



# SCI/Fitch Solutions 2012 Global Credit and Counterparty Risk Survey



FitchSolutions





# Building blocks

Derivatives market participants polled by **SCI**, in partnership with **Fitch Solutions**, agree that counterparty risk management has increased in importance since the financial crisis. However, sophistication levels with regard to risk management practices still vary widely across institutions

**S**CI, in partnership with Fitch Solutions, has undertaken a global survey of credit and counterparty risk management practices in the derivatives industry. The findings underline the significant time and resources being invested by buy- and sell-side institutions alike in strengthening their risk management infrastructure. Establishing a centralised CVA desk remains the ‘holy grail’ for many.

Pre-financial crisis, derivatives risk managers typically focused on fundamentals, such as ratings and long-term credit risk. Since then, there has been increasing focus on liquidity and counterparty risk as well.

“It remains challenging to separate the technicals from the fundamentals, but it is necessary to do so otherwise credit risk can be over-estimated,” explains Takayoshi Wiesner, avp at Mizuho. “It is important to identify liquidity premiums, as well as supply and demand factors, to avoid creating negative feedback between technicals and fundamentals.”

To tackle the issue of CDS liquidity, Fitch Solutions has pioneered much of the research in attempting to separate out the technicals from the fundamentals with its liquidity premium methodology. Calculating the liquidity premium was the natural next step for Fitch Solutions after it started publishing daily CDS Liquidity Scores back in November 2008.

In addition to depth, the Fitch model looks at factors such as price staleness, dispersion of mid quotes and bid-ask spreads to derive its liquidity measures. CDS liquidity scores are further transformed into regional and global percentile rankings on the issuer level to provide a relative view of liquidity.

One head of credit risk concurs that the focus on counterparty risk has increased over the last few years. He notes that until the financial crisis hit, active management of CVA for example was typically undertaken by sophisticated investment banks. But now every institution is seeking to implement CVA methodologies, with mandates varying dramatically between them.

“The objective has changed,” the credit risk head explains. “Historically, CVA pioneers introduced the concept as a novel way to manage counterparty jump-to-default risk, with the clear objective of improving their institution’s risk profile. Accounting regulations gradually shifted the focus to managing P&L volatility and today a penalising Basel 3 CVA charge is driving many to make capital optimisation their priority.”

He adds: “This is currently leading institutions to hedge exclusively the credit spread volatility of their CVA positions as exposure hedges are not recognised under Basel 3 and could even incur an additional capital charge for market risk. Such hedges would, however, mitigate both P&L volatility and JTD risk – contrary to macro credit spread hedges through indices that banks will have to resort to, especially for illiquid counterparty names. The irony is that this is encouraging all institutions to hedge larger amounts through the same instruments, creating a one-way market in an asset class which probably does not yet have the depth to absorb such volumes in a healthy way.”

However, what small banks should do when they don’t have the resources to build CVA desks remains a moot point. Wiesner asks: “How do you monitor counterparty exposure then? The answer is probably somewhere between the rating and the market price.”

Similarly, it is difficult to effectively evaluate the credit risk of small players because there isn't much information available on them. A first step is consequently to control exposure to such companies or avoid trading with them entirely, according to Wiesner.

"More information is available on large bank counterparties, but they also have more trading volume, so it's necessary to use multiple measurements and look for discrepancies. In most cases, you'll see significant premiums for bank CDS because everyone is hedging that sector at the moment," he adds.

Appreciating the difficulties in evaluating credit risk of smaller players, Fitch Solutions' strategy has been to develop tools specifically aimed at providing a credit assessment for the broader bank universe, including those banks for which there is limited information. With CDS pricing available for less than 550 financial entities, institutions are left with a coverage gap for many counterparties, for which they need to manage credit exposure. This becomes even more pronounced when dealing with the emerging market universe.

To address this challenge, Fitch Solutions Bank Credit Model takes an individual bank's fundamental financial data in combination with macro factors and daily market information (where available) to generate over 7000 implied ratings and 6000 implied CDS spreads for both rated and unrated banks, thereby substantially expanding the universe of banks for which risk managers have a consistent credit assessment globally. For those risk managers who require PDs, a market risk neutral PD can be generated from the implied CDS spread, providing a good proxy of relative credit risk.

To improve coverage in the CDS space, Fitch Solutions has developed a number of different methodologies for generating a CDS spread for specific entities. These approaches include a model that utilises artificial intelligence techniques fed with equity pricing, bond yields and CDS data. Additionally, the firm offers a model that can calculate the spread of a CDS contract written in a different currency (also known as Quanto CDS), as well as the more simplistic region, rating and sector benchmarking method commonly used in the market and highlighted in Basel 3 documentation.

Meanwhile, the link between funding and CVA is another area of focus, with the objective of accessing cheaper funding via collateralisation and avoiding double-counting with DVA. The result – dubbed funding valuation adjustment (FVA) – represents a new pricing paradigm, according to one risk management consultant.

But because collateral agreements aren't symmetrical, the cheapest-to-deliver concept means that FVA is more complex to model than simply switching discount curves. "FVA is a portfolio-level valuation issue: it is necessary to look at the whole pool to estimate collateral received and model the behaviour of counterparties and margin calls across thousands of scenarios and time points," the consultant observes.

He says that a number of institutions are still grappling with the concept at present but that a few have either established funding desks or grouped it with their CVA desks. "It makes sense to centralise FVA and bring it closer to the CVA, collateral management and treasury functions. Collateral is a tool used to manage credit risk and optimise an institution's funding profile, but it is important to align all three desks and ensure the operational process is in line with your modelling assumptions."

The consultant adds: "The aim is to explicitly price the funding component upfront and to carve it out from the traders' P&L, thus freeing them from having to manage related basis risks, such as Libor versus OIS

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or the institution's own CDS-bond spread. Once an institution has isolated the funding and credit risk components from the risk-free valuation, a specialised desk can then look at CVA, DVA and FVA in a consistent framework and hedge or reserve against the risky portion."

That being said, there is no market-standard way of expressing and managing FVA at present. The industry is still discussing the relationship between DVA and FVA, as well as how to manage the funding needs stemming from VaR-based initial margin requirements for centrally-cleared derivatives. ISDA's new standard CSA documentation is expected to help this effort by reducing disputes over valuation approaches.

The market is also grappling with DVA and whether it poses a systemic risk. The credit risk head points to the recent furore over Goldman Sachs' DVA reporting (SCI 14 February) and suggests that the practise may not be as 'toxic' as some believe, since it primarily involves index positions being used to net off counterparty exposures.

"Large dealers would already have a significant long exposure to the iTraxx financials components due to their CVA positions and other activities. DVA hedging in this case would really mean macro-hedging the net systemic credit spread risk of the residual bilateral CVA position," he explains.

While large institutions may end up with a more balanced position by incorporating DVA, it remains unclear how smaller institutions – that can't use CDS indices as a proxy for their own credit spread – will approach it. All banks will have to account for DVA in two years' time under FAS 157.

Wiesner points out that although the economic landscape appears to have improved from a credit risk perspective, risk managers now have to address many different evolving issues in connection with the regulatory landscape, with limited time and resources to implement them. "There is a lot of talk about Basel 3 and Dodd-Frank, but each market is unique and overseen by different authorities, so it's impossible to apply what is happening in the US to other jurisdictions. It's difficult to come up with a single global solution," he says.

Overall, Wiesner notes that increased transparency around CDS pricing would be helpful for risk managers. He adds that the advent of CCPs should also result in less price discrepancy among brokers.

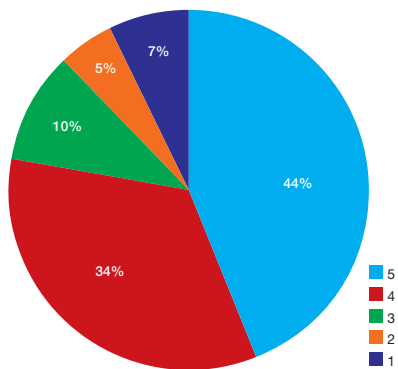
"What you see is the only real price. So, if you get two quotes, how do you explain the difference? Is it because different traders see different prices or is it a function of timing? Consensus removes this uncertainty, so people are more comfortable trading – it creates positive feedback," Wiesner suggests.

Read on for a question-by-question analysis of responses to the SCI/Fitch Solutions 2012 Global Credit and Counterparty Risk Survey, covering these topics and more. For the survey methodology, see page 7.

## 1 How important is managing counterparty risk to your institution?

An overwhelming majority of respondents to the SCI/Fitch Solutions survey agreed that managing counterparty risk is important to their institution, with 44% noting that it is their institution's top priority and 34% noting that it is very important to their institution. Of the respondents polled, 81% concurred that managing counterparty risk has increased in importance over the last two years.

**How important is managing counterparty risk to your institution (5 being the most important)?**

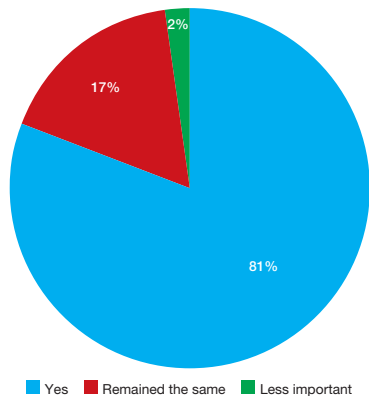


One portfolio solutions director noted that counterparty risk has gained a higher profile post-financial crisis and given increased capital requirements under Basel 3. "It is no longer something to be ignored by banks," he said.

In particular, CVA pricing and risk management has come to the fore. Respondents cited the incorporation of CVA pricing, enhanced trading systems and proactive risk management as areas that have been strengthened over the last 12 months to support their institutions' counterparty risk strategy.

One director of risk management said his bank has invested heavily in counterparty risk management technology, across the entire firm rather than for individual desks. "A focus has been placed on integration: having different systems for managing risk on different trading desks, but all connecting

**Has managing counterparty risk become more important over the last two years?**



"Previously, the importance was placed on compliance, whereas now we are more active in following and keeping ahead of legislation"

with one another across the bank. The aim is to give senior risk managers both a broad idea of the bank's total exposure and a breakdown of the individual desks' exposure."

He added that counterparty risk management has also become a higher cultural priority within the bank, ensuring that it is no longer something only analysed as part of the annual review. The group that handles counterparty risk management has been strengthened as a result, including by increasing the number of staff actively monitoring it.

Another risk manager said his firm has updated its technological infrastructure and systems to ensure that they're more dynamic and respond in real-time. "A stronger focus has been placed on legal and regulatory impacts and changes. Previously, the importance was placed on compliance, whereas now we are more active in following and keeping ahead of legislation," he added.

One buy-side counterparty risk officer echoed the importance of ensuring that senior management understands both the aggregate counterparty exposures across the firm and those across its funds complex. Among the methods that his firm uses to mitigate counterparty risk are appropriate trading master agreements and collateral arrangements.

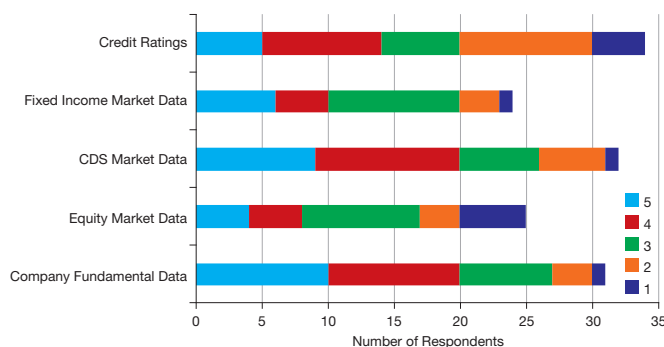
Another risk officer at an investment manager confirmed: "As a buy-side manager, using master agreements hadn't been a requirement pre-2008. It's now best practice and a requirement for many clients. They are more demanding in terms of counterparty policies and procedures, while portfolio managers are also trading more OTC instruments."

With the European sovereign debt crisis still grabbing headlines, respondents also pointed to increased monitoring and measurement of sovereign credit risk at their institutions. Netting of positions, stronger fundamental and qualitative approaches, increasingly active management of limits, and consideration of correlations between sovereign credit risk and derivatives markets were all cited as ways of mitigating this exposure.

## 2 Which risk indicators are most important in terms of managing counterparty risk? How reliable are they?

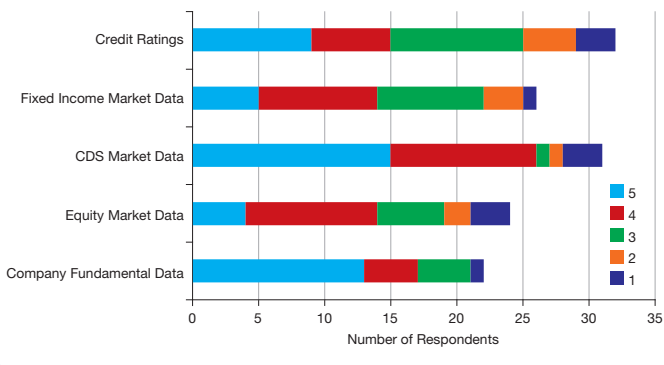
The majority of respondents indicated that CDS market data and company fundamental data are the most important risk indicators in terms of managing counterparty risk, with equity market data and fixed income market data cited as very important. Most respondents also

**How reliable are the following risk indicators in terms of managing counterparty risk (with 5 being the most important)?**





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said that CDS and company fundamental data were the most reliable risk indicators, with credit ratings and equity market data noted as very reliable.

However, one risk manager observed that all of these risk indicators have unreliable elements. For instance, while CDS spreads contain a lot of market information that may not be visible in an entity’s equity price, current rating or corporate data, they can be volatile. In particular, liquidity can amplify probability of default in times of major market stress, resulting in the PD or CDS spread having to be adjusted accordingly.

**3 Does your institution operate its own internal ratings model or process? If so, how is the reliability of the model/process validated?**

Over half of all respondents said that their institutions have an internal ratings process, with one participant emphasising that credit analysis and risk management now depend less on external ratings and more on internal measures. In particular, these institutions rely on internal ratings and models to measure the credit risk of non-rated entities or entities for which CDS aren’t quoted or liquid.

One risk manager noted that his firm will only deal with a non-rated entity if there is a guarantee in place, however. Another said that his institution would be wary of large exposures to such names.

Internal ratings models are typically derived from fundamental credit and financials data, as well as CDS spreads. They also often appear to be tailored to the counterparty.

For smaller entities, the focus tends to be on their balance sheet and cashflow. For larger entities, the focus is typically on their capitalisation, leverage and liquidity.

A number of approaches are used to validate the reliability of institutions’ internal ratings models, including back testing and monitoring by independent validation groups or risk management committees. One risk manager noted that there are several different approval steps at his institution.

First, the credit group evaluates the overall creditworthiness of an entity; then, the enterprise risk group validates whether the credit group has applied the criteria properly. Finally, the credit review group monitors all reporting and analysis on a quarterly basis.

“With larger entities, we compare our internal rating to that given by the industry,” the risk manager explained. “The ratings don’t necessarily

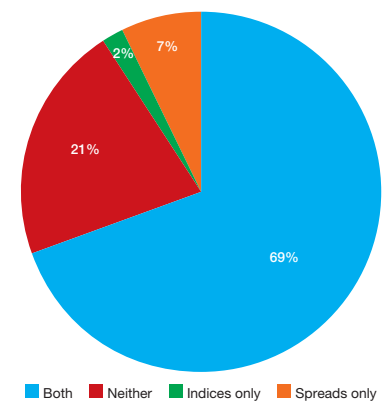
“The ratings don’t necessarily have to match, but if they are outside an accepted deviation, a justification must be made”

have to match, but if they are outside an accepted deviation, a justification must be made. We may seek qualification as to how external rating agencies came up with their rating, for example.”

**4 Does your institution use CDS spreads and/or CDS indices for hedging purposes?**

The majority (69%) of respondents use CDS spreads and indices for hedging purposes, although some observed that the alternatives are limited. Just over a quarter of respondents suggested that the currently available CDS indices don’t meet their hedging requirements, predominantly because emerging market and private companies are underrepresented. One participant said that CDS indices are too broad to meet his institution’s hedging needs.

**Do you use single name CDS and/or CDS indices for hedging purposes?**

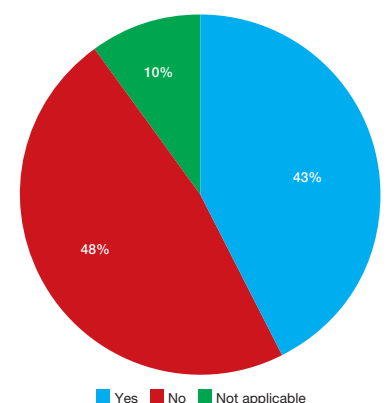


**5 Do you measure your exposure to central counterparties?**

Responses to this question were reasonably equally split, with 48% answering in the affirmative and 43% in the negative. Some of these respondents noted that their institutions have general plans to do so in the future.

Again, banks typically rely on internal systems that collate all central counterparty exposures on

**Do you measure your exposure to central counterparties?**



any given day. Any open positions are then fed into internal rating models to determine the overall risk exposure.

## 6 How will central clearing of OTC derivatives impact systemic risk?

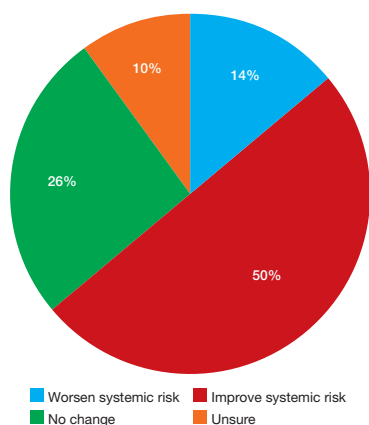
Half of the respondents polled believe that central clearing of OTC derivatives will improve systemic risk, while others believe that it will either have no impact (26%) or could even worsen systemic risk (14%). Those that believe central clearing will improve systemic risk cite increased transparency and less counterparty risk as the reasons why. A risk manager emphasised that trades will benefit from central clearing by having collateral posted by both parties, instead of only by the end-users.

Those that believe central clearing will increase systemic risk point to greater concentration of risk and positions, inadequate determination of liquidity by CCPs, inadequate capitalisation of CCPs and concerns that CCPs may be ‘too big to fail’.

The remainder feel that central clearing has the net effect of simply transferring risk from one source to another.

Another risk manager warned: “The effect of central clearing on systemic risk will depend on the product and the market you’re operating in. Not all CCPs are equal and thus it will prove somewhat sector-specific.”

**What impact will central clearing of OTC derivatives have on systemic risk?**



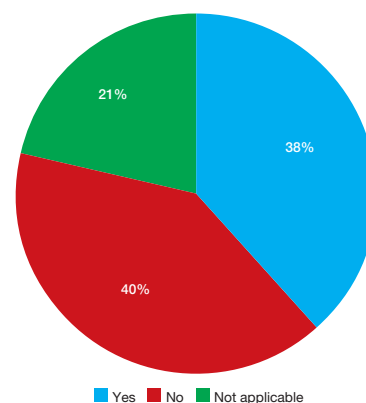
In cases where there is no observable CDS spread, the most common approach used by CVA desks is the region, rating and sector benchmarking methodology. This involves calculating the average CDS spread for each combination of region, sector and rating. The average whose attributes best match that of the entity is then used as a proxy.

This approach, however, is not optimal when there is a disconnect between the observed CDS market spread level and an entity’s rating, which can cause large standard deviations in the proxies. Also, many of the entities will not have ratings, so these will also need to be estimated. The more sophisticated techniques developed by Fitch Solutions, discussed in the previous sections, endeavour to lessen these risks and are less generic than the standard benchmarking approach.

## 8 Does your institution plan to enhance its CVA infrastructure in the coming months/years?

Responses to this question were almost equally split, with 40% answering in the negative and 38% in the affirmative. Just under a quarter of participants polled weren’t sure or said that CVA infrastructure wasn’t applicable to their institution. A minority of institutions represented in the poll are actively modelling DVA at present, with a few more planning to look at it as part of the broader development plans for their CVA infrastructure.

**Do you plan to enhance your CVA infrastructure in the coming months/years?**



One risk manager confirmed that his bank has just begun looking at CVA in the credit risk and treasury group, which is involved with the pricing of risk. He said the bank currently isn’t using CVA as a tool, but instead more as a discussion point in terms of how it should be used and what for.

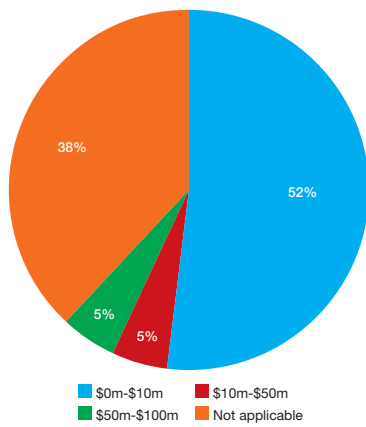
The portfolio solutions director explained that his bank has been addressing CVA as part of an incubator for the past 12-18 months, established to help develop the bank’s internal understanding of CVA, methodologies and calculations. In parallel, evaluations of external vendor systems have also been taking place to examine functionality and ability to meet quantitative and business requirements. He indicated that his bank, for one, is on its way to establishing a dedicated CVA

## 7 Does your institution have an internal CVA desk and/or conduct in-house CVA modelling?

Responses were reasonably equally split among yes and no for this question, illustrating the differing levels of sophistication among financial institutions. Of those institutions that have an internal CVA desk, the majority don’t use an external CVA modelling service provider. Respondents indicated that aggregated trade data, internal credit evaluations and CDS data are the most important data sets for undertaking CVA modelling.

“The effect of central clearing on systemic risk will depend on the product and the market you’re operating in. Not all CCPs are equal and thus it will prove somewhat sector-specific”

**What is your current budget for spending on CVA-related infrastructure or services?**



platform within the next 1-2 years.

Further, the portfolio solutions director recognised the cultural challenge faced by his bank in relation to CVA, noting that internal education is required to drive changes to the operating model in terms of pricing and risk management. “An emphasis has been made on increasing originators’ understanding

of CVA and the bank’s approach to calculating it,” he explained.

He continued: “Helping to educate the originator about how CVA is calculated and the methods in which a number is reached is imperative to creating the transparency required to progress to discussions regarding the establishment of a centralised CVA desk. Understanding that the desk is not a profit-making function for the bank but rather an essential risk mitigation tool is vital.”

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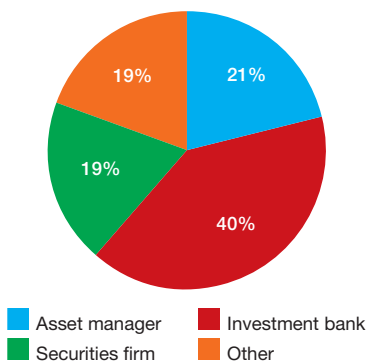
The majority of respondents (52%) to the survey put their institution’s current budget for spending on CVA-related infrastructure or services at between US\$0-US\$10m, but a few put it at US\$10m-US\$50m (5%) or US\$50m-US\$100m (5%). The remainder were either unsure of their institution’s CVA budget or said that the question wasn’t applicable. ■

**Survey methodology**

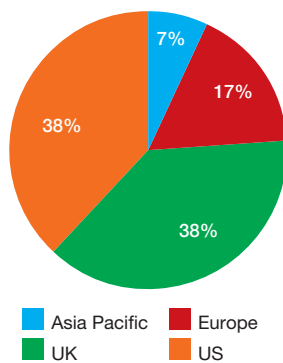
The survey results were compiled after polling a range of derivatives market participants about recent developments in credit and counterparty risk management practices. In total, 42 firms participated in telephone interviews or responded to an online questionnaire.

**Survey respondents**

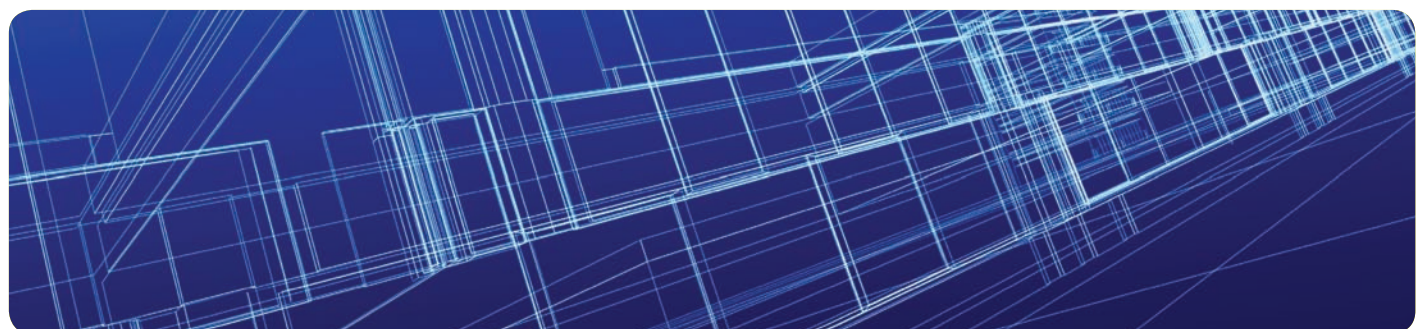
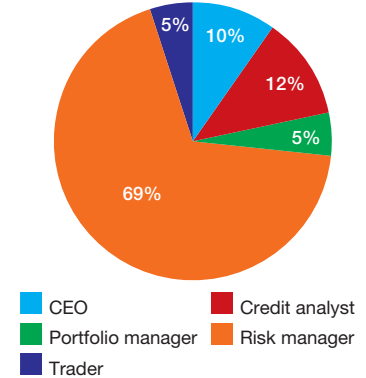
**Institution type**



**Geography**



**Job title**





# Bank Credit Risk Indicators

At Fitch Solutions we understand that financial professionals, now more than ever, rely on a variety of financial and market-based indicators to monitor bank credit risk. That's why we provide a wide array of proprietary Fitch bank data – including credit ratings, financial and CDS implied ratings, bank financials, as well as CDS pricing, indices and liquidity scores.

Available as a custom, standardized data feed to meet your firm's specific needs, Fitch Solutions offers industry-leading bank credit risk indicators that deliver value beyond the rating.

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