



**2018
CHINESE DOLLAR
BOND MARKET
RESEARCH REPORT**





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CCXI, together with its wholly-owned subsidiaries China Chengxin Securities Rating Co., Ltd. ("CCXR") and China Chengxin (Asia Pacific) Credit Ratings Co., Ltd. ("CCXAP"), is officially qualified to provide full-range rating services in China's inter-bank bond market and exchange bond market, as well as offshore market.

With the largest business operations and the best quality of services, CCXI enjoys the highest reputation of credit rating services in capital markets. It has always won the top honor and awards in various industry appraisals voted by regulators and market participants.

China Chengxin International Credit Rating Co., Ltd

Address: Building 6, Galaxy SOHO, No.2 Nanzhugan hutong, Chaoyangmennei Avenue, Dongcheng district, Beijing, 100020

Tel: (8610) 66428877 **Fax:** (8610) 66426100

Website: <http://www.ccxi.com.cn>



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CCXAP is the first Chinese credit rating agency in Hong Kong which received the Type 10 License (Providing Credit Rating Services) (CE No. AZE668) issued by Hong Kong Securities and Futures Commission in June 2012.

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China Chengxin (Asia Pacific) Credit Ratings Company Limited

Address: Suites 805-808, Jardine House, 1 Connaught Place, Central, Hong Kong

Tel: (852) 2860 7111 **Fax:** (852) 2868 0656

Website: <http://www.ccxap.com>



2018 Market Recap

Executive Summary

The Chinese dollar bond¹ market grew rapidly following the release of Circular No. 2044 by the National Development and Reform Commission (“NDRC”) in 2015, which relaxed the regulation on foreign bond issuance. The market size, in terms of the outstanding amount, rose from USD 358.6 billion at end-2016 to USD 505.7 billion at end-2017 and USD 618.2 billion at end-2018. However, the performance of Chinese dollar bond market depressed in 2018, owing to the unfavorable macro environment, including breakout of trade war, inversion of the US Treasury yield curve and rising political risk, which created uncertainties to the global economy. In addition, investors became more cautious with investing in the Chinese dollar bonds given the occurrence of credit issues and the economic slowdown in China.

1.2018 Market Recap

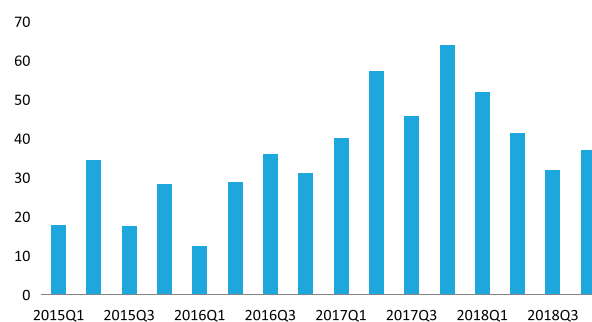
The amount of newly issued Chinese dollar bonds was USD 162.1 billion in 2018, down by 21.7% year-over-year (“YoY”) because of weak market sentiment as well as high financing cost.

Some Chinese entities faced liquidity shortage, caused by thin liquidity of the onshore market, as well as corporate governance problems. Consequently, there were 8 Chinese dollar bonds

issuers² suffered credit issues in 2018. For example, after the default of Hsin Chong Group Holdings Ltd. in May, the market sentiment was depressed and Chinese entities became more difficult to obtain financing in the offshore market. As a result, the newly issued amount in 2018Q2 and 2018Q3 suffered a year-over-year reduction of 27.8% and 30.2% respectively.

The Chinese government introduced several supportive policies of private enterprises in 2018Q4, and hence, the market sentiment saw a trend of recovering as the newly issued amount increased as compared to last quarter. However, the newly issued amount was less than that of 2017Q4, dropped by 42.3% YoY, because the willingness to issue dollar bonds was constraint by the high financing cost.

Exhibit 1. The amount of newly issued Chinese dollar bonds in 2015-2018 (USD billion)



Sources: Bloomberg, CCX research

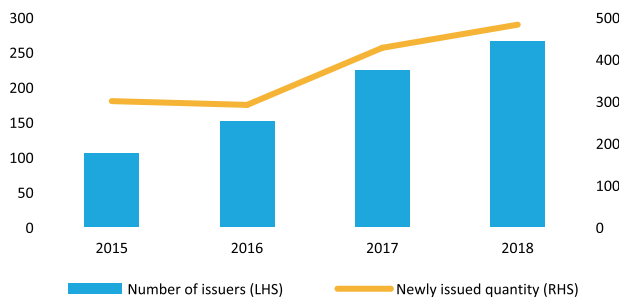
¹ The Chinese dollar bonds refer to the bonds, excluded certificates of deposit (“CD”), denominated in US dollars issued by the Chinese entities

² Issuers referred to the obligors instead of the bond issuing entities

The number of newly issued Chinese dollar bonds and number of issuers demonstrated an upward trend as more Chinese entities entered into the market, supported by the strong financing needs.

There were 266 Chinese entities that issued 483 dollar bonds in 2018, increased by 18.2% and 12.9% YoY respectively. Among the dollar bond issuers in 2018, 102 of them were first-time issuers (representing 38.3% of all issuers) and they issued USD 34.7 billion bonds in aggregate. Despite that heightening US Treasury yield and exposure to currency risk that increased the cost of issuing dollar bonds, the needs for refinancing onshore indebtedness, financing project investment and replenishing working capital continued to motivate the Chinese entities to participate in the market. As for industrial breakdown, there were 43 Chengtou companies (representing 42% of the new issuers) who newly engaged in this market in 2018, reflecting that the Chinese dollar bond market has become one of the funding channels for Chengtou companies.

Exhibit 2. The number of newly issued Chinese dollar bonds and number of issuers in 2015-2018



Sources: Bloomberg, CCX research

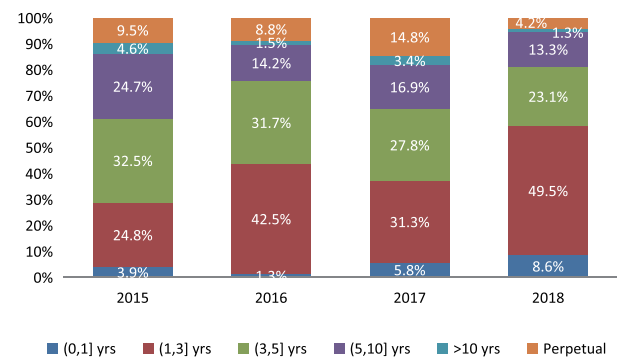
The demand for replenishment of working capital with simplified issuance procedure boosted the issuance of short-term bonds; while issuing long-term bonds³ became more challenging given increase in uncertainties.

The average maturity of newly issued dollar bonds (excluded perpetual bonds) reduced from 4.5 years in 2017 to 3.4 years in 2018. The issuance procedure of short-term bonds was relatively simple as issuers did not need to register with NDRC.

³Tenor was 5 years or above

In addition, the liquidity of onshore market was tight. Therefore, some Chinese entities replenished their working capital by short-term dollar bonds. In 2018, there were 64 Chinese entities issuing short-term bonds, as compared to 47 entities in 2017 and 7 entities in 2016. In terms of issuing amount, short-term bonds accounted for 8.6% of the total in 2018, up from 5.8% in 2017 and 1.3% in 2016. The US-China trade war and flattening yield curve gave rise to uncertainties in economic growth, rendering investors more risk averse and with preference on bonds with shorter maturity. Only 37 entities issued long-term bonds in 2018 and the proportion of amount of newly issued long-term bonds sharply reduced to 18.8% in aggregate, as compared to 62 entities and 35.1% of the total in 2017.

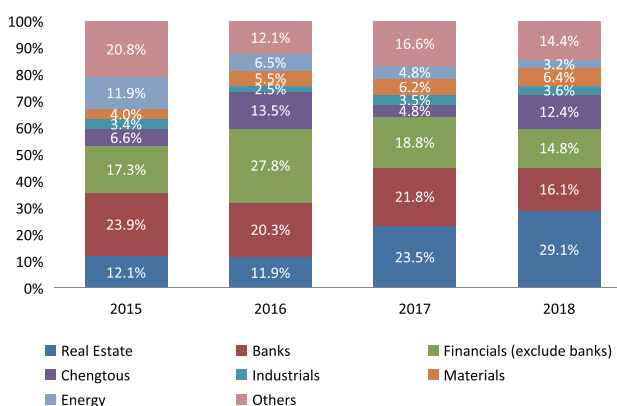
Exhibit 3. Newly issued amount breakdown by tenor



Sources: Bloomberg, CCX research

The real estate and Chengtou companies were the key issuers of Chinese dollar bonds; and the Chengtou companies took a more active role in the market with a significant boost in the newly issued amount.

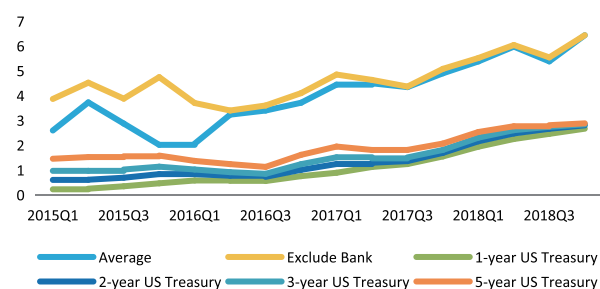
Among the dollar bond issuers in 2018, there were 68 real estate companies and 73 Chengtou companies. The real estate companies issued USD 47.2 billion dollar bonds in 2018, representing 29.1% of the total issuing amount, which is the largest share as compared to other industries. The funds financed by the Chengtou companies boosted from USD 9.9 billion in 2017 to USD 20.2 billion in 2018, which was mainly driven by the financing needs as well as more Chengtou companies participating in the market.

Exhibit 4. Newly issued amount breakdown by sector


Sources: Bloomberg, CCX research

Uplifting Treasury yield and weak sentiment brought upward pressure on coupon rate.

The average coupon rate of the fixed rate ordinary bonds⁴ stepped up from 4.44% in 2017Q1 to 5.38% in 2018Q1 and 6.44% in 2018Q4. The US Federal Reserve released the signal of tightening monetary policy alongside the recovery of US economy in 2016, which pushed the US Treasury yield higher. The coupon rate of the Chinese dollar bonds was highly correlated with the US Treasury, of which the correlation coefficient between the average (exclude banks) and 5-year Treasury yield was high at 0.95, nearly perfectly correlated (see exhibit 5). Moreover, the occurrence of credit issues depressed the market sentiment and investors asked for extra premium for compensation, which further boosted the coupon rate.

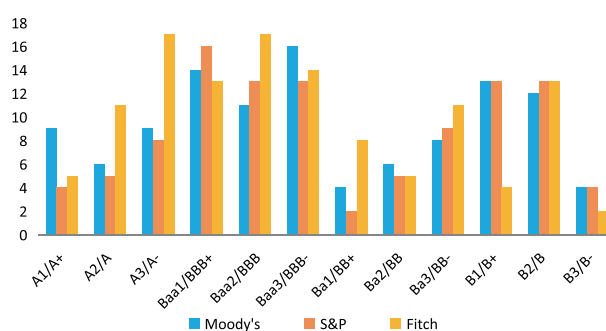
Exhibit 5. Average coupon rate of fixed rate ordinary bonds and US Treasury yields (%)


Sources: Bloomberg, CCX research

³ The fixed rate ordinary bonds referred to the bonds that are issued at fixed coupon rate and are not embedded put or call option

The high-yield issuers were challenged with issuing dollar bonds in 2018H2, owing to high financing cost.

Among the issuers in 2018, 166 of them had the credit rating from the three international rating agencies (Moody's, S&P and Fitch). 104 issuers received investment grade rating, of which the majority of them were banks, large stated-owned enterprises or market leaders. In 2018, the investment grade issuers raised a total of USD 93.0 billion in the Chinese dollar bond market, representing 57.4% of the newly issued amount. The majority of high-yield issuers were real estate companies, usually characterized by modest credit metrics and high debt leverage. Investors became less confident to invest in high-yield bonds after the emerging of credit issues and requested for higher premium as compensation for taking extra risk. Increase in financing cost discouraged the high-yield issuers to issue dollar bonds. As a result, there were 39 high-yield bonds with the amount of USD 13.6 billion issued in 2018H2, which significantly dropped as compared to 70 bonds and USD 23.4 billion in 2018H1. In 2018, 100 issuers were not rated by the three rating agencies and the proportion of unrated issuers increased to 37.6% (2017: 34.2%). Most of the unrated issuers were the real estate companies (16), Chengtous companies (32) and financial institutions (21), because these sectors accounted for the majority of the issuers.

Exhibit 6. Rating distribution of Chinese dollar bond issuers in 2018


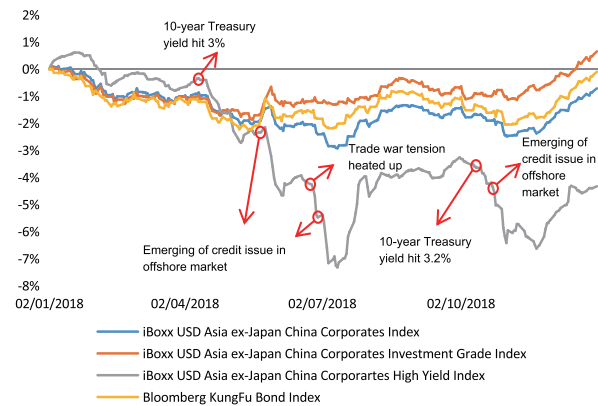
Sources: CCX research

The performance of the secondary market of Chinese dollar bonds (especially the high-yield bonds) depressed in 2018, which reflected weak market sentiment.

The yield spread of Bloomberg Barclays Asia USD investment grade bond index rose by 55.53 basis points ("bps") to 166.79 bps in 2018, while the yield spread of the high yield bond index

significantly boosted by 296.80 bps to 633.44 bps. In addition, the return of USD Chinese corporates bonds diminished in 2018. According to iBoxx USD Asia ex-Japan China Corporates index, the 2018's annual return was -0.71%, lower than that of 4.95% in 2017. The disappointing secondary market performance were mainly driven by the changes in macro conditions, including the breakout of US-Sino trade war and the occurrence of credit issues in the offshore market, making investors more cautious with investing in Chinese dollar bonds. Climbing US Treasury yields pushed up the Chinese entities' borrowing cost, which also undermined the secondary market performance (high-yield bond index in particular). Given the high leverage and modest credit metrics nature of the high-yield entities, their debt repayment capabilities were usually sensitive to the changes of macro conditions, and hence investors were less comfortable with investing in high-yield bonds. The high-yield bond index underwent the worst performance since 2015, with year-to-date return on high-yield bond index fell to the lowest level of -7.32% and recorded an annual return of -4.33% in 2018.

Exhibit 7. Return of Chinese dollar bond index

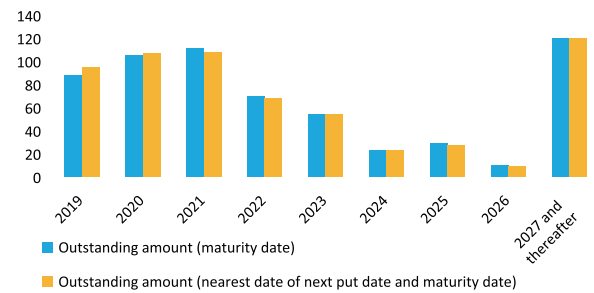


Sources: Bloomberg, CCX research

Sizeable amount of the outstanding Chinese dollar bonds will mature in the upcoming three years, which could exert refinancing pressures.

As of 31 December 2018, USD 88.7 billion, USD 106.4 billion and USD 111.9 billion bonds will mature between 2019 and 2021 respectively, accounting for 49.7% of the total outstanding amount in aggregate. There were also USD 20.9 billion bonds that embedded put option, which could be exercised in 2019 and 2020. Investors could be motivated to exercise the put option given increasing market risk, which resulted in extra refinancing pressure to the bond issuers.

Exhibit 8. Outstanding amount of Chinese dollar bonds as of 31 December 2018 (USD billion)



Sources: Bloomberg, CCX research



In-depth Analysis: Real Estate Sector

The Chinese real estate sector regulations followed the principle of “houses are for people to live in, not for speculation” and remained tight in 2018. For the regulations of offshore financing, the Chinese government announced that the real estate companies can only use the funding for refinancing in order to control the new issuance of debts as well as the leverage, resulting in the decrease of the amount of newly issued Real Estate dollar bonds⁵. In addition, the occurrence of credit issues of the real estate companies pushed up the sector’s risk premium, so the financing cost of real estate companies trended upward. On the other hand, it is observed that most of the Chinese real estate companies held a low international credit rating (high-yield rating) and the yield spread between the onshore bond and dollar bond issued by the real estate companies widened.

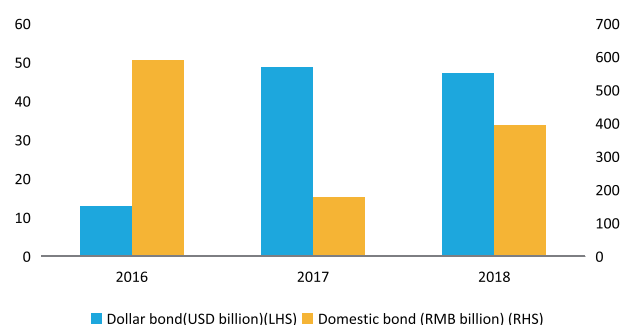
1. The Real Estate Dollar Bond Market Recap

The amount of newly issued Real Estate dollar bonds slightly dropped in 2018, after a boost in 2017.

The amount of domestic bonds⁶ newly issued by real estate companies fell by 70% YoY to RMB 177.9 billion in 2017, as the Chinese government constrained the onshore funding channels of real estate companies. With that, the Chinese dollar bonds became an alternative for the companies and the amount of newly issued Real Estate dollar bonds increased by 278.7% YoY to USD 48.7 billion. Because of the sizeable maturing debts, the

Chinese government loosened the regulations in 2018, and the issuance of domestic bonds for the usage of debt repayments was more easily approved. As a result, the amount of newly issued domestic bonds rebound by 122% YoY to RMB 395.7 billion. In June 2016, the NDRC announced that the funds raised by the real estate companies can only be used for refinancing, rather than investing in property projects or replenishing working capital. Against the backdrop of tighten offshore liquidity, the amount of Real Estate dollar bonds decreased by 3.1% YoY to USD 47.2 billion in 2018.

Exhibit 9: The amount of bonds issued by the Chinese real estate companies in 2016-2018



Sources: Bloomberg, CCX research

The financing cost of Real Estate dollar bonds rose, causing a wide yield spread between domestic bonds and dollar bonds.

The average coupon rate of fixed rate Real Estate dollar bonds went up by 191.08 bps to 7.8% in 2018, of which the coupon

⁵ The Real Estate dollar bonds are the bonds denominated in US dollar issued overseas by Chinese real estate companies.² Issuers referred to the obligors instead of the bond issuing entities

⁶ Domestic bonds include corporate bonds, enterprise bonds and MTN, but exclude asset-back securities.

rate of dollar bonds with maturity between 1 and 3 years rose by 203.30 bps. This comes as a result of climbing US Treasury yield and higher risk exposure of the real estate sector which pushes up the risk premium. Most of the issuers of Real Estate dollar bonds held high-yield rating from the three international rating agencies, suggesting a higher financing cost in the offshore market. Among the Real Estate dollar bonds' issuers in 2018, 52 of them were rated by the three international rating agencies, of which 41 of them were high-yield issuers (78.8% of the total rated real estate issuers). In 2018, the average coupon rate of the domestic bonds newly issued by the Chinese real estate

companies was 6.4%, about 140 bps lower than the rate of Real Estate dollar bonds. By comparing the domestic and dollar bonds issued by the same issuer with similar maturity and issue date, it is easy to find out that there is a wide spread between these two bonds

The following table shows the coupon rate spread between domestic and dollar bonds issued by the same issuer. Taking Fantasia Holdings Group Co., Ltd. as an example, the coupon rate spread between domestic and dollar bonds achieved a high of 750bps.

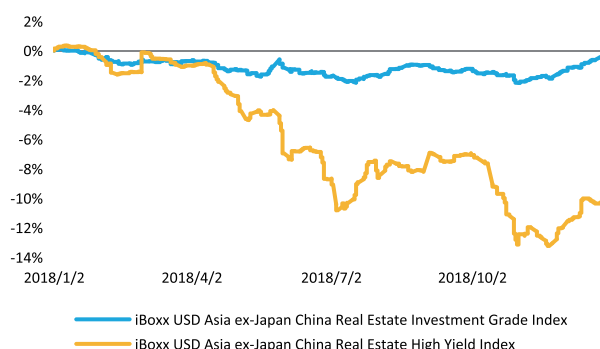
Table 1: Coupon rate spreads between domestic and dollar bonds issued by real estate issuers

Enterprise	Type	Issue Date	Maturity	Coupon Rate	Spread (bps)
Fantasia Holdings Group Co., Ltd.	Dollar bond	18/12/2018	3 years	15%	750
	Corporate bond	17/12/2018	3 years	7.5%	
Zhenro Properties Group Ltd.	Dollar bond	2/10/2018	3 years	12.5%	500
	Corporate bond	26/9/2018	3 years	7.5%	
Xinhu Zhongbao Co., Ltd.	Dollar bond	20/12/2018	3 years	11%	420
	MTN	29/3/2018	3 years	6.8%	
Huayuan Property Co., Ltd.	Dollar bond	16/11/2018	3 years	11%	350
	Corporate bond	14/12/2018	3 years	7.5%	
Fujian Yanggo Group Co., Ltd.	Dollar bond	19/4/2018	3 years	9.875%	187.5
	MTN	8/6/2018	3 years	8%	

Sources: Bloomberg, CCX research

The secondary market performance of Real Estate dollar bonds was depressed because of the breakout of credit issues (the issue of China Energy Reserve and Chemicals Group Co., Ltd. in May, Gantai Group Co., Ltd. in June and China Singyes Solar Technologies Holdings Ltd. in October). On the upside, the Chinese government introduced some policies, such as injecting liquidity to the market via medium-term lending facility in July and announcement to encourage high-quality as well as healthy companies to issue bonds in December. These policies released a signal of improving liquidity condition, which was favorable to the real estate companies' credit and resulted a rebound in the secondary market in July and December.

Exhibit 10: Secondary market performance of Real Estate dollar bonds in 2018



Sources: Bloomberg, CCX research

2. Credit Risk Performance and Identification of Real Estate Sector

2.1. The default issues of real estate companies happened sporadically in 2018

China's bond market saw a rise in the number of defaults in 2018. In terms of real estate sector, 3 issuers (Zhonghong Holding Co., Ltd., Beijing Huaye Capital Holdings Co., Ltd. and Yinyi Co.,

Ltd.) defaulted on public bonds. The default events reflected weaknesses in internal control or business plan of the companies. For instance, Yinyi Co., Ltd. suffered liquidity shortage after acquiring the automobile components manufacturing business; Zhonghong Holding Co., Ltd. defaulted because of the corporate governance issues.

The following table summarizes the default events of the three issuers:

Table 2: Defaults of domestic bonds in real estate sector in 2018

Time	Enterprises	Events
Since 2018	Zhonghong Holding Co., Ltd.	In 2018, Zhonghong Holdings and its subsidiaries defaulted on several debts. On 27 December 2018, Zhonghong was delisted in A-share stock market.
Sep 2018	Beijing Huaye Capital Holdings Co., Ltd.	On 25 September 2018, the receivables of Huaye Capital's subsidiary were overdue and further resulted in the default of debts.
Dec 2018	Yinyi Co., Ltd.	On 24 December, Yinyi Stock announced that "15 Yinyi 01" failed to repay the principal.

Sources: CCX research

Wuzhou International Holdings Ltd. ("Wuzhou International"), which specialized in the property development and operation, was the only Chinese real estate issuers defaulted in the offshore market in 2018. Wuzhou International's business operated mainly in the lower third and fourth-tier cities, which exert pressure to it in destocking. In addition, Wuzhou International demonstrated volatile revenue, owing to its small

and concentrated recurring income. On 5 July 2018, the event of default under the note issued on 26 September 2013 was triggered because Wuzhou International defaulted on debt repayments and its creditors demanding early repayments of RMB 1.0 billion loans. The defaults undermined investor confidence and the risk premium for the Chinese real estate companies lifted.

Table 3: Defaults of Real Estate dollar bonds in 2018

Time	Enterprises	Events
Apr 2015	Kaisa Group Holdings Ltd.	Kaisa announced that it had failed to pay interest within the 30-day grace period on its 12.875% senior notes due 2017 and 8.875% senior notes due 2018.
Aug 2018	Wuzhou International Holdings Ltd.	Wuzhou International said it failed to repay RMB 395.5 million in principal and RMB 111.0 million in interest for a portion of the second tranche of the RMB 1.5 billion 2016 corporate bonds
Dec 2018	Yinyi Co., Ltd.	On 24 December, Yinyi Stock announced that "15 Yinyi 01" failed to repay the principal.

Sources: CCX research

2.2. The credit profile of real estate companies is supported by the importance of the sector in the China's economy as well as the strong demand; and the market leaders have better credit quality

In 2018, there were 18 positive and 6 negative rating actions against the real estate companies taken by the domestic rating

agencies, as compared to 19 positive and 19 negative rating actions taken by the international rating agencies. The negative rating actions, taken by the domestic rating agencies, were mainly due to more serious refinancing pressure and restricted financing channels; while the poorer financial profile, including increase in debt burden, weakening credit metrics, higher refinancing pressure and weaker-than-expected cash generation,

caused the international rating agencies to take negative rating actions. This suggested that the domestic and international rating agencies held different views on the assessment of Chinese real estate companies' credit quality.

The international rating agencies believe that the cyclical real estate sector with high uncertainties in the regulations damage the companies' business profile as well as the credit quality. In addition, the international rating agencies focus on the financial profile in the assessment. Because most of the Chinese real estate companies adopted the debt-funded model to support their rapid expansion, they have a high debt leverage and weak interest coverage. Therefore, only a few Chinese real estate companies (mainly the state-owned or large companies) are investment grade issuers, and majority of them are high-yield issuers.

The Chinese real estate market is vital to the China's economy, so the Chinese government aims to ensure a stable and healthy development of the market as well as prevent systematic risks. In addition, the market demonstrates a strong demand which

could support the business of real estate companies. Therefore, China Chengxin ("CCX") believes that the positive view of real estate market would improve the companies' credit quality.

Since the revolution of real estate market in 1998, the market has developed rapidly and became a vital part of the China's economy. In the short-run, it is expected that the tight market regulation will slow down the growth of real estate market. Yet, CCX expects that the market regulations will change to support the market development, if the market is in a downturn, given the importance of the market. Furthermore, a large market potential, supported by the strong demand, short replacement cycle and increase in urbanization, creates a solid foundation for the companies' business growth. That said the real estate market is relatively stable in the future and is a favorable factor to the real estate companies' credit quality.

The following figure shows the rating frameworks (business profile, financial strength, and financial flexibility) used by CCX in arriving at a rating for real estate development industry.

Exhibit 11: CCX rating framework for real estate development industry



Sources: CCX research

Apart from the leverage and coverage ratios, CCX believes the scale is a more important factor for the assessment of credit quality.

The real estate sector has concentrated since 2007, with lower profitability and differentiation in debt servicing ability. The large real estate companies have stronger competitive advantages and business profile, such as high-quality land bank and strong bargaining power, which imply better credit quality. In an economic downturn, we expect that the credit risk of large real estate companies will be relatively manageable given their competitive advantages. On the other hand, the small and medium-sized companies are more probable to have liquidity issues because their financing channels are relatively concentrated, which is credit negative.

3. Outlook of Real Estate Sector in 2019

Real estate companies are expected to remain the key issuers of Chinese dollar bonds in 2019.

In 2018, the government adhered to the principle of “houses are for people to live in, not for speculation” for the regulations of the real estate sector. The local governments were allowed to impose different policies according to the circumstances of their respective local markets. Apart from the short-term restricting policies, the governments gradually reformed the long-term housing system, namely encouraging both purchasing & renting, and the property taxes. In December 2018, the Chinese government emphasized the responsibility of local governments in real estate market regulation, and hence, the regulations in Heze and Guangzhou loosened. We expect that the government will marginally relax the real estate market regulations to stabilize the housing prices, and the market will continue to expand, in terms of total contracted sales and contracted GFA, at a slower pace. With that, the growth of internal cash generations of the real estate companies will be subject to uncertainties. Furthermore, the financing environment of real estate sector may not demonstrate a significant improvement as the government reinforces that the capital should not invest in the real estate sector, despite that the liquidity condition eased in 2019. Against

these backdrops, the offshore bond market will be an alternative for the real estate companies. In addition, sizeable amount of Real Estate dollar bonds will mature in 2019-2021, which create refinancing demand. Therefore, we expect that real estate companies will remain the key issuers of dollar bonds.

Market concentration challenges the repayments of the small and medium-sized real estate companies.

Tight regulations restricted the growth of small and medium-sized real estate companies, from the aspects of financing, land bank, and contracted sales. Benefiting from the competitive advantages, such as quality land bank, strong contracted sales, brand recognition and financing channels, the large real estate companies can capture a larger market share, which increases the market concentration. In 2018, the market share, in terms of contracted sales, of the top 50 companies and top 100 companies was 55.1% and 66.7% respectively, up by 9.3 and 11.3 percentage points as compared to that of 2017. In 2019, we expect that the real estate market will further concentrate. The large real estate companies will maintain a relatively stable credit profile, while the small and medium-sized companies may have liquidity and refinancing issues as their funding is more susceptible to regulatory changes.

Investors should focus on the real estate companies with land bank that concentrates in the third and fourth-tier cities.

Underpinned by ongoing urbanization and strong demand for upgrades, the first and second-tier cities are expected to experience less impact from market policies in 2019. In past few years, the cost of the land bank in first and second-tier cities stayed high. With the development of transportation system, the land bank in third and fourth-tier cities became the favorable alternative for the real estate companies to expand their business, and some companies may heavily stock in these cities. Yet, the contracted sales in third and fourth-tier cities may slow down in 2019. The relatively weak fundamentals and changes in shanty town policy may drag down property sales, so the real estate companies may expose to higher business risk if they have a large amount of land banks in third and fourth-tier cities.



In-depth Analysis: Chengtou Sector

The onshore Chengtou bond market and Chengtou dollar bond⁷market shared multiple similarities in the issuance characteristics and credit performance, because some Chengtou companies financed in both markets. Beside the influence of Treasury yield and exchange rate, both markets were susceptible to the regulation and the macro environment. The amount of newly-issued Chengtou bonds rebound in 2018H2 alongside the relaxation of regulations. The tight onshore liquidity caused a few Chengtou companies to be unable to repay their onshore debts on time. Consequently, the domestic and foreign investors became more conservative given the concern for higher level of credit risk in the Chengtou sector. And hence, the newly issued bonds usually had high credit rating (investment grade) and short-term duration.

1. The Chengtou Dollar Bond Market Recap

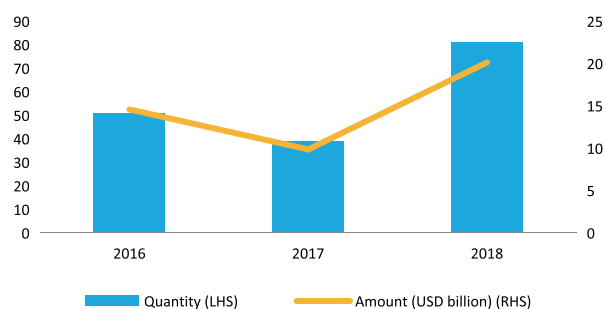
In 2018, the amount of newly issued Chengtou dollar bonds increased by 104.0% YoY, reaching a record high of USD 20.2 billion.

There are three contributing factors for the boost. Firstly,

the refinancing demand, created by the sizeable amount of maturing Chengtou dollar bonds after the explosive growth of issuance in 2015 and 2016, drove the expansion of the Chengtou dollar bond market. Secondly, relaxation of industry regulations was conducive to the issuance of the Chengtou dollar bonds. Since the second half of 2018, regulatory policies have been emphasizing on the protection of financing needs of Chengtou companies, which facilitated the expansion of the Chengtou dollar bond market. Lastly, overseas bonds markets are attractive to Chengtou companies: not only it is an important source to diversify financing channels, but it also helps companies gain popularity, establish good relationships with overseas investors, and enhance performance of local governments. Furthermore, the issuance of offshore bonds was more efficient because of fewer restrictions. With the liberalization of regulations, the number of Chengtou companies registered with the NDRC has been constantly increasing. That caused 43 Chengtou companies entered the dollar bond market in 2018, the number went up 72% comparing to 2017. The newly issued bonds amounted to USD 11.0 billion, accounting for more than 50% of the total of newly issued Chengtou dollar bonds and becoming an important factor in the accelerated expansion of Chengtou dollar bond market.

⁷ The Chengtou dollar bonds are the bond denominated in US dollar issued overseas by Chinese Chengtou companies. The core criterion for Chengtou companies is whether they undertake the financing function of government projects. The sample of Chengtou dollar bonds refers to this standard. In view of the availability of data, the sample of onshore Chengtou bonds refers to the commonly used statistical caliber of Chengtou bonds, including some atypical Chengtou companies.

Exhibit 12: The amount and quantity of newly issued Chengtou dollar bonds in 2016-2018



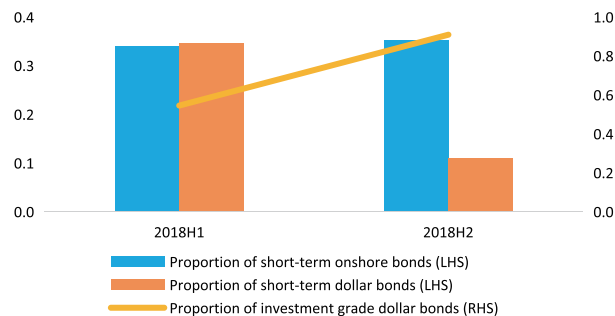
Sources: CCX research

Similar to the features of onshore Chengtou market, Chengtou dollar bond market is characterized with high credit rating and short-term duration.

In 2018, the AAA-rated onshore Chengtou bonds accounted for 45.2% of total issuance, increasing by 14.9 percentage points as compared to 2017. 56.2% of 2018's Chengtou dollar bond issuers had credit rating from the three international rating agencies (similar to the proportion of 2017), of which 80.5% of rated issuers held an investment grade rating (increasing by over 20 percentage points). Investors preferred bonds with shorter maturity due to greater market uncertainty in 2018. In the first half of the year, the proportion of short-term Chengtou dollar bonds and short-term onshore Chengtou bonds both increased. In the second half of the year, the proportion of short-term onshore Chengtou bonds remained stable, but the proportion of short-term Chengtou dollar bonds dropped significantly. The regulators encouraged Chengtou companies with strong business and credit profiles to finance offshore. These companies are well-recognized by investors, which supported the issuance of dollar bonds with longer maturity.

On the other hand, in 2018, the Chengtou sector demonstrated higher credit risk. The onshore default events hit the Chengtou dollar bonds market, resulting in the difficulties for the Chengtou companies with poor qualification to issue bonds. This reduced the amount and the proportion of newly issued short-term Chengtou dollar bonds, because these companies were one of the key issuers. On the whole, the average maturity of Chengtou dollar bonds in 2018 was down 0.3 year from 2017.

Exhibit 13: Proportion of short-term bonds and investment grade bonds (Chengtou Sector)



Sources: CCX research

2. Credit Risk Performance and Identification of Chengtou Sector

2.1. Credit risk in Chengtou sector differentiated, weak Chengtou companies faced more difficulties in refinancing in both onshore and offshore market

In 2018, the refinancing channels of Chengtou sector tightened and the credit quality of the companies continued to differentiate given the reinforcements of preventing the credit risk of off-balance sheet debts. The emerging of credit issues broke the belief that local governments were the last resort for debt repayments. The credit issue appeared in the onshore non-standard market first, and then the onshore open bond market. Although there was not any credit issues in the Chengtou dollar bond market, investors' risk preference grew more cautious because of tightening sector regulations and other credit issues in the offshore market. As a result, those Chengtou companies that were less important and in underdeveloped or lower administrative regions, were challenged when trying to refinance in the offshore market.

The Chengtou companies' default issues mainly occurred in the onshore non-standard market, and the credit risk spilled over to the public market.

In 2018, there were 17 Chengtou companies defaulted in debt repayment, with a defaulted amount of RMB 4.7 billion. Among the 17 defaulted issuers, 16 of them failed to repay the non-standard debts. These issuers were mainly the prefecture-level

or county-level companies, which located in the underdeveloped regions with declining fiscal revenue. In addition, there were a few Chengtou companies defaulted on repayments because of their aggressive financial policy, despite that they located in the regions with strong competitive advantages. In August 2018, “17 Bingtuan 6th shi SCP001”, issued by the Xinjiang Production Construction 6th Shi State-owned Assets Management Co. Ltd., was in default on the repayment of the principal and interest on time, becoming the first Chengtou bond default case in the public market and leading to a growing concern about the heightening credit risk in the Chengtou sector. However, due to the fact that the local governments catered for their own interest, they helped the Chengtou companies for debt disposal. As of 31 December 2018, only the trusts that defaulted in October and thereafter, and the private placement notes ("PPNs") that defaulted before 2018Q4 have not been solved.

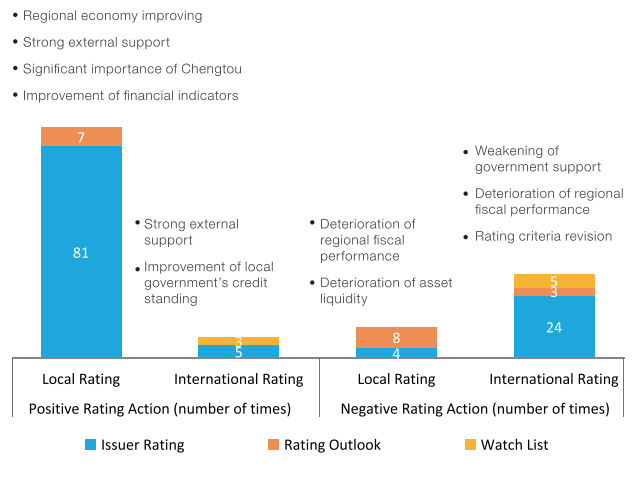
The different rating rationales between Chinese and international rating agencies caused differences in rating actions.

In 2018, there were 88 positive rating actions and 12 negative rating actions against the Chengtou issuers taken by the Chinese rating agencies, as compared to 8 positive rating actions and 32 negative rating actions taken by the three international rating agencies. The Chinese and the international rating agencies agreed that weakening business profile, financial metrics or regional finance could damage the credit profile of a Chengtou company. Nonetheless, apart from the changes of the rating methodology (which caused the international rating agencies took negative rating actions against the Chengtou issuers), the different understandings, especially about the importance of Chengtou companies and their relationship with the local governments, between the Chinese and the international rating agencies caused the differences in rating actions. The international rating agencies believed that the policies introduced by the Chinese government to reduce hidden debts will weaken local governments' support for Chengtou companies.

Although the Chengtou companies faced the problems of restricted funding channels and business transformation, CCX believes that the local governments would prevent default cases in Chengtou debt. This was because the Chengtou companies

would remain the financing and investing platforms for the local governments in the short-run, and avoiding the defaults of the Chengtou companies would be vital for the local governments to stabilize the local financial market.

Exhibit 14: Rating actions to the Chengtou companies in 2018



Sources: CCX research

2.2. Identifying individual credit risk, and assessing the quality of Chengtou companies

Chengtou companies have a close relationship with the local governments. Chengtou companies are the infrastructure investment and financing platform of local governments, which distinguish the Chengtou companies from other general state-owned enterprises and suggest that the local governments have a strong willingness to support the Chengtou companies. However, the definition of Chengtou companies in the market is too general, as some industrial investment enterprises are also classified as Chengtou companies. The degree of support to the industrial investment enterprises is weaker than typical Chengtou companies, so it is crucial for investors to identify the "real" Chengtou companies. CCX believes that typical Chengtou companies shall provide public welfare or quasi-public welfare services. In other words, they mainly engage in non-commercial businesses or invest in projects that can bring strong social effect, so they have a strong dependence on government subsidies.

The Chengtou sector concentrated and the credit quality differentiated under the tight regulations and tight credit

environment. With that, the credit quality of Chengtou companies should be taken into account. Apart from the Baseline Credit Assessment (“BCA”) of the Chengtou companies, the degree of support, which is determined by the local governments’ willingness and capability of support, is another rating factor to assess. The credit quality of the local governments reflects the capability of support, while

the importance of the Chengtou companies indicates the willingness.

In conclusion, the Chengtou companies’ credit quality is determined according to the BCA and the degree of government support, and their credit rating cannot break the ceiling of local governments’ credit rating given their business nature.

Exhibit 15: CCX rating framework for the Chengtou companies



Sources: CCX research

The Chengtou companies undertake urban development tasks, such as infrastructure and land development, resulting in a large size of inventory, construction in progress, intangible assets, etc. In addition, the asset injections from the local governments mean that the capital reserve of Chengtou companies is sizeable. That said, **the total assets, net assets and asset quality are the important indicators to be considered for the determination of credit quality.** Furthermore, the Chengtou companies usually deal with the local governments (or other related parties) because of their business nature. Hence, they may record a large proportion of receivables (current accounts) on their balance sheet, reflecting a significant amount of working capital is occupied. Therefore, **it is important to consider the liquidity risk of Chengtou companies, especially for those with high**

dependence on government refunds or in the regions with weak financial profile. The credit rating of local governments is the ceiling of Chengtou companies’ credit rating, as the capability of support from the local governments is determined by their credit quality. In addition, the importance of Chengtou companies should be considered to evaluate the degree of support that will be provided by the local governments if they are in the debt repayment difficulties or crises.

In conclusion, CCX believes that the degree to which Chengtou companies undertake the investment and financing functions of the local governments, the significance of investment projects to the regions and the degree to which the public welfare functions will be retained in the future are three important factors to be considered in the assessment of credit quality.

3. Outlook of Chengtou Sector in 2019

In 2019, the regulations in Chengtou sector will remain tight, while the credit quality of Chengtou companies will be differentiated. In addition, the new issuance of Chengtou dollar bonds will stay significant.

The Chinese government will focus on preventing and resolving any major risks, of which, eliminating the credit risk of off-balance sheet debt will be one of the key aspects. However, China's economy in 2019 will face some downward pressure. That said, the balance between "stable growth" and "risk prevention" will be crucial for the regulations. Therefore, it is expected that the government will not further tighten the regulations of Chengtou sector and will ensure that the Chengtou companies can meet the reasonable financing needs, keeping the same policy direction introduced in the second half of 2018.

The refinancing demand of Chengtou companies will be strong in 2019 as there will be more than US 10 billion Chengtou dollar bonds matured. Overall, the stability of regulations will support the issuance of Chengtou dollar bonds, and the issuance of Chengtou dollar bonds will benefit from the US dollar exchange rate and interest rate. According to the policy orientation, it is expected the Chengtou companies that provide public welfare services or engage in important infrastructure projects will receive strong support in the future. Also, the investors will prefer investing in these issuers with better credit quality. By contrast, the support for Chengtou companies in the lower administrative regions with weak financial profile will remain limited, so they will expose to higher capital and liquidity risks.

The Chengtou companies that rely heavily on the government refunds and locate in the regions with limited financial resources, may have higher credit risk, as there

will be lack of support provided to the Chengtou companies during the economic downturn.

Moreover, if the Chengtou companies count on financial supports, the uncertainty timing of government refunds and their weak profitability will exert liquidity pressure under a concentrated debt maturity profile, and cause default on debt repayment in the worst case.

Contingent risk of the Chengtou companies may increase.

The Chengtou companies and state-owned enterprises usually offer guarantees to the debts of each other, resulting complicated credit risk conduction and difficulties of debt disposal. Because of lack of transparency on debt information, the local governments are difficult to conduct a comprehensive assessment, which postpone the debt disposal. Therefore, it is essential to focus on the Chengtou companies with a large amount of external guarantee as the potential cash outflow from the external guarantee can weaken the companies' liquidity position and capability of debt repayments.

In addition, investors should be cautious to the cross-default events and the Chengtou companies' foreign exchange risk. A few credit issues occurred in the domestic non-standard market in 2018, which the investors should be careful of, as the onshore credit issues may trigger the Chengtou dollar bonds' clauses of events of default and result the cross-default. In addition, the Chengtou companies may issue dollar bonds through offshore special purpose vehicles, which do not engage in any offshore businesses or held any assets that match up with their offshore debts, and provide guarantee or keepwell agreement for the bonds. In addition, most of the Chengtou companies do not employ any financial instruments to hedge against the foreign exchange risk. Therefore, investors should be careful with the change in exchange rate, which may cause the defaults on bonds repayment.



Conclusion

The performance Chinese dollar bond market depressed in 2018 alongside the increasing uncertainties in the global economy, resulting in decline in newly issued amount, boosted financing cost, wider yield spread as well as lower return. As sizeable amount of Chinese dollar bonds will be mature between 2019 and 2021, it could create solid foundation for the development of Chinese dollar bond market with strong refinancing needs. Nonetheless, CCX expects that the issuance of Chinese dollar bonds, especially high-yield bonds, may still be challenging as investors could pursue relatively conservative investment strategy under the assumption of slowing economic growth and mounting political risk. In addition, it is expected that the correlation between onshore market and Chinese dollar bond market would remain strong, so investors should focus on the changes of onshore market, including liquidity condition, policy direction and exposure to credit risk.

Real estate companies and Chengtou companies are expected to remain the key issuers in the market given their strong financing needs. But, these two sectors will carry different degree of credit risk.

For the real estate sector, CCX expects that the credit risk of the

large-sized companies will be relatively manageable, while the small and medium-sized companies may demonstrate a weaker credit profile. The large-sized companies are less vulnerable to the economic slowdown and regulatory uncertainties, thanks to their strong competitive advantages, including large scale of quality land bank, leading market position and strong bargaining power. On the other hand, we expect that the Chinese real estate market will demonstrate a higher degree of concentration, which is not favorable to the small and medium-sized companies. A smaller market share of the companies (especially for those which mainly operate their business in third and fourth-tier cities) implies weaker credit quality, and hence investors should monitor these companies' liquidity profile as well as funding channels.

For the Chengtou sector, CCX believes that it is vital to identify the "real" Chengtou companies. Moreover, the financial strength of local governments would be a key factor to determine the credit profile, because the Chengtou companies usually relied on the government refunded for debt repayments. That said the Chengtou companies with small proportion of public policy businesses, incomprehensive external guaranteed policy and weak governmental support are expected to have higher level of credit risk.

