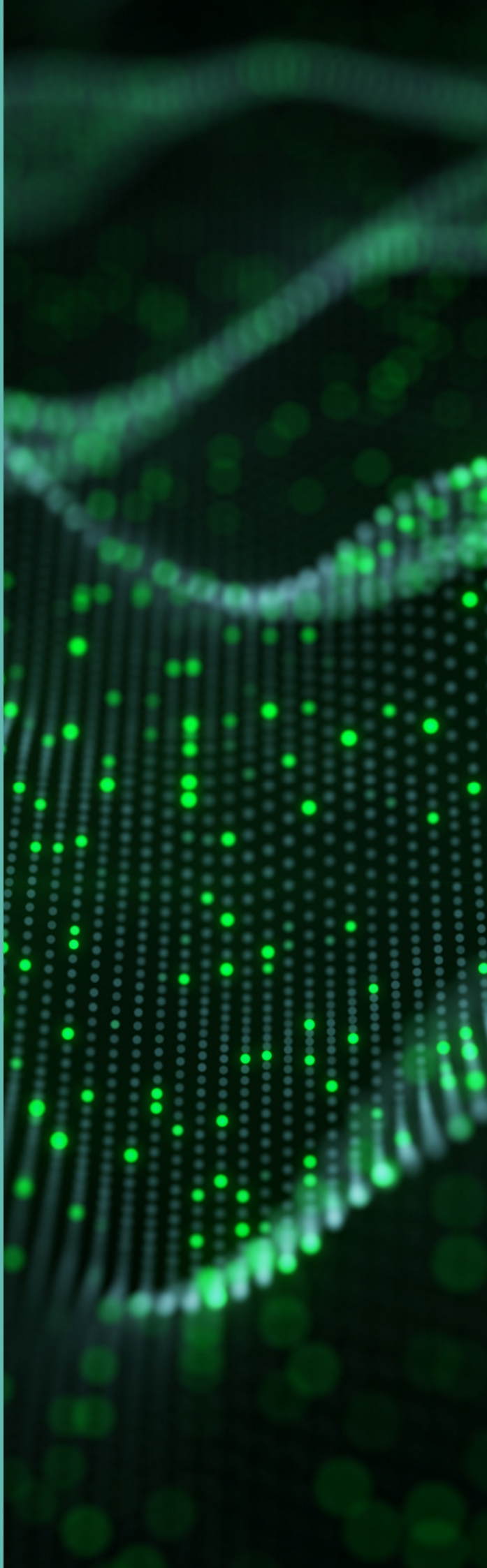


# Impairment Trends: Consensus Point-in- Time Curves

October 2020



# Table of Contents

|    |                                     |   |
|----|-------------------------------------|---|
| 1. | Introduction .....                  | 3 |
| 2. | Analysis of PIT vs TTC PDs .....    | 5 |
| 3. | Impact on Stage Migration .....     | 7 |
| 4. | Shifting Economic Predictions ..... | 8 |
| 5. | Conclusion and Outlook .....        | 9 |

# 1. Introduction

- ✦ **The COVID-19 crisis has highlighted how sensitive banks impairment numbers are to changes in the economy.**
- ✦ **PIT PD curves have increased substantially across all industries.**
- ✦ **Banks have changed their PIT PD curves quicker and more severely than their TTC PDs.**
- ✦ **Banks have increased the severity of their forward-looking downturn scenarios.**

The COVID-19 crisis has highlighted how sensitive bank's impairment numbers are to changes in the economy. Under IFRS9 accounting rules, Banks have to hold impairment now against their future expected credit losses. When countries shut down large parts of their economies due to COVID-19 Banks had to react quickly to reassess the increase in the current and future credit risk of their portfolio.

Many Banks' recent half year results show substantial increases in their impairment provisions and the impact this has on their profits.

A key component of banks IFRS9 impairment calculation is their point-in-time (PIT) Probability of Default (PD) estimates that reflect their prediction of the economic impact on credit risk forecasts forward in time. Higher PIT PDs lead to higher impairment, both directly through the formula for expected credit losses (ECL) and through loans migrating from a 1 year ECL to a lifetime ECL. If banks hold more impairment it reduces their funds available for lending, which can in turn impact the economy causing a negative feedback loop.

Credit Benchmark has recently launched a PIT service that collects and aggregates PIT PD curves. The service launched in the UK and Credit Benchmark is actively expanding this to other contributing banks globally. Banks derive cumulative PDs that correspond to their estimates of each entities probability of default over different time horizons, for example, a 3Y cumulative PD corresponds to the probability that an entity will default at any time over the next 3 years. Participating banks submit their PD term structure out to 10 years for both:

- **Baseline PDs** - Calculated using the forward looking economic forecast that banks view as most likely
- **Scenario Weighted PDs** - Calculated using a weighted average of different forward looking economic forecasts banks consider when assessing their impairment

In this report, we use aggregated PIT PD curves<sup>1</sup> to look at the impact COVID-19 has had on banks forecasts of credit risk and impairment. Here we focus on the results from contributing UK banks, as the service expands future analysis will broaden to include the wider dataset.

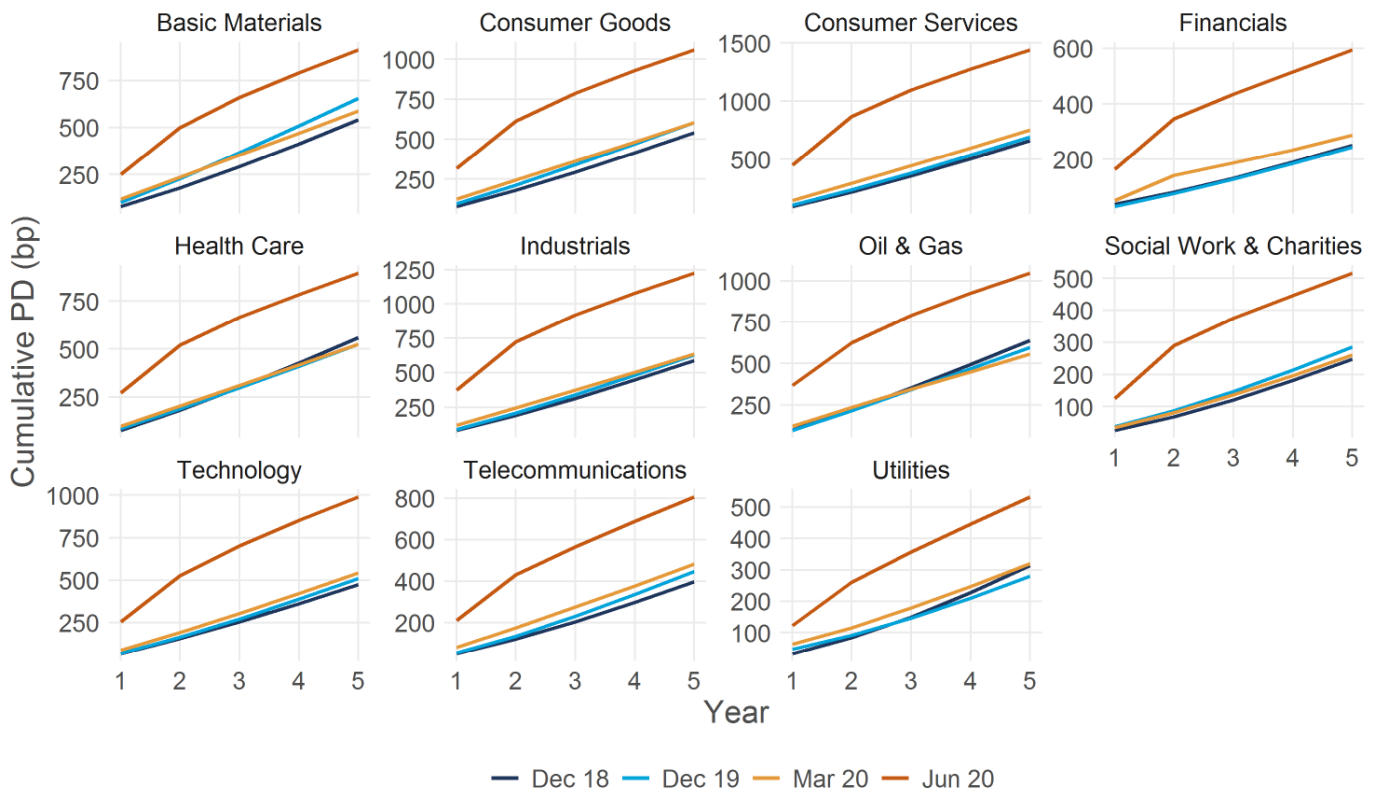
<sup>1</sup> Aggregated results are calculated using entity level PD averages which use at least two bank contributions.

Figure 1.1 shows the average cumulative PIT PD curves up to 5 years across different industries. The red line shows the curves from June 2020, by which time banks had seen the impact of the COVID-19 crisis for 3 months. The blue lines show where banks viewed their PIT PD curves in December 2018 and December 2019. The orange line shows the banks PIT PD curves in March 2020, just as the economic impact of the COVID crisis was beginning to be observed.

The PIT PD curves have substantially increased across all industries, with the forward probability of default approximately doubling over the next one to two years. Recent increases in the amount of impairment held by banks are substantially driven by these increases.

The results from March show that banks did start to recognise the increase in credit risk from the COVID-19 crisis in Q1, with the orange line generally higher than the 2018 and 2019 PDs.

**Figure 1.1 Cumulative PIT PD Curves Across Industries**



## 2. Analysis of PIT vs TTC PDs

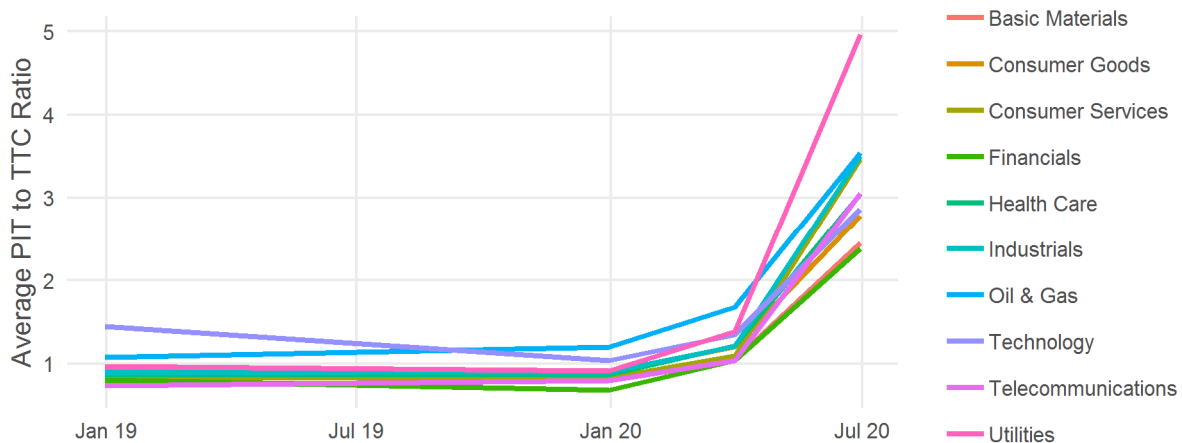
Banks<sup>2</sup> use through-the-cycle (TTC) PDs to calculate their risk weighted assets (RWA) which defines how much capital they need to hold. The TTC PDs represent the bank’s view of an entity’s credit risk during an average economic period. With whole sectors impacted by countrywide lockdowns, the PIT PDs reflect banks’ overall view of systemically increased credit risk.

Figure 2.1 shows the average ratio between the baseline 1Y PIT PD and the TTC PD of each entity across different industries<sup>3</sup>. It shows how 1Y PIT PDs have moved relative to TTC PD estimates.

A ratio of one means that PIT PDs and TTC PDs are on average the same, which would indicate that banks view the current economic status as near the long-run average<sup>4</sup>, so neither in an upturn nor a downturn. A ratio higher than one indicates a downturn view of credit risk.

Between December 2019 and June 2020, increases in PIT PDs surpassed that of TTC PDs.

**Figure 2.1: PIT to TTC Ratio Across Different Industries**



From December 2018 to December 2019, the ratio between PIT and TTC had been relatively stable with most industries assessed as being slightly less risky than the long run average. However, from December 2019 to June 2020 all industries show a marked increase in credit risk to a state significantly worse than long-run average credit risk.

The ratios started to increase in March but the biggest increases occurred in June.

<sup>2</sup> Banks with AIRB or FIRB permissions use TTC PDs for calculating RWA

<sup>3</sup> The PIT to TTC ratio is calculated at entity level and then the ratios are averaged within each industry.

<sup>4</sup> TTC PDs include a component of conservatism, which will contribute to TTC PDs being slightly higher than average PIT PDs.

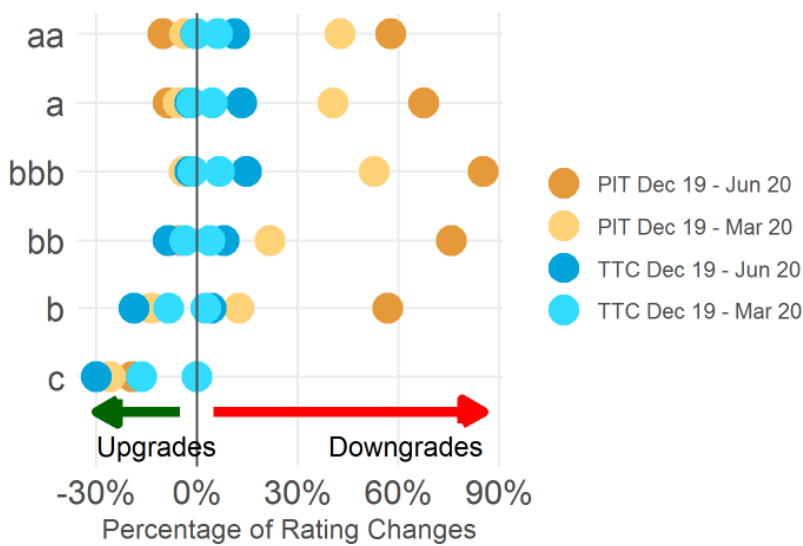
The impact of COVID-19 on banks assessment of credit risk is further highlighted by comparing the proportion of rating changes for 1Y PIT PDs vs TTC PDs,

Figure 2.2 shows the percentage of downgrades and upgrades from December 2019 to March 2020 and June 2020 across Corporates and Financials split by rating<sup>5</sup>.

It shows a significantly higher proportion of PIT PD downgrades than TTC downgrades occurred across the spectrum of ratings, fully reflecting the impact of COVID-19. This is particularly evident around the Investment Grade boundary, implying an outsized effect on companies close to the boundary.

Banks started to downgrade their PIT ratings in March, shown by the light orange dots, but the full impact of COVID-19 was only recognised in June impairment numbers.

**Figure 2.2: Migration of PIT vs TTC**



<sup>5</sup> These results have been calculated using the full dataset of banks PD observations.

### 3. Impact on Stage Migration

IFRS9 impairment requires that banks hold impairment for expected credit losses (ECL) against each trade over either 1 year (stage 1) or the lifetime of the trade (stage 2). If the predicted credit risk of an entity over its lifetime significantly increases from origination then the asset should be assigned to stage 2, a lifetime ECL. A move from a 1 year to a lifetime ECL can cause a significant increase in impairment because suddenly potential losses over multiple future years are added. An increase in impairment can in turn can affect banks' ability to lend.

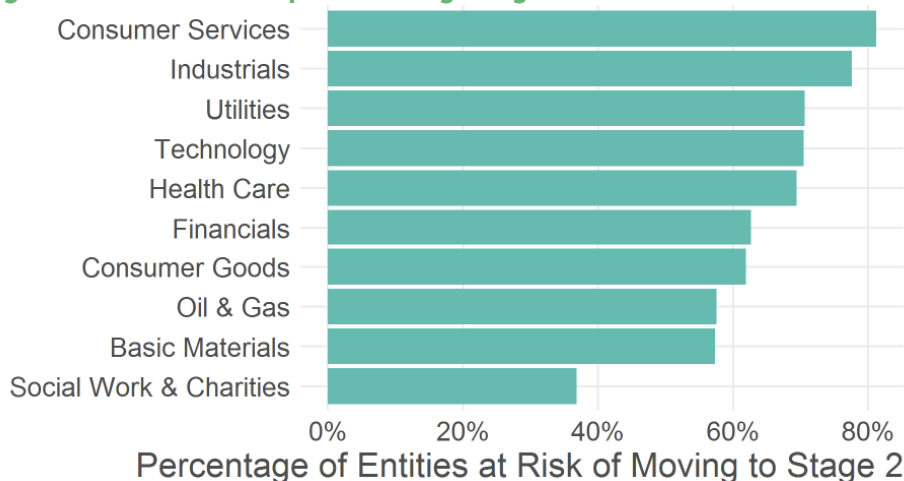
To give an assessment of the potential impact of COVID-19 on banks impairment charge we look at the percentage of entities whose 3 year PDs have doubled as a measure of a significant increase in credit risk. We use 3 year as an approximation for the average lifetime of a wholesale loan.

When determining whether a trade moves from stage 1 to stage 2 banks take into account a number of different criteria and will have different thresholds for determining when a PD has significantly deteriorated. Some of these criteria will mitigate the risk of migration to stage 2. Therefore, although these results do not reflect actual moves to stage 2 they do further highlight the severity of the downgrades to PIT PDs and the risk of stage migration being triggered purely based on PD movements.

Figure 3.1 shows the percentage of entities whose 3 year PIT PDs have doubled since December 2018. The assessment of "a significant increase in credit risk" is calculated from the origination date of the loan, we use PIT PDs from December 2018 as the proxy for the origination data.

The results show that a high percentage of entities were at potential risk of moving to a lifetime ECL. For consumer services up to 80% of entities were at risk. Across most other industries, 60-70% of entities were at risk of migration to stage 2.

**Figure 3.1: Potential Impact on Stage Migration**





## 4. Shifting Economic Predictions

As part of the IFRS9 process, Banks generate multiple forward-looking economic forecasts, for example, they might outline a downturn scenario, a most likely scenario and an upturn scenario.

Figure 4.4 shows the average ratio between the scenario-weighted PD and the baseline PD across different industries. It allows us to see how much impact the downturn & upturn scenarios have on ECL and how much banks economists adjusted their downturn forecasts throughout 2020. A ratio of one indicates that banks view a further downturn, beyond that expected, as extremely unlikely. The higher the ratio the higher banks view the risk of a further downturn<sup>6</sup>.

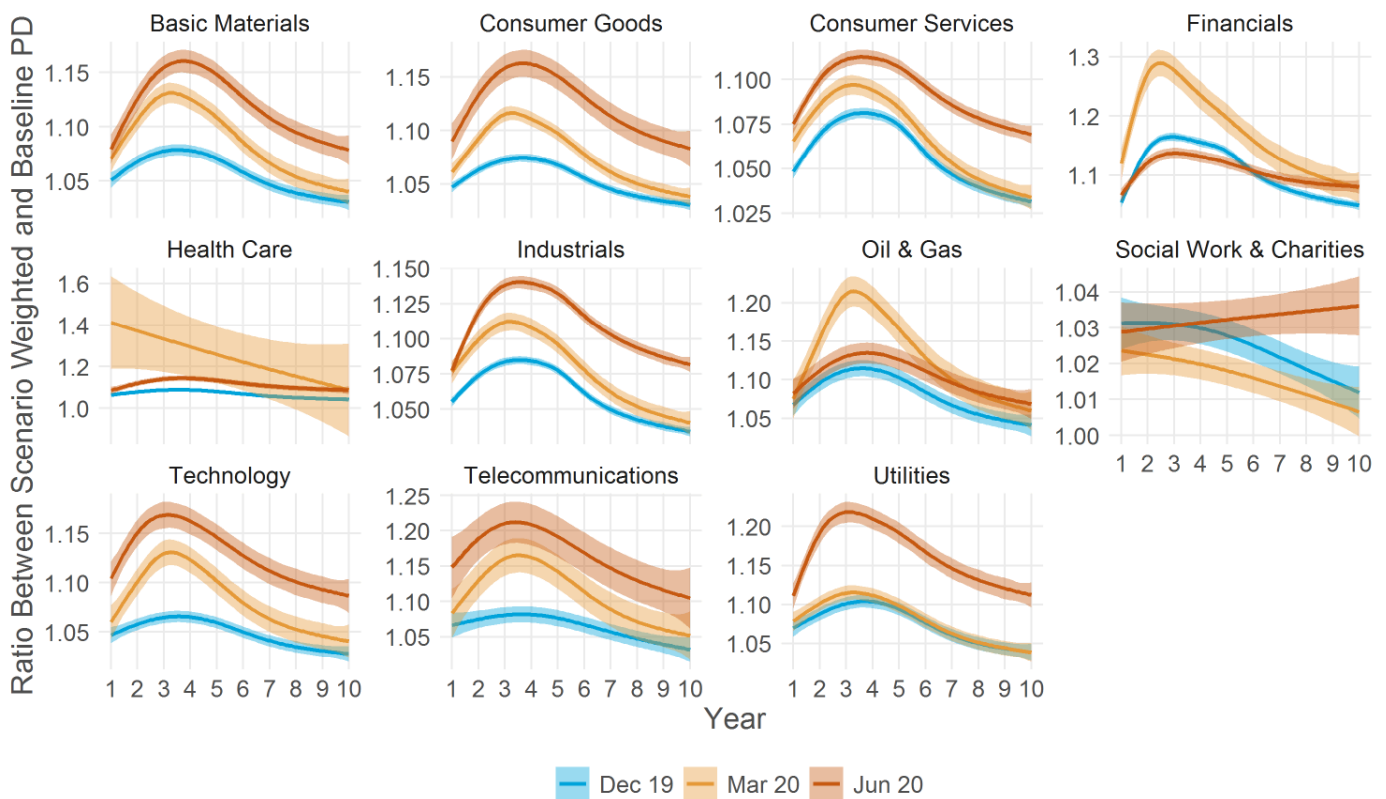
The intervals show the variation in this ratio, giving an indication of how much banks agree on their downturn economic forecasts.

In March banks started to increase the severity of their downturn economic forecasts across most industries, shown by the orange line increasing. As the full economic impact of COVID restrictions were realised, banks further downgraded their downturn outlooks in June, shown by the red line.

In some industries there was less certainty as to the impact of COVID-19. For example in Health Care banks initially had a wide spread of opinion, indicated by the lighter orange interval, however in June banks have converged to broadly agree on the likelihood of further downturn.

For both Financials and Oil & Gas banks applied significantly worse downturn forecasts in March, which were subsequently improved in June.

**Figure 4.4: Impact and Change in Scenarios on PIT PD Curves**



<sup>6</sup> An increase in the ratio could be caused by banks increasing the severity of their downturn scenarios, increasing the weight placed on their downturn scenarios or a combination of both.



## 5. Conclusion and Outlook

- Banks have significantly increased their impairment provisions through increases in their point-in-time PD curves.
- Banks changed their PIT PDs quicker than their TTC PDs.
- Banks have increased the severity of their forward-looking downturn scenarios.

### About Credit Benchmark

Credit Benchmark produces a comprehensive view of credit risk by creating Consensus ratings and analytics on the credit quality of companies, financial institutions, sovereigns and funds.

The data is sourced from the risk departments of more than 40 global financial institutions, representing the work of over 20,000 analysts and is also used by regulators to monitor Basel rules on capital adequacy.

Credit Benchmark collects a specific measure of credit risk: a one-year, forward-looking Probability of Default (PD) and forward-looking senior unsecured Loss Given Default (LGD).

The underlying inputs from contributors are subject to a rigorous data quality approval process and derived from models that are approved by regulatory authorities. The resultant accuracy of each PD and LGD leads to a credible market view of credit risk.

After being anonymized and aggregated, the contributed risk estimates are mapped to the appropriate credit category on the Credit Benchmark Consensus scale, which is calibrated periodically and can be used as a comparison to the scales published by the rating agencies.

Credit Benchmark produces regular data updates with history going back to 2015.

**RESTRICTED DISTRIBUTION:** Credit Benchmark does not solicit any action based upon this report, which is not to be construed as an invitation to buy or sell any security or financial instrument. This report is not intended to provide personal investment advice and it does not take into account the investment objectives, financial situation and the particular needs of a particular person who may read this report.



**Richard Sharp**

Credit Research Specialist

[richard.sharp@creditbenchmark.com](mailto:richard.sharp@creditbenchmark.com)

[www.creditbenchmark.com](http://www.creditbenchmark.com)

[info@creditbenchmark.com](mailto:info@creditbenchmark.com)

twitter: @CreditBenchmark

**UK Office (London):**

131 Finsbury Pavement

London, EC2A 1NT

+44 (0)20 7099 4322

**US Office (New York):**

12 East 49th Street, 11th Floor

New York, NY 10017

+1 646 661 3383

