



China Bond Market

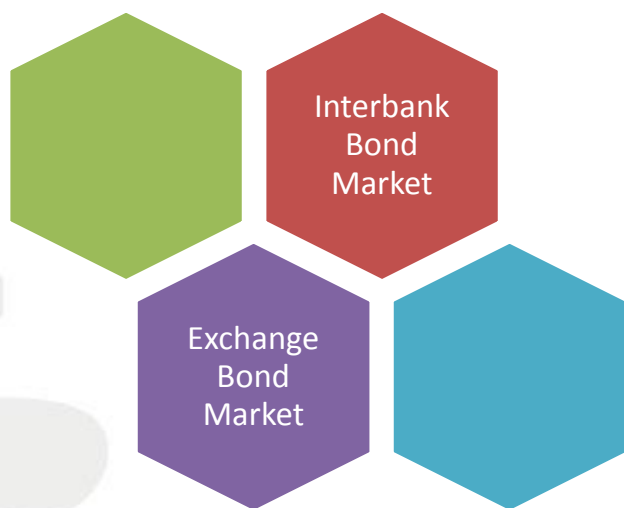
Andrew Wu, General Manager and Board Director, Dagong Europe Credit Rating



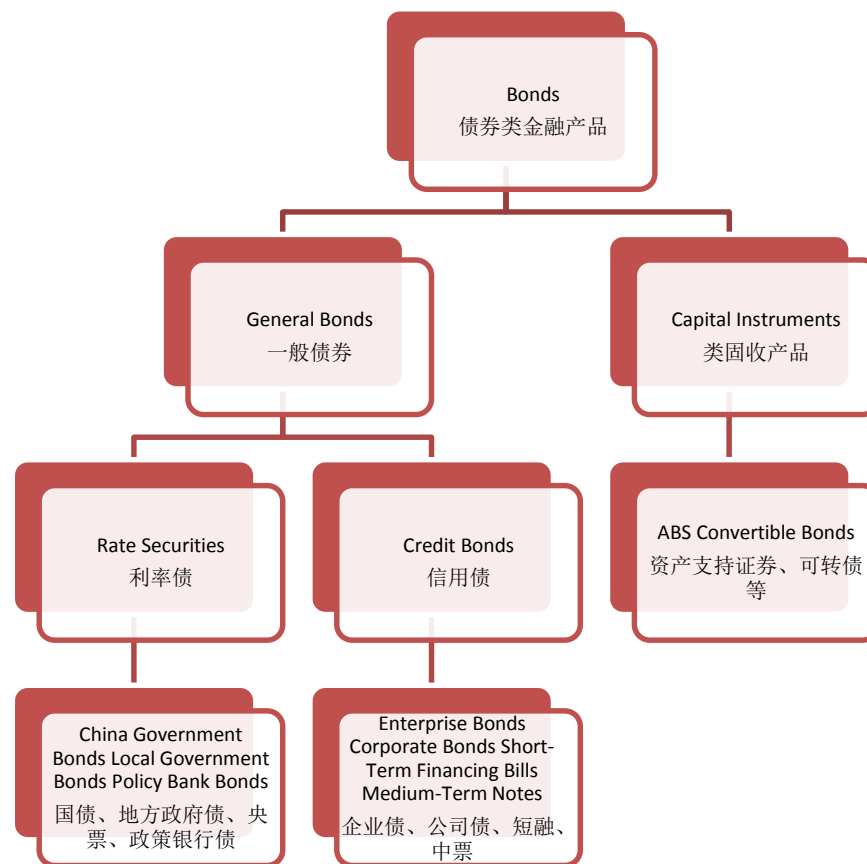
1. Issuance Characteristics

Chinese Bond Market

Bond Markets in China



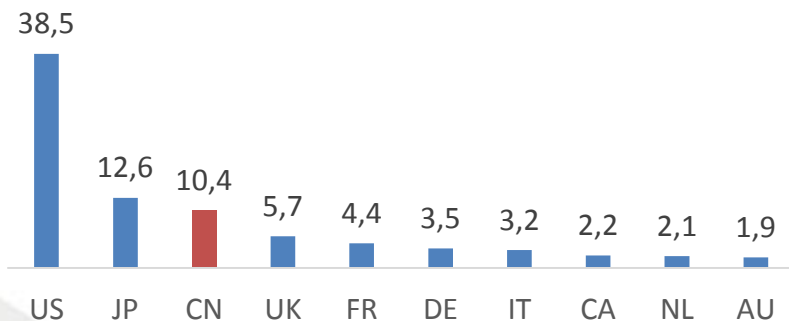
Bond Categories in China



Chinese Bond Market

China's bond market ranked No. 3 globally

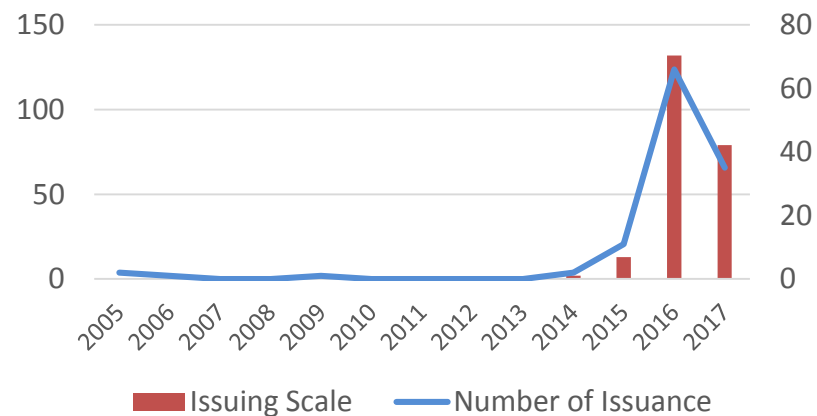
World's Outstanding Debt Volume (\$ Tn) 2017Q2



Source: Bank for International Settlements 2017Q2

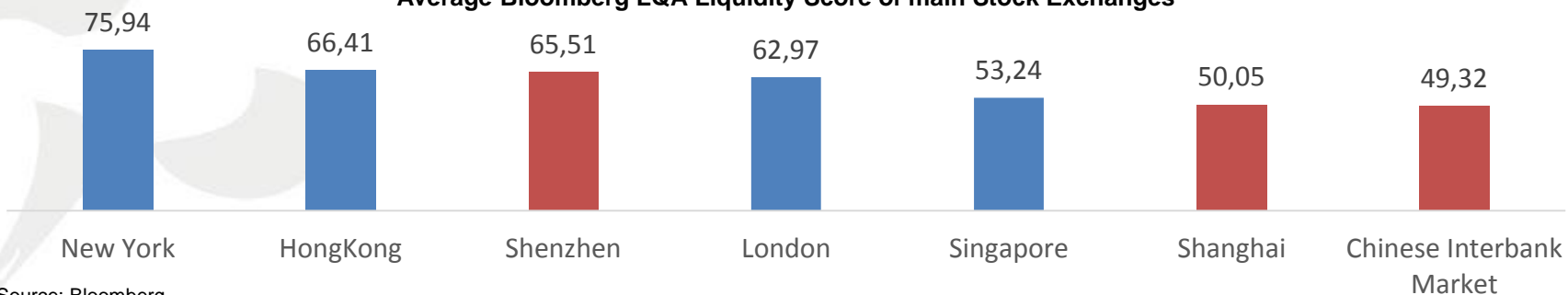
Panda bond market is growing

Statistics of Panda Bond Issuance



China's bond market liquidity is comparable with developed capital markets

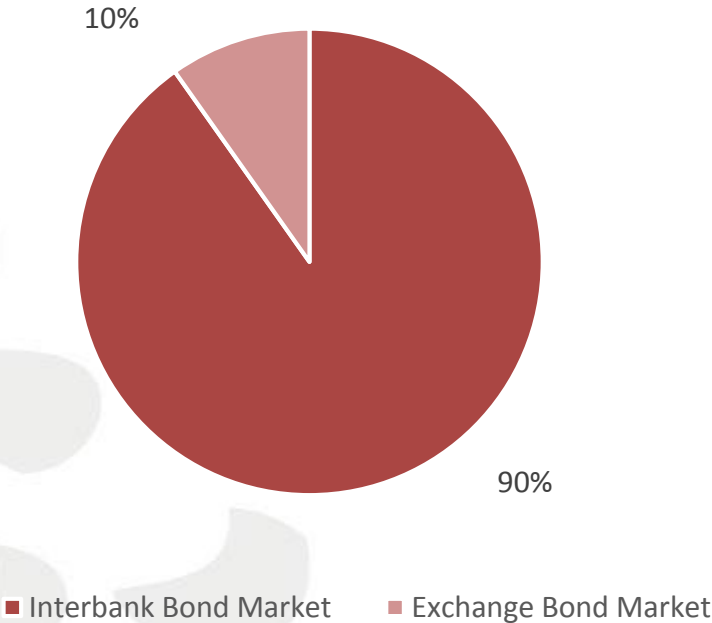
Average Bloomberg LQA Liquidity Score of main Stock Exchanges



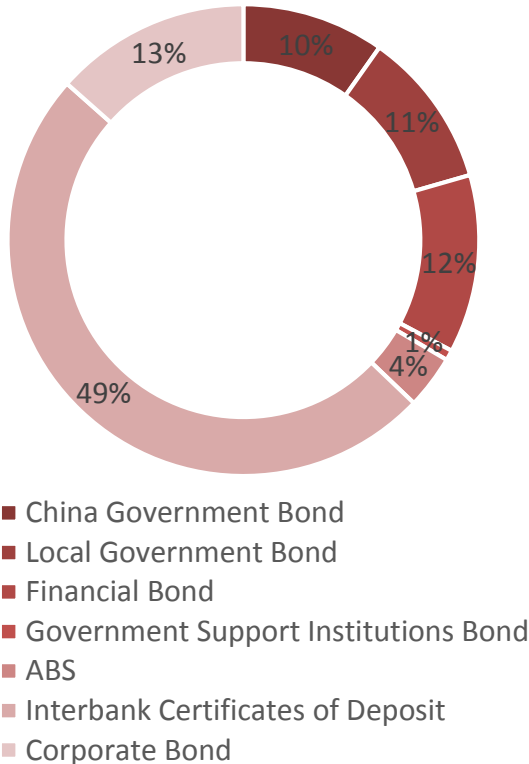
Source: Bloomberg

Bond Issued by Market and Category in 2017

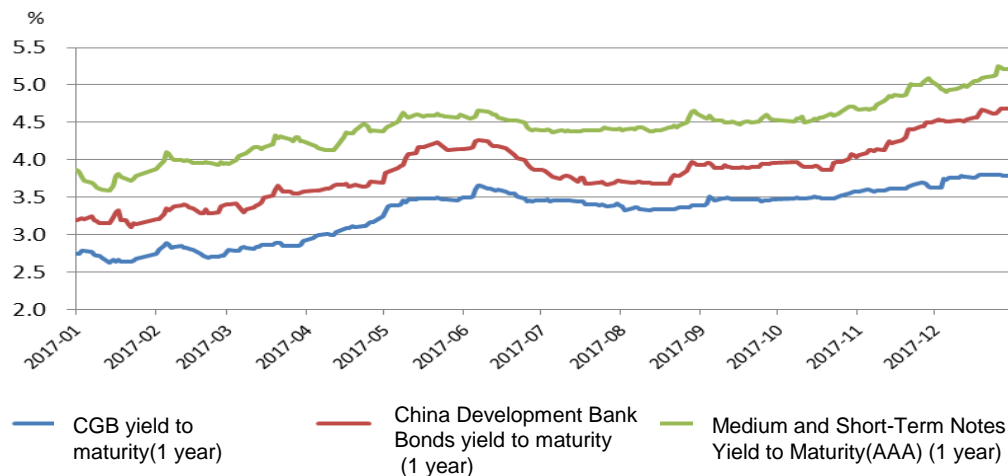
Bond issued by market in 2017



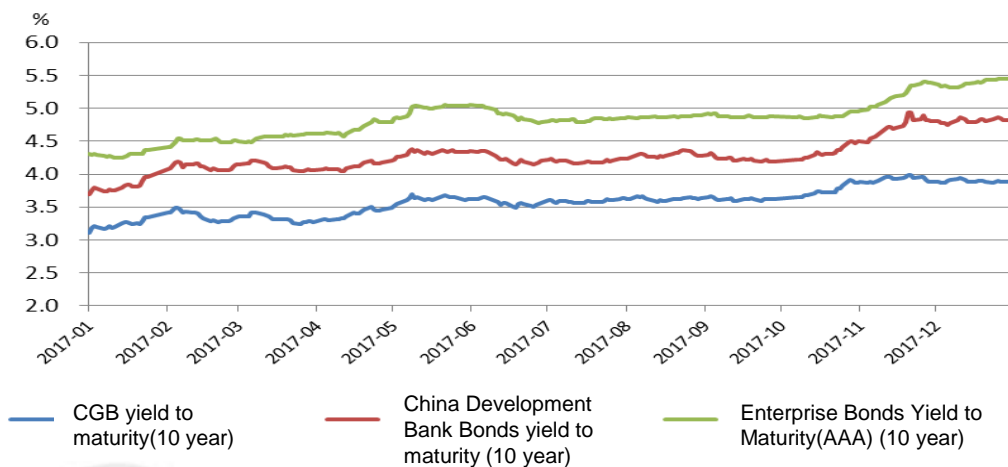
Bond issued by category in 2017



Yield to Maturity is growing



Yield to maturity of China Government Bonds, Policy Bank Bonds, Medium and Short-Term Notes (1 Year Term) has been growing in 2017



Yield to maturity of China Government Bonds, Policy Bank Bonds, Enterprise Bonds (10 Years Term) has also been increasing

Investor Structure

Investor Category	2017		2016		Year-on-year change (%)
	Amount (Million Yuan)	Proportion (%)	Amount (Million Yuan)	Proportion (%)	
Policy Banks	2,385,082	3.82	3,372,660	6.31	-29.28
Commercial Banks	36,244,681	57.98	32,087,827	60.06	12.95
Credit Unions	12,96,254	2.07	1,125,603	2.11	15.16
Insurances	1,850,651	2.96	2,208,858	4.13	-16.22
Security Companies	663,792	1.06	490,118	0.92	35.44
Funds and Uncorporated Products	16,964,928	27.14	13,123,592	24.56	29.27
Other Financial Institutions	334,771	0.54	203,169	0.38	64.77
Non-Financial Institutions	15,409	0.02	11,077	0.02	39.11
Foreign Institutions	1,147,396	1.84	799,723	1.50	43.47
Others	1,608,021	2.57	2,351	0.00	68297.18
Total	62,510,983	100.00	53,424,979	100.00	17.01

Source: www.chinabond.com.cn Shanghai Clearing House

Issuance in Interbank Market in 2017

(excluding CGB Policy Bank Bonds)

Category	Number	Issue Amount (Million Yuan)	Proportion (%)	Issue Amount Year-on-year change (%)
Super Short-Term Financing Bills	1675	1,981,120	7.60	-28.25
Short-Term Financing Bills	465	396,470	1.52	-34.61
Medium-Term Notes	910	1,036,945	3.98	-9.20
Enterprise Bonds	382	373,095	1.43	-36.50
Commercial Bank Bonds	198	864,123	3.31	38.69
NBFI bonds	55	111,100	0.43	-45.90
ABS	115	58,495	0.22	251.17
Credit Asset-Backed Securities	403	597,729	2.29	52.93
Interbank Certificates of Deposits	26935	20,167,570	77.32	54.88
Private Placement Notes	720	495,413	1.90	-17.65
Total	31858	26,082,060	100.00	30.70

- The issue amount of super short-term financing bills and short-term financing bills decreased compared to 2016.
- Corporate Bond issue amount decreased 36.5% due to macroeconomy and regulation environment.
- The issue amount of non policy bank financial bond has almost reached 1 trillion Yuan.
- Credit asset-backed securities keep growing steadily. ABS increased by large in 2017.
- The growth rate of Interbank certificates of deposits slowed down.

Source: Wind

Issuance in Exchange Market in 2017

Bond Category	2016		2017		Year-on-year change (%)	
	Number	Amount (Million Yuan)	Number	Amount (Million Yuan)	Number (%)	Amount (%)
Ordinary Corporate Bonds	881	1,285,677	538	564,172	-38.93	-56.12
Non-Public Issuance of Corporate Bonds	1377	1,488,291	662	538,053	-51.92	-63.85
Securities Company Bond	172	427,110	264	633,940	53.49	48.41
ABS	1902	469,615	1902	804,077	0.00	71.22
Convertible Bonds	11	21,252	44	94,711	300.00	345.66
Exchangeable Debt	71	67,429	80	117,284	12.68	73.94
Total	4414	3,759,424	3490	2,752,237	-20.93	-26.79

- The issue amount of ordinary corporate bonds has decreased by 56.12% in 2017.
- The issue amount of non public issued corporate bond dropped by 63.85% in 2017.
- The issue amount of securities company bond increased by 48.41%.
- The issue amount of ABS increased by 71.22% compared to 2016.
- Convertible bonds and exchangeable debt increased 139.05% on a YoY basis.

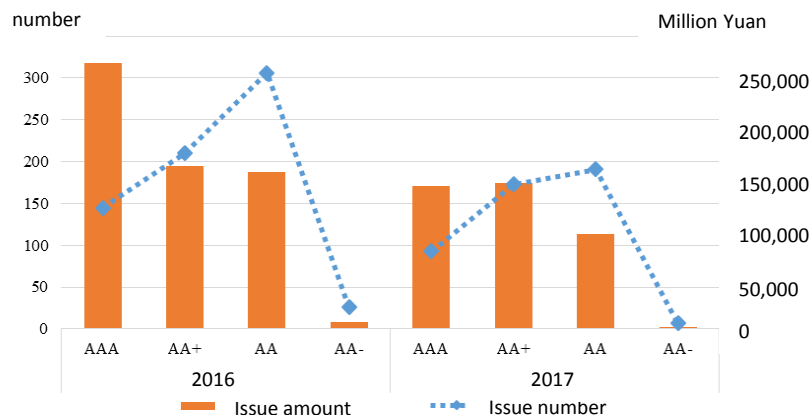
Source: Wind

2. Rating Characteristics

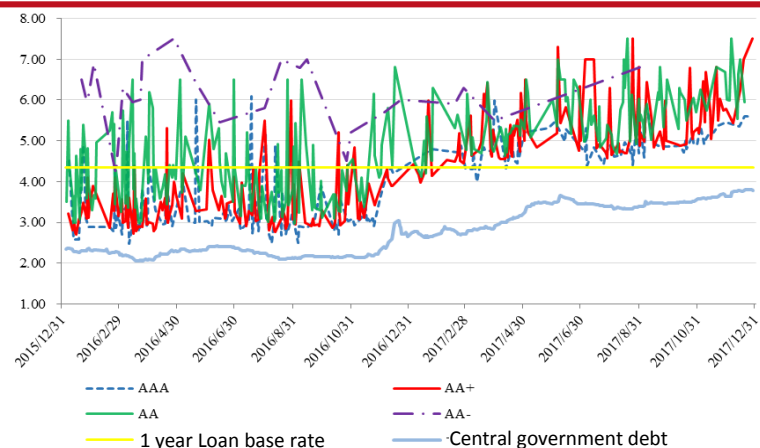


Publicly Issued Financing Tools for Non-financial Enterprise

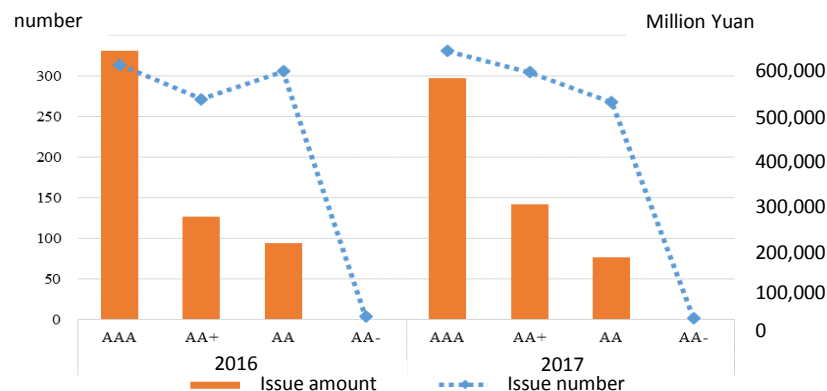
The Issuers of short-term financing bills concentrate on entities with rating higher than AA- in 2017



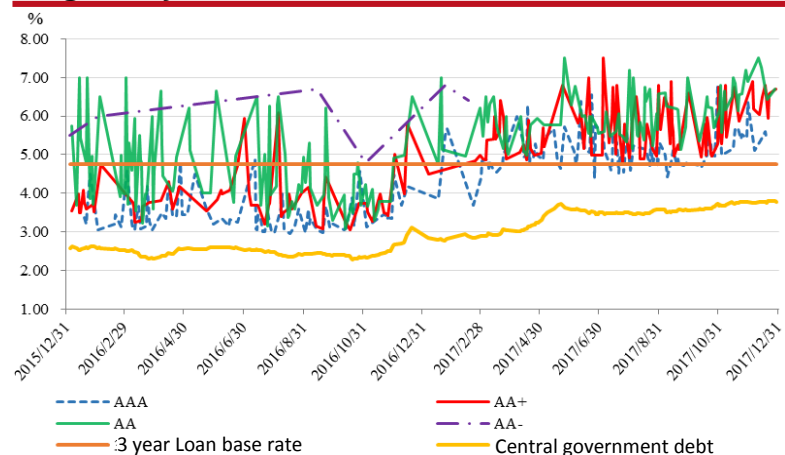
Rating of the issuer of short-term financing bills is negatively related to the interest rate in 2017



The Issuers of medium-term notes concentrate on entities with rating higher than AA- in 2017



Rating of the issuer of medium-term notes is negatively related to the interest rate in 2017



Publicly Issued Financing Tools for Non-financial Enterprise

Top 5 Sectors

Rating	AAA	AA+	AA	AA-	Total
Construction and Engineering	20	53	106	2	181
Conglomerates	20	34	31	1	86
Real Estate Management and Development	17	29	34	0	80
Diversified Financial Services	21	27	21	0	69
Transportation Infrastructure	24	16	13	0	53

- The 787 issuers of publicly issued financing tools for non-financial enterprises in the interbank bond market come from 53 sectors.

Upgrade and Downgrade

	2016	2017
Rating Upgraded Percentage	5.39%	7.59%
Rating Downgraded Percentage	3.88%	1.29%

- In 2017, 153 issuers have their ratings upgraded and 26 have downgraded.
- The upgrading rate is significantly higher than 2016 and the downgrading rate lower.

Enterprise Bond

Rating of enterprise bonds is negatively related to the interest rate in 2017

Tenor	Rating	Interest Rate (%)	
		Range	Average
3 Years	AAA	4.4~7	5.27
	AA	6.09~6.09	6.09
5 Years	AAA	4.67~5.69	5.19
	AA+	4.5~8	6.23
7 Years	AA	5.7~7.8	6.82
	AAA	4.78~7.3	5.72
	AA+	5.23~8.48	6.46
	AA	5.65~7.9	6.73

Rating change of issuers of enterprise bonds in 2017 and 2016

	2016	2017
Rating Upgraded Percentage	16.83%	9.26%
Rating Downgraded Percentage	0.19%	1.59%

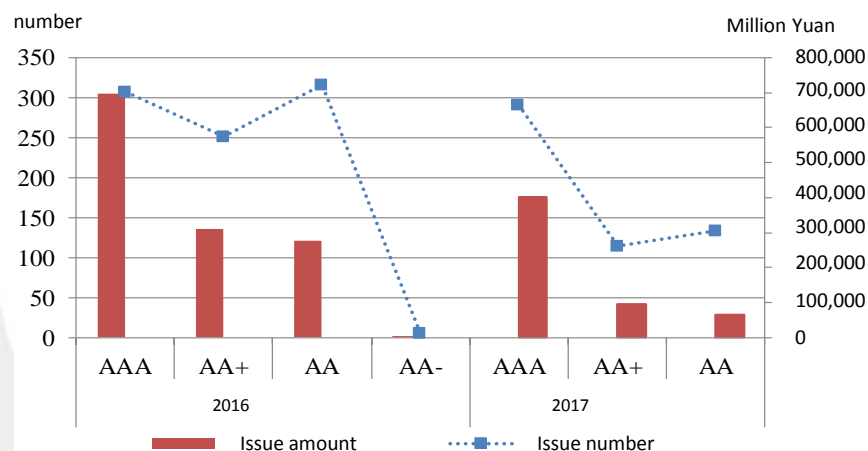
Spread* change of enterprise bonds from 2014 to 2017 and the relation between spread and rating of issuer

Rating	2014 spread	2015 spread	2016 spread	2017 spread
	Average (BP)	Average (BP)	Average (BP)	Average (BP)
AAA	278.10	131.89	105.19	208.92
AA+	297.88	243.39	183.05	278.94
AA	328.05	284.93	197.05	302.85

* Spread equals the difference between the interest rate of the bond and the yield to maturity of fixed interest rate China government bond of the same term issued at the same period in the interbank bond market

Corporate Bond

The Issuers of corporate bonds concentrate on entities with AAA rating in 2017



Source: Wind

Rating of corporate bonds is negatively related to the interest rate in 2017

Tenor	Rating	Interest Rate (%)	
		Range	Average
2 Years	AAA	4.40-7.33	5.23
	AA+	5.38-7.50	6.29
	AA	4.80-7.98	6.93
3 Years	AAA	3.80-7.80	5.01
	AA+	4.46-7.70	5.70
	AA	5.00-7.79	6.60
5 Years	AAA	4.29-7.50	5.17
	AA+	4.38-6.80	5.51
	AA	7.50-7.50	7.50

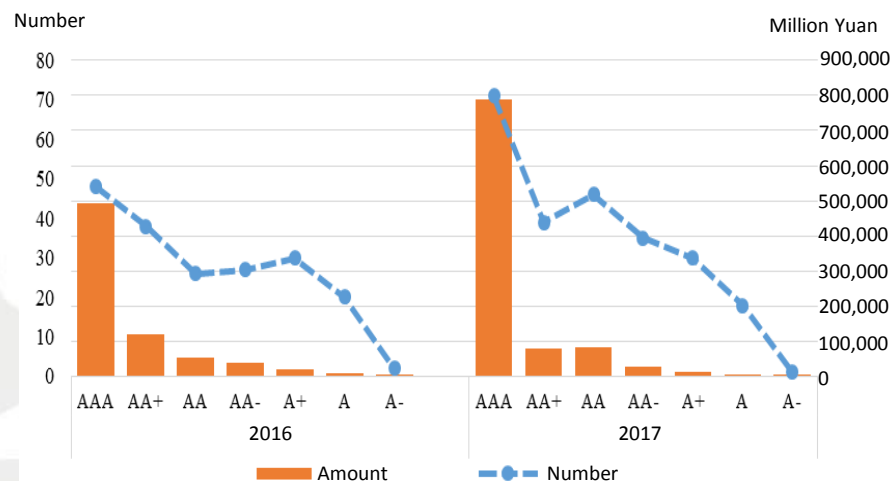
Rating change of issuers of corporate bonds in 2017 and 2016

	2016	2017
Rating Upgraded Percentage	5.37%	3.26%
Rating Downgraded Percentage	3.26%	1.52%

Source: Wind

Financial Bond

Ratings of financial bonds in 2017



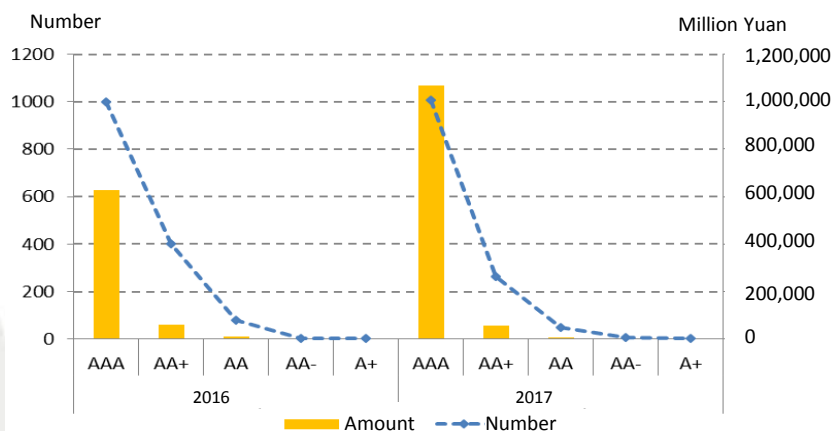
Rating of financial bonds is negatively related to the interest rate of in 2017

Tenor	Rating	Interest Rate (%)	
		Range	Average
3 Years	AAA	4.00~4.90	4.37
	AA+	4.67~6.00	4.94
	AA	4.64~5.50	5.02
	AA-	4.90~5.54	5.31
	A+	4.50~5.03	4.68
5 Years	AAA	4.96~5.15	5.04
	AA+	5.49~5.60	5.55
	AA	4.99~5.20	5.10
	AA-	4.00~4.90	4.37

Source: www.chinabond.com.cn Shanghai Clearing House

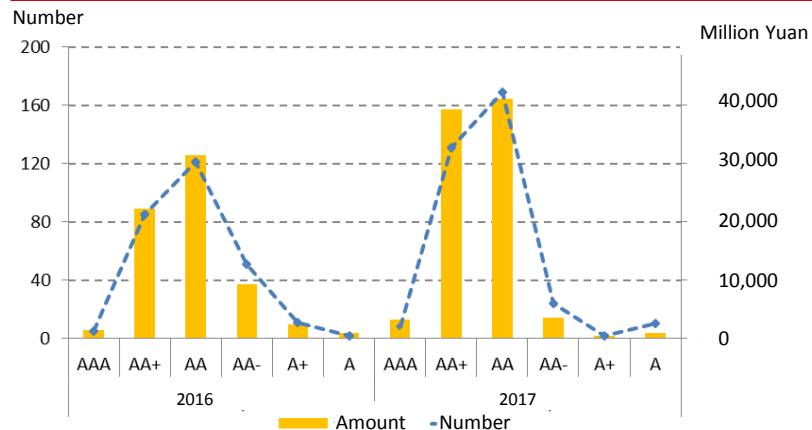
ABS

Ratings of Senior ABS in 2017



Source: Wind

Ratings of subordinated ABS in 2017



Rating of ABS is negatively related to the interest rate in 2017

Tenor	Rating	Interest Rate (%)	
		Range	Average
1 Year	AAA	3.60~6.59	5.36
	AA+	4.45~10.00	5.74
	AA	4.80~7.50	5.68
3 Years	AAA	4.10~7.20	5.66
	AA+	4.60~7.10	6.27
	AA	5.75~7.58	6.80
5 Years	AAA	4.60~7.40	5.81
	AA+	5.50~7.50	6.68
	AA	5.75~8.00	6.38

Source: Wind

Local Government Bond

Tenor	Issue Number	Issue Amount (Million Yuan)	Interest Rate (%)
1 Year	1	10,000	4.14
3 Year	198	799,857	3.80
5 Year	492	1,476,457	3.98
7 Year	236	1,193,972	4.01
10 Year	207	878,808	4.05

Source: Wind

- In 2017 the total issue amount of local government bond is 4.36 trillion yuan decreased by 27.92% than in 2016.
- The ratings for local government bond are all AAA.
- The average interest rate of local government bond is positively related to the tenor except for 1 year term bond which has too few sample.

Green Bond

Tenor	AAA		AA+		AA	
	Number	Average Interest Rate(%)	Number	Average Interest Rate(%)	Number	Average Interest Rate(%)
3 Years	23	4.76	17	5.23	7	5.59
5 Years	13	4.83	3	5.87	3	5.65
7 Years	5	5.68	1	5.88	3	6.87

Source: Dagong Global Edits

- In addition in 2017 there were 171 labelled green bonds (including green ABS) issued which is two times the amount of 2016.
- In 2017 the issue amount of green bonds is in total 203.93 billion yuan.

Selective Rating Adjustment by Dagong

- In 2017, Dagong has upgraded the rating of 89 entities in China and downgraded 13 entities. This goes in line with the overall trend of rating change in 2017.

Issuer	Begin of year rating	Begin of year Rating outlook	End of year rating	Begin of year rating outlook
Anbang Life	AAA	Stable	AA+	Negative
Henan Transport Investment	AA+	Stable	AAA	Stable
Baoshang Bank	AA+	Stable	AA+	Negative
Yantai Port	AA	Stable	AA+	Stable
China Huadian Capital Holdings	AA+	Stable	AAA	Stable
Gansu State-owned Assets Investment	AAA	Negative	AAA	Stable
China Cinda Asset Management	AA+	Stable	AAA	Stable
Hunan Nonferrous Metals	AA	Negative	AA	Stable
Huaibei Mining	AA+	Negative	AA+	Stable
Baosteel	AA+	Negative	AA+	Stable
Beijing Shougang	AA+	Stable	AAA	Stable
Guotai Leasing	AA	Stable	AA+	Stable
Hawtai Motor	AA	Stable	AA+	Stable
Sinotrans & CSC Holdings	AAA	Negative	AAA	Stable
Yangquan Coal.	AA+	Stable	AAA	Stable
ChemChina Agriculture	AA	Stable	AA+	Negative
Hunan Valin Steel	AA	Negative	AA	Stable

Source: Dagong

3. Internationalisation of the Chinese Bond Market



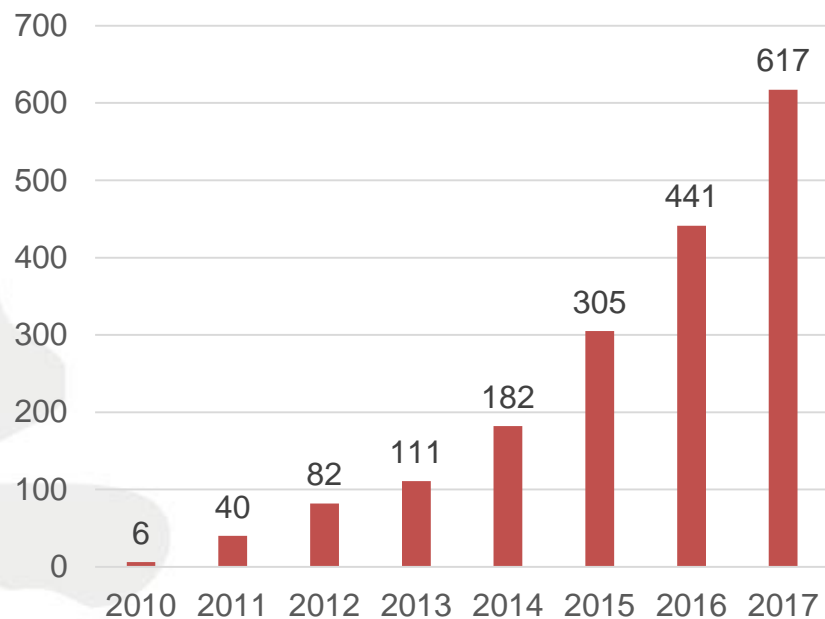
Investment Channels

	QFII and RQFII	Direct market entrance	Bond Connect
Launch Time	2002 and 2011 respectively	Launched in 2010 and continue to expand	July 2017
Investment Type	Stocks stock index futures exchange and interbank bond market	Interbank bond market	Interbank bond market
Market Entrance Registration Requirements	Yes	Yes	Yes
Quota Limit	Yes	No	No
Interbank Bond Market Counterparty	All participants	All participants	Market makers and institutions which try to be market makers
Interbank Bond Market Trade Settlement	Through settlement proxy	Through central bank or settlement proxy	Through trade connect and settlement connect

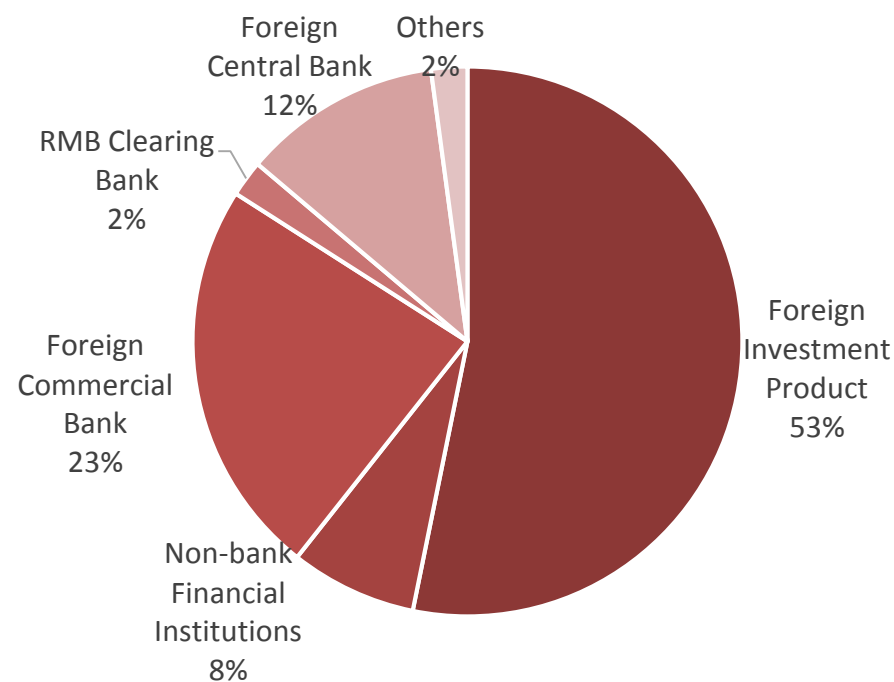
Source: PBOC

Invest in Renminbi Fixed Income Market

Number of Foreign Investors

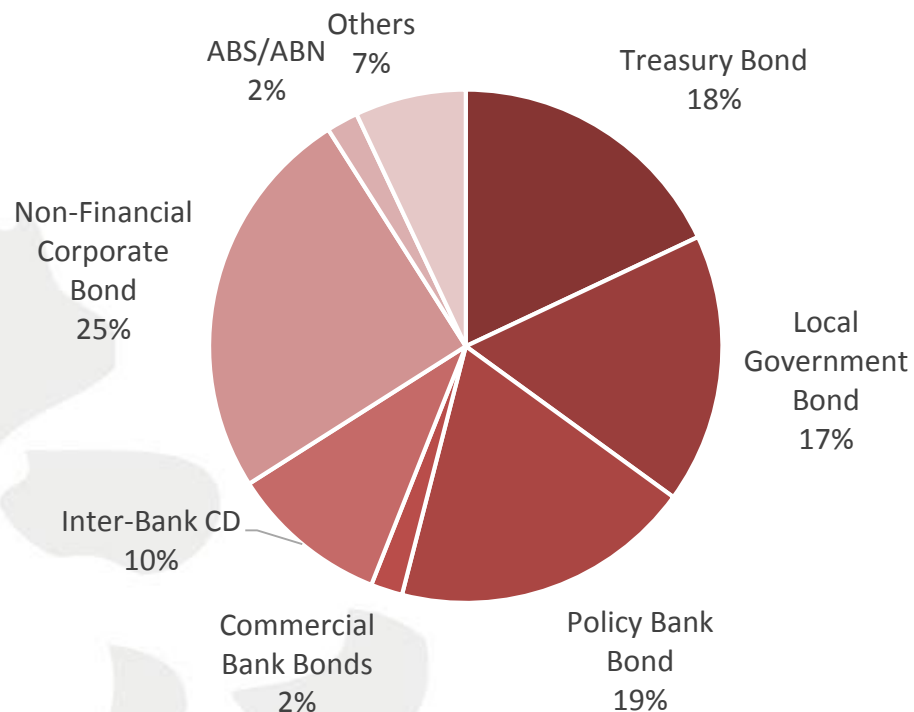


Type of Foreign Investors (By the end of Aug.2017)

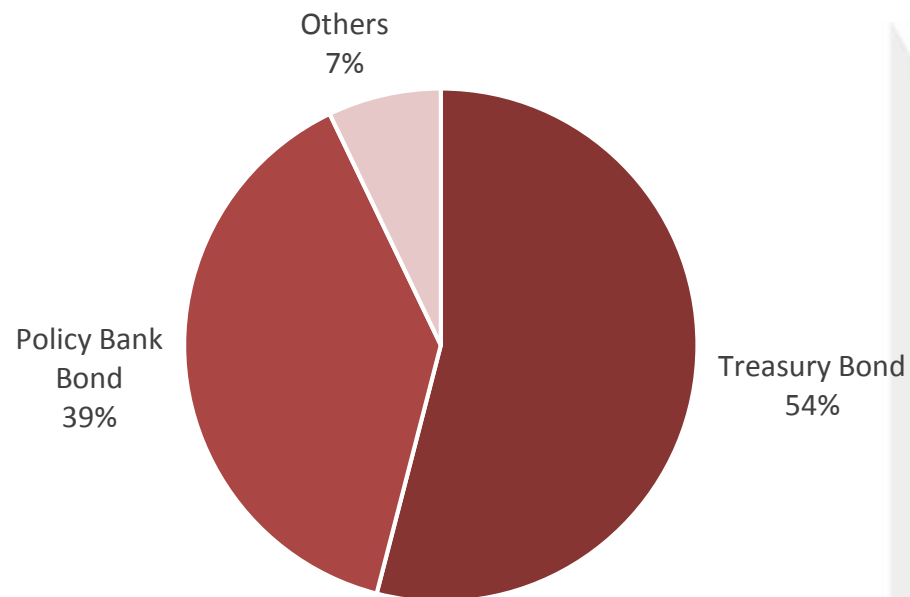


Renminbi Bond Holdings Structure

Structure of Bond Holdings by All Investors (2016)



Structure of Bond Holdings by Foreign Investors (2016)



Panda Bond

An Onshore RMB Bond for Foreign Issuers

Regulator	Issuer Type	Market	Highlight Cases
PBOC/ NAFMII	Offshore financial institution/Overseas non-financial institution	Interbank Bond Market	<ul style="list-style-type: none">• Hungary RMB 1bn 2017• Poland RMB 3bn 2016• Province of British Columbia of Canada RMB 6bn 2015• Republic of Korea RMB 3bn 2015 <ul style="list-style-type: none">• HSBC Bank RMB 1bn 2015• BOCHK RMB 1bn/10bn 2015• Standard Chartered Bank RMB 1bn 2015
CSRC/ Exchanges	Overseas companies (including financial and non-financial)	Exchange Bond Market	<ul style="list-style-type: none">• Red-chip developers• Global Logistic Properties• Rusal

Source: CICC Time to Go to China:
Bring China to Your Next Bond Issuance 2017

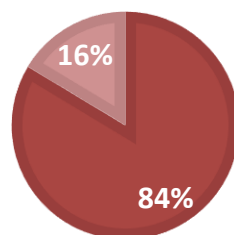
Panda Bond

Highlight in 2017

79 Billion RMB

Panda Bond Issued in 2017

The issuing amount of Panda Bond in 2017 has fallen by 40% than 2016.



■ Interbank Bond Market ■ Exchange Bond Market

Of 34 Panda Bonds issued in 2017, 25 were issued in Interbank Bond Market, and 9 in Exchange Bond Market.

All 30 rated Panda Bonds that have been rated received AAA(cn) rating.

Tenor	Number	Average Issuing Coupon Rate(%)
1 Year	2	4.50
2 Years	4	5.67
3 Years	19	4.87
5 Years	5	4.95

Panda Bond

Coupon Comparison

Issuer	Korea	GLP	Poland	RUSAL	Maybank	Hungary
Issue Date	12/16/15	07/11/16	08/25/16	03/16/17	07/24/17	07/26/17
Panda Bond Yield	3%	3.12%	3.4%	5.5%	4.6%	4.85%
Swap Cost	0.93%	1.54%	1.56%	1.90%	1.82%	1.87%
Implied USD Yield	2.06%	1.58%	1.84%	3.60%	2.78%	2.98%
Existing USD Bond Yield	1.88%	3.46%	1.43%	5.10%	1.97%	2.66%

China's Belt & Road Initiative (BRI)

Focusing on Connectivity and Cooperation

Six Economic Corridors and One Maritime Silk Road



Five Cooperation Priorities

Policy Coordination

Facilities Connectivity

Unimpeded Trade

Financial Integration

People-to-People Bond

“Belt and Road Bond” Pilot Program

Launched on 2 March 2018 by Shanghai and Shenzhen Stock Exchanges

Three Issuance Categories

Issuer:	Government agencies of countries (regions) along the BRI
Issuance:	Government bonds
<hr/>	
Issuer:	Companies and financial institutions in countries (regions) along the “B&R” Initiative
Issuance:	Corporate bonds
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Issuer:	Domestic and foreign enterprises
Issuance:	Corporate bonds used for the projects under the Belt and Road Initiative

Regulatory Measures to promote the BR bond

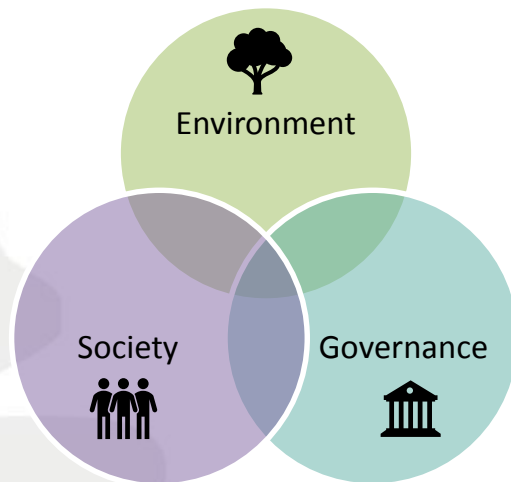
Build the BR Bond section, and publish the BR Bond index

Encourage the development of “B&R” green bonds, renewal bonds and other bond varieties

Encourage financial institutions to invest in BR Bond

4. ESG Development

ESG Information Disclosure



ESG Information Disclosure Guidelines in China	Requirement
The Hong Kong Stock Exchange "Environmental Social and Governance Reporting Guidelines"	All listed companies in Hong Kong are required to issue environmental social and governance (ESG) reports with reference to the revised "Guidelines" in fiscal year 2016.
Shanghai Stock Exchange "Notice on Strengthening Corporate Social Responsibility of Listed Companies and Promulgating the "Guidelines for Environmental Information Disclosure of Listed Companies on the Shanghai Stock Exchange"	The Shanghai Stock Exchange encourages listed companies to prepare and disclose reports on social responsibility sustainable development environmental responsibility and corporate citizenship in the "Guidelines for the fulfillment of corporate social responsibility reports."
Shenzhen Stock Exchange "Guidelines for Social Responsibility of Listed Companies"	It regulates the protection of shareholders and creditors' rights and interests protection of employees' rights and interests environmental protection and sustainable development public relations and public welfare undertakings system construction and information disclosure for listed companies.

Green Bond and Poverty Alleviation Bond

Bond Category	Green Bond				Poverty Alleviation Bond			
	Issue Number	Proportion	Issue Amount (Million Yuan)	Proportion	Issue Number	Proportion	Issue Amount (Million Yuan)	Proportion
Local Government Bond	-	-	-	-	263	68.7%	1,659,171	73.5%
Policy Bank Bond	10	6.0%	41,000	10.0%	110	28.7%	591,408	26.2%
Financial Bond	56	33.5%	240,400	58.6%	-	-	-	-
Corporate Bond	40	24.0%	42,405	10.3%	3	0.8%	750	0.0%
Enterprise Bond	26	15.6%	45,250	11.0%	3	0.8%	2,000	0.1%
Medium-Term Note	14	8.4%	15,600	3.8%	3	0.8%	4,000	0.2%
Short-Term/Super Short-Term Financing Bill	1	0.6%	200	0.0%	1	0.3%	500	0.0%
PPN	6	3.6%	4,300	1.0%	-	-	-	-
ABS/ABN	14	8.40%	21,056	5.10%	-	-	-	-
Total	167	-	410,220	-	383	-	2,257,829	-

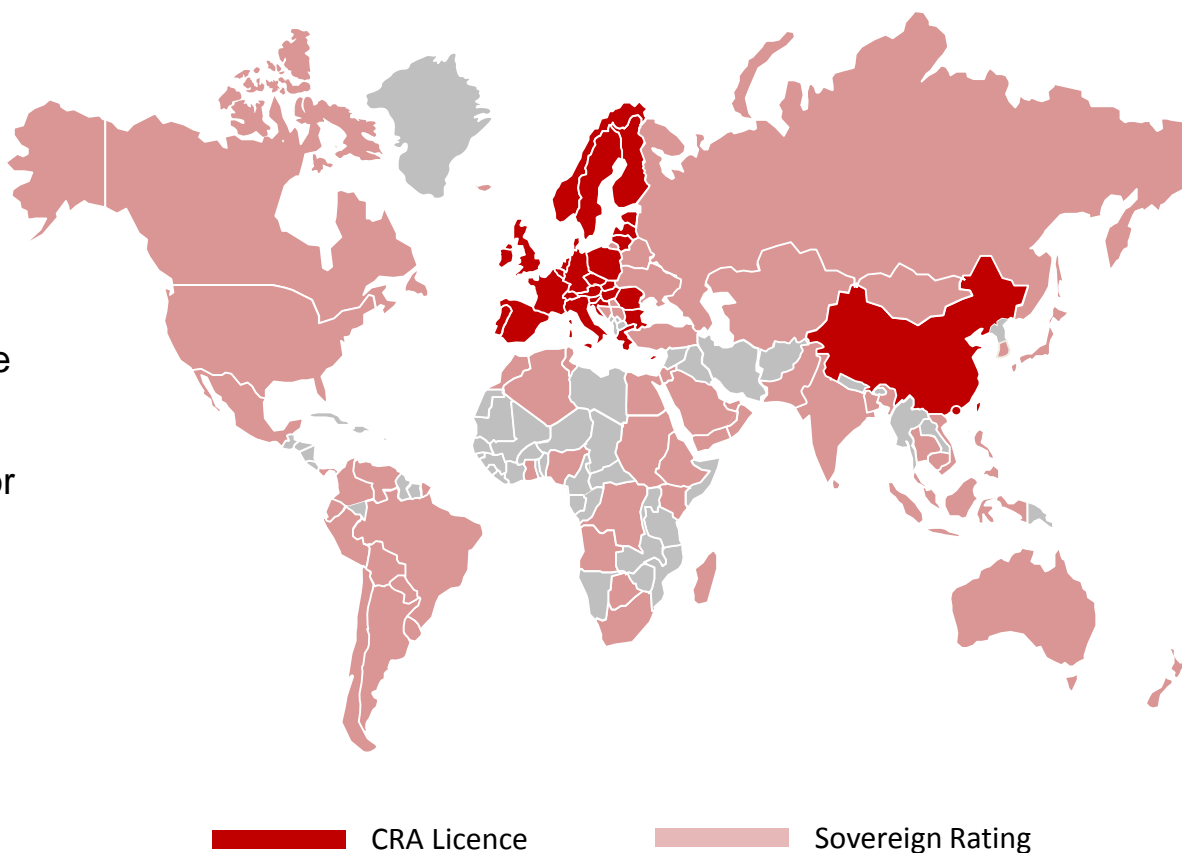
About Dagong



Dagong's Global Presence

Dagong is a global credit rating agency originated from China

- ◆ Founded in **1994** in Beijing
- ◆ Leader in China with **32** offices
- ◆ Covers over **1300** domestic issuers and over **3000** issues
- ◆ Published credit ratings on more than **10 trillion RMB** bonds
- ◆ Sovereign credit ratings for **100 countries**
- ◆ Asia Pacific and Europe are serviced by two fully **licensed overseas subsidiaries**
- ◆ **1st** and **only global** rating agency with *Chinese* origin



Recognition and Qualification

Dagong is world's only credit rating agency with licenses in both Chinese and European markets

CRA and ECAI in EU



Registered and authorised by European Securities & Markets Authority (ESMA) as Credit Rating Agency (CRA) in the European Union

Recognised by the Joint Committee of the three European Supervisory Authorities (EBA, ESMA and EIOPA – ESAs) as External Credit Assessment Institution (ECAI) in the European Union

CRA in Hong Kong



Authorised by Securities and Futures Commission of Hong Kong (SFC) with a Type 10 License to provide credit rating services in Hong Kong

CRA in China



中华人民共和国国家发展和改革委员会
National Development and Reform Commission



中国证券业协会
CSRC

Approved and recognised by People's Bank of China (PBoC), National Development and Reform Commission (NDRC), China Securities Regulatory Commission (CSRC), China Insurance Regulatory Commission (CIRC) and The National Association of Financial Market Institutional Investors (NAFMII) to provide credit rating services in China

Development of Rating and Services

Dagong has been a market leader in credit rating and evaluation for over 20 years

1995.05	Dagong rated Qingdao Soda Ash Industrial, Dagong's first credit rating of an issuer
1996.01	Dagong rated the debt program of Beijing Pharmaceutical, Dagong's first credit rating of an issuance
2001.01	Agriculture Bank of China appointed Dagong to evaluate its corporate loan portfolio
2003.02	Dagong rated an Renminbi 4 billion exchangeable bond program by China Mingsheng Bank, the first-ever exchangeable bond credit rating in Chinese market
2004.04	Dagong rated a non-performing loan ABS program by the ICBC Ningbo Branch, the first-ever ABS Credit Rating in the Chinese market
2004.07	Dagong rated an Renminbi 15 billion subordinated debt program by Bank of China, the first-ever subordinated debt credit rating in the Chinese market
2005.07	China Development Bank appointed Dagong as the assessor for its credit process
2006.12	Dagong rated the non-performance loan backed securities program by China Orient Asset Management, the first-ever credit rating on non-performing loan backed securities in the Chinese market
2008.01	Dagong rated the auto loan ABS program by Shanghai General Motors, the first-ever Auto Loan ABS credit rating in the Chinese market
2008.01	Dagong rated an Renminbi 41 billion warrant bond program by Ping An Bank, the first-ever Warrant Bond credit rating in the Chinese market
2010.07	Dagong published sovereign credit ratings to 50 countries via Xinhua News Agency. This was first the time in history that sovereign credit ratings were published by a credit rating agency originated outside western world. Dagong's sovereign credit rating coverage has expanded to 100 countries since then.
2010.11	Dagong downgraded the sovereign credit rating of the United States following the release of the Quantitative Easing program. This was the first downgrade on the United States by a credit rating agency after the financial crisis. S&P Global Ratings downgraded the United States 9 months later in the next August
2011.11	The Republic of Belarus mandated Dagong for solicited sovereign credit rating services. This was Dagong's first solicited sovereign credit rating assignment
2013.12	Dagong rated Portugal based Banco Espirito Santo S.A. and its subsidiaries. This was the first issuer credit rating assigned by Dagong under the EU regulatory framework
2015.07	Dagong rated a GBP senior unsecured debt program by NRW Bank in Germany. This was the first issuance credit rating assigned by Dagong under the EU regulatory framework.
2016.10	National Development and Reform Commission of China mandated Dagong to undertake the credit system development for the power sector in China
2016.11	Dagong rated a USD senior unsecured debt program by Shougang Corporation. This was the first issuance credit rating assigned by Dagong under the Hong Kong regulatory framework

Product and Services for International Clients

Dagong provides international clients with ratings, analysis, and data services. Credit rating reports are delivered in both English and Chinese languages, with a data feed to international financial information platforms such as Bloomberg

Credit Rating Services

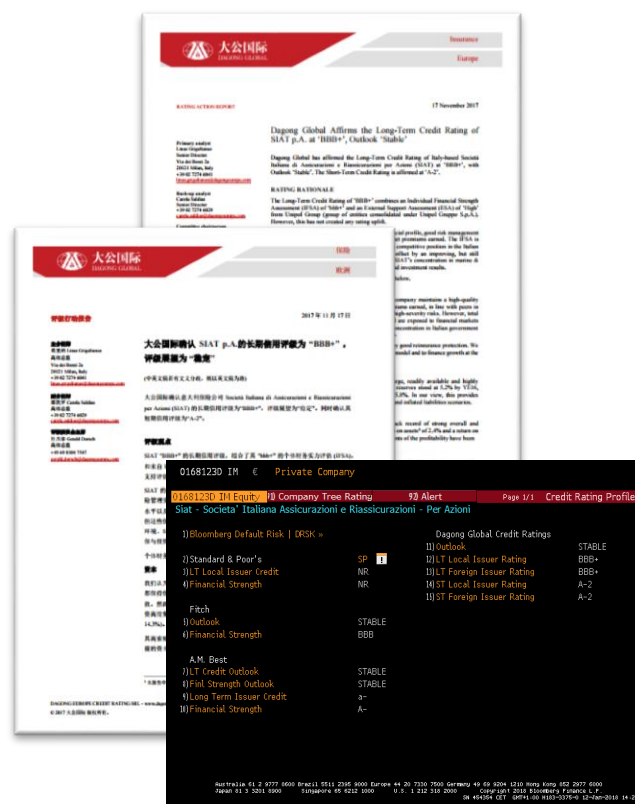
- ✓ Global Scale Rating – Public
- ✓ Global Scale Rating – Private Monitored
- ✓ Global Scale Rating – Private Point-in-time
- ✓ China National Scale Rating

Non-Rating Analysis Services

- ✓ Credit Assessment
- ✓ Credit Assessment – Unadvised
- ✓ Credit Assessment – Supply Chain
- ✓ Scenario Based Credit Analysis
- ✓ Credit Research Paper

Data Services

- ✓ Chinese Credit Database
- ✓ Chinese Credit Investigation



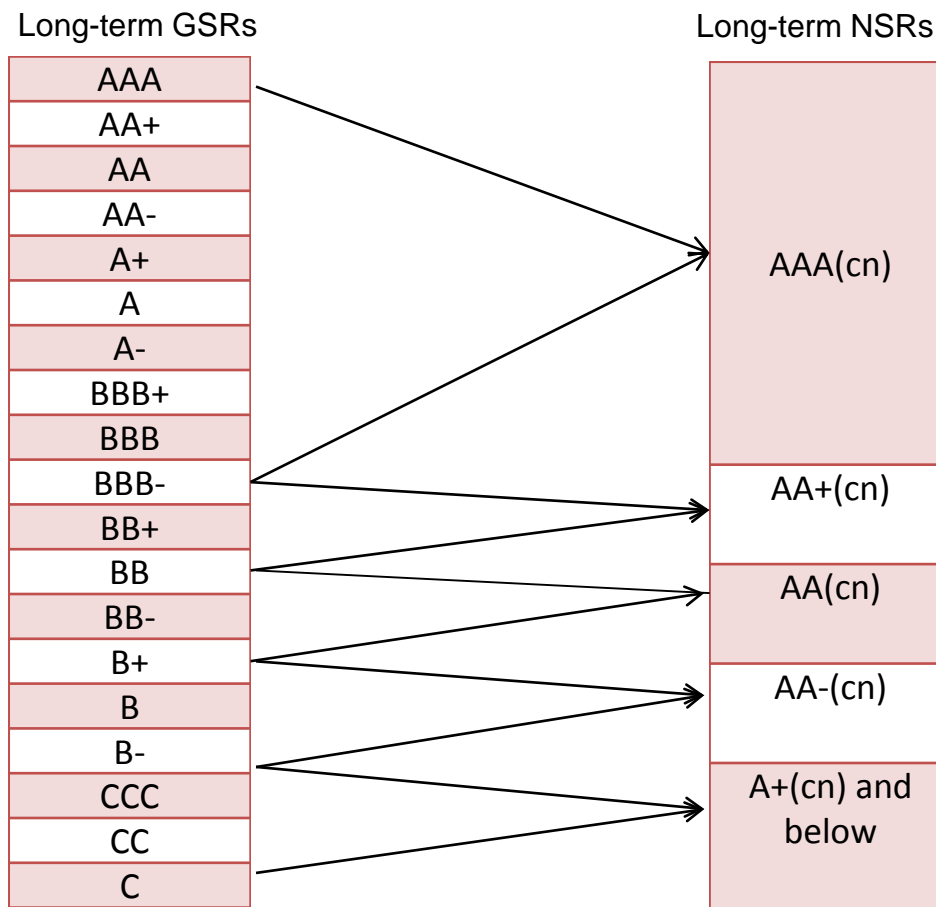
Mapping the Two Markets

Dagong is world's only CRA with licenses to conduct regulated rating activities in both Western and Chinese markets

Due to the Chinese domestic regulatory and historical reasons, same letter ratings are applied for both GSRs and NSRs, however, these two rating scales should be interpreted differently.

GSRs take into account the performance of a specific credit profile in the context of a global macro and sector environment, while NSRs only refer to the factors within the Chinese context.

Dagong uses a one-way reflection table which was used for one way rating benchmarking from GSR to NSR.



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