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## CMA Retail Banking Market Investigation Second Data Room report

### 1. Executive summary

- 1.1 The second Data Room permitted Nationwide's advisors<sup>1</sup> access to a set of disclosed material, including the means of reproducing the full set of results from the CMA's updated personal current account pricing analysis ("the updated pricing analysis"), presented in the 'updated personal current account pricing' working paper ("the updated pricing analysis working paper").<sup>2</sup>
- 1.2 As noted by the CMA, the updated pricing analysis shows that:
- (i) longer established banking groups with higher market shares have higher prices;<sup>3</sup>
  - (ii) higher prices are not offset by higher quality;<sup>4</sup> and
  - (iii) bank brands whose customers have held their accounts for longer tend to have higher prices on average.<sup>5</sup>
- 1.3 While the CMA notes that weak customer engagement gives rise to incumbency advantages,<sup>6</sup> and that certain customer groups face higher prices and have higher gains from switching, our analysis shows that the CMA has overlooked an important group of customers. In particular, our analysis of the available data indicates that there is clear evidence to support the following:
- (i) customers of large banks<sup>7</sup> have substantially more to gain from switching than customers of small banks:
    - (a) for example, the average customer of a large bank would gain over 50% more a year by switching to the cheapest product than a customer of a small bank (£223.80 per year compared to £150.96 per year).
    - (b) furthermore, there is an even higher differential in gains from switching between large and small banks when considering internal gains from switching.<sup>8</sup> For

<sup>1</sup> This report refers to "Nationwide's advisors" and "we", interchangeably.

<sup>2</sup> The CMA's analysis is based on data on fees and charges for each product from the database held by the CMA's contractor, Runpath Digital Ltd ("Runpath") (See paragraph 7 of the CMA's updated pricing analysis). As Nationwide's advisors noted previously, the actual model Runpath used to calculate estimated prices and gains from switching, and any intermediate data, was not made available in the Data Room. For further details, see Annex A.

<sup>3</sup> See paragraph 39, on page 13 and 14 of the updated pricing analysis working paper, where the CMA concludes that "*there is an overall pattern that banks which are part of banking groups with higher market shares tend to have higher average prices*".

<sup>4</sup> See paragraph 71, page 26 of the updated pricing analysis working paper, where the CMA concludes that "*there is a large number of providers which have above-average prices but below average satisfaction ratings*" and that "*there is a substantial proportion of customers who are currently paying above – average prices yet receiving relatively low quality*".

<sup>5</sup> See paragraph 44, on page 17 of the updated pricing analysis working paper, where the CMA concludes that the brand-estimated average price and the average length of time the products for that brand are held are relatively closely correlated, at 0.72. They conclude further that for GB "*this shows that brands whose customers have held their accounts for longer tend to have higher prices on average; and indicates that banks who have a relatively less active customer base (as indicated by length of time products are held) are charging higher prices on average*". Similar results are found by the CMA for Northern Ireland.

<sup>6</sup> CMA Provisional Findings Report, Summary, paragraph 64.

<sup>7</sup> We construct this by using the "brand" variable to identify whether a customer's current account was held at a large or small bank. In our base case, large banks are defined by the following banking groups: Royal Bank of Scotland, HSBC, Lloyds ("LBG"), Barclays, Santander. Small banking groups are defined as the following PCA providers: Clydesdale, Coop, Metro, Nationwide, and TSB.

<sup>8</sup> We consider internal gains from switching, in addition to gains from switching more generally across the whole market, as this enables us to keep certain factors constant in our comparison (e.g., brand, quality), and to test whether all customers of the same banking group face higher gains from switching (and therefore higher prices), or whether the large banks target certain customer groups such that these are strongly affected by the adverse effects on competition identified by the CMA.

example, customers of large banks have more than five times as much to gain per month from switching than customers of small banks when switching within the same brand (£1.63 compared to £0.30). Over the course of a year, customers of large banks switching within the same banking group could gain over £55 more than customers of small banks by switching internally.

- (ii) Customers with longer tenure have considerably more to gain from switching than customers with shorter tenure, but only if they are customers of large banks. Specifically, customers of large banks who have held their account for more than 10 years gain almost twice as much from switching than those customers at the same bank who have held their account for less than a year, a difference of over £56 per year. In contrast, customers of small banks who have held their account for more than 10 years gain only around £5 more per year from switching than those customers at the same bank who have held their account for less than a year.
- (iii) Back book customers have more to gain from switching than front book customers.<sup>9</sup> In line with our results in the first Data Room, we found that on average, back book customers could save between 48% and 88% more than front book customers if they switched to the average of the five cheapest alternative products available.<sup>10</sup>
- (iv) The heavily disengaged customers that have held an account with a large bank for an extended period of time, most of which are back book accounts, are a distinct customer group. There is a larger proportion of customers on back book accounts that display longer tenure than customers on front book accounts, and these differences cannot be explained by overdraft usage.

1.4 In light of the above, we are of the view that, like overdraft customers, disengaged customers of large banks are a distinct customer group that needs to be targeted specifically by the CMA, as these customers have more to gain from switching and are less likely to search for alternative PCAs.<sup>11</sup>

1.5 In the remainder of this report we set out further details on each of the findings listed above. Before presenting our detailed findings, we first comment briefly on the CMA's methodology. More detailed comments on the flaws in the CMA's methodology for assessing back book customers, our concerns with the year-five variables used in the CMA's analysis, and our observations on the data made available to us in the Data Room are set out in Annex A. The results of our sensitivity analysis are set out in Annex B.

## 2. Methodological note

2.1 The CMA estimates average prices of PCAs and calculates the average amount customers could save from switching to a better value PCA ("gains from switching"). In reviewing the

<sup>9</sup> Back book customers are customers on accounts which are closed to new customers, which are also referred to as 'off-sale' or 'legacy' accounts. Front book customers are customers on accounts which are still on sale to new customers, which are also referred to as 'on-sale' accounts.

<sup>10</sup> This result is based on historical data, which the CMA has not improved upon in its updated pricing analysis. For further details on this methodological issue, see Annex A.

<sup>11</sup> For further details, see the Attachment to Nationwide's Provisional Findings Report, paragraph 2.20, which explains that a customer holding a main account with a large bank decreases the likelihood of searching by almost 4%, holding all other customer characteristics equal.

CMA's gains from switching analysis we identified two important methodological issues which are set out in more detail in Annex A. In summary:

- (i) the CMA's methodology for assessing back book customers is flawed, as the CMA incorrectly matches back book customers to the oldest front book (or 'on sale') account; and
- (ii) the year-five gains from switching variable, as calculated by Runpath, appears to be affected by the Runpath error described by the CMA, and we cannot rule out that the impact materially affects the CMA's results.

2.2 We conducted sensitivities on all of our results presented in this report, to establish whether the methodological issues identified above have a significant effect on our results. The results we find comparing the gains from switching for different groups of customers (large compared to small banks, back book compared to front book customers, and customers with longer compared to shorter tenure) are robust to the methodology adopted.<sup>12</sup>

2.3 For ease of comparison, we present our results in this report on the same basis as the CMA,<sup>13</sup> using the CMA's methodology<sup>14</sup> and preferred specification.<sup>15</sup> Our results focus on Great Britain ("GB").

### **3. Customers of large banks have more to gain from switching than customers of small banks**

#### **3.1 Methodology**

3.1 The CMA finds that there are some differences in prices between large and small banks which cannot be justified by quality,<sup>16</sup> both in the original pricing analysis as well as in the updated pricing analysis. We are of the view that longer-established, large banks, have a higher number of disengaged customers who could gain substantially from switching PCAs, which is supported by the CMA's findings on price. However, as noted in the first Data Room report, the CMA makes no distinction in the gains from switching analysis between customers of large and small banks.

3.2 We replicate the CMA's updated pricing analysis separately for large and small banks.<sup>17</sup> When calculating the gains from switching overall, the dataset is split by large and small bank customers, to test whether the gains from switching differ for customers of large and small banks.

<sup>12</sup> For further details, see Annex B.

<sup>13</sup> As detailed in footnote 36, paragraph 74, page 27 of the updated pricing analysis working paper.

<sup>14</sup> Using (i) the Runpath calculated gains from switching; and (ii) including values for back book customers matched on to the oldest available front book account.

<sup>15</sup> We are reporting the gains from switching using customer segmentation 1, which assumes customers only have direct debits (and no standing orders) and the £100 unarranged overdraft assumption.

<sup>16</sup> CMA Provisional Findings, Summary, paragraph 44.

<sup>17</sup> We construct this by using the "brand" variable to identify whether a customer's current account was held at a large or small bank. In our base case, large banks are defined by the following banking groups: Royal Bank of Scotland, HSBC, Lloyds ("LBG"), Barclays, Santander. Small banks are defined as the following: Clydesdale, Coop, Metro, Nationwide, and TSB. Of the c10,000 accounts included in the CMA's analysis, approximately 1,500 are small bank customers and approximately 8,500 are large bank customers. Sensitivities were carried out excluding TSB from our analysis all together, and including Santander in the sample as a small bank. The results were robust to these sensitivities. For further details, see Annex B.

- 3.3 We look first at gains from switching across the market, i.e., allowing customers to switch internally or externally. As the CMA acknowledges that large banks have some low priced brands,<sup>18</sup> we also consider the gains from switching internally within banking groups and brands. This allows us to compare on a more like-for-like basis, to check whether the differences we find could be explained, at least in part, by differences between banks (e.g., brand, quality).
- 3.4 In addition to running our analysis at an aggregate level, we also look at customer segments more closely, in order to gain insight into whether the differences between gains from switching for large and small banks persist within certain customer groups, where comparisons are made on a more consistent basis. In the round, our results continue to hold.

### 3.2 Overall results

- 3.5 Tables 1 and 2 below include the results of our analysis, showing monthly savings separately for large and small banks based on the CMA's preferred specification.<sup>19</sup>
- 3.6 The evidence shows that customers of large banks have substantially more to gain from switching to any available account as compared with customers of small banks. For example, the average customer of a large bank would gain over 50% more a year (£72.84) by switching to the cheapest product than a customer of a small bank (£223.80 per year for a large bank customer switching to the cheapest standard/reward account, compared to £150.96 per year for a small bank customer, or £18.65 per month for a customer of a large bank compared to £12.58 per month for a customer of a small bank).
- 3.7 Furthermore, when considering internal gains from switching, customers of large banks have more than five times as much to gain per month from switching than customers of small banks (£1.63 compared to £0.30) when switching within the same brand, and substantially more to gain per month from switching within the same banking group (£4.91 compared to £0.30). Over the course of a year, customers of large banks switching within the same banking group could gain over £55 more than customers of small banks by switching internally.
- 3.8 The results below show that there are substantial differences in the gains from switching for customers of large and small banks, which have not been considered by the CMA's analysis to date.<sup>20</sup>

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<sup>18</sup> Paragraph 40, page 14 of the updated pricing analysis working paper.

<sup>19</sup> For further details, see paragraph 2.3 above.

<sup>20</sup> Here we present the results for both standard/reward and packaged accounts. However, the results in the rest of this report are only presented for standard/reward accounts, as there are very few observations for packaged accounts at small banks when considering the data on a more disaggregated basis.

**Table 1: Average monthly gains from switching to five cheapest alternative products, by bank size and product type, GB, £ per month (and annual difference)**

|                              | Large banks                |                                     |                                      | all banks                  |                                     |                                      | Annual difference Large and Small banks |
|------------------------------|----------------------------|-------------------------------------|--------------------------------------|----------------------------|-------------------------------------|--------------------------------------|---|
|                              | Excl. switching incentives | 1 year (incl. switching incentives) | 5 years (incl. switching incentives) | Excl. switching incentives | 1 year (incl. switching incentives) | 5 years (incl. switching incentives) | 5 years (incl. switching incentives)    |
| <b>Standard and reward</b>   |                            |                                     |                                      |                            |                                     |                                      |   |
| <i>Cheapest product</i>      | £17.90                     | £24.93                              | £18.65                               | £11.40                     | £19.59                              | £12.58                               | £72.84                                  |
| <i>2nd cheapest</i>          | £10.71                     | £16.69                              | £10.90                               | £3.97                      | £11.06                              | £4.20                                | £80.40                                  |
| <i>3rd cheapest</i>          | £8.75                      | £14.18                              | £9.22                                | £2.79                      | £10.53                              | £3.11                                | £73.32                                  |
| <i>4th cheapest</i>          | £7.46                      | £12.94                              | £7.57                                | £1.73                      | £9.63                               | £2.04                                | £66.36                                  |
| <i>5th cheapest</i>          | £6.31                      | £11.11                              | £6.58                                | £1.07                      | £7.03                               | £1.48                                | £61.20                                  |
| <i>Average of 3 cheapest</i> | £12.45                     | £18.60                              | £12.92                               | £6.05                      | £13.72                              | £6.63                                | £75.48                                  |
| <i>Average of 5 cheapest</i> | £10.23                     | £15.97                              | £10.58                               | £4.19                      | £11.57                              | £4.68                                | £70.80                                  |
| <b>Packaged</b>              |                            |                                     |                                      |                            |                                     |                                      |   |
| <i>Cheapest product</i>      | £24.78                     | £27.79                              | £24.53                               | £19.63                     | £21.94                              | £19.39                               | £61.68                                  |
| <i>2nd cheapest</i>          | £17.26                     | £24.53                              | £19.41                               | £9.53                      | £16.51                              | £11.30                               | £97.32                                  |
| <i>3rd cheapest</i>          | £14.86                     | £17.41                              | £15.55                               | £3.81                      | £5.39                               | £4.16                                | £136.68                                 |
| <i>4th cheapest</i>          | £10.23                     | £14.18                              | £10.66                               | £1.68                      | £3.29                               | £1.96                                | £104.40                                 |
| <i>5th cheapest</i>          | £7.74                      | £11.08                              | £7.78                                | £0.97                      | £2.41                               | £1.25                                | £78.36                                  |
| <i>Average of 3 cheapest</i> | £18.97                     | £23.24                              | £19.83                               | £10.99                     | £14.61                              | £11.62                               | £98.52                                  |
| <i>Average of 5 cheapest</i> | £14.97                     | £19.00                              | £15.58                               | £7.12                      | £9.91                               | £7.61                                | £95.64                                  |

Note: Four observations are neither 'standard and reward' nor 'packaged' (i.e., ProductType="Unknown"). These observations are not presented in the table above.

**Table 2: Average monthly gains from switching internally (excludes switching incentives) to the cheapest product, by bank size and product type, GB, £ per month (and annual difference)**

|                                     | Large banks | Small banks | Annual difference between Large and Small banks |
|-------------------------------------|-------------|-------------|---|
| <b>Standard and Reward</b>          |             |             |   |
| Within the same brand <sup>21</sup> | £1.63       | £0.30       | £15.96  |
| Within the same banking group       | £4.91       | £0.30       | £55.32  |
| <b>Packaged</b>                     |             |             |   |
| Within the same brand               | £6.58       | -           | -   |
| Within the same banking group       | £10.34      | £3.85       | £77.88  |

Note: Four observations are neither 'standard and reward' nor 'packaged' (i.e., ProductType='Unknown'). These observations are not presented in the table above.

### 3.3 Results by customer segments

- 3.9 We next consider the extent to which the differences observed above can be explained by the characteristics of customers of large and small banks, as distinct from the pricing decisions of the banks.
- 3.10 As noted in our first Data Room report, part of these differences may be attributable to differences in the overall customer base of large banks compared to small banks, but these differences were not sufficient to fully explain the differences observed.<sup>22</sup>
- 3.11 In line with our approach in the first Data Room, to gain insight into whether these differences explain any divergence in the results in the gains from switching for small and large bank customers, we measure the gains from switching within certain customer groups so that comparisons are made on a more consistent basis.
- 3.12 We find that, even on a more disaggregated basis, our overall results continue to hold, as customers of large banks would gain more from switching than customers of small banks even within the more granular categories considered. The following examples are shown for customer categories which account for the largest proportion of the customers in the CMA's sample:
- (i) Based on standard and reward account holders who are moderate overdraft users (1 to 3 days in overdraft),<sup>23</sup> those with accounts at small banks could save an average of £4.93 a month, or £59.16 per year. In comparison, identical large bank customers could save an average of £8.58 a month, or £102.96 per year, nearly twice as much as small bank customers.
  - (ii) Based on standard and reward account holders who are in credit by more than £1,750,<sup>24</sup> those with accounts at small banks would gain £4.76 a month from switching, or £57.12 per year, compared to large bank customers who would gain £11.05 a month,

<sup>21</sup> The results by brand, shown here and throughout this report, rely on the "provider" variable in the underlying dataset.

<sup>22</sup> For further details see Attachment to Nationwide's Provisional Findings Response, paragraph 2.17.

<sup>23</sup> This customer segment accounts for over [ ]% of the customers in the sample.

<sup>24</sup> This customer segment accounts for over [ ]% of the customers in the sample.

or £132.60 per year. Large bank customers can therefore gain more than twice as much from switching as small bank customers.

**Table 3: Average monthly gains from switching to average of five cheapest alternative products, by bank size and characteristics, Standard and Reward products, Year 5 prices including benefits, GB, £ per month (and annual difference)**

|  | Standard and Reward |             |   |
|--|---------------------|-------------|---|
|  | Large banks         | Small banks | Annual difference between Large and Small banks |
| <b>Overdraft users</b>                     |                     |             |   |
| <i>1 to 3 day(s) in od</i>                 | £8.58               | £4.93       | £43.80  |
| <i>4 to 7 days in od</i>                   | £13.21              | -           | -   |
| <i>8 to 14 days in od</i>                  | £17.20              | -           | -   |
| <i>15+ days in od</i>                      | £23.46              | -           | -   |
| <b>Non-overdraft users</b>                 |                     |             |   |
| <i>less than £500, no od</i>               | £5.98               | £4.55       | £17.16  |
| <i>£500 to less than £2,000, no od</i>     | £6.43               | £4.10       | £27.96  |
| <i>£2,000 to less than £3,000, no od</i>   | £7.62               | £4.39       | £38.76  |
| <i>£3,000 to less than £5,000, no od</i>   | £8.94               | £4.58       | £52.32  |
| <i>£5,000 to less than £7,500, no od</i>   | £10.68              | £4.73       | £71.40  |
| <i>£7,500 to less than £10,000, no od</i>  | £11.16              | £5.51       | £67.80  |
| <i>£10,000 to less than £20,000, no od</i> | £10.06              | £5.76       | £51.60  |
| <i>£20,000 or more, no od</i>              | £11.84              | £6.24       | £67.20  |



**Table 4: Average monthly gains from switching to average of five cheapest alternative products, by bank size and customer segment, Standard and Reward products, Year 5 prices including benefits, GB, £ per month (and annual difference)**

|  | Standard and Reward |             |   |
|--|---------------------|-------------|---|
|  | Large banks         | Small banks | Annual difference between Large and Small banks |
| <i>less than £500</i>                      | £10.42              | £4.43       | £71.88  |
| <i>£1,000 to less than £1,500</i>          | £10.30              | £4.69       | £67.32  |
| <i>£1,750 or more</i>                      | £11.05              | £4.76       | £75.48  |
| <i>&lt;2 DDs &amp; £500 to &lt;£750</i>    | £10.55              | £3.90       | £79.80  |
| <i>&lt;2 DDs &amp; £750 to &lt;£1,000</i>  | £9.85               | £6.13       | £44.64  |
| <i>&lt;2 DDs &amp; £1500 to &lt;£1,750</i> | £10.52              | £4.69       | £69.96  |
| <i>2+ DDs &amp; £500 to &lt;£750</i>       | £9.16               | £4.53       | £55.56  |
| <i>2+ DDs &amp; £750 to &lt;£1,000</i>     | £9.87               | £4.62       | £63.00  |
| <i>2+ DDs &amp; £1,500 to &lt;£1,750</i>   | £10.88              | £4.94       | £71.28  |

**Table 5: Average monthly gains from switching to average of five cheapest alternative products, by bank size and overdraft usage, Standard and Reward products, Year 5 prices including benefits, GB, £ per month (and annual difference)**

|   | Standard and Reward |             |   |
|---|---------------------|-------------|---|
|   | Large banks         | Small banks | Annual difference between Large and Small banks |
| <b>Non-overdraft users</b>                                    | £8.05               | £4.57       | £41.76  |
| <b>Overdraft users</b>  |                     |             |   |
| <b>Unarranged overdraft (with/without arranged overdraft)</b> |                     |             |   |
| <i>1 to 3 day(s) in od</i>                                    | £10.84              | £4.68       | £73.92  |
| <i>4 to 7 days in od</i>                                      | £13.88              | -           | -   |
| <i>8 to 14 days in od</i>                                     | £20.26              | -           | -   |
| <i>15+ days in od</i>   | £27.11              | -           | -   |
| <b>Arranged overdraft only</b>                                |                     |             |   |
| <i>1 to 3 day(s) in od</i>                                    | £7.31               | £4.92       | £28.68  |
| <i>4 to 7 days in od</i>                                      | £9.03               | -           | -   |
| <i>8 to 14 days in od</i>                                     | £10.78              | -           | -   |
| <i>15+ days in od</i>   | £16.53              | -           | -   |
| <b>Unarranged overdraft only</b>                              |                     |             |   |
| <i>1 to 3 day(s) in od</i>                                    | £9.75               | £5.01       | £56.88  |
| <i>4 to 7 days in od</i>                                      | £28.61              | -           | -   |
| <i>8+ days in od</i>  | £58.13              | -           | -   |

#### 4. Gains for customers of large banks increase with account tenure

##### 4.1 Methodology

- 4.1 In a well-functioning market customers may hold accounts for long periods of time as they are satisfied with their current bank. However, as the CMA notes, the market is not well-functioning,<sup>25</sup> and the level of customer satisfaction may be the result of misinformation about what else is available in the market.<sup>26</sup>
- 4.2 In this section, we therefore test whether customers of large banks are less likely to be engaged, and are more likely to get a worse deal. Specifically, we analyse this by comparing the gains from switching by account tenure for customers of large and small banks, to test whether the gains from switching increase with account tenure for customers of large banks only.

<sup>25</sup> CMA Provisional Findings, Summary, paragraphs 62-64.

<sup>26</sup> CMA Provisional Decision on Remedies, paragraph 3.152.

4.2 Key results

- 4.3 This analysis shows that customers of large banks with longer tenure have considerably more to gain from switching than customers who have held their account with the same bank for a shorter period of time. This result does not hold for customers of small banks.
- 4.4 For example, our analysis shows that for large banks:
- (i) the gains from switching internally within the banking group increase substantially with account tenure. Customers who have held their account for more than 10 years gain almost twice as much from switching than those customers who have held their account for less than a year (e.g., £5.34 per month compared to £2.74 per month, or £64.08 per year compared to £32.88 per year).
  - (ii) the gains from switching to any available account (including from other banks) also increase substantially with account tenure for customers of large banks. Customers who have held their account for more than 10 years gain almost twice as much from switching than those customers who have held their account for less than a year (e.g., £131.40 per year compared to £73.68, or £10.95 per month compared to £6.14).
- 4.5 In contrast with the above, our analysis shows that for customers at small banks, for example:
- (i) the gains from switching internally within the group do not increase with account tenure. Customers who have held their account for more than 10 years gain substantially *less* from switching than those customers who have held their account for less than a year (£0.20 per month compared to £0.58 per month, or £2.40 per year compared to £6.96 per year).
  - (ii) similarly, the gains from switching to any available account (including from other banks) do not increase substantially with account tenure. Customers who have held their account for more than 10 years gain only £4.68 to £5.64 more per year, or £0.39 to £0.47 more per month, than those customers who have held their account for less than a year.

**Table 6: Average monthly gains from switching to average of five cheapest alternative products, by bank size and account tenure, Standard and Reward products, Year 5 prices including benefits, GB, £ per month (and annual difference)**

|   | Large banks                    |                                   |                                    |                                |                                   |                                    | Small banks                                 |  | Difference between Large and Small banks |
|---|--------------------------------|-----------------------------------|------------------------------------|--------------------------------|-----------------------------------|------------------------------------|---|--|--|
| Overall switching - average of top 5 alternatives | Excluding switching incentives | 1 year (inc. switching incentive) | 5 years (inc. switching incentive) | Excluding switching incentives | 1 year (inc. switching incentive) | 5 years (inc. switching incentive) | Annual, 5 years (inc. switching incentives) |  |  |
| 1. Up to 1 year                                   | 5.68                           | 11.44                             | 6.14                               | 3.87                           | 11.28                             | 4.47                               | 20.04                                       |  |  |
| 2. From 1 to 5 years                              | 9.35                           | 15.16                             | 9.57                               | 4.39                           | 11.69                             | 4.85                               | 56.64                                       |  |  |
| 3. From 5 to 10 years                             | 11.45                          | 17.51                             | 11.67                              | 3.75                           | 11.13                             | 4.15                               | 90.24                                       |  |  |
| 4. Over 10 years                                  | 10.51                          | 16.17                             | 10.95                              | 4.34                           | 11.74                             | 4.86                               | 73.08                                       |  |  |
|   |                                |                                   |                                    |                                |                                   |                                    |   |  |  |
| Internal switching - within group                 | Excluding switching incentives |                                   | Excluding switching incentives     |                                | incentives                        |                                    | Annual, excluding switching incentives      |  |  |
| 1. Up to 1 year                                   | 2.74                           |                                   |                                    |                                | 0.58                              |                                    | 25.92                                       |  |  |
| 2. From 1 to 5 years                              | 4.28                           |                                   |                                    |                                | 0.47                              |                                    | 45.72                                       |  |  |
| 3. From 5 to 10 years                             | 5.20                           |                                   |                                    |                                | 0.24                              |                                    | 59.52                                       |  |  |
| 4. Over 10 years                                  | 5.34                           |                                   |                                    |                                | 0.20                              |                                    | 61.68                                       |  |  |
|   |                                |                                   |                                    |                                |                                   |                                    |   |  |  |
| Internal switching - within brand                 | Excluding switching incentives |                                   | Excluding switching incentives     |                                | incentives                        |                                    | Annual, excluding switching incentives      |  |  |
| 1. Up to 1 year                                   | 1.17                           |                                   |                                    |                                | 0.58                              |                                    | 7.08  |  |  |
| 2. From 1 to 5 years                              | 1.53                           |                                   |                                    |                                | 0.47                              |                                    | 12.72                                       |  |  |
| 3. From 5 to 10 years                             | 1.39                           |                                   |                                    |                                | 0.24                              |                                    | 13.80                                       |  |  |
| 4. Over 10 years                                  | 1.90                           |                                   |                                    |                                | 0.20                              |                                    | 20.40                                       |  |  |

*Note: There are 377 observations for large banks and 5 observations for small banks for which tenure is not defined. These observations are not shown in the results above.*

- 4.6 Our results indicate that customers of large banks with longer tenure have higher gains from switching than customers of the same bank with shorter tenure, and are more likely to be disengaged. Many of these customers will be on back book accounts. In the next section, we therefore look in more detail at back book customers.

## 5. Back book customers have more to gain from switching than front book customers

### 5.1 Methodology

- 5.1 As noted above, in a well-functioning market customers may hold accounts for long periods of time as they are satisfied with their current bank. However, as the CMA notes, the market is not well-functioning,<sup>27</sup> and the level of satisfaction with the current bank may be the result of misinformation about what else is available in the market.<sup>28</sup>
- 5.2 In this section, we therefore test whether customers on back book accounts are less likely to be engaged, and are more likely to get a worse deal. Specifically, we analyse this by comparing the gains from switching for front book and back book customers.
- 5.3 We note that, as a result of the flaws in the CMA's methodology for assessing the price of back book customers, it has only been possible to estimate the gains from switching for back book accounts using historical prices.<sup>29</sup> As a first step, we have therefore replicated the analysis on the same basis as it was carried out in the first Data Room, i.e., using historical pricing data for both back book and front book customers.<sup>30</sup>
- 5.4 We note that the CMA has included back book customers in its updated pricing analysis, estimating the gains from switching for all customers (i.e., an aggregate measure which includes front book *and* back book customers). As a sensitivity test, this is compared to the gains from switching for front book customers only. Had the CMA performed the correct comparison, which involves assessing the gains from switching separately for front book and back book customers, the CMA would have found that the gains from switching for back book customers are substantially higher than for front book customers.
- 5.5 The results of our analysis are reported in the section below, and are in line with the findings of the first Data Room.

### 5.2 Key results

- 5.6 In line with our results from the first Data Room, back book customers have considerably more to gain from switching than front book customers.
- 5.7 For example, our analysis shows that back book customers could, on average, save between 48% and 88% more than front book customers if they switched accounts.

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<sup>27</sup> CMA Provisional Findings, Summary, paragraphs 62-64.

<sup>28</sup> CMA Provisional Decision on Remedies, paragraph 3.152.

<sup>29</sup> See Annex A for further details.

<sup>30</sup> We note that, as the CMA has not collected any further information on back book accounts, we continue to define these as any account shown in the CMA's analysis as "not\_matched" = 1.

**Table 7: Average monthly gains from switching to average of five cheapest alternative products, using historic price data for customer's PCA, by account type (front book or back book), Standard and Reward products, GB, £ per month (and annual difference) <sup>31</sup>**

|   | <i>Excluding switching incentives</i> | <i>1 year (incl. switching incentives)</i> | <i>5 years (incl. switching incentives)</i> |
|---|---------------------------------------|--|---|
| <b>Front book</b>                             | 8.62                                  | 14.65                                      | 9.57  |
| <b>Back book</b>                              | 16.19                                 | 21.64                                      | 17.08                                       |
| <b>% difference - back book to front book</b> | 88%                                   | 48%  | 79%   |
| <b>Annual difference</b>                      | 90.84                                 | 83.88                                      | 90.12                                       |

## 6. Customers on back book accounts are a distinct customer group

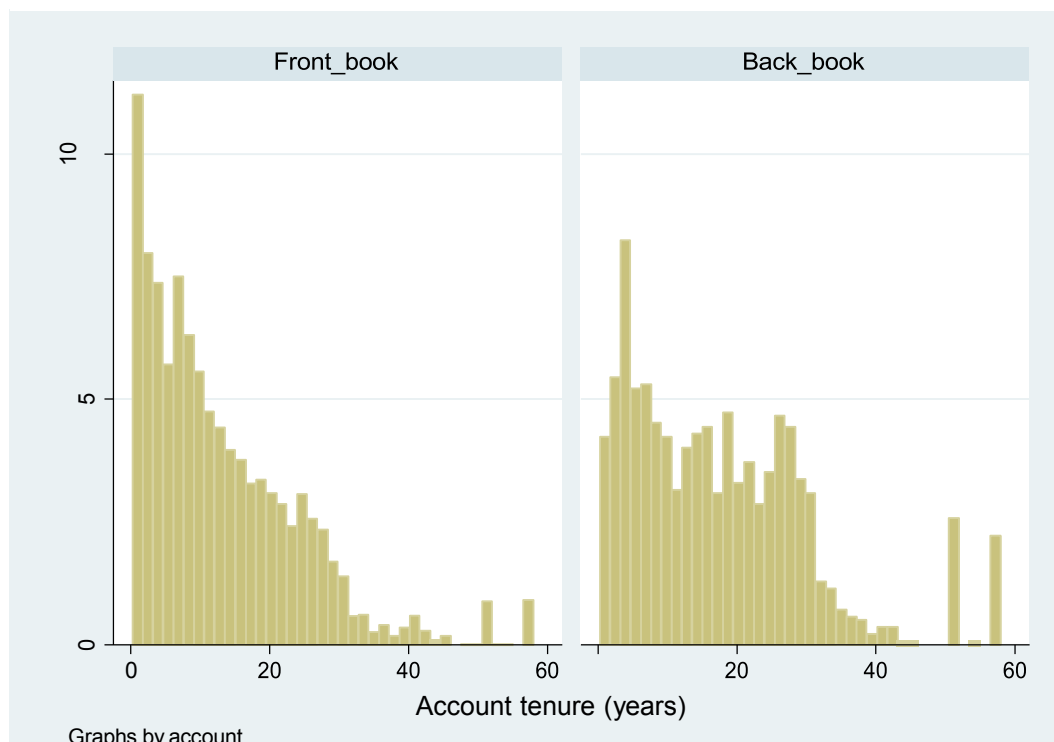
- 6.1 The heavily disengaged customers that have held an account with a large bank for an extended period of time, most of which are back book accounts, are a distinct customer group.

### 6.1 Back book customers display longer account tenure

- 6.2 As shown in the chart below, there is a larger proportion of customers on back book accounts that display longer tenure than customers on front book accounts.

<sup>31</sup>The results presented here use gains from switching defined as the difference between the monthly value of the account currently held by the customer and the monthly value of the alternative account the customer would switch to (see Annex A for further details). The results obtained using the Runpath calculated gains from switching are the same as those when gains are calculated by excluding switching incentives ("month" method), or when switching incentives are spread over a 1 year period ("year-one" method). However, when gains are calculated by switching incentives spread over a 5 year period ("year-five" method), the gains are much lower, but still show higher gains for back book customers: back book customers gain £7.07, front book customers gain £6.52 and the percentage difference is 8% (see results in Annex B). As explained in Annex A, the CMA acknowledges that Runpath's year-five variable is subject to errors, and we believe that this is the reason why these results are not in line with their month and year-one results.

**Figure 1: Account tenure for front book and back book customers, Standard and Reward products, GB**



### 6.2 Back book customers are distinct from overdraft users

- 6.3 The CMA notes that overdraft users may face particular difficulty searching and switching PCAs,<sup>32</sup> and further that overdraft usage can affect gains from switching, with customers who do not use any overdraft experiencing lower gains from switching.<sup>33</sup>
- 6.4 In principle, the results above, which demonstrate the difference in gains from switching for front book and back book customers, could be driven by overdraft usage if a significantly higher proportion of back book customers use overdrafts (as compared to front book customers), such that back book customers with higher tenure overlap with the specific group of overdraft customers already identified by the CMA.
- 6.5 However, as shown below, more than half of back book customers do not use any overdraft (51%), which is not materially different to the result for front book customers (59%). Further, we note that the 21% of back book customers using an overdraft only use the overdraft for 1-3 days (compared to a similar figure of 24% for front book customers).
- 6.6 While there are some differences in the proportions between front book and back book accounts, more than half of back book customers do not use an overdraft, and would not therefore overlap with the specific group of overdraft customers already identified by the CMA.

<sup>32</sup> CMA Provisional Findings, paragraphs 7.111-7.116.

<sup>33</sup> Paragraph 85, page 29-30, of the updated pricing analysis working paper.

**Table 8: Proportion of overdraft users and non-overdraft users by account type, Standard and reward products only, GB**

|   | Standard and Reward |           |
|---|---------------------|-----------|
|   | Front book          | Back book |
| No overdraft (%)                              | 59%                 | 51%       |
| Overdraft (arranged, unarranged, or both) (%) | 41%                 | 49%       |
| Total (#)                                     | 7,960               | 1,500     |

## 7. Conclusion

- 7.1 While the CMA notes that weak customer engagement gives rise to incumbency advantages,<sup>34</sup> and certain customer groups face higher prices and have higher gains from switching, our analysis shows that the CMA has overlooked an important group of customers.
- 7.2 The CMA's own evidence and analysis indicates that the disengaged customers of large banks who have held their accounts for a long period of time, who are likely to be back book customers, are worse off and the large banks are targeting them. Specifically, the CMA finds that:
- (i) average prices are generally higher at banking groups with higher market shares, and this result continues to hold even when considering different target markets (or customer types);<sup>35</sup>
  - (ii) higher prices are not offset by higher quality. A number of banks are able to charge higher prices despite offering lower quality;<sup>36</sup>
  - (iii) banking groups with higher market shares do offer some relatively cheap PCA products to active customers who seek them out,<sup>37</sup> and continue to charge high prices to less active customers; and
  - (iv) bank brands (e.g. Lloyds or Halifax as opposed to the Lloyds Banking Group) whose customers have held their accounts for longer tend to have higher prices on average.<sup>38</sup>
- 7.3 Large banks are able to specifically target disengaged customers with longer tenure, most of which are on back book accounts, charging above average prices while offering below average quality.
- 7.4 Our analysis shows that this distinct customer group - which has been overlooked by the CMA in its analysis to date – has higher gains from switching as a result of this targeting by large banks. This is an important and non-negligible group of customers which should be considered further by the CMA.

<sup>34</sup> CMA Provisional Findings Report, Summary, paragraph 64.

<sup>35</sup> Paragraph 39 pages 13 and 14 of the updated pricing analysis working paper.

<sup>36</sup> Paragraphs 65 and 71 pages 20-26 of the updated pricing analysis working paper.

<sup>37</sup> Paragraph 40 page 14 of the updated pricing analysis working paper.

<sup>38</sup> Paragraph 44 page 17 of the updated pricing analysis working paper.



## Annex A: Methodological annex

1. In this Annex, we set out further comments on three aspects of the CMA's methodology. We first describe the flaws in the CMA's methodology for assessing back book customers, before highlighting our concerns with the year-five variables used in the CMA's analysis, and our observations on the data made available to us in the Data Room.

### A.1 The CMA's approach for back book customers is flawed

2. In the first Data Room, we alerted the CMA to the fact that the Runpath dataset the CMA used for its analysis included a number of accounts identified as "unknown".<sup>39</sup> As the CMA noted at the time,<sup>40</sup> the majority of these unknown accounts are likely to be back book accounts. These were incorrectly dropped from the CMA's analysis, as Runpath do not hold pricing information for these back book accounts.
3. In its updated pricing analysis the CMA attempts to address this issue, so that these observations can be included in the analysis. To do this, the CMA has not collected information on the relevant price factors for these back book accounts, but has instead matched customers on back book accounts to the oldest front book account available at that same brand.<sup>41</sup> Runpath then calculate the price for these customers, based on their transaction data, as if they had been on the oldest front book account they are matched to. All analysis of gains from switching presented in the updated pricing analysis working paper is carried out on this basis.
4. Nationwide's advisors consider that this approach is flawed:
  - i. it is incorrect to assume that the pricing of a front book account, which is still available to new customers, is representative of the pricing of a back book account. This is an assumption which needs to be tested, and there is no evidence that any such testing has been carried out by the CMA (or Runpath); and
  - ii. it cannot be assumed that the oldest front book account will be the most relevant account for each customer, particularly in those instances where customers holding a packaged account have been matched to a standard account, or vice versa.<sup>42</sup>
5. Given the importance of accurately understanding the pricing and gains from switching for back book customers, who are likely to be the most disengaged and have the most to gain from switching, the CMA should have gathered the parameters of the back book accounts, either from publicly available sources or directly from the banks. This would have ensured that all prices are accurately calculated using the same methodology in the Runpath analysis, and would have enabled a comparison of front book and back book accounts, to test whether more disengaged customers on back book customers have more to gain from switching than customers on front book accounts.

<sup>39</sup> For customers on these accounts, the estimated average cost of their account was not calculated by Runpath, because it did not hold current pricing data for them.

<sup>40</sup> See the CMA's notes to table 1 of appendix 5.4 to the Provisional Findings.

<sup>41</sup> For further details see the Runpath dictionary and paragraph 31, page 8 of Appendix 2 to the updated pricing analysis report.

<sup>42</sup> For example, according to Appendix 2 of the updated pricing analysis working paper, Runpath has matched customers on the TSB Gold Account, a packaged account, to the TSB Classic Current Account, a standard/reward account. The CMA itself acknowledges that this might lead to inaccuracies in the analysis, including because of the matching of back book packaged accounts to a front book standard or reward accounts. See paragraph 31, page 8 of Appendix 2 to the updated pricing analysis report.

6. As the CMA has failed to collect the relevant information for its updated pricing analysis, we were not in a position to improve on our analysis of historical prices for front book and back book customers, presented in Nationwide's first Data Room report.

#### A.2 Concerns with the CMA's use of Runpath year-five variables

7. As the CMA acknowledges, Runpath made an error in calculating the "Y5 measure" by failing to include paid and unpaid items fees.<sup>43</sup> While the CMA's analysis of average prices makes an adjustment to Runpath's year-five variables to account for this mistake, their gains from switching analysis does not follow a similar approach.
8. Specifically, in the gains from switching analysis, the CMA does not make any adjustments to Runpath's year-five variables, and keeps using them while acknowledging that they are subject to errors. In following this approach, the CMA notes that it "*found that the analysis of gains from switching was unlikely to be affected by this omission in any material way*".<sup>44</sup>
9. As set out further below, our analysis in the Data Room indicates that the CMA's gains from switching analysis for the year-five variable may be affected by the Runpath error. We would therefore request that the CMA revisit the analysis, to ensure that the analysis of the gains from switching is not materially affected by the Runpath error.
10. We first set out the key variables in the datasets made available to us in the Data Room, before explaining the CMA's approach and the checks we have carried out on the CMA's methodology.

##### A.2.1 Key variables

11. We present a simplified version of the variables that the CMA received from Runpath, which were made available to us in the Data Room.

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<sup>43</sup> "At a late stage and shortly before publication of this working paper, Runpath told us that the Y5 measure did not include unpaid and paid items fees due to an error in running the data. Unpaid and paid items fees were included in the other two measures (Y1 and M)", paragraph 20 of the updated pricing analysis report.

<sup>44</sup> See, for example, paragraph 20 of the updated pricing analysis report.

**Table 9: Simplified explanation of Runpath variables**

| Variable               | Description   |
|------------------------|---|
| <b>Value_incumbent</b> | Monthly value of the incumbent account, i.e. the PCA currently held by the customer.  |
| <b>Value_Pi_M</b>      | Monthly value of the $i^{\text{th}}$ best alternative account when calculated excluding switching incentives.   |
| <b>Value_Pi_Y1</b>     | Monthly value of the $i^{\text{th}}$ best alternative account when calculated including switching incentives, with incentives smoothed over 1 year.<br>$Y1 = M + (1/12) * (\text{switching incentives})$  |
| <b>Value_Pi_Y5</b>     | Monthly value of the $i^{\text{th}}$ best alternative account when calculated including switching incentives, with incentives smoothed over 5 years.<br>$Y5 = M + (1/60) * (\text{switching incentives})$ |
| <b>Delta_Pi_M</b>      | Monthly gain from switching from incumbent account to the $i^{\text{th}}$ best alternative when calculated excluding switching incentives.  |
| <b>Delta_Pi_Y1</b>     | Monthly gain from switching from incumbent account to the $i^{\text{th}}$ best alternative when calculated including switching incentives, with incentives smoothed over 1 year.                          |
| <b>Delta_Pi_Y5</b>     | Monthly gain from switching from incumbent account to the $i^{\text{th}}$ best alternative when calculated including switching incentives, with incentives smoothed over 5 years.                         |

A.2.2 The CMA's calculations

12. The gains from switching, identified above as a series of delta variables (Delta\_Pi\_M, Delta\_Pi\_Y1, and Delta\_Pi\_Y5), should be equal to the difference in values of the PCA currently held by the customer, and the value of the  $i^{\text{th}}$  best alternative PCA that the customer could switch to. For example, if the PCA currently held by the customer has value of £1.50 per month, and the cheapest alternative PCA has value of £2.00 per month, then the gain from switching is +£0.50 per month. Similarly, if the PCA currently held by the customer has value of £18 per year, and the cheapest alternative PCA has value of £24 per year, then the annual gain from switching is +£6.
13. The CMA's do files show that the gains from switching analysis relies on the delta variables received from Runpath, i.e., the CMA continues to use these variables, even though they have acknowledged that they are subject to Runpath's error.
  - i. We note that for the month and year-one variables, the deltas equal the difference between the value of the incumbent account and the value of the  $i^{\text{th}}$  best alternative (calculated excluding incentives and smoothing incentives over 12 months, respectively), in 98% or more of cases.
  - ii. However, for a significant number of year-five observations, the delta does not equal the difference between the value of the incumbent account and the value of the  $i^{\text{th}}$  best alternative (calculated by smoothing incentives over five years). [ ]

### A.2.3 Our review of the year-five variables

14. As the year-five delta did not equal the difference between the value of the incumbent PCA and of the  $i^{\text{th}}$  best alternative (calculated by smoothing incentives over 5 years), we have checked whether the Runpath error is likely to affect the value of the year-five variable, or only the delta of the year-five variable. We note that if the Runpath error affects the delta but not the value, then it would be possible for the CMA to use the value to generate the gains from switching estimates. If this were the case, the CMA would not have to use the incorrect Runpath delta, and rely on the assumption that the Runpath error does not materially affect the results.
15. As the CMA explains in footnote 12 of the updated pricing analysis report, there is a simple arithmetic method to reconstruct the value of the year-five account using the month and year-one measures, which the CMA employed when adjusting for Runpath's error for its average prices analysis.
16. We therefore ran a simple check, using this arithmetic method, to calculate the year-five value using month and year-one variables, as follows:

$$Y5 = \frac{12 * Y1 + 48 * M}{60}$$

17. We find that reconstructing the year-five value using month and year-one values gives a year-five value that is equal to Runpath's year-five value in the vast majority of cases. In other words, the Runpath year-five value appears to be correct, which implies that the Runpath error may only affect the year-five delta – a variable which the CMA relied on in its analysis.
18. Unfortunately, due to time constraints of the Data Room, we were unable to explore the issue further, to identify with more certainty whether both the Runpath delta for year-five *and* the Runpath value for year-five were affected by the error.
19. In the main body of this Report, unless otherwise stated, we present results using the Runpath delta, i.e. we follow the methodology adopted by the CMA. However, as a sensitivity, we also ran our analyses on deltas constructed as the difference between the value of the incumbent account and that of the account the customer could switch to. These sensitivities show that the overall conclusions continue to hold. Furthermore, as set out in the main body of this report, in some cases the results using these re-defined deltas are more plausible (i.e. more in line with the month and year-one results) than the results acquired by using Runpath deltas.

### A.3 Information made available in the Data Room

20. As Nationwide's advisors noted previously, the CMA's analysis is based on data on fees and charges for each product from the database held by Runpath, who estimated the price of each customer holding each available account, based on the customer's transaction patterns and the data on fees and charges that Runpath holds.
21. While access was provided to some of the data used by Runpath to construct its analysis, and access was provided to the output of its analysis, the actual model Runpath used to calculate estimated prices and gains from switching, and any intermediate data, was not made available in the Data Room.

22. We have been able to replicate the CMA's analysis of the Runpath output. However, we have been unable to test Runpath's analysis itself, or its sensitivity to the assumptions used to calculate average gains from switching and average prices. We nevertheless welcome the disclosure by the CMA of the Runpath Assumptions Dictionary, provided as an Appendix to the updated pricing analysis report, which was not previously made available.

## Annex B: Sensitivity Analysis

1. In this Annex, we set out the results of our sensitivity analysis.

### Gains from switching by bank size

2. First, Nationwide's economic advisors have re-run their analysis excluding back book customers. As described in Annex A above, Nationwide's economic advisors believe that the CMA's attempt to address the issue of back book customers by matching them to the oldest front book account available at that brand is incorrect. While excluding back book customers is incorrect, we would be concerned if the approach adopted by the CMA significantly alters the results. To better understand the possible effect of the CMA's error, we have therefore tested whether the results, including differences in gains from switching for customers of large and small banks, change when back book customers are excluded from the sample.
3. Second, as described in Annex A above, it is unclear to Nationwide's economic advisors that (i) the Runpath measures are all incorrect for year-five; and (ii) the CMA's conclusion that any errors do not materially alter the results holds. As such, the gains from switching have been re-computed using the value calculations as provided by Runpath. This sensitivity was conducted both keeping and excluding back book customers.
4. For each combination of the alternative assumptions above, the analysis has been conducted:
  - i. including Santander as a large bank, and including Santander as a small bank. This is because Santander is considered by the CMA as a large bank in some analysis, while in others it has been considered as a small bank;<sup>45</sup> and
  - ii. including and excluding TSB's data for the analysis. While TSB is a small bank, it has recently been divested from Lloyds (a large bank) and observations for TSB appear to be outliers. We have therefore tested the results excluding data for TSB.
5. The results of the sensitivity analyses are in line with the results and conclusions set out in the main report.

### Gains from switching by tenure

6. As the CMA itself noted, the data provided by some banks have unusual patterns in the historic data for account opening.<sup>46</sup> As such, the CMA conducted a sensitivity analysis which excludes all customers whose account was opened before 1984.<sup>47</sup>
7. [ ]

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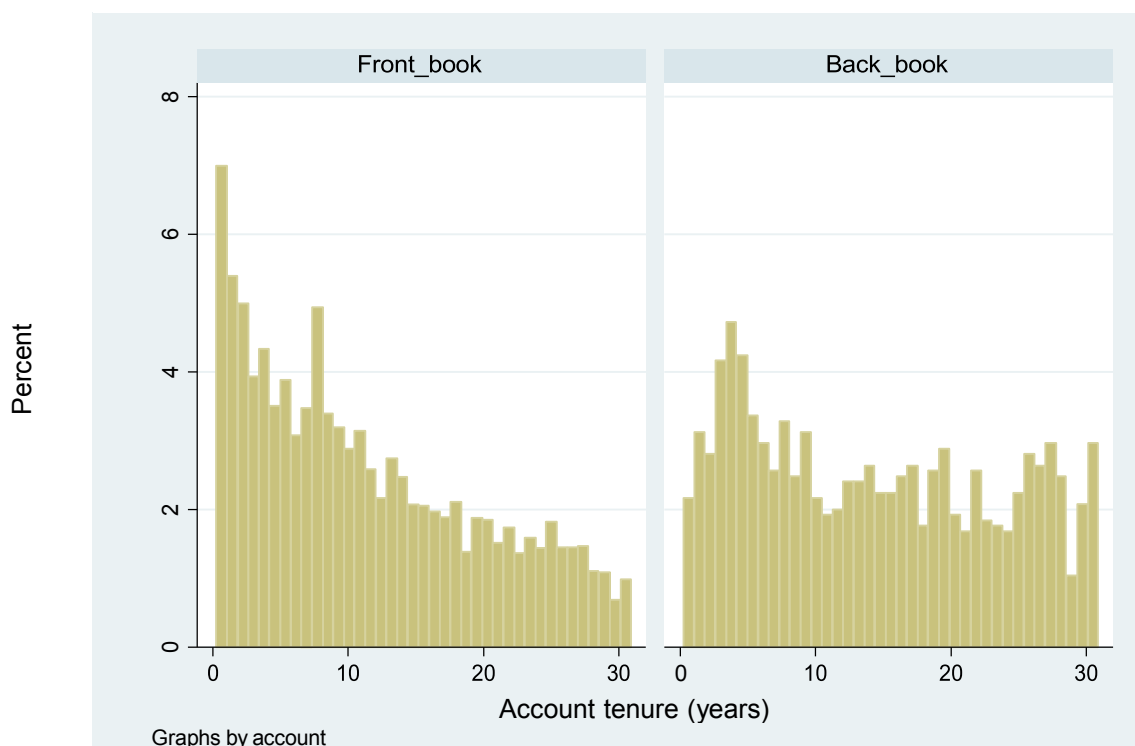
<sup>45</sup> We note that, when considering the results by customer segment in this sensitivity analysis, there are some instances where the only observations for small banks in a given customer segment are for customers of Santander, such that the results are driven by customers of Santander, a bank which has been considered a large bank by the CMA in many instances. Therefore, this should be factored into the weight which is placed on the results of the sensitivity analysis for these customer segments.

<sup>46</sup> See do file '7 – time PCA held', lines 92 and 93.

<sup>47</sup> See do file '7 – time PCA held', line 126.

8. As shown in the figure below, if account tenure for front book and back book customers is shown excluding customers whose account was opened before 1984, the difference in account tenure is even more pronounced.

**Figure 2: Account tenure for front book and back book customers, excluding customers whose account was opened before 1984, Standard and Reward products, GB**



9. We also noticed that there was a spike in account tenure at [ ] months and [ ] months, which appeared to be outliers in the dataset. These observations are driven by a significant number of customers for [ ] and [ ] who have exceptionally long tenure compared to other customers included in the dataset (i.e., [ ] customers from [ ] have a tenure of [ ] months and [ ] customers from [ ] have a tenure of [ ] months). Excluding these customers with exceptionally long tenure does not change the conclusions set out in the main report above.

#### Front book vs. back book customers

10. Finally, Nationwide's economic advisors have re-run the analysis looking at the gains from switching for front book and back book customers with the gains from switching re-computed using the value calculations as provided by Runpath (see Annex A).<sup>48</sup>

<sup>48</sup> As noted in the footnote to Table 7 of the main report, the difference in gains from switching for front book and back book customers is even more pronounced when using the re-computed value of the gains from switching, rather than the Runpath delta.

## Results

11. Due to the size of the relevant tables, and the limited time available in the Data Room, the results of our sensitivity analyses are presented in a series of Excel workbooks as follows:

### **B.1 - Using the same deltas as the CMA, keeping back book customers**

(File name: "Gains\_f\_switch\_CS1\_UOD100\_GB\_keepBB\_delRP.xls")

- **Worksheet "size\_big5"**: Large banks include Santander (i.e., results presented in the main report)
- **Worksheet "size\_big4"**: Small banks include Santander<sup>49</sup>
- **Worksheet "size\_big4\_noTSB"**: Small banks include Santander, TSB is excluded from the analysis
- **Worksheet "size\_big5\_noTSB"**: Large banks include Santander, TBS is excluded from the analysis
- **Worksheet "tenure\_stonly\_big5"**: Large banks include Santander
  - o Rows 1 to 29: keep customers with exceptionally long tenure (i.e., results presented in the main report)
  - o Rows 41 to 69: exclude observations with a date of PCA opening prior to 1984
  - o Rows 81 to 109: exclude observations for customers who opened their accounts [ ] and [ ] months ago

### **B.2 - Using the same deltas as the CMA and excluding back book customers**

(File name: "Gains\_f\_switch\_CS1\_UOD100\_GB\_dropBB\_delRP.xls")

- **Worksheet "size\_big5"**: Large banks include Santander
- **Worksheet "size\_big4"**: Small banks include Santander
- **Worksheet "size\_big4\_noTSB"**: Small banks include Santander, TBS is excluded from the analysis
- **Worksheet "size\_big5\_noTSB"**: Large banks include Santander, TBS is excluded from the analysis
- **Worksheet "tenure\_stonly\_big5"**: Large banks include Santander
  - o Rows 1 to 29: keep customers with exceptionally long tenure
  - o Rows 41 to 69: exclude observations with a date of PCA opening prior to 1984
  - o Rows 81 to 109: exclude observations for customers who opened their accounts [ ] and [ ] months ago

### **B.3 - Using KPMG deltas and including back book customers**

(File name: "Gains\_f\_switch\_CS1\_UOD100\_GB\_keepBB\_delKPMG.xls")

- **Worksheet "size\_big5"**: Large banks include Santander
- **Worksheet "size\_big4"**: Small banks include Santander
- **Worksheet "size\_big4\_noTSB"**: Small banks include Santander, TBS is excluded from the analysis
- **Worksheet "tenure\_stonly\_big5"**: Large banks include Santander, TBS is excluded from the analysis
  - o Rows 1 to 29: keep customers with exceptionally long tenure
  - o Rows 41 to 69: exclude observations with a date of PCA opening prior to 1984
  - o Rows 81 to 109: exclude observations for customers who opened their accounts [ ] and [ ] months ago

<sup>49</sup> As noted in paragraph 4 above, while we have run all of our sensitivity analyses including Santander as a small bank, there are some customer segments with no observations for other small banks, so caution should be exercised when interpreting the more disaggregated results by customer segment.



**B.4 - Using KPMG deltas and excluding back book customers**

(File name: "Gains\_f\_switch\_CS1\_UOD100\_GB\_dropBB\_delKPMG.xls")

- **Worksheet "size\_big5"**: Large banks include Santander
- **Worksheet "size\_big4"**: Small banks include Santander
- **Worksheet "size\_big4\_noTSB"**: Small banks include Santander, TBS is excluded from the analysis
- **Worksheet "tenure\_stonly\_big5"**: Large banks include Santander, TBS is excluded from the analysis
  - o Rows 1 to 29: keep customers with exceptionally long tenure
  - o Rows 41 to 69: exclude observations with a date of PCA opening prior to 1984
  - o Rows 81 to 109: exclude observations for customers who opened their accounts [ ] and [ ] months ago

**B.5 - Back book vs. front book customers**

(File name: "Gains\_f\_switch\_BBvsFB.xls")

- **Worksheet "From\_Stata\_Over10"**: keep customers with exceptionally long tenure
  - o Rows 1 to 6: use deltas as provided by the CMA
  - o Rows 11 to 16: use deltas re-computed using the value calculations as provided by Runpath (i.e., results also presented in the main report)
- **Worksheet "From\_Stata\_Over1984"**: exclude observations with a date of PCA opening prior to 1984
  - o Rows 1 to 6: use deltas as provided by the CMA
  - o Rows 11 to 16: use deltas re-computed using the value calculations as provided by Runpath
- **Worksheet "From\_Stata\_Drop2m"**: exclude observations for customers who opened their accounts [ ] and [ ] months ago
  - o Rows 1 to 6: use deltas as provided by the CMA
  - o Rows 11 to 16: use deltas re-computed using the value calculations as provided by Runpath