



Methodology Committee

**London & New York,
22 April 2021**

Registration link: [Credit Benchmark WebEx Enterprise Site](#)

Password: Credit1234!

Global dial in numbers [here](#)

Dial in access code: 183 744 5496

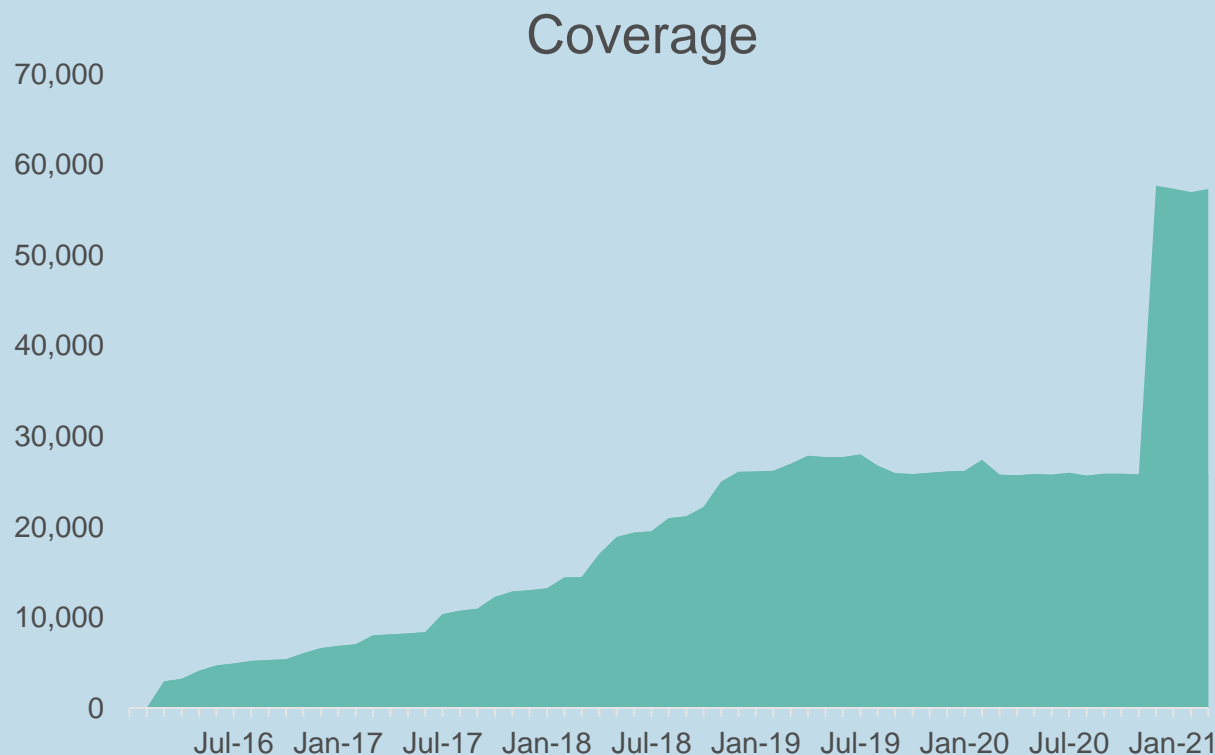


Agenda

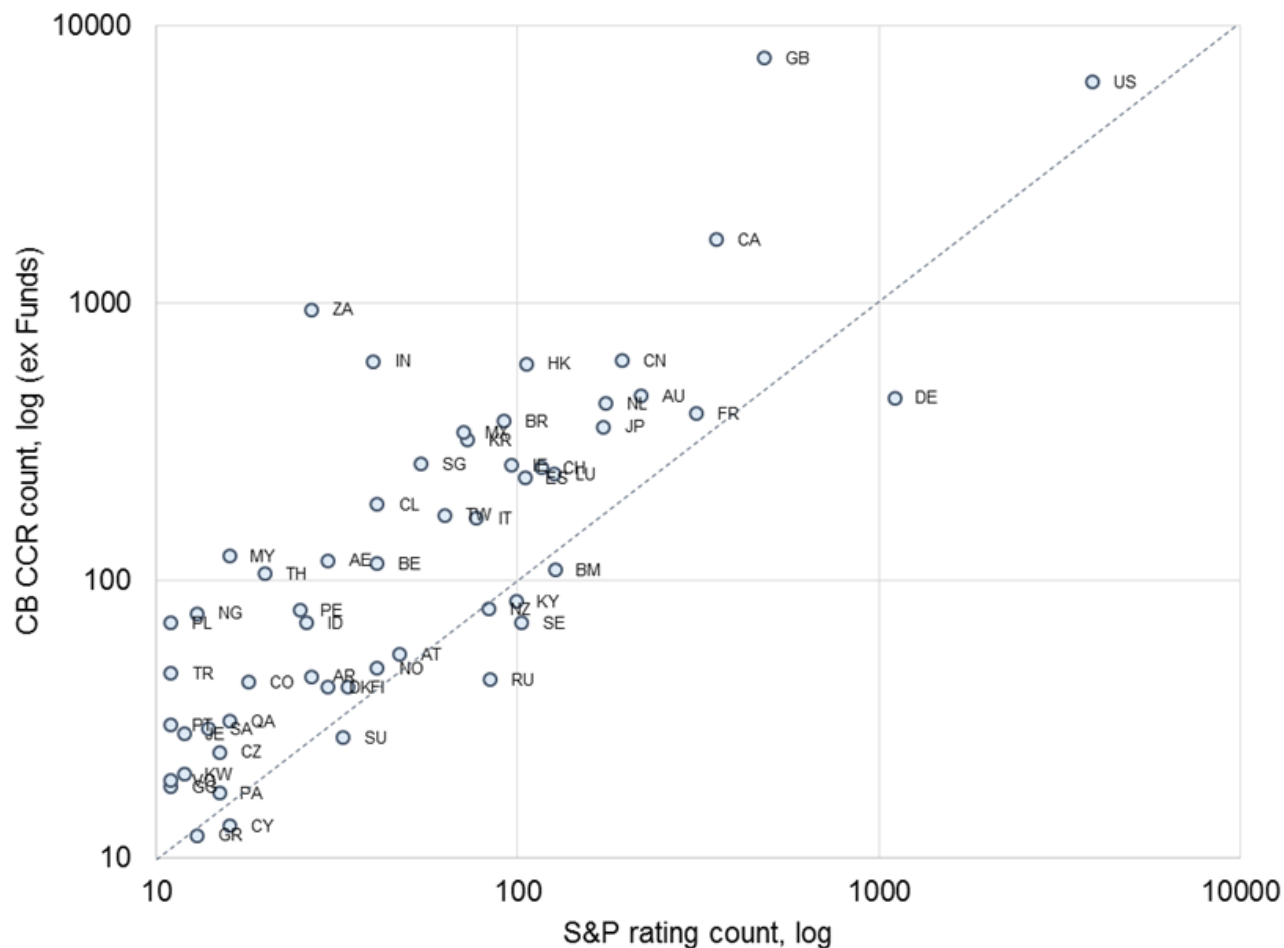
- Coverage Update
- Service Update
 - Credit Consensus Migration
 - Mitigating Potential Reverse Engineering
 - Screening & Alerting
 - Exec Risk Reports
- Impairment – 2020 Whitepaper & Results
- Point-in-time Case study – NatWest/RBS
- Core Service Case Study - ING
- Methodology
 - Leading and lagging analysis
 - Targeted QA approach for laggards
 - Confirmation of change to Potential Default classification
- Initiatives
 - Notching
 - Basel IV
- Research
 - Markit Buyside Signal
 - Bloomberg/BQNT – Mirror indices
 - ESG
- AOB

Coverage Update

- Introduction of Credit Consensus has led to significant increase in coverage
 - Increase of 124%
- All banks have seen an increase in coverage of their book
 - Average of 78% increase



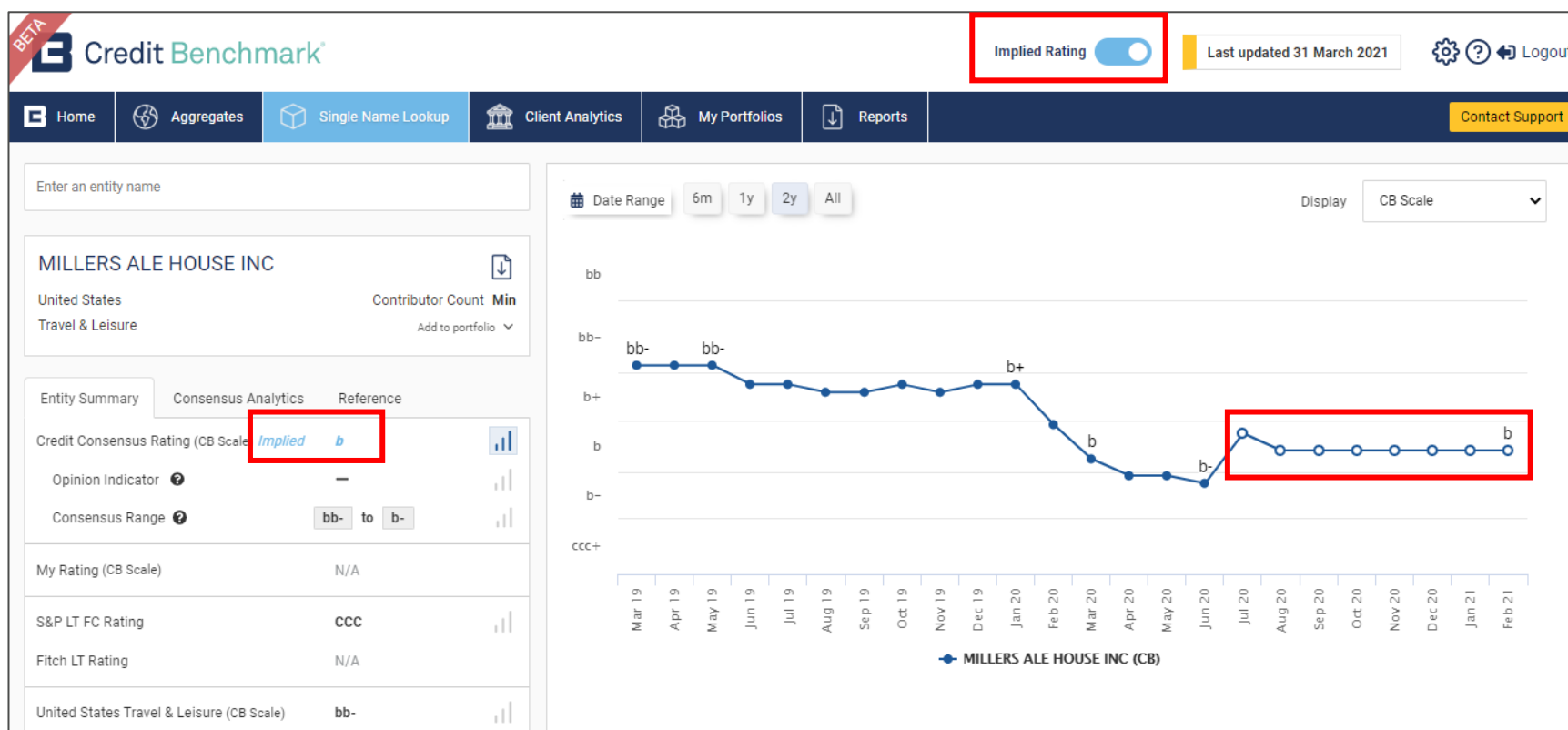
Coverage Update – CRA review



- Country by country obligor comparison with rating agencies undertaken
- Credit Benchmark has better coverage than in most countries
- Significantly stronger in UK, Canada, South Africa, India, Hong Kong and China

Service Update – Credit Consensus

- Web, Excel, Feed, 3rd parties all migrated



Service Update – Credit Consensus

Implied Ratings – Preventing Reverse Engineering

- The following four measures have been implemented to ensure that reverse engineering of contributed values is not possible:
 - Implied Ratings
 - Providing only CB 100 Midpoint PD
 - Keeping CBIR private
 - All Ratings
 - Rounding SD to two significant places / RSD to one decimal place
 - Rounding skew to one decimal place
- Based on analysis, no underlying observations can be reverse-engineered precisely.
- The distribution of absolute errors is wide, raising uncertainty about results of attempted reverse engineering.
 - One does not know how far from the true observations the obtained values are, when attempting reverse engineering.

Absolute Error	Rounded SD	Rounded RSD
0%	0%	0%
0 to 1%	15%	8%
1 to 2.5%	16%	12%
2.5 to 5%	17%	19%
5 to 10%	18%	21%
10 to 25%	17%	16%
> 25%	3%	6%
NA	14%	17%

Service Update – Screening

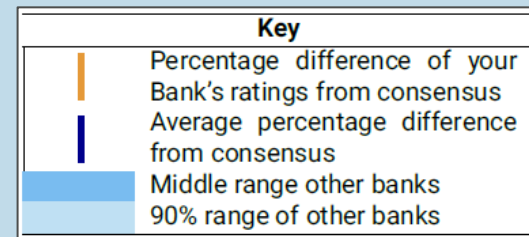
- Development of Alerting, Client Analytics and Watchlist features
- Flexible Screening tool to construct user specific screens
- Planned for release in June/July

The screenshot shows the Credit Benchmark Screening tool interface. The top navigation bar includes links for Home, Aggregates, Single Name Lookup, Client Analytics, My Portfolios, Reports, and a red notification badge on the Screener link. The main header shows 'Implied Rating' as a toggle switch and 'Last updated 31 July 2020'. The left sidebar has a toggle for 'CB Screeners' and 'My Screeners', a 'View All' button, a 'Switch to:' dropdown, and a 'Current Criteria' section. The main content area is titled 'Build Screener With Criteria Below:' and shows three criteria: 'Country is: IN' (with 'United States' as a selected option), 'Sector is: IN' (with 'Travel & Leisure' as a selected option), and 'CBC is: IN' (with a list of rating options: aaa, aa+, aa, aa-, a+, a, a-, bbb+). Below the criteria, it says '4 Entities found in CB universe'. At the bottom of the criteria section are 'Run' and 'Clear All Criteria' buttons. The results table shows 4 entities with columns for Entity Name, Country, Sector, and Consensus Change 1M.

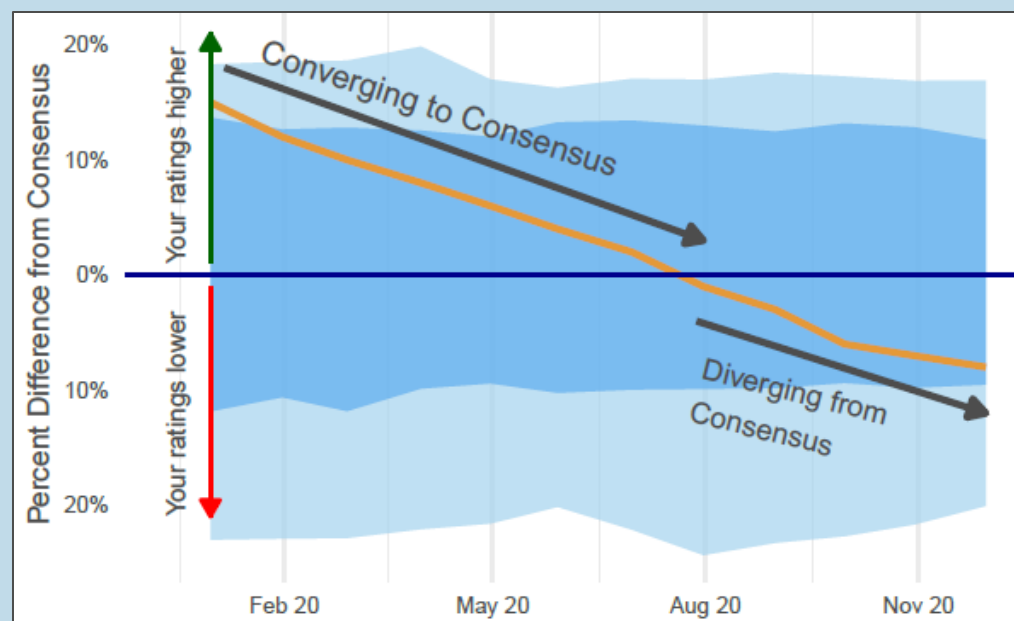
Entity Name	Country	Sector	Consensus Change 1M
MUSEUM ASSOCIATES	United States	bbb	↑
RUTHS HOSPITALITY GROUP	United States	bb	↑
MARRIOTT VACATIONS	United States	bb	↓
STARWOOD HOTELS & RESORTS	United States	bbb-	↑

Service Update – Executive Risk Report Q4 2020

- The Q4 2020 analysis looked at how far your banks ratings were from consensus compared to the range of other banks.
- The results show:
 - The average percentage difference between your banks ratings (PD) & consensus (orange)
 - The range of differences from other banks (blue)
- The example results show a bank that started 2020 with ratings that were much higher than consensus.
 - They were on average setting ratings in-line with the most optimistic 25% of banks.
- Over 2020 the ratings changed to become, on average, lower than consensus.
 - Ending 2020 aligned with the lowest quartile of ratings

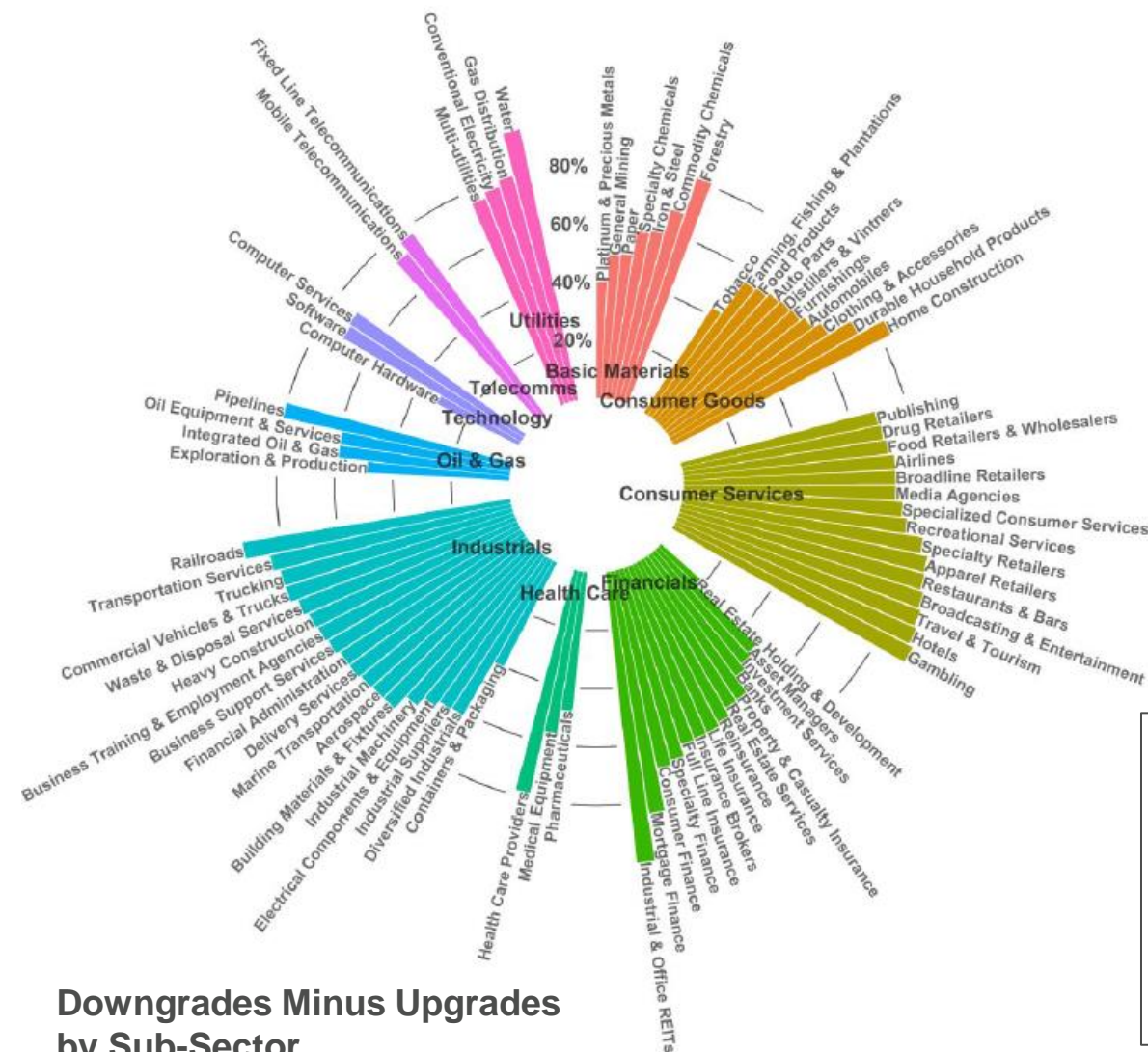


Industry Level

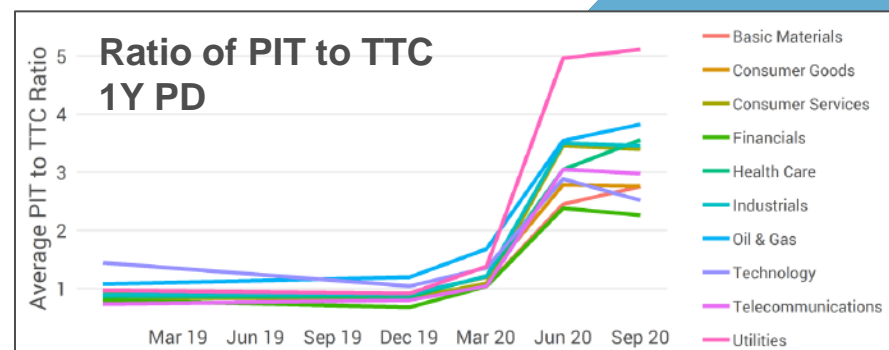


* Example data used for illustration purposes

Service Update – Impairment Report 2020 Review



- The 2020 impairment review looked at trends in PIT PD.
- As the datasets builds in time & depth, the review looked at behaviour through 2020 & at a granular sub-sector level.
- The chart below shows the average ratio between PIT & TTC, highlighting that Utilities' PIT curves were downgraded much more than internal rating downgrades in Q2 & Q3 than other.
- The right chart highlights sub-sectors with the highest percentage of downgrades over upgrades, giving a granular view of the impact of PIT downgrades.



* Example data used for illustration purposes

Client Case Study - NatWest

David Kang

Head of Scenario Modelling



Client Case Study - NatWest

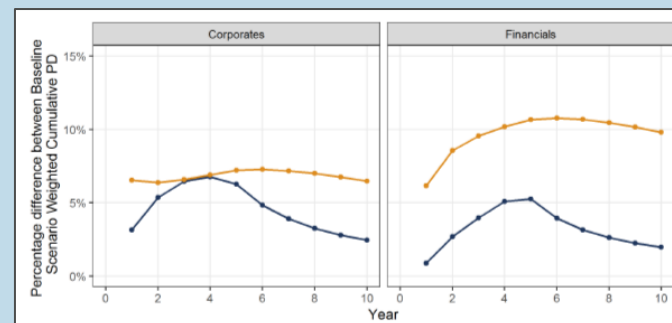
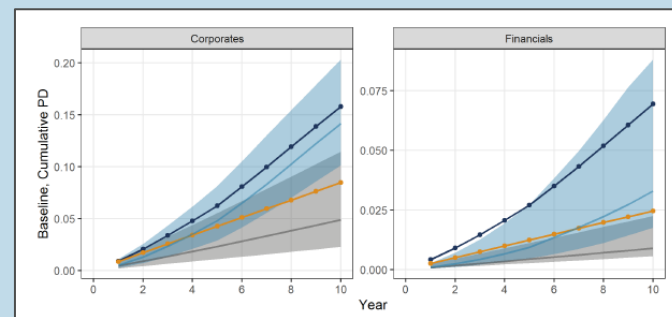
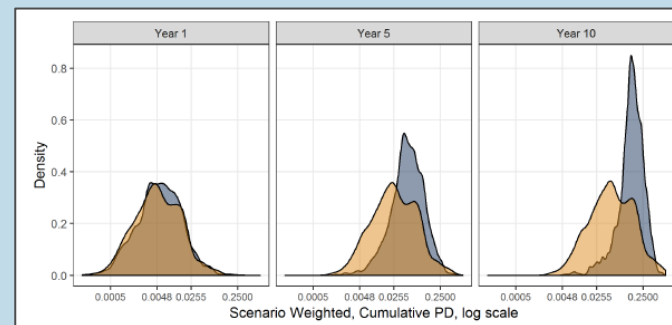
Why is benchmarking important?

- Generally strong interest from Senior stakeholders to provide peer benchmarking and external validation of modelled outcomes
- Benchmarking especially relevant to IFRS9 under COVID given the increased uncertainty around modelled outcomes
- This is further emphasized by the material model interventions compared to pre-COVID

Client Case Study - NatWest

How have we used CB PIT PDs in 2020 at NatWest?

- Provide confidence in overall level of PIT PDs by demonstrating a reasonable position within peer range
- Provide support and justification for “in-model” adjustments to internal and external reviewers.
- Insights from benchmarking over multiple time periods (relative sensitivity to economic scenarios, PIT behaviour etc.)
- Insights from benchmarking analysis across term structure shape and MES impact



All data and graphs stylized for illustration

Client Case Study - ING

Robin Zijp

ING Wholesale Banking
Lending
Capital & Liquidity Expertise Center (CLEC)

Topics

- Implementation Approach
- Use Cases
- Workflow
- Main takeaways
- Quotes



Implementation Approach

Roll out process for ING

- Started with Risk department
Demos organised with senior Risk managers.
- We decided to use local “champions”.
- Periodic feedback sessions, sharing lessons learned
- Word of mouth led to broadening interest and expanded use
- In the near future CB rating will be implemented in global tool for client monitoring

ING Use Cases

1. Model validation

CB data used to improve our PD models.

2. Credit Analysis

Incorporate data into annual reviews new client / deal approvals, credit committees, industry reviews, portfolio monitoring exercises, early warning indicators, pre-deal screening.

3. Early warning

Tool shows consensus changes. This might trigger internal discussions on how to follow up. Alert mails from CB are very useful.

Credit Benchmark Workflow Integration

1. Regular Web App usage

More than 80 ING colleagues have access to the CB webapp

2. Excel add in

Access consensus data directly in Excel to easily embed data into existing reporting and analysis. Can be used as CB webapp light.

3. Executive Risk Report

Bespoke portfolio analysis for senior review and business / risk forums

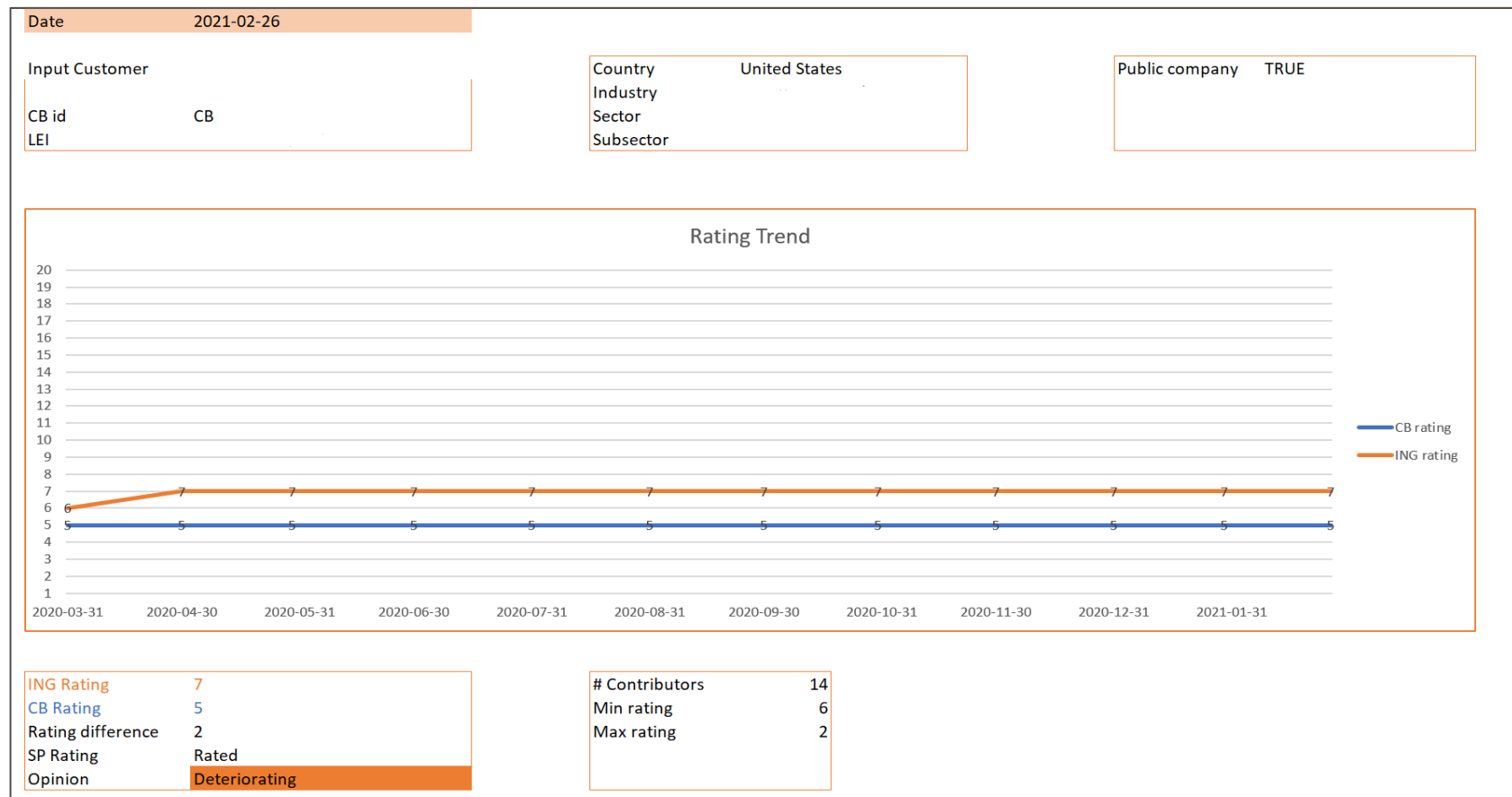
4. API -> Future functionality

Direct integration into existing data warehouse and existing technology infrastructure

Workflow Example – Excel Add-in

Two templates used extensively

- Single-name Analysis (see below as example)
- Portfolio Monitor



Credit Benchmark Main Take-Aways

1. Buy-in SR management
2. Coordinator has good knowledge of both business and data
3. Take time for data preparation stage.
4. Local champions who can energize team members

Internal Quotes

“Insightful tool that provides quick ratification on our views taken”

Head of Transactions Services

“This is great stuff”

Local Champion Transactions Services

“CB Web App saved a huge amount of time”

Local Champion Diversified Corp

“This can provide new insights we couldn’t get anywhere else”

Head of EMEA Div Corp

Methodology – Leading & Lagging Analysis

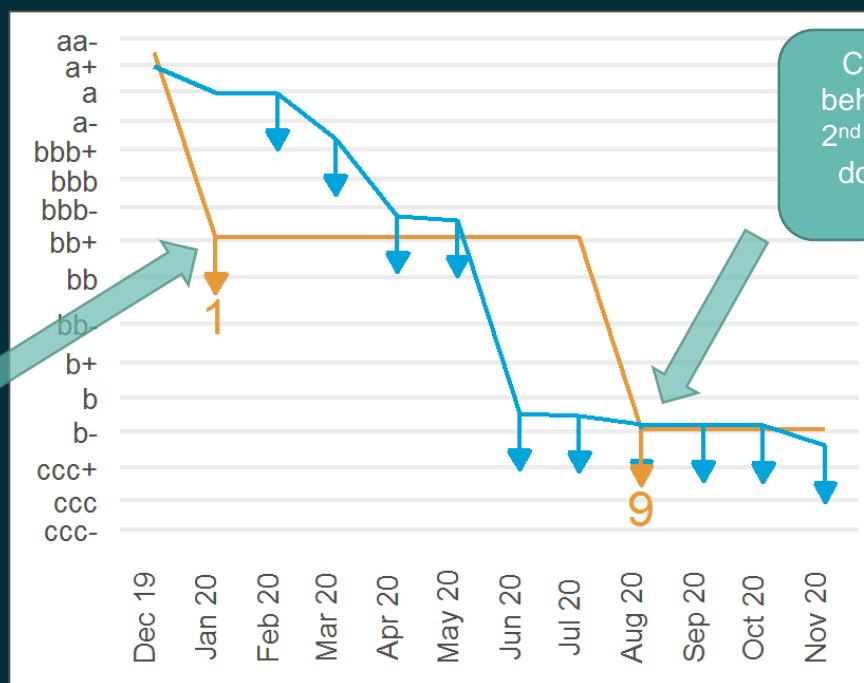
The ability to identify whether a bank is leading or lagging in a credit event, can be identified by looking at sequences of downgrades or upgrades.

The position in the sequence indicates whether the bank is leading or lagging at reacting to the event.

- The graph shows an example*, where the bank is leading in one part of the sequence & lagging in another.
- The sequences & the banks' position in them is analysis that can be run on request.

Client is 1st to move & leads the sequence of downgrades

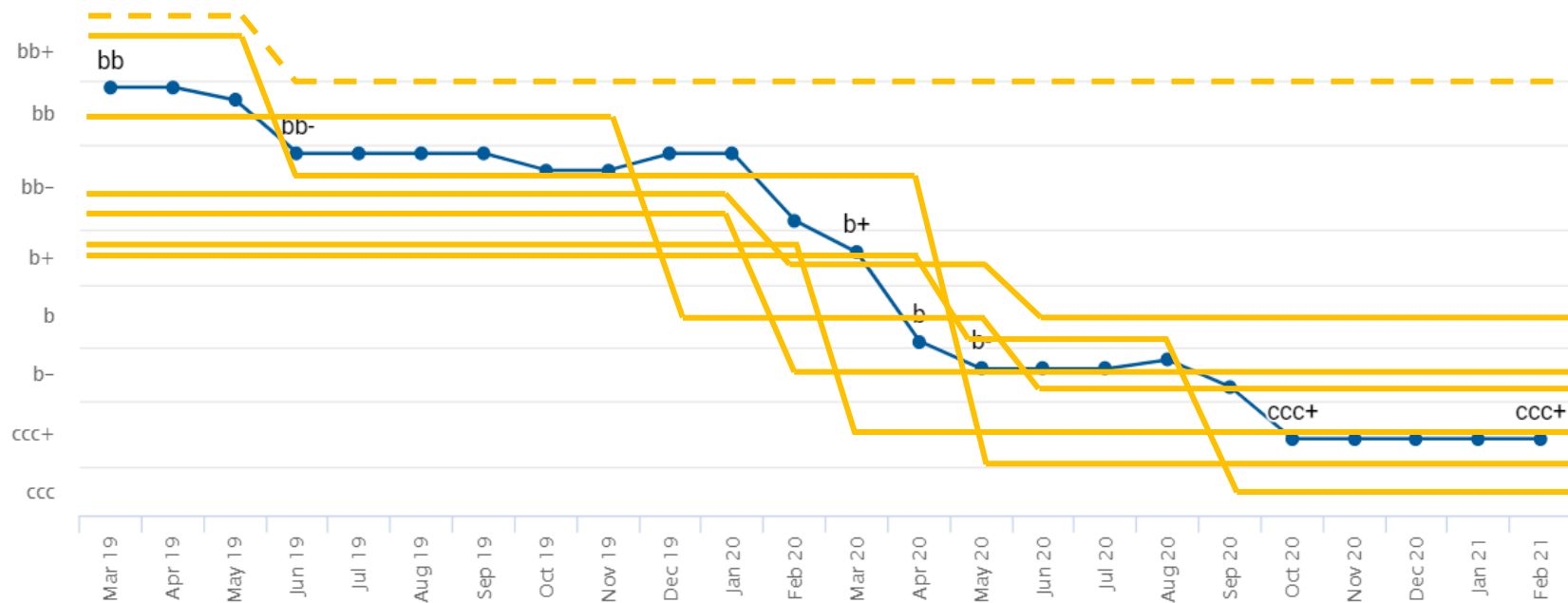
Example Entity



* Example data used for illustration purposes

Methodology – Laggards – Targeted QA

- In addition to the Client-based analysis, CB have been working on identifying specific laggard examples to raise with Clients for further data quality conversations
- This approach identifies names where all contributors (and the resulting consensus) have moved significantly over a period of time and one contribution remains static



Methodology – Laggards – Targeted QA

- Analysis has shown that there are very few of these entities within the dataset, and as such an additional Quarantine Rule would be impractical
 - Based on the latest Consensus Data, <25 entities out of the >30k Consensus Universe
- These entities will form an additional level of Data Quality Assurance alongside our existing Outlier reporting process
- We hope to have engagement with the impacted Clients over the coming months and have both a useful Data Quality conversation and provide useful insight for those impacted

Methodology – Default Proposal Update

The below proposal, discussed at the previous Methodology Committee was approved and is currently being implemented

- Based on the below factors, CB are proposing a slight modification to the current rule, for approval
 - One edge case highlighted by the case study approach
 - Analysis of all entities with PD = 10,000 in 2020
 - Concern over the continuing economic uncertainty
 - Agreement that a cautious approach is preferred with sensitive data
- Proposal:** Modification of the Potential Default rule to change the Potential Default threshold from ccc+ to b+
 - As soon as more than one PD = 10,000 is contributed an entity is automatically suspended
- Impact:** Minimal Consensus Impact, ~5 entities per month

CB Suspend Publish when...

T-1 CBC	Current Threshold	Proposed Threshold
aaa		
aa+		
aa		
aa-		
a+		
a		
a-		
bbb+		
bbb		
bbb-		
bb+		
bb		
bb-		
b+		... t-1 Consensus is b+ or below and 1 contribution = 10,000 Bps
b		
b-		
ccc+	... t-1 Consensus is ccc+ or below and 1 contribution = 10,000 Bps	
ccc		
ccc-		
cc		
c		
d		

Initiatives - Notching

Deriving bond level ratings from entity level consensus

Issuer Type	Issue Type	Potential Notch Adjustment	Details
Sovereigns	All	0	<i>Sovereigns, Sub-Sovereigns, Supranationals:</i>
Corporates, Utilities, Infrastructure	Senior	0	<i>Secured and Unsecured</i>
	Subordinated	-1 to -2	<i>Includes Junior Subordinated</i>
	Preferred	-2 to -3	<i>Preferred stock</i>
Banks	Hybrid	0	<i>Hybrid with coupon skip</i>
	Subordinated	-1 to -2	<i>Subordinated Debt, Junior Subordinated, Contractual non-viability subordinated, Dated junior subordinated with principal write-down</i>
	Preferred	-2 to -3	<i>Preferred Securities and Contractual non-viability preferred</i>

- All notch adjustments are on the 21-category scale (E.g. 2 means issue credit quality is 2 notches lower than issuer credit quality)
- This notching methodology only applies to the issuer types above and does not include municipals, non-bank financials and any securitizations.
- CB consensus rating considered a senior unsecured equivalent.
- This approach is aligned with CRA/market practice.
- Notch adjustment is independent of current consensus rating, but **aaa** and **c** boundaries will limit some adjustments.
- Equities and Convertibles will be assigned speculative grade.
- Currently in discussion with Bloomberg about potential implementation

Initiatives – Basel IV impact for ‘Basel Banks’

Basel IV will have a material impact for unrated entities, especially if they potentially belong in the upper bounds of the rating spectrum

External Ratings Equivalents	Investment Grade or Non-Investment Grade	Regulatory RWA Categories	Credit Benchmark Consensus Rating Scale*	Credit Benchmark Risk Weighted Asset Scale	Funds	Financial Institutions	Banks	Sovereign & Central Banks	Govt Related Entities	Corporates
AAA	Investment Grade	AAA to AA-	aaa	CB1	20% 100%	20% 100%	20% 100%	0% 100%	20% 100%	20% 100%
AA+			aa+							
AA			aa							
AA-			aa-							
A+		A+ to A-	a+	CB2	50% 100%	50% 100%	50% 100%	20% 100%	20% 100%	50% 100%
A			a							
A-			a-							
BBB+		BBB+ to BBB-	bbb+	CB3	100%	50% 100%	50% 100%	50% 100%	20% 100%	100%
BBB			bbb							
BBB-			bbb-							
BB+	Non-Investment Grade	BB+ to BB-	bb+	CB4	100%	100%	100%	100%	50% 100%	100%
BB			bb							
BB-			bb-							
B+		B+ to B-	b+	CB5	150%	100%	100%	100%	50% 100%	100%
B			b							
B-			b-							
CCC+		CCC+ to CC	ccc+	CB6	150%	150%	150%	150%	150%	150%
CCC			ccc							
CCC-			ccc-							
CC			cc							
NR		NR	NR	CB7	100%	100%	100%	100%	100%	100%

Basel IV – estimated cost impact on borrowers

		Current	
		\$1Bn	\$50Bn
Risk weight	5%	50,000,000	2,500,000,000
EAD	25%	250,000,000	12,500,000,000
RWA (RW x EAD)	1.25%	12,500,000	625,000,000
Capital @ 10 %	0.125%	1,250,000	62,500,000
Cost of Capital @ 10 %	0.0125%	125,000	6,250,000

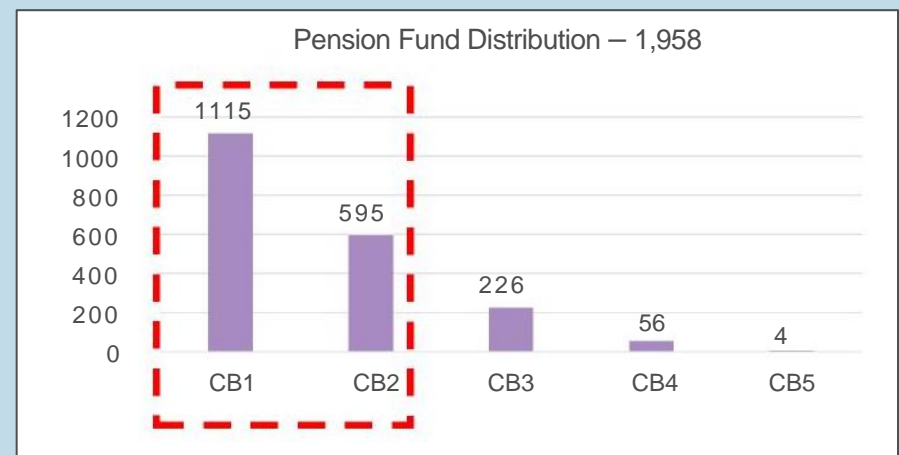
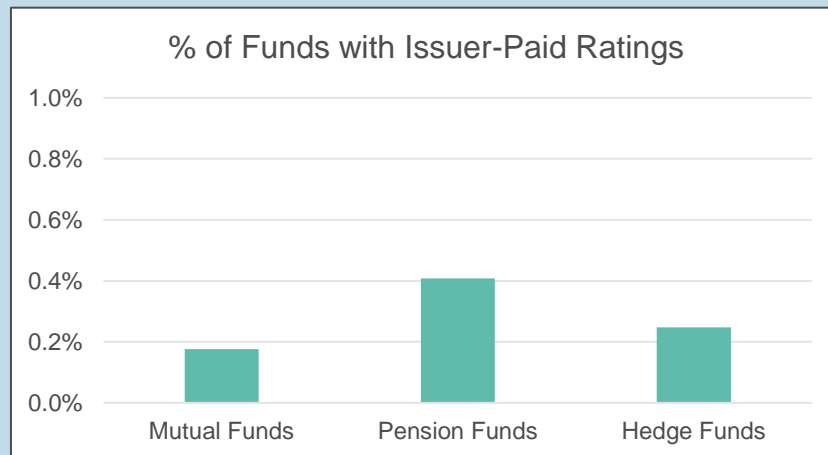
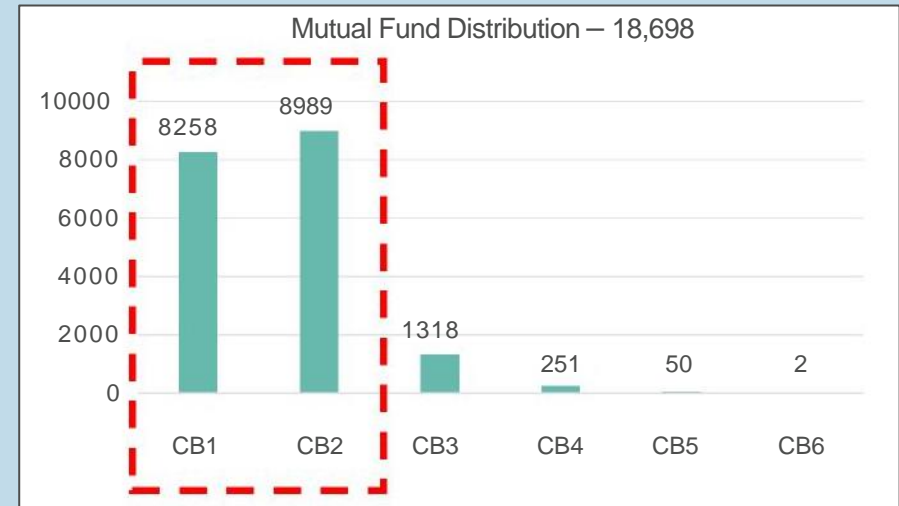
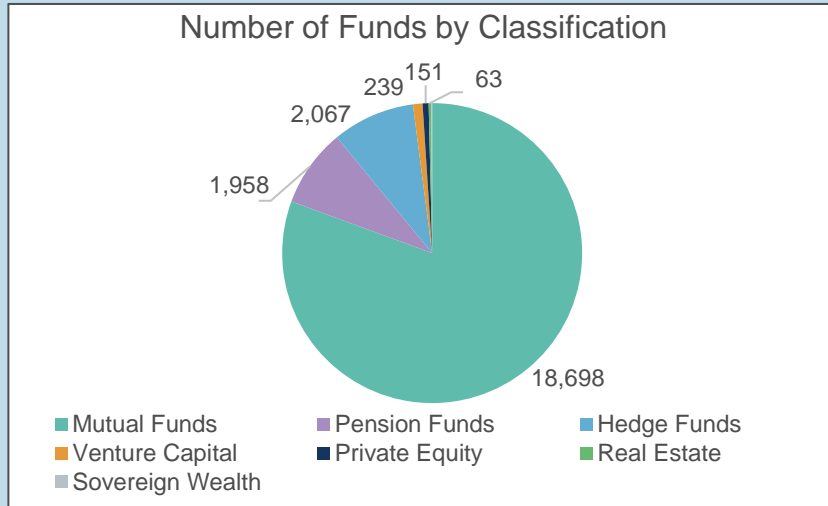
Difference in Standardised RWA of
\$2 million per billion notional

		Basel III using unrated Risk Weights @100%	
		\$1Bn	\$50Bn
Notional			
Risk weight	100%	1,000,000,000	50,000,000,000
EAD	25%	250,000,000	12,500,000,000
RWA (RW x EAD)	25%	250,000,000	12,500,000,000
Capital @ 10 %	2.5%	25,000,000	1,250,000,000
Cost of Capital @ 10 %	0.25%	2,500,000	125,000,000

		Basel III using rated Risk Weights @20%	
		\$1Bn	\$50Bn
Risk weight	20%	200,000,000	10,000,000,000
EAD	25%	250,000,000	12,500,000,000
RWA (RW x EAD)	5%	50,000,000	2,500,000,000
Capital @ 10 %	0.5%	5,000,000	250,000,000
Cost of Capital @ 10 %	0.05%	500,000	25,000,000

Difference in Standardised Cost of Capital of 20 bps

The Current Consensus Rated Fund Universe



Less than 0.2% of all mutual funds have a traditional issuer paid rating. (0.4% for pension funds)

Most of the world's funds are unrated
CB rates over 20,000+ real money funds

Research – Sec Finance and Credit Data



IHS Markit[®]



Credit Benchmark[®]

IHS Markit Securities Finance & Credit Benchmark Research

KEY FINDINGS AUGUST 2020

INTRODUCTION

IHS Markit Securities Finance has collaborated with Credit Benchmark to create the industry's first solution for integrating counterparty credit risk into securities lending inventory and loan activity. The combined datasets between IHS Markit Securities Finance and Credit Benchmark provide unique insights into market sentiment from both securities lending market and consensus credit risk assessments from a macro to individual stock level.

In this research note, we present factor model performance results by joining the two proprietary datasets.

We find short factor from Securities Finance and Probability of Default based on credit consensus sourced from Credit Benchmark are complementary to each other in portfolio constructions whereby enhanced signals can be achieved in both US and European equity markets. The new combined dataset provides strong alpha for cheap-to-borrow (CTB) instruments than only using securities finance data fields. We are excited about the new combined offering where the Information Ratio (IR) in US instruments for CTB instruments have improved by 75% and European instruments by 45%.

RESEARCH PREMISE

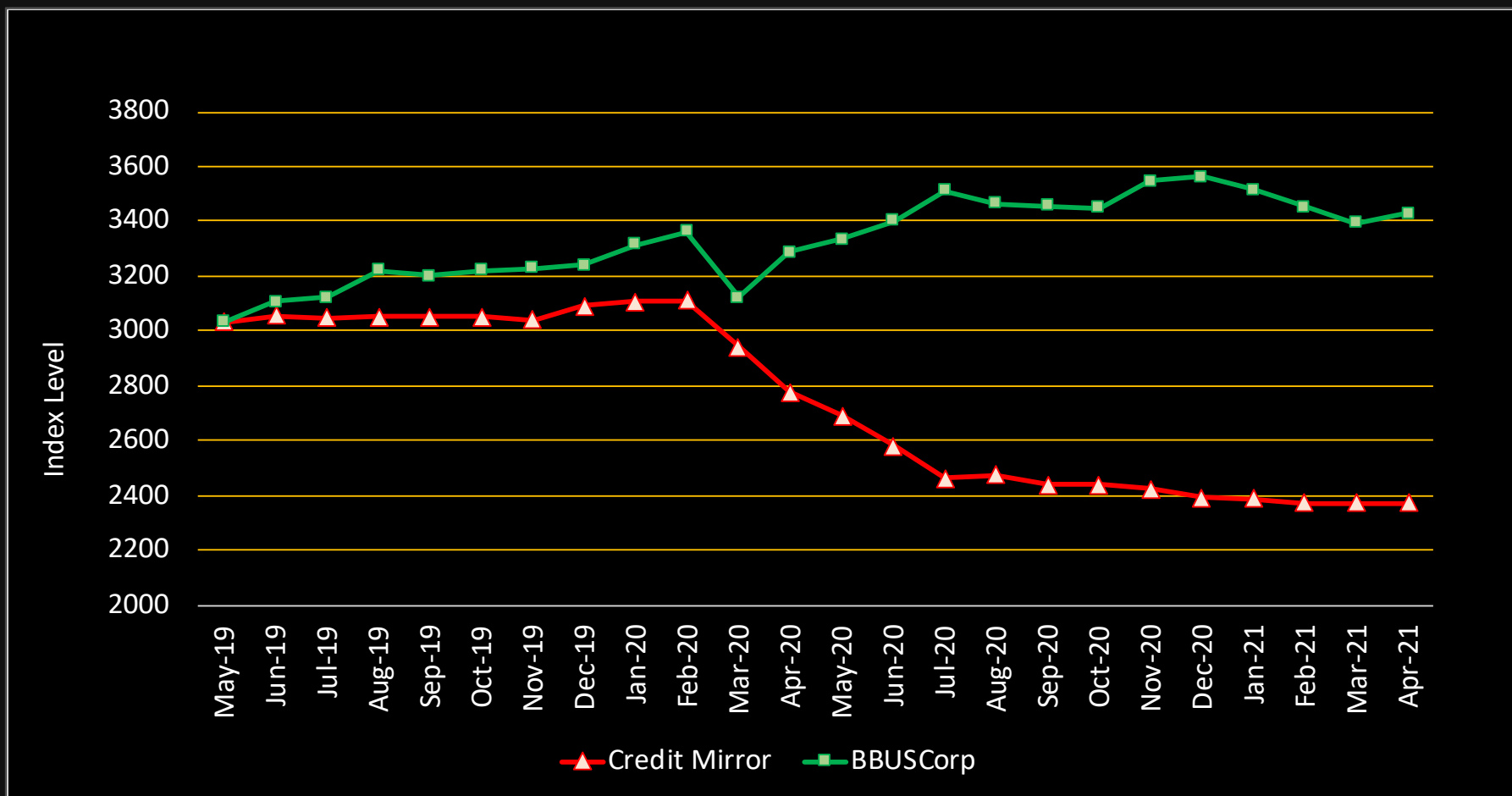
Numerous studies including IHS Markit's own in-house white papers have identified unique insights that can be gleaned from the securities lending market to create equity short interest signals. In general, research has demonstrated that strategies that follow informed short sellers by shorting stocks with a high level of shorting activity and buying stocks with a low level of shorting activity, have historically outperformed. These long-short strategies offer returns with low correlation to the overall market and to more traditional value/growth/momentum strategies. Credit data, such as CDS and crowding in corporate bond borrowing, have been shown to improve equity short interest signals¹.

It is also well known that there is a strong positive correlation between short portfolio alpha and the cost of borrow among common stock selection factors. The higher the alpha from the short basket, the more costly it is to realize the return. Removing expensive to borrow names from the

¹ Equity Short Signals from the Corporate Bond & CDS Market, IHS Markit Securities Finance, May 2017

- Research demonstrates that IHS Markit short factor with Credit Benchmark consensus are complementary
- Results show improved risk adjusted returns for US and European equity universes

Research – Bloomberg BQNT



Research – ESG (Live voting poll)

AOB

- AOB
- Date of next meeting

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