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IFRS 9: How Credit Data Can Help

As firms face new valuation challenges with the implementation of IFRS 9, CDS data offer a standard, quantitative way of understanding risk

How time flies. Physicists argue that time is an illusion, a theory of relativity that would surely find a sympathetic home among IFRS 9 practitioners. When the IASB issued IFRS 9 Financial Instruments in July 2014—replacing IAS 39—its adoption date of January 2018 probably seemed an age way for many finance and risk departments. But here we are in the second half of 2017, with the deadline racing towards us, and the enormity of the task is all too apparent.

Some firms will be well prepared for IFRS 9 and already have their systems and processes in place. Others, however, are no doubt scrambling to meet the January 2018 cutoff, an unsurprising scenario given the slew of regulation that has hit the financial industry over this period.

This paper explores how third-party data from the CDS market can offer novel solutions for complying with IFRS 9. Data from the credit market offer a standard, quantitative way of understanding risk. They also offer key attributes that map directly to some of the requirements of the rules, including quick responsiveness to market events and a forward-looking measurement of risk.

It's all about impairment

IFRS 9 includes some significant developments from IAS 39, notably on hedge accounting as well as classification and measurement of financial assets. But it is the changes to how impairment of assets is treated that arguably marks the biggest shift. Under IAS 39, impairment was on an incurred loss basis, i.e. impairment was only recognized after objective evidence of credit losses was identified. This resulted in criticism that financial statements weren't reflecting the reality of credit impairment.

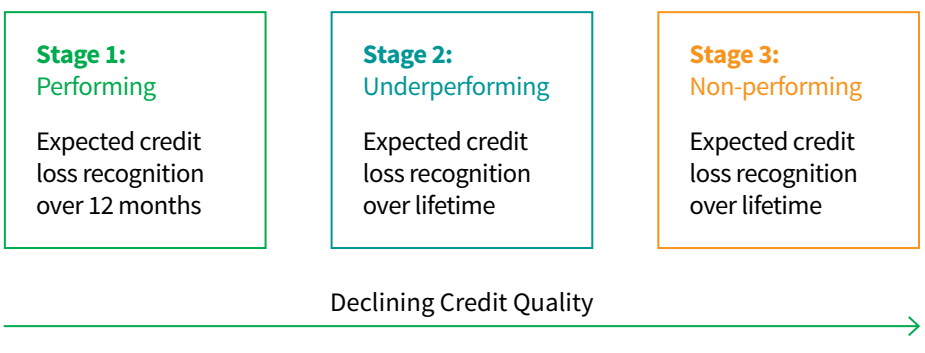
To address this weakness, IFRS 9 introduces an expected credit loss (ECL) approach. This requires more forward-looking information to assess possible impairment on debt instruments that are measured at (i) amortised cost or (ii) fair value through other comprehensive income (FVOCI). This includes loans that are not measured at fair value through profit or loss.

The three-stage approach

So, it is clear that IFRS 9 means firms will assess credit losses on applicable assets over a future period. But the length of this period is determined by certain criteria, in particular whether a financial instrument has experienced a significant increase in credit risk—or not—since initial recognition.

The general, or three-stage approach to impairment, is designed to reflect the credit deterioration of an asset. The first stage, where assets are performing, involves expected credit loss (ECL) calculation over a 12-month period. When an asset moves from stage 1 to stage 2—prompted by a significant deterioration in credit quality—the ECL shifts to a lifetime period. Stage 3 is also assessed over the lifetime of the relevant asset (though the calculation of interest income is different), but this only applies when there is objective evidence of impairment, i.e. the asset is non-performing.

IFRS 9: The Three Stage Approach to Impairment



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Identifying a significant increase in credit risk

How does a firm determine if an asset has suffered a significant deterioration in credit quality? The move from stage 1 to stage 2 is not just a simple matter of assessing objective evidence on whether a credit loss has occurred or not. Indeed, the main rationale driving IFRS 9 is to move away from this backward-looking approach. Rather, the onus is on the firm to establish rules that identify and quantify credit deterioration since initial recognition (or improvement: assets can be moved back from stage 2 to stage 1).

In formulating these rules, the key factor is the change in the risk of default over the expected life of the financial instrument. IFRS 9 is a principles-based standard and allows some flexibility in defining 'default.' But IFRS 9 does give some pointers on how to assess credit risk.

The standard states that a multi-factor approach for analysing credit risk should be employed. A firm should use 'reasonable and supportable information that is available without undue cost or effort' to determine if a significant increase in credit risk has occurred. In addition to historical data such as past due status (payments more than 30 days past due is considered a significant increase), firms should also use forward-looking data. This reflects the underlying recognition that assets—such as term loans with bullet structures—will exhibit credit deterioration before measures such as past due status signal that there is a problem.

The need for external credit data

So we have established that firms ideally need to use "reasonable and supportable information" to assess significant increases in credit risk. When an asset is moved to Stage 2 from Stage 1, a whole range of credit deterioration triggers can be used. Box 1 includes some suggestions.

- CDS spreads
- Debt prices (bonds and loans)
- External credit ratings
- Internal credit ratings
- Significant difference in rates or terms of newly issued loan agreements
- Existing or forecast changes in financial, business or economic conditions
- Actual or expected change in profitability of borrower
- Change in value of supporting collateral
- Quality of guarantee (legal guarantee, keepwell, letter of comfort)
- Change in loan documentation or expected breach of covenant
- Past due status

This is not an exhaustive list but includes the bulk of indicators that can be used to flag credit deterioration. Some will be private to the institution (such as internal ratings, guarantee level, past due status and possible changes in loan documentation). These can be used in stage assessment, though some can be considered lagging indicators (see point on past due status above). Indeed, the BCBS has stated that a significant reliance on past-due-status is a very low quality implementation of IFRS 9 (BCBS 12/2015).

Firms should certainly be aware of the financial performance of the borrower and changes in broader economic conditions. But, in reasonably efficient markets, these factors should be priced in by external indicators, such as CDS spreads and prices of debt instruments issued by the borrower.

Using CDS in IFRS 9

- Forward-looking: The CDS market incorporates all available public information and expectations of changing conditions to ensure credit risk accuracy
- Responsiveness: CDS spreads react swiftly to events, ensuring that changes in credit risk are reflected faster than ratings
- Standardisation: CDS are standardised instruments with fixed tenors along the term structure. Firms can select the appropriate maturity on the curve to closely match the time period of the asset
- Quantitative: the quantitative nature of CDS spreads make them easy to integrate into a rules-based system of stage assessment
- Probabilities of default are integral to CDS

How can CDS be used in stage assessment? Consider t example of a firm that has to determine if the credit risk of an instrument is low. IFRS 9 states that if the credit risk is low at reporting date, then it can be assumed that there hasn't been a significant increase in credit risk (note that the BCBS (ibid) regard the use of the low credit risk exemption as a low-quality implementation). In other words, the expected credit loss (ECL) will be calculated over 12-months (stage 1). IFRS 9 doesn't define 'low' credit risk, so firms will have to establish their own criteria. One easy solution would be to equate 'low' credit risk with an investment grade rating. This would be relatively easy to implement, though it has the drawback of using what can be a lagging indicator in ratings.

But if this rule is implemented, then further criteria will have to be put in place when an instrument doesn't have 'low' credit risk at reporting date. For example, if the instrument has a sub-investment grade rating. Then additional data, such as CDS or bond spreads, should be used in assessing if there has been a significant increase in credit risk. For example, a BB-rated debt obligor had a three-year CDS spread of 50bps at the initial stage of reporting – equating to a PD of about 2.5%. Six months later, the spread on the entity has widened to 300bps (PD of 13%).

This is a clearly significant increase in credit risk, and as such firms should consider moving the asset to stage 2 and calculate ECL over a lifetime, rather than 12-month period. When using CDS spreads for both the initial and later periods, it may be prudent to take a moving average of the CDS spreads over an appropriate interval to eliminate daily volatility.

Using CDS to calculate and validate expected credit loss

We have seen how CDS can be used in the stage assessment process. The probabilities of default derived from CDS can be used to determine if an asset has experienced a significant increase in credit risk.

But the utility of CDS PDs in IFRS 9 doesn't end there. They can also be employed in the calculation and validation of expected credit loss. First, we should reiterate that IFRS 9 is a principles-based standard and does not prescribe a specific method of measuring ECL. However, the standard does establish that ECL should reflect:

- An unbiased and probability-weighted amount that is determined by evaluating a range of possible outcomes
- The time value of money
- Reasonable and supportable information about past events, current conditions and reasonable and supportable forecasts of future events and economic conditions at the reporting date

Calculating the probability of default

Banks already calculate PDs and Loss-Given-Default (LGDs) under the Internal Ratings Based approach in Basel III. But there are crucial differences between Basel and IFRS 9, the most notable being the method for calculating PDs. Basel specifies that PDs should be calculated "through the cycle", while IFRS 9 states that "point-in-time" estimates should be used. This means that the latter have to reflect current and future conditions of the economic cycle. In other words, the PDs should be forward looking.

Macroeconomic criteria, such as unemployment levels, GDP, oil prices etc, should be incorporated into stress testing models. The model should be backtested to ensure the most relevant factors that affect credit risk are included. The term structure of PDs—crucial for estimating ECL over the lifetime of an asset (stage 2) —will be used to evaluate ECL over a range of possible scenarios, as specified by IFRS 9. The EBA's consultation paper (July 2016—sound ECL methodologies, section 38) puts it well: "Sound credit risk methodologies should consider different potential scenarios and should not rely purely on subjective, biased or overly optimistic considerations. Credit Institutions should develop and document its process to generate relevant scenarios to be used in the estimation of ECL."

The role of credit data in expected credit loss

The same EBA paper also makes clear that financial institutions should not rely solely on the model parameters. The EBA states "where market indicators of future performance (such as credit default swaps 'CDS' spreads) are available, senior management may consider them to be a valid benchmark against which to check the consistency of its own judgements."

It is therefore clear that forward-looking indicators of credit risk, such as CDS spreads, should be used to validate ECL models. IHS Markit has data on approximately 2,500 entities across the full term structure (three months to 30 years). This includes spreads, prices and probabilities of default. The dataset is extremely broad thanks to a variety of sources used in calculating composite levels: books and records data from banks; clearing submissions; and parsed dealer runs sent to the buy-side.

Sector curves

However, it may occur that the obligor of an asset held by a financial institution does not have CDS contracts quoted. This can be the case when the outstanding debt of the obligor is predominantly in the form of loans rather than bonds. The firm will then need to decide on a proxy for validating ECL models.

IHS Markit produces sector curves that can help fill these gaps. These are widely used throughout the financial industry for risk management, particularly in Credit Valuation Adjustment (CVA). In practice, if there are no CDS spreads available (and therefore no PD) on a particular counterparty, a proxy PD can be taken from the CDS sector curve. This is a curve representing a rating, sector and region cohort. For example, if the borrower is a BBB-rated Bulgarian telecoms carrier, it may not have an active CDS market. In that case, an Eastern Europe BB telecoms sector curve would be an appropriate proxy.

IHS Markit also produces both bond and loan sector curves. Bond sector curves have the advantage of increased granularity—the curves can be built on a country, rather than regional, basis. This is due to the fact that the bond universe is significantly larger than CDS. Some may favour loan sector curves as they represent the same part of the capital structure as many of the assets held either at amortised cost of FVOCI. However, they don't have the same level of regional granularity as either the CDS or bond sector curves. Unsurprisingly, this is a result of the leveraged loan market being concentrated in certain developed economies.

This paper has shown how credit data can play a role in IFRS 9. It certainly won't solve all the problems—the task of implementing systems and methodologies is a colossal one—but the use of credit data has important applications in stage assessment and ECL validation. The clock is ticking.

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