Thriving through Cycles

-- Interbank Retail ABS(N) Deep Dive

标普信评
S&P Global
China Ratings

July 2024, S&P Global (China) Ratings Structured Finance

Key Takeaway: Thriving through cycles

Interbank Retail ABS(N) Outlook

	Performance of securitized assets	Credit performance of securities	Key drivers	Key Risks
Auto ABS	Stable	Stable	Likely mild increase in passenger vehicle sales, stable issuance scale, and green-oriented transition across the market	Impacts of the Administrative Measures for Auto Finance Companies on product design and risk control of auto finance companies; Crowding-out of financial products backed by ICE cars due to the expansion of EV-backed products, and impacts on the characteristics and performance of asset pool from the securitization of EV loans; Recovery methods among originators and financial products, and EV makers' ability to stay as a going concern.
Auto Lease ABS(N)	Stable	Stable	EV lease products expected to become a major driver amid pressure on issuance scale	Muted growth for retail auto leases amid intense competition; Likely impact on auto lease ABN from ongoing product innovation and penetration toward lower-tier markets.
Consumer Loan ABS	Stable	Stable	Implementation of macro policies to ensure stable economic growth and propel consumption recovery	The degree to which the comparability and historical data for different products are representative of the securitized pool; Implications of transition toward on-line shopping and emergence of new consumption scenes and financial products for asset quality; Differentiation and volatility in asset credit performance across originators and products under economic strains.

标普信评
S&P Global
China Ratings

Contents

标普信评

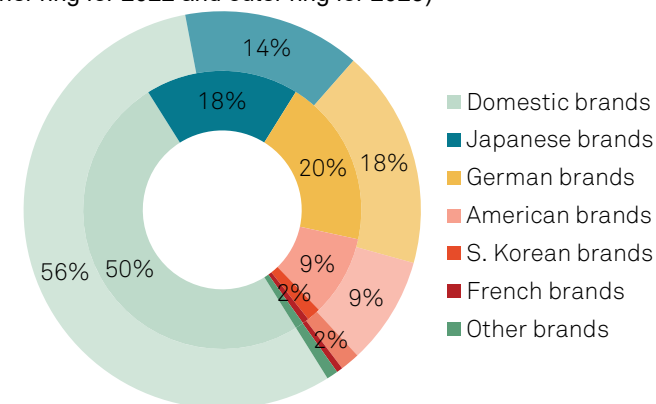**S&P Global**
China Ratings

01 China auto OEM credit performance outlook

Competition increasing, export growth subdued, and profit margin under pressure

- In the second half of 2024, automobile sales would sustain the momentum seen in the first half of the year, and overall sales throughout the year would see a slight increase compared to 2023. EV sales growth should act as a stabilizer for domestic automobile sales, while car exports are set to contribute incremental sales. We expect the ongoing pro-consumption policies to drive up retail sales in China. EV sales growth would slow on high baseline, with the penetration rate to stay about 40%. ICE car sales may continue to be compressed and on a downward trend.

- Most auto OEMs would face pressure on profit margin. Industry competition would be intensified by the ongoing price war fueled by carmakers' urges to boost sale volume. In addition, the automobile sector may see its profit eroded by EVs' low profit margins, elevated R&D and sales expenses, and the complex environment for exports.

- We expect to see rising leverage and diverging credit quality among auto OEMs.

Car sales may increase slightly in 2024

- Overall car sales, cumulative
- Overall car sales growth, YoY (Right Axis)

Car exports bring incremental sales, but sales growth slips

- NEV exports
- ICE car exports
- Car export growth (right axis)

Passenger vehicle sales breakdown by brand origin – Chinese indigenous brands see continued momentum
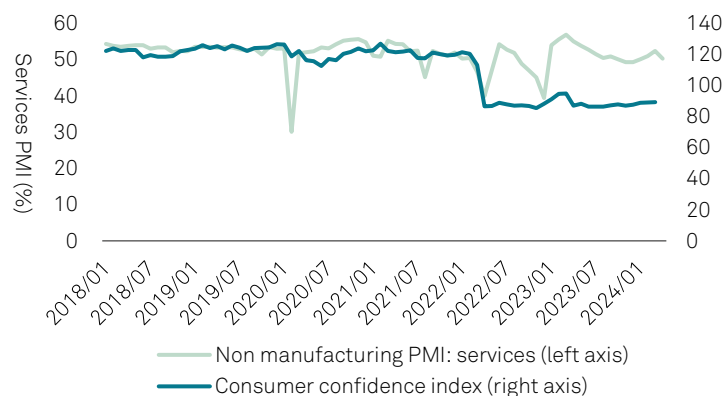(inner ring for 2022 and outer ring for 2023)

- Domestic brands
- Japanese brands
- German brands
- American brands
- S. Korean brands
- French brands
- Other brands

Note: E-Estimate.
Source: China Association of Automobile Manufacturers, Wind, S&P Global (China) Ratings.
Copyright © 2024 by S&P Ratings (China) Co., Ltd. All rights reserved.

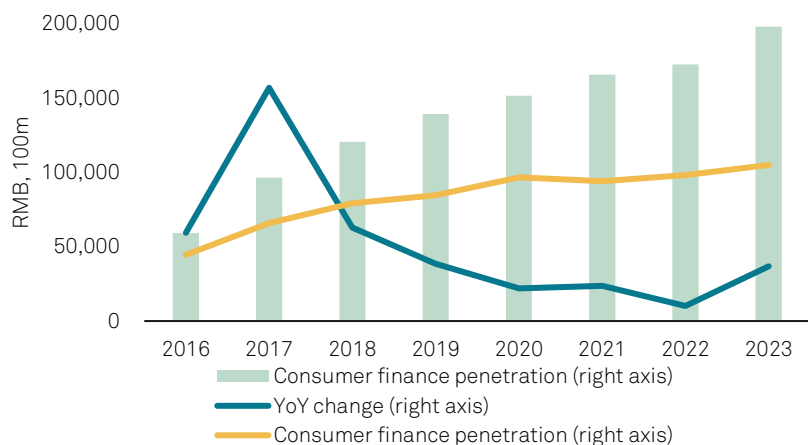# 01 China consumer sector credit performance outlook

Market on mild recovery, more growth space for loan penetration, but consumer confidence still at trough

- The consumer staples sector may sustain a mild recovery in 2024 amid stronger economic growth and a normalized pace of travel among residents. Despite resilient demand for consumer staples, weak consumer confidence still poses a major constraint on the long-term growth of the sector.

- With the consumer sector gaining heat in 2023, the loan size also increased. As of the end of 2023, China's household consumer loans (excl. mortgages) totaled 19.78 trillion RMB, up by 14.7% YoY. The penetration rate of retail consumer loans stood at around 42%, showing an increasing trend and with further growth space. Consumer finance companies (fincos) have made efforts to implement pro-consumption policies in recent years. In 2023, these companies' total assets and outstanding loans were 1.21 trillion RMB and 1.15 trillion RMB, up by 36.7% and 38.2% YoY, respectively.

- The retail consumer loan sector would maintain stable asset quality in 2024. Due to remarkable differences among consumer groups and the long-tail effect, retail consumer loan sector sees higher non-performing loan (NPL) ratio than other retail asset categories. Overall, the credit performance of retail assets is quite resilient.
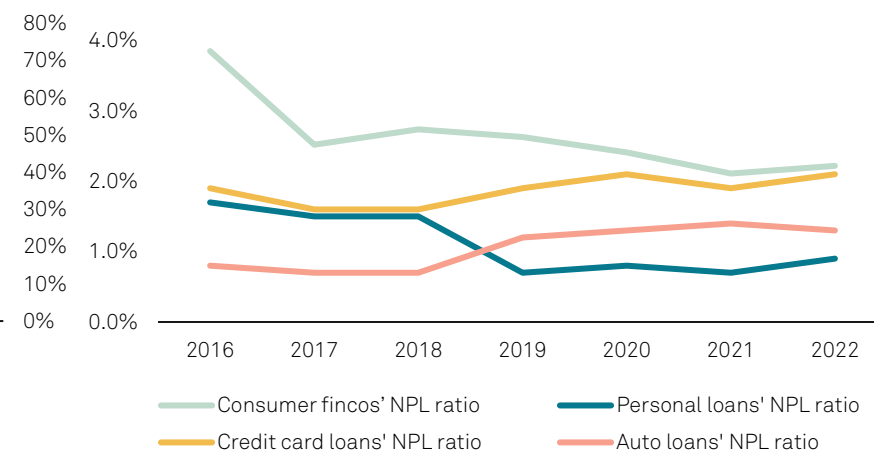
Consumer confidence remains at bottom for 2 straight years

- Non manufacturing PMI: services (left axis)
- Consumer confidence index (right axis)

Consumer finance penetration[1] still has growth potential

- Consumer finance penetration (right axis)
- YoY change (right axis)
- Consumer finance penetration (right axis)

Personal loans' NPL ratio[2] and consumer loans' NPL ratio of consumer fincos

- Consumer fincos' NPL ratio
- Personal loans' NPL ratio
- Credit card loans' NPL ratio
- Auto loans' NPL ratio

Note 1: Consumer finance penetration = FIs' consumer loans outstanding / social retail sales.

Note 2: Personal loans' NPL ratio considers auto loans, mortgages and credit card loans, and has included personal business loans since 2019.

Source: PBOC, China Banking Association, NBS, Wind, S&P Global (China) Ratings.
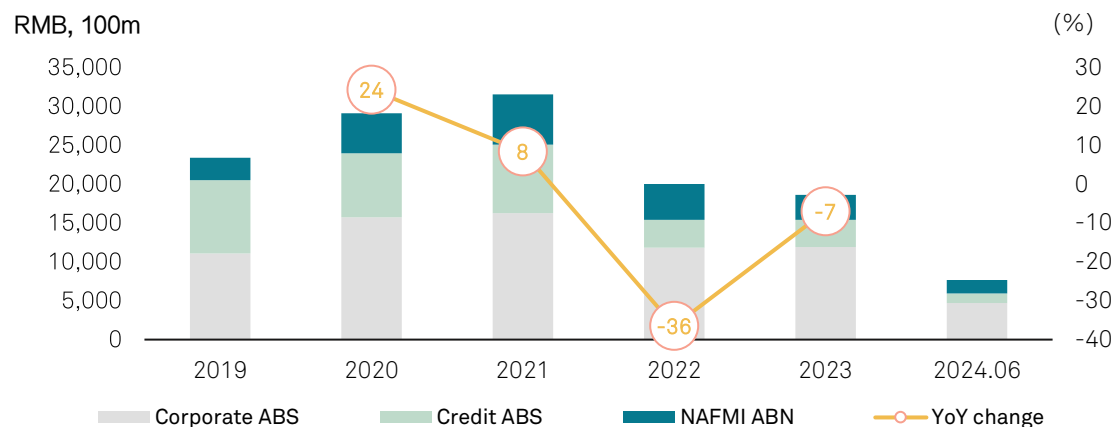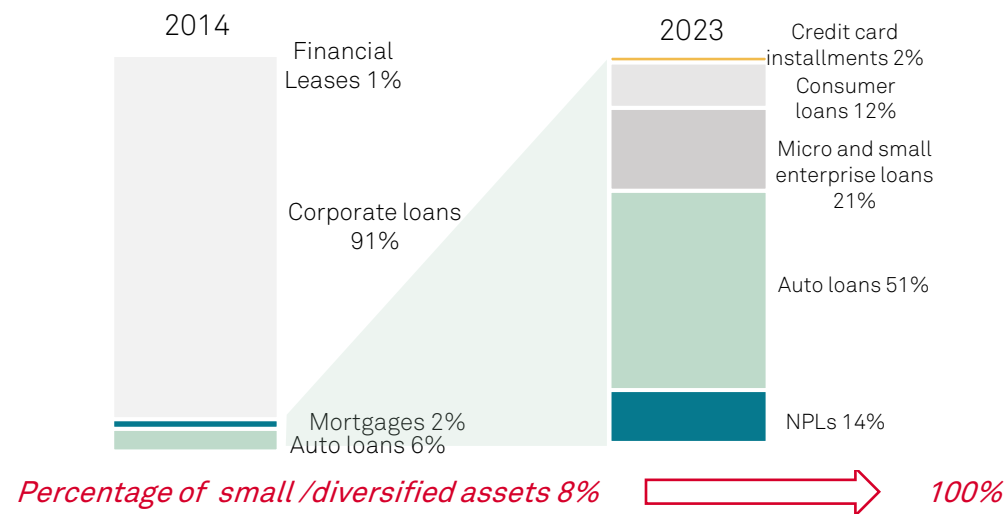
标普信评
S&P Global
China Ratings

Issuance slowing, structure being adjusted

- China's ABS market was launched in 2005. Following several ups and downs, it saw robust growth in 2015 along with the introduction of registration-based IPO system. Total ABS transactions outstanding were over 3 trillion RMB at present, making China the second largest ABS market by scale. However, it is still a small sector with great growth potential compared with the overall bond market in China.

- In the context of economic downturn and industrial headwinds, total issuance in the three ABS markets decreased by about 36% YoY to 2 trillion RMB in 2022, marking a decline for the first time since 2015. In 2023, total issuance dropped by 7% YoY to 1.86 trillion RMB. We expect to see a continued slowdown in ABS issuance in the second half of 2014.

- China's ABS market has experienced a considerable structural change over the past five years. The eligible assets to be securitized, once dominated by corporate loans in large single amounts, have expanded to include more diversified asset types. The share of small and diversified assets continues to increase, especially for the credit ABS market, where small and scattered assets accounted for merely 8% of total market size in 2014 and covered almost the entire market in 2023 (mainly auto loans, micro and small enterprise (MSE) loans, consumer loans, and credit card installments).

ABS issuance in China

RMB, 100m — (%)

Legend: Corporate ABS | Credit ABS | NAFMI ABN | YoY change

Credit ABS market breakdown in 2014 and 2023 (by issuance size)

2014:
- Financial Leases 1%
- Corporate loans 91%
- Mortgages 2%
- Auto loans 6%

2023:
- Credit card installments 2%
- Consumer loans 12%
- Micro and small enterprise loans 21%
- Auto loans 51%
- NPLs 14%

Percentage of small /diversified assets 8% → *100%*

Note: data as of June 30, 2024

Source: Wind, S&P Global (China) Ratings.
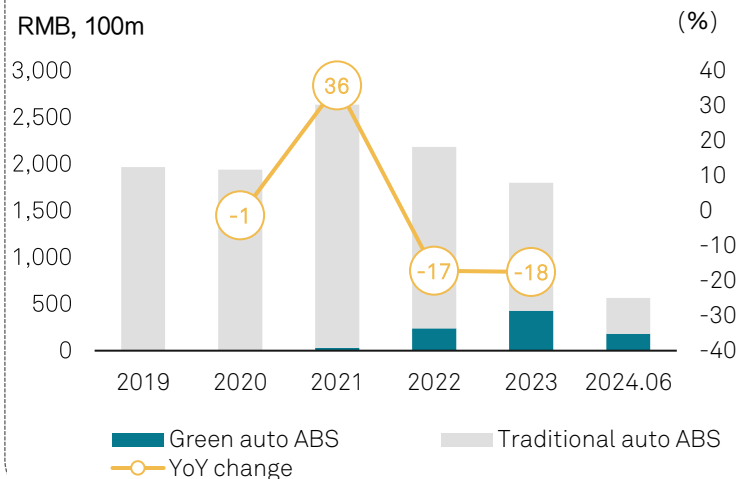
标晋信评

S&P Global
China Ratings

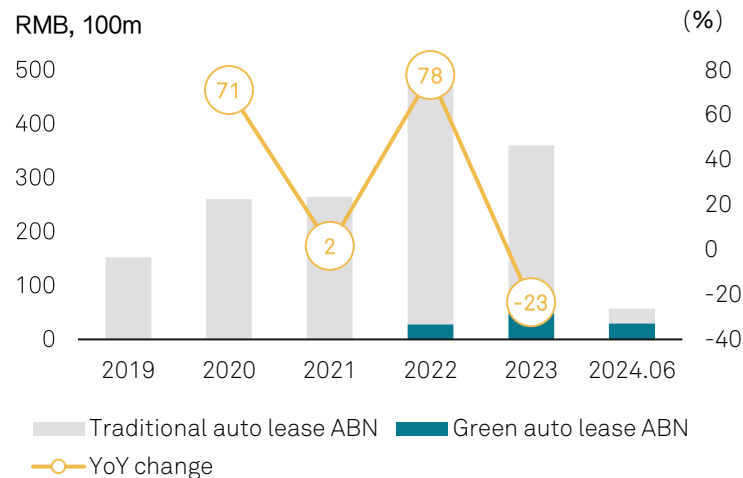# 02 Market Overview: Interbank retail ABS products overview

Auto ABS(N) goes greener, consumer loan ABS growth to see a turning point

▫ In 2023, auto ABS issuance decreased by around 18% YoY to 180 billion RMB, but still ranking first by scale in the credit ABS market. This reflects auto ABS' status as a regular and steady financing instrument for originators and investors. Specifically, green auto ABS issuance has hit a new high, reaching 42.6 billion RMB through 10 transactions, which accounted for about 24% of annual auto ABS issuance.

▫ In 2023, auto lease ABN issuance totaled 36 billion RMB, declining by roughly 23% YoY. Green auto lease ABN accounted for about 13% of total issuance.

▫ Thanks to supportive policies to boost consumption and continued recovery in consumer-related borrowing, the issuance of interbank consumer loan ABS (excl. credit card ABS) exceeded the previous high, increasing by 36% YoY to around 41 billion RMB. In particular, consumer fincos have issued products at a much faster pace, making their share in total issuance rise to 61%.

▫ Amid impacts from loan issuance, demand for moving assets out of the balance sheet, and crowding-out by other financial channels, we expect the issuance of auto ABS(N) and consumer loan ABS in the interbank to shrink in the second half of 2024.

Auto ABS issuance

RMB, 100m   (%)

Legend: Green auto ABS, Traditional auto ABS, YoY change

Auto lease ABN issuance

RMB, 100m   (%)

Legend: Traditional auto lease ABN, Green auto lease ABN, YoY change

Consumer loan ABS issuance

RMB, 100m   (%)

Legend: Consumer loan ABS of consumer fincos, Consumer loan ABS of commercial banks, YoY change

Note: data as of June 30, 2024

Source: Wind, S&P Global (China) Ratings.

标普信评
S&P Global
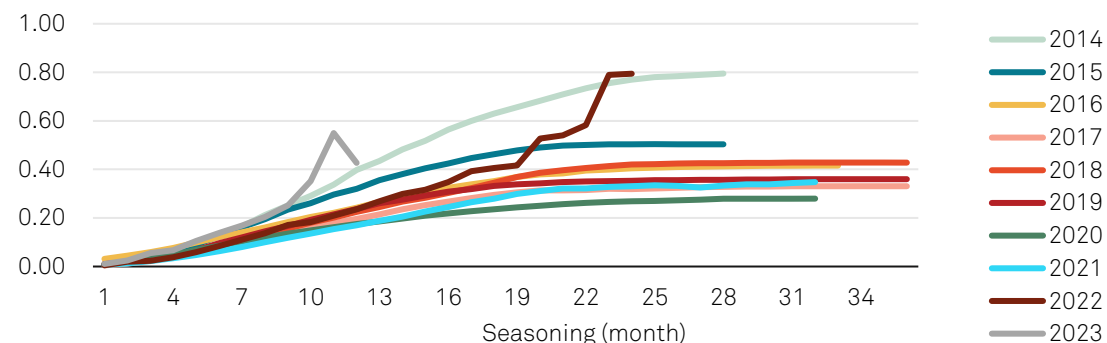China Ratings

02 Market Overview: Retail ABS performance

Solid resilience under stress

- The performance of retail ABS has showcased the risk resistance of small and scattered assets amid economic downturn, stricter regulatory oversight, and intensifying competition.
- As of the end of 2024 H1, the cumulative default rates of asset pool for most outstanding auto ABS(N) products in the interbank market stayed within 2%, while these rates for consumer loan ABS are widely distributed.
- The short-term adversity led by stressed economic conditions has led to a rise and fluctuations in retail ABS delinquencies, but the overall delinquency remains at a low level.

Cumulative default rates of asset pool for retail ABS(N) (%)

Cumulative default rates of asset pool for auto ABS by year (%)

Cumulative default rates of asset pool for consumer loan ABS by year (%)

Note: Retail ABS(N)'s cumulative default rates as of June 30, 2024. Auto loan and consumer loan ABS Cumulative default rates as of the end of 2023.

Source: Wind, S&P Global (China) Ratings.

标普信评
S&P Global
China Ratings

02 Market Overview: Retail ABS performance

Credit performance among originators and products diverges further

□ The asset performance for auto ABS issued by different originators varies. Foreign-wholly-owned auto finance companies and auto financial companies have delivered relatively better performance.

□ We see a significant divergence in cumulative default rates of consumer loan ABS issued by consumer finance companies and commercial banks. This may be resulted from different risk preferences, financing costs, and customer positioning for each originator.

□ We think major retail ABS products will maintain stable performance in the second half of 2024, with further divergence among originators and products in terms of asset credit performance.

Cumulative default rates of asset pool for auto ABS by originator (%)

Cumulative default rates of asset pool for consumer loan ABS by originator (%)

Chinese auto finco
Sino-foreign joint-stock auto finco
Foreign-wholly-owned auto finco
Auto financial company
Commercial banks

Commercial banks
Consumer finco

Consistent with S&P Global Ratings methodology

| Credit Quality of the Securitized Assets: | Payment Structure and Cash Flow Mechanics | Operational and Administrative Risk | Counterparty Risk | Legal and Regulatory Risk |

| Macro-Economic and Industry Trends | Asset/Obligor/Loan Characteristics | Originators/ Special Factors | Other Rating Factors |

Expected Base-case Losses of the Securitized Assets under Initial Credit Rating

Consideration of Payment Structure, Cash Flow and Other Factors

Issue Credit Rating

标普信评
S&P Global
China Ratings

10

Consistent with S&P Global Ratings methodology

Base-case assumptions for default, recovery and loss derived based on historical data

- Dynamic pool data
- Static pool data
- Securitized pool data
- Peer/benchmark comparison
- Operational and administrative risks
- Recovery of defaulted loans
- Write-off policy
- Seasoning
- Macro and industry trends
- Transaction-specific considerations(e.g. revolving structure)

Expected base-case default, recovery and loss of asset pool derived from credit quality comparison between static and dynamic pools and assessment on numerous factors

- Composition and characteristics of asset pool (data granularity analysis)
- Eligibility criteria
- Customer's key statistics, credit score/credit rating
- Loan tenor and seasoning
- Obligor and geographical concentration
- Focuses for different asset types:

	Auto loans	Auto leases	Consumer loans
Pledge method	Pledge of vehicles	Pledge of vehicles	Pure credit
Pledgee	Auto finance company	Financial lease company	N/A
Owner of collateral	Borrower	Financial lease company	N/A
Special focus	Flexible/balloon loans	Flexible/balloon loans	Customer acquisition methods
	Shares of EVs, used cars, commercial cars, and foreign brands	Shares of EVs, used cars, commercial cars, and multi-brand (SP) products	Flexible payment methods, e.g. equal principal/expense, and revolving credit.
	Model/brand concentration	Model/brand concentration	
	OLTV	OLTV	
		Security deposit	
		Residual value risk	
		Vehicle ownership risk	

✓ Stress multiples applied for each rating scenarios

- Typical stress multiple range of the base-case default rates across different consumer asset types

Rating scenarios	Stress Multiple Range (x)
AAA	2.5 - 7.0
AA	2.0 - 5.0
A	1.7 - 3.8
BBB	1.4 - 2.5
BB	1.3 - 2.0
B	1.0 - 1.5

Comparison of retail ABS assessment across countries and markets

Assets

- Homogeneous product offering in domestic market, with securitized assets consisting solely of pass loans.
- Loan tenor typically no more than 60 months.
- Equal installment/equal principal payment.

- Diversified product mix in overseas markets, with prime, alt-A, subprime loans included in the asset pool.
- Loan tenor typically above 60 months.
- High proportion of high-risk loans, such as those relating to used cars, zero-down-payment loans, and balloon loans.

Credit Analysis

- Obligors have relatively high credit quality.

- Stricter criteria for applying stress multiples and recovery haircuts.
- Impacts of sovereign risk (financial system, payment conditions) on default and recovery assumptions.
- Vehicle disposal process, status of used car market, and source of funds for car repossession (insurance proceeds)
- Concentration limit on specific models in asset pool (e.g. EV models).

Payment Structure and Cash Flow Mechanics

- Simple transaction structure.

- Flexibility in stratification and transaction structure.
- Application of risk hedging instruments.
- Extra stress may be applied for cash flow testing to factor in commingling risk.

Operation & Administration, Counterparty, and Legal & Regulation

- No backup servicer is set initially.
- Liquidity reserve may comes from:
  - Initial liquidity supply from the originator.
  - Retained proceeds from repayments through securitized asset pool.
  - Rating-related trigger.

- Consider sovereign risk.
- More types of participants involved in with well-defined roles, including initial backup servicer.
- Focus on market-specific legal risks, such as true sale and bankruptcy remote, and early termination of car lease contract.
- ESG and consumer protection concerns.

标普信评
S&P Global
China Ratings

03 Ratings Perspective: Mainstream ratings rationale in China

Typical process of default analysis for auto ABS(N) and consumer loan ABS

Stress multiple method

- Process:
  - Develop pre-adjusted base-case default assumptions through analyzing the historical data of the originator.
  - Adjust base-case assumptions by comparing the differences in credit quality metrics between static/dynamic pools and securitized asset pool (mainly the aspects of borrowers, loans, collateral, and securitized asset pool), incorporating the originator's operational mode and past experience into consideration.
  - Derive adjusted default assumptions for the securitized asset pool.
  - Apply stress multiple to default rates based on the rating scenario.
- Scope of application:
  - Small and diversified assets that are highly homogeneous.
  - Assets with track record of at least 5 years
- Focus:
  - The degree to which historical data are representative of the asset pool.
  - The scope of dynamic and static data pools (whether on/off-balance-sheet data, partial or whole data are included).
  - Extrapolation of data applied when track record is short.
  - Defaulted loan standards: overdue 30+ or 90+ days.

Lognormal distribution method

- Process:
  - Assume the default probability of the asset pool follows lognormal distribution.
  - Estimate the parameters of the lognormal distribution, i.e. expected default rates and standard deviation, based on historical data and using maximum likelihood estimation.
  - Adjust base-case assumptions by comparing the differences in credit quality metrics between static/dynamic pools and securitized asset pool (mainly the aspects of borrowers, loans, collateral, and securitized asset pool) and incorporating the originator's operational mode and past experience into consideration.
  - Calculate default rates for different tenors and rating scenarios based on ideal default probability, or assess the probability of each default rate based on lognormal distribution.
- Scope of application:
  - Small and diversified assets that are highly homogeneous.
  - Assets with track record of at least 5 years
- Focus:
  - Premise that default probability of the asset pool follows lognormal distribution.
  - The selection of ideal default rates.

标普信评
S&P Global
China Ratings

04 What to Learn from Others: U.S. retail ABS overview

Consumer finance market structures differ between China and the U.S.

➤ Besides mortgages, auto loans, student loans, credit cards, revolving loans, and other consumer loans are all major components of household debt in the U.S. As such, the securitized assets in its retail ABS market consist mainly of auto loans, student loans, and credit card installments.

➤ Particularly, student loans has seen increasing issuance in recent years regardless of the Global Financial Crisis and Covid-19 pandemic. In 2020, total student loans outstanding exceeded the scales of auto loans and credit cards for the first time. Despite the growing debt burden for students, the U.S. government rolled out a series of debt-relief measures during the pandemic, such as the policy that allowed students to stop repaying principal and interest of their debts while not considering such cases as default. Consequently, the default rates of student loans have dropped sharply since 2020. For ABS backed by Federal student loans, their performance has been modestly impacted due to the government guarantee. For ABS backed by private student loans, we expect the performance of products assigned with S&P Global ratings to remain stable since their default rates, although moving up, would still fall within the range of base-case default assumptions by S&P Global Ratings.

U.S. household debt breakdown (excl. mortgages)

90+ days delinquency rates of major consumer loans in the U.S.

Source: FEDERAL RESERVE BANK OF NEW YORK, S&P Global Ratings, S&P Global (China) Ratings.

04 What to Learn from Others: U.S. retail ABS overview

U.S. auto ABS issuance hits new high while asset performance under pressure

➤ **Issuance**

U.S. auto loan issuance

USD,100m (left axis), Units,milion (right axis)

- Auto loan ABS issuance(left scale)
- Auto sales(right scale)

In 2023, U.S. car sales increased by 13% YoY, boosting auto ABS issuance to a new high of 120 billion USD. Major originators included auto finance companies, banks, and credit unions.

➤ **Asset Pool**

Asset characteristics of U.S. prime auto ABS

- Original loan terms> 60 mos. (left scale)
- WA APR (%)(right scale)

Same as in China, superior auto ABS in the U.S. has seen a growing share of long-term loans in its asset pool. What's different for the U.S. auto ABS market is a hike in its weighted-average interest rate.

➤ **Asset Performance**

Asset performance of U.S. prime auto ABS

- Prime recoveries(right scale)
- Prime 60-day DPD (left scale)

Due to household debt levels and macro environment, prime auto ABS products that performed well previously have come under pressure at their early stages since 2023. 60+ days delinquency rate of their asset pools rose to a 11-year high with recovery rate going down. The overall loss rate remains controllable.

BNPL mode rapidly expanding, retail ABS able to withstand cyclical movements

➤ The post-pandemic era, coupled with the Russian-Ukraine conflict, has dampened consumer confidence and their borrowings in Europe. Its consumer market has recovered slowly this year but is unlikely to grow. Nonetheless, the broad consumer sector has demonstrated solid resilience through cycles and seen the emergence of a variety of products to meet diversified needs during different periods.

➤ Amid a sluggish economy, the demand for the Buy Now Pay Later (BNPL) services and other unregulated consumer products has been increasing. Under BNPL, consumers can pay for their purchases normally over a 12-month period in installments, with no interest to be charged before delinquency. Suitable for small transactions, this financing method features swift disbursement, typically doesn't require credit check on customers and won't affect their credit scores. BNPL service providers charge transaction fees from vendors and interest for late payments as their source of profit, unlike traditional lenders who charge interest on loans.

➤ The European retail ABS sector has demonstrated viability through ups and downs of the broad environment. During the Great Financial Crisis and European debt crisis, the auto ABS and credit card ABS in Europe saw their 90+ days delinquencies surging to the peak. During the Covid-19 pandemic, 90+ days delinquencies picked up slightly and has went down a bit for now, maintaining at a sound level despite economic headwinds.

➤ Overall, asset quality of retail ABS would remain stable, since the European labor market is relatively stable and financial institutions owns abundant collateralized asset(auto loans), and has made adequate provisioning during pandemic and sold non-performing assets in various ways.

90+ days delinquency rates of asset pool for European auto ABS (%)

90+ days delinquency rates of asset pool for European credit card ABS (%)

04 What to Learn from Others: Overseas retail ABS trends

Development and trends of European and U.S. ABS markets

Increasing Auto ABS issuance originated by banks and credit unions

Compared to China's auto ABS sector that's dominated by auto finance companies, auto ABS transactions in the U.S have been increasingly originated by banks and credit unions. American banks, facing the impact of decreasing deposits and Basel Ⅲ, have a more urgent need to move auto loans out of their balance sheets. In 2023, auto ABS issued by credit unions grew significantly, totaling 2.03 billion USD from seven transactions, five of which are the first such deals for their respective credit union originators. Securitization has proved a more stable and reliable source of financing compared with deposits and funds from partners, and we expect more credit unions to tap into the ABS sector in the future.

Securitization of used car loans becomes increasingly prevalent

In Europe, used car loans make up a growing share of the securitized asset pool. This trend becomes even stronger following the undersupply of new cars and price hike for used cars. While new car shortage has been eased, prices for used cars remain elevated. As such, the percentage of used car loans in the securitized asset pool continues to increase.

Auto loan CLN mode is gaining traction

The joint issuance of credit-linked notes (CLN) by the U.S. Bank and Santander Bank has made this kind of synthetic structured products more popular, which link investment returns to the credit profiles of auto loans. Issuers (normally banks) pay coupons to investors as the provider of credit protection. Conversely, investors pay premiums to issuers in the event of credit incidents.

➢ Issuance

| Issuer | Issues CLN →
 ← Proceeds raised | CLN |

➢ Outstanding period

| Issuer | Pays interest →
 ← Pays premiums if credit event occurs | CLN |

➢ Maturity date (assume no credit incident occurs)

| Issuer | Pays principal → | CLN |

Source: S&P Global Ratings, S&P Global (China) Ratings.

标普信评

S&P Global
China Ratings