



## PFANDBRIEFE UND COVERED BONDS

## THE DANISH COVERED BOND MARKET IN TIMES OF COVID-19

The Danish Covered Bond Market belongs to the oldest, most unique, liquid and stable in the world. Its history dates all the way back to 1795 without any records of defaults. Furthermore, with an outstanding volume of around 350 billion euros it is, alongside Germany, the biggest market around the globe. The author depicts how the country and the asset class are navigating through these turbulent times. Analysing the fast recovery of spreads and the uninterrupted rise in housing prices, it becomes evident that there is more than one parallel to the recent developments in the Pfandbrief market. Red.

Why should a foreign investor pay any attention to the Danish mortgage market? There are three good reasons why: size, liquidity and expected return. Most Germans know Denmark from summer holidays spent on the west coast of Jutland, and one or two of them may have spent a rainy afternoon wondering how the rented holiday home<sup>1)</sup> actually had been purchased by its owners.

### One of the world's largest covered bond markets

The answer to that question is: most likely by taking out a mortgage, as almost all homes in Denmark are purchased using a mortgage. Denmark actually has one of the world's largest covered bond markets, and the outstanding amount of Danish covered bonds is around 350 billion euros. By comparison, the Danish government bond market is quite small with a size of around 90 billion euros.

A small country like Denmark with one of the world's largest covered bond markets seems like a paradox. And it is! However, there are at least three reasons for the large Danish mortgage borrowing volume:

1. Most economic research shows that countries with tax relief rules applicable to interest payments generally have larger personal debt than countries

without tax relief rules applicable to interest payments and interest rates, and in Denmark interest rate payments are currently deductible at at least 25 percent.

2. Furthermore, we have a limited and inefficient home rental market in Denmark due to very restrictive legislation regarding rent. Therefore, Danes have for centuries had to buy a home to have a place to live.
3. In Denmark, interest rate payments are as mentioned subject to attractive tax relief, which makes it attractive for homeowners to take out a mortgage loans on their homes (25 percent tax relief) and spend the money on pension savings (15 percent tax on pension gains). Therefore, it makes perfect sense to take out a mortgage on your home and make large payments on pension savings.

So how has this very large mortgage market handled the corona lockdown? Remarkably well, actually. And please remember that there is no such thing as a central bank purchase programme in Denmark.

### Remarkably resilient – even without the central bank's support

That would make Danish Krone (DKK) far too strong against the Euro and break the currency peg.

Below is a short summary of the Danish lockdown and some possible explanations as to why the Danish economy has handled the lockdown so remarkably well.

Now, one year after the first lockdown in Denmark, we are looking at a market with higher housing turnover, significantly higher real estate prices and tighter spreads on covered bonds. How come?

The first lockdown lasted from mid-March to mid-April 2020. All kindergartens, schools and all other educational institutions were closed. Furthermore, all public-sector employees in non-critical functions were sent home on paid leave. Private companies were encouraged to let employees work from home in as large numbers as possible.

### The first lockdown: spread widening and ...

In total, around 40 percent of the workforce was working from home part-time or full-time during the second quarter of 2020. Despite the partial opening from mid-April, most children were not back in school until the end of June.

Danish covered bonds along with most other bonds did not exactly take the first lockdown announcement well – spreads widened almost 80 basis point. We normally compare Danish callable bonds ("Price\_99"; all AAA-rated) with Euro corporate bonds (AA-rated) (see figure 1). We find that the better rating on the Danish bonds compensates investors for the problem of amortisation, negative convexity and the denomination in DKK.

### ... quick recovery

However, the subsequent spread recovery came much faster in Danish bonds compared with Euro corporate bonds, and after just one week, spreads had gained back half of the loss.

Spread tightening has continued since then, and the market did not even blink when the second lockdown was announced. The latest spread widening during February this year was caused by the increased duration in the market caused by higher rates.

During the autumn of 2020, the number of covid-19 infected people increased again, and cinemas and restaurants were closed at the beginning of December, and by the end of December, all non-food shops closed down as well.

We are, as I write these lines, taking what feels like baby steps in the reopening of

THE AUTHOR

### JACOB SKINHØJ

Head of Fixed Income & Quantitative Research,  
Nykredit Markets,  
Copenhagen



society. Small children are back in kindergarten or school, which is good for the parent's productivity at work. Older children are back in school, but only one or two days a week.

### A steaming housing market

The housing market was up 5 percent in 2020 and will most likely increase by up to another 10 percent in 2021. Something similar has been seen in the large cities in the US as well as in other Scandinavian countries.

There are likely three reasons for the steaming housing market in Denmark:

1. Lower rates have increased housing affordability, and despite higher prices, it is cheaper to buy a home today compared with two years ago.
2. The supply or active listing of homes has declined.
3. The demand has increased. The Danish flex-security model has once again proved its strength. People with low income jobs can in case of unemployment receive up to 80 percent of their salary in the first two years of unemployment, making it quite safe to buy a new home even when there is increased uncertainty regarding the future.

### Tap issuing model

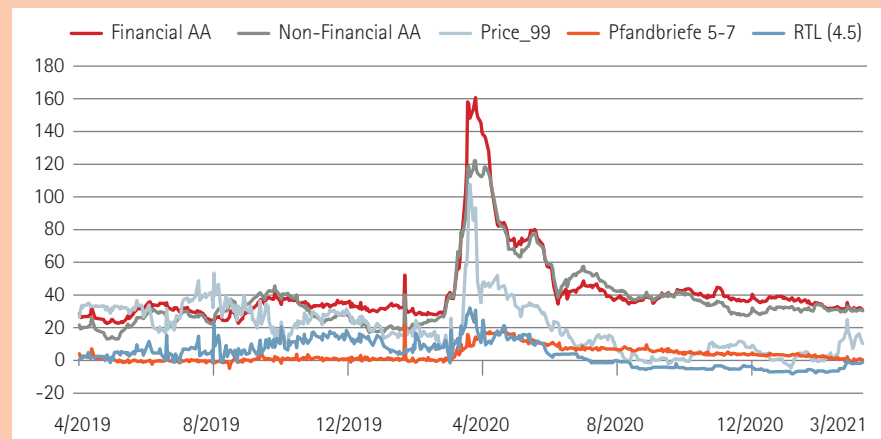
As we apply tap issuance in Denmark, the issuing of new callable bonds is entirely dependent on home sales and prepayment activity. Mortgage banks tap issue the exact loan amount in the market on the very same day a loan is granted.

Typically mortgage banks pool new loans during the day and sell small portions equivalent to 2 to 5 billion euros in different ISIN several times over one day. New loans are pooled in the same ISINs.

This tap issuing model is a huge advantage for new clients, since all trading activity is immediately reported to the exchange and made public on Bloomberg. Investors in Danish callables therefore know what has been traded when – and not merely prices a few days ago but the traded price a few minutes ago.

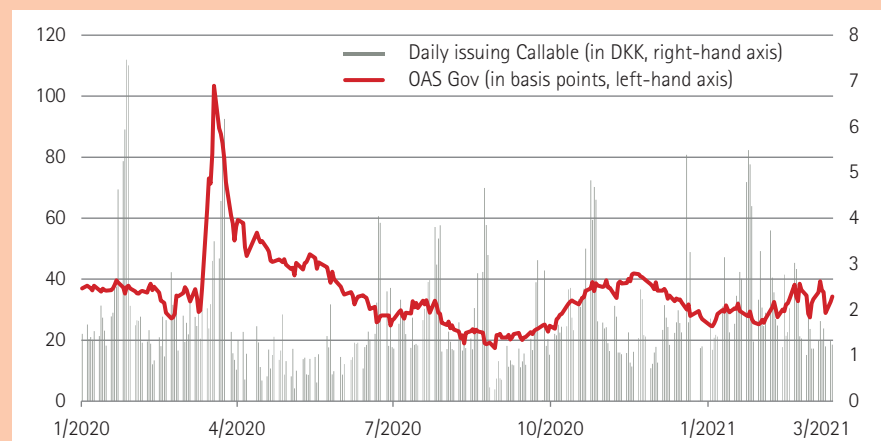
Back in 2019 prepayment activity was very high, and this caused a lot of new issuing. And since housing turnover has remained

Figure 1: Comparison of selective Yield Curves (in basis points)



Source: Nykredit

Figure 2: Issuing and OAS Government Spread



Source: Nykredit

high in 2020 so has new issuing (see figure 2).

### A changeful history of investors

We have issued covered bonds for the last 220 years in Denmark after the great fire of Copenhagen back in 1795. For many years, investing in Danish covered bonds was a dull sport, and the only investor group was Danish life insurance companies looking for the longest-dated bonds possible to invest in.

40 years ago, the German investors were the first foreign investors to start buying Danish callable bonds in large scale. In fact, Danish covered bonds legalisation is more or less a copy of the German Pfandbriefe legalisation.

And then 25 years ago, US asset managers started buying Danish callable bonds. In 2008, there was a large setback in foreign

holding of Danish callable bonds, especially from US investors, and only around 15 percent of long-dated Danish bonds were held by foreigners at the beginning of the 2010s.

However, from 2016 and onwards, especially Japanese investors have been purchasing large amounts of Danish mortgage bonds, but we have also seen increased central European appetite. Back in 2015, 10 year Japanese government bonds fell below 0 percent, and Japanese asset managers started looking all over the world for AAA-rated bonds with decent yields.

Having only one goal, the Danish central bank had back then just lowered short-dated rates to weaken DKK against Euro, after the Swiss gave up their peg to the Euro, and some foreign investors mistakenly thought that the Danish central bank would be the next central bank to give up the peg.



The Danish central bank does not have an inflation target or an employment target. The central bank's only goal is to keep the DKK pegged to the Euro. And the Danish central bank will lower rates as much as it takes to meet this goal.

### Currency peg – the central bank's single goal

Danish deposit rates were lowered all the way down to minus 0.75 percent, which is significantly below the ECB's rate of minus 0.2 percent at that point in time. And that positioned Danish callable bonds in a sweet spot from a Japanese investor's point of view.

Decent yields on the bonds, at 2.5 percent back then, and an extra return of around 0.5 percent from the currency hedge could be added to most Japanese investors' for-

eign investments. The negative convexity<sup>2)</sup> in Danish callable bonds is normally the large hurdle for foreign investors, but the Japanese investor base is very sophisticated and used to negative convexity from their domestic market, so that is not a problem.

These days, the return on Danish callable bonds is not as impressive compared with US Treasury bonds as it used to be – especially not after the latest increase in long-dated US Treasury yields. The US curve has steepened a lot, reducing Japanese hedging costs for USD and increasing the bond return at the same time.

### Japanese investors remain loyal to Danish bonds

However, despite that, Japanese investors held on to their position in Danish bonds

and even added a little probably for three reasons:

1. They already have large positions in US Treasuries and may therefore not like further exposure.
2. A lot of the expected return in US Treasuries is due to curve roll-down, which may or may not occur depending on what happens to the curve in the future.
3. Limited correlation between Danish callable bonds and other assets: According to simple portfolio theory, adding uncorrelated assets – like Danish callable bonds – to your portfolio will increase the expected return under the same standard deviation.

Central European investors continue to buy. However, investors seem to be more interested in writing about trips to Tokyo rather than trips to Frankfurt. But German investors have remained the largest foreign investor group in Danish bonds. Danish and ECB deposit rates are now on the same levels, so there is no longer a pick-up from hedging DKK into Euro.

However, Danish bonds still offer attractive returns. Historically, the time and effort spent trying to understand the complexity of the Danish covered bond market have paid off very well in terms of excess return and will most likely continue to do so in the future.

### Harmonization implies only minor changes

Last but not least, a word on the European harmonization process: The Danish government is in the process of transposing the Covered Bond Directive into Danish law.

A bill is currently being read in the Danish Parliament and it is expected to be passed into law before summer.

As Danish covered bond regulation is already to a large extent in line with the Directive, the new legislation only includes some relatively minor changes to the current law. The main changes relate to the implementation of liquidity buffers and to over-collateralisation.

### Footnotes

- 1) Foreigners are by law prohibited from owning holiday homes in Denmark.
- 2) If a bond's duration increases as yields increase, the bond is said to have negative convexity. In other words, the bond price will decline by a greater rate with a rise in yields than if yields had fallen.

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