

Covered bonds vs. assets securitization

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Abstract. *During the past few years, in the recent post-crisis global banking and capital markets context, financial institutions around the globe are exploring new options to better secure their financing and refinancing demands. We will exhibit herewith a comparison between covered bonds and asset securitizations as financial markets-based funding techniques, highlighting certain key structuring and implementation specifics on each of them.*

Keywords: covered bonds, assets securitization, capital and financial markets, financial institutions, funding and refinancing techniques.

JEL Classification: G15; G18; G21.

REL Classification: 11B.

1. Introduction

Covered bonds and assets securitizations are financial tools of integrating local asset markets with global financial and capital markets and they are employed as funding and refinancing techniques being used by any major financial institution to underpin its financial businesses and financing needs.

From global financial and capital markets perspective, when talking about the fixed income securities, investors are habitually seeking to invest in financial instruments that are asset-backed rather than corporate-backed.

Securitized asset-backed, mortgage-backed and collateralized-debt securities are structured financial instruments that seek to isolate themselves completely from the rating of the issuer and to rely entirely upon the quality of the underlying pool of assets and on the various structural credit and liquidity enhancements techniques involved in order to reach the highest ratings.

On the other hand, covered bonds are alternative investment instruments that could be identified as halfway between corporate bonds and mortgage-backed securities, since they are depending both on the quality of the issuer and on the quality of the pooled assets underlying the funding.

2. Covered bonds

As capital markets mortgages refinancing technique, covered bonds have existed in civil law continental European countries for more than 250 years, while in the recent past 10-20 years they had also becoming popular in the common law countries around the world. Covered bonds could be defined as a hybrid financial instrument, being a mixture of secured corporate bonds and mortgage-backed securities: they are an obligation of the issuer, and such they are matching of the secured bonds features, however, given that investors are also relying on the underlying pooled assets as a backup protection, covered bonds are featuring several asset-backed securities characteristics.

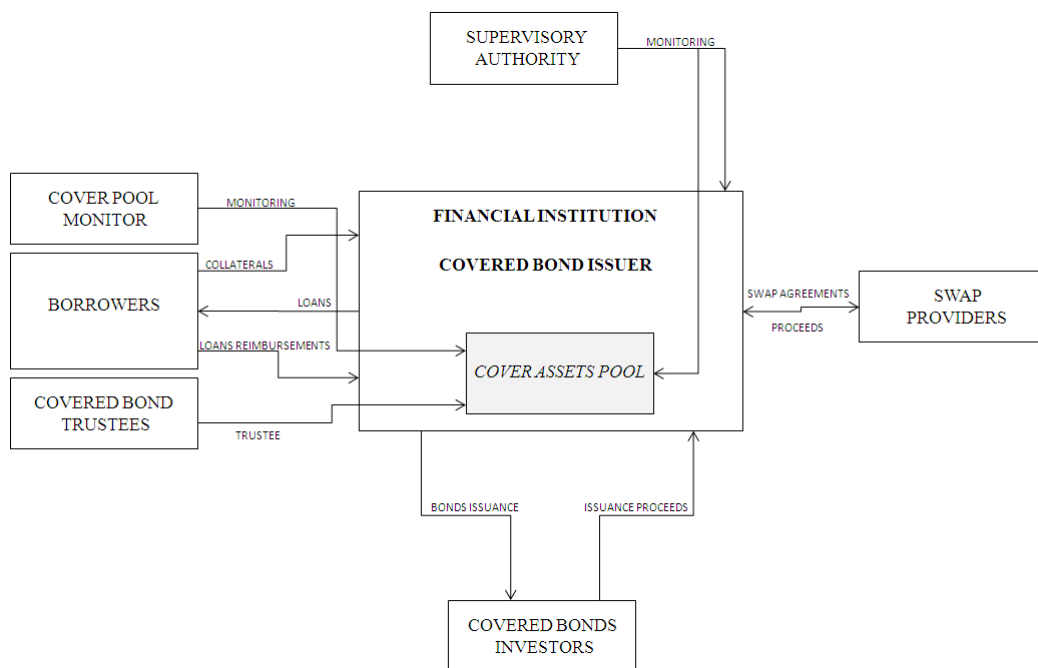
Covered bonds are securities issued by financial institutions, which are collateralized by cash flows derived from the underlying mortgages or public sector loans (the cover assets pool) as well as the general-business cash flows of the originator. Hence, covered bonds exhibit equally the recourse, both against the issuer and against the underlying collateral pool, and a simplified credit enhancement mechanism, which is employed to absorb any losses at a level suitable to reach improved ratings.

In the particular case of covered bonds, the asset-backing feature comes in the form of cover assets pool, which is providing bond investors a dual recourse, by

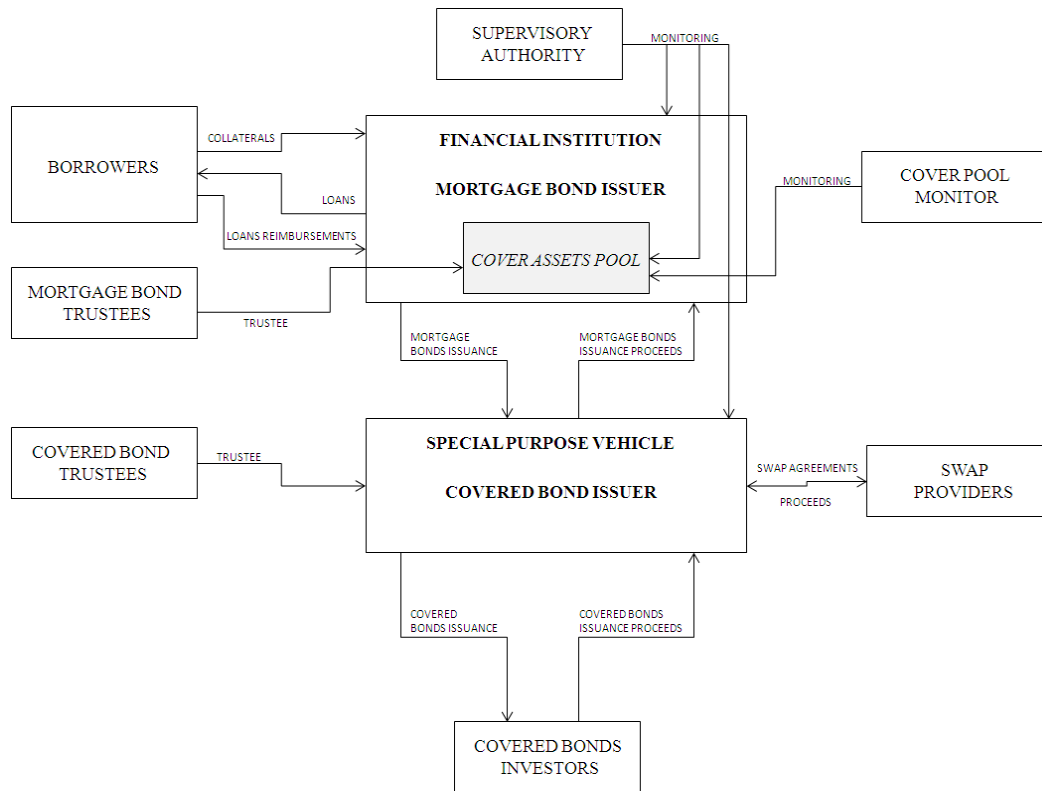
means of their capability to rely on the underlying pooled assets, which are virtually unaffected from the post-bankruptcy recourse and claims of the other creditors. However, this asset-backing facility is heavily dependent on the enforcing strengths of the local legislation (in case of the legislative/regulatory covered bonds) or on the effectiveness of transactions' legal structure (in case of the structured/private contractual covered bonds).

An important additional attribute of structured covered bonds sits on the fact that such transactions are involving the use of a special purpose vehicle (SPV) that agrees to buy the cover assets, even though with funding provided by the issuer and afterwards this SPV guarantees the repayments of the issued covered bonds. One of the main goals of structured covered bonds transactions is to provide a rating uplift, so that the covered bonds to be able to achieve a better rating than that of the issuer. However, the notches by which covered bonds ratings may go up above the issuer's rating are depending on numerous grounds: quality of the cover assets; extent and quality of credit enhancements (overcollateralization) employed; inherent transaction's asset-liability mismatches; transaction's liquidity risks, and so forth.

Figure 1. Simplified covered bonds transaction structure (direct issuance)



Source: Author's representation.

Figure 2. Simplified covered bonds transaction structure (SPV issuance)

Source: Author's representation.

A key feature of covered bonds transactions relates to the quality of the pooled assets. The underlying assets, which are forming the cover assets pool, involved in such transactions must satisfy certain attributes laid down in the local legislation and regulation provisions, while local regulators must carefully guard their quality at all times. A vital aspect of covered bonds assessment is the quality of the underlying mortgage loans. Since covered bonds transactions are structured based on a dynamic assets pool, the crucial issue here is the underwriting standards and the selection criteria for introducing new loans into the cover assets pool; this is where regulatory authorities' overseeing procedures are of a great importance.

Another essential structuring decision to be made with reference to cover assets is that it must ensure that the credit risk of the underlying assets pool is optimally absorbed by the credit enhancements mechanism employed. The traditional credit enhancement method involved in covered bonds transactions is the over-collateralization (i.e. the book value of the underlying pooled assets, after credit provisions, exceeds the notional value of the covered bonds). By applying this principle, the mortgage originator needs to secure that the cover assets is actually

over-collateralizing the outstanding covered bonds by the required minimum amount of over-collateralization ratio. The cover pool of collateral, which the issuer is required to maintain dynamically throughout the term of the issuance, must be replenished with new assets to maintain a specified credit quality. Thus, the over-collateralization principle must hold true not only at the issuance time, but also during the entire covered bonds program lifespan, as the covered bonds are amortizing over time, this over-collateralization ratio must be maintained at all times at the required minimum degree.

Since the covered bonds are repaying investors independently of the cash inflows arising from the cover assets pool, it means that the bondholders are actually repaid from the regular business-based cash flows of the originator. This is leading to an asset-liability mismatch of the covered bonds transactions. However, this mismatch does not imply that covered bonds repayments are duplicating the reimbursements processes of any other secured or unsecured bonds issued by the originator, even though they are all reflecting originator's transactions liquidity risks.

In the particular case of covered bonds, the originator's liquidity risk is shaped by the degree of how wide this asset-liability mismatch really is: if the mismatch is wide, then the covered bonds rely heavily on the inherent liquidity strengths of the bond issuer and then the covered bonds are actually corporate bonds biased; if this mismatch is narrow, then the covered bonds rely greatly on the cover assets liquidity strengths and then the covered bonds are in fact mortgage-backed inclined. In other words, in the case of covered bonds transactions this asset-liability mismatch is managed proactively by the originator/issuer itself, unlike in case of securitization transactions where the mismatch is transferred completely to the ABS investors.

On the other hand, this asset-liability mismatch is affecting deeply and directly the rating uplift that a covered bond would be looking to secure. The main goal of a covered bonds issuer is to raise new funding at reasonable lower costs by means of an instrument that boosts issuer's rating, and so this rating strengthening process is vital for the issuer. But, covered bonds ratings uplift are much harder to be secured compared to securitization transactions, due to the grounding fact that the covered bonds ratings cannot be entirely detached from the rating of the bonds issuer itself. In fact, in covered bonds transactions, the rating of the bonds issuer is actually greatly dominating the rating process of the covered bonds. However, rating agencies may go up to maximum six notches above the rating of the issuer in case of covered bonds.

Covered bonds help originators with the liquidity ratios but do not reduce risk-weighted assets or the leverage ratios. With a growing proportion of the balance

sheet encumbered, at some point, what may be a solution for liquidity can become a problem with leverage and/or capital regulatory levels. From accounting perspective, the underlying loans from the cover assets pools remain on the originator/issuer balance sheet at their pre-transaction values, meaning that if an accounting sale occurs in a depressed market this would lead to heavy losses being realized on originator's balance sheet. From regulatory perspective, covered bonds do not allow any de-leveraging or reduction to risk-weighted assets or any lowering of capital requirements, as cover assets remain on the issuer balance sheet. Furthermore, there is the need to maintain the origination pipeline active for the entire duration of issued covered bonds maturities, limiting thus issuers' ability to disengage from the market.

3. Assets securitization

Assets securitization represents an efficient alternative and a diversified financing and refinancing technique. Securitization transactions are based on the risks transfer from the issuers to the global financial and capital markets investors and there are carrying out at very competitive pricing terms.

Securitized assets are used to finance and refinance any sort of qualifying asset classes: from simple self-liquidating loans (mortgages, corporate loans, consumer credit) to any other more intricate types of assets (lease receivables, trade receivables, project finance, sovereign loans, etc) that are all featuring a stable cash flow and which can be structured into a reference portfolio that supports securitized debt.

The asset-backed securities are securities whose value and income payments are derived from and collateralized by a specified pool of underlying assets. The valuations and risks involved in asset-backed securities are delinked from originator's assets. Generally, asset-backed securities are issued by special purpose vehicles.

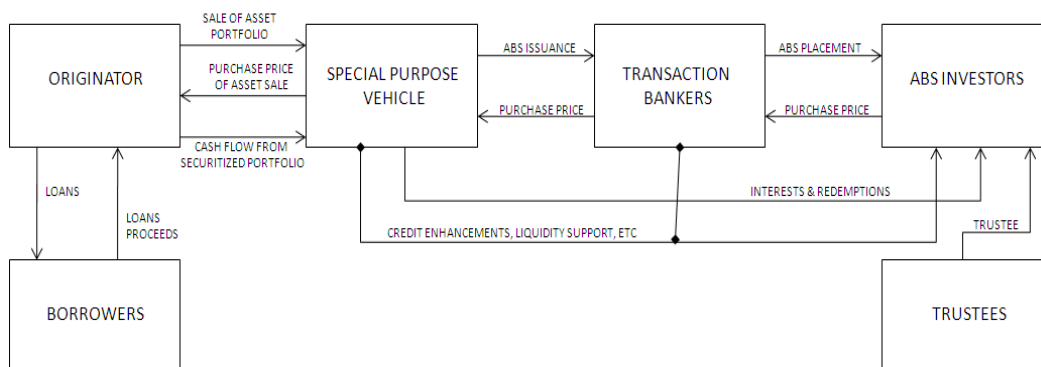
Securitization transactions allow originators to find new sources of funding (by moving the assets off-balance sheet) and new resources of refinancing (by borrowing against the assets to secure refinancing of their origination at a fair market rate). Other than facilitating the risks transfer, securitization is also reducing originators' borrowing costs and it supports financial institutions to lower their regulatory minimum capital obligations.

Furthermore, by means of securitization mechanics, the securitized assets are effectively detached from the originator's balance sheet as well as from its corporate credit rating notch. This unique securitization's characteristic is allowing the issuers to raise funds to finance the assets purchase more cheaply

than in the case the fundraising were based solely on the strength of the originator's balance sheet. Hence, unlike any other conventional debt transactions, securitization operations do not expand originator's liabilities, but they are in turn just supplying funds for any future investments without involving the originator's balance sheet growth.

Asset securitization is a two-step process. In the first step, a financial institution, the originator, holding virtually any type of income-generating assets, identifies the assets it wants to remove from its balance sheet and pools them into a reference portfolio. The originator then sells this assets pool to the issuer, which is a special purpose vehicle (SPV), which is an entity set up specifically to purchase the pooled assets, carrying out in this way their off-balance-sheet treatment for legal and accounting purposes. In the second step, the SPV issuer finances the acquisition of the pooled assets by issuing tradable interest-bearing asset-backed securities which are sold to institutional investors via global capital markets. The ABS investors receive fixed-rate or floating-rate payments, made from a securitization trustee account, which are funded by the cash inflows generated by the underlying reference portfolio incomes.

Figure 3. *Simplified assets securitization transaction structure*



Source: Author's representation.

Generally, the originator remains fully involved in the securitization transaction because it services the income-generating assets within the reference portfolio, it collects the cash inflows from the original debtors and it passes these payments (less its servicing fee) on either directly to the SPV or to the investors' trustee.

The underlying reference portfolio is divided into several tranches (generally designed as junior, mezzanine and senior tranches), each of which having a different level of risk associated with it and each being sold separately. Investment returns (principal and interest) and losses are both allocated among these tranches according to their seniority. The more senior tranches (and less

risky) have the first call on the incomes generated by the underlying assets pool, while the less senior tranches (and more risky) have the last claim on those underlying cash inflows.

This multiple tranches securitization structure is implemented such that to concentrate the expected portfolio losses in the junior tranche, which is the first loss position. The junior tranche is usually the smallest one, but it bears most of the credit exposure risks and thus it receives the highest returns. In this way, there are slight expectations of portfolio losses in the senior tranches, which are in turn very sensitive to any changes in the underlying assets pool quality. Additionally, the flexibility of tranching securitization transactions endows issuers with the extra ability to tailor-made the risk/return specifics of each of the tranches according to the risk appetite and tolerance of any group of ABS investors.

4. Covered bonds vs. assets securitization

While in an asset securitization transaction a pool of assets are transferred and transformed into asset-backed securities via a SPV, a covered bonds transaction is closer to the mimic of a secured corporate bonds issuance since there is no transfer of the cover assets pool to a SPV. Instead, the assets are identified, pooled, ring-fenced and then the collateral rights are created based on them according to local secured lending laws and only afterwards they are standing as a security for the bonds issuance. Hence, in a covered bonds transaction, in the event that the mortgage originator goes bankrupt, reference is made to the general secured local lending laws, or to some other local particular civil laws relating to the assets, which in turn grants the covered bondholders recourse against the underlying pool of mortgages over which the security interest had been created (thus, by way of legislative means). However, in practice, this venue leads to the secured assets to become more vulnerable to the bankruptcy risks of the covered bond issuer.

Asset securitization structures intend to remove the issuer bankruptcy risks by relying on the true-sale concept, whereby the underlying assets pool itself is sold out to a SPV by using a legally defensible sale structure. The SPV itself is a bankruptcy remote vehicle, which means that the issuer bankruptcy risk is removed completely from the transaction. Thus, in any asset securitization transaction the only risk to be concerned about remains the risk of credit losses within the underlying assets pool, which will be mitigated by means of credit enhancements techniques used to absorb any potential credit losses and hence the asset-backed securities issued by the securitization transaction are eligible to attain the highest ratings.

The isolation effect, achieved via the true-sale mechanics, is resulting into the pass-through nature of the securitization transactions (i.e. the correlation between cash inflows from the underlying assets pool and cash outflows to repay ABS investors), which in turn leads to several transactional implications: the maturity of the asset-backed securities is virtually the same as that of the underlying assets pool; if the underlying securitized loans prepay, so the ABS investors get prepaid as well; the repayment of the ABS liabilities are born from a static assets pool; the off-balance sheet transaction treatment of the underlying pooled assets.

Since covered bonds are considered as issuer's obligations it is not mandatory for them to exactly derive the cash inflows from the underlying cover assets pool with the cash outflows to repay the covered bonds investors, hence there are allowed limited mismatches in the cash flow structure of the transactions. Thus, covered bonds are not pass-through structures.

However, one should note that there are considerable differences between secured corporate bonds and covered bonds, even though both of them are considered issuers' obligations. In the case of covered bonds, the bondholders acquire a legal-based (legislative covered bonds) bankruptcy-proof (bankruptcy protection rights are granted to bondholders via special privileges) access to the underlying cover assets pool, whereas bond investors are allowed to get access and to use the collateral assets even when the issuer goes bankrupt. In the case of structured covered bonds, bondholders' rights are boosted additionally by means of transaction structuring particulars, whereby the incorporated SPV holds legal title over the pool of assets, it provides bankruptcy protection to covered bondholders and it acts as a guarantor for the mortgage originator/covered bonds issuer by providing a secondary recourse venue.

From accounting rules perspective: covered bonds are considered on-balance sheet transactions, hence their accounting treatment is similar to secured bonds; whereas asset securitizations are considered off-balance sheet transactions and they are benefiting from a particular accounting treatment in this regard. Securitization transactions allow the originators to shift the underlying loans off-balance sheet and thereby effectively recapture capital obtaining thus greater leverage. Covered bonds transactions do not provide such facilities to originators. Nevertheless, in case of synthetic securitizations, the securitization process involves the transfer of credit risks to third parties using credit derivatives or other similar securities, usually without actually removing the underlying portfolio of assets from the originators' balance sheet. Thus, synthetic securitizations are themselves a hybrid of covered bonds on-balance sheet securitizations.

Covered bonds transactions are structured typically as fixed-rate instruments with long-term maturities whereas ABS instruments are designed as fixed or floating-

rate securities with a medium and long-term maturities. Covered bonds are usually providing fixed-term maturities, while in the case of securitizations, where the return and maturity of the asset-backed securities depend directly upon the performances and respectively the prepayments of the underlying loans, ABS investors hold a security that could mature earlier than expected.

Securitization transactions are typically involving a variety of tranches of asset-backed securities offered to investors, each tranche having different payment features and different payment priorities or seniorities. In covered bonds transactions there are generally only a single tranche of bonds issued.

The securitization transactions are designed essentially as a static pool of assets, whereas in a covered bond structure the cover pool is dynamic and the bond issuer may move loans in and out of the cover pool.

Table 1. Comparison synopsis between covered bonds and assets securitization

Features	Covered bonds	Assets securitization
Accounting treatment	On-balance sheet.	Off-balance sheet.
Amortization	Bullet.	Various.
Classes of securities	Generally, covered bonds are issued as a single class of securities. In a covered bonds program, the originator may issue multiple time tranches, each tranche having hard or soft bullet maturities.	Usually, securitization transactions are structured with multiple different classes and tranches of securities, each class/tranche having different risks and returns specifics.
Collateral management	The originator dynamically manages the collateral pool. The originator directly settles any cash flow shortfalls and mismatches surfacing from the underlying cover assets pool, such that cover bonds investors bear no pass-through effects.	Collateral pool is typically static and the originator or an outsourced party services it. Any cash flow shortfalls and mismatches due to reference portfolio delinquencies and defaults are passed-through to the ABS investors upon exhaustion of all the credit enhancements buffers.
Collateral types	Generally formed of residential and commercial mortgage loans, public sector loans.	Virtually any type of income-generating assets.
Coupons	Flexible, predominantly fixed-rate.	Flexible, both floating-rate and fixed-rate.
Credit enhancement techniques	Over-collateralization.	Internal enhancements (over-collateralization, senior/subordinate tranching structure, first loss tranche, reserve funds, excess spread, etc) and external enhancements (bank guarantees, bank lines of credit, financial insurance policy covers, etc).
Funding sources and investor base	Global financial and capital markets funding, spread over a broad global investors base.	Global financial and capital markets funding, spread over a broad global investors base.
Interest and principal investors' disbursements treatment	Both interest and principal disbursements to covered bonds investors are derived and paid from originator/issuer's general cash flows.	Both interest and principal disbursements to asset-backed securities investors are derived and paid from the cover assets pool.
Investors base	Large base of eligible institutional global investors.	Large base of eligible institutional global investors.

Features	Covered bonds	Assets securitization
Investors cash flow allocations	Issuer-based cash flow allocations, which are not necessarily matching the cover assets pool cash flows.	Transaction-based cash flow waterfall specific allocations. They are matching exactly the reference pool cash flows, due to the pass-through nature of the transaction.
Investors claims treatment against the originator	If cover assets pool is exhausted, cover bonds investors retain full recourse claims against the originator.	ABS investors do not have any recourse claims whatsoever against both the originator and its assets, except if originator provides also credit enhancements to the transaction.
Investors demand	Large.	Large.
Issuance currency	Various, investors-base driven currency diversification.	Various, investors-base driven currency diversification.
Issuance size	Various (small to jumbo).	Various (small to jumbo).
Legal restrictions on originator or over the eligible collateral	Yes, according to local legislation provisions.	Generally none.
Legal structure	Covered bonds transactions represent a direct and unconditional obligation of the originator/issuer which is backed by the creation of security interests over the cover assets pool. Cover assets pool may or may not be parked with a distinct special purpose vehicle. Cover assets remain on originator's balance sheet, but they are identified as belonging to the cover pool. Transaction' bankruptcy remoteness is achieved either by legislative provisions or by operational structuring.	Securitization transactions are implemented by a true-sale of the underlying assets to a distinct special purpose vehicle. Securitized assets are effectively transferred to the SPV. Transaction' bankruptcy remoteness is achieved by complete isolation of the securitized assets from the originator. Nevertheless, in case of synthetic securitizations, the securitization process involves the transfer of credit risks to third parties using credit derivatives or other similar securities, usually without actually removing the underlying portfolio of assets from the originators' balance sheet. Thus, synthetic securitizations are themselves a hybrid of covered bonds on-balance sheet securitizations.
Maturities	Medium to long-term maturities, whereas maturing underlying assets are periodically replenished with new issuances.	Medium to long-term maturities, typically matching the maturities of the underlying assets.
Originator accounting treatment of sale on assets	The cover assets pool is not sold and therefore there is no gain to record.	Gain on sale is recorded when the assets are transferred to the SPV. However, this is not pertinent in case of synthetic securitizations.
Originator bankruptcy remoteness	Linked to originator.	Delinked from originator.
Originator bankruptcy treatment	Cover bondholders have full recourse on cover assets pool even if the originator is in insolvency proceedings.	Pooled assets from the reference portfolio are completely remote from the bankruptcy of the originator.
Originator/issuer	Originator financial institution (legislative covered bonds) or a special purpose vehicle (structured covered bonds).	A special purpose vehicle sponsored by a financial institution.
Originator/issuer motivations	Inexpensive funding, low-priced refinancing, to raise originator liquidity.	Inexpensive funding, low-priced refinancing, to raise originator liquidity, risk transferring and risk management, regulatory capital relief and arbitrage, active portfolio management, etc.

Features	Covered bonds	Assets securitization
Oversight and licensing	Originator/issuer is a supervised financial institution which is also licensed to issue the covered bonds. Both covered bond programs and the quality and management of cover assets pool are subject to special supervision from the local supervisory authority. Continuous due diligence is performed by local authorities, credit rating agencies as well as by the investors representatives (cover assets pool monitor).	SPV issuers are not subject to any regulatory oversight nor they need to be specially licensed to issue asset-backed securities. Continuous due diligence is performed by asset monitor, investors trustees, credit rating agencies, etc.
Payment acceleration terms	Terms are defined by covered bonds program statute. Typically it occurs following the originator/issuer default and/or covered bonds program default.	Terms are defined by the securitization prospectus where there are special clauses concerning performance triggers, covenants, etc.
Preferential claims treatment to collateral in the event of issuer's insolvency	Investors' preferential claims over transaction's collateral are provided by legislative provisions: segregation of the cover assets pool into a separate estate, apart of issuer's insolvency estate.	Investors' preferential claims over transaction's collateral are provided by inherent structuring provisions: preferential access to the collateral by ABS investors is granted as an integral part of the securitization financial contract.
Preferential rights treatment	Yes, investors are granted preferential rights.	Yes, investors are granted preferential rights.
Prepayment of assets treatment	Originator is typically bearing the prepayment risk. No investors prepayment is possible since this is not a pass-through structure, while cover assets are dynamically replaced within the collateral pool.	Investors are typically bearing the prepayment risk. Investors' prepayment is possible since this is generally a full pass-through structure.
Ratings	Limited linking to originator ratings. Rating uplifts relative to originator's senior debt rating are attainable. The uplifts are depending on various issues related to: covered bonds transaction particulars, local legislation provisions, the ratings of originator and all the rest of services providers, etc. Rating agencies must asses risks of cover assets pool but also the risks of the originator institutions as a whole.	Delinked to originator ratings. Rating uplifts relative to originator's rating are attainable. The uplifts are depending on various issues related to: overall credit and liquidity enhancements levels, specific tranches structure and waterfall characteristics, etc. Rating agencies must asses only the risks of pooled assets and transaction's credit and liquidity enhancements facilities.
Regulatory capital cost	Originators: According to Basel II risk weighting methodology which is applied in consideration to the entire cover assets pool. Investors: According to Basel II risk weighting methodology and depending on the invested covered bonds ratings.	Originators: According to Basel II risk weighting methodology which is applied only in consideration to originator's retained interest in the asset-backed securities. Investors: According to Basel II risk weighting methodology and depending on the invested asset-backed securities tranche ratings.
Regulatory capital relief	Originators: No capital relief whatsoever. It calls for regulatory capital provisions in consideration to the entire cover assets pool. Investors: Lower risk weighting according to Basel II methodology and depending on the invested covered bonds ratings.	Originators: Full capital relief, excepting for the residual holdings. It calls for regulatory capital provisions only in consideration to the retained risks of the originator. Investors: Lower risk weighting according to Basel II methodology and depending on the invested asset-backed securities tranche ratings.

Features	Covered bonds	Assets securitization
Relationship to the originator	Originator and issuer are typically the same, or they are both part of the same business group.	Originator and issuer are not necessarily the same, nor is the issuer necessarily part of the originator's business group.
Servicing the loan	No isolation of originator from mortgage assets, so servicing relationship unaffected.	Originators sold the loans, so servicing is an independent relationship, but originator can service loan under contract.
Tranching	No.	Yes.

Source: Author's representation.

5. Conclusions

Both covered bonds and asset-backed securities constitute the most efficient secured funding alternatives available to 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 covered bonds and asset-backed securities programs.

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

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