For professional investors - July 2019

REHABILITATION OF THE EUROPEAN STRUCTURED FINANCE MARKET

Private Debt & Real Assets

BNP PARIBAS
ASSET MANAGEMENT

The asset manager for a changing world

CONTENT

▼

TODAY, STRUCTURED FINANCE ASSETS – ASSET BACKED SECURITIES ("ABS") – FORM A EUROPEAN MARKET WITH OVER EUR 1 000 BILLION-WORTH OF OUTSTANDING ASSETS. PARTICULARLY IN EUROPE, THE MARKET'S GROWTH SINCE 2009 IS NOT ONLY INDICATIVE THAT INVESTORS VIEW STRUCTURED FINANCE AS AN ATTRACTIVE INVESTMENT OPPORTUNITY, BUT IS ALSO ARGUABLY SYMBOLIC OF TRUST IN THE ASSET CLASS BEING REGAINED. NOTABLY, REGULATORS AND KEY STAKEHOLDERS HAVE EVOLVED IN RESPONSE TO THE GLOBAL FINANCIAL CRISIS TO BRING THE EUROPEAN STRUCTURED FINANCE MARKET TO WHERE IT STANDS TODAY. EXAMINING THE MARKET'S RECENT EVOLUTION, BOTH FROM A STRUCTURAL AND REGULATORY PERSPECTIVE, WILL EXPLAIN WHY ABS ARE CURRENTLY AN APPEALING INVESTMENT OPPORTUNITY.

THE FUNDAMENTALS

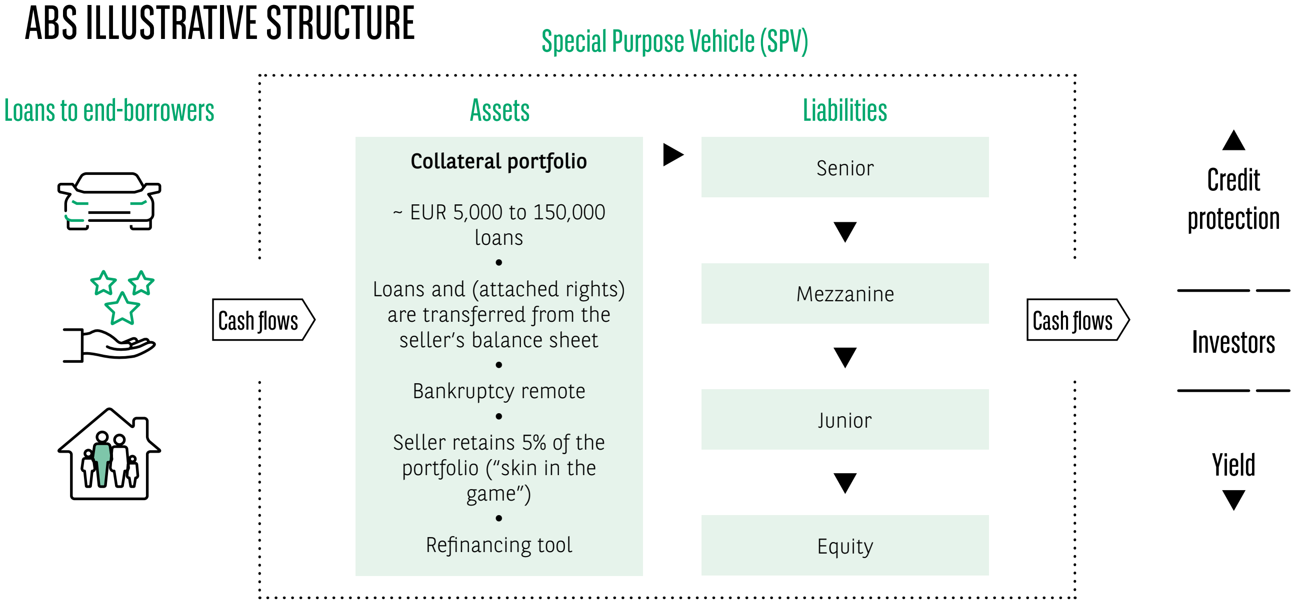
Before reviewing the evolution of the European structured finance market, it is important to understand the fundamentals of securitisation.

Securitisation is not an asset class, it is a financing technique. It is the process of repackaging illiquid assets into more liquid securities. It also represents an efficient way to finance the purchase of a portfolio of consumer loans, corporate loans or residential mortgages. However, it also comes with strict constraints on the quality of the portfolio and structure of operations.

ABS (including for instance Collateralised Loan Obligations – CLOs) are investible debt securities that are created from securitisation. As debt securities, ABS have (i) multiple tranches representing various levels of credit risk, and (ii) floating rate notes with negligible interest rate duration.

Notably, ABS is often used as a generic term for securitisation instruments. The securitisation process involves creating a Special Purpose Vehicle ("SPV") or Trust, which is bankruptcy remote and legally separate from the originator of the underlying assets (or loans). The SPV then purchases and holds the underlying assets from the originator, with the proceeds of the issuance (or the resulting of the series of cash flows) becoming the investible securities. ABS' coupons and principals are paid out from the cash-flows of the loans.

ABS ILLUSTRATIVE STRUCTURE



For illustrative purposes only. Source: BNP Paribas AM. Trademark, copyright, and other intellectual property rights are and remain the property of their respective owners. Source photos: thenounproject

Investors then purchase these ABS securities. Portfolio cash-flows are allocated to the ABS securities according to a pre-established policy of priority of payments in terms of credit or time subordination. Some securities are called senior notes, which are the first in the line of priority for receiving principal pay-outs. Other securities issued are called mezzanine and junior notes, which only receive principal pay-outs after more senior notes have been paid out.

The way actual cash-flows differ from initially expected cash-flows at issuance will drive the performance of ABS. This difference will come from portfolio performance parameters, such as defaults, unscheduled payments and structural provisions (as defined by the ABS documentation). It can only be effectively analysed by cash-flow modelling, based on the understanding and the dynamic analysis of both the underlying portfolio and the ABS structure. Hence, securitisation is not a uniform asset class but merely a form of access to specific credit profiles.

The vast majority of ABS comprises bonds backed by pools of loans to consumers: Consumer ABS are backed by personal loans, auto ABS are backed by auto loans, CLOs by corporate loans, and credit card ABS are backed by credit card receivables. ABS backed by mortgage loans are of two types: RMBS (Residential Mortgage Backed Securities) and CMBS (Commercial Mortgage Backed Securities).

In Europe, the vast majority of structured finance securities are floating rate with various risk profiles due to their different levels of seniority, each with their respective ratings. Senior notes form the majority of an issuance and usually hold a AAA rating. Depending on the underlying loans' credit quality, the proportion of AAA typically varies from 60% to more than 90% of the issuance and Investment Grade notes can make up from 80% to more than 95%.

ARE CLOS AND ABS THE SAME?

▼

CLOs are a form of ABS, though specifically backed by a portfolio of corporate loans. While ABS portfolios are mostly static, CLO portfolios require active management. The collateral manager selects the loans to ramp-up the initial portfolio and then actively manages the portfolio following specific guidelines.

EVOLUTION OF THE EUROPEAN MARKET SINCE 2007

STRUCTURAL CHANGES SINCE 2007 – REHABILITATION

	2007	Present
INVESTOR BASE	• Money market fund • SIV, CDO[1] • Banks, insurers • Credit funds • Hedge funds	• Banks, insurers • ABS-dedicated credit funds • Hedge funds
REGULATION	• Originate to distribute • No risk retention • Low capital charge	• "Skin in the game" • Higher capital charges • Transparency (eg STS[2])
RATING AGENCIES	• Less conservative approach • Low credit enhancement	• Enhanced due diligence • More conservative rating criteria • Higher credit enhancement

[1] SIV: Structured investment vehicle. CDO: Collateralised debt obligation. [2] STS: Simple, Transparent and Standard securitisation.

The global financial crisis, for the purposes of this paper defined as the period from 2007 to 2008, left observers with a persistent negative perception of securitisation. It is therefore pertinent to examine the key events that transpired and to underline the lessons learned.

Reviewed in hindsight, the crisis can be succinctly described as primarily a **US credit crisis due to a lax attitude toward lending (Subprime)** with few regulatory safeguards and limited credit assessments when repackaging loans into securities. Some investors in Europe and the US purchased such securities solely based on rating criteria (mostly AAA) without proper assessment of the nature and quality of the underlying portfolios.

This phenomenon led to a worldwide liquidity crunch. Given the significance of the US economy, the US-credit difficulties spread and hindered global liquidity by negatively impacting ABS (including CLOs) market prices irrespective of their credit quality.

The drop in ABS prices was primarily caused by forced selling from various types of investors:

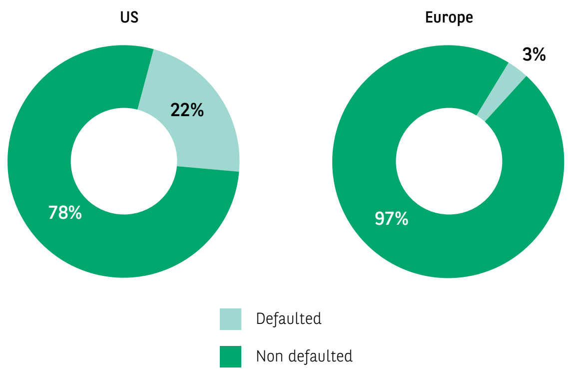
- Money market funds, which could no longer hold ABS when price volatility rose - given their short investment horizons
- Large investment vehicles, holding vast amounts of highly rated ABS with funding provided by money markets (in particular, Structured Investment Vehicles (SIVs)) were forced into liquidation by the declining marked-to-market prices.

The forced selling of some investors/vehicles drove prices down from levels fundamentally unjustified by asset quality, which in turn fuelled more selling. This vicious cycle was exacerbated by the disruption in the funding of banks.

Eventual depletion of forced selling followed by support from the central banks finally put an end to this deadly cycle.

More than a decade after 2007, data demonstrates that the **credit component of the global financial crisis was limited to US sub-prime RMBS** (and certain related asset classes), while other bonds like CLOs and the vast majority of European ABS were almost unaffected by credit losses. **Critically, the lax US lending criteria were not applied in Europe**, where a more rigorous approach was maintained. As a reaction to this crisis, regulatory rules were tightened, leading to first difficulties in using securitisation as a financing tool and then, subsequent supportive measures from central banks.

STRUCTURED FINANCE
CUMULATED DEFAULTS BY REGION (2007 - 2016)



Source: Standard & Poors, cumulated defaults observed on securitised assets issued in 2007 and before.

TOWARDS A STRUCTURED AND REGULATED MARKET

In reaction to the financial crisis, several regulatory barriers prevented European institutional investors from investing in the securitisation market. European regulators implemented stricter rules, largely inspired by the adverse US experience even though European securitisation had not suffered the same challenges.

Solvency 2 Capital Requirements (SCR) rules concerning European insurance companies in addition to pension funds demonstrated the gravity of treatment. Proposed charges per year of duration for senior AAA paper went from a fundamentally unjustified and punitive 7% in 2013, to a still unjustified but more reasonable 1% (for senior AAAs meeting the Simple Transparent Standardised criteria). SCR remains nonetheless elevated for so called type 2 securitisation (including most corporate loans securitisation) with 13% per year of duration.

The lack of investors in securitisation (especially with a long-term horizon) prevented the use of this efficient and useful technique, eventhough it was proven to be an effective method of financing the economy without consuming significant portions of the banks' balance sheets.

SIMPLE, TRANSPARENT AND STANDARDISED (STS) REGULATION

On 1 January 2019, a new EU regulation came into force aiming to **create greater transparency**. The regulation has set a framework whereby securitisation products may be assigned an STS designation, essentially creating a new category of high quality securities. STS designation will be an **indicator of high structural quality** and may allow for **favourable solvency 2 treatment**.

Obtaining STS designation and preferential capital treatment is a multi-stage process involving third-party verification and meeting prudential eligibility criteria.

The eligibility criteria cover the characteristics of the underlying assets, such as risk weightings, borrower concentrations and loan-to-value limits.

REHABILITATION OF THE EUROPEAN ABS

The ECB, recognising the value of European ABS as a means of financing the economy, took action to **provide liquidity** to the banking system, in tandem with pronouncing **ABS as a high quality asset** for this purpose.

For all intents and purposes, securitisation was promoted as a key tool to financing the real economy:

- Central banks first used ABS as high-quality assets to collateralise repo operations,
- The European Central Bank ABS Purchase Programme (ABSPP), launched in 2014, supported the European ABS market in two ways - signalling to investors the high quality of securities and providing a large bid on compliant assets.

These signals informed financial institutions that the ABS market was open as a source of funding and investors that ABS were appropriate and effective investments. The ECB also promoted proper credit assessments by sponsoring data transparency. This support enabled the rehabilitation of ABS instruments.

Even the planned end of ABSPP is not expected to be disruptive. In reality, the amounts purchased by the programme were only a small fraction of total ABS outstanding (2%) and a small fraction of the total quantitative easing (1%).

A crucial pillar of the rehabilitation of the European structured finance market was the evolution of key stakeholders, particularly investors. Following the financial crisis, one of the principal lessons for investors was to have a greater understanding of the investment structures, which has contributed to creating **a more stable investor base**. Moreover, tougher constraints imposed by regulators **require investors to exercise greater due diligence and ongoing monitoring.**

These regulatory requirements have eliminated a range of traditional investors, for many of whom such exposure was unsuitable. Notably, **banks are now financially stronger and remain natural buyers of AAA ABS and CLOs as part of their held-to-maturity investments**.

Regulators are also actively seeking greater transparency within the securitisation market, as demonstrated by the STS regulation implemented at the beginning of the year. STS regulation creates a category of high quality securities allowing beneficial treatment for banks (eligibility to Liquidity Coverage Ratio) and insurers (lower Solvency 2 capital charges), while also reinforcing investor obligations to conduct proper due diligence and monitoring of ABS and CLOs.

The market environment has also been improved, with third party pricing providers taking a more active role compared to the pre-crisis period when only issuers priced assets. This has allowed for greater pricing transparency and favours sufficient market liquidity.

EVOLUTION OF KEY PLAYERS IN THE SECURITISATION MARKET

▼

Issuers of ABS and CLOs are forced to have stricter control over the quality of the assets they originate. The so-called retention rule now ensures that the sponsor of an ABS/ CLO has “skin in the game” with a compulsory holding of 5% of the risk (5% of the underlying assets or 5% of the securitised bonds). European ABS issuers have to comply with the rule and investors have to check whether such compliance is respected.

While the retention rule has been dropped in the US for US CLOs, it remains in effect in Europe for all ABS and CLOs.

Rating agencies are more conservative when conducting their due diligence and now request higher credit protection for the different securitisation tranches.

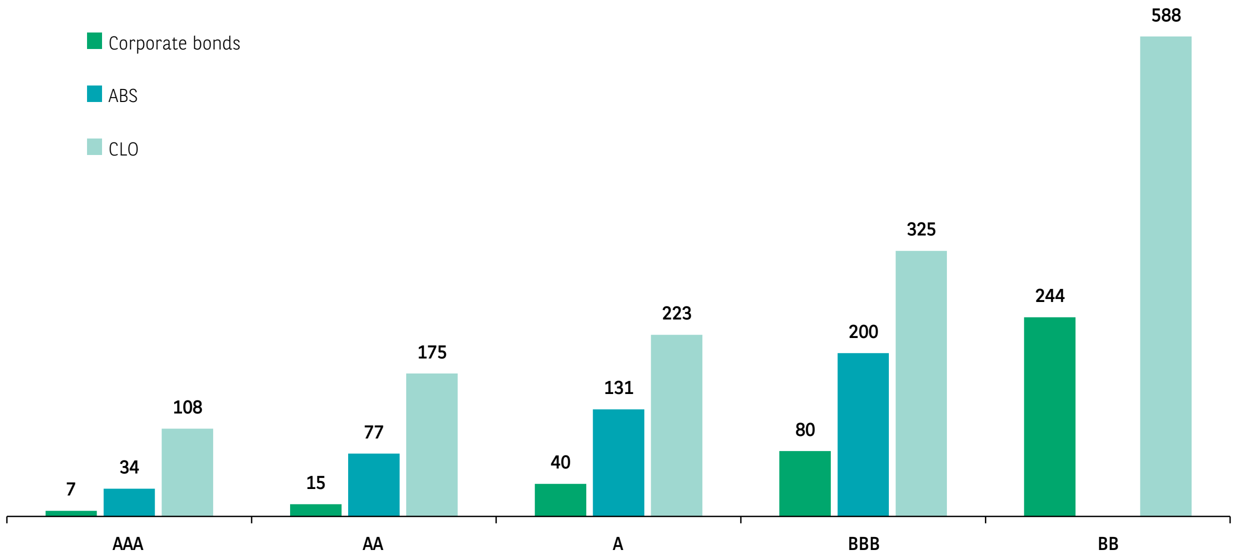
THE CASE FOR EUROPEAN STRUCTURED FINANCE

The overall rehabilitation of the market, combined with regulatory amendments and positive signalling from the ECB has created a supportive environment for European ABS/CLO investment. Fundamentally, ABS/CLOs are an attractive investment opportunity with **floating rates**. This is an attractive feature for investors who are concerned about the asymmetric risks posed by the current low rate environment in the context of the forecast end of quantitative easing. European ABS/CLOs also remain **appealing due to their spread premium** compared to similar quality credit instruments.

This positive premium derives from both relative complexity compared to bonds and an illiquidity perception (not necessarily justifiable). This premium is also sustained by the limited pool of investors in ABS, be it from a lack of the required technical resources or from the impact of adverse regulation (such is the case for certain insurers with Solvency 2 charges making securitisation unattractive).

EUROPEAN ABS BENEFIT FROM ADDITIONAL MARGIN

CREDIT SPREADS (BPS) BY RATING



Sources: Corporate bonds: average Libor option adjusted spreads by rating for non-financial corporate bonds (BAML, EN10/EN20/EN30/EN40/HE1C, 28th June 2019). ABS: average discount margins by rating for blended sectors of the European securitisation market (Markit, 28th June 2019). CLO: Citigroup 2.0 CLOs; BNPP AM, 28th June 2019. Based on ratings granted by Moody's, S&P, Fitch and DBRS. Past spreads are not a reliable indicator of future spreads.

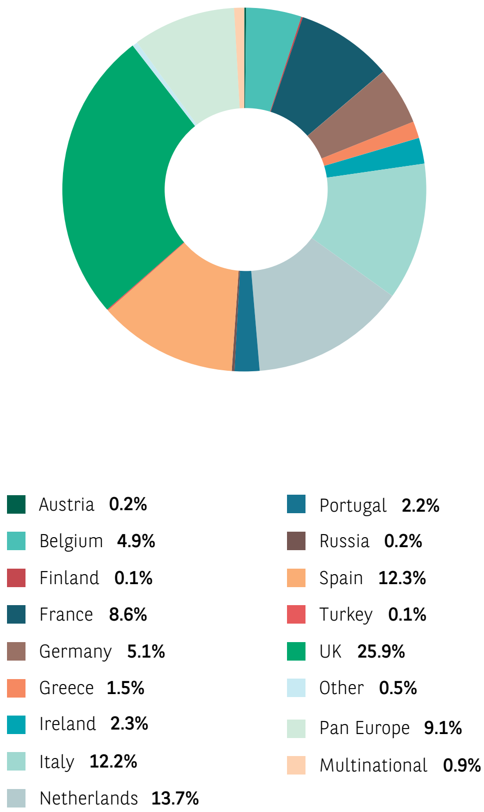
Notably, the introduction of STS securitisation is expected to lower Solvency 2 capital charges on compliant securitisation and may arguably trigger renewed interest from insurers.

European ABS and CLOs are also appealing for asset allocation. They enable investments in a portfolio of loans via publicly rated securities – being resilient assets linked to the real economy, which include residential mortgages, corporate loans and consumer loans. They expose investors to the credit risk of European corporates and European consumers.

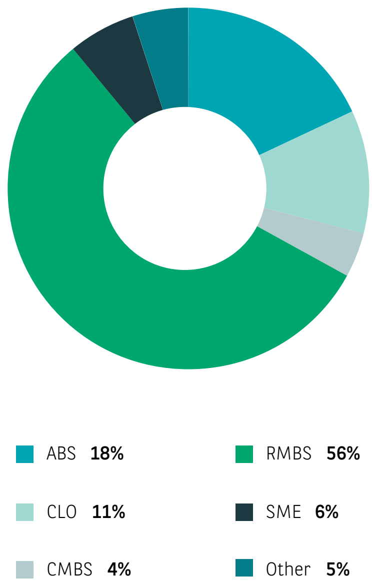
European ABS and CLOs offer diversification through their variety of sectors, regions and ratings, thereby allowing for a fine-tuned allocation across the economic and market cycles

DIVERSE MARKET - TOTAL OUTSTANDING ISSUANCE OF EUROPEAN ABS MARKET

BREAKDOWN BY COUNTRIES



BREAKDOWN BY ASSET TYPE



Source: BNP Paribas AM January 2019 indicative figures. This is for illustrative purposes only and should not be used as a basis for making any specific investment, business or commercial decisions

FINAL THOUGHTS

▼

MORE THAN REHABILITATED?

The difficulties caused by the financial crisis created an adverse perception of the wider structured finance market, however we posit that the credit issues were within the US and not Europe. The perceived value of the European securitisation is reinforced by the implementation of regulations promoting simplicity, transparency and alignment of interest with originators. These regulatory developments have helped the European structured finance market to today's stable and supportive environment for ABS/CLO investment. Securitisation continues to provide investors with unique access to real economy assets with various levels of risk and return and a large diversification potential.

June 2019 - CREATIVE SERVICES AM - P1906037

BNP PARIBAS
ASSET MANAGEMENT

The asset manager
for a changing
world