Exchange and buyback operations: motivations and challenges


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Buyback example

![Bar chart showing the evolution of buybacks from 2012 to 2024. The chart compares 'Off the runs' and 'On the runs' categories. The highest values are seen in 2019 and 2021, with a notable decrease in 2024.](image-url)
Buyback example

Billion

Off the runs

On the runs


DANMARKS NATIONALBANK
Buyback example

Reduce roll-over peaks

<table>
<thead>
<tr>
<th>Year</th>
<th>Off the runs</th>
<th>On the runs</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>30</td>
<td>20</td>
</tr>
<tr>
<td>2013</td>
<td>40</td>
<td>30</td>
</tr>
<tr>
<td>2014</td>
<td>50</td>
<td>40</td>
</tr>
<tr>
<td>2015</td>
<td>60</td>
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</tr>
<tr>
<td>2016</td>
<td>70</td>
<td>60</td>
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<tr>
<td>2017</td>
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<tr>
<td>2018</td>
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<tr>
<td>2019</td>
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<tr>
<td>2020</td>
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<tr>
<td>2021</td>
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<td>2023</td>
<td>140</td>
<td>130</td>
</tr>
<tr>
<td>2024</td>
<td>150</td>
<td>140</td>
</tr>
</tbody>
</table>
Buyback example

Enhance liquidity of on-the-run bonds

Off the runs

On the runs

0
10
20
30
40
50
60
70
80
90
100


Billion
Motivations for buybacks

- **Tuning the debt structure**
  - Reduce roll-over peaks (front end)
  - Smooth redemption profile (entire curve)
  - Buybacks a natural way of ‘investing’ surplus cash
  - Address potential mispricing along the curve
  - Lower future interest cost vs. increasing debt

- **Enhancing liquidity**
  - Attain higher volume in on-the-run bonds
  - … while liquidity in old bonds supported by DMO
Buybacks vs. bond exchanges

Buyback

Issuance  Buyback

<< Time gap >>

Bond exchange ("switch")

Exchanges help minimise
- Interest-rate risk
- Allocation risk
- … but, a coincidence of wants problem
Simple bond exchange

Billion


- Off the runs
- On the runs
Simple bond exchange

Enhance liquidity of on-the-run issue

"Source" → "Destination"
Some practical challenges

- Specifically for bond exchanges:
  - Conduct exchanges in fixed price vs. auction format?
  - Single or multiple source and destination bonds?
  - Settlement amounts: based on dirty prices, duration, etc.?

- Effects on budget and debt measures
  - Buying back long, high-coupon bonds can have large effects

- Buyback premiums may be non-trivial
  - Not desirable to significantly distort the curve

- Relative pricing can be difficult to gauge…
Relative pricing difficult to gauge

- Which bond is most expensive in relative terms?

Depends on the curve…
Summing up

- Buybacks and bond exchanges:
  - Useful tools, supplementing each other
  - Beneficial for issuer *and* investors
  - Is there a significant buyback premium?
  - Measuring ‘performance’ is difficult
Buybacks in DK over past 10 years

On average: outstanding amounts reduced by 40% prior to expiry

Outstanding amount relative to maximum in bond's life

Months prior to expiry

Outstanding amount relative to maximum in bond's life

On average:
outstanding amounts reduced by 40% prior to expiry