

Credit Bond Market

Bond Market Research

July 1 to September 30, 2019

Financing Recovered, Bond Bull Run continued, Default Rate is Expected to Decline

- Credit Bond Market Review and Outlook

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Main Opinions

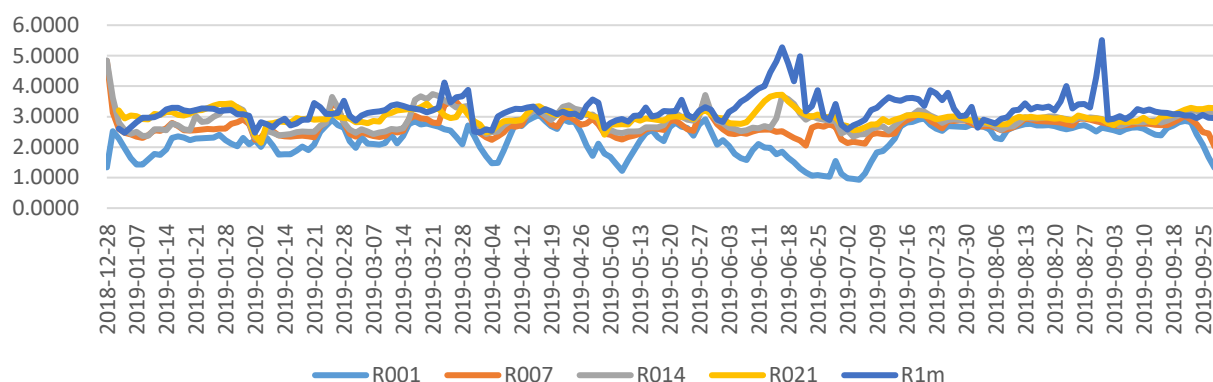
- **Market environment:** The People's Bank of China (PBOC), China's central bank, maintained net liquidity injection into the money market amid the mounting downward pressure on the economy. In addition, PBOC announced to reform the loan prime rate (LPR) formation mechanism in Q3 to make loan pricing more market-based and further unblock the interest rate transmission mechanism. The price of funds moved within a narrow range in Q3 under PBOC's policy stance to keep liquidity stable. As the overall liquidity supply shrank from Q2, average interest rates edged up slightly from H1.
- **Credit risk:** The number and proportion of negative rating actions further increased. The reasons for rating adjustments showed stronger risk transmission among enterprises as well as between enterprises and financial institutions. In addition, default risks remained high, but the smaller number of new defaulters and the decline in monthly rolling default rate showed a brake put on the escalation of defaults. The disposal of defaulted bonds is becoming more market-based. Defaulters and bond holders have entered a phase of substantive gaming. In the future, the disposal mechanism for defaulted bonds should be further improved to accelerate disposal and promote steady market clearing.
- **Market performance:** Low-rating issuers and private enterprises still had difficulties in accessing financing in spite of an overall recovery in the bond issuance market in Q3. By contrast, high-rating issuers and private enterprises with good credit standing issued bonds at lower costs. In the secondary market, the turnover of credit bonds expanded both YoY and QoQ, but further declined as a percentage of total credit bond turnover. As for bond yield, credit bond yields at the end of September fell from the end of June for all terms and ratings. Credit spreads for different terms showed a U-shaped divergence. The 1Y and 15Y credit spreads remained unchanged, while the spreads for terms in between narrowed.
- **Outlook:**
 - ✧ Economic performance in Q4 is expected to be better than in Q3. As the domestic economy is still challenged by risks at home and abroad, whether the economy improves on a firm footing or not remains to be seen. It is unlikely to see the monetary policy tightened or eased substantially under the policy stance of ensuring stable growth alongside structural inflation.
 - ✧ The volume of credit bond issues will remain elevated in Q4, expected to reach about RMB2.9 trillion in Q4, with the costs of bond issuance fluctuating at low levels.
 - ✧ The bond yield is projected to move further downwards in Q4, albeit within a limited range. The yield of 1Y AAA credit bonds is expected to fall below 3.10% again.
 - ✧ In terms of credit risk, the financial statements of bond issuers showed that most issuers had weaker short-term solvency, mirroring high debt-servicing pressure in the bond market in general. A relatively easy financing environment will be helpful to abate some issuers' debt-servicing pressure, but it is still possible to see risks erupting at a few companies with serious deterioration in financial position. Private enterprises with weaker credit standing remain the focus of attention. The annual scale of defaulted bonds is expected to stand at RMB110 billion in 2019. But new defaults will continue to shrink, with the default ratio expected to fall marginally.

I. Market environment: weakening macro-economy, emerging structural inflation pressure and continued prudent stance of monetary policy

China's GDP grew by 6.2% YoY in 2019 Q1-Q3. By quarter, GDP grew by 6.4% in Q1, flat with 2018 Q4. **As a downward economic pressure emerged in Q2**, GDP growth slowed down to 6.2% in Q2, and further to 6.0% in Q3. More specifically, in terms of leading indicators, official manufacturing PMI stayed above the boom-or-bust line only in March and April and returned to the contraction range in May, remaining below the boom-or-bust line through Q3. On the supply side, YoY growth in industrial production continued to slow down. Industrial value added gained 5.6% cumulatively YoY in Q1-Q3, down 0.4 ppt from H1. On the demand side, investment and consumption demand remained subdued in Q3 and exports growth also pulled back. In terms of price indices, PPI and CPI became more divergent. PPI remained negative under the high-base effect, while CPI was still high due to the short supply of pork in Q3, **posing some risk of structural inflation.**

In the macro environment of mounting downward pressure on the economy, The People's Bank of China (PBOC) kept liquidity "eased or tightened to the right degree" in Q3 to support refinancing of the real economy. In terms of specific operations, **PBOC's open-market operations in Q3 turned to net withdrawal from the net supply in Q2. But PBOC cut RRR (Reserve Requirement Ratio) in September for the third time in the year and lowered the RRR by 0.5 ppt for all financial institutions** except finance companies, financial leasing companies and auto finance companies. Taking into account the RMB800 billion of liquidity released by this RRR cut, **the money market received a net liquidity supply in 2019 Q3, yet in a smaller volume than that in Q2.** In addition, **PBOC announced to reform the loan prime rate (LPR) formulation mechanism on August 17**, and not to publish the benchmark lending rate any more. **LPR has become the benchmark for bank loan pricing.** LPR is formed by adding a spread to the MLF rate. The spread is determined by the quoting bank's cost of funds, supply-demand relationship and risk premium. After the reform kicked off, with the MLF rate unadjusted by PBOC, the 1Y LPR and 5Y LPR were 4.25% and 4.85% respectively in August, down 10 bps and 5 bps from 1Y and 5Y benchmark lending rate respectively. In September, 1Y LPR further fell to 4.20% and 5Y LPR remained unchanged at 4.85%. **PBOC is unlikely to lower the MLF rate amid structural inflation concerns. However, The National Association of Financial Market Institutional Investors (NAFMII) valuations show that the 1Y above-AAA and AAA bonds were issued at 3.60% and 3.75% respectively, still 60 bps to 75 bps higher than banks' lending rates for their high-quality customers. It is possible to see quoting banks further reduce the spread in the future to drive down the 1Y LPR.** The 5Y LPR provides a reference pricing of banks' residential mortgages and other long-term loans, thus still unlikely to go down under the policy stance that "houses are for living in, not for speculation".

In terms of money market interest rates, the price of funds fell in early July 2019 due to the relatively easy liquidity supported by earlier cash injection and government spending, but then turned up following PBOC's successive suspension of open market operations. The price of funds fluctuated narrowly in August till the end of the month, when the cost of funds rose markedly on PBOC's successive cash withdrawals and the end-of-month effect. The price of funds was fairly stable in early September, but turned down in the middle of the month as the money released by RRR cut came in. At the end of September, however, the price of funds rebounded somewhat due to tax peak, end-of-quarter financial regulatory assessment and pre-holiday factors. **Overall, the price of funds became less volatile in 2019 Q3, and the overall average interest rate edged up slightly from H1.** As of the end of September 2019, the price of funds for all terms went up in the month, yet still below the end-2018 level in general.

Fig.1: Average Pledge-style Repo Rates Rose Slightly in 2019 Q3 over H1

Source: Compiled by CCXI

PBOC maintained net liquidity injection into the money market in Q3 amid the mounting downward pressure on the economy to support financing of the real economy. In addition, PBOC announced to reform the loan prime rate (LPR) formation mechanism in Q3 to make loan pricing more market-based and further unblock the interest rate transmission mechanism. The price of funds moved within a narrow range in Q3 under PBOC's policy stance to keep liquidity stable. As the overall money supply shrank from Q2, average interest rates edged up slightly from H1. As of the end of September 2019, the price of funds for all terms went up in the month, yet still below the end-2018 level in general. Currently CPI and PPI trends are still divergent and structural inflation becomes a higher risk, putting a brake on further monetary easing. It is unlikely to see PBOC lower MLF rates by the end of the year, but quoting banks may reduce the spread to further push LPR down.

II. Credit risk: stronger risk transmission effect, marginal slowdown in defaults and higher market-based level of disposal

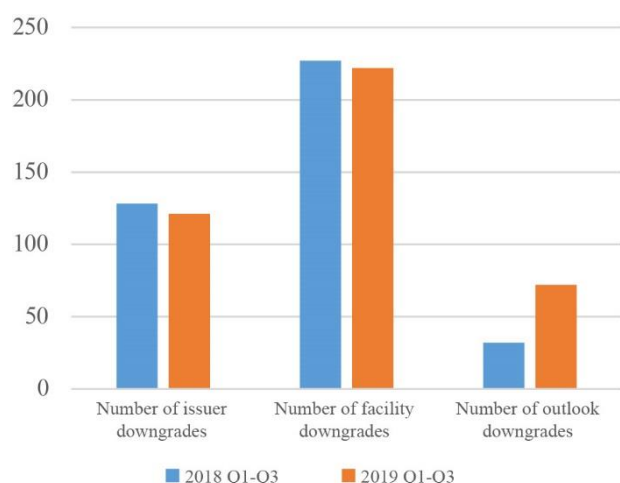
1. Rating adjustments: more negatives, less positives and stronger risk contagion among bond issuers

Q1-Q3 saw 121 downgrades of issuer ratings, accounting for 37.69% of total adjustments, further up 7.36 ppts from the same period of 2018. There were 222 facility rating downgrades, accounting for 43.5% of total adjustments, representing a YoY increase. In terms of outlook change, there were 88 rating actions only involved outlook changes in Q1-Q3, of which 72 were outlook downgrades, accounting for more than 80% of total outlook changes. 26 issuers subject to negative rating actions have been in default. In addition to defaulters, another 91 issuers had their ratings or outlook downgraded. In terms of the reason for such negative ratings, **some issuers suffered a big loss due to subdued profitability amid the macro-economic slowdown, which came as the primary trigger of negative ratings in 2019 Q3.** Most issuers subject to negative rating actions had material deficiencies in corporate governance and management, such as disclosure non-compliance and financial statements receiving a non-standard opinion. A few issuers even received regulatory inquiries or penalties, further blocking their external financing channels. In addition, **the higher risk of uncollectible accounts receivable and credit crisis of shareholders or related parties were also triggers of rating downgrades, indicating further escalation in credit risk contagion among enterprises.** In addition, **there were more noticeable signs of issuers' credit risk spreading to financial institutions.** 12 rural commercial banks and 1 leasing company had their rating or outlook downgraded due to soaring NPL ratio in Q1-Q3.

In terms of positive rating actions, Q1-Q3 saw 200 issuer rating upgrades, 94 less than the same period of last year. Another four issuers had their outlook turned positive. A total of 183 issuers received positive rating actions.

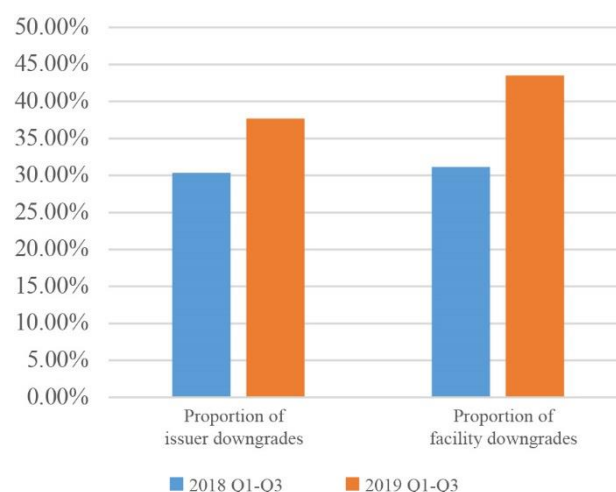
Under the “infrastructure-backed growth” policy, positive rating actions in Q1-Q3 were mainly distributed in infrastructure and other closely related industries, such as construction, building materials, transportation, steel, real estate and electricity.

Fig. 2: Number of Negative Rating Actions Remained Large



Source: Compiled by CCXI

Fig. 3: Issuer and Facility Rating Downgrades Increased as proportion of Total YoY



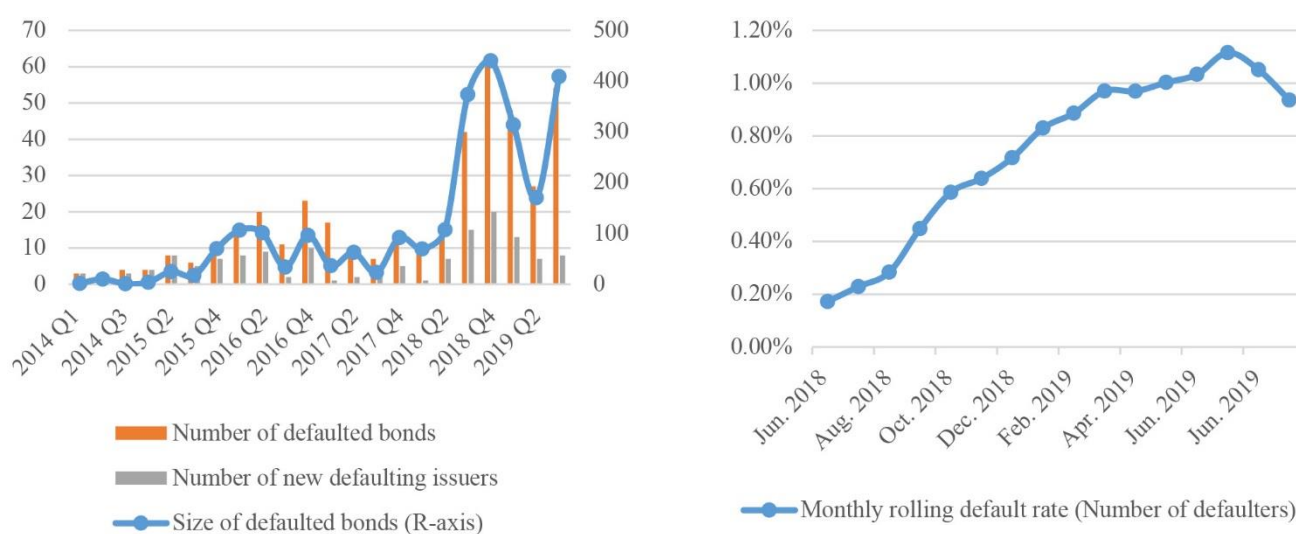
Source: Compiled by CCXI

2. Default risk: new defaults diminishing, more bankruptcy reorganizations and higher market-based level of disposals

Under a large downward pressure on the macro-economy to date in 2019, enterprises has undergone slowing profit growth, the overall credit risk of bond market remains at a high level. A total of 131 bonds were defaulted in the bond market during Q1-Q3, a larger number than the annual total (126) recorded last year. These defaults amounted to RMB89.628 billion, representing over 90% of last year’s total, and involving 52 issuers, the same as the 52 defaulters recorded for the whole year of 2018. In terms of trends, the bond market was exposed to a subdued risk of defaults compared with 2018 H2 due to the gradually improving access to financing for enterprises. In 2019 Q1-Q3, the average default size per bond was lower than that for 2018 H2. In addition, the number of new defaulters has decreased markedly to date in 2019. A total of 29 new defaulters emerged in Q1-Q3, compared with 35 in 2018 H2. The monthly rolling default rate¹ also suggested subdued expansion in defaults. The default rate peaked in July and dropped back in August and September.

¹Monthly rolling default rate means the ratio of new defaulting issuers in the past consecutive 12 months to the total samples, which are existing issuers (excluding issuers already in default before) of publicly offered bonds as at the beginning of the 12 months preceding the time of calculation.

Fig. 4: Subdued Expansion in Bond Market Defaults



Source: Compiled by CCXI

Q3 saw emergence of eight new defaulters, one more than Q2 but less than that registered in Q1 this year and Q3 or Q4 last year. As a result of the serial defaults of existing defaulters, emergence of new defaulters and concentrated bond maturities or sale-back, massive outstanding bonds might be accelerated to maturity due to bankruptcy reorganization, **the scale of bond defaults in Q3 may far exceed that in Q2 and also surpass the Q1 level. New defaulters in Q3 were concentrated in large-sized private business conglomerates. In addition, three local government-owned enterprises fell in default in Q3 due to entry into the bankruptcy reorganization procedures.** In terms of cause for default, **some issuers became debt-ridden quickly as a result of radical business expansion**, and the rising risk of macro-economic downturn sent their **business into an overall deterioration alongside negative news coverage and blocked channels of external financing**, which eventually led to a total liquidity drought such as Hawtai Motor and Seiko Group (Seiko Group has entered the bankruptcy proceedings). Anhui Foreign Economic Construction (Group) Co., Ltd. **fell in default due to concentrated debt maturity that drained out its cash.** Rightway Real Estate was a similar situation. The company paid RMB645 million of principal and interest on the sold back “16 Rightway 01” bond one day after due date and paid RMB581 million of principal and interest on the sold back “16 Rightway 02” when due, before RMB200 million of “16 Rightway 03” bond became due. As the company only had RMB234 million of unrestricted cash in its annual report for 2018, it eventually turned to debt restructuring for redemption of that bond. Shenyang Machine Tool Group, a state-owned enterprise (SOE) which has entered the bankruptcy reorganization procedures, and its listed subsidiary Shenyang Machine Tool Co., Ltd. slipped into financial difficulties as early as in 2015 and 2016. For debt relief purposes and for avoidance of delisting, the State-owned Assets Supervision and Administration Commission (SASAC) of Shenyang has made sustained coordination and facilitation efforts since 2017 for reorganization and reform of the group, including market-based debt-for-equity swap, asset and business reorganization and mixed ownership reform. Nevertheless, **the group ended up in a bankruptcy amid the deteriorating business climate in the machine tool industry.** Another SOE, Qinghai Salt Lake Industry Co., Ltd., filed for reorganization bankruptcy following two consecutive years’ big loss. Qinghai Salt Lake Industry Co., Ltd. and Shenyang Machine Tool Co., Ltd. are both listed companies controlled by local SASACs, and deserving active support from. **Given the local government’s limited fiscal capacity and financial coordination ability and excessive debt burden of enterprises, however, the local**

government's bailout for important SOEs would switch from direct credit support to debt restructuring or judicial reorganization to get rid of the historical debt burden. For SOEs which debt-ridden quickly and performance remaining long unimproved and lacking of sufficient support from the local SASAC, we should watch out for its risk of default or even failure.

In terms of subsequent disposals to default, as of the end of 2019 Q3, a total of 220 bonds were defaulted in the public offering market but only 43, or less than 20%, of them were disposed of completely. According to defaulter, a total of 83 issuers fell in default in the public offering market, and only 18 issuers completed the disposal of their defaulted bonds, leaving no other outstanding bonds in the market. Another five issuers have completed deferred redemption of matured bonds but still had a certain size of outstanding bonds. All the remaining issuers have not completed disposal of defaulted bonds, indicating a tardy progress of disposal. It is noteworthy that **a markedly larger number of issuers filed for bankruptcy reorganization in the past two years.** 19 of the new defaulters in the public offering market have filed for bankruptcy voluntarily or involuntarily since 2018, accounting for more than 40% of total new defaulters. 12 defaulters filed a voluntary bankruptcy petition. **The rising number of defaulters entering the bankruptcy proceedings indicates, on the one hand, some issuers underwent serious deterioration in credit standing, which cannot be restored through disposal of assets or financing from other channels alone. On the other hand, the issuers opting for juridical reorganization indicated their stronger initiative in addressing the debt crisis. If such reorganization dissolves part of the historical "burden" and improves issuers' business performance, it will serve as a credit enhancement for enterprises. For investors, however, the entry into bankruptcy proceedings implies a higher uncertainty in the progress and ratio of debt collection.** As shown by previous cases of defaulter bankruptcy, some defaulters were able to find a reorganizer quickly after entering the bankruptcy proceedings, worked out a reorganization plan and paid off the defaulted bond in full, such as Shanghai Chaori Solar Energy. Some other defaulters in bankruptcy reorganization paid off a relatively low proportion of debts, such as Dongbei Special Steel. Tianwei Group, which entered bankruptcy proceedings in 2015, has not worked out any satisfactory reorganization plan, leaving the disposal nowhere in sight. Apart from entry into judicial proceedings, some bond issuers chose to discuss a debt restructuring plan with their investors. Existing defaulters including Shanshui Cement, Huasheng Jiangquan and Huolinhe Opencut Coal have reached debt restructuring agreements with inventors and discharged their debt obligations in installments pursuant to agreements. Some other issuers have formulated a debt service plan and repaid part of the defaulted debt as planned, such as Jinhong Holding.

Compared with the earlier situation that investors mostly waited for issuers to sell assets, improve operations or raise funds through other channels to fully pay off the defaulted bond and deferral interest, more and more defaulters and creditors opted for disposal through judicial reorganization and debt restructuring agreements in recent years. Such change reveals the **transition to a more market-based approach to disposal of defaulted bonds. Defaulters and bond holders have entered a phase of substantive gaming, and the follow-up disposal mechanism for defaulted bonds should be further improved in the future.** In particular, the efforts should be strengthened on defaulter accountability and investor protection to **prevent issuers from evading debts through debt restructuring or reorganization** to the detriment of investors' interests. Only in this way can disposal be accelerated to **facilitate smooth market clearing.**

The number and proportion of negative rating actions further increased since 2019. The reasons for rating adjustments showed stronger risk transmission among enterprises as well as between enterprises and financial institutions. In addition, default risks remained high. The scale of defaults in Q1-Q3 has exceeded 90% of the annual total of 2018. However, the smaller number of new defaulters and the decline in monthly rolling default rate showed a brake put on the escalation of defaults. In terms of subsequent disposal, more and more defaulters and creditors opted for disposal through judicial reorganization and debt restructuring agreements in recent years. The disposal of defaulted bonds is becoming more market-based. Defaulters and bond holders have entered a phase of substantive gaming. In the future, the disposal mechanism for defaulted

bonds should be further improved to accelerate disposal and promote steady market clearing.

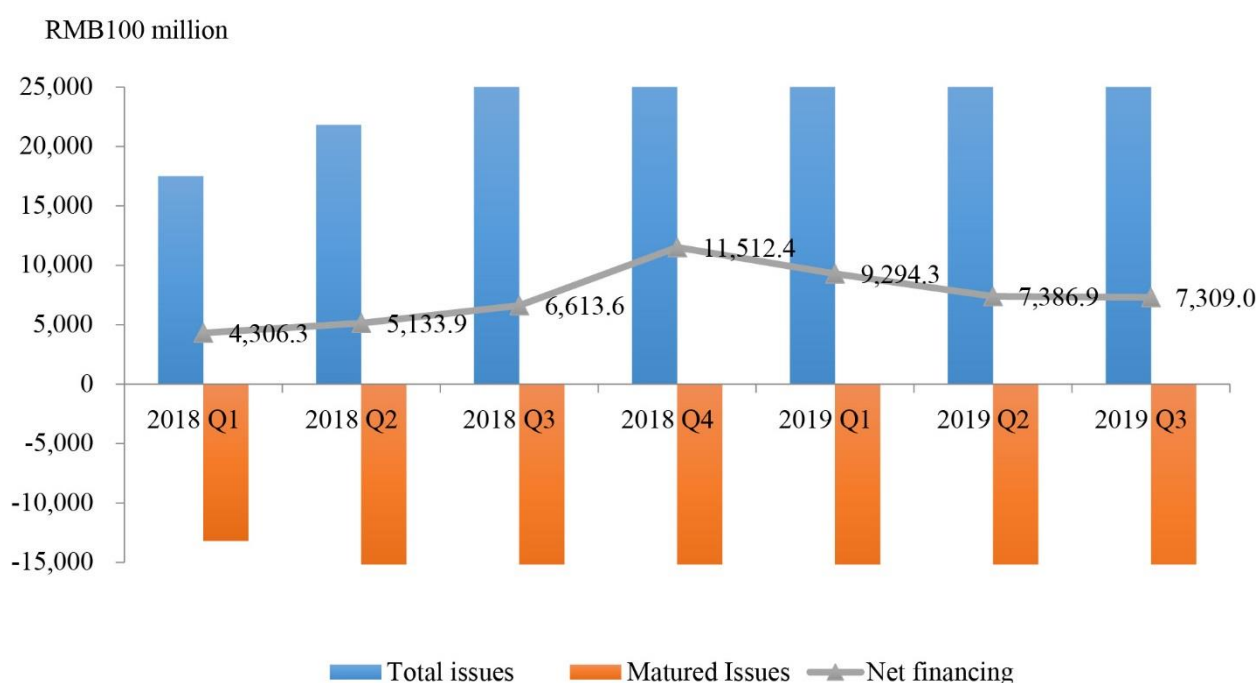
III. Market performance: The primary market saw financing recovery and divergence, while the secondary market experienced rise in both turnover and price

1. Primary market: Credit bond² issues and net proceeds increased significantly YoY, with short-term bond issue rates divergent

Credit bond issues and net financing increased significantly YoY

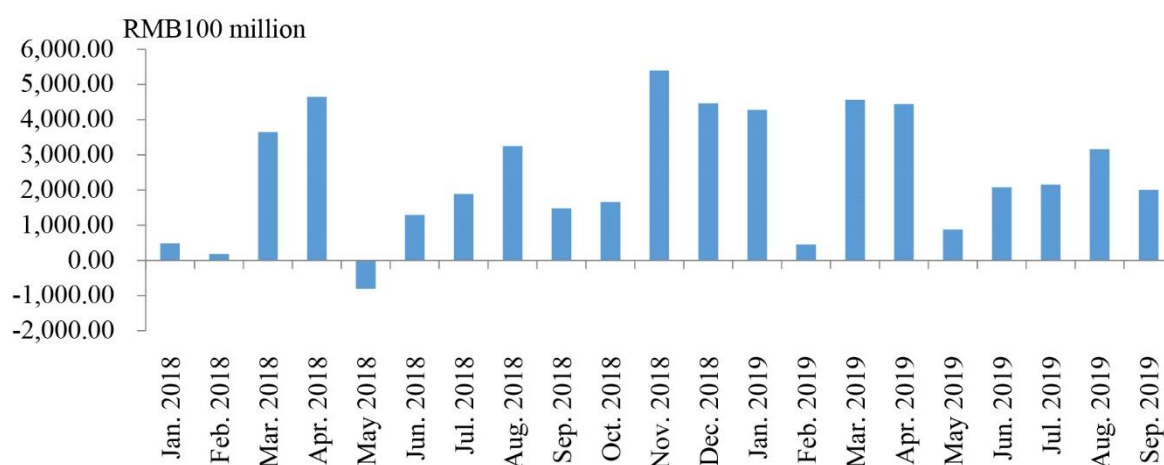
Credit bond issues totaled RMB2980.89 billion in 2019 Q3, up 11.08% QoQ, or 19.21% YoY. Net financing in the credit bond market in 2019 Q3 was basically flat with Q2, but notably higher than one year ago. Net financing stood at RMB730.9 billion, representing a YoY increase of 10.51%. As for the monthly net proceeds of bond issues, the net proceeds dropped slightly YoY in August, but increased substantially YoY in other months.

Fig. 5: Total Credit Bond Issues and Net Financing Rose Significantly YoY



Source: Compiled by CCXI

² Credit bonds include super-short-term commercial papers (SCPs), commercial papers (CPs), medium-term notes (MTNs), unlisted company bonds, publicly-offered listed company bonds, privately-placed listed company bonds, private placement notes (PPNs) and asset-backed securities (ABSs).

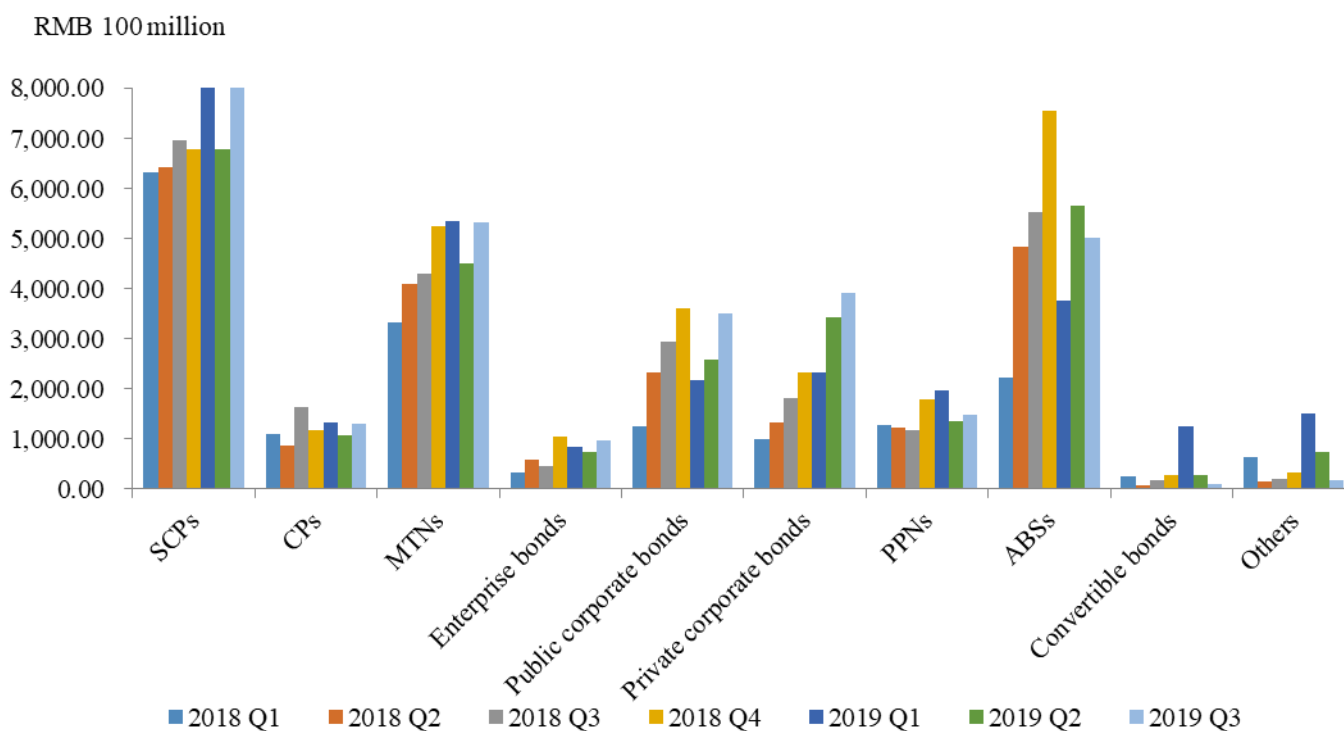
Fig. 6: Monthly Net Financing Rose YoY in 2019 Q3 except August

Source: Compiled by CCXI

The issuance of private corporate bonds and enterprise bonds continued to expand notably. SCPs remained the primary component

In terms of issue size by bond type, CPs, ABSs and convertible bonds experienced a YoY decline in issue size, while all other credit bonds recorded an expansion in issue size in 2019 Q3. In particular, private corporate bonds and enterprise bonds continued to register substantial growth at 108.15% and 114.93% YoY, respectively. In terms of issue mix, ultra-short-term financing bonds (SCPs) remained the largest component of credit bond issues in 2019 Q3, with a total issue size of RMB812.26 billion, accounting for 27.17% of total credit bond issues. Medium-term notes (MTNs) and asset-backed securities (ABSs) came second and third, accounting for 17.83% and 16.77%, respectively. The overall issue mix was similar to that seen one year ago. The proportions of ABSs and public corporate bonds shrank from one year ago. MTNs and private corporate bonds took up a bigger share. Other types of bonds underwent insignificant changes.

Fig. 7: Main Types of Credit Bonds Generally Saw YoY Growth in Issues, SCPs Remaining the Largest Component



Source: Compiled by CCFI

The bulk of newly issued bonds were AAA-rated, with issue rates divergent

72.03% of bonds issued in 2019 Q3 were AAA-rated, up about 5 ppts over 2019 H1. AA+ bonds accounted for 19.22%, down 1 ppt from H1. Bonds with AA or lower ratings accounted for about 8.75%, down about 3 ppts from last year. Overall, **new bond issues were mostly AA or higher rated, showing further concentration in AAA rating.**

Fig. 8: Rating Structure of Bonds Issued in 2019 H1

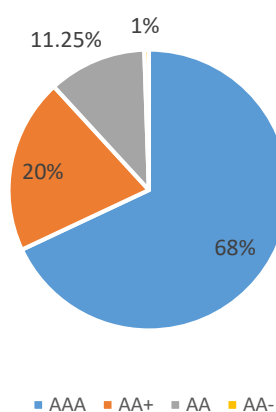
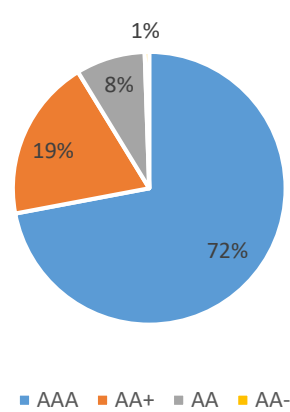


Fig. 9: Rating Structure of Bonds Issued in 2019 Q3

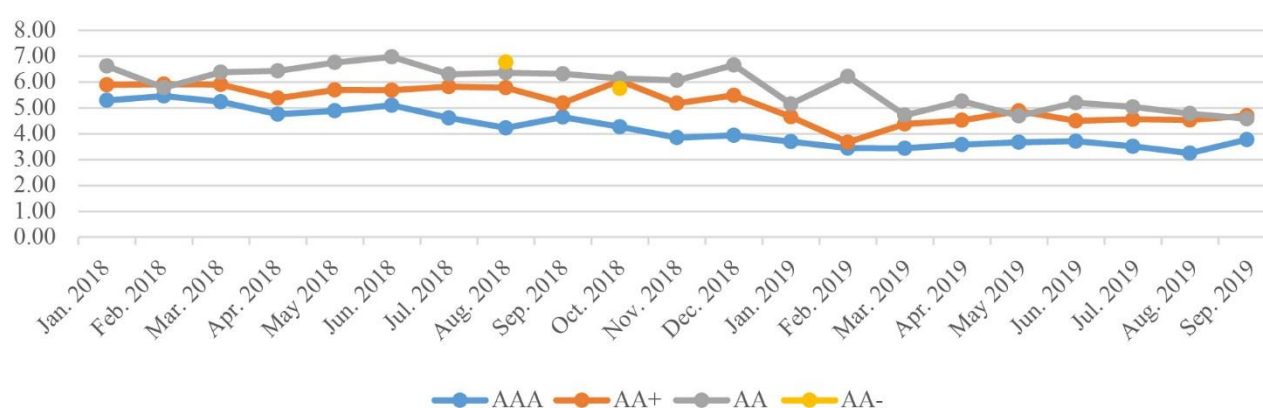


Source: Compiled by CCXI

Source: Compiled by CCXI

In terms of issue rate trends, taking 1Y commercial papers (CPs) for example, **the issue cost trends went divergent in 2019 Q3**. PBOC's prudent and neutral monetary policy continued through 2019 Q3, during which the third RRR cut was made. But net money supply was smaller than one quarter ago. In this context, the costs of bond issues went divergent in Q3. As of the end of September 2019, AAA and AA+ CP issue rates edged up by 6 bps and 20 bps respectively from the end of Q2, compared with an average decline of 62 bps recorded for AA CPs with a smaller issue size. It may owe to the small issuing number and special value of low-rating CP issues amid the concentrated exposure of credit risks, making it more difficult for issuers with poor credit standing to issue bonds. As of the end of September, the average issue rate for AAA, AA+ and AA ratings was 3.77%, 4.70% and 4.58% respectively. The issue costs of AA+ and AA CPs showed an inversion.

Fig. 10: 1Y CP Issue Rates Went Divergent



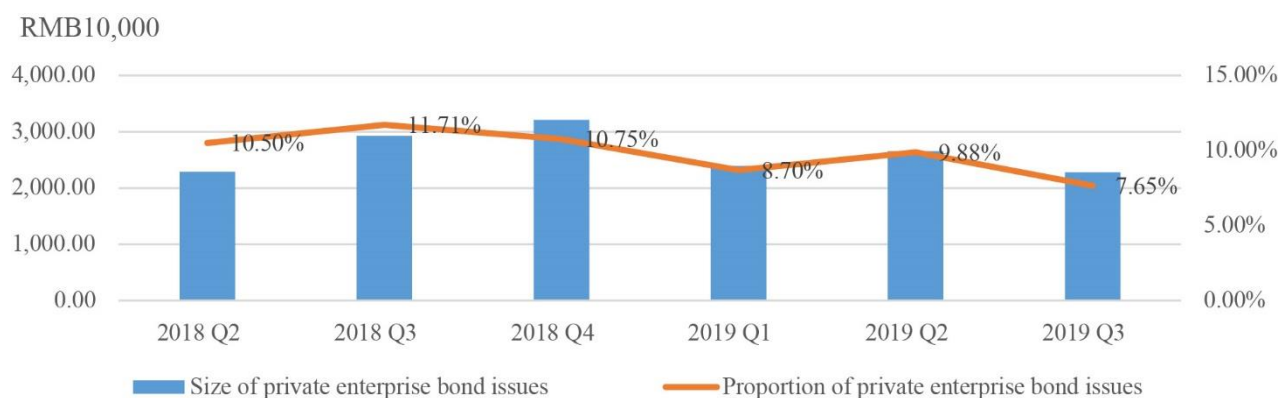
Source: Compiled by CCXI

Private enterprises' bond financing shrank but their issuance costs declined

To provide private enterprises with easier access to financing, a number of authorities issued policies in 2018H2, including enhanced lending to private enterprises, development of debt financing instruments of private enterprises and setup of private enterprise bailout funds. As for the policy effect, the new lending to private enterprises totaled RMB3.1 trillion, up RMB551.6 billion YoY. New lending to private enterprises accounted for 40.1% of total incremental loans to state-owned and private enterprises, up 4.5 ppts from one year ago. **It is obvious that private enterprises had improved access to credit financing.** But private enterprises had less financing in the bond market. CRMWs linked to private enterprise bonds, a hot spot in the issuance market in 2018 Q4, have cooled down significantly this year. 21 CRMWs were publicly traded in Q3, with the actual issues totaling RMB2.919 billion, down RMB884 million from Q2. Meanwhile, private enterprise bond issues were still shrinking. Issued private enterprise bonds amounted to RMB228.158 billion in Q3, down 13.92% QoQ, and down 9.47% YoY. Private enterprise bond issues took up 7.65% of total credit bond issues, down 2 ppts from Q2. By net financing, **the net financing of private enterprises turned negative again in Q3. On the one hand, some private enterprises' demand for bond financing switched to credit financing under CBIRC's enhanced support for private enterprise loans. On the other hand, low-rating private enterprises might have difficult access to bond financing as the default risks of private enterprises get exposed one after another. In addition, the Baoshang Bank incident in H1 triggered liquidity stratification, and the resultant liquidity crunch among some small and medium-sized banks stifled the financing of private enterprises.**

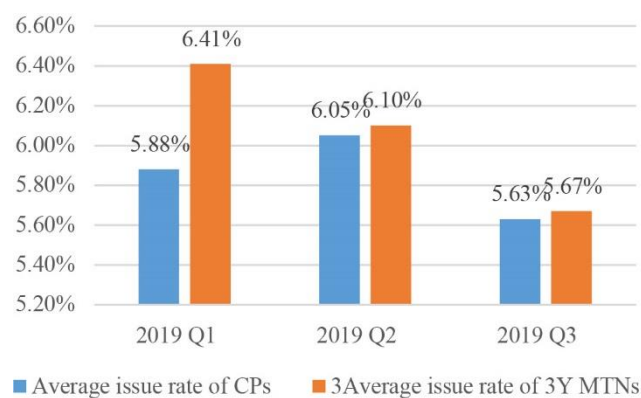
In terms of the bond issue costs of private enterprises, as the private enterprise issuers in the bond market were concentrated in issuers with better credit standing and higher recognition among investors, **the financing costs of private enterprise issuers were lowered** in a stable and easy liquidity environment. 1Y CPs issued by private enterprises had an average issue rate of 5.63%, down 114 bps YoY, or down 42 bps from Q2. 3Y MTNs issued by private enterprises had an average issue rate of 5.67%, down 112 bps YoY, or down 43 bps from Q2.

Fig. 11: Scale and Share of Private Enterprise Bond Issues in 2019 Q3



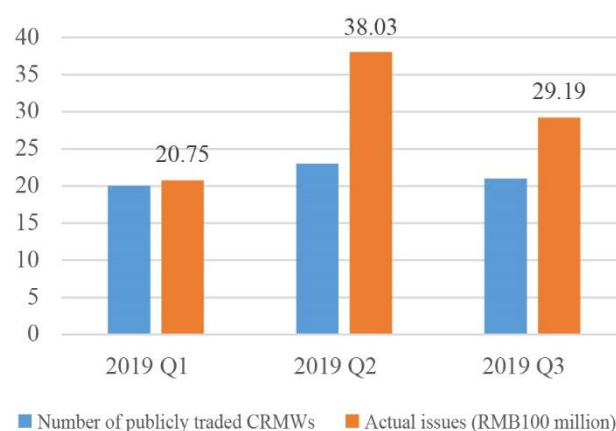
Source: Compiled by CCXI

Fig. 12: Issue Costs of Private Enterprise Bonds in 2019 Q3 Fell from Q2



Source: Compiled by CCXI

Fig. 13: CRMW Issues in 2019 Q3



Source: Compiled by CCXI

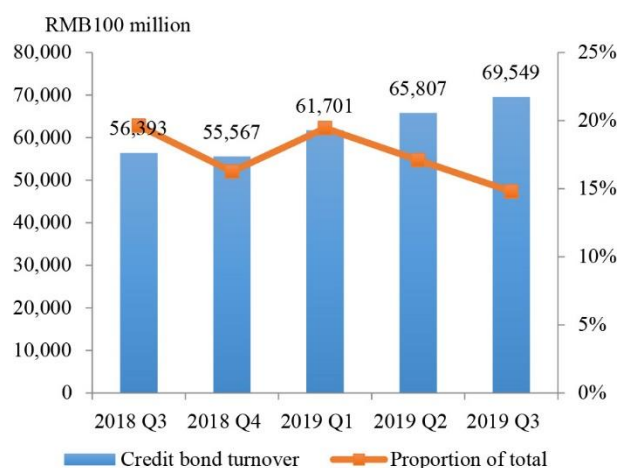
Credit bond issues totaled RMB2.98 trillion in 2019 Q3, showing a significant increase over the same period of last year. YoY expansion of issue size was recorded for major types of credits bond. By ratings, the median rating of newly issued bonds moved up further, with the percentage share of AAA bonds rising to 72.03%. The bond issue rates went divergent. AAA and AA+ CP issue rates in September 2019 edged up by 6 bps and 20 bps respectively from the end of Q2, compared with a decline of 62 bps recorded for AA CPs. Private enterprises' bond issues and CRMW issues moved down from Q2, but the cost of bond issuance edged down in Q3. Overall, low-rating and private enterprises still had difficulties in accessing financing in spite of an overall recovery in the bond issuance market. By contrast, high-rating private enterprises with good credit standing issued bonds at lower costs.

2. Secondary market: credit bond turnover rose with a general pullback in bond yields

Turnover of credit bonds increased, either YoY or QoQ, with MTNs traded most actively

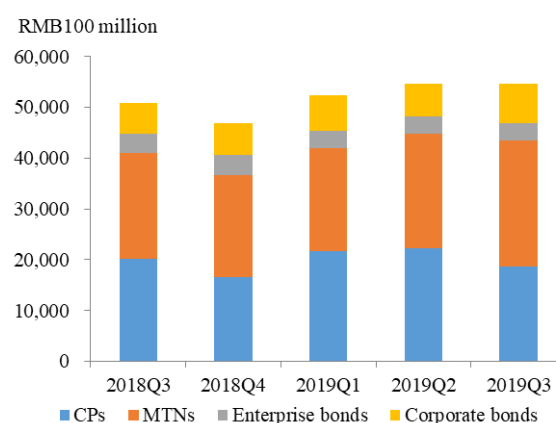
The turnover of spot credit bonds stood at RMB6.95 trillion in 2019 Q3, representing an increase, either YoY or QoQ. With a low risk appetite, commercial banks and other institutions preferred interest rate bonds. Moreover, overseas institutions obviously increased their allocations to interest rate bonds as China's bond market opened up faster. As a result, credit bond turnover recorded weaker growth than interest rate bonds. The credit bond turnover as a percentage of the total bond market turnover further fell to 14.8% in Q3. By type of bond, MTNs were the most actively traded credit bonds in Q3, followed by CPs³. Enterprise bonds and corporate bonds were less traded. Compared with the same period of last year, MTNs and corporate bonds showed a YoY rise in turnover, while CPs and enterprise bonds shrank in turnover.

Fig. 14: Turnover of Credit Bonds Increased Both YoY and QoQ



Source: Compiled by CCXI

Fig. 15: Trading in CPs and MTNs Remained Relatively Active



Source: Compiled by CCXI

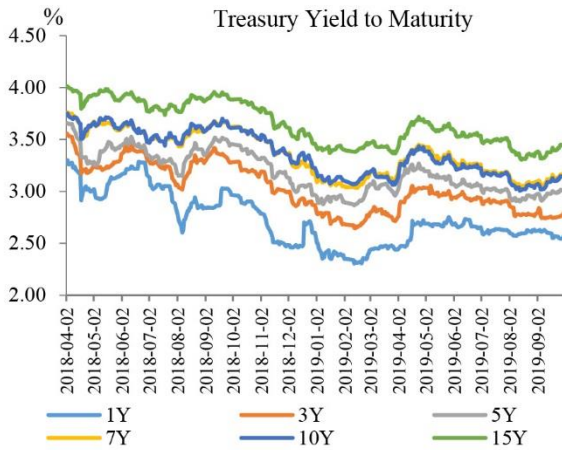
Credit bond yields turned down, credit spread trends varying with term

Thanks to easy liquidity, the treasury yields edged down in early Q3. Then the treasury yields fluctuated within a certain range amid a strong wait-and-see sentiment in a mixed market environment, where widespread pessimistic economic expectations coexisted with worries about tightening liquidity. In August, market participants became markedly more risk-averse as the Political Bureau of the CPC Central Committee confirmed the mounting downward economic pressure at its meeting, coupled by escalating US-China trade frictions and the RMB falling below the “7” mark against US dollar. In this context, the treasury yields declined. The 10Y treasury yield once fell below 3%. The market might be cautious about the sub-3% yield and, as positive factors had already been priced in, then the treasury yields bottomed out. In early September, the State Council signaled RRR cuts at its executive meeting, which was good news to the bond market. Then the treasury yields turned down again. Starting from mid-September, short-term and long-term treasury yields went divergent. Short-term yields continued to fall due to relatively ample short-term liquidity, while 5Y and longer-term yields staged an

³ This part of CPs includes SCPs, CPs of enterprises and CPs of securities companies.

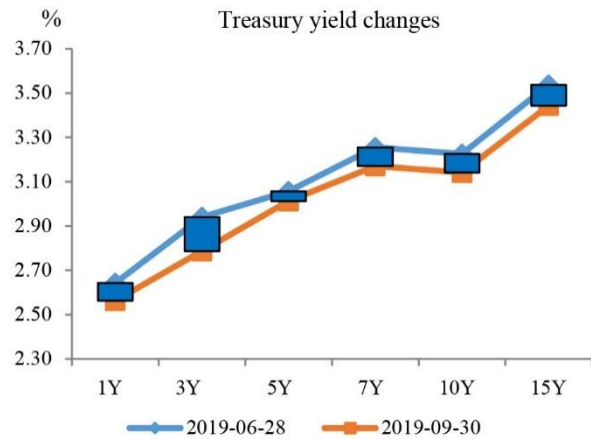
upturn, possibly due to the marginal easing of the US-China trade frictions and rising inflation expectations. Overall, treasury bond yields at the end of September fell by 4 bps to 15 bps from the end of June.

Fig. 16: Treasury Yields Fell with Fluctuations, Followed by A Divergence between Short and Long Terms



Source: Compiled by CCXI

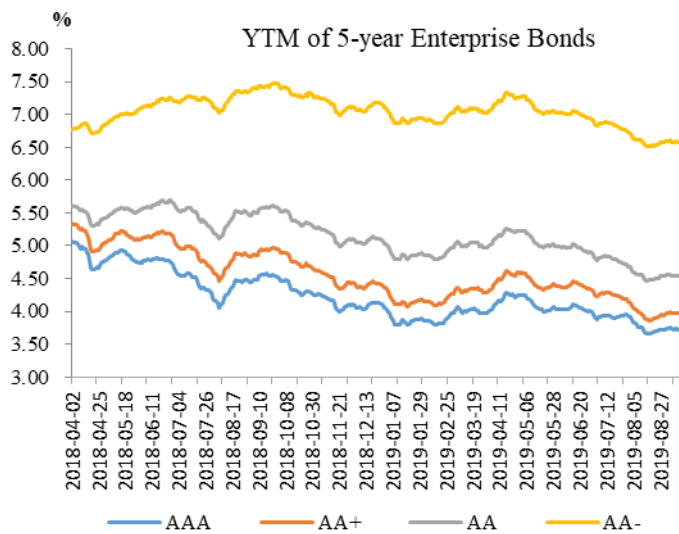
Fig. 17: A General Decline in Treasury Yields from Q2



Source: Compiled by CCXI

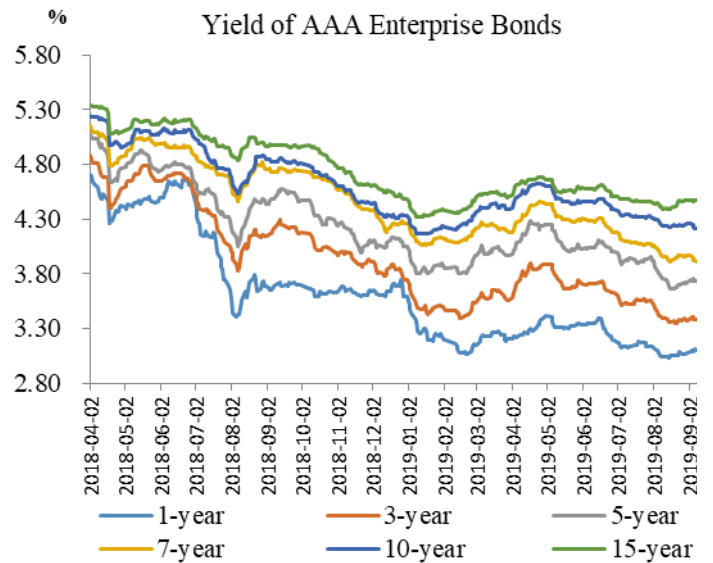
The yields of enterprise bonds showed a V-shaped trend in Q3. The 5Y enterprise bonds with all ratings fluctuated in a downtrend, outperforming treasury bonds. The yields of enterprise bonds reached the trough in the year in mid-August and then picked up as interest rates changed, but the upturn had weaker momentum than the earlier downturn. Enterprise bonds yields at the end of September fell from the end of June for all terms and ratings, by 7 bps to 30 bps. 5Y bond and 7Y bonds saw a bigger drop in yield than other terms. MTNs showed similar yield changes to enterprise bonds.

Fig. 18: Yields of 5Y Enterprise bonds Fell and Then Picked Up



Source: Compiled by CCXI

Fig. 19: AAA Enterprise bonds Fell from the end of Q2 for All Terms



Source: Compiled by CCXI

In terms of credit spread, take AAA enterprise bonds for example, credit spread trends varied with term in Q3. Specifically, the 1Y-5Y credit spread shrank with fluctuations before a reversal movement in mid-August. The 7Y and 10Y credit spreads fluctuated within a narrow band, followed by continuous contraction. The 15Y credit spread shrank with fluctuations in July, followed by an inverted U-shaped turn. Compared with the end of June, the 1Y and 15Y credit spreads did not change much at the end of September, while other terms showed a contraction of 4 bps to 18 bps in credit spread.

Fig. 20: Credit Spread Trends Varied with Term

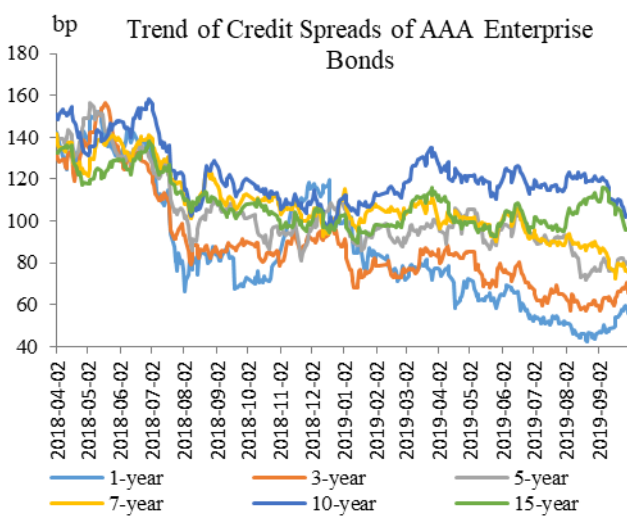
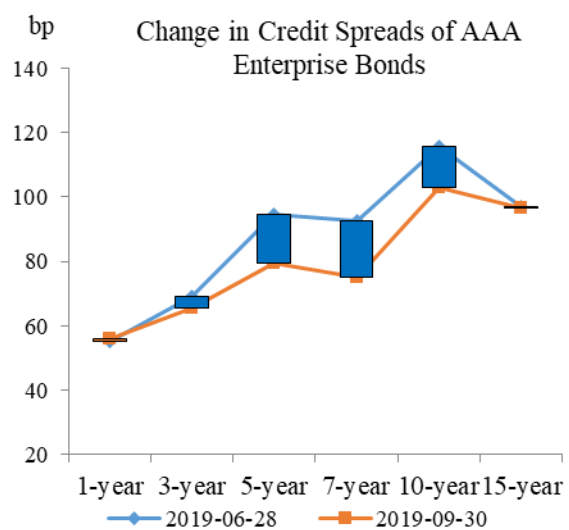


Fig. 21: 3Y-10Y Credit Spreads All Shrank

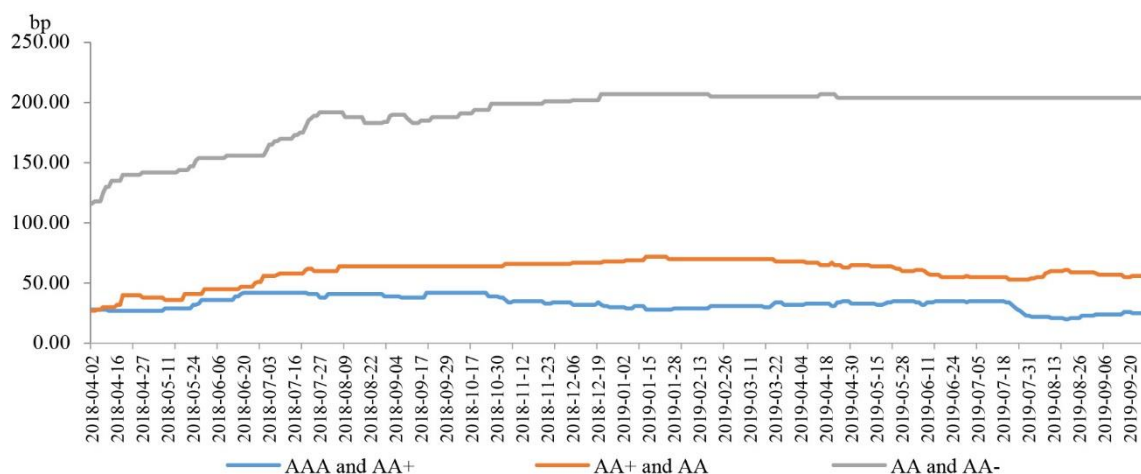


Source: Compiled by CCXI

Source: Compiled by CCXI

In terms of rating spread, take 5Y enterprise bonds for example, the spread between AAA and AA+ ratings shrank markedly in late July, followed by slow and mild pickup. As of the end of September, the spread between AAA and AA+ narrowed by 10 bps when compared with the end of June. The rating spread between AA+ and AA fluctuated within a range. The spread change between AA and AA- changed insignificantly. Overall, AA+ and lower-rating bonds showed bigger contraction in credit spreads than AAA bonds. The cause was two-sided. On the one hand, given the existing low level of AAA credit spread, financial institutions might turn to lower credit ratings for higher yield to cover the cost of funds. On the other hand, as the impact of the Baoshang Bank incident diminished over time, the market participants might become less averse to the risk of low- and medium-rating bonds.

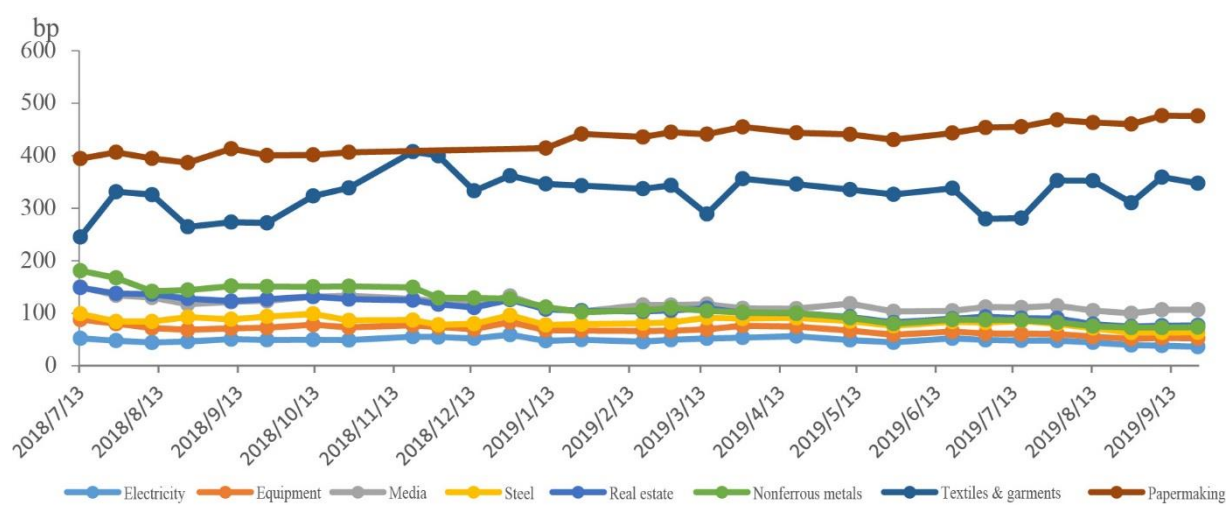
Fig. 22: Narrowing AAA/AA+ Spread, Slight Swing in AA+/AA Spread and Minor Change in AA/AA- Spread



Source: Compiled by CCXI

By industry spread, industry ranking by credit spread did not change significantly in Q3. Electric power and equipment manufacturing saw credit spreads staying low. Real estate, media and non-ferrous metals showed slightly higher risk premiums, while textiles and garments and paper making had substantially higher spreads than other industries. In terms of change trends, as of the end of September, textiles and garments and papermaking experienced a YoY expansion in spreads, while all the other industries saw a YoY contraction, notably in electricity, nonferrous metals and real estate industries etc.

Fig. 23: Spread Trends by Industry



Source: Compiled by CCXI

The turnover of credit bonds continued to grow in Q3 YoY and QoQ, but further declined as a percentage of total credit bond turnover. Among credit bonds, MTNs were mostly actively traded. As for bond yield, credit bond yields at the end of September fell from the end of June for all terms and ratings, by 7 bps to 30 bps. 5Y bonds and 7Y bonds saw a bigger drop in yield than other terms. In terms of credit spread, the trends for different terms showed a U-shaped divergence. The 1Y and 15Y credit spreads did not change much, while other terms showed a contraction of 4 bps to 18bps in credit spread. As for rating spread, there was minor change in the spread between adjacent ratings, except for the contraction in the spread between AAA and AA+. Of major industries, textiles and garments and papermaking experienced a YoY expansion in spreads, compared with a YoY contraction in spreads in electricity, nonferrous metals and real estate etc.

Outlook: AAA short-term credit bonds may drop to 3.1%, with annual defaults expected to be around RMB110 billion

On-balance-sheet financing rebounded substantially in September on the basis of earlier policies launched to stabilize growth and financing. Meanwhile, contraction in off-balance-sheet financing was further eased and the credit structure of enterprises improved to certain degree. Considering last year's low base and infrastructure-backed support, economic performance in Q4 is expected to be better than in Q3, but whether the economy improves on a firm rooting or not remains to be seen. On the one hand, the US-China trade issues are still under negotiation with uncertainties. On the other hand, real estate investment might provide weaker backing for the domestic economy due to tightening financing channels and more stringent policies of property market. And it will be difficult to strengthen investment in fixed assets and manufacturing. In terms of monetary policy, the current economic environment does not support tightening monetary policy, while the structural inflation comes as a constraint on further monetary easing.

In such macro background, the volume of credit bond issues is expected to remain elevated in Q4. Specifically, about RMB2.1 trillion of credit bonds will mature in Q4, posing a sustained strong demand for refinance. Net financing is likely to remain positive in a relatively financing environment. Based on the average net financing in Q1-Q3, the scale of credit bond issues is expected to be about RMB2.9 trillion in Q4. In terms of issuance costs, enterprises are estimated to see their cost of bond issuance fluctuate while remaining low in Q4, provided that the liquidity is kept stable. In terms of bond yield, neither economic fundamentals nor liquidity conditions will put a significant brake on the bond yield decline as the macro-economic climate in Q4 is

expected not to change much from Q3. In addition, Brexit, geographical tensions in the Middle East and other international risk incidents still deserve special attention. **Risk averseness may further push the US treasury yields down and ripple to the Chinese bond market.** Considering the current yields are already relatively low and the monetary policy is unlikely to further substantially ease in the rest of the year, the yield may have limited room for further decline. The yield of 1Y AAA credit bonds is expected to fall below 3.10% again.

In terms of credit risk, when it comes to the issuers' financial performance, the growth in total profit of issuers in the bond market has been slowing down since 2019 began. Short-term debts still take up a markedly bigger share of all the debts. In addition, the growth in total cash of issuers is slowing down, and more than half of issuers have a falling ratio of short-term debts to cash. **Most issuers had weaker short-term solvency, mirroring high debt-servicing pressure in the bond market in general. A relatively easy financing environment will be helpful to abate some issuers' debt-servicing pressure, but it is still possible to see risks erupting at a few companies with serious deterioration in financial position.** Private enterprises with weaker credit standing remain the focus of attention. These issuers are not the target of support policy and thus have a weak refinance capacity amid the shrinking credit risk appetite of financial institutions. In particular, the issuers already clouded with negative news coverage have basically lost the ability to secure external financing and their outstanding bonds are at a high risk of default. In addition, defaulters will have nearly RMB20 billion of bonds maturing or entering the sale-back period in Q4. Overall, bond defaults are estimated to around RMB110 billion in total in 2019, higher than the 2018 level.

But it is unnecessary to be over-pessimistic about the credit market. After concentrated release of default risks in the past two years, the private enterprises previously showing debt expansion or business deterioration have mostly exposed their risk, and only a small portion of existing issuers have a poor credit standing. **New defaults are expected to further decrease in the future and the default rate might fall marginally.** Meanwhile, more and more professional junk bond investors have showed great interest in acquisition of defaulted bonds. In addition, both interbank and exchange markets have introduced the bond transfer service to boost the liquidity of defaulted bonds. Currently some defaulted bonds are traded on relevant trading platforms. As the defaulted bond trading system and disposal mechanism are further improved in the future, the **high-yield bond market will still have a great potential for growth.**

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