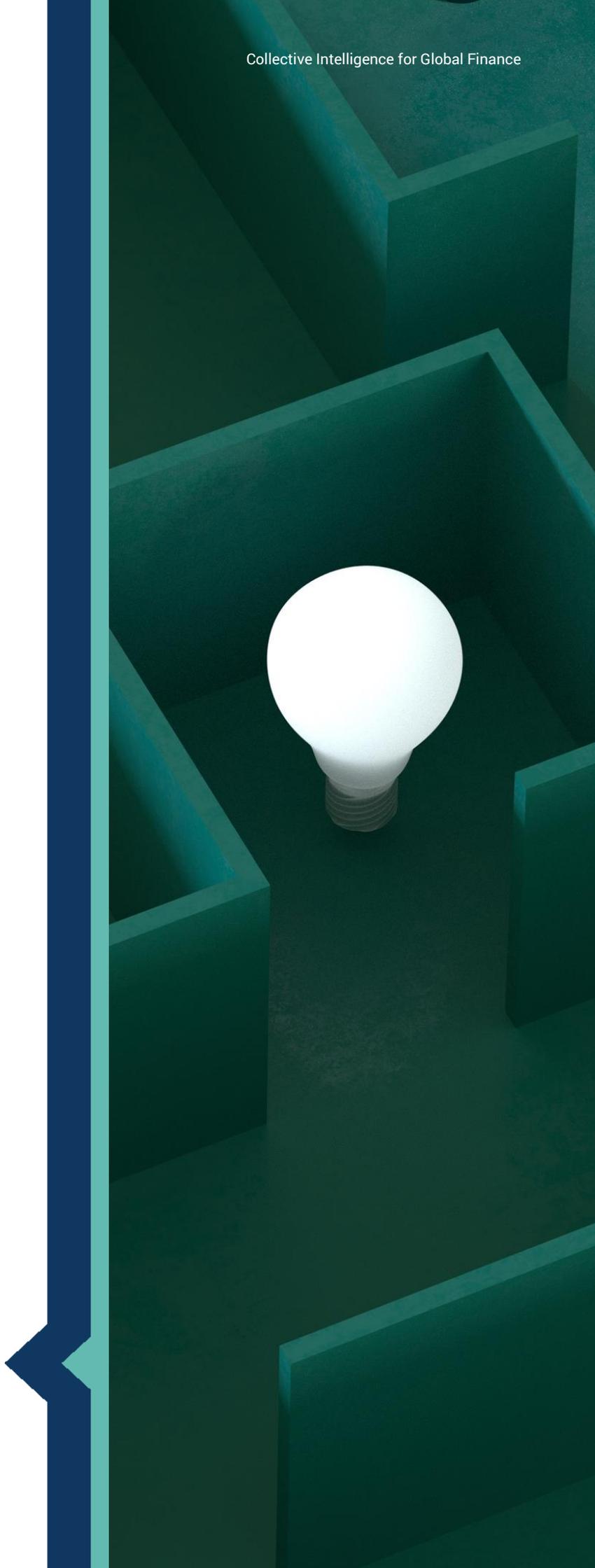




Basel IV Rules: The Impact Upon Capital Markets and the Securities Finance Industry

July 2020



Executive Summary

- ✦ The impact of the Covid-19 crisis to the global financial network has accelerated the downward transition of creditworthiness at a rate comparable to the 2008 Global Financial Crisis.
- ✦ The forthcoming Basel IV regulations will impact the global capital markets and have potentially serious consequences for the securities finance industry.
- ✦ Under Basel IV, banks' internal ratings models will be set aside and unrated counterparts will carry a 100% RWA.
- ✦ Tens of thousands of high-quality but unrated obligors will attract this 100% risk weight. It is estimated that applying data from an external credit assessment institution ("ECAI") could reduce the RWA dramatically, and produce a cost saving of 2 million USD per notional 1 billion USD of exposure.
- ✦ A potential solution to this dilemma is the regulatory-approved use of alternative sources of credit data to supplement the gaps in the "issuer paid" credit rating agency model.



In 1966 Robert F. Kennedy made a speech about the importance of individual action to drive necessary change. In the speech he said "Like it or not, we live in interesting times. They are times of danger and uncertainty; but they are also the most creative of any time in the history of mankind."

We are again living in interesting and uncertain times. The creativity invoked by Kennedy is not just relevant to the political and cultural spheres his speech referred to; it also serves to remind us today of the power of positive change in the face of any challenge.

In these turbulent times it is not surprising that the regulatory direction of travel has been towards encouraging stronger risk management within key financial networks and demanding more capital dedicated to support the key players and their counterparts. The Basel IV regulations were conceived prior to the Covid-19 crisis and are a further step along that regulatory journey.

The purpose of this paper is to help raise awareness of the forthcoming Basel IV regulations, to highlight their potential impact and to issue a call to action. For the sake of efficient markets, the provision of liquidity, and the security of investment returns, the creativity mentioned by Robert Kennedy is critical to the response of capital markets and the securities finance industry. In such "interesting times" as these, creativity is essential.

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.

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1. The Impact of the Covid-19 Pandemic on the Global Financial Network

Shortly after the Covid-19 pandemic hit, Credit Benchmark was asked to provide aggregated and anonymised data to HM Treasury and The Bank of England to help support the decision-making process behind the innovative Covid Commercial Financing Facility (CCFF). We are proud that the credit data is being used to help provide solvency, assist corporate survival and protect jobs in the real-world economy. This application of the data confirmed to us a long-held thesis that credit risk data can also be a legitimate proxy for liquidity and solvency related decisions.

Until relatively recently Credit Benchmark’s primary purpose was as a data analytics company specialising in the creation of credit Consensus, with a focus upon the delivery of actionable information in the credit space. We also understood that there was another way of looking at the credit process and its outputs. We realised that “credit” can be a proxy for “liquidity” and that the process that is undertaken to determine creditworthiness of an entity was effectively one that determined the propensity or willingness to extend liquidity to that entity. The liquidity related questions underlying this thinking are all dependent upon the credit analysis and go something like this: Should I lend to this entity? Yes or no? If yes, how much? For what term? And at what price?

The impact of the Covid-19 crisis to the global financial network has accelerated the downward transition of creditworthiness at a rate comparable to the 2008 Global Financial Crisis. In the intervening 12 years, the credit markets have been relatively benign as Central Banks, regulators and policy makers have followed policies designed to achieve that objective.

Today, the world faces an uncertain and increasingly malign credit environment despite the efforts of the Governments around the globe to stabilise their economies. The extent to which that transition is underway can be seen in Figure 1.1¹ below. This table shows the credit transitions in the banking sector across a fortnight – showing a significant rate of transition with a bias towards downgrades.

Figure 1.1 Extract from Credit Benchmark Bank and Non-Bank Financial Institutions Risk Monitor June 2020

	Credit Consensus Changes				Credit Consensus Distribution						
	Total	Deteriorations	Improvements	IG to HY	aaa	aa	a	bbb	bb	b	c
Banks											
Central Banks	112	9.8%	6.3%	1	17	13	17	17	26	17	5
Globally Systemically Important Banks	30	6.7%	6.7%	0		7	21	2			
Banks - Global	2,026	10.3%	2.9%	16	2	63	624	691	455	151	40
Banks - North America	311	13.2%	0.3%	12	2	12	109	159	27	1	1
Banks - Latin America	146	37.7%	0.7%	0			8	54	67	6	11
Banks - EMEA	1,057	7.7%	3.5%	9		37	316	300	274	102	28
Banks - APAC	509	6.3%	3.7%	2		14	191	177	85	42	

This report summarizes the changes in credit Consensus of different groups of financial counterparts as well as their current credit distribution and any migration from investment grade to high yield.

¹ Credit Benchmark 2020, *Financial Institutions Credit Risk Monitor*, Credit Benchmark, downloadable from: <https://www.creditbenchmark.com/financial-institutions-credit-risk-monitor/>

2. The Pending Regulatory Framework

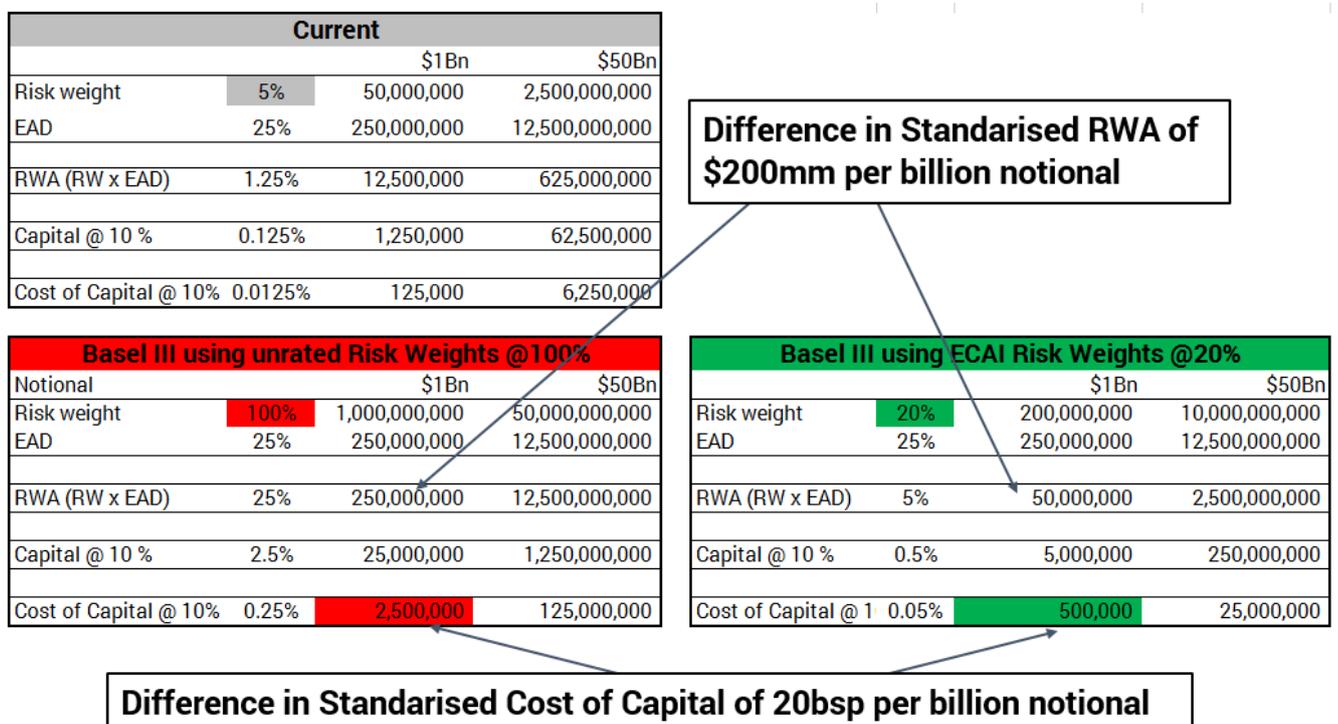
At the end of March 2020, the Basel Committee announced a delay in the implementation of the new Basel Accord enabling banks to focus additional operational capacity on responding to the impact of Covid-19. Whilst this extra year of planning is to be welcomed, the scale of the challenge for the securities financing industry in preparing to meet this new regulatory framework should not be underestimated.

This regulation will not just impact the regulated banking community but also have sweeping ramifications for all asset owners as well as for the broader capital market. Now is the time to begin preparations and identify potential solutions to mitigate their dramatic impact.

One of the rules that most affects the securities financing industry is the introduction of the aggregate output floor, which will require a bank’s risk weighted assets (RWA), using an internal rating approach, to be not lower than 72.5% of RWA as calculated by the Basel framework’s standardised approach. Although the Basel accord has drawn up a transition process which kicks in at 50%, the increase in RWA allocated for securities financing as a result of these changes is expected to increase by as much as forty-fold. The new rules in effect limit the ability of banks to apply internal rating models for RWA purposes. Additionally, the standardised rules state that unrated obligors will attract a 100% risk weight allocation. This affects thousands of high-quality but unrated pension and mutual fund counterparties that most market practitioners think ought to attract a 20% risk weight instead.

Credit Benchmark estimates that the savings possible by the reduction of the cost of capital from a 100% risk weight to a 20% risk weight to be ~20 Bps or 2,000,000 USD per notional 1,000,000,000 USD of exposure. The basis of this estimation and the underlying assumptions are outlined below in Figure 2.1 - making this issue too expensive to ignore.

Figure 2.1 A Cost Comparison of Three Scenarios - Current; Proposed Regulation; and ECAI



Such a dramatic increase in the cost of doing business for those impacted by the forthcoming regulations could result in a collapse in securities financing activity, with potentially severe consequences across the capital markets. Hence it is imperative that the industry finds solutions to the challenges that the Basel IV rules will pose.

The Implications for the Capital Markets

Any dramatic increase in the cost of conducting securities financing activities is likely to result in a significant curtailment in activity across the sector. A reduction in securities lending will result in the drying up of market liquidity for securities, which will reduce transparency and increase trading costs. As financing and repo costs escalate, higher trading costs will ultimately be paid for by pension and mutual funds, thereby reducing their returns. In addition, a fall in securities financing activity will further reduce the returns for funds given they derive an income stream directly from lending out securities. This, in effect, penalises saving which may result in other unintended and negative macroeconomic effects.

The array of funds that benefit from securities finance represent the vast majority of savings across the developed world. Without access to a functioning market which is liquid, and where price discovery can take place, the funds that act as agents for our collective savings will find their ability to function efficiently is severely hampered. And given the importance of savings for the real economy, these effects must be given due consideration.

The key challenge for the securities financing industry is therefore to come up with a solution that can assess the creditworthiness of the tens of thousands of counterparts involved in the securities financing industry that is acceptable to regulators. As the vast majority of these counterparts are high quality in terms of creditworthiness, one can sensibly argue they should therefore attract the lowest standardised risk weight at 20%.

3. Addressing the Challenge

The securities financing industry is certainly adaptive. There are two ways in which the industry is already adapting to address the oncoming challenge of Basel IV today; a revised legal approach to collateralisation; and the development of specialised Central Clearing Counterparts. Both have been under development for several years and are now becoming more widely accepted. They will not solve the issue in its entirety - but they are making a difference.

Pledge GMSLA

In November 2018 ISLA published the first market standard agreement to support the pledging of security, the Global Master Securities Lending Agreement (Security Interest over Collateral) (the "Pledge GSMLA"). This agreement provided for borrowers to transfer collateral to lenders by way of security interest rather than an absolute transfer of title. The principal motivation behind the Pledge GMSLA is to enable borrowers to benefit from the cost savings available from the better treatment for regulatory capital.

Under the previous 2010 GMSLA agreement, if the borrower is a financial institution, its claim on the lender for the return of excess title-transfer collateral after a liquidation of collateral is a risk-weighted asset (RWA) for regulatory capital purposes, which requires an allocation of capital and therefore has an impact on the borrower's balance sheet.

Under the Pledge GMSLA, collateral is transferred to a segregated account with a third-party custodian, such as a tri-party provider, in the name of the borrower (the "Secured Account"). This makes it the subject of the security interest in favour of the lender but segregates it from the lender's assets and protects it from the risk of non-return on insolvency of the lender. As either the value of the collateral, or the value of the loaned securities fluctuates, transfers are made in and out of the Secured Account.

However, if the collateral is given by way of security, the borrower retains a property interest in the collateral assets and is not exposed to the same risk of non-return of excess collateral by the lender. Therefore its return does not carry such a risk weighting. The security collateral arrangement is an attractive prospect for borrowers in particular.

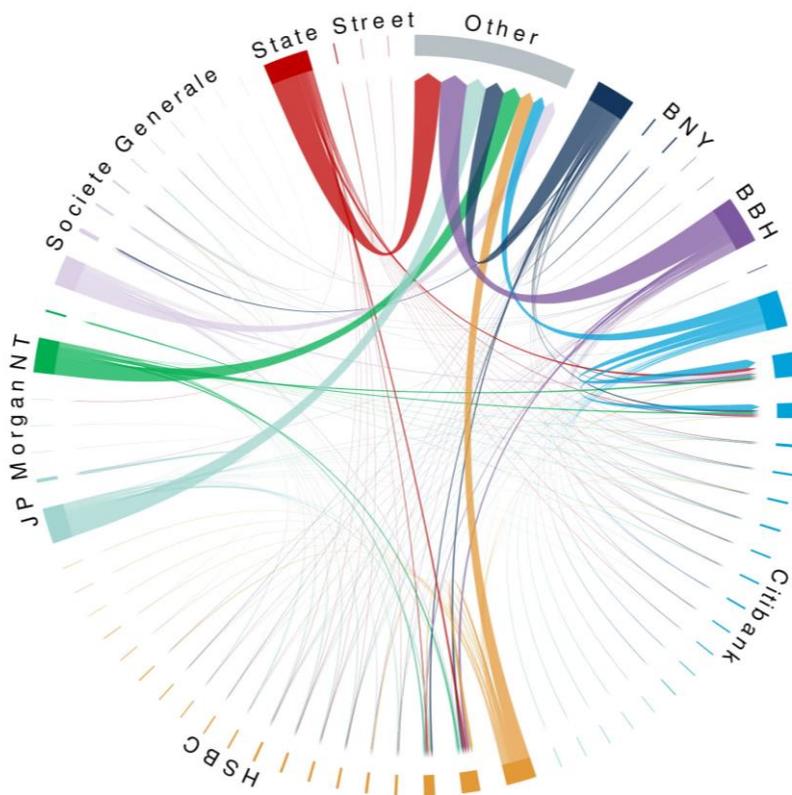
Custodians and Sub-Custodians

In order to successfully understand and mitigate the impact of anything it makes logical sense to first measure and manage it. The world of credit risk and capital management are no exceptions and the involvement of custodians and sub-custodians in the pledge solution does not remove the risk completely – it moves it and can also potentially reduce the capital at risk. Prudent credit risk and capital managers will have an understanding and knowledge of all of their counterparts and of the complex financial network of interconnectedness and interdependencies that they are part of.

In a recent whitepaper² we discuss the credit and real-world risk within the highly concentrated global custody market which is dominated by eight major custodial banks. Figure 3.1 below shows the extent to which these eight banks utilise the sub-custodial services provided by one another as well as "other" providers. Any organisation appointing a custodian to hold their pledge assets should understand the underlying credit and real-world risk, and carefully monitor the networks that their custodian or sub-custodian is part of. Ideally this will involve automated monitoring and alerting embedded into an early warning process designed to protect their or their clients' best interests. The first step is to map out the often complex interlinkage within the custodial and sub-custodial network and then to gather the necessary credit information. After that the capital benefits can be compared to alternatives with a clear understanding of the facts.

² Credit Benchmark 2020, *Global Custodians, Sub-Custodian Networks and Credit Risk*, Credit Benchmark, downloadable from: <https://www.creditbenchmark.com/sub-custodians-networks-reveal-credit-risk/>

Figure 3.1 Interlink of Sub-Custodian Networks



Central Clearing Counterpart (CCP) for Securities Lending

The development of a viable Central Clearing Counterpart (CCP) for securities lending has been a long time in the making and a regular topic for discussion at industry events over many years. The objective of reducing the cost of capital for the borrowers is a primary driver behind these initiatives. There are a number of competing offers available now or under development. The impetus brought on by the rising expense and scarcity of capital has encouraged these specialised solutions.

The CCP impacts credit and systemic risk since the CCP is the legal counterparty to all transactions. The borrowers enjoy the advantage of borrowing at lower capital cost because the CCP typically, although not always, has a Consensus credit rating and that rating is often as good as that of beneficial owners.

In a recent whitepaper³ we explore the CCP networks globally and the corresponding Consensus credit quality of the CCPs and their members – many of which are not rated by the main credit rating agencies. As for the custodians and sub-custodians previously mentioned, it is important to understand the structure and risks within the CCP networks. Figure 3.2 shows the extent to which the global CCPs have a credit rating. This is split into two sections; by the “issuer paid” public ratings from a credit rating agency; and the “skin-in-the-game” credit Consensus ratings created by Credit Benchmark with credit views sourced from contributing financial institutions. Figure 3.3 shows the same breakdown, for the individual CCP members.

³ Credit Benchmark 2020, *The Creditworthiness of CCPs and the Global Clearing Member Network*, Credit Benchmark, downloadable from: <<https://www.creditbenchmark.com/the-creditworthiness-of-ccps-and-the-global-clearing-member-network/>>

Figure 3.2 Ratings Available for CCPs

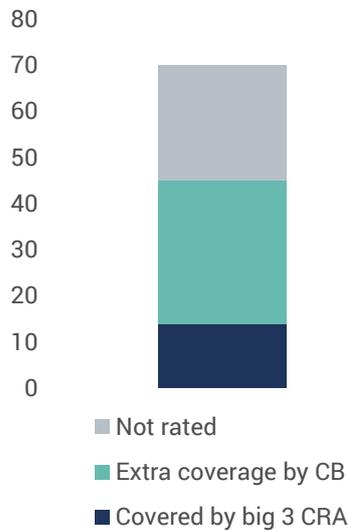


Figure 3.3 Ratings Available for Individual CCP Members



Irrespective of whether the securities lending transactions are conducted under a Pledge GMSLA or via a specialist CCP or both, the impact of Covid -19 upon credit transitions is visible in Figure 3.4. The general bias at present is unsurprisingly towards downgrades and the table shows that several CCP Members have dropped from Investment Grade to High Yield. It reinforces the need to constantly monitor these networks and individual firms and build automated early warning capabilities.

Figure 3.4 Extract from Credit Benchmark Bank and Non-Bank Financial Institutions Risk Monitor June 2020

	Credit Consensus Changes				Credit Consensus Distribution						
	Total	Deteriorations ¹	Improvements ¹	IG to HY	aaa	aa	a	bbb	bb	b	c
Intermediaries											
Central Clearing Counterparts (CCP)	40	2.5%	2.5%	0		6	15	19			
CCP Members	1,904	11.3%	5.1%	4	6	119	953	520	275	21	10
Broker Dealers	261	7.3%	2.3%	0		7	108	83	62	1	
Custodians and Sub Custodians	151	13.2%	7.9%	0		16	61	26	31	13	4

4. The Application of Credit Consensus Data

Another possible solution for the industry to consider is to tap into the existing expertise of the banking sector via Credit Benchmark's Consensus credit rating data. For regulatory and good business reasons, each bank operating in the securities financing space has created its own regulated "internal credit rating agency" to assess the creditworthiness of thousands of counterparts, particularly on the buy side. By aggregating this information, Credit Benchmark can provide a comprehensive view of the credit risk of obligors without any conflict of interest in its underlying business model.

Furthermore, all the credit opinions that are used as inputs to the Consensus rating are based on actual exposure to a counterpart's creditworthiness. This real world "skin-in-the-game" approach has many advantages over the traditional "issuer-pays" model. In the buy side space, the typical fund does not wish to pay for a rating and would clearly benefit from the creation of Consensus ratings that are derived from the regulated models of the global banking sector.

The aggregation of independent credit assessments on an obligor results in lower error rates, which is known as the diversity prediction theorem. Given the paucity of information that plagues the world of credit risk, the diversity prediction theorem has an added informational advantage. This is why an individual firm's view of an obligor has higher error rates due to the failure to capture certain pieces of information.

Credit Benchmark receives regular data contributions from over 40 global leading financial institutions while also onboarding new contributing institutions and ingesting new datasets. Over 800,000 credit risk data points are received and mapped and circa 50,000 Consensus ratings released each month. Credit Benchmark estimates that this information represents the collective wisdom of around 20,000 credit analysts across the banking sector. The consortium continues to expand as more banks join (seven are currently onboarding with more to follow).

To protect the integrity of the credit Consensus ratings, Credit Benchmark has developed a robust governance structure in partnership with its contributing banks. Central to this structure are our Advisory Board and the Methodology Committee which meets twice a year to discuss and resolve any outstanding issues, thereby maintaining the integrity of the output. This ensures that credit assessments on individual funds and issuers are correctly mapped and aggregated with rigorous data quality procedures in place, thereby facilitating the publication of high-quality Consensus ratings.

With regards to the funds sector, Credit Benchmark already publishes Consensus ratings on close to 20,000 Mutual-, Pension- and Sovereign Wealth Funds, the vast majority of which are high-quality investment grade Consensus ratings. Critically, Figure 4.1 indicates the extent to which the current rules for unrated counterparts will result in risk weights that are not comparable with the actual risk.

Figure 4.1 Credit Benchmark Consensus Rated Funds by Type and Credit Quality

Fund Type	a- and above	%	bbb+ and below	Grand Total
Mutual Fund	17,531	98%	399	17,930
Pension Fund	1,815	93%	134	1,949
Sovereign Wealth Fund	14	93%	1	15
Grand Total	19,360	97%	534	19,894

The proposed regulations make no allowance for the country of domicile of the counterpart and Figure 4.2 below shows the breakdown of the funds by Country. The potential unintended consequences of the forthcoming Basel IV regulations upon these funds and others has been referenced earlier.

Figure 4.2 Credit Benchmark Consensus Rated Funds by Country

Fund Domicile	a- and above	%	bbb+ and below	Grand Total
United States	6,727	98%	115	6,842
Luxembourg	3,476	99%	32	3,508
Germany	1,314	100%	6	1,320
United Kingdom	1,234	98%	20	1,254
France	1,040	99%	7	1,047
Ireland	1,018	99%	13	1,031
Italy	712	99%	8	720
Canada	594	98%	11	605
Australia	479	97%	15	494
Cayman Islands	291	77%	86	377
Other	2,475	92%	221	2,696
Grand Total	19,360	97%	534	19,894

5. Regulatory Requirements

As we have shown, the groundwork has been completed and the data set of credit Consensus ratings continues to broaden and deepen. However, for banks to use these Consensus ratings for RWA purposes they will need to be with the appropriate regulatory regime. At present US banks are somewhat restricted in their ability to use external credit information by The Dodd Frank Act. There is ongoing debate about this act and it may be changed in the future. However, the non-US divisions of the US banks are often large participants in the securities lending markets and may use external credit information. Credit Benchmark is exploring the option of becoming a regulated External Credit Assessment Institution (ECAI) in order to provide external credit data that can be used under Basel IV regulations. Credit Benchmark has already established relationships with a number of key global regulators, and the data is currently being used by the Bank of England to help maintain the supply of credit due to the ongoing Covid-19 crisis via the CCFE scheme. Credit Benchmark data is already active in the securities financing industry, supporting firms on Agency Lending Disclosure (ALD), as well as speeding up client onboarding and Know Your Client (KYC) challenges.

Subsequent to the financial crisis, regulators have been keen to register more ECAIs to increase competition across the industry. Crucially, the regulatory focus for ECAI certification is on the credibility of the ratings, which is determined partly by their usage, and by the providers adhering to certain rules on transparency and disclosure.

The creation of Consensus ratings by aggregating all available information from banks that have actual exposure to obligors, and where there is no underlying conflict of interest, is clearly one potential solution to the challenge that Basel IV has posed to the securities financing industry. Whatever solution is decided upon, it is important that the industry moves quickly towards an agreement to prevent disruption to the capital market and falls in the returns of pensioners and savers.

Summary

This objective of this paper is to make sure that this important issue is on the radar of all market participants and industry associations in sufficient time for them to carefully consider the ramifications of the forthcoming Basel IV rules. Furthermore, to provide the industry with a forum to consider rules in detail and to discuss and consider ways in which to address them for the benefit of the broader market. This paper was written following a preliminary meeting on this subject that was chaired by Andy Dyson, CEO of the International Securities Lending Association (ISLA) and attended by banking member representatives. It is a call to action for fellow ISLA members to get involved in this important discussion.

Next Steps

The next ISLA meeting on this topic will be convened soon and interested parties are invited to contact the author, Mark Faulkner, or the ISLA CEO Andy Dyson, to discuss their involvement. As agreed at the initial meeting, ISLA and Credit Benchmark will be reaching out to fund representatives and associations in key jurisdictions to brief them on the forthcoming Basel IV rules and the potential impact upon the Capital markets and to invite them to participate in the ongoing discussions.

About Credit Benchmark

Credit Benchmark is the world's most comprehensive source of Consensus risk data on 50,000 + entities, more than 75% of which are unrated by the credit rating agencies (CRAs). By aggregating and anonymizing credit data from 40+ of the world's leading financial institutions, Credit Benchmark provides a unique view on counterpart creditworthiness. Credit Benchmark data can be delivered securely into your proprietary or industry-standard systems to bring efficiencies and automation to your workflow and benefits to you and your clients.

About the Author

Mark Faulkner, Co-Founder, Credit Benchmark

Mark has an established track record in bringing transparency to rapidly developing areas of financial services. Alongside his business partner Donal Smith, he co-founded Credit Benchmark in 2013, introducing the world's most comprehensive source of Consensus credit risk data. In 1994, Mark spotted an opportunity to provide customers in the securities financing industry with independent specialist advice and services. The company he founded, Data Explorers, became the leading provider of securities lending data across all global market sectors, and was acquired by IHS Markit in 2012. Mark graduated from the London School of Economics and held management roles at LM Moneybrokers, Goldman Sachs and Lehman Brothers.

In 2004 Mark wrote "An Introduction to Securities Lending". It was commissioned by the International Securities Lending Association and Endorsed by Association of Corporate Treasurers; British Bankers' Association; The London Stock Exchange's National Association of Pension Funds and The Securities Lending and Repo Committee. The booklet was subsequently translated into many languages and remains accessible for free on numerous websites.

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