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Defaulted Exposures

Summary

1. The Standardised Approach definition of past-due loans is broadened to match the IRB definition of default.
2. The new definition now includes:
 - a) Exposures, rather than just loans, that are past due for more than 90 days.
 - b) Exposures to a “defaulted borrower” who is, in the opinion of the bank, “unlikely to pay” its credit obligation in full.
3. By mistake or by design the Standardised Approach floor of 72.25% adds a significant capital charge to the losses already covered by the Expected Losses calculated in the IRB Approaches.

Review

A. Current treatment- a refresher

The Standardised Approach does not actually deal with the concepts of defaulted exposures or default as such.

There are therefore no definitions beyond the fact that this asset class consists of loans that are more than 90 days past due.

These loans are risk-weighted as follows:

- 150% risk weight when specific provisions are less than 20% of the outstanding amount of the loan.
- 100% risk weight when specific provisions are no less than 20% of the outstanding amount of the loan.

Note that:

1. The risk weight is applied to the loan *after deducting specific provisions or write-offs, if any.*



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2. If a portion is covered by a guarantee or collateral, the risk weight only applies to the unsecured portion.

B. Basel IV revisions

1. Scope and concepts

The major change is the broadening of the definition.

Basel IV introduces the concept of “**defaulted exposure**”, which is:

1. **Either** an exposure that is past due for more than **90 days**
2. **Or** is an exposure to a “**defaulted borrower**”.

The first criterion (1.) is similar to the current Basel II-III “past due loans” above but is expanded to exposures in general.

The second criterion is new in the Standardised Approach. It defines a “defaulted borrower” as “a borrower in respect of whom any of the following events have occurred:

- Any material credit obligation that is past due for more than 90 days. Overdrafts will be considered as being past due once the customer has breached an advised limit or been advised of a limit smaller than current outstandings.
- Any material credit obligation is on non-accrued status (e.g. the lending bank no longer recognises accrued interest as income or, if recognised, makes an equivalent amount of provisions).
- A write-off or account-specific provision is made as a result of a significant perceived decline in credit quality subsequent to the bank taking on any credit exposure to the borrower.
- Any credit obligation is sold at a material credit-related economic loss.
- A distressed restructuring of any credit obligation (i.e. a restructuring that may result in a diminished financial obligation caused by the material forgiveness, or postponement, of principal, interest or (where relevant) fees) is agreed by the bank.
- The borrower’s bankruptcy or a similar order in respect of any of the borrower’s credit obligations to the banking group has been filed.



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- The borrower has sought or has been placed in bankruptcy or similar protection where this would avoid or delay repayment of any of the credit obligations to the banking group; or
- Any other situation where the bank considers that the borrower is unlikely to pay its credit obligations in full without recourse by the bank to actions such as realising security.”

In fact, the last paragraph summarises what constitutes the second criterion: the bank’s opinion that the borrower “is unlikely to pay”. The other paragraphs are just examples of events that may lead the bank to that conclusion.

So, to be clear, a defaulted exposure is an exposure that is:

1. **Either** past due for more than **90 days**
2. **Or** is an exposure to a “**defaulted borrower**”, i.e. a borrower who, in the opinion of the bank, is unlikely to pay his credit obligations in full without recourse by the bank to actions such as realising security.

Note that the concept of default does not require a loss as such, just “trouble” that may lead to a loss.

“Without recourse by the bank to actions such as realising security” indeed confirms that the bank may well have collateral to cover the possible loss, and thus incur no loss at all, but that there is, nevertheless, still a default that triggers the capital treatment of defaulted exposures.

This is a major difference between the Basel frameworks, which are about risks, and accounting rules, which are about recording losses, be they incurred (old IAS39, now IFRS9 “stage 3”) or expected (IFRS 9 stage 1 and 2).

IFRS 9 stage 3 is based on “loss events” similar to the events in the bullet points list above, as well as the 90 days past due criterion, but if the available collateral is adequate to cover the possible loss, there is no action i.e. no impairment.

2. Alignment to the IRB definition

Although it looks different at first glance, the Standardised definition above and the IRB definition are now closely aligned. The IRB definition of default reads as follows:

“A default is considered to have occurred with regard to a particular obligor when either or both of the two following events have taken place.



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- The bank considers that the obligor is unlikely to pay its credit obligations to the banking group in full, without recourse by the bank to actions such as realising security (if held).

This is word for word the last paragraph, and second criterion, of the Standardised Approach definition.

- The obligor is past due more than 90 days on any material credit obligation to the banking group. Overdrafts will be considered as being past due once the customer has breached an advised limit or been advised of a limit smaller than current outstandings.”

This is almost word for word the first “event” described in the Standardised Approach list of events above.

Finally, the IRB definition also lists “elements to be taken as the indication of the unlikelihood to pay”, which are the same as those mentioned in the Standardised Approach list, except the last one, which is really the definition of the second criterion.

Why the Basel Committee opted for such a convoluted definition and chose to end up with two definitions, similar but not identical is unclear, and unfortunate.

3. Impact of the Basel IV revisions

a. Standardised Approach banks

For Standardised Approach banks, the broader definition of defaulted exposures should accelerate and increase the allocation of capital to exposures in default.

b. IRB banks

The Standardised Approach floor of 72.25% will in effect add a capital charge to Advanced and Foundation IRB banks.

This is because the IRB banks’ treatment of defaulted exposures uses the concept of Loss Given Default and Expected Losses (EL’s), which does not exist in the Standardised Approach.

In the case of defaulted exposures, unexpected losses (UL’s) are either limited or zero, since by definition losses are very much expected. Indeed, the probability of default (PD) is 100%.



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Unexpected losses, if any, are limited to problems or deteriorations (in the economy, in the collection process etc.) that may be experienced between the time of default and final settlement.

The Standardised Approach, by contrast, does not use EL's or LGD's at all. It only calculates capital to cover unexpected losses. To that extent, the increased risk weight of 150% vs. 100% is really Basel II's attempt to force Standardised banks, through additional capital, to indirectly create additional loan-loss provisions.

What all this means is that when Basel IV uses the Standardised Approach to impose a capital floor of 72.25% to defaulted exposures, it calculates in effect a capital floor for capital requirements that either do not exist or have already been taken care of.

1. Advanced IRB banks

In the case of Advanced IRB banks, the capital requirement for defaulted assets is limited to the difference, if any, between the banks' Expected Losses Best Estimate (ELBE) and their so-called "LGD in default".

It is likely that in many, if not all, instances this capital will be (much) lower than the capital required in the Standardised Approach, which applies a 100% risk weight, or even a 150% risk weight (if provisions are less than 20%) on the full amount of the exposure, net of provisions.

The example below illustrates the point:

Assumptions:

- Defaulted exposure: 100 million
- Existing provisions: 19 million (i.e. less than 20% of the exposure)
- Bank's best estimate of Expected Losses: 19 million
- LGD in default: 21 million
- Minimum capital requirement: assumed to be the regulatory minimum of 8%.

Capital requirements

- The Standardised Approach calculation is as follows:

100 million – 19 million = 81 million x 150% (provision less than 20%) x 8% = 9.72 million



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- The Advanced IRB bank's calculation is as follow:

21 million (LGD) – 19 million (ELBE) = 2 million, which in effect reflects the unexpected losses (UL's) for this defaulted exposure.

In this case the LGD exceeds the ELBE by 2 million because the bank assumed, very conservatively, that the economy might deteriorate and that the collection of the loan may be protracted, even though current circumstances point to a quicker collection.

Because of the 72.5% floor however the capital requirement of the A-IRB bank becomes:

9.72 million x 72.25% = 7.023 million instead of the above 2 million, more than 3 times the amount of the initial IRB capital.

Note that, because the Standardised Approach does not accept real estate as eligible security, this capital floor of 7.023 million would still be applied even though the exposure was comfortably over-collateralised with, say, easy to sell properties.

And this despite the fact that, in this case, the capital requirement (LGD – ELBE) would certainly be zero, and the bank would incur no loss.

Implications and unintended consequences

- Ironically, the capital requirement increases with lower losses/provisions i.e. with a better quality asset:

Assuming a loss/provision of 5 million with the same UL's of 2 million, the "floor" increases from 7.023 million to 8.24 million:

95 million x 150% x 8% = 11.4 million x 72.25% = 8.24 million.

- This is not the only oddity of the system: note the "cliff effect" created by the 150% vs 100% risk weights.

In the above example, an increase of 1 million in the provision, from 19 to 20 million i.e. 20% of the loan, would decrease the risk weight from 150% to 100% and reduce the capital required from 9.72 million to 6.4 million, and the floor to 4.62 million.

Unintended consequences? Probably, but who wouldn't "swap" a provision of 1 million for a capital reduction of 2.4 million!



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2. Foundation IRB banks

As explained in the introduction, the use of the Foundation Approach will become much more common as under Basel IV Advanced IRB banks will have to use it for certain important asset classes e.g. exposures to large corporates or banks.

In the event of default, Foundation IRB banks must use the regulatory LGD to calculate expected losses, which is currently 45% but is reduced to 40% by Basel IV.

The 40% LGD is applied to the gross amount of the exposure. There is no best estimate of expected losses or “in default” LGD as in the Advanced IRB.

There is *no capital requirement* for the exposure as the regulatory EL of 40% is deemed to be adequate to cover all losses, including unexpected losses.

Here again, however, because the Standardised Approach does not “understand” EL’s, it will add a capital floor to a capital that is not required.

Using the same numbers as in the previous Advanced IRB example, the capital floor will be $9.72 \text{ million} \times 72.25\% = 7.02 \text{ million}$,

This is a straight extra capital charge in addition to the EL’s already reported:

Using the same example, if the Foundation IRB bank also estimates that its expected losses are 19 million and, accordingly, also creates a provision of 19 million, it still has, for capital reporting purposes, to report EL’s equal to the regulatory LGD of 40%, i.e. 40 million.

These EL’s will have to be matched by 40 million from the existing stock of eligible accounting provisions, reserves etc. and/or topped-up by capital to the extent that the existing stock of provisions is insufficient.

In total, the bank will therefore have to allocate (i.e. “block”) a total of 47.02 million in provisions/capital for losses estimated at 19 million...

As seen above, a Standardised Approach bank, in the same situation, would block 19 million in provisions + 9.72 million in capital i.e. a total of 26.72 million, practically half the amount blocked by the Foundation IRB bank for the same loss.

Unless the objective is to increase capital requirements no matter what, this may well be, again, an example of unintended consequences as:

1. The objective of Basel IV is to eliminate excessive capital variations between Approaches, not to amplify them.



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2. The application of a floor to the defaulted exposures of Foundation IRB banks implies, in effect, that the regulator thinks that *his own* loss estimate of 40% is inadequate.

Assessment

The current concept of past due loans is too basic, if not rudimentary, and the new definition is a welcome development.

The question really is why the Basel Committee did not use, right from the outset, the same definition in all the Approaches. And indeed why, now that the stated intention is to align them, it had to present the Standardised Approach definition in such a contorted way that it looks different from the IRB's, even though it is not.

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