapshot							People's Bank of China		
1) Policy		7) Members		Latest PBOC Decision			Next PBOC Decision		Toolbox		
★ 		10) Contact PBOC		September 06, 2019			-		China Interest Rates		
PBOC Activity		Announced Res. Req.		13.00 (50 bp Cut)		Deposit Rate		1.50		35) ALLX PBOC Deposit Rates	
11) PBOC Decisions		Reserve Req. Ratio		12.50		Lending Rate		4.35		36) BTMM China Bond Mkt.	
12) Statements		FX Rate (USDCNY)		7.0385		7-Day Repo Rate		1.7059		37) ALLX SHIBOR Fixings	
13) Release Calendar		Daily CNY Fixing Mid ...		7.0354						38) INBK CHIBOR	
14) Website		Inflation Target (3%)				BE China Primer				39) CG Government Bond ...	
15) Operations		Inflation Rate (%)		4.30		BE PBOC Primer				40) CG Onshore OIS Curve	
16) TOP PBOC News										41) CG NDIRS Swap Curve	
										42) FWCM Forward Curve Mat...	
Aggregates		4) Events		5) News		6) Research		7) Blogs		8) All Banks	
17) Money Supply		3) News		100) 中国银保监会拟对商业银行小微企业金融服务进...		BFW		10:38		FX Market	
18) Reserve Money		101) 中国央行货币政策工具回顾与未来到期一览：周...		CBN		09:35				43) CFET CFETS Rates	
19) Foreign Reserves		102) *中国央行公开市场今日无投放亦无到期		BFW		09:16				Leading Indicators	
20) Loans		103) Sovereign Bonds Poised to Rise for a Fourth...		BFW		12:35				44) GP Leading Indicator	
21) Deposits		104) China MOF Sells 30-Year Upsized Bonds at 3...		BFW		11:45				45) GP OECD Index	
22) Gov't Auctions		105) *CHINA MOF SELLS 30-YEAR UPSIZED BONDS ...		BFW		11:39				46) GP OECD Index (yoy%)	
23) PBOC Auction		106) 中国央行副行长朱鹤新免职，此前已出任中信集...		BFW		11:26				47) ECST Business Climate	
24) Repo Rates		107) *中国国务院：免去朱鹤新的中国人民银行副行...		CBN		11:19				48) ECST Entrepreneur Clim...	
25) Repurchase Notes		Forecast		2016		2017		2018		2019	
26) Gov't Debt		Real GDP (yoy%)		6.80		6.90		6.70		6.10	
		CPI (yoy%)		2.01		1.55		2.13		2.90	
		Unemployment (%)		4.02		3.90		3.80		3.62	
				2020		2021		2022		2022	
				3.00		6.50		5.50		51) ECST Urban Confidence ...	
				3.30		2.10		2.42		52) ECST Consumer Confide...	
				4.06		4.00		4.00		53) ECST Inventory & Order...	
										54) ECST Industrial Product...	

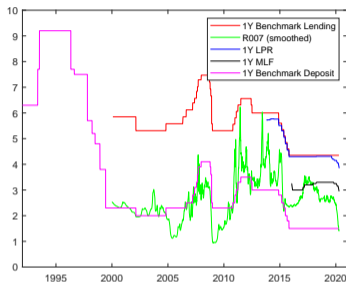
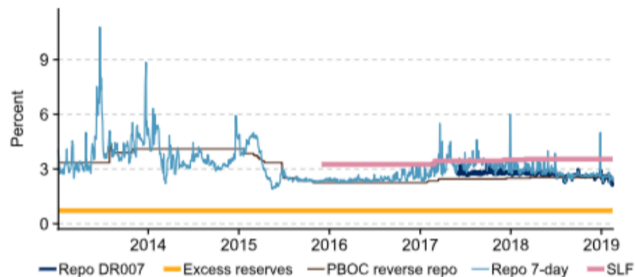
Central Bank Balance Sheet



China's Monetary Policy

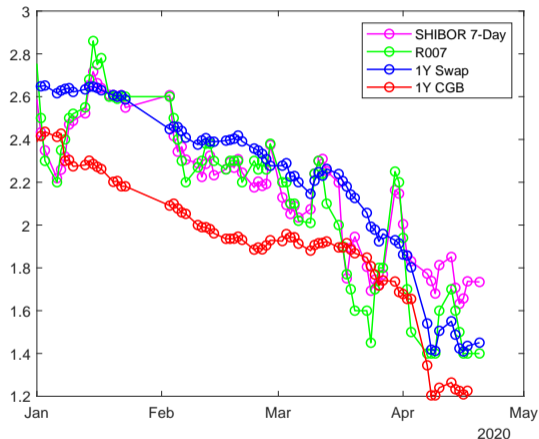
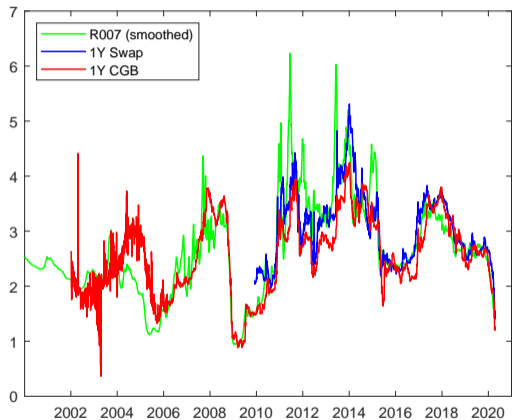
- Prospect of a market-based and transparent monetary policy in China:
 - ▶ PBoC has not yet achieved full operational independence.
 - ▶ Banks, especially state-owned banks, still dominate the financial system.
 - ▶ The legacy of providing “window guidance” persists today.
 - ▶ Financial markets are still maturing in China.
- Past and future trends of monetary policies,
 - ▶ A history of complicated policy tools and cloudy communications.
 - ▶ Quantity-based tools (such as RRRs) will not be discarded yet.
 - ▶ A gradual shift away from the exchange rate as the key price target for policy.
- Toward market-based interest rate-based monetary policy:
 - ▶ DR007 is the de facto policy rate.
 - ▶ One year swaps, with floating leg priced off the average fixing of the seven-day repo rate, are used by banks and investors to express their views of policy rate.
 - ▶ Policy transmission: DR007 to long-term CGB yields through swap rates.

PBoC's Interest Rate Corridor



- DR007: 7-day repo rate for depository institutions.
- Floor: rate on bank's excess reserves held at the central bank. Apr 3: 0.72% to 0.35%.
- Ceiling: rate banks borrow from PBOC via the standing lending facility (SLF and MLF).
- OMO: PBoC reverse repo for liquidity injection and repo for tightening.

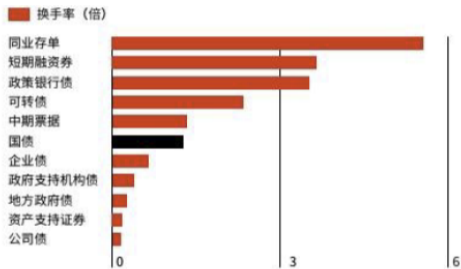
Key Short-Term Interest Rates



国债的流通性

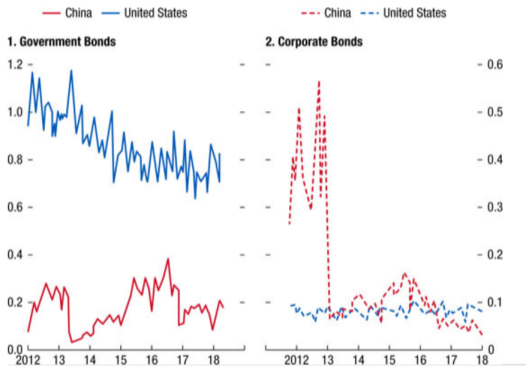
国债换手率偏低 流通性不足

2018年中国债券市场主要券种换手率对比



资料来源:Wind

Figure 12.4. Turnover Ratio, by Bond Type, China and the United States, 2012-18



Sources: CEIC, and Haver Analytics.

Note: The data show the monthly trading volume divided by the total stock outstanding.

中国债市入指 Bloomberg Barclays Global Aggregate Index

- 从 2019 年 4 月，将有 364 只中国债券在未来 20 个月内分步被纳入 Bloomberg Barclays 全球综合指数；这些债券包括国债，国开债，农发债，和进出口。全部入指之后，这些债券在该指数 54 万亿美金的市值中占 6%。
- Bloomberg 中国总裁李冰表示：“将来会有越来越多的中国债券加入指数，包括公司债券，地方政府债券，ABS，and MBS。在此过程中，流动性、评级以及衍生品的同步发展，都是非常重要的考量。”
- 从风险对冲的角度看，中国债券市场跟境外其他市场联动性低，提供好的 hedging。对于 active managed fund，中国最佳 alpha 机会可能来自跨市场投资，即在岸人民币（CNY）、离岸人民币（CNH）以及美元债市场对人民币的对冲。
- 中国债券的流动性会影响指数的完全复制，并非每只债券都能立即在市场上找到交易对手，国债加政策性银行债中真正活跃的可能只有不到 40 只。例如 4 月 2 日，此次纳入指数的 364 只债券，有交易的国债只有 54 只，政金债共计 112 只。

Barclays Global Aggregate



Barclays Global Aggregate: CN Components

9

LEGATRUU Index Import Export Member Weightings

Bloomberg Barclays Global-Aggregate Total Return Index Value Unhed. 25360 Members and 28 Groups

Members Index Turnover

Group by Currency Returns Projected As of 04/08/2020

ISIN	Description	Par Value	Vendor Price	Market Value (USD)	Weight (%)
• USD (14127 members)					
		24,145,271,105		26,195,176,225	45.326565
• EUR (5693 members)					
		10,740,865,189		12,961,275,558	22.427415
• JPY (1067 members)					
		888,955,840,000		8,897,515,262	15.395728
• GBP (1177 members)					
		1,627,101,864		2,633,407,519	4.556691
• CNY (331 members)					
		15,858,509,545		2,422,486,155	4.191725
• CAD (1389 members)					
		1,797,632,058		1,415,903,965	2.449995
• KRW (141 members)					
		751,237,273,000		670,014,619	1.159353
• AUD (396 members)					
		896,785,118		637,393,062	1.120297
• CHF (435 members)					
		272,498,715		306,515,907	0.530377
• SEK (98 members)					
		2,197,060,944		231,287,333	0.400206
• THB (50 members)					
		5,494,413,308		194,026,829	0.335732
• MYR (72 members)					
		680,017,530		165,830,009	0.286942
• IDR (66 members)					
		2,584,516,814.00		159,605,790	0.276172
• MXN (16 members)					
		3,117,094,296		137,206,121	0.237413
• DKK (29 members)					
		687,019,712		120,871,814	0.209149
• PLN (21 members)					
		455,294,837		118,574,389	0.205174
• SGD (65 members)					
		145,045,000		111,837,328	0.193517
• RUB (23 members)					
		6,351,652,172		89,686,156	0.155188
• ILS (15 members)					
		214,497,378		70,680,175	0.122301
• NOK (43 members)					
		578,033,000		60,362,770	0.104448

*Index Weight (%) Calculated by Bloomberg

Australia 61 2 9777 8600 Brazil 8511 2395 3000 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 892 2377 6000
Japan 81 3 4656 6900 Singapore 65 6212 1000 U.S. 1 212 319 2000 Copyright 2020 Bloomberg Finance L.P.
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ADBCH 3.74 07/12/29 105.2970 + .097 105.4805/105.9133 3.0500 / 2.9975

At 11:54 Vol -- 30.0MM x 30.0MM Source CHBE

LEGATRUU Index Import Export Member Weightings

Bloomberg Barclays Global-Aggregate Total Return Index Value Unhed. 25360 Members and 28 Groups

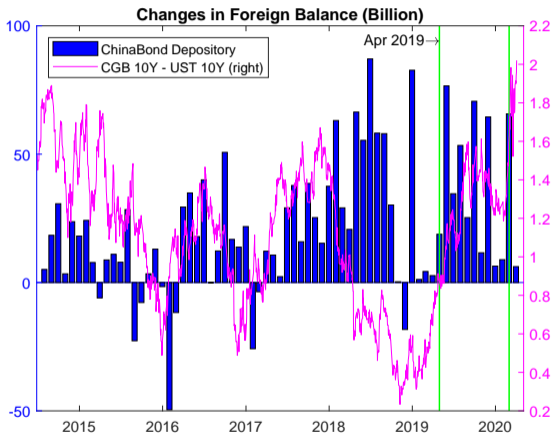
Members Index Turnover

Group by Currency Returns Projected As of 04/08/2020

ISIN	Description	Par Value	Vendor Price	Market Value (USD)	Weight (%)
• GBP (1177 members)					
		1,627,101,864		2,633,407,519	4.556691
• CNY (331 members)					
		15,858,509,545		2,422,486,155	4.191725
CND100025LFO	CGB 3 1/4 04/11/24	183,618,490	104.8360	28,058,584	0.048551
CND100029RW4	CGB 3 1/4 06/06/26	182,104,000	104.7510	27,692,519	0.047917
CND100029IL3	CGB 3.29 05/23/29	181,408,490	105.9630	27,516,000	0.047612
CND10002DSR5	CGB 2 3/4 08/08/22	179,367,510	102.4150	26,456,682	0.045779
CND10001YC12	EXIMCH 3.28 02/11/24	178,145,510	103.9580	26,332,371	0.045564
CND10001MKZ7	SDBC 3.48 01/08/29	174,304,000	103.7010	25,788,706	0.044623
CND100011220	SDBC 4.04 07/06/28	161,947,500	107.6570	25,369,599	0.043898
CND100029N93	SDBC 3.65 05/21/29	160,764,500	105.2350	24,670,365	0.042688
CND10000H4F0	SDBC 4.04 04/10/27	155,025,000	107.7990	24,526,939	0.042440
CND100002GGR3	SDBC 3.45 09/20/29	163,026,500	104.3570	24,508,892	0.042409
CND100009R93	SDBC 3.18 04/05/26	157,300,000	103.0920	23,658,170	0.040937
CND10002D1Y9	CGB 3.86 07/22/49	144,729,000	112.6240	23,230,345	0.040196
CND10000BV90	SDBC 3.05 08/25/26	151,450,000	102.0260	22,268,176	0.038532
CND10002HGP5	CGB 2.94 10/17/24	144,521,000	104.2010	21,593,036	0.037363
CND10001Q6Q0	CGB 4.08 10/22/48	130,721,500	114.3690	21,502,240	0.037206
CND10000L7C4	SDBC 4.88 02/09/28	131,950,000	113.4310	21,324,780	0.036899
CND10002D282	ADBCH 3.74 07/12/29	136,506,500	105.8030	20,970,277	0.036286
CND100008S93	SDBC 3.74 09/10/25	136,435,000	106.2410	20,925,490	0.036208

*Index Weight (%) Calculated by Bloomberg

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Japan 81 3 4656 6900 Singapore 65 6212 1000 U.S. 1 212 319 2000 Copyright 2020 Bloomberg Finance L.P.
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中债登统计口径, March 2020

	月末余额 (亿)	当月增减	较上年末变化
银行间债券市场	642,607	11,131	3.23%
1.政策性银行	19,493	-54	-0.08%
2.商业银行	428,241	5,098	2.62%
2.1全国性商业银行	320,037	2,329	2.23%
2.2城市商业银行	58,195	1,158	1.80%
2.3农村商业银行	42,536	1,374	5.43%
2.4农村合作银行	104	-4	-5.67%
2.5村镇银行	135	9	3.95%
2.6外资银行	6,376	242	11.17%
2.7其它银行	858	-9	12.95%
3.信用社	7,945	-5	3.47%
4.保险机构	17,973	-128	1.66%
5.证券公司	8,085	502	19.85%
6.基金公司及基金会	109	11	60.40%
7.其他金融机构	1,885	103	12.62%
8.非金融机构	14	0	0.00%
9.非法人产品	123,032	5,503	5.21%
其中: 商业银行理财产品	23,135	1,669	-2.42%
10.境外机构	19,578	62	4.31%
11.其他	16,250	39	0.87%

3月境外机构共小幅增持62亿元人民币债券,较2月的657亿元环比大降
净增加国债21亿元,政策性银行债净增持61亿元

Main Takeaways