



Specific Wrong-way Risk

InteDelta InSight provides expert commentary on some of the most pressing risk management topics faced by our clients. In each edition, we consider the latest market developments; what the impact of these developments will be for market participants; and how the industry is reacting to the challenges involved. This edition considers how processes for managing specific wrong-way risk are evolving within banks, in the light of increased regulatory focus.

Key point summary

- Basel III mandates significantly greater rigour in the management of specific wrong-way risk (SWWR) than has historically been in place within financial institutions
- A level of ambiguity still exists surrounding the definition of SWWR in regulatory rulemaking. Many institutions are asking whether SWWR only refers to transactions where a legal connection exists between the counterparty and the trade underlying, or whether the definition is now broader than this
- From discussions with regulators, many leading banks are now taking the view that the Basel III reference to 'highly correlated' has a broader implication than simply legally connected
- Such banks are putting in place new governance structures, processes and systems capabilities in order to reflect this expanded SWWR definition, and to ensure SWWR is managed in a robust, transparent and controlled way

How do regulators define specific wrong-way risk?

Wrong-way risk is defined as ***"an exposure to a counterparty that is adversely correlated with the credit quality of that counterparty"*** (BCBS 164 - i.e. Basel III - para.127).

This is thereafter split into specific wrong-way risk and general wrong-way risk. These are defined in the following way:

- ***"A bank is said to be exposed to 'specific wrong-way risk' if future exposure to a specific counterparty is highly correlated with the counterparty's probability of default. For example, a company writing put options on its own stock creates wrong way exposures for the buyer that is specific to the counterparty"***

- ***"General wrong-way risk is a term used to describe all other possible sources of positive correlation between an exposure and the probability of default. [It] arises when the probability of default of counterparties is positively correlated with general market risk factors"***

It is already evident from the above definition of specific wrong-way risk that there is some ambiguity. The definition opens by speaking about high correlation between the counterparty and its exposure, but the example given is one in which the counterparty and the underlying trade have some legal linkage. Clearly, where a legal connection exists there is also high correlation, however high correlation can exist in other circumstances too.

CRD IV (the proposed European implementation of Basel III) Article 285, para.1(b) provides a similar definition: ***"specific wrong-way risk arises when future exposure to a specific counterparty is positively correlated with the counterparty's probability of default due to the nature of the transactions with the counterparty."***

However, CRD IV is similarly ambiguous in that it only then provides a capital calculation treatment for situations when the counterparty and trade are legally linked – ***"Institutions shall calculate the own funds requirements for CCR in relation to transactions where specific wrong-way risk has been identified and where there exists a legal connection between the counterparty and the securities financing transaction or the issuer of the OTC derivative"*** (Article 285, para.5).

In the light of these ambiguities, increasingly we are seeing banks taking a more pro-active approach – through dialogue with their local regulators – in order to implement governance structures and processes which identify SWWR trades and calculate SWWR capital requirements both where there is legal linkage and also in other high correlation scenarios.

Wrong-way risk in the wider context

Whilst this InteDelta InSight has focussed on how banks are reacting to the revised regulatory rules for SWWR, wrong-way risk is clearly not simply a regulatory capital question. Consideration of wrong-way risk is also of significant importance in the following processes:

- Credit Valuation Adjustment (including pricing for CVA)
- Potential Future Exposure
- Economic capital

Banks are also investing substantial resources into implementing sophisticated modelling techniques to incorporate WWR into these calculations (generally within a Monte Carlo simulation framework). We will need to leave further consideration of these methods, and the challenges involved, to a future edition of InteDelta InSight.

How are you affected?

The global commitments to implement Basel III have recently been delayed in both the US and Europe, giving banks additional time to achieve compliance. However, in all major jurisdictions, the regulatory goal of implementing Basel III remains in place and most banks continue to make the necessary changes to their risk management capabilities. As such, the implementation of enhanced governance, processes and systems for SWWR continues to be a priority for most institutions.

The change in regulatory definition of SWWR requires banks to:

- Identify counterparties and trades with high correlation between trade level exposure and default probability; and
- Determine how to calculate the Exposure at Default (EAD) for such trades.

Moreover, these enhanced capabilities need to be implemented into a robust and automated environment. For many banks, even for the earlier more limited SWWR definition, existing identification processes are highly manual. A recent (October 2012) survey by the Risk Management Association found that:

“About two-thirds of the institutions surveyed had encountered substantial difficulties improving the measurement, monitoring and management of wrong-way risk. These challenges were not limited to smaller institutions, and highlighted that a number of sophisticated, top-tier financial institutions still had a long-way to go developing their WWR management capability”.

This aligns with our experience and, as a consequence, most banks are in the process of implementing significant SWWR process automation and controls alongside the required methodology improvements.

SWWR identification

CRD IV Article 285 states that ***“an institution shall maintain procedures to identify, monitor and control cases of specific wrong-way risk for each legal entity, beginning at the inception of a transaction and continuing through the life of the transaction”.***

It is evident from this that SWWR continues to be a measure of risk at the transaction level rather than at higher levels of exposure aggregation (such as portfolio). The aim is to identify each trade for which the exposure is highly correlated with counterparty credit worthiness.

Banks are approaching this SWWR trade identification process through a 2-step approach:

- Firstly, an initial quantitative identification;
- Supplemented by qualitative review.

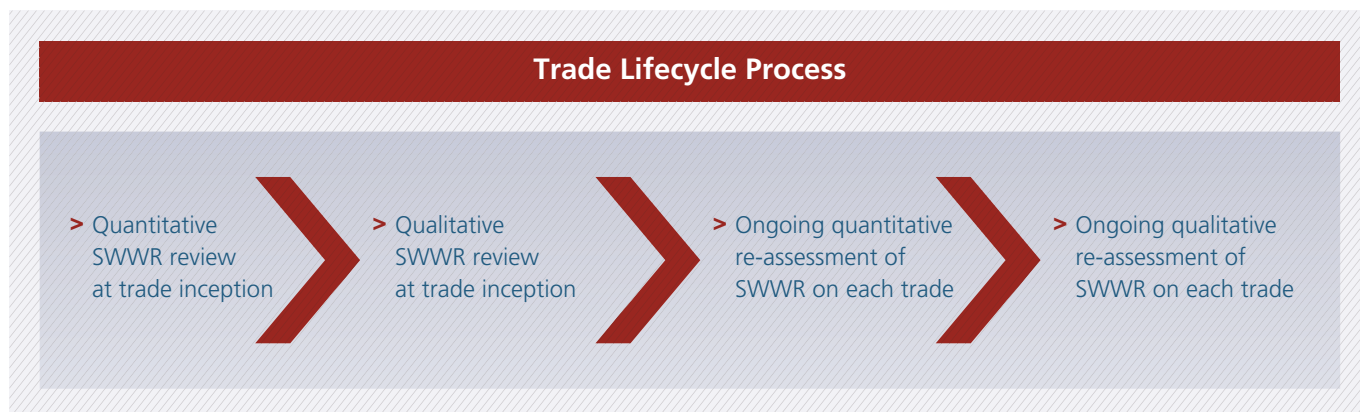
Importantly, the identification of SWWR trades is to be done taking into account stressed conditions, in which correlations can be expected to be higher than normal market environments. This is also the case for general wrong-way risk, and so for many banks the framework of stress testing scenarios in place for GWWR is the natural starting point for quantitative identification of SWWR. Such sets of stress scenarios are commonly defined by product, region and industry.

Once this quantitative identification of trades with potential SWWR has been undertaken, these trades are then passed for qualitative review (by front office and/or risk management, depending upon responsibilities defined in the governance framework).

Qualitative review is based on detailed credit assessment of the counterparty and its trading strategies, taking into account the motivation of the client and whether the given trades are hedged/offset by other positions which the counterparty has, either from trading or from its core business activities. This qualitative assessment is very much a case of ‘knowing your customer’ and serves to confirm whether, in the view of the responsible credit officer, the given trade is likely to make a material contribution to the counterparty’s default.

Out of this process, trades assessed to be specific wrong-way risk trades will be flagged for both exposure and capital adjustment. This process of assessment and review needs to continue through the life of the transactions, not simply at inception. This might mean a trade which was not flagged as being highly correlated with its counterparty at inception is later flagged as having SWWR, or vice versa.

The diagram below shows the process through the trade lifecycle.



Capital calculation

Basel III (BCBS 164 para.132) states that ***“the same limitations that prohibit an explicit capital charge for general wrong-way risk do not apply to a capital charge for specific wrong-way risk. In the Committee’s view, specific wrong-way risk can and should be explicitly recognised and measured by banks”***.

How then should banks adapt their regulatory capital calculations to incorporate SWWR?

Where SWWR has been identified ***and a legal connection exists***, Basel III requires banks to exclude such trades from the counterparty netting set and to calculate EAD using a conservative approach. This approach is thereafter detailed within the rules and differs by product category. For example:

- For single-name credit default swaps the exposure value equals the full expected loss of the underlying instruments based on the assumption that the underlying issuer is in liquidation;

- For all other transactions referencing a single name, the exposure value equals the value of the transaction under the assumption of a jump-to-default of the underlying obligation.

As referred to earlier, no such specific capital calculation treatment has yet been defined within the Basel III rules for high correlation scenarios where no such legal connection exists between trade and counterparty. Banks are therefore working with their local regulators to define appropriate rules for these scenarios, which are consistent with the overall Basel III approach.

Considerations being assessed include:

- What should be the exposure value for such trade? (e.g. the SWWR stressed value is one option);
- Should such trades remain within or be taken out of the netting set?

What Do You Need to Do?

In implementing SWWR processes in line with latest industry developments, key activities to be undertaken are:

Organisation and governance

- Define governance structure for assessment, management and review of SWWR (e.g. responsibility split between front office, credit risk management, credit committees etc) and touch points between these different groups
- Set up of governance committees to ensure SWWR ownership is in place at all levels of management (credit risk officers, senior credit risk management, board level etc)
- Put in place an effective policy framework for managing SWWR (including definition of stress testing framework, stress materiality thresholds etc)

Processes and systems

- Define and develop required SWWR reporting
- Implement wrong way risk assessment into existing credit assessment processes
- Implement pre-trade review processes – e.g. for structured trades
- Implement process for systematic review of all trades for SWWR, based upon defined stress scenarios

How InteDelta can help

InteDelta can support institutions to successfully implement best practice for the management of SWWR in the most effective way. Our services include:

- Definition of best practice governance structures for managing SWWR
- Documentation of credit risk policies for the management of SWWR
- Business analysis to specify reports, stress tests and other SWWR systems development requirements
- Business analysis to undertake impact assessment of implementing new SWWR approaches
- Project management to implement all required changes to organisation, business processes and systems

Contact us

The editions of InteDelta InSight are designed to provide a concise, informative snapshot of important risk and collateral management topics and to be easily digestible by the reader. Underlying each edition is extensive information and expertise which we are happy to discuss further with interested parties.

If you would like additional information about InteDelta or would like to discuss any of the issues discussed in this paper, please contact:

Nick Newport Managing Director
Email: nicholas.newport@intedelta.com
Tel: +44 20 7153 1037
www.intedelta.com

About InteDelta

InteDelta helps financial institutions implement risk management best practice. Combining a structured consulting approach with subject matter expertise, we work with our global client base to align with industry standards. Our areas of expertise cover the major risks faced by financial institutions: credit, market, liquidity and operational risk, alongside niche specialisms such as collateral management. Our clients have a global spread, ranging from some of the world's largest banks and asset managers to developing market banks, hedge funds and risk software vendors.