

Chinese Bond Market

Financial Markets, Day 4, Class 4

Jun Pan

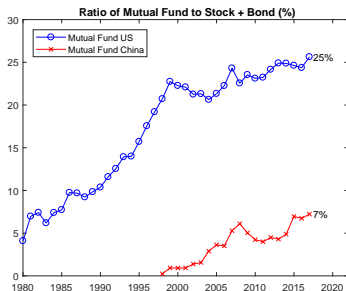
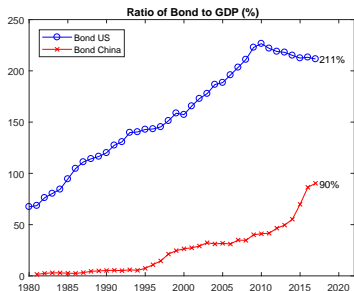
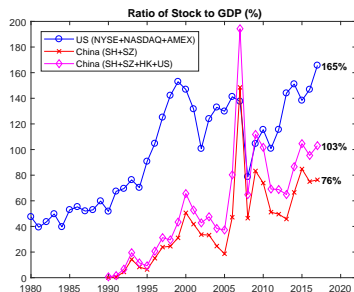
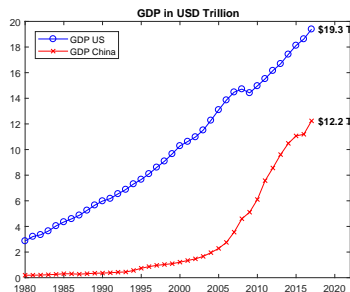
**Shanghai Advanced Institute of Finance (SAIF)
Shanghai Jiao Tong University**

April 21, 2019

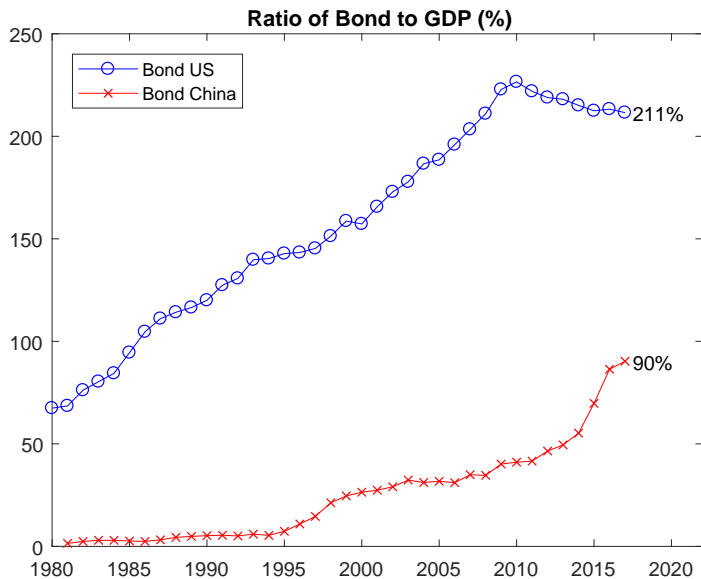
Outline

- The Chinese Bond Market, an Quantitative Overview.
- What are the Characteristics of the Chinese Bond Market?
- The Importance of Having a Benchmark Yield Curve.

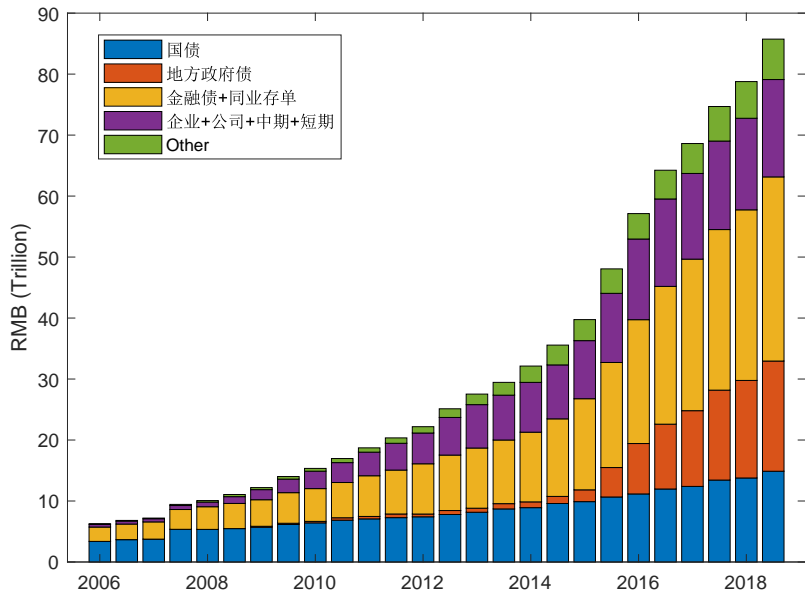
US and China: Comparison in Size



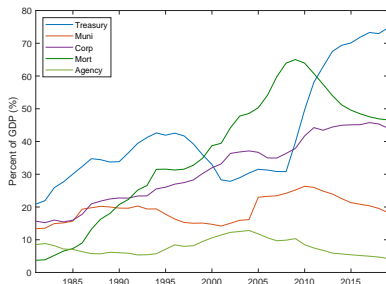
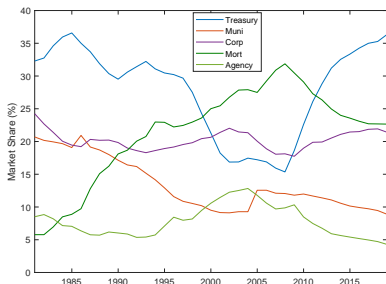
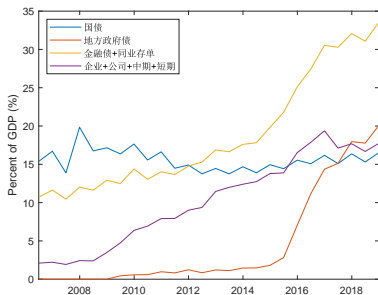
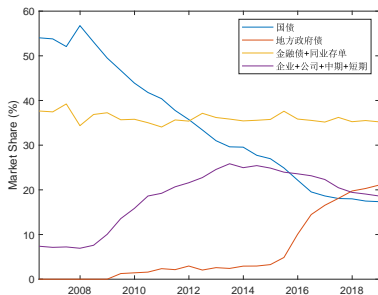
Chinese Bond Market



Chinese Bond Market, Amount Outstanding



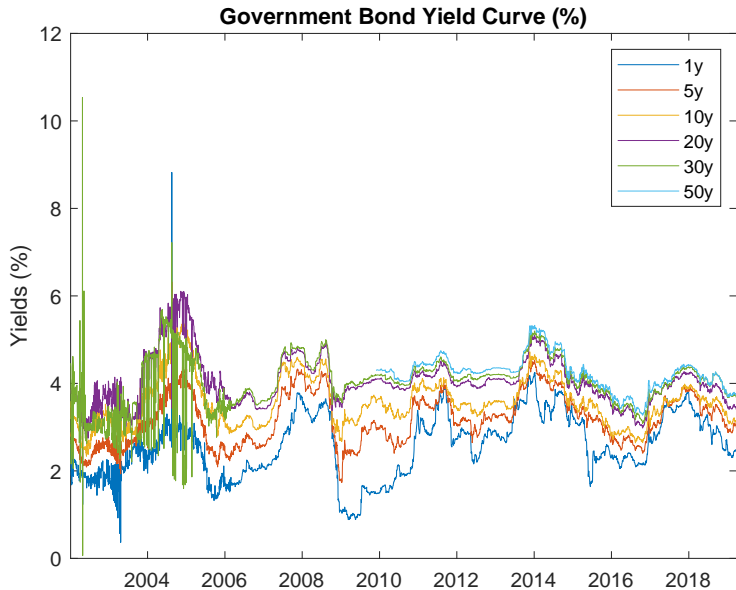
Bond Market Share (%), China and US



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.
- This benchmark role of Treasuries is facing increasing competition from private sector debt instruments (e.g., interest rate swaps).

中债国债收益率曲线



Summary Statistics of Daily Treasury Yields (2006-2019)

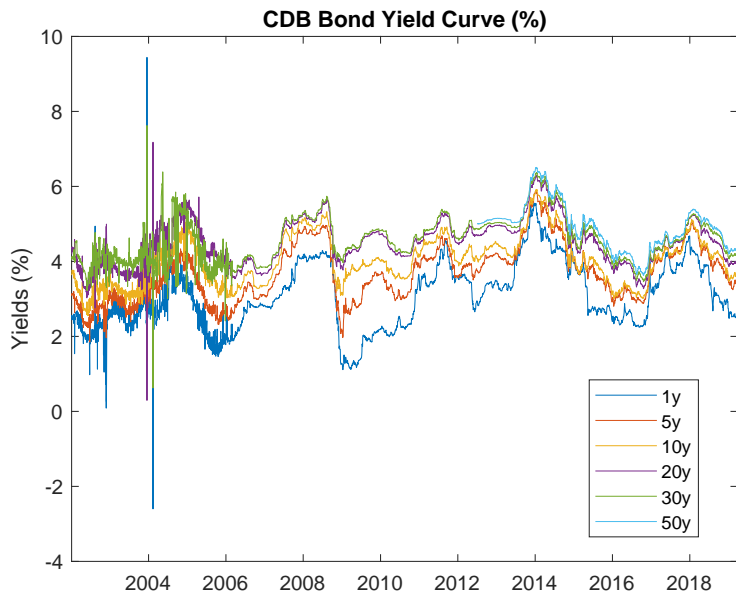
- Mean and Standard Deviations:

	1y	5y	10y	20y	30y
avg (y) (%)	2.67	3.24	3.57	4.00	4.12
auto correlation in y (%)	99.88	99.83	99.82	99.84	99.82
std(Δy) (bps)	3.65	3.24	2.84	2.32	2.48

- Cross Correlations:

	correlation in y (%)				correlation in Δy (%)			
	1y	5y	10y	20y	1y	5	10y	20y
5y	87.99				44.24			
10y	71.08	93.58			35.78	67.06		
20y	62.77	86.50	96.07		28.38	54.95	74.53	
30y	63.99	87.22	95.80	98.90	34.03	47.05	54.48	71.50

中债国开债收益率曲线



Daily Treasury vs CDB Yields (2006-2019)

- CDB and Treasury Bonds:

	1y	5y	10y	20y	30y
CDB avg (y) (%)	3.23	3.88	4.16	4.59	4.71
Treasury 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
Treasury std(Δy) (bps)	3.55	3.22	2.81	2.26	2.26

- Correlations between Treasury and CDB Bonds:

	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

Daily Treasury vs CDB Yields (2006-2019)

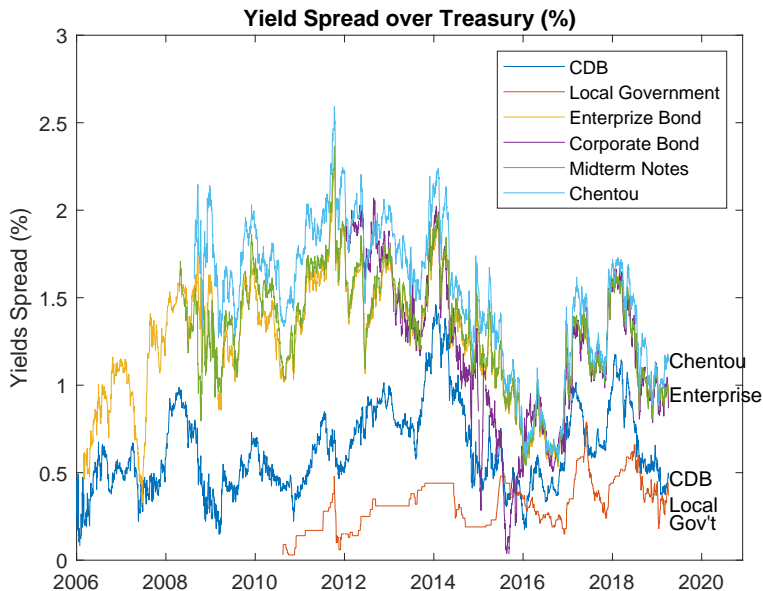
- CDB Bonds

	correlation in y (%)				correlation in Δy (%)			
	1y	5y	10y	20y	1y	5	10y	20y
5y	92.42				53.59			
10y	82.41	95.68			44.96	75.31		
20y	75.13	90.54	96.50		40.35	65.63	77.86	
30y	74.05	89.40	95.44	99.54	38.49	62.77	74.32	91.09

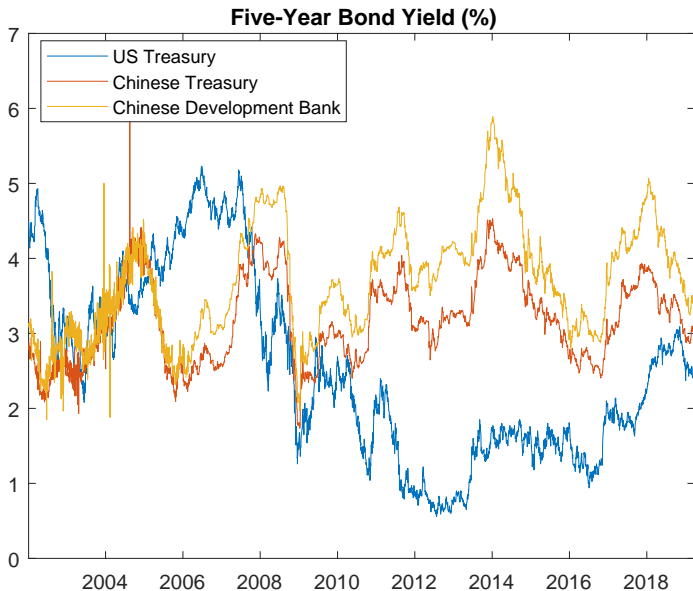
- Treasury Bonds

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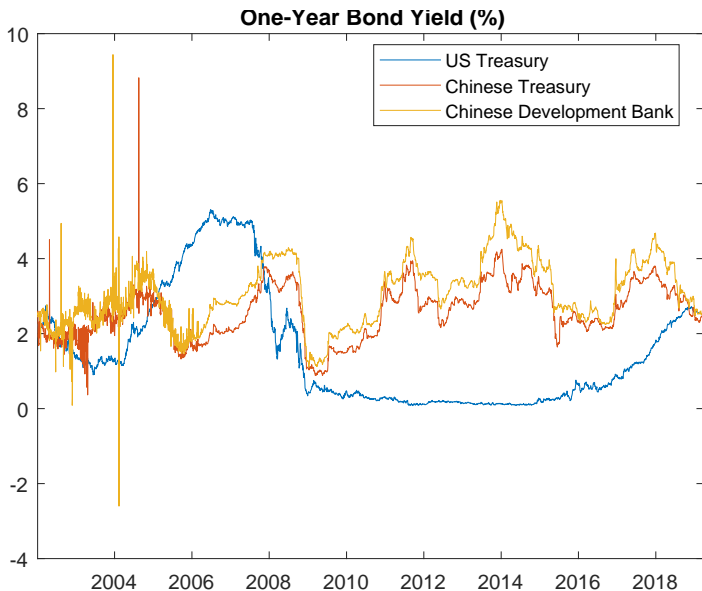
各种债券和国债的收益率差 (5-Year Spread)



Treasury Yields, US vs. China



Treasury Yields, US vs. China



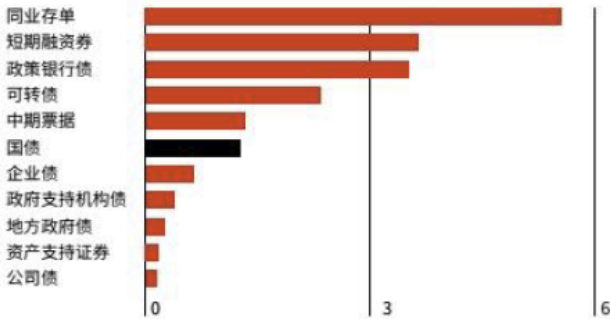
国债在中国金融市场的地位

- 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。

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

■ 换手率 (倍)



资料来源:Wind

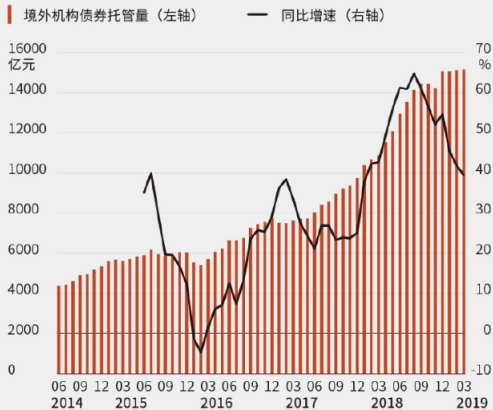
中国债市入指 Bloomberg Barclays Global Aggregate Index

- 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 万亿美元的市值中占 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。

境外投资者

境外投资者已提前布局

2014年6月至2019年3月境外机构在银行间债市的债券托管量



资料来源：中债登、财新 **CEIC** 数据库