

FAQ:

FAQs on Banks' Nonperforming Assets and Securitization

September 29, 2020

Summary

This report provides the answers to nine frequently asked questions on S&P Global (China) Ratings' approach to analyzing banks' nonperforming assets (NPA) and rating and analyzing securitizations backed by NPAs. In this article, we include a snapshot of NPA securitization trends globally and in Mainland China, as well as providing additional insight based on the observation during the rating process of our first credit card NPA securitization transaction.

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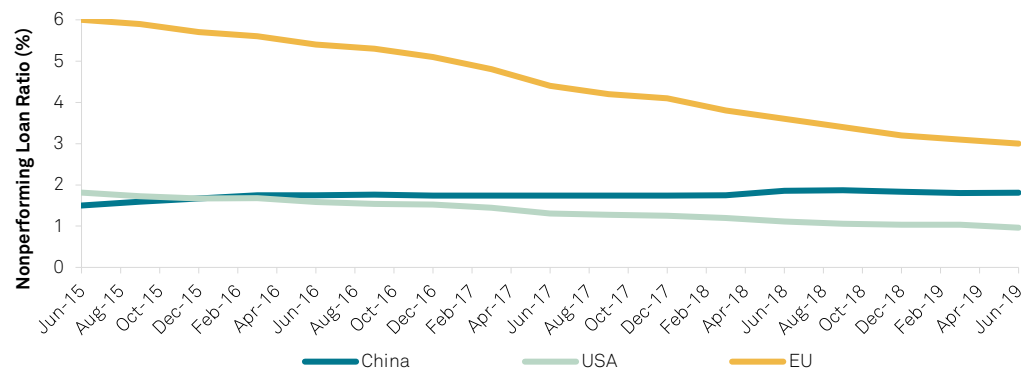
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1. What's the current situation concerning banks' NPL assets globally?

In the five years prior to the COVID-19 outbreak, NPL ratios remained relatively stable in China and the United States, while the European Union (EU) saw ratios fall by almost 50% from a peak in 2015. However, COVID-19 and measures launched in response to the pandemic will have a large, long-lasting effect on banks' asset quality worldwide. The duration and severity of the resulting global downturn coupled with the strength of recovery will shape banks' asset quality. If downside risks materialize, financial institutions could take a hit as NPLs increase.

Chart 1

NPL Ratios before COVID-19



NPL ratios remained relatively stable in China and the U.S, while the EU saw ratios fall by almost 50% from a peak in 2015.

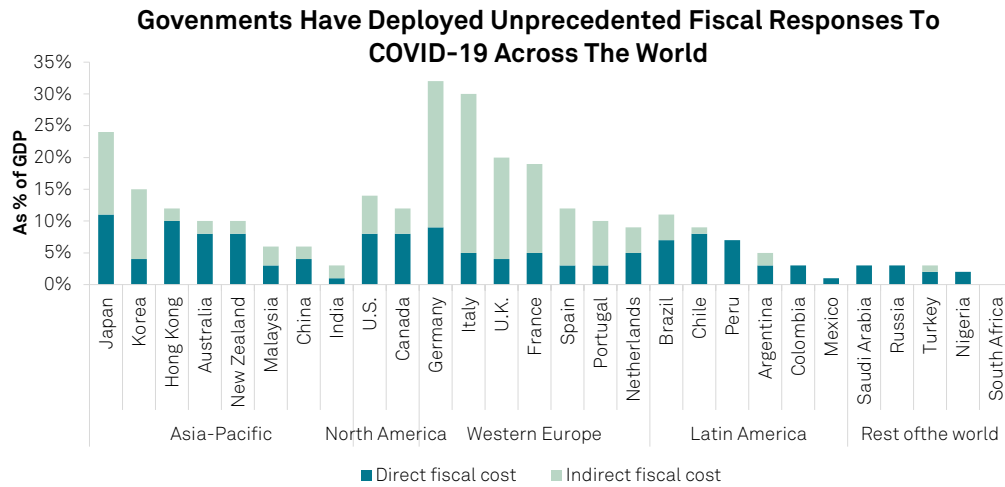
Note: Non-performing loan ratio is the ratio of loans 90 days or delinquent and nonaccrual loans to total loans.

Source: CBIRC, FFIEC Call Report and FR Y-9C, EBA Report on NPLs, Copyright © 2020 by S&P Ratings (China) Co., Ltd. All rights reserved.

China was the first country to be hit by the COVID-19 outbreak, but authorities quickly brought the situation under control and the economy has shown signs of recovery since the first quarter of 2020. In terms of China's banking system, we believe the large loan exposure to state-owned enterprises ("SOEs") acted as a buffer to any potential drop in loan quality, and we therefore expect the impact of the pandemic on the largest Chinese banks to be manageable. By the first half of 2020, China's banking system had reported an overall NPL ratio of 1.94%, only 13 bps higher than the same period last year. We expect the asset quality pressure to continue into 2021 as forbearance measures for micro and small enterprises ("MSE") will end by the first quarter of 2021. In absolute terms, the situation may continue to cause concern. The Chinese banking system is approximately the same size as the U.S., Japanese, German, and UK banking systems combined, and we anticipate that China, on a global scale, may account for a substantial proportion of new NPLs in 2020.

Amid the economic downturn caused by COVID-19, banks in Europe and the U.S. also had to prepare for the likelihood of an increase in borrower defaults. According to 2020 Dodd-Frank Act Stress Test ('DFAST') data, U.S. banks sharply increased their allowances in the first half of 2020, positioning them to absorb a significant portion of loan losses that may arise from the pandemic. However, if loan loss ratio triggered by the pandemic rises to 3%, U.S. banks may need to double or triple the large provisions they prepared in the first half of the year. In the same vein, we expect European banks' NPL ratios are set to rise, and their increased provisions would likely reduce their profitability. Since the profitability of most European banks is already low compared to their global peers, some European banks may have to keep NPLs on their loan books for longer.

Chart 2



Note: Data as of July 1, 2020
 Source: IMF, national authorities, S&P Global Ratings.
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On the other hand, effective government support for their economies may also act as a key driver or differentiator for future NPL generation in different countries. As of the end of the first half of 2020, we observed governments as well as regulators of many countries and regions adopting measures to help borrowers withstand the impact of COVID-19, some of which were closely linked with banks' forbearance measures. We believe such measures could cushion the blow of COVID-19 to economies and help the majority of countries' banking systems maintain NPLs at a reasonable level.

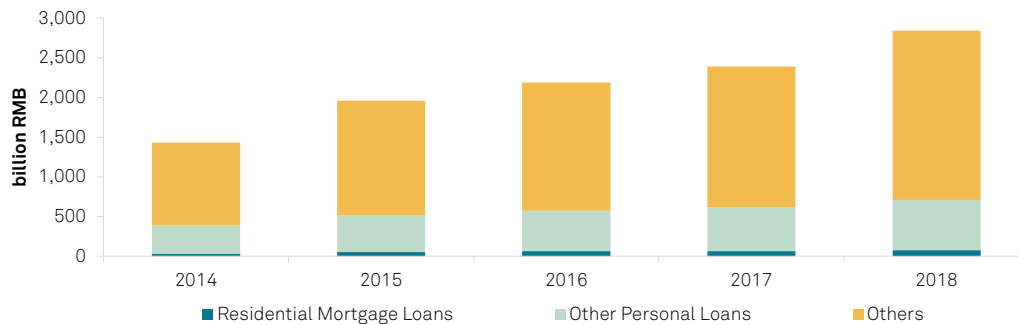
2. What do international and Chinese banks' NPLs consist of?

China

For the Chinese domestic market, household sector NPLs account for about 20% of total NPLs in the entire banking system. Through effective regulation, financial institution NPL ratios have remained low, while NPLs generated by non-financial corporates ("NFCs") constitute the majority of overall NPLs within China's banking institutions.

Chart 3

Overall NPL Volumes of Chinese Banking Institutions



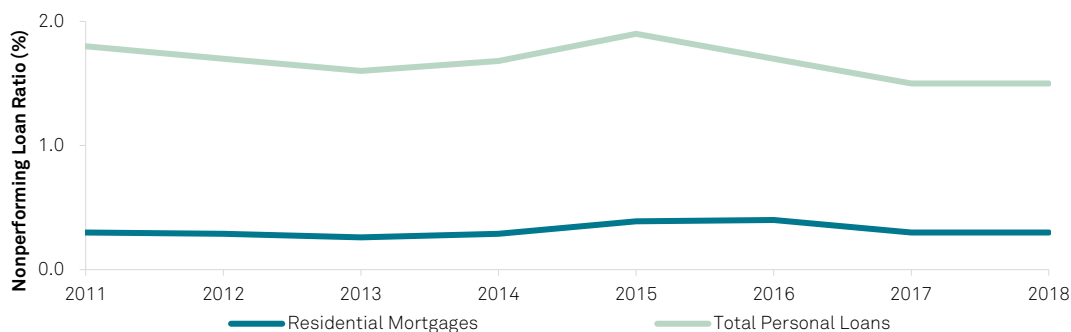
Source: PBoC's China Financial Stability Report, collected and adjusted by S&P Global (China) Ratings
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The composition of NPLs differs from country to country. NPLs generated by NFCs constitute the majority of overall NPLs within China's banking institutions.

The good quality of its mortgage loans is the main differentiator between China and other countries in terms of NPL composition. In recent years, China has implemented a prudent real estate credit policy, and minimum down payment ratio requirements for residential mortgage loans are stricter than those in Europe and the U.S. As a result, the NPL ratio for mortgages, which account for about half of total personal loans, is much lower than the overall NPL ratio of personal loans.

Chart 4

NPL Ratio of Personal Loans in China



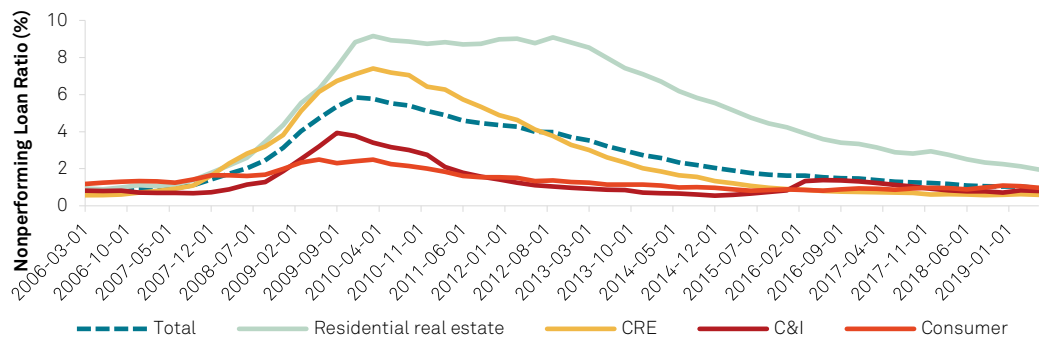
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USA

The situation in the U.S. is different. Affected by the 2009 subprime mortgage crisis, the U.S. real estate market's NPL ratio is higher than that of other asset types. With real estate loans accounting for about half of banks' loan books, the majority of NPLs in the U.S. banking industry are real estate NPLs. Nevertheless, although the NPL ratio of residential real estate loans continue to be high, we have seen an effective decline in the NPL ratio of commercial real estate loans since the global financial crisis. As of the end of 2019, the NPL ratio of commercial real estate (CRE) loans of banks with assets of more than USD \$10 billion has been reduced to 0.26%, compared to the total NPL ratio of the real estate sector, which has stayed at 0.62%.

Chart 5

U.S. Banking System NPL Ratio



Note: Non-performing loan ratio is the ratio of loans 90 days past due or delinquent and nonaccrual loans to total loans.

Source: FFIEC Call Report and FR Y-9C.

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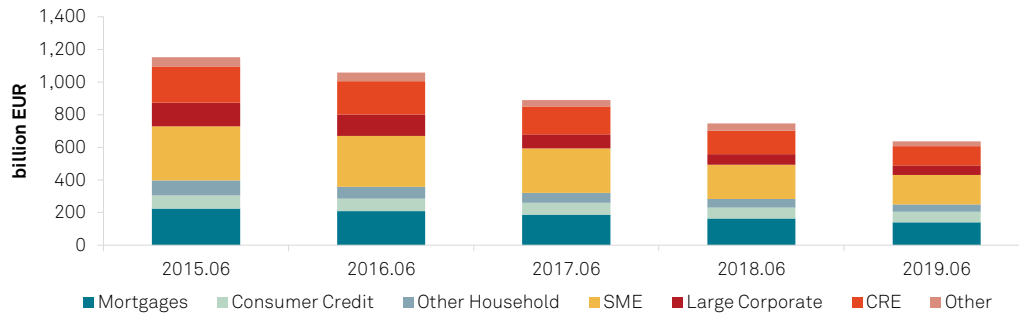
Apart from the real estate sector, the NPL ratio of commercial & industrial (“C&I”) enterprises in the U.S. banking industry has maintained a low level after a short rise over 2016 to 2017 caused by a slowdown in the oil and gas industry. However, COVID-19 saw rapid loan growth in the C&I sector in the first quarter of 2020. Depending on the trajectory of the pandemic, there may be further volatility to come for the C&I sector’s NPL ratio.

European Union

The NPL structure of European banks is somewhat similar to that of Chinese banks, with NFC NPLs still accounting for the largest component of EU banks’ NPLs, despite years of declining NFC NFLs. As of the end of June 2019, NFC NPLs accounted for 57% of EU banks’ total NPLs, while household NPLs represented roughly 40%. SMEs, mortgages and CRE loans were the largest sub-segments by volume of those NPLs. Moreover, the NPL ratios for SMEs and CREs are considerably higher than the other sub-segments.

Chart 6

NPL Volumes by Segment of EU Banks



Note: Non-performing loan definition based on the EBA definition (ITS) for supervisory reporting.

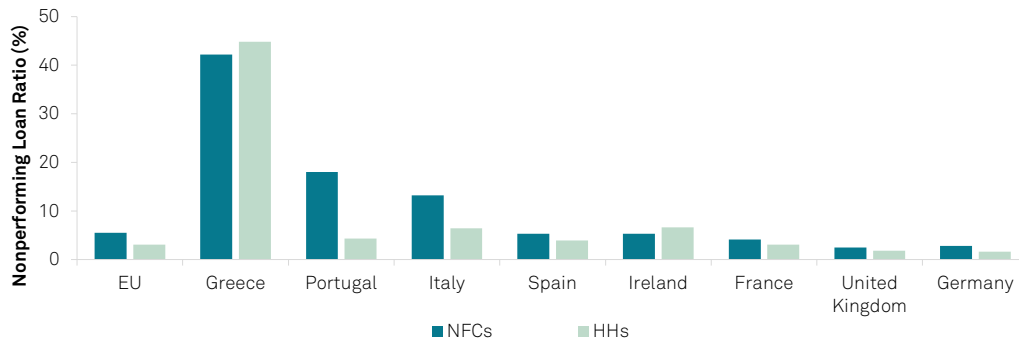
Source: EBA report on non-performing loans 2019

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Furthermore, the composition of NPLs for EU banks also differs from country to country within the bloc. For instance, as of the end of June 2019, almost 60% of Greek banks' exposures to SMEs and CREs were non-performing, resulting in NPLs representing nearly half of loans in the NFC sector. Meanwhile, other EU countries have achieved relatively low NPL levels for both NFC and household sectors after years of declining NPL ratios.

Chart 7

NPL Ratios for NFC and HH Sectors of Major EU Countries



Note: NFC refers to non-financial corporate; HH refers to household.

Source: EBA report on non-performing loans 2019, as end of June 2019.

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3. Is it fair to say that AMCs are the mainstream method for handling NPAs both internationally and in China? If so, why?

Indeed, use of asset management companies (AMCs) to clear banks' balance sheets and reduce related uncertainty of future NPL accumulation is a common global practice. In most cases, the establishment of an AMC is an effective measure under circumstances where impaired assets affect a significant portion of that economy's domestic banking system. Meanwhile, AMCs may also help the development of a secondary market for domestic distressed debt.

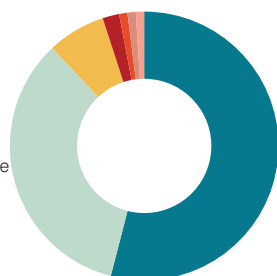
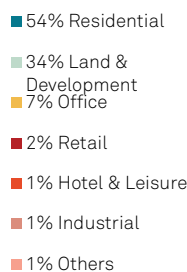
We note that AMCs differ from country to country not only in terms of when they were established, but also the extent and distribution of their exposure according to their own national conditions. Nevertheless, in general, experience suggests that CRE loans and loans granted for property development or secured by land have historically been more common for AMCs.

In the U.S., the Resolution Trust Corporation ("RTC") was a classic example of using AMCs to deal with NPLs. RTC was established in 1989 towards the end of the savings and loan crisis. It mainly engaged in liquidating assets and real estate-related assets that had been declared insolvent because of the crisis. Before closing in 1995, it had nearly disposed of its entire asset portfolio of USD \$450 billion. The transaction structure adopted in the process of its disposal of real estate-related assets has had a positive impact on the emergence of the CMBS market and non-performing asset securitization. Besides, RTC's various attempts to balance the price and timeliness of NPL disposal accelerated the development of the secondary market for distressed debt in the U.S.

Europe can provide us with more up-to-date and diverse examples of using AMCs. In the Republic of Ireland and Spain, the National Asset Management Agency ("NAMA") and SAREB were set up in the face of acute financial sector distress in 2009 and 2012 respectively. By the end of 2019, NAMA had collected a cumulative 45.3 billion euros in cash and thus eliminated more than 30 billion contingent liabilities for the Irish State. Meanwhile, SAREB has disposed of more than 20 billion euros of its NPL portfolio since its inception. Although SAREB was purely Spanish while NAMA received NPLs from outside of Ireland, both entities had sound performance in the disposal of real estate related assets.

Chart 8

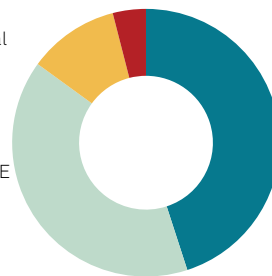
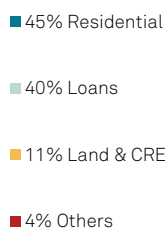
NAMA Disposals by Sector 2019



Source: NAMA Annual report for 2019, collected and adjusted by S&P Global (China) Ratings Copyright © 2020 by S&P Ratings (China) Co., Ltd. All rights reserved.

Chart 9

SAREB Income by Sector 2019



Source: SAREB Annual Activity Report for 2019, collected and adjusted by S&P Global (China) Ratings Copyright © 2020 by S&P Ratings (China) Co., Ltd. All rights reserved.

Despite the many advantages of using AMCs, the European Commission has also highlighted risks associated with this approach. If poorly designed or managed, AMCs may also contribute to financial stability risks. For instance, the contingent liabilities from a publicly supported AMC may have a negative impact on sovereign creditworthiness. In addition, the transfer of loans to AMCs could involve a loss of information on debtors, which may hinder restructuring and delay recoveries. Furthermore, the transfer mechanism could discourage banks from taking swift and

necessary actions themselves. As a result, the EU has introduced a blueprint for national AMCs as well as several legislative amendments to provide detailed guidance and recommendations on preconditions for centralized AMCs, conditions for asset transfer, design and set-up procedures as well as effective operations, etc.

We believe that at present, the role of China's AMCs is more comprehensive. This stems from the fact that the business lines of China's major AMCs are more diversified. The big four AMCs are the top player in China's NPL market. After the big four AMCs completed their policy mandate of recovering legacy bad debts from mega banks in 2006, they began their journey of commercialized distressed asset management. In addition to acquiring NPAs from Chinese financial institutions, China's AMCs can also stabilize financial institutions through bank equity investments. For example, in 2019, Cinda and Great Wall both injected capital into Jinzhou Bank, a city bank with serious undercapitalization problems caused by bad debts.

In terms of disposal, Chinese AMCs also face greater opportunities and challenges. On the one hand, the NPL composition of Chinese banking institutions is different from other countries, as loans to the NFC sector account for a relatively large proportion of total NPLs. On the other hand, the secondary market for non-performing assets in China is not sufficiently developed, with both opportunities and challenges ahead.

4. Should AMCs be used exclusively for handling NPL assets, or can other methods be adopted?

In principle, any type of NPL could be transferred to an AMC for disposal. However, AMCs should focus more on areas where they have comparative advantages. Experience suggests the following principles regarding NPL transfer to AMCs:

- Loans transferred to AMCs shall have a minimum size threshold. Small and granular exposures may be too heavy on operations for AMCs. Large unit sizes could allow AMCs to maintain relatively light operations, which may enhance collection efficiency.
- Loans secured by CRE or other real estate assets may be more suitable for AMCs. Collateral attached to transferred NPLs is important, and sufficient collateral could lead to an increase of the recovery value over time. Moreover, CRE assets may be more suitable than residential real estate (“RRE”) assets, since CRE assets offer relatively easier value recovery and AMCs could accumulate expertise more easily and benefit from economies of scale.
- Loans to large companies not covered by CRE assets could also be considered for AMCs. Corporate non-performing exposures are typically large and complex. Though such complexities could inevitably increase recovery costs, these inherent expenses can be outweighed by the return on working out large exposures.
- Loans with relatively longer prosecution period are generally more suitable for AMCs since they offer enough time for AMCs to recover.

Of course, under different circumstances, countries may choose alternative measures more suited to their own situations, especially when impaired assets constitute a very large share of their banking system's total assets. For instance, both Italy and Greece have introduced guarantee schemes as alternative measures for dealing with their large and heterogeneous NPLs.

Conversely, if the banking system of a certain country has better asset quality, banks with lower NPL ratios may not have a strong motivation to transfer or sell NPLs to AMCs, as they may have better flexibility if they choose to wait and hold their NPLs.

In countries that have deep and mature secondary markets for NPLs, NPL securitization is another commonly used alternative measure. For instance, quite a few NPL securitization transactions have been issued in Italy.

The overall asset quality of commercial bank loans and the extent of the secondary market's development affect the way banks' non-performing loans are handled.

5. NPA securitization has been commonly used by Italian banks. What are the main characteristics of these transactions?

The NPL stock in the Italian banking system gradually increased after the 2008 Global Financial Crisis, with the NPL ratio reaching a peak of 17.1% in September 2015. Since then, the NPL ratio has been on a downward trend, reaching a low of 6.9% in March 2020 according to CEIC. During this period, NPL securitization programs have been widely adopted. In 2018, NPLs worth a total of 47.8 billion euros were disposed through securitization, compared with 23.7 billion euros in 2019.

Italy's success in issuing NPA-backed securities has been dependent on the "Garanzia sulla Cartolarizzazione delle Sofferenze" (GACS), a government guarantee mechanism established in 2016. GACS typically guarantees senior notes and pays the Italian Ministry of Economy and Finance a GACS fee, which is calculated based on the CDS spread issued by Italian companies corresponding to the ratings and amortization period of the asset-backed securities. Asset-backed securities can only be guaranteed by GACS if they follow strict rules, with main requirements for the structure of asset securitization including: 1) GACS fee is the priority fee; 2) The repayment order of the senior notes is superior to the subordinated notes; 3) The interest rate types of senior notes and mezzanine are floating interest rates; 4) mezzanine interest payments can be deferred.

To be guaranteed by GACS, Italian NPA-backed securities are subject to these rules. Due to the floating interest rate settings, Italy's NPA-backed securities typically use interest rate hedging tools (such as interest rate options, interest rate cap agreements, or a customized floating interest rate term agreement based on the notes' relevant characteristics, etc.) to mitigate the potential shortfall risk of notes' interest repayment.

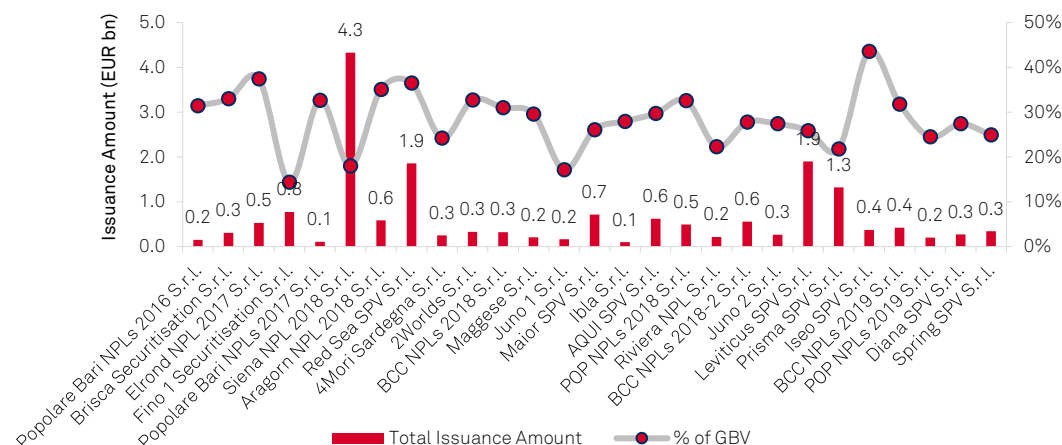
At the same time, GACS provides a mechanism for deferred interest payments for mezzanine notes. When the recovery collections of underlying assets are insufficient, and the order of mezzanine interest repayment is higher than the senior notes' principal, this can bring risks to senior note investors. To mitigate this risk, GACS incorporates two trigger mechanisms to delay mezzanine and subordinated notes interest payments. When the cumulative collection ratio or the NPV cumulative collection ratio is lower than expected, the corresponding postponement mechanism will be triggered and the interest payment on mezzanine or subordinated notes will be deferred.

Based on public information as of July 31, 2020, S&P Global (China) Ratings collected 27 NPA - backed securities issued by Italy since 2016 with GACS guarantees. Among them, the average ratio of the notes issuance accounts over the gross book value (GBV) of underlying assets is 28.40%, where the highest GBV ratio is Iseo SPV S.r.l. 43.60%, and the lowest GBV ratio is Fino 1 Securitisation S.r.l. 14.33%. The average GBV ratio of senior class A notes (usually BBB) is 24.26%. In addition, all of the 27 transactions have liquidity cash reserve setup and interest rate cap agreements, with the liquidity cash reserve ratio between 3% and 7.5%.

Italian NPA securitization owes its success to the establishment of GACS in 2016. As a government guarantee mechanism, GACS typically guarantees senior notes.

Chart 10

Italy GACS NPA - backed securities issuance amount and GBV ratio



Note: Data from January 1, 2016 to July 31, 2020.
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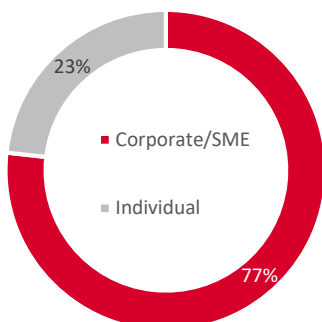
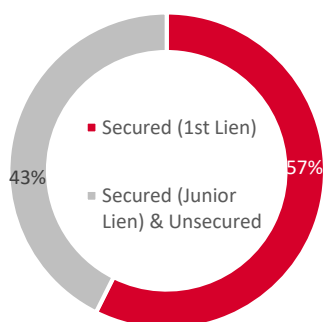
On the asset side, a typical Italian NPA-backed securities underlying asset is mixed in multiple dimensions. For example, in the same transaction, the underlying asset usually includes both secured and unsecured loans, corporate and individual loans, residential and commercial properties for secured loans. Italian NPA-backed securities can also contain multiple originators, such as BCC NPLs 2018-2 S.r.l. contains up to 73 financial institutions.

Among the 27 NPA-backed securities, the average GBV ratio of secured loans (including first and junior lien claims) and unsecured loans are 64.80% and 35.20% respectively. If we only consider the first lien collaterals as secured loans, then the ratio would be 57.37%, indicating that 88.54% of the collaterals are first lien. From the perspective of borrower type, most of the loans are corporate loans, including SMEs. The average GBV ratio of corporate loans is 76.76%, while individual loans account for 23.24%.

Chart 11

Secured vs. Unsecured Loans (% of GBV, average)

Corporate vs. Individual Loans (% of GBV, average)



Source: Public information, compiled by S&P Global (China) Ratings.
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6. How about NPA securitization in other regions, such as Japan, South Korea, and the U.S.?

Japan

The development of non-performing loan asset securitization in Japan cannot be separated from the country's "lost decades" period. After Japan's economic bubble burst in 1991, the Bank of Japan was saddled with about 8.1 trillion yen (about USD \$81 billion at the exchange rate at the time) in NPLs and other bad debts. The debts, along with NPLs from Japanese commercial banks, put a huge strain on Japan's financial system. In 1997, when the Asian financial crisis broke out, total NPLs in the Asian financial system reached USD \$2 trillion, 60% of which was in Japan. In 1998, the Japanese government promulgated the Special Purpose Company Law (SPC Law), which accelerated the process of asset securitization through tax reduction and other measures. In 1999, the Japanese government created the Resolution and Collection Corporation (RCC), a clearing and collection company responsible for acquiring non-performing assets and taking equity stakes in financial institutions to boost their capital adequacy ratios. RCC participated in the issuance of its first NPA-backed securities in February 2002, with the underlying assets being nonperforming residential loans.

South Korea

Similar to Japan, the development of non-performing asset securitization in South Korea was also triggered by the 1997 Asian financial crisis. The crisis saw Korean commercial banks burdened with a large number of non-performing assets, which left many enterprises and commercial banks on the brink of bankruptcy and required imminent disposal of non-performing loans. Therefore, South Korea turned to KAMCO for a unified approach to disposing of non-performing assets. KAMCO was set up in 1962, but it did not become a government agency until after the 1997 financial crisis, when it was mandated with handling claims on financial institutions' non-performing assets. KAMCO was responsible for undertaking most of the work related to the issuance of non-performing asset securitization in South Korea. It widely used options, guarantees, currency swaps and other methods to provide credit enhancement for securities, and set up overseas companies to issue foreign exchange NPA-backed securities simultaneously. In 1998, South Korea issued the Asset-Backed Securitization Act, which removed the legal shackles on asset-backed securities and created conditions for the development of asset securitization.

South Korean NPA securitization first hit the international stage in 1999 when KAMCO worked with Lone Star Funds to dispose of underlying non-performing assets, a transaction that attracted counterparties including Deutsche Bank, Morgan Stanley Dean Witter, Goldman Sachs, Cerberus Capital Management and GE Capital. In 1999, according to the Financial Supervisory Service (FSS) of South Korea, NPA-backed securities accounted for 42.2% of the total issuance of asset-backed securities. However, following an economic recovery, issuance of NPA-backed securities gradually fell, from 10.6 trillion won in 2001 to 2 trillion won in 2002, which only accounted for 5% of the total issuance of asset-backed securities.

United States

The development of the securitization of non-performing loan assets in the United States originated from the savings and loan crisis in the 1980s. During the crisis, U.S. authorities set up the Resolution Trust Corporation (RTC) to buy non-performing loans from saving and loans associations. The RTC's disposal of non-performing assets lasted for six years before it was finally phased out in 1995. Non-performing asset securitization is one of the methods that the RTC resorted to for disposal of non-performing assets. The underlying assets of the securities were mainly residential property loans and commercial real estate loans. The introduction of NPL asset-backed securities greatly enriched the investment structure and product liquidity and laid very important foundations for the subsequent development of asset securitization in the U.S.

Japan, South Korea and the U.S. set up RCC, KAMCO, and RTC respectively as bodies that would be responsible for acquiring non-performing assets and participating in NPA securitization.

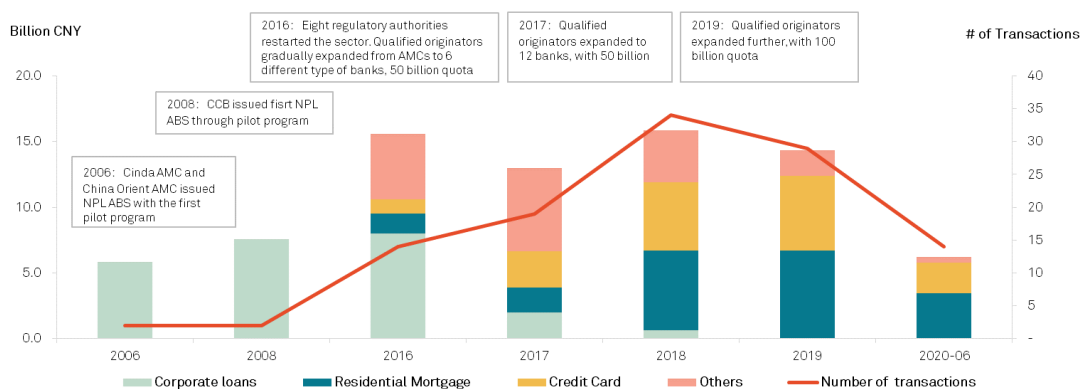
The VOLT series of NPA securitization can be regarded as a typical example of NPL securitization in the U.S. in recent years. From 2014 to the end of June 2020, Lone Star Funds issued a total of 51 NPA-backed securities. The WAL of the securities is generally shorter, with A-1A tranches typically having a WAL of no more than 1.5 years and a credit enhancement of 40-50%, while A-2 tranches typically have a WAL of no more than 3 years.

7. How does NPA securitization work in China?

After the pilot securitization program was launched in 2005, two AMCs respectively issued one NPA-backed security each, which started the exploration and practice of NPA securitization in China. Only four NPA securitization products were issued between 2006 and 2008. The whole securitization market was shut down due to the 2008 global financial crisis. In 2016, eight regulatory authorities restarted the sector. Qualified originators gradually expanded from being exclusively AMCs to include different type of banks, and underlying assets grew from covering only corporate loans to include various asset types, such as residential mortgages, personal loans, and credit card receivables etc. We believe that NPA securitization may become an increasingly common method for handling non-performing assets with the expansion of pilot institutions and gradual improvement of the products, especially for unsecured retail assets which cannot be processed in batch-sales according to regulations.

Chart 12

NPA Securitization History of Mainland China Market



Source: Public information, Wind, compiled by S&P Ratings (China) Co., Ltd.

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As of the end of June 2020, the three main asset classes in China's NPA securitization are corporate loans, residential mortgages and credit card receivables with outstanding issuance of 30.59%, 25.17% and 21.73% respectively. NPA securitization of corporate loans saw the first issuance under the pilot program, with a large average outstanding balance and varying degrees of difficulty for collateral disposal. Residential mortgages and credit card receivables have become two major securitization assets since 2016, with high dispersion. The weighted average delinquency term of credit card receivables is relatively lower but there is no collateral as the recovery source.

In terms of transaction structure, the credit risk for senior investors is generally reduced by internal and external liquidity measures. Internal liquidity support includes setting up liquidity reserve accounts with a reserve target of 1 to 2 times tax and senior interest and fees. External liquidity support includes selecting external liquidity providers to provide liquidity for senior interest and fees. NPA securitizations with collaterals are more likely to set up external liquidity provider institutions due to the uncertainties during monetizing collaterals.

Servicer fees are generally split into a basic service fee and an excess incentive service fee. The basic service fee will be paid mostly after the repayment of senior notes to accelerate the repayment of the senior tranche, usually 1-5% of the recovery amount. After the payment of the fixed funding cost of the subordinated note, the remaining income is usually distributed in a proportional manner between servicer and subordinated investor. Since the recovery of NPA securitization highly depends on outsourced collection agencies, the incentive service fee program also greatly enhances the motivation of these agencies to recover debts.

Credit card receivables and residential mortgages are issuing increasing number of NPA securitizations recently. Transactions usually set up liquidity reserve, external liquidity providers, excessive incentive service fee etc. mechanisms.

8. What is the current situation concerning recovery and collection of NPA securitization transactions in China?

As of the end of June 2020, 114 NPA transactions was issued, with total issuance amount of 78.4 billion RMB. From the asset type of NPA securitization, residential mortgage NPLs have the highest recovery rate (around 70%), while credit card receivables NPLs have a relatively lower recovery rate of roughly 15%. In terms of recovery time, credit card receivables usually take 1-2 years to collect, and the senior note side will be paid within one year. Residential mortgages usually take 2-3 years to collect, and the corresponding senior note side will be paid in around two years. The recovery time for corporate loans is relatively longer.

Table 1

NPA Securitization Recovery Comparison by Asset Sector

	Corporate Loans	Residential Mortgage	Credit Card Receivables
Main Recovery Source	Disposal of collateral	Disposal of collateral	The borrower's willingness and ability to repay
Collateral Type	Residential house, factories, offices, retail stores, company equity etc.	Residential house	None
Concentration	High	Low	Low
WA Asset Yield	6%-10%	4%-5%	around 20%
WA Delinquency Term	Within three years	Around two years	Within one year
Senior Note Paid Down Time	Above two years	Around two years	Within one year
Expected Total Recovery Rate*	Around 30%	Around 70%	Around 15%

Note*: Data from offering circular.

Source: Trustee Reports and transaction documents, compiled by S&P Global (China) Ratings.

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In terms of arrears management and collection process, the originator firstly makes all efforts to communicate with the borrower and determine the reason for the delinquency, while identifying the borrower's plans to resolve the delinquency. Taking residential mortgages as an example, making phone calls, sending out notices and home visits are common measures within the first 90 days. When loans are in arrears for more than 90 days, the originator needs to make appropriate judgement on whether the collection process need to be distributed to an outsourced vendor or handled internally. Practices for these delinquent loans vary on a case-by-case basis. Online auctions through internet platforms like Alibaba or JD.com have also become an increasingly common collection channel in recent years. For credit card receivables, the first stage of notifying borrowers through phone calls is much shorter. After notifying the borrower, the originator may close other credit card accounts and deduct the remaining balance from debit cards held by the borrower with the bank. The delinquency information will also be updated on the PBoC's Financial Credit Information Database. Outsourced vendors will then be involved in the collection process. The recovery of NPL securitizations mainly depends on the outsourced collection agencies, and the recovery rates are greatly affected by related regulations and policies. Different regions' recovery rates differ due to local borrower repayment behavior as well as the judicial environment in that area.

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9. What has S&P Global (China) Ratings observed during the rating process of its first credit card NPL securitization transaction?

S&P Global (China) Ratings published its first credit card NPL securitization rating report in the mid of September 2020. We have three main observations regarding this particular asset type beyond our analytical findings and approaches to the transaction, which are detailed in our rating report.

As of the end of July 2020, a total of 60 credit card NPL securitization transactions were issued in the market. These products all comprised of a senior and subordinated tranche structure, with the average asset-to-note coverage at 11.10 and asset-to-senior note coverage at 14.76. The payment frequency is typically on a quarterly or biannual basis. The senior notes are normally paid off in 2 to 3 payment periods with an average repayment period of 5.4 months. The average payment ratio on the first payment date was 85.97%. We believe the rapid increase in the issuance of these transactions was mainly driven by banks' desire for balance sheet optimization, especially for NPL ratio management, and regulatory restrictions on sale and transfer of retail NPL assets.

Secondly, the actual recovery information provided by the originator before a deal closes is invaluable to the rating analysis process. We have observed a recent downward trend in overall recovery rates across the industry, which may be caused by various factors such as economic environment, regulatory policy, industry reform, and companies using different calculation methods. Also, recent fluctuations in industry recovery rates have reflected the short-term impact of COVID-19, and the long-term impact remains to be seen as relevant policies are introduced and the pandemic is brought under full control. Based on the current actual recoveries in the sector, recovery rates are clearly divergent among different types of originator. Given most of the transactions' senior notes are either fully paid-off or repaid with a large pay-out ratio on the first payment date, we expect repayments of senior notes in the credit card NPL securitization sector to remain stable in 2020.

Last but not least, when compared to other countries, one of the very unique features for all of these transactions in China specifically is the recovery amount accumulated in the trust account before the deal closes during the transaction establishment in the relatively long ramping-up period and regulatory approval period. In other words, there are significant cash balances from collections already in place on the first day when the trust is established. Having large cash balances available for distribution to investors is clearly credit positive for these transactions, as this dramatically reduces the credit exposure to the performance and collections of the outstanding securitized assets.

This report does not constitute a rating action.

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