

Allowance Disclosure Requirements Will Evolve

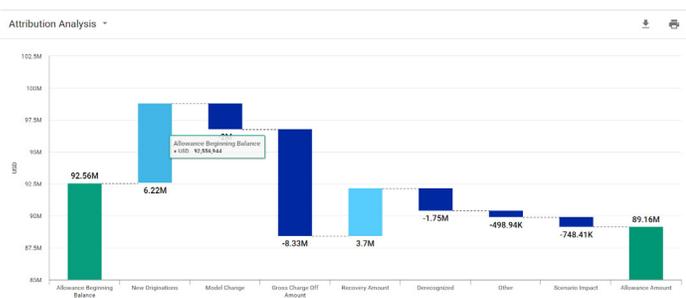
In June 2016, the Financial Accounting Standards Board (FASB) issued ASU 2016-13, Measurement of Credit Losses on Financial Instruments, which promulgated the CECL standard. Intended to improve financial reporting, it requires earlier recognition of lifetime expected credit losses (ECL) for assets measured at amortized cost.

The CECL standard provides some disclosure guidance that will be required, but falls short on specifying the kinds of internal management reporting which might be useful for both internal and external stakeholders. ASU 2016-13 paragraph 326-20-50-2 (10 and 11) directs entities to provide explanations on why the estimates varied over the previous period and what the drivers of those changes were, but does not provide many detailed examples. Specifically, the rollforward required by the guidance, and provided as an example, is not sufficient to truly understand the underlying drivers of change in the portfolio – at least not in a way that management could explain, rationalize, and eventually take action on to mitigate undesired impacts. In this paper we provide a view of what these internal management reports should include.

Guidance Rollforward Requirements¹

The guidance specifies that for each portfolio segment and major security types, an entity shall disclose:

FIGURE 1: EXAMPLE WATERFALL REPORT, USEFUL FOR MANAGEMENT REPORTING



All of these elements will play a role in how the ECL estimate moves from quarter to quarter, and management will require the ability to decipher which of these drivers is the most meaningful, so that the narrative presented during investor calls and to external stakeholders can be credible

and consistent over time.

Industry approach – IFRS 9 view

Much can be learned from the implementation of IFRS 9 as the rollforward attribution disclosures were much more stringent than those provided so far in the CECL guidance. Below is the representation of the required disclosure under IFRS 9 taken from a Canadian bank's quarterly disclosure:

FIGURE 2: TORONTO DOMINION BANK - EXCERPT FROM FINANCIAL STATEMENT DISCLOSURES

LINE #	Q2 2018	Q1 2018	Year to Date 2018
27	1,958	2,022	2,022
STAGE 1 ALLOWANCE FOR LOAN LOSSES			
Change in Stage 1 allowance for loan losses			
Allowance at beginning of period			
28	250	227	477
29	(193)	(104)	(297)
30	(19)	(22)	(41)
31	(91)	(84)	(175)
32	238	227	465
33	(8)	(8)	(16)
34	(143)	(143)	(286)
35	(59)	(170)	(229)
Total Stage 1 provision for loan losses			
36	48	—	48
37	(4)	(4)	(8)
38	63	(60)	(3)
39	2,055	1,958	2,055
40	74	—	74

If we ignore any of the transfer categories which relate specifically to IFRS 9 staging rules and are not in scope for CECL, the level of information disclosed is far above what is required under the CECL guidance. Specifically, this report includes new originations, net draws (repayments), de-recognition (prepayments), changes due to risk, parameters, and models, as well as any disposals.

Every IFRS 9-compliant institution has grappled with how best to set up a process that can generate these attribution categories with minimum effort. Some of these items require full re-run of the portfolios while others are simply decompositions of existing runs. Regardless, the orchestration of these multiple runs is a particular challenge. In the next section we discuss how each of the attribution factors should be computed and what the implications are from a process perspective.

CECL Rollforward Waterfall Attribution Consideration

The rollforward waterfall attribution is a method of illustrating the movement from the beginning allowance number to the period end, while sequencing each of the changes required to extract the additive attribution of all factors that make up the final allowance number. There are two main methods of deriving change impact: sensitivity and attribution. The sensitivity method is simpler and not additive, but both have their merits and an institution

should determine which is best for its own purposes.

Sensitivity method

The sensitivity method is a simpler approach (process-wise) to deriving the change impact but does not provide a strictly additive view of the changes. Under this method, the user will have to input a plug amount in order to reconcile the starting ECL with the ending ECL number. This plug amount will frequently be material and hard to justify from an accounting standpoint.

Generally speaking, the sensitivity method entails modifying the starting portfolio for each of the changes one at a time and obtaining a sensitivity delta from applying every single change, and then applying each successive change on a standalone basis. At the end of the exercise, there will be a material difference to plug, due to this individualized approach to applying sensitivity which does not account for diversification.

Attribution method

The attribution method starts with the last period's portfolio run and adds each element of change one at a time, until the current reporting period's portfolios, economic data, and other factors are all set to the current reporting period's value. Each successive addition allows us to derive the exact impact of the change in an additive manner. One of the downsides is that if one changes the order of the elements the results will likely be materially different, which is why upfront consideration and buy-in from management is a must.

Each institution must design their waterfall and reach consensus on the way the delta estimates will be derived for each portfolio. We provide an example below of the sequencing, the method with which the delta are derived in an additive manner, and an easy-to-follow grid. Smaller institutions will want to follow a simplified form of the sequence but nonetheless may see value over time in increasing the sophistication of their estimates.

For the example, we will assume the institution is using models that incorporate macroeconomic factor impacts and the main factors used are gross domestic product (GDP), Unemployment Rate (UER) and Home Price Index (HPI). Institutions not using macro-sensitive models can simply

replace those deltas with the Q-factor values that represent the impact of macro factors. For institutions using a single scenario we provide an example of a simpler waterfall table in the appendix, with models that may not be sensitive to economic factors and for which foreign-exchange factors are not a consideration. The ECL due to passage of time is only applicable for portfolios where the institution is using a discounted cash flow (DCF) method, which we will describe but not add within the waterfall table.

The sequencing table below provides the step sequence, a description of each step, and the delta output that will be generated for each step as well as the anticipated frequency at which the step should be run. Below the table, we present a narrative of each step and when it applies.

FIGURE 3: WATERFALL SEQUENCING EXAMPLE FOR MANAGEMENT REPORTING

Sequence	Portfolio	Model	Scenario Values	Scenario Weights	Balance change	Credit Migration	Adjustments	FX	Description	Delta output	Frequency of analysis
1	Current Portfolio	Current model	Current Scenario	Current weights							
2	Current Portfolio	Current model	Current Scenario GDP only								
3	Current Portfolio	Current model	Current Scenario GDP, UER only								
4	Current Portfolio	Current model	Current Scenario GDP, UER, HPI only								
5	Current Portfolio	Current model	Current Scenario all variables								
6	Current Portfolio	Current model	Current Scenario	Current weights							
7	Current Portfolio	Current model	Current Scenario	Current weights	Current balances						
8	Current Portfolio	Current model	Current Scenario	Current weights	Current balances	Current Rating/PD					
9	Current Portfolio	Current model	Current Scenario	Current weights	Current balances	Current Rating/PD	Current Adjustment				
10	Current Portfolio	Current model	Current Scenario	Current weights	Current balances	Current Rating/PD	Current Adjustment	Current FX			

It is important to note that Step 1 is last-period results run and step 12 is current-period final production run; these two runs should be executed prior to any of the re-runs included in the table above and described below.

Step 1: Beginning balance and full prepayments

In this first step, there is no re-run required; a simple retrieval of the last period's production results is compared with the current production run to generate the following delta: Beginning ECL balance

Full derecognition (full prepayments)

Step 2: Model Delta impact

This step involves a re-run with the current model replacing

the previous one(s). The institution should determine whether a model recalibration warrants computation of the delta as well as in the case of historical-loss-rate models (vintage, snapshots, cohort), whether the inclusion of new historical losses should be considered as a delta to be derived for management reporting. ECL results generated will be compared to step 1 results (last period's ECL) to produce the following delta:Model change impact

Steps 3-6: Macroeconomic factor delta impact

These steps involve multiple re-runs to determine the isolated impact of each macroeconomic factor when models incorporating economic factor sensitivity are being used. Essentially, users start with last period's macroeconomic forecast and then add the new forecast for one factor at a time and then execute a re-run. The sequence of the runs is very important and results will be drastically different if you run UER prior to GDP or vice versa; this step requires full management buy-in on the sequence of the runs.

This process can obviously be simplified by running all new factors at once, but with expedience comes a lack of power, as it then becomes impossible to isolate the effect of, for example, the unemployment rate forecast on the current period's ECL.

For smaller institutions, this step may simply involve recognizing the difference between the current period's Q-factor adjustment for the economic forecast versus last period's adjustment and recording the difference for management reporting.

ECL results generated will be compared to step 2 results (last period's ECL), and if doing so incrementally (one factor at a time), the comparison will be done between each successive run to produce the following delta:Macroeconomic factor change impact

Step 7: Scenario weights delta impact

This step involves a re-run using current scenario weights (if used) replacing the previous ones. ECL results generated will be compared to step 6 results (last period's ECL) to produce the following delta:Scenario weight change impact

Step 8: Balance increase and decrease delta impact

This step involves a re-run using up-to-date outstanding drawn and undrawn balance amounts to generate the ECL impact due to the increase or decrease in balances. ECL results generated will be compared to step 7 results (last period's ECL) to produce the following delta:Balance change impact

Step 9: Credit migration delta impact

This step involves a re-run using up-to-date ratings/probabilities of default (PD) to understand the impact of credit migration on the ECL estimate. This rating migration change can be presented as the impact from positive and negative migration (i.e., upgrades and downgrades). Typically, a change in rating or segment will lead to a more or less punitive PD/loss-rate assignment. ECL results generated will be compared to step 8 results to produce the following delta:Credit migration impact

Step 10: New origination PCD and non-PCD assets delta impact

This step references the current month's production run prior to any new adjustments and foreign-exchange impact. This step does not require a re-run. The new portfolio loaded is used to determine the new originations, whether PCD or non-PCD assets. ECL results generated will be compared to step 9 to produce the following deltas:New origination impact

New origination PCD asset impact

Step 11: Adjustment delta impact

This step references the current month's production and compares this period's adjustments with last period's adjustments prior to foreign-exchange adjustments. This step does not require a re-run. ECL results generated will be a comparison of the prior-period adjustments against last period's adjustment and will generate the following deltas:Adjustment change impact

Step 12: FX delta impact

This step references the current month's production run using current-period foreign-exchange rates as compared to rates in effect during the last period. This step does not require a re-run but does require some simple arithmetic to determine the delta between new and old foreign-

exchange impact. ECL results generated will produce the following deltas:FX change impact

There will inevitably be a leftover amount that will need to be plugged, but this amount should be immaterial to reporting and is due to some overlap between the different delta categories. The waterfall rollforward management report should also include current-period charge-offs and recoveries.

*Passage of time impact

Although we did not include the passage of time in the grid above, we will describe how this impact is derived next. This step involves taking prior-period ECL based on discounted cashflow methodology and doing a re-run of the prior-period portfolio while discounting the net present value (NPV) cashflows by one fewer period. This will effectively reduce the beginning-period ECL by the effect of passage of time given that ECL under the DCF approach is equal to amortized cost minus the NPV of expected cashflows. Through this process we can obtain the impact of the passage of time.

It should be noted that this element overlaps with much of the other deltas, and one must use discretion as to how the delta will be applied. The reduction in ECL due to passage of time can be captured as interest income rather than as expected credit loss.

Impacts and pitfalls

The management reporting to explain the deltas between the last period and the current one is the most overlooked process for the implementation of the new allowance standard. The pitfalls of setting up a manual process to execute these runs or trying to generate these deltas independently among the accounting, finance, and risk teams is fraught with complication and potential errors once all the data is re-aggregated.

The institution will benefit most from automation of this process during the quarter-end production runs. It is not an easy task to get everyone to agree on the sequence of the process, nor is it easy to execute these in an automated manner.

Our experience tells us that the effort required meets the value of the information provided to executives and provides a strong foundation for the narrative necessary

to explain the much more volatile swings that CECL will cause. The investment community will inevitably question those who cannot explain why their estimates vary when compared to peer institutions’.

Summary and recommendation

The blueprint discussed in this paper to generate the waterfall deltas provides a framework to furnish satisfactory answers to questions like:

1. “What was the impact of GDP forecast change this quarter?”
2. “How much did our model revamp impact our estimate?”
3. “How did portfolio credit migration impact our allowance?”

When initial ECL results are published for management every quarter, and the estimates differ significantly from expectations, having the necessary details on the impact of each driver will help preclude laborious after-the-fact data manipulation. Additionally, ensuring strong management buy-in during the setup of the sequence and even the choice of which deltas should be computed on a regular basis will provide more transparency when estimates deviate from expected results.

A robust, well-thought-out process to generate the required waterfall management report will provide a leading edge for institutions, without suffocating their staff under mountains of manual data manipulation. Even for institutions planning to use simple historical loss rates, and applying macroeconomic effects via qualitative adjustments, there are benefits in thinking through the kind of information that management should be provided once the numbers are out, and how a change in allowances should be explained. Proactively considering the impacts that will be important to a particular institution and then setting up a process to minimize the amount of time it takes to generate the right results will undoubtedly pay dividends come the end of the quarter.

Appendix – Simpler Waterfall

In this version of the waterfall we do not use multiple scenarios or have any FX conversion impacts, but we still want to understand the impact of credit migration.

Sequence	Portfolio	Model	Scenario Values	Balance change	Credit Migration	Adjustments	Description	Delta output	Frequency of analysis
1	Previous Portfolio	Previous Model	Previous Scenarios	Previous balance	Previous Rating/PD	Previous adjustment	Full prior period run results to be reviewed	Begin baseline and re-recognize full impairment	N/A
2	Previous Portfolio	Current model	Previous Scenarios	Previous balance	Previous Rating/PD	Previous adjustment	Run for model impact compared with 1	Model change impact	Model change to from prior cycle per quarter
3	Previous Portfolio	Current model	Current Scenario all variables	Previous balance	Previous Rating/PD	Previous adjustment	Run for All scenario impact compared with 2	Scenario impact remaining factors	every quarter
4	Previous Portfolio	Current model	Current Scenarios	Current balances	Previous Rating/PD	Previous adjustment	Run with current current balances and compare results with step 3	Balance change impact, stress, and other, portfolio, and requirements	every quarter
5	Previous Portfolio	Current model	Current Scenarios	Current balances	Current Rating/PD	Previous adjustment	Run with new rating/PD and compare results with step 4	credit migration change impact	every quarter
6	Current Portfolio	Current model	Current Scenarios	Current balances	Current Rating/PD	Previous adjustment	Current production run prior to paying requirements, compare to step 5	New origination impact for new model PD and PCO assets	every quarter
7	Current Portfolio	Current model	Current Scenarios	Current balances	Current Rating/PD	Current Adjustment	Current production with current adjustments compared to step 6	Adjustment impact	every quarter

AUTHORS



Laurent Birade

Senior Director, Regulatory and Accounting Solutions

Laurent is a senior director responsible for providing Risk and Finance integration expertise across solutions, products, and services offered by Moody's Analytics in the USA and Canada. As a domain expert in financial services since 2005, Laurent has accumulated a wealth of knowledge on the effective integration of risk and finance processes.

¹ In this article, we focus on the amortized cost portfolio allowance other than the AFS major security types which is described in paragraph 326-30-50-9.

² ASU-2106-13 Example 15 page 144 paragraph 326-20-55-79

³ This issue of presentation of charge-offs and recoveries in the vintage disclosure schedule is still being discussed at the TRG level; no formal guidance update has been released as of the publication of this paper.

⁴ Paragraph 326-20-45-3 – "... an entity may report the change in present value attributable to the passage of time as interest income."

⁵ Toronto Dominion Bank – Quarterly disclosure report Q2 2018n.

⁶ IFRS 9 provides guidance to determine whether a loan has suffered significant credit deterioration since origination. There are 3 stages, where stage 1 loans will use a 12 month ECL, and stage 2 and 3 which will use a lifetime ECL assigned. Stage 2 loans are typically credit impaired whereas stage 3 loans are already in default.

⁷ In the table, we use the word balance interchangeably with the word amortized cost – whichever is used to compute the final ECL.

⁸ By accounting policy institutions can present the ECL due to passage of time as interest income paragraph 326-20-50-12.

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