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Technical Report on EE relevant ESN business case

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Covered Bond & Mortgage Council

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Mainstreaming Transparent Assessment of Energy Efficiency in Environmental Social Governance Ratings

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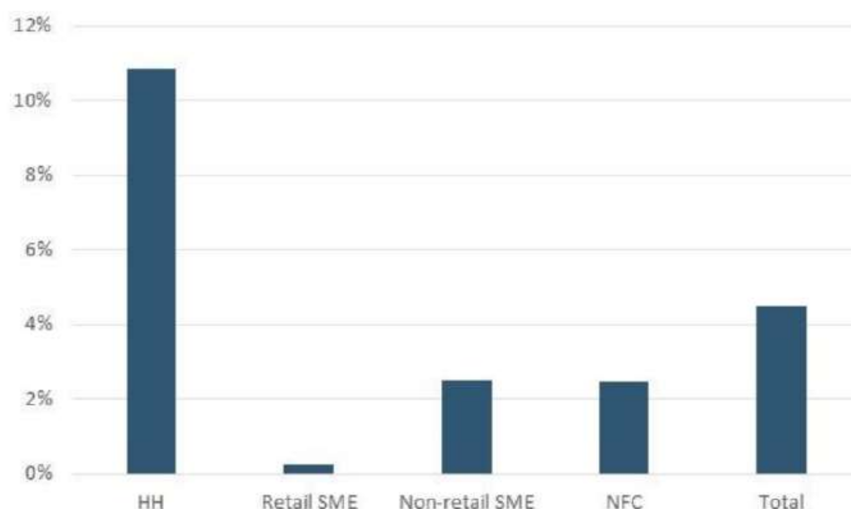
1. Introduction

The creation of an anticyclical, capital markets based financing toolkit for the SME sector in Europe has the potential to deliver a crucial macroeconomic driver which will secure competition, growth and financial stability. Furthermore, sustainable finance provides a valuable opportunity to set common best practices which blend the single market's capacity to support the climate transition of the real economy together with a global capital market investor base. In a completely new monetary landscape where SMEs are facing challenging interest rate scenarios, strong international competition and where the banking landscape is characterised by volatility of deposits and high capital charges, access to capital markets is critical to securing the systemic transition of the entire economy.

As indicated by the European Banking Authority (EBA) in its response to the European Commission's call for advice on green loans and mortgages[1], green loans represent on average 4.5% of total loans, green loans to SMEs represent only 0.2%, compared to 10.8% of loans to households.



Source: EBA, 2023

Capital market ESG due diligence, such as that provided for by the Covered Bond Label[2], is helping issuers and investors to apply long term ESG strategies with a focus on lending to households, which is underpinning the green transition with more than EUR 140 bn of sustainable covered bonds outstanding. The same impact can be achieved in the SME sector by developing ESG disclosure best practices for European Secured Notes (ESN) backed by SME loans.

Since 2015 and in the context of actions to build a Capital Markets Union (CMU), there have been efforts at EU level, also supported by the EMF-ECBC[3], to promote the development of European Secured Notes (ESN) as a dual-recourse, long-term funding instrument to allow for the financing of asset classes beyond the traditional covered bond collateral types, such as SME loans. This instrument is intended to combine existing covered bond techniques and market best practices to establish a

[1] https://eba.europa.eu/sites/default/files/2023-12/e7bcc22e-7fc2-4ca9-b50d-b6e922f99513/EBA%20report%20on%20green%20loans%20and%20mortgages_0.pdf
[2] Covered Bond Label
[3] https://hypo.org/ecbc/market-initiative/european-secured-note/

funding solution for lenders and a new product for institutional investors, which would also be accessible in a stress scenario, thereby acting as an anticyclical funding tool and, crucially, providing support for the real economy.

More recently, the European Commission (EC) mandated the European Banking Authority (EBA) in the context of a review of the EU Covered Bond Framework, to provide its views on ESN, in particular considering evolutions since 2018 when ESN were at first assessed by the supervisory agency. The EBA advice will assist the EC in preparing a follow-up report and potential legislative proposal, as provided for in the Covered Bond Directive.

Alongside the potential for ESN to provide support for the real economy, as Latham & Watkins note in their Client Alert Commentary entitled "European Secured Notes: Coming to a Bank Near You?", *"there is potential for SME ESNs to serve as a funding instrument for banks that is aligned with ESG objectives"*[4]*.* Latham & Watkins suggest that ESNs could, for example, attract a social label, through their focus on funding an economic sector that traditionally faces challenges in accessing credit. As far as the 'green' agenda is concerned, the authors suggest that *"depending on the issuing bank's underwriting strategy, SME ESNs may be welcomed as yet another sustainable finance instrument that could further leverage private capital for ESG aims".* Indeed, improving access to long-term finance for energy efficiency projects is key to achieving the EU's climate targets, aligning the COVID-19 recovery to the European Green Deal and, further to recent developments, helping secure the EU's energy independence as rapidly as possible. As a key driver of the real economy, the EU's businesses will be fundamental in supporting the climate transition and meeting these objectives.

As we have reported in other deliverables, however, while SMEs constitute an important customer segment for the banking industry, amounting to approximately EUR 2.4 trillion (as of June 2021)[5], banks typically face challenges in relation to their financing. These are variously reported as relating, for example, to: (1) the dynamic nature of SMEs i.e. the fact that they are very heterogeneous, active in a variety of different sectors and therefore difficult to categorise, (2) the rapidly-evolving needs of SMEs i.e. traditional bank financing is not necessarily compatible with newer, innovative, fast-growing companies and (3) constraints linked to credit risk assessment as a result of limited or a lack of documentation and no or very limited public information on their performance, depending on the country.

The consequence of this is that, historically, access to finance for SMEs has often been cited by these firms as a key challenge that they face in the pursuit of their business activities. This is borne out by the ECB's 2020 survey on access to finance for enterprises (SAFE)[6], which also notes that the extent to which this challenge is a concern varies in terms of SME category, size and country. Since the Global Financial Crisis in 2007-2008 and the resulting sovereign debt crisis, a number of measures have been taken to support and stimulate lending to SMEs, for example the SME supporting factor under the Capital Requirements Regulation (CRR) and monetary policy measures to restore the monetary transmission mechanism. In its SAFE results, the ECB notes that until the COVID-19 pandemic, a general improvement in SMEs' access to finance had been observed, although funding gaps remained in particular for market-based financing instruments.

[4] https://www.lw.com/admin/upload/SiteAttachments/Alert%202798.v3.pdf
[5]https://www.eba.europa.eu/sites/default/documents/files/document_library/Risk%20Analysis%20and%20Data/EU%20Wide%20Transparency%20Exercise/2021/1025102/Risk_Assessment_Report_December_2021.pdf
[6]https://www.ecb.europa.eu/pub/economic-bulletin/articles/2020/html/ecb.ebart202004_02~80dcc6a564.en.html

These challenges in relation to SME financing are inevitably also relevant and potentially amplified in the case of financing for SME energy efficiency projects, where the lack of standardised and transparent disclosure of SMEs EE investments and ESG performance represents an additional obstacle for banks in the provision of this type of financing, limiting the significant potential SMEs have in supporting the climate transition. Indeed, it is generally not possible to access energy efficiency, financial and ESG relevant information for non-listed SMEs (i.e. the majority of the market) via traditional financial data platforms. Yet, in several economic sectors (e.g. utilities and energy intensive manufacturing) transparent and reliable information on firms' energy efficiency factors is key to evaluating appropriately their credit risk. Indeed, long-term engagement of firms in energy efficiency investments can increase their profitability and reduce their credit risk.

As also reported previously, the TranspArEEnS infrastructure, which consists of an SME survey, database and EE-ESG rating, will greatly enhance the availability of standardised and transparent information on SMEs' EE-ESG credentials, as a complement to information on their financial and economic performance, and therefore support analysis of the credit performance of SME loans. A more robust understanding of the profile of SMEs could make an important contribution to unlocking the potential in general terms of ESNs, offering a wide range of benefits for issuers and investors, and of course SMEs through potentially enhanced access to financing.

The infrastructure could furthermore support issuers in meeting, for example, the disclosure requirements proposed by the EBA for ESNs and reinforce regulatory trust and confidence in ESNs in due course at a time when there is increasing focus on the impact of climate and environmental risks on banks' balance sheets linked to their exposures. This could, conceivably, based on a robust track record, lead to a more favourable treatment of ESNs from a regulatory perspective over time.

Remaining on the subject of the treatment of this asset class and using covered bonds as a benchmark, there is also potential for ESN to secure specific treatment in the context of the ECB's monetary policy operations. This would not only support the transmission of monetary policy with its focus on SMEs, but would also serve to drive investor appetite and therefore development of the market in ESNs, delivering a virtuous circle with benefits for market participants, financial stability and economic growth. As Richard Kemmish suggests in his Feasibility Study on ESN for the European Commission from 2018, *"clearly, as with the treatment of ESNs in LCR ratios, the treatment of ESNs in central bank monetary operations is of considerable significance to investors"*[7]. This chimes with the EBA's own findings which suggest that *"From an investor perspective, among the main drivers of interest, (i) the risk-return profile of the instrument and (ii) the regulatory treatment of the product would be keys. In this regard, the treatment under the LCR and ECB collateral frameworks would be significant for the development of an ESN market"*[8]. TranspArEEnS will be instrumental in underpinning the ESN instrument and therefore supporting and potentially accelerating this evolution. R. Kemmish (2018) goes on to note, *"we anticipate that well-rated ESNs are likely to become eligible collateral at the ECB with similar treatment to traditional covered bonds subject to the approval of the national central bank of the issuer".*

In this Report, we analyse the business case for EE-ESG ESN, asset eligibility criteria and structural features of the instrument, together with the potential regulatory and supervisory treatment, drawing

[7]https://op.europa.eu/en/publication-detail/-/publication/eba761b4-d026-11e8-9424-01aa75ed71a1

[8]https://www.eba.europa.eu/sites/default/documents/files/documents/10180/2087449/6fe04a31-ec0b-4ea1-9508-258ad2cf72d8/EBA%20Final%20report%20on%20ESNs.pdf?retry=1

on the standardisation and transparency provided by the TranspArEEnS infrastructure which will make the EE-ESG performance and activities of SMEs 'visible'.

2. ESN market to date

2.1 Definition of ESN

European Secured Notes ("ESN") are bonds issued by banks using technology similar to that used in the covered bond market to fund assets not typically financed via covered bonds or, specifically, not defined in member state covered bond law or in Article 129 of the Capital Requirements Regulations (575/2013)[9].

Most frequently in Commission, EBA and market discussions on the topic it is assumed that ESNs would be used to finance loans to small and medium sized enterprises although alternatives such as Infrastructure loans[10] and green assets[11] have also been discussed.

Box: European Commission working definition of ESN

"… the Commission Services define an ESN as a dual recourse financial instrument on an issuer's balance sheet applying the basic structural characteristics of covered bonds to two non-traditional cover pool assets - SME bank loans and infrastructure hank loans. ESNs could be issued as a classic direct on-balance sheet covered bond without transferring the assets to an external entity or as an on-balance sheet covered bond with a separate guarantor to whom the cover pool assets are transferred"

Source: European Commission Call for advice to the EBA on European Secured Notes, Oct 2017

Commission has included a review of the possibility of ESN legislation in its call for advice to the European Banking Authority[12] (Call for advice to the European Banking Authority on the performance and review of the EU covered bond framework, July 2023) as required by article 31 of the Covered Bond Directive.

2.2 Impediments to the development of the ESN market

Several impediments have been cited to the development of the ESN market, in particular:

Absence of legislation

No EU wide legislation has yet been passed to define ESNs, only one member state (Italy) has passed legislation (Obbligazioni Bancarie Collateralizzate) that would allow such structures but this has not been used in practice.

[9] "Exposures in the form of covered bonds" – which defines assets eligible to back European Covered Bond (Premium) according to the Covered Bond Directive (2019/2162)

[10] https://www.eba.europa.eu/sites/default/documents/files/documents/10180/2087449/6fe04a31-ec0b-4ea1-9508-258ad2cf72d8/EBA%20Final%20report%20on%20ESNs.pdf?retry=1

[11] https://op.europa.eu/en/publication-detail/-/publication/eba761b4-d026-11e8-9424-01aa75ed71a1 section 4.8

[12] Call for advice to the European Banking Authority on the performance and review of the EU covered bond framework, July 2023

By analogy to the Covered Bond Directive[13] and associated regulations, EU legislation could, i) define the structural features of ESNs including ensuring minimum standards of investor protection and public supervision, ii) protect the use of the label of ESNs to ensure standardisation, transparency and investor confidence and iii) form the basis for the appropriate treatment of ESNs in other legislation and regulations.

Absence of buyer incentives
Covered bonds that meet the requirements of the Directive (Either as European Covered Bonds or as European Covered Bonds (Premium)) receive an appropriate regulatory treatment for example with regard to the risk weight for bank investors, the treatment of ESNs in bank liquidity calculations, etc. ESNs would not meet the Directive requirements therefore are not eligible for such treatment.

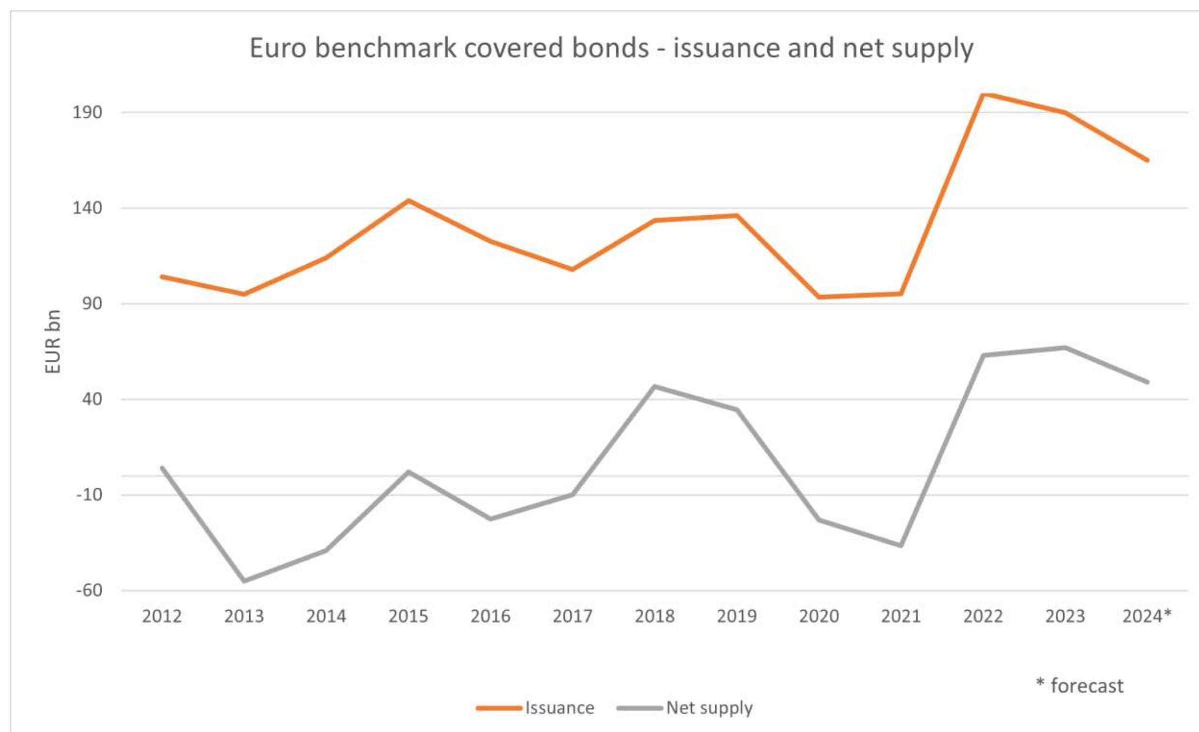
Absence of structuring support exemptions
Under the Resolution Directive[14] and the European Market Infrastructure Regulations[15], and in full accordance with the objectives of both of these pieces of legislation, qualifying covered bonds are exempt from bail-in provisions and from the obligation to centrally clear associated derivatives contracts. Without such exemptions the structuring of ESNs is materially more difficult and likely to result in a lower credit rating (therefore a higher cost of funding for the issuer) and lower levels of collateral efficiency.

Lack of wholesale funding needs
At the time of the previous studies into ESNs one factor holding back market development was the lack of new net wholesale funding from European banks, this was largely due to the ongoing support of the European Central Bank, for example in the form of the TLTRO funding scheme[16]. Of the wholesale funding that was undertaken, banks were obliged to conduct a significant amount of it in the form of senior non-preferred bonds in order to reach targets for a minimum amount of bail-inable bonds (MREL) under the Resolution Directive.

To further illustrate the extent to which these conditions have changed with the phasing out of the TLTRO scheme and as many banks approach their required levels of MREL the below graph of covered bond issuance shows that in 2022 and 2023 funding needs have approached near record levels.

Exhibit: New wholesale funding via covered bonds by year

[13] Directive (EU) 2019/2162 of the European Parliament and of the Council of 27 November 2019 on the issue of covered bonds and covered bond public supervision
[14] Directive 2014/59/EU of the European Parliament and of the Council of 15 May 2014 establishing a framework for the recovery and resolution of credit institutions
[15] Regulation (EU) No 648/2012 of the European Parliament and of the Council of 4 July 2012 on OTC derivatives, central counterparties and trade repositories
[16] https://www.ecb.europa.eu/mopo/implement/omo/tltro/html/index.en.html



Source: ABN Amro

Preference for traditional covered bonds

A comment made by several banks in the research of the 2018 Kemmish report was that, whilst the idea of ESNs is a good one it will never provide as good funding as covered bonds in terms of the cost of funds, the collateral efficiency and the stability of investor demand. Therefore banks with access to covered bond programmes would always prefer to use them than a new ESN and possible uses of ESN would likely be limited to cases where:

i) banks do not have access to covered bond programmes (for example, banks who do not originate mortgages),

ii) banks who have reached the limit of their covered bond programmes (banks with a heavy reliance on wholesale funding and smaller portfolios of mortgages) or

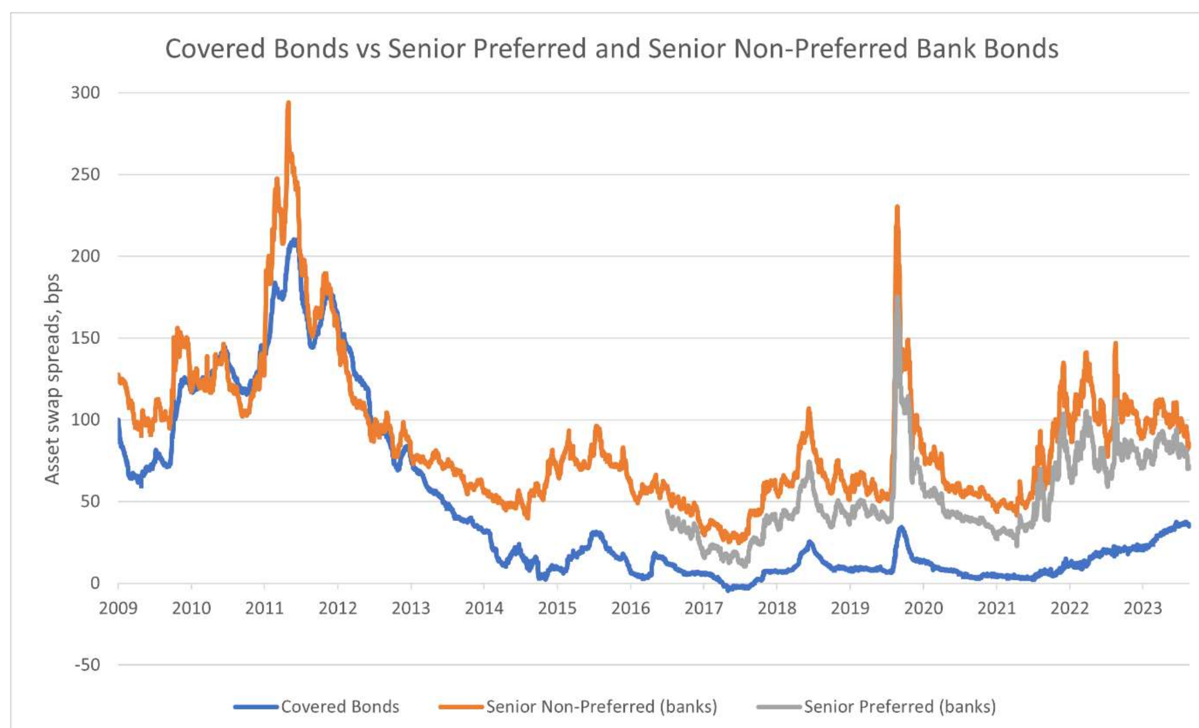
iii) special cases where the 'covered bonds are always better' argument may no longer apply. Possible examples of this cited in the research include countries with covered bond laws that fall short of international best standards, scenarios where investors are concerned about over-exposure to the traditional covered bond asset classes and countries where real estate prices are falling rapidly resulting in excessive requirements for additional mortgage collateral.

The smaller the perceived gap between the funding efficiency from covered bonds and that from ESNs, the more likely that the above cases may be relevant. Therefore, it is appropriate to consider the possible differences between funding via covered bonds and funding via ESN and the extent to which TranspArEEnS may address these.

Cost of funding

The cost of funding achieved via a covered bond is typically materially lower than that achieved by a senior unsecured issue of similar maturity from the same issuers.

Exhibit: Relative cost of funding from covered bonds and senior unsecured bonds



Source: ABN Amro.

Note, refers to average spread to swaps curve for all European bank bonds in the iboxx index. Data since July for senior debt refers to senior non-preferred debt (prior to this senior bank bonds were undifferentiated.

The saving is primarily due to the better credit rating of the covered bond and the regulatory treatment by investments in covered bonds for various classes of regulated investors. Secondary considerations may include greater secondary market liquidity on covered bonds and the existence of dedicated funds, indices and other market infrastructure which influences levels of investment in the asset class.

Collateral efficiency

ESNs are expected to have materially higher over-collateralisation (o/c) requirements than covered bonds backed by mortgage assets. The 2018 EBA report proposed a regulatory minimum of 30% to reflect the regulatory minimum (5%) for traditional covered bonds multiplied by the ratio of the relative loss for all SME loans and for all mortgage loans (which it estimated at 6).

The 2018 Kemmish report predicted an average o/c for ESN of 23%, compared with that for traditional covered bonds of 15.8%. This is based on the average o/c required by the credit rating agencies for traditional covered bonds, broken down into a) that which is required for credit losses and b) that which is required to address refinancing losses. The percentage required for possible credit losses was multiplied by the ratio of de facto over-collateralisation required in securitisations for the two asset

classes[17]. The percentage required to address refinancing risks was assumed to be constant between the two asset classes (loans to SMEs amortise far more rapidly, but have less developed secondary markets. It was assumed that these two factors roughly off set one another).

Structuring

According to issuers interviewed for the 2018 Kemmish report, it was widely believed that the structuring of ESNs based on loans to small and medium sized enterprises would involve considerable additional resources including IT costs, legal costs and structuring work. Particular concerns raised were uncertainty with regard to details of transaction structures, problems identifying eligible assets (given overlapping definitions of SMEs) and the limitations of existing data regarding the exposures.

2.3 ESN issuance to date

To date the use of the ESN concept has been extremely limited. One transaction in the EU and a small number in Turkey are secured on loans to small and medium sized enterprises, one law allows such assets (but has not been used) and two central bank allows a similar form of security as collateral.

Commerzbank SME covered bond

In 2013, Commerzbank launched the only bond, to date, structured as a covered bond and backed by SME loans from an EU Member State. The transaction was well received with 60 investors putting in over EUR 1 billion of orders for the EUR 500 million transaction[18]. The pricing was approximately mid-way between the senior unsecured debt of the same issuer for the same maturity and traditional covered bonds. The transaction was structured largely under contract law. It was rated AA2/AA by Moody's and Fitch, representing a rating uplift relative Commerzbank unsecured debt of four and two notches respectively.

Obbligazioni Bancarie Collateralizzate

The Obbligazioni Bancarie Collateralizzate law, passed in 2016 in Italy, is the only EU covered bond law to date to explicitly allow loans to SMEs as collateral. This law uses existing covered bond structures with minimal changes, but with very little guidance with regard to the eligibility criteria of the underlying assets. The exact definition of these assets, eligibility criteria and the necessary risk mitigation provisions are delegated to secondary regulation to be passed by, mainly, the Banca D'Italia. These regulations have not been passed to date and so far no bonds have been issued under the law.

European Secured Notes Issuer

In 2014, the Banque de France put in place a structure whereby qualifying banks could pledge assets to an entity in return for bonds which, in turn could be used as repo collateral by that bank.

Attivi Bancari Collateralizzati ("ABACO")

The Banca D'Italia allows loans to SMEs to be used as repo collateral on either a 'portfolio' or a loan-by-loan basis through the ABACO scheme. The receivables conform to the normal eligibility criteria for

[17] The use of data for actual portfolios used in securitisation transactions rather than all of such assets on a bank's balance sheet was considered appropriate given eligibility criteria used for ABS and – in future – ESNs means that the credit characteristics of a sub set of the total assets were more appropriate as the basis for an actual over-collateralisation estimate.

[18] "Commerzbank Issues SME-Backed Covered Bond", GlobalCapital, 21 February 2013

non-marketable assets being used as collateral (for example, they must be denominated in euros, must have a fixed principal, be subject to Member State laws, etc).

Individual loans can be used as collateral as long as they have a default probability of less than 1.5%. Portfolios of loans can be used as long as no individual loan in the portfolio has a default probability of greater than 10%. Valuation haircuts to be applied to these receivables depend on their credit quality, or in the case of portfolios of loans, their average credit quality. In the case of portfolios of loans, the minimum haircut is 40%, or 43% for pools with a higher concentration.

Use of SMEs in Turkish covered bonds

Loans to SMEs are permitted as collateral under the Turkish covered bond law. Although there have been several transactions, it is not possible to quantify the total market size as most of the deals have been private placements to international development banks. There has only been one publicly marketed SME loan backed covered bond and as this was a small transaction carried out seven years ago, it is not considered to be a relevant benchmark for pricing or collateralisation estimation.

3. Development of ESG ESN concept

The ESN concept could, in theory, support the objectives of capital market union and at the same time improve access to funding for Europe's SMEs. For various reasons outlined above the concept has not materially progressed past the conceptual stage so far.

The TranspArEEnS initiative has the potential to both:

- Align the ESN concept with the Union's climate change ambitions, both improving the access to finance for firms undertaking work which is vital to this objective and by incentivising all union SMEs to better align themselves with this objective, and

- Facilitate the development of the ESN market as a potential contributor to Capital Markets Union by addressing some of the factors holding the market back to date. This can be in the form of both practical aspects – for example, making securities more attractive to investors aligning their portfolios with Paris goals, or creating definitional certainty and transparency for cover pools – or by better aligning ESNs with EU policy by making a stronger case for appropriately aligned regulatory conditions for the product.

3.1 Definition

Although alternative definitions of ESG ESN could be contemplated (see below), a working definition of ESG ESN for current purposes is shown in the below box:

Box: Proposed definition of ESG ESN

" A dual recourse instrument issued by a Financial Institution secured on eligible assets, applying proven technology from the covered bond market to create robust, transparent and high credit quality securities with a high degree of pan-Union standardisation. Criteria for asset eligibility to include loans to small and medium sized enterprises with a high minimum TranspArEEnS rating and other credit and economic criteria analogous to those applied in the covered bond market."

Source: authors

Specific aspects of this definition require further discussion:

Cut off point.
The minimum required TranspArEEnS score should balance the need to use only assets with high standards for ESG with sufficient assets being available to support the development of the market.

Although many banks have very large portfolios of loans to SMEs, the 'traditional' eligibility criteria (for example, those establishing a minimum credit quality for the assets) and the fact that many SMEs in the cover pool will not have a TranspArEEnS score (at least initially) suggests that only a small portion of total SME exposures will be eligible.

On the other hand, it is not clear what minimum ESG standard will be required by different types of investors and further work will be required to establish this. A cut off point that defines the top 15% of ESG rated firms, for example, by analogy to the rules regarding building energy efficiency, might be appropriate.

Data integrity.
The TranspArEEnS score used will need to be subject to some form of external review or other form of verification if it is to be the basis for the treatment of the securities (for example in the investor regulations discussed below) and to address investor concerns regarding 'greenwashing'. Possible precedents for this are the rules in the Capital Requirements Regulations regarding the valuation of real estate for LTV calculation purposes for traditional covered bonds, or the role of ESMA as regulator of rating agencies to the extent that a credit rating is required for some aspects of the prudential treatment of traditional covered bonds. We note that certain ESG rating methodologies are already subject to ESMA oversight.

Dynamic pool.
As traditional covered bonds test asset eligibility on an on-going basis and are dynamic by their nature, so ESN ESGs will need to ensure that the TranspArEEnS score is subject to periodic review to ensure ongoing eligibility. We understand that the market norm is for TranspArEEnS scores to be valid for 12 months. Assuming that the loan to the SME (and in turn, the ESG ESN) are for greater than 12 months there must be some way of ensuring on-going compliance with this eligibility criteria. This may involve covenants in the underlying loan documentation requiring TranspArEEnS score maintenance and/or the establishment of an IT system to update TranspArEEnS scores for identified borrowers on the IT systems of the issuing bank.

Taxonomy alignment.
It is possible that some investors will require taxonomy alignment as an eligibility criteria for the underlying assets. It is unclear if this can be linked to the TranspArEEnS score or for how many investors this factor will be relevant and further work is required on this topic.

Non TranspArEEnS assets.
Covered bonds, in addition to funding 'traditional' assets such as residential mortgages, typically also have other assets ("substitute assets") in a cover pool (subject to size and credit quality restrictions specified in the Capital Requirements Regulations) for technical reasons, for example, receivables under derivative contracts or cash held for liquidity management purposes. Presumably ESG ESNs will require similar assets but whether this will in any way invalidate the ability of ESG focussed investors

to buy the securities and whether any ESG related safeguards on such substitute assets are appropriate is yet to be determined.

Reporting requirements. Covered bonds have a very high and standardised degree of transparency according to the laws of all member states and market practice, investors value this transparency highly. The transparency of non-ESG related factors (for example, credit standards) can be aligned with covered bond disclosure standards, mutatis mutandis, relatively easily. However, disclosure of the ESG data will need to be assessed in conversation with stakeholders. For example, should a cover pool break down ESG scores within other reported variables (eg, in industry X, Y% of assets had a TranspArEEnS score of A). In addition, is the disclosure of a single TranspArEEnS score sufficient? or would the breakdown of this score into its constituent parts add value to investor analysis?

3.2 Alternatives and variations to the definition

Remove SME as an eligibility criteria

As the ESG ESN is seen as a progression of the ESN concept, the core definition of ESNs as a way of funding SMEs was assumed. Whilst the importance of SMEs to the Union's economy in general and Paris goal aligned economic activity in particular and the importance of ensuring their ongoing access to appropriate financing cannot be denied, there is in principle reason why the ESG ESN should not also fund loans to larger corporates with sufficient ESG credentials.

Removing the requirement that loans are to SMEs would remove two of the major structuring difficulties identified with the product: defining SMEs and identifying which of a bank's exposures are to SMEs under whichever definition is used. Commission's 2003 definition[19], i) creates significant reporting difficulties for banks (in recognition of which CRR article 501 allows banks to use an abridged definition for capital purposes), ii) is ambiguous regarding whether member states are allowed to apply their own definition (see preamble to 2003 definition, recital 7) and iii) the €1.5mn exposure limits in the CRR amendment to the definition are ambiguous with regard to certain forms of exposure.

However, whilst removing the SME eligibility criteria would make structuring more straightforward it could be argued to weaken the case for preferential treatment for the asset class to the extent that support of SMEs is a policy objective. Furthermore, the inclusion of larger exposures into a pool of smaller exposures to SMEs would create additional structuring complexities, not least for rating agencies modelling the credit performance of the underlying assets (small 'granular' loans to SMEs are typically rated in a very different way to larger loans to corporate borrowers). Finally, the working definition of SMEs applied by most banks is often a proxy based on CRR article 501.2 (c) (the 'exposure proxy'), it could be argued to be sufficiently close to the EU SME definition and implementable as an eligibility criteria in practice.

ESG linked financing

Another alternative basis for ESG ESNs would be to restrict the eligibility criteria to loans which directly fund taxonomy aligned or other ESG linked behaviour. This would have the benefit of establishing a closer link between the funding and the desired outcomes, would strengthen the case for favourable regulatory treatment for the product and would ensure that firms with lower ESG scores could still fund ESG aligned activities (for example if a firm in an energy intensive industry that currently relies on fossil fuels were to borrow to put in place a more sustainable energy source, or to reduce energy

[19] Annex 1, article 2 of 2003/361/EC

consumption). Further, the requirement to use the loan proceeds for the specific outcome could improve reporting and transparency for firms who would normally have no incentive to obtain a TranspArEEnS rating. This alternative is analogous to the 'use of proceeds' green bonds (see Discussion of Alternatives section).

However, there are some very specific drawbacks in such an approach. Firstly, the market for SME 'use of proceeds' loans has not developed and might not do so in the future. Even if such products were to be introduced, the lack of market size would be a constraint on the ability of banks to use assets of this type for the foreseeable future. Secondly, such banking products would require burdensome reporting requirements for borrowers that might be so onerous that it might preclude their use of such facilities.

4. Structural differences from covered bonds

In order to use the core definition of ESG ESN, certain amendments will need to be made to both traditional covered bond structures in each member state (discussed in section 4.1) and certain EU wide rules regarding the treatment of covered bonds (section 4.2).

4.1 Amendments to Covered Bond best practice

Although from an investor perspective, covered bonds are highly standardised across the Union, they are structured according to specificities of each member state under the over-arching framework of the principles based Covered Bond Directive. This directive was based on analysis of the 'best practices' in each member state by the European Banking Authority, 2014.

As it would be inappropriate to propose an ESG-ESN Directive in the absence of any existent products and as the necessary changes would need to be on the basis of national law, it is most appropriate to consider the necessary changes relative to the core best practices as defined by the EBA. These best practices were already analysed in the context of ESNs by both the EBA and Kemmish reports of 2018.

Most of the EBA best practices are applicable to ESG ESN directly, although some require further discussion. The full list of best practices is:

Best practice 1: Dual recourse: the (covered) bond must grant the investor: a claim on the covered bond issuer and in case of issuer's default, a priority claim on the assets included in the cover pool.

Best practice 2 – A: Segregation of the cover assets: the identification and effective segregation of all the assets over which the investor has a priority claim should be ensured.

Best practice 2 – B: Bankruptcy remoteness: the legal/regulatory covered bond framework should not require the payment obligations attached to the covered bond to automatically accelerate upon the issuer's default or resolution.

Best practice 2 – C: Administration after the issuer's insolvency: the legal/regulatory covered bond framework should provide that upon issuer's default or resolution the covered bond programme is managed in an independent way and in the preferential interest of the covered bond investor.

Best practice 3 – A: Composition of cover pools: cover pools should be structured and managed so as to ensure that the composition does not materially change throughout the life of the covered bond.

Best practice 3 – B: Cover pools with underlying assets located in different jurisdictions: the covered bond framework should provide that cover pools are generally limited to assets located in the EEA (with some exceptions allowed)

Best practice 4 - A: LTV Limits: the framework should set maximum LTV limits

Best practice 4 – B: **LTV Measurement and frequency of valuation**: LTVs should be measured at least annually, property valuation should be based on transparent valuation rules.

Best practice 5: Coverage principles: the covered bond framework should ensure that all the liabilities are covered by assets and that a legal/regulatory minimum over-collateralisation level constitutes a regulatory best practice.

Best practice 6 – A: Use of derivatives: derivative instruments are allowed for risk hedging purposes, they should not be terminated upon issuer insolvency.

Best practice 6 – B: Liquidity buffer there should be a requirement to mitigate liquidity risk in the covered bond programme, by means of liquid assets available to cover out-flows of the covered bond programme over a certain time frame.

Best practice 6 – C: Stress testing the covered bond framework should require covered bonds issuers to carry out stress test exercises on at least, the following factors: - interest rates, currency rates,credit of the assets, re-payments, the liquidation price of the assets and operational risks.

Best practice 7 – A: Cover pool monitor at the establishment of a given covered bond programme, a cover pool monitor is appointed.

Best practice 7 – B: Supervision the competent authority should approve the establishment of a covered bond programme.

Best practice 7 – C: Duties and powers of the national authority in insolvency: there should be a description of the duties and powers of the competent authority in a scenario of issuer's default.

Best practice 8 – A: Scope of disclosure issuers should disclose aggregate data on the credit risk, market risk and liquidity risk characteristics of the assets and bonds and other relevant information.

Best practice 8 – B: Frequency of disclosure, should be at least quarterly.

Many of the best practices are directly applicable to ESG ESNs and do not warrant further consideration. Both 2018 reports agreed that the best practices 1, 2-A, 2-B, 2-C, 6-A, 6-C, 7-A, 7-B, 7-C and 8-B could all be directly applied to ESNs. In addition they agreed that the best practices 3-A, 3-B, 5, 6-B and 8-A should be amended with the Kemmish report adding 4-A, 4-B and 6-C. These are discussed below:

Best practice 3 – A: Composition of cover pools:
The EBA argued that this best practice, which for example addressed the need for a consistent ratio of residential and commercial mortgages in the cover pool was not relevant and that ESN cover pools would only contain SME loans. However, the principle, that the risk profile of the cover pool does not

deteriorate throughout the life of the product, is still appropriate for ESNs. The fact that loans to SMEs typically have a shorter maturity and therefore there is a higher rate of asset replenishment makes this best practice, if anything, more important.

Investor conversations reported in the Kemmish report highlighted that it would be difficult to define a credit relevant criteria for SME loans that should be kept constant as an analogy to the residential/commercial mortgage criteria applied to traditional covered bonds and therefore recommended that greater disclosure, member state level supervisory processes and contractual terms in each programme would be better placed to ensure a consistent risk profile than an EU-wide rule.

By analogy to the credit risk of the assets, this best practice should require a consistent level of ESG standards in the case of ESG ESN covered bonds using the TranspArEEns framework. For example, supervisors and contractual terms of bonds should ensure that the average TranspArEEnS rating should never deteriorate below the level at which the most recent bond on the programme was launched, ensuring that no investor will face a deteriorating ESG standard in the cover pool.

Best practice 3 – B: Cover pools with underlying assets located in different jurisdictions
The EBA suggested that the higher riskiness of SME loans, and concerns related to non EEA countries whose bank prudential frameworks and insolvency frameworks have not been assessed as equivalent to that of the EU means that considerations could be given to excluding non-EEA assets from cover pools. The Kemmish reported concurred adding that the exclusion of non-EEA assets would help ESNs to achieve the policy objective of improving funding for EU SMEs.

In the case of ESG ESNs this recommendation is strengthened by both a practical consideration – that TranspArEEns is only applied to date in member states – and to support the case for a preferential treatment for the securities to the extent that they are aligned with EU policy objectives.

Best practice 5: Coverage principles
The EBA noted that the coverage required should be higher to reflect relatively high levels of credit risk of SME loans. Investor surveys indicated that an EU wide minimum coverage requirement was an essential feature of a unified EU covered bond directive. The EBA and Kemmish reports disagreed on the level of the minimum over-collateralisation but this is not strictly relevant for the present discussion of ESG ESNs.

Noting the work undertaken exploring the correlation between energy efficiency performance certificates and credit risk, any equivalent correlation between TranspArEEns score and the credit performance of SMEs should be reflected in the discussion of the required coverage.

Best practice 6 – B: Liquidity buffer
The EBA anticipated that liquidity risk would be higher for SMEs in the cover pool because the loans tend to be less liquid in the secondary market and have a credit quality closely correlated with the economic cycle. Therefore, greater liquidity risk mitigants should be required. This, to a large extent mitigated by the shorter duration and therefore faster prepayments of SME loans in most cases. As with the credit aspects of TranspArEEns, further analysis is required on the likely correlation between

prepayment speed and TranspArEEnS score correlation[20] and between availability of refinancing options and TranspArEEns score.

Best practice 8 – A: Scope of disclosure
Greater standards of disclosure are required as SME loans are more complex and heterogeneous and information on their credit performance is not standardised. The EBA suggested that loan-by-loan disclosure was necessary to facilitate investor due diligence.

Best practice 4 - A: LTV Limits / Best practice 4 – B: LTV Measurement and frequency of valuation
Clearly LTV ratios are meaningless in the context of SME exposures which would typically not be secured on any real estate. For this reason the EBA report did not discuss this best practice at all and the Kemmish report focussed on trying to identify an alternative credit metric for it, identifying an maximum, internally assessed loss given default as the best alternative.

By analogy, minimum ESG scores should be identified as an eligibility criteria (which is relatively straightforward and is used in the definition of the product discussed above) and, less obviously rules regarding the on-going treatment of scores, for example, are the scores subject to periodic review? Does a loss of a given score result in immediate removal from the pool of 'just' a zero weighting for coverage calculation purposes?

4.2 Amendments to EU regulations
Other than the Covered Bond Directive, most references to covered bonds under EU law refer to their treatment by various classes of investor (see section 5). However, two pieces of EU legislation have been amended to facilitate the functioning of covered bonds and would also need to be amended to facilitate ESG ESNs.

European Market Infrastructure Regulation – current treatment
The European Market Infrastructure Regulation ('EMIR', EC 648/2012) require that derivative transactions are either cleared via a central counterparty or subject to additional capital charges.

Swaps used in covered bonds to match the currencies and interest rates of the assets with those of the bonds funding them cannot typically be cleared via central clearing parties as they i) cannot be netted against non-covered bond related swaps between the same two counterparties (which would risk their value in the case of the insolvency of the issuer), ii) they are unable to pledge collateral for margins to the swap counterparty (due to the assets in the cover pool being exclusively for the benefit of secured creditors) and iii) they cannot be terminated in the event of the insolvency of the covered bond issuer (as the covered bonds themselves do not automatically terminate in this case). Covered bond swaps (that meet certain criteria) are therefore exempt from clearing obligations according to the regulatory technical standards (RTS) developed for EMIR[21]. The rationale for the exemption is that the protection available to the derivative counterparty from the cover pool is at least equal to that which would be provided by central clearing of the derivative.

European Market Infrastructure Regulation – relevance to ESG ESN

[20] As ESG factors in loan books become more relevant to banks so borrowers with better ESG credentials can expect to be offered refinancing options more readily than those without.
[21] ESA's RTS on risk mitigation techniques for OTC derivative contracts not cleared by a CCP, developed under Article 11(15) of Regulation (EU) No 648/2012, Article 30(2)

We anticipate that swaps will be used for ESNs in a similar way in which they are currently used for covered bonds in order to hedge asset and liability mismatches. All of the reasons why covered bond swaps cannot be centrally cleared will apply also to swaps supporting ESNs.

According to the preamble to EMIR, the obligation to centrally clear derivative transactions is to reduce the systemic risks inherent in large quantities of bilateral derivative contracts, and that "ensuring that the clearing obligation reduces systemic risk requires a process of identification of classes of derivatives that should be subject to that obligation"[22]. The additional risks generated by the specific features of covered bond swaps and presumably from future ESG ESN swaps are largely mitigated by the fact that derivative counterparties benefit from the same preferential claim over cover pools as that afforded to covered bond holders and by the minimum standards detailed in article 30 of the RTS.

Therefore, it would be reasonable to extend the logic for the existing RTS exemption to ESG ESNs. Most of the conditions specified in article 30, paragraph 2 can be directly applied to ESG ESNs except for their compliance with article 129 of CRR (as required in RTS article 30(e)).

Resolution Directive – current treatment

Covered bonds are exempt from bail-in under the bank recovery and resolution directive. According to rating agencies, this typically provides two notches of credit rating uplift relative to an identical security which is eligible for bail-in. Whilst the directive explicitly refers to covered bonds in the list of liabilities exempt from bail-in, the text below makes it clear that the treatment afforded to them is the same as that for other forms of secured debt.

Exhibit : Resolution Directive[23] treatment of secured debt

Article 44. Scope of bail-in tool

2. Resolution authorities shall not exercise the write down or conversion powers in relation to the following liabilities whether they are governed by the law of a Member State or of a third country:..

(b)secured liabilities including covered bonds and liabilities in the form of financial instruments used for hedging purposes which form an integral part of the cover pool and which according to national law are secured in a way similar to covered bonds;

Member States shall ensure that all secured assets relating to a covered bond cover pool remain unaffected, segregated and with enough funding.

Resolution Directive – relevance to ESG ESNs

Exemption from possible bail-in is of vital importance to the rating and to the attractiveness of the asset class for investors. Seemingly the wording of article 44 would allow this without further change

[22] Recital 15

[23] Directive 2014/59/EU of the European Parliament and of the Council of 15 May 2014 establishing a framework for the recovery and resolution of credit institutions and investment firms

needed. The EBA in 2018 raised no objections to the exclusion of ESNs from the bail-in/resolution process.

5. Investor considerations

The attractiveness to investors of ESG ESNs, and therefore the efficiency as a funding instrument for issuers, will depend on many factors including the (obvious) interest rate and credit-worthiness, but also their treatment in investor regulations and eligibility as collateral for central bank operations. The treatment of the bonds can be broken down into the treatment currently provided for covered bonds, and whether ESG ESNs warrant similar treatment, (section 5.1) and additional factors which are specific to the ESG characteristics of the securities (section 5.2).

5.1 Regulations relative to covered bond regulations

Bank regulatory capital - currently

Under article 129 of the Capital Requirements Regulations covered bonds meeting certain criteria are eligible for a lower risk weighting for bank investors. The most relevant criteria for the purposes of the current study are the restriction on eligible assets to mortgages (commercial and residential), public sector receivables and loans secured on ships (additional assets of a technical nature are also allowed – for example cash held for liquidity management purposes). It should be noted that the definition does not exactly meet national law definitions of eligible assets and there are a small number of covered bonds secured on assets allowed under national law that do not meet this criteria (for example, under German law covered bonds may be secured on loans secured on aircraft). These are not eligible for a preferential risk weighting under CRR).

The exact improvement in risk weighting depends on other variables (such as the rating and method of assessing capital used by the bank) but are in all cases represent a significant cost saving for a bank owning the bond. According to a survey conducted for the 2018 Kemmish study 66% of bank investors described the pricing implication of preferential risk weight as "a significant number of basis points (say, 20bp)" (all of the remainders chose "a small number of basis points (for example, 5)".

Bank regulatory capital – for ESG ESNs

Arguably the better risk weight for covered bonds is a direct reflection of their lower risk relative to unsecured debt. In which case ESNs which offer the same degree of protection should benefit from the same capital treatment. If the underlying assets are riskier this is mitigated by structural features and greater over-collateralisation.

An alternative view is that the risk weight benefit of covered bonds and ESNs should reflect the risk weights of the underlying assets (for example the risk weighting of SME loans under CRR article 501 is 76%, whilst that for a typical residential mortgage is 35% under article 125. Therefore the degree of reduction in the risk weight of the two instruments should be similar (roughly 50%).

However, the risk weighting of SMEs is, according to recital 44 of the CRR due to their importance to the Union economy and "the limited amount of alternative sources of funding [which] has made SMEs…even more sensitive to the impact of the banking crisis". The lower risk weight ("supporting factor") is "..to allow credit institutions to increase lending to SMEs.". This establishes a precedent for the use of a 'supporting factor' adjustment to risk weights to encourage lending to sectors of significant policy importance.

The EBA (2018) argued that no "preferential treatment (i.e. treatment similar to covered bonds) should be granted to SME ESNs, [because].. the cover assets..would probably not be secured by a real estate underlying security" (paragraph 187) and due to the higher default rates of the assets, despite difficulties defining and measuring them (paragraphs 185 and 186). In addition, they argued that "A clear distinction between the prudential framework for SMEs and covered bonds should be maintained to avoid market confusion and potential negative side effects on the covered bond market".

The EBA did however accept that "Compared with unsecured exposures to institutions (Articles 120 and 121 of the CRR), a differentiated capital treatment and risk weights requirement might, however, be considered."

The ability of TranspArEEnS to better define the underlying assets of ESG ESNs and, presumably to provide more clarity with regard to the asset class's credit performance over time to some extent mitigates some of the EBAs concerns.

Furthermore the precedent from the discussion of amending risk weights on the basis of green characteristics of assets suggests a stronger case for a preferential risk weighting regime for ESG ESNs.

On the basis of this it can be argued that lending to SMEs that meet a certain minimum threshold ESG score as assessed by TranspArEEnS should receive a preferential risk weighting and that this would materially improve incentives to use the ESG ESN and, in turn to lend to SMEs that meet this threshold.

Liquidity coverage ratio – current treatment

In accordance with rules from the Bank of International Settlements (BIS), Banks are required to hold a certain quantity of liquid assets against future cash outflows according to the Capital Requirements Regulations which implement the Basle rules[24].

Commission Delegated Regulation 2015/61 ("with regard to liquidity coverage requirement for Credit Institutions") provides details of the assets eligible for such requirements and categorises them into certain levels (level 1, 2a and 2b) which have different eligibility criteria and valuation rules, and which can be used towards the total requirement to different extents.

As the minimum liquidity requirement is estimated to equate to 10% or more of an average EU bank's balance sheet and the total actual holdings are circa 14% of total assets, an asset's eligibility for this requirement is clearly very significant for the total demand for that asset and therefore its pricing. According to the EBA, a total of 9.8% of all liquidity assets are in the form of covered bonds[25].

Liquidity coverage ratio – ESG ESN

Requirements for treatment as Liquidity Assets

The Bank for International Settlements, defines High Quality Liquidity Assets (HQLA) as assets that "should be liquid in markets during a time of stress and, ideally, be central bank eligible". In addition they define other criteria including: low credit risk, ease and certainty of valuation, low correlation

[24] Basel III: The Liquidity Coverage Ratio and liquidity risk monitoring tools, BIS, January 2013

[25] EBA "Report on liquidity measures under Article 509 (1) of the CRR"

with risky assets, listed on an exchange, active and sizable market (for either sale or repo), low price volatility and being a beneficiary of a 'flight to quality'.

These requirements are transposed into Union law in CRR article 416, which broadly follows these guidelines but adds a rule (article 416.3.b), that the bonds are not issued by a bank. This is explained in Article 416(2):

> "Since the LCR is designed to protect banks against systemic stress, it is of the utmost importance that the ratio itself avoids features of pro-cyclicality and wrong way risk…. A fire sale of uncovered bonds issued by financials will inevitably lead to a decline in prices, thus undermining the capacity of banks to refinance themselves…and generating pro-cyclical effects. If eligible, credit institutions could issue these bonds to each other, increasing the interconnectedness in the system and thus systemic risk. "[26]

Given this rational a specific exemption is made for covered bonds under article 416(2)(a)(i) and (ii) on the basis that:

"… given the collateralisation of covered bonds, these are protected from the effects of wrong way risk. " [27]

Prima facie the collateral backing ESG ESNs would appear to justify their inclusion in the 'covered bond exemption' to the rule in article 416. Furthermore, if of sufficient credit quality and meeting the other requirements (such as for a stock exchange listing) they would appear to justify LCR eligibility with the exception of the existence of sufficient secondary market liquidity. This in itself was sufficient for the EBA to reject the eligibility of ESNs for LCR purposes in their 2018 report.

A key determinant of secondary market liquidity will be the eligibility of ESG ESN as eligible collateral at the ECB and other Union central banks (see discussion below). However, we note that central bank collateral eligibility is only an optional requirement under the Basel rule and that the eligibility of covered bonds for LCR purposes is Union wide despite several non-Euro zone member state central banks not accepting covered bonds as collateral (e.g. Czech Republic, Bulgaria and Romania).

ESG ESNs based on a common TranspArEEnS platform could be argued to support other Basle/CRR criteria for HQLA eligibility, for example by ensuring comparability of the underlying assets between member states which will increase confidence in the valuation of the bonds.

UCITS 52(4)

The original definition of covered bonds under EU legislation provides an exemption for certain funds from concentration limits for covered bonds and in addition has served as a working definition of covered bonds in other pieces of EU legislation and market conventions, for example to define which bonds are eligible for inclusion in an index or for the definition of investment mandates.

[26] Report on appropriate uniform definitions of extremely high quality liquid assets (extremely HQLA) and high quality liquid assets (HQLA) and on operational requirements for liquid assets under Article 509(3) and (5) CRR, EBA, December 2013

[27] ibid

Exhibit ##: UCITS Paragraph 52(4) definition of covered bonds

> Member States may raise the (5% limit on bonds issued by one issuer) to a maximum of 25 % where bonds are issued by a credit institution which has its registered office in a Member State and is subject by law to special public supervision designed to protect bond-holders. In particular, sums deriving from the issue of those bonds shall be invested in accordance with the law in assets which, during the whole period of validity of the bonds, are capable of covering claims attaching to the bonds and which, in the event of failure of the issuer, would be used on a priority basis for the reimbursement of the principal and payment of the accrued interest….

Source: Directive 2014/91/EU …of 23 July 2014 amending Directive 2009/65/EC on …undertakings for collective investment in transferable securities (UCITS)

The strict purpose of the law – to provide exemption for concentration limits - is no longer of material relevance in the eurozone given the granularity of the market and the paucity of UCITS covered bond funds. It may however be more important for investors managing covered bond UCITS funds denominated in Danish Krone and Swedish Krona) where there is clearly a far more significant concentration of issuers than in the euro market.

UCITS 52(4) - Relevance to ESG ESNs

As the definition in UCITS 52(4) is 'asset agnostic' there appears to be no reason why ESG ESNs should not be able to qualify. However, this would require 'special public supervision' which would require the Competent Authority in each Member State to put in place such supervision.

Solvency 2 – Current Treatment

Solvency II[28] (Directive 2009/138/EC) defines various rules for EU resident regulated insurance companies. In particular, it defines the total capital that insurers must hold against various types of risk including spread risk and concentration risk.

The spread risk module contains rules for the quantum of capital required as protection against volatility in the market value of assets held by the insurance company. The capital which must be held against each asset class is a function of its rating, duration and the type of instrument (sovereign bonds receive the lowest capital allocation, followed by covered bonds, corporate bonds and then securitisations).

The concentration risk module allows an insurer to invest in more of one issuer's covered bonds (15%) than their unsecured bonds (3%) without incurring additional capital charges.

The rationale for the treatment of covered bonds was seemingly primarily theoretical rather than empirical, as explained by EIOPA[29] and predicated on the underlying assets being diversified.

[28] Directive 2009/138/EC of 25 November 2009 on the taking-up and pursuit of the business of Insurance and Reinsurance ("Solvency II")

[29] The underlying assumptions in the standard formula for the Solvency Capital Requirement calculation, EIOPA 25 July 2014

Exhibit : Rationale for prudential treatment of covered bonds under Solvency 2

> An undertaking's exposures in the form of covered bonds with a high credit quality..and short or medium duration…are covered by the diversified pool of assets securing most of the bond's value in case of a default of the issuer. The spread of the bond therefore, also depends on this diversified pool of assets which is assumed to have low volatility…

Solvency 2 – relevance to ESG ESNs

Although there are similarities to the discussion of risk weights for bank investors above, a key difference in the current case is that capital is held to address spread volatility, not credit risk. The rationale put forward for the treatment of traditional covered bonds by EIPOA makes reference only to the rating of the bonds and the diversity of the underlying assets. On this basis it appears rational that the same preferential treatment should be advanced to ESG ESNs.

Eligible collateral for central banks – current situation

The ECB is required to conduct credit operations with credit institutions 'based on adequate collateral'[30]. In order to meet this requirement, it has established both a list of eligible assets and a framework for risk control measures relating to these assets. This list and framework applies equally to short term liquidity operations and term lending facilities.

One of the more important risk control measures implemented is the valuation haircut applied to assets presented as repo collateral which is a function of the liquidity categories into which assets on the list of eligible assets are divided. Covered bonds typically receive a better liquidity category than equivalent non covered bonds. In addition, covered bonds are also subject to other specific treatments under ECB rules, in particular the ECB accepts 'self-issuer covered bank bonds" as collateral (they do not accept senior unsecured or securitisation bonds as collateral from the issuer of that bond).

There is no official definition of 'covered bond' provided by the ECB. Generally, conformity with UCITS article 52(4) has been believed to be the criterion applied.

Covered bonds are accepted as collateral by the national banks of Sweden, Denmark and Poland, but with typically less favourable treatment than that given by the ECB. They are not currently accepted as repo collateral by the central banks of the Czech Republic, Romania or Bulgaria.

Eligible collateral for central banks – relevance to ESG ESNs

On the basis of the criteria applied, ESG ESNs would seem to warrant at least identical treatment as covered bonds of the same credit quality in the ECB's collateral framework. Although some market commentators have said that in practice there is less trading in green bonds than non green bonds of similar characteristics, this is widely believed to be due to the 'buy and hold' nature of many green investors and demand for green bonds exceeding their supply. Assuming that the ability to sell a bond

[30] Protocol on the statute of the European System of Central Banks and the ECB, Article 18.1

is the most important aspect of liquidity for the ECB's purposes the lower levels of actual trading should not be an impediment.

According to the ECBs 'Roadmap of climate change related actions"[31] the green characteristics of securities will increasingly be important for eligibility in the future: from the end of 2024 the ECB intends to limit the use of bonds issued by corporates with a "high carbon footprint", and from 2026 all collateral must make disclosures in line with the Corporate Sustainability Reporting Directive in order to remain eligible.

Whilst neither of these considerations are strictly relevant to ESG ESNs (for example, as they are issued by financial institutions) the ECB has recognised that: "asset-backed securities and covered bonds, do not fall under the CSRD. To ensure a proper assessment of climate-related financial risks for those assets as well, the Eurosystem supports better and harmonised disclosures of climate-related data for them and, acting as a catalyst, engages closely with the relevant authorities to make this happen."[32] On the basis of which it appears reasonable to assume that ESG ESNs could receive favourable treatment in the collateral framework of the ECB.

5.2 Regulations relevant to ESG characteristics

In addition to those regulatory aspects which are also relevant to covered bonds, the ESG characteristics of ESG ESNs in themselves encourage investments via, for example, specific regulations, mandates of investors and the treatment in risk assessments.

Asset manager mandates

Many asset managers integrate ESG factors into the mandate definition of funds. This is now regulated by the Sustainable Finance Disclosure Regulation (SFDR) which requires investment managers and advisors, to disclose how they integrate such factors into their investment decision-making processes, the levels of disclosure of sustainability characteristics and the sustainability classification of the fund (see box).

Box: SFDR fund categories

[31] https://www.ecb.europa.eu/press/pr/date/2021/html/ecb.pr210708_1~f104919225.en.html

[32] https://www.ecb.europa.eu/press/pr/date/2022/html/ecb.pr220704~4f48a72462.en.html

Article 6
Funds where sustainability risks are integrated into investment decisions, without the fund promoting environmental or social characteristics or targeting sustainable investments.

Article 8
Funds with specific sustainability criteria that promote environmental or social conditions - also called "light green" funds.

Article 9
Funds which have sustainable investment as their goal - also called "dark green" funds. The funds invest in companies that aim to contribute to a more sustainable society.

In addition, many fund managers voluntarily align their funds with the United Nations Principles for Responsible Investment (UN PRI), and provide disclosure in accordance with the recommendations of the Task Force on Climate-related Financial Disclosures.

Bank investors
Bank investors, as the largest investors in the current covered bond market are expected to be major investors in ESG ESNs. According to recommendations of the EBA[33] the ESG status of a bank's assets will be increasingly relevant to:

- capital consumption, as part of stress tests under Pillar 2 supervision
- credit ratings, as rating agencies include environmental and social factors in their credit assessment process, and
- disclosure, for example under the Green Asset Ratio.

As such banks are highly likely to be incentivsed to invest in ESG ESN, relative to 'traditional' covered bonds as these factors develop. Further work will be required to align the definition of ESG ESN and structural details (such as the 'cut off point') with the specifics of the various considerations outlined in the EBAs recommendations.

6. Discussion of alternatives

The ESG-ESN as defined is closely modelled on the established covered bond market, modified in a way to use the TranspArEEns technology and meet policy objectives. However, TranspArEEns could also facilitate other capital markets instruments which could similarly channel funding towards the SME sector in a way that supports ESG outcomes. Although outside the scope of the current project we would like to in particular highlight the following alternative structures:

6.1 Sustainability linked finance.

Sustainability linked bonds (or loans) are bonds issued under a normal debt issuance programme with an interest rate which, over time is linked to the performance of the issuer against certain ESG metrics

[33] Report on the role of environmental and social risks in the prudential framework October 2023, https://www.eba.europa.eu/publications-and-media/press-releases/eba-recommends-enhancements-pillar-1-framework-capture

(Key Performance Indicators or KPIs). These can be of either a positive or negative nature (that is the coupon can either reduce if a target is met or increase if it is not) and can reference multiple KPIs. The market is relatively new: Italian utility ENEL issued the first such bond in the world in 2019 but has grown to an estimated $250bn equivalent size[34].

Sustainability lined bonds were introduced as an alternative to the Use Of Proceeds green bond (discussed below), as a counter to arguments regarding the artificiality of ring fencing specific cash to fund specific assets (in particular in insolvency when the ring fencing structure would collapse under insolvency law), and to provide a greater incentive to improve all behaviour of the issuer, not just those aspects of its business which are specifically green and eligible for the funding.

The product has been criticised for a lack of structural standardisation, particularly with regard to i) the selection of appropriate KPIs which represent a sufficient challenge for issuers (not just in line with existing improvement trajectories), ii) the materiality of the step up (typically a one-off increase of 0.25% of the notional of the bond), and iii) for providing a 'perverse incentive' for investors (who will benefit from a failure to meet a standard). These criticisms are currently being addressed by industry initiatives.

To our knowledge the concept has never been used in a secured debt structure (either a covered bond or securitisation). There are several reasons for this:
1/ in secured debt the assets must be able to fund the liabilities. As there is a potential for an increase in the coupon on the bonds this must be factored into the analysis by rating agencies therefore requiring more over-collateralisation.
2/ although typically either bullet maturities (covered bonds) or callable (securitisations), both structures could extend beyond their expected life in some cases. As the increase in the coupon is typically towards the end of the expected life it could represent an open-ended burden.
3/ such structures are not contemplated in covered bond laws and it is legally uncertain whether they would be possible or obtain supervisory approval, and
4/ the possibility of a change in the coupon of a bond makes it technically 'structured finance' for several purposes including investor mandates, therefore making it an ineligible investment.

However, a viable alternative to the ESG ESN as defined could be a traditional covered bond or an ESN, the coupon on which is linked to the average TranspArEEnS score of a pool of SME loans, either the loans in the cover pool or the entirety of the issuer's loans of this type. By providing a clear, transparent KPI such a bond would address some of the criticisms of this form of financing to date. It is unclear whether such a structure would be commercially attractive to issuers or investors.

6.2 Use of proceeds structure

The most prevalent form of green financial instrument currently are green bonds, bonds which raise funds which must be used only to fund assets conforming to certain green criteria. The bonds are unsecured and investors have no direct claim over the assets funded, for example in insolvency.

Such a structure could utilise the TranspArEEnS score to define eligible use of proceeds (only to extend loans to borrowers with a score greater than a set level), with the bond being unsecured, secured on other assets, more traditional collateral assets or both (that is, secured on SME loans with a minimum TranspArEEnS score and with the proceeds being used to fund the origination of more such assets.

[34] https://www.lseg.com/en/insights/ftse-russell/sustainability-linked-bonds-nascent-market-gaining-traction

6.3 Securitisation

Securitisations, like covered bonds / ESNs are secured on a pool of assets and are designed to achieve high credit ratings due to their ability to survive the insolvency of the bank that originated the assets. In contrast, however, they do not benefit from a dual recourse and instead rely only upon the underlying assets for payments of interest and principal. To the extent that they transfer some of the risk associated with the assets, banks originating securitisations are able to reduce the capital assigned to those assets[35]. according to regulation (EU) 2017/2402. As such they are able to improve the capital efficiency of lending to the underlying assets in addition to providing cheaper funding.

Securitisations are currently a very small proportion of total green bond funding in the Union, 1.4% in contrast to the US (32% of total green bonds) and China (8.1%)[36]. Of this, according to AFME, as of December 2022 there had been no securitisations secured on green loans to SMEs. To a large extent this is due to the underdeveloped state of the overall securitisation market in Europe relative to, the US and Chinese markets which in turn is regularly blamed on, inter alia, a less favourable regulatory regime than in those countries and a lack of a developed investor base.

The Capital Markets Union High Level Forum Final Report of July 2020 emphasised the “enormous potential securitisation has in the EU to advance capital markets union and green finance”.

Potential for TranspArEEnS to support green securitisation

The TranspArEEnS initiative has potential to support the development of a green securitisation market in several ways, many of which overlap with ways in which it can support ESG ESN, discussed above.

Transparency.

Funds governed by SFDR, in particular section 7 and section 9 funds are not material investors in securitisation transactions currently. This is at least partly due to the absence of reliable data on ESG metrics of the underlying portfolio (and therefore, concerns about greenwashing). The availability of pool level ESG data would significantly enhance the availability of these funds to invest in the asset class.

Credit quality.

To the extent that a correlation can be proven between a borrower’s ESG score under the TranspArEEnS system and their credit worthiness this will benefit all bonds secured on such loans, however the benefit will be greater in the case of securitisations than in the case of covered bonds /ESNs both for issuers (who will have lower collateral requirements, therefore will gain more capital relief) and for investors (who, in the absence of a covered bond’s dual recourse structure have more direct economic exposure to the credit quality of the underlying assets.

Regulatory treatment.

To the extent that securitisations of ESG SME loans can be shown to be supportive of Paris goal targets there is a greater justification for a supportive regulatory regime. Whilst this is also true of other forms of secured debt it has the potential to be more significant in the case of securitisations due to the less supportive regulatory regime of securitisations currently.

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[35] Regulation (EU) 2017/2402 laying down a general framework for securitisation and creating a specific framework for simple, transparent and standardised securitisation

[36] Green Securitisation, Regulatory State of Play, AFME December 2022

7. Conclusion

The work of TranspArEEnS comes at a time when all eyes are on the development of a European framework for ESN with the potential to provide a strategic Capital Markets Union (CMU) toolkit which not only supports SME financing, reducing lenders' reliance on deposits and enhancing competitiveness of the single market, but also drives the implementation of ESG best practices in support of the climate transition. This has significant value not only for the entire single market, but in particular for the CEE region where a lack of mortgages is limiting the ability of lenders to optimise their funding mix via the use of covered bonds. This ESN toolkit would also be a valuable instrument in accession countries by helping them to implement financial regulation in compliance with Banking Union and CMU.

Moreover, a clear reputational demarcation, which protects the covered bond asset class directive and clearly distinguishes between dual recourse instruments with a real guarantee, covered bonds and instruments based on cash flow models, such as ESN, will help attract new investors and market participants in financing SME portfolios, without compromising the significant reputational value achieved in the covered bond space.

The ESN blueprint developed over the last several years will act as important guidance for market players and authorities in implementing this innovative asset class which has strong strategic value from both a macroeconomic and financial stability perspective.

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