

CASH vs. SYNTHETIC ASSET-BACKED SECURITIES

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Abstract: During the past few years, in the recent post-crisis aftermath, financial and banking institutions around the world are exploring new alternatives to better secure their financing and refinancing demands altogether with the enhancement of their risk management capabilities. We will exhibit herewith a theoretical and applied comparison between the true-sale and synthetic ABS securitizations as financial markets-based funding and risks mitigation techniques, highlighting certain key structuring and implementation specifics, discovered during the research, on each of them.

Keywords: true-sale ABS securitization, synthetic ABS securitization, credit derivatives, cash asset-backed securities, synthetic asset-backed securities

JEL Classification: E44, F30, G15

1. Introduction

The main objective pursued throughout herewith research-paper is to grasp a few particular insights concerning capital markets-based funding, investment and risks mitigation instruments and techniques by means of true-sale and synthetic ABS securitization toolbox analysis. We will feature some key design, structuring and performing attributes by the use of individual assessments and similarity resemblances linking these two distinctive financing and risk management devices.

The research methodology employed within the research-paper is based upon qualitative research method, in order to gain the understanding of the underlying reasons and motivations, along with quantitative research method, in order to quantify the data and to generalize the sampling results. The undertaken research methodology is providing its concluding findings by means of individual assessments and similarity resemblances linking true-sale and synthetic ABS securitization funding techniques.

The theoretical and, especially, the applied contributions of this research-paper come in the form of emphasizing the main distinctiveness features of each type of ABS securitization methods, both from their theoretical and applied nature, and to provide meaningful guidance in terms of their individual implementations on the real-life financial markets' asset securitization transactions.

2. Assets Securitization

Securitization is the financial process consisting of blending various underlying assets classes, issuing new securities backed by this pool of assets and marketing them to institutional investors. Thus, the underlying assets are packaged and developed, via appropriate credit enhancement and liquidity facilities, into new forms of securities, featuring new and diversified risk/return profiles, which are distributed by means of capital markets to various investor groups. The underlying assets generate the income stream received by the noteholders of these securitized instruments and hence their name of Asset-Backed Securities (ABS). [1], [5]

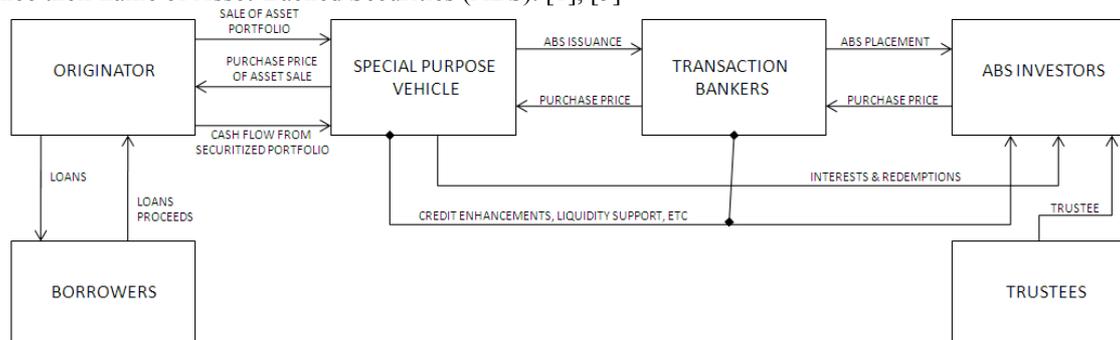


Figure 1. Simplified generic Assets Securitization transaction structure

Source: Author's representation

In other words, from the technical perspective, securitization is the funding process by which an entity (the originator) transfers on-balance sheet assets, or just the risks associated with these on-balance sheet assets, to a dedicated financial vehicle (the special purpose vehicle SPV) in exchange for cash, or for a special financial indemnity

in case of losses generated by the underlying assets, whereas the SPV gets financed by the issuance of securities backed by the on-balance sheet assets and their respective income stream. In this way, the main functioning principle of the securitization process is that it turns illiquid and non-tradable assets into tradable and freely marketable securities, while it is also removing completely the risks associated with these assets from the originators balance sheet. [12]

A) Distinction between various characteristics of assets securitization transactions

In short, there are two main alternative techniques to securitize on-balance sheet assets: [3]

(a) the true-sale securitization (or cash/traditional/conventional securitization), where the underlying assets and receivables are sold to the bankruptcy-remote SPV via a “true-sale” transaction that completely isolates these assets from the originator’s corporate risks. In turn, the SPV issues multiple classes and tranches of asset-backed securities each having different risk/reward profiles and sells these ABSs to the institutional investors by means of capital market operations. Lastly, the SPV uses the ABS proceeds to purchase the on-balance sheet assets and receivables from the originator;

(b) the synthetic securitization (or credit derivatives securitization), where the originator purchases credit protection via funded and/or unfunded credit derivatives from an SPV (or directly from a credit protection seller counterparty), which in turn issues and sells to investors multiple classes and tranches of funded ABSs.

In both cases, the originator continues to act as servicer of the securitized assets and receivables in relation to the final debtors.

Based on the type of the underlying assets and receivables, securitization transactions can be broken down into: [11]

(a) Mortgage-Backed Securities (MBS), which in turn are consisting of three main types: Residential Mortgage-Backed Securities (RMBS), Commercial Mortgage-Backed Securities (CMBS) and Collateralized-Mortgage Obligations (CMO);

(b) Collateralized-Debt Obligations (CDO), which are divided into two main categories: Collateralized-Loan Obligations (CLO) and Collateralized-Bond Obligations (CBO);

(c) Asset-Backed Securities (ABS) in the narrower sense, which have as underlyings a full spectrum of retail and commercial assets and receivables.

Based on the nature of the receivables involved in the securitization transaction, one can broke down the new issued asset-backed securities by their maturity into:

(a) securities issued by longer-term transactions which are called Asset-Backed Securities (ABS) with maturities of at least two years;

(b) securities issued by short-term (revolving) transactions which are called Asset-Backed Commercial Papers (ABCP), with maturities of up to one year.

Another differentiating characteristic of the securitization transactions is the nature of the ABS offering, which can be public or private offering. Public securitization transactions are those where the ABSs are publicly offered to a larger investors’ base via a general capital markets undertaking, while private securitization transactions are arranged specifically for a smaller number of qualified investors, similar to private placements transactions.

Another way to classify securitizations is by the number of their sellers: one can notice single-seller structures, where a single initiator provides the underlying assets and receivables; and multi-seller structures, where the underlyings are pooled together from several originators.

Based on the nature of underlying asset classes one can make a distinction between performing assets, where their respective obligors are servicing the debt obligations in good standing, and non-performing assets, where the debt obligations are overdue.

Another way to classify the nature of the underlying asset classes is to make a distinction between existing assets, where the securitized assets already exist at the time of closing the transaction, and future cash-flow assets, where the securitized assets will be produced in time (future).

However, irrespective of the nature of underlying asset classes or other transactions specifics, any securitization features some basic elements that remain valid in all forms of transaction structuring:

(a) there is always a form of risks transfer from originators to investors;

(b) there is always a predefined structure (called the waterfall) of cash-flow/loss allocations among the various classes and tranches of issued ABSs;

(c) there are always available some forms of credit and liquidity enhancement mechanisms (implemented by means of financial derivatives and deal structuring particulars) within the transaction.

B) Motivations of ABS securitization transactions

Assets and receivables securitisation transactions are driven by a myriad of economic and financial objectives for both originators and investors. Among them one can count: (a) optimizing the risk management; (b) diversifying the funding sources, reducing the funding risks and enhancing the capital raising management; (c) accessing new investors base; (d) reducing overall funding costs; (e) optimizing the balance-sheet management; (f) optimizing the overall assets liabilities management; (g) monetising the illiquid on-balance sheet assets; (h) optimizing the overall cash management; (i) achieving active portfolio diversification; (j) improving risk/reward profiles and corporate rating; (k)

expanding debt capacity; (l) optimizing the financial management and financial ratios; (m) optimizing the overall capital structure; (n) achieving off-balance sheet treatment; (o) improving the credit supply to the real economy; etc. [5]

In the case of banking and financial institutions acting as securitization originators, there are several additional economic and financial objectives to be mentioned: (a) optimizing the regulatory and economic capital management; (b) delinking lending growth from the capital base; (c) optimizing the costs of bank intermediation; (d) optimizing banking ALM; (e) optimizing the funding of loan portfolios; (f) enhancing the funding and refinancing management; (g) optimizing the overall risks management by enhancing the risks diversification; (h) optimizing the costs of fund raising; (i) enhancing the liquidity management; etc. [5]

The investors involved in securitization transactions are benefiting of the following advantages: (a) investing in rated instruments; (b) optimizing portfolios' returns and risk/return profiles; (c) expanding the nature of asset classes to invest in; (d) improving portfolios' risks diversification; (e) enhancing the overall risks management; etc. [5]

3. Financial Derivatives

A financial derivative is a contract of which value derives from the performance of an underlying entity, where the underlying entity can be any financial asset class. There are several categories of financial derivatives that can be broken down into a few major classes: commodity derivatives, equity derivatives, fixed-income derivatives, currency derivatives, interest-rate derivatives and credit derivatives; while the major derivatives instruments include forwards, futures, options, swaps, along with a myriad of variations among them. Most derivatives are traded over-the-counter (off-exchange) whereas some are traded on a regulated exchange. [2]

Financial derivatives are versatile instruments, they can be used for a large number of purposes: (a) financial risks hedging; (b) managing portfolios' exposures to various asset classes and their market performances; (c) accessing illiquid or inaccessible markets and/or assets; (d) optimizing the risks management; (e) implementing and enhancing arbitrage transactions; (f) optimization of portfolios' returns; etc [5]

With regard to the securitization transactions, one should note that financial derivatives are highly involved in almost any such transaction: [9]

(a) they are used to model the underlying cash-flows and risks when structuring the securitization transaction: with regard to modeling the interest-rate, currency and credit risks of the underlying assets;

(b) they are heavily used during structuring asset-backed securities: when blending the characteristics and risk/reward profiles of the issued ABSs;

(c) they are especially exploited while implementing synthetic securitizations: when structuring the overall transaction with regard to transfer of risks and managing the ABSs issuance.

Consequently, some derivatives are constituting common building blocks in most of the securitization transactions: [10], [13]

(a) currency derivatives: currency swaps; foreign exchange forwards, options and swaps; etc;

(b) interest-rate derivatives: interest-rate swaps; interest-rate caps, floors, collars; interest-rate swaptions; forward-rate agreements; cross-currency swaps; etc;

(c) credit unfunded derivatives: asset swaps; credit default swaps; total return swaps; credit default baskets; Nth-to-default credit default swaps; portfolio credit default swaps; credit default swaptions; and credit funded derivatives: credit-linked notes; synthetic collateralized-debt obligations; constant proportion debt obligations; synthetic constant proportion portfolio insurances; etc.

4. True-Sale ABS Securitizations

In the case of a true-sale securitization (or cash / traditional / conventional securitization as it is also called) the transaction involves the legal and economic transfer of the on-balance sheet assets to a special purpose vehicle (SPV), which in turn issues the asset-backed securities, that are in fact claims against the specific securitized assets pool, the repayment of which is provided for by the cash-flows originated from the transferred assets. The ABSs are issued in different classes and tranches of securities, each class, and within any class each tranche of it, has a different priority claim on the waterfall of cash-flows generated by the underlying pool of assets.

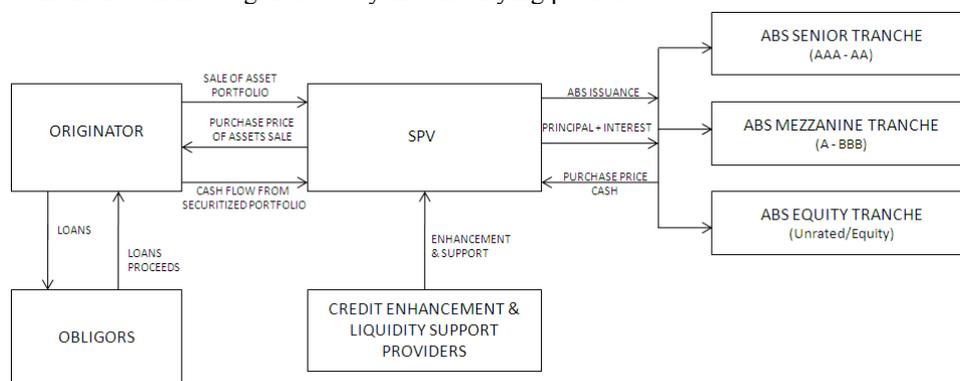


Figure 2. Simplified generic True-Sale ABS Securitization transaction structure

Source: Author's representation

The true-sale mechanism implies that all rights and obligations (ownership) related to the on-balance sheet assets, as well as all their related risks, are economically and legally transferred to the bankruptcy-remote SPV in exchange of cash at the time of transfer (selling), whereas the SPV issues and sells the ABSs to the institutional investors, who are thus receiving a legal and beneficial right to the underlying assets. The true-sale securitization gives rise thus to a legal separation, isolation, segregation and ring-fencing of the transferred assets in respect to the originator. Hence, the investors' repayment claims are satisfied mainly from the cash inflows generated by the securitized assets pool, which are passed to them via SPV's operations.

Hence, the primary objectives of a true-sale securitization are: (a) to remove the assets from the originator's balance sheet; (b) to diversify the funding sources and to achieve funding at better costs than available to the initiator; (c) to attain economic and regulatory capital relief; (d) to remove the financial risks related to the transferred assets from the originator's balance sheet; (e) to achieve off-balance sheet treatment; etc. [5]

True-sale securitizations make extensive use of financial derivatives, along with specific deal structuring mechanics (subordination, overcollateralization, excess/reserve spread, etc), both on the underlying assets transformation phase (when derivatives are used as mitigation mechanisms for credit risks, interest-rate risks, currency risks), as well as on the ABSs structuring and issuing phase (by means of implementing the credit and liquidity enhancements mechanisms). However, in this case, the derivatives involved in the true-sale securitization transaction are not offered, as per se, to the ABSs investors, but instead they are used to modeling and blending the transaction itself with regard to shaping the risk/reward profiles of the ABS's classes and tranches. [5]

5. Synthetic ABS Securitizations

In the case of a synthetic securitization (or credit derivatives securitization as it is also called) the transaction provides similar outcomes with reference to the economic substance of a true-sale securitization, excepting from the actual transfer of the underlying on-balance sheet assets. In this regard, a synthetic securitization's originator (i.e. assets' owner), which is referred to as the protection buyer, transfers the credit risks of a portfolio of on-balance sheet assets, called the reference portfolio or reference obligations, to another entity, i.e. the bankruptcy-remote SPV (in cases when it is used in the transaction), referred to as the protection seller, or directly to the institutional investors, via capital markets operations (whenever SPVs are not involved in the transaction).

Hence, one should note that in case of a synthetic securitization, even though the credit risks related to the reference portfolio are transferred by means of credit derivatives, the actual ownership of the reference obligations remains with the protection buyer, or in other words, the securitized assets pool remain on the originator's balance sheet after transaction is completed. Thus, the funded (CLN) and unfunded (CDS, TRS) credit derivatives involved in the synthetic securitization are in fact replicating the effects of a true-sale securitization without actually undertaking this type of transaction directly.

Therefore, in case of synthetic securitizations, the blending and tranching of ABSs' risks/returns profiles take place at the level of the structured transaction, where, by means of the credit derivatives, the economic interests and financial risks associated with the reference portfolio are transferred to the SPV, whereas the new issued asset-backed securities features the similar specifics of multiple classes and tranches with different priority claims. The cash-flows generated by the funded and partially funded ABSs (which are actually CLN instruments) issued within the synthetic securitizations are employed to purchase high-rated low-risk financial instruments that constitutes the so called eligible investments collateral for the transaction, whose primary role is to provide additional returns to investors in the synthetic securitization.

Hence, the primary objectives of a synthetic securitization are:

- (1) in case of funded structures: (a) to diversify the funding sources and to achieve funding at better costs than available to the initiator; (b) to reduce regulatory capital costs; (c) to attain economic and regulatory capital relief; (d) to remove the financial risks related to the on-balance sheet assets; etc;
- (2) in case of unfunded structures: (a) to replace the risk-weighting assets haircuts; (b) to reduce regulatory capital costs; (c) to attain economic and regulatory capital relief; (d) to remove the financial risks related to the on-balance sheet assets; etc. [5]

Following the particular transaction objectives, a synthetic securitization can be structured to provide exclusively financial risks transferring, in this case unfunded CDS/TRS credit derivatives are used, or to achieve both funding and financial risks transferring, where both funded CLN and unfunded CDS/TRS credit derivatives are employed.

Therefore, one should note that synthetic securitizations are much versatile transactions and hence they can easily tailor-made their structuring specifics to respond to various purposes one originator might have. Thus, synthetic securitizations may involve:

- (a) funded structures: where the payment obligation of the protection seller is paid in advance or collateralized at the start of the transaction;
- (b) unfunded structures: where the payment obligation is neither paid in advance nor collateralized at the start of the transaction;
- (c) partially funded structures: where certain classes/tranches are funded while others are unfunded

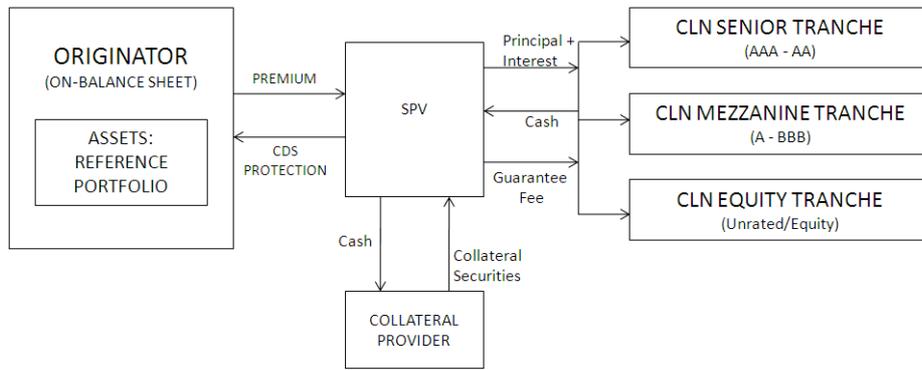


Figure 3. Simplified generic Fully-Funded ABS Synthetic Securitization transaction structure
Source: Author's representation

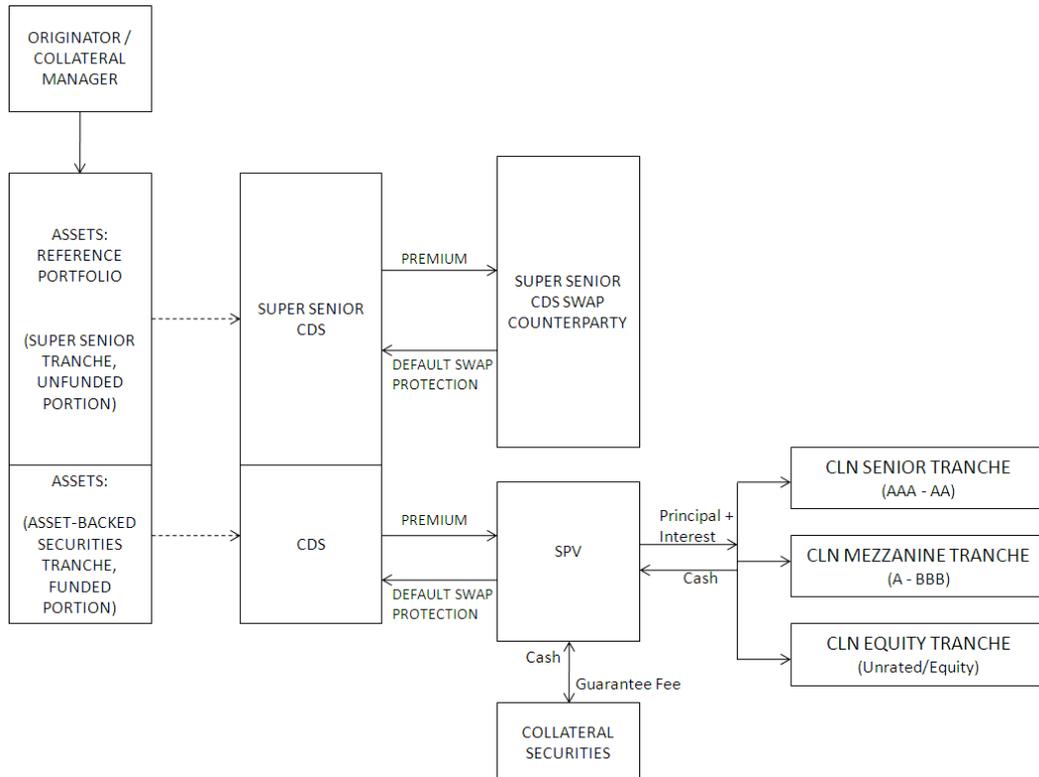


Figure 4. Simplified generic Partially-Funded ABS Synthetic Securitization transaction structure
Source: Author's representation

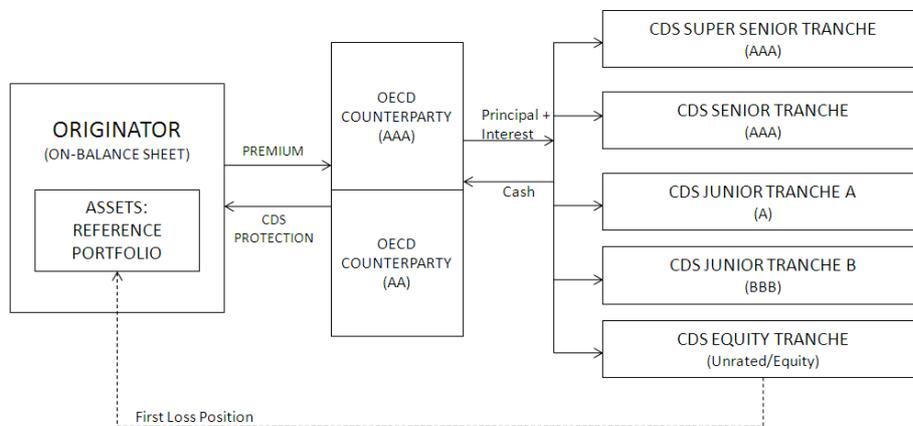


Figure 5. Simplified generic Fully-Unfunded ABS Synthetic Securitization transaction structure
Source: Author's representation

Furthermore, synthetic securitization structures can be implemented via either SPV deal structures (where the SPV acts as protection seller and it issues the ABSs to the investors) or by non-SPV deal structures (when the ABSs are issued directly by the initiator and placed straight to the investors, which act in this case as protection sellers).

The credit risks transferred and the protection achieved by implementing the synthetic securitization can be assessed in several ways, pending on each transaction’s nature. In a funded transaction, the notes issued could provide for a discount of the protection buyer’s repayment obligation on the notes upon a predefined credit events arising with respect to the reference obligations. In case of an unfunded transaction, the parties enter into an agreement pursuant to which the protection seller agrees, in return for the premium payments, that upon the occurrence of a predefined credit event in respect of a reference obligation, or of the reference entity itself, and subject to the satisfaction of certain predetermined conditions to payment, the protection seller will pay the pre-agreed credit protection amount to the protection buyer, which is calculated according to the agreed settlement terms. In most of the cases, the credit events referred to are construed in accordance with The International Swaps and Derivatives Association (ISDA) documentation.

Consequently, synthetic securitizations make extensive use of financial derivatives along with specific deal structuring mechanics, such as subordination, overcollateralization, excess/reserve spread, etc. (although their nature and usage extent varies on the grounds of specific transaction’s type, namely: funded, unfunded or partially funded), based both on the underlying assets transformation phase (when derivatives are used as mitigation mechanisms for credit risks, interest-rate risks, currency risks), as well as on the ABSs structuring and issuing phase (by means of implementing the credit and liquidity enhancement mechanisms). Furthermore, in this case, the derivatives involved in the synthetic securitization transaction are offered as per se to the ABS’s investors, in addition to the fact they are employed to modeling and blending the transaction itself with regard to shaping the risk/reward profiles of the ABS’s classes and tranches.

6. True-Sale vs. Synthetic ABS Securitizations

The interplay between True-Sale and Synthetic ABS Securitizations is inspiring for the particular opportunities that each type of transactions provides to both initiators and investors alike. As per above details, one can note that equally cash and synthetic ABSs are featuring meaningful funding, refinancing and risks management advantages to all transactions’ participants, however each category of ABSs is providing some particularities which can be optimally engaged following specific originators’ motivations and objectives.

We will sketch herewith further distinctive features of cash vs. synthetic ABSs from the practical transaction’s perspective:

Table 1. Comparison synopsis between True-Sale and Synthetic ABS Securitizations outlining the main attributes of Cash vs. Synthetic ABSs

FEATURES	TRUE-SALE ABS SECURITIZATION	SYNTHETIC ABS SECURITIZATION
Transaction objectives	Funding and transfer of the financial risks (in all cases). Both true-sale and synthetic securitizations enable the same volume of credit risks to be transferred to the ABS investors	Transfer of the financial risks (in all cases) and funding (just in case of funded and partially funded transactions). Both true-sale and synthetic securitizations enable the same volume of credit risks to be transferred to the ABS investors
Underlying assets and related risks treatment	Assets are sold to the SPV and all related risks are hence transferred to the SPV. The SPV becomes assets’ owner	Only financial risks are transferred via credit derivatives to the SPV, or directly to the investors (in case of non-SPV transactions). Originator remains assets’ owner
Underlying assets regime	Become off-balance sheet assets related to the originator. Transaction reduces the originator’s balance-sheet size (i.e. the volume of total on-balance sheet assets)	Remain on-balance sheet assets related to the originator. Transaction does not reduce the originator’s balance-sheet size (i.e. the volume of total on-balance sheet assets)
Advantages for the originator	Capital relief, risks transfer, funding (always), providing of additional credit capacities, economic and regulatory capital optimization, refinancing, portfolio transfer and balance-sheet cutback, financial ratios optimization (RoE, RoA), acquiring off-balance sheet treatment	Capital relief, risks transfer, funding (only for funded and partially funded transactions), facilitates the separation of funding and credit risk management, providing of additional credit capacities, economic and regulatory capital optimization, financial ratios optimization (RoE)
Carrying out transaction objectives	Originator acts as seller of the on-	Originator acts as protection buyer

		balance sheet assets	for the on-balance sheet assets
Transaction/Investors treatment	losses	A loss incurred in the underlying assets pool constitutes a loss for the SPV. Pending on the effectiveness of the credit and liquidity enhancements entailed in the transaction, whether such a loss breaks through the transaction's waterfall structure, then it will pass-through pro-rata to ABS' investors	A loss incurred in the referenced portfolio constitutes a loss for the originator itself. Such a loss translates into a loss for ABS' investors only to the extent that it is produced by the occurrence of predefined credit events. In the case of funded/partially funded transactions, a loss incurred in the eligible investments collateral translates into a loss for ABS' investors
ABSs Rating		The ABSs rating is primarily linked to the quality of the underlying assets pool, being completely de-linked to the originator's own rating	The ABSs rating is linked to the quality of the referenced portfolio, of the eligible investments collateral (whenever they are used), to the rating of the protection sellers' counterparties (in case of unfunded and partially funded transactions), to the originator's own rating (in case of non-SPV transactions), otherwise being completely de-linked to the originator's own rating (in case of SPV transactions)
Transaction/Investors treatment	returns	Returns are based exclusively on the cash-flows generated by the underlying securitised assets pool	Returns are based exclusively on the premiums paid by the originator (i.e. protection buyer) and the cash-flows (yields) generated by the eligible investments collateral (whenever they are used)

Source: Author's representation

7. Conclusions

Both true-sale and synthetic ABS securitizations constitute the most efficient secured funding alternatives available to banking and financial institutions in the global capital markets. The ability to raise more stable medium and long-term funding at very competitive terms, to access a broader pool of global investors, to increase the supply of liquidity to financial institutions are the main advantages to issuers involved in asset-backed securities programs.

In order to capture all the benefits emerging from true-sale and synthetic securitizations, financial institutions should run in parallel, simultaneously both true-sale and synthetic funding programs since they are complementing all together, allowing originators to effectively manage the fundraising and risks management aspects by optimally interconnecting local asset markets with global financial and capital markets.

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