

# Research Brief

6th edition – September 2016



## Covered bonds – safe assets with side effects?

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**Covered bonds have a long history as a safe financial instrument and are still today a cornerstone of bank funding in Europe. But what underpins their success and how might new regulatory initiatives influence covered bond markets? A new study provides a theoretical model of covered bonds and identifies potential drawbacks of the instrument.**

### What are covered bonds?

Covered bonds originated in eighteenth century Prussia, where king Frederick the Great, following the Seven Years' War (1756–63), established the so-called Pfandbrief system to supply credit to Prussian landowners. Over the past two centuries, covered bonds have experienced no defaults and delayed payments to investors have been rare (cf. Mastroeni, 2001 and Wandschneider, 2014).

Covered bonds are secured senior debt issued by banks. They are collateralised by a pool of assets that remain on the banks' balance sheet. This pool is ring-fenced, or encumbered, and therefore bankruptcy-remote. In the event of the issuing bank's bankruptcy, cover pool assets are exempt from normal bankruptcy procedures. The cover pool is also dynamically replenished – non-performing asset are replaced with performing ones of equivalent value and quality to maintain the requisite collateralisation. Finally, covered bond holders are also protected by dual recourse: (i) they have preferential claims to the cover pool assets, and (ii) if the value of the cover pool is insufficient, covered bond holders may claim the shortfall from the unencumbered assets, where they are of equal seniority to unsecured creditors. As a consequence, covered bonds are safe assets for investors and a stable and cheap source of bank funding.

### Future of covered bonds in question

The market for covered bonds in Europe has remained largely buoyant through both the Global Financial Crisis and Euro-zone Crisis with aid, in part, from the European Central Bank's Covered Bond Purchase Programme (CBPP1 - CBPP3). Despite this, new regulatory initiatives for banks in Europe may, unintentionally, have lasting consequences on banks' incentives to issue and supply covered bonds.

For example, under the European Bank Recovery and Resolution Directive (BRRD), banks will be required to issue bail-in debt, which would be converted into equity to recapitalise a failed bank. Under the current proposals, the proceeds raised from issuing bail-in debt must be kept as unencumbered assets on the banks' balance sheets, which will be sequestered when resolution is triggered. Insofar that bail-in debt will influence the price of unsecured debt on wholesale money markets, it may thus also influence banks' incentives to issue covered bonds.

### Covered bonds may increase the risk of wholesale bank runs

As a first step towards understanding these mechanisms, in Ahnert et al. we develop a formal theoretical banking model to better understand the impact of bank funding with covered

bonds on financial fragility. We analyse how asset encumbrance affects the likelihood of bank runs by wholesale unsecured debt holders. The logic is as follows. If debt holders observe that a bank is hit by credit and market losses, they may update their beliefs about the bank's future solvency. If these beliefs are rife, then it can precipitate debt holders to run and withdraw their claims en-masse.

We highlight two opposing effects of asset encumbrance and covered bond issuance on the incidence of bank runs. The first is a bank funding channel: the option of greater covered bond issuance allows the bank to use the proceeds from the issuance and make additional profitable investments, which increases the expected equity value and reduces the potential for a run. The second is a risk concentration channel: by virtue of the dynamic replenishment feature of the cover pool, losses borne from credit and market risks are asymmetrically concentrated on wholesale creditors, which exacerbates rollover risk and increases the incidence of bank runs. These features make unsecured debt more risky the more covered bonds banks issue.

Our model also features some debt that is fully guaranteed by a deep-pocketed guarantor. In the real world, this could be an explicit deposit insurance scheme, in case the bank has retail deposits, or a perceived implicit guarantee, assumed by

investors that think the bank is systemically important enough to be saved in case of failure. By encumbering assets and issuing covered bonds, the bank shifts risks to the guarantor. Since the bank does not internalise the impact of encumbrance on the cost of the guarantee, the privately optimal levels of encumbrance and bank fragility are excessive. To correct this externality, we argue that prudential regulation is needed to limit the level of asset encumbrance. Such regulation may come in the form of explicit caps on asset encumbrance or stringent capital regulation. Surcharges on asset encumbrance, however, tend to increase the bank's fragility while reducing the level of asset encumbrance. Policymakers in several countries have been actively debating the costs and merits of such regulation on asset encumbrance.

Finally, our model suggests that the bank's incentives to issue covered bonds are closely linked to conditions in the wholesale funding market. In particular, as unsecured debt becomes more costly, or unsecured creditors become more jittery, the bank must set aside more unencumbered assets to meet withdrawals by unsecured creditors. This, in turn, implies a decline in the level of asset encumbrance and the issuance of covered bonds stemming from precautionary reasons. This result suggests that policies that influence incentives and behaviour in wholesale money markets will also have an impact on covered bonds markets as well.

## Conclusion:

Our theoretical analysis shows that covered bonds – while providing a cheap source of funding for banks and a safe asset for investors, may increase the run-risk of the banks' creditors in wholesale money markets. An increase in the supply of covered bonds may thus come with unintended side effects which prudential regulation should address. Notwithstanding this, our analysis also suggests that policies geared towards regulating wholesale funding markets may, inadvertently, suppress secured funding markets as well.

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## Disclaimer:

The views expressed here do not necessarily reflect the opinion of the Deutsche Bundesbank or the Eurosystem.

## References

Ahnert, T., K. Anand, P. Gai, and J. Chapman (2016). Asset encumbrance, bank funding, and financial fragility, Deutsche Bundesbank Discussion Paper 17/2016.

Mastroeni, O. (2001). Pfandbrief-style products in Europe. In BIS Papers No. 5: The changing shape of fixed income markets: a collection of studies by central bank economists, pp. 44–66. Bank for International Settlements.

Wandschneider, K. (2014). Lending to lemons: landschaft credit in eighteenth-century Prussia. In E. N. White, K. Snowden, and P. Fishback (Eds.), *Housing and Mortgage Markets in Historical Perspective*, Chapter 10, pp. 305–325. University of Chicago Press



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## News from the Research Centre

### Publications

"On the low-frequency relationship between public deficits and inflation" by Martin Kliem (Bundesbank), Alexander Kriwoluzky (Halle) and Samad Sarferaz (ETH) will be published in the *Journal of Applied Econometrics* 31 (3).

"Pitfalls in the use of systemic risk measures" by Gunter Löffler (Ulm) and Peter Raupach (Bundesbank) will be published in

the *Journal of Financial and Quantitative Analysis*

### Events

27–28 October 2016

"Annual Global Conference of the  
European Banking Institute"

9–10 November 2016

"Economics of Payments VIII"