





ECL Report for : W Consulting - Dec 2019

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Background

The IFRS Foundation published IFRS 9 *Financial Instruments* in July 2014. IFRS 9 replaces IAS 39 *Financial Instruments: Recognition and Measurement*. IFRS 9 is mandatorily effective for financial periods commencing on 1 January 2018.

IFRS 9 is built on a logical, single classification and measurement approach for financial assets that reflects the business model in which they are managed and their cash flow characteristics.

Built upon this is a forward-looking expected credit loss (ECL) model that will result in more timely recognition of credit losses and is a single model that is applicable to all financial instruments subject to impairment accounting.

IFRS 9 requirements for calculating impairments

At each reporting date, an entity shall measure the loss allowance for a financial instrument at an amount equal to the *lifetime expected credit losses* if the credit risk on that financial instrument has increased significantly since initial recognition^[1].

The objective of the impairment requirements is to recognise lifetime expected credit losses for all financial instruments for which there have been significant increases in credit risk since initial recognition — whether assessed on an individual or collective basis — considering all reasonable and supportable information, including that which is forward-looking^[2].

If, at the reporting date, the credit risk on a financial instrument has not increased significantly since initial recognition, an entity is required to measure the loss allowance for that financial instrument at an amount equal to *12-month expected credit losses* unless the financial asset was purchased or originated credit-impaired^[3].

Measurement of expected credit losses

An entity is required to measure expected credit losses of a financial instrument in a way that reflects:

- a) an unbiased and probability-weighted amount that is determined by evaluating a range of possible outcomes;
- b) the time value of money; and
- c) reasonable and supportable information that is available without undue cost or effort at the reporting date about past events, current conditions and forecasts of future economic conditions.^[4]

IFRS 9 specific guidance on impairments for trade receivables

Despite paragraphs 5.5.3 and 5.5.5, an entity **shall always measure** the loss allowance at an amount equal to lifetime expected credit losses for:

- a) trade receivables or contract assets that result from transactions that are within the scope of IFRS 15, and that:
 - 1. do not contain a significant financing component (or when the entity applies the practical expedient for contracts that are one year or less) in accordance with IFRS 15; or
 - 2. contain a significant financing component in accordance with IFRS 15, if the entity chooses as its accounting policy to measure the loss allowance at an amount equal to lifetime expected credit losses. That accounting policy shall be applied to all such trade receivables or contract assets but may be applied separately to trade receivables and contract assets^[5].

An entity may use practical expedients when measuring expected credit losses if they are consistent with the principles in paragraph 5.5.17. An example of a practical expedient is the calculation of the expected credit losses on trade receivables using a provision matrix. The entity would use its historical credit loss experience (adjusted as appropriate in accordance with paragraphs B5.5.51–B5.5.52) for trade receivables to estimate the 12-month expected credit losses or the lifetime expected credit losses on the financial assets as relevant. A provision matrix might, for example, specify fixed provision rates depending on the number of days that a trade receivable is past due (for example, 1 per cent if not past due, 2 per cent if less than 30 days past due, 3 per cent if more than 30 days but less than 90 days past due, 20 per cent if 90–180 days past due etc).

Depending on the diversity of its customer base, the entity would use appropriate groupings if its historical credit loss experience shows significantly different loss patterns for different customer segments. Examples of criteria that might be used to group assets include geographical region, product type, customer rating, collateral or trade credit insurance and type of customer (such as wholesale or retail)^[6].

Purpose of the report

To report on the IFRS 9 Expected Credit Loss (ECL) calculated for W Consulting on their Trade Receivables as at December 2019 in accordance with IFRS 9. The ECL calculation takes forward-looking information and time value of money into account. To calculate ECL for the purposes of this exercise, the simplified approach was used, employing a provision matrix.

Definition of key terms

The following are the definitions of key terminologies used in this document:

1. Default

The number of days past due (DPD) it takes before the receivable is considered as being in default. IFRS 9 sets the default at 90+ DPD, the entity has however chosen to apply default as 90+ days.

2. Recovery Rate

The proportion percentage of debtors recovered once customer accounts have gone into default. This has been based on the historical assessment of the percentage of trade receivables of the amounts that reach default as defined is eventually recovered. There was a cut off after a further 90+ days from the time of default and anything after that cut off was considered irrecoverable.

Summary of Data used

Management provided the following data for the period Jan 2018 to December 2019:

- Debtors ageing per month for the period with balance segmented across the following buckets:
 - Current
 - 30 days
 - 60 days
 - 90 days
 - 120 days
 - 150 days
 - 180 days
 - 180+ days
- Impairment provision as at date of transition.

The prime lending rate for the country in which the debtors originate was obtained from either Thomson Reuters, the Central Bank website or Trading Economics. (<https://tradingeconomics.com>)

Macroeconomic factors applied in the incorporation of forward-looking information were obtained from Trading Economics.

Assumptions

The following assumptions are made on the ECL calculation;

- Payments from debtors within a particular month occur on average mid-way through the month
- The applicable discount rate is the effective interest rate for trade receivables which is equivalent to the prevailing prime rate of lending in South Africa [\[AM5\]](#)

Provision Matrix Approach

Methodology

We calculate the ECL for trade receivables using the Provision Matrix Approach. The resultant loss rates are calibrated based on historical credit loss experiences, taking into account both the time value of money and previous write-offs and recoveries.

Historical loss rates are calculated as a product of the monthly roll rates across buckets using real outstanding debtors taking into account the time value of money component. Historical loss rates are then adjusted for forward looking information to derive the expected credit loss as at the measurement date using the formula:

$$ECL = \text{Trade Debtors as at the measurement date} \times \text{Loss Rate}$$

A total provision as at the valuation date can thus be calculated by summing all the provisions for the different ageing buckets.

Cashflows

Using the Outstanding Debtors as per the Debtors' Ageing, cash flows (payments) are calculated as follows:

- Outstanding Debtors (Previous Period) - Outstanding Debtors (Current Period)

Discounted Cashflows

The cashflows between periods are discounted using the prime rate of lending as follows:

Where $x = 0.5$ for 30DPD, 1.5 for 30DPD, 2.5 for 30DPD, 3.5 for 30DPD, 4.5 for 30DPD, 5.5 for 30DPD and 6.5 for 30DPD

- $$\frac{\text{Cashflow}}{(1 + \text{Prime Rate})^{x/12}}$$

Real Outstanding Debtors

The outstanding debtors taking the time value of money is determined by subtracting the discounted cashflows from the initial outstanding debtors as follows:

- Outstanding Debtors (Current Ageing) ; Discounted Cashflow

Roll Rates

Calculated as the ratio of next month's *real outstanding debtors* balance divided by the previous month's *real outstanding debtors* balance. The roll rate technique is a forecast in which the flow of outstanding amounts from one level of delinquency (lower) to another (higher) is applied to the current portfolio outstanding mix. The roll rates are calculated up until the final ageing bucket

- $$\frac{\text{Outstanding Debtors (Current Period)}}{\text{Outstanding Debtors (Previous Period)}}$$

Loss Rate

This is the **average loss rate** per time bucket by averaging the respective bucket *loss rates* over the 24 month which bucket loss rates are derived from roll rates.

The rate is then adjusted for forward-looking information to give the final IFRS 9 loss rate.

Forward looking information

To incorporate forward-looking information (FLI), we regressed historical annual loss rates against selected macroeconomic factors to investigate if there exists any relationship.

We performed regression analysis to identify reasonable and supportable forward-looking information using macroeconomic factors. The conditions for such an adjustment are statistical and economic significance, the adjustment will only be made when both conditions are met.

Statistical significance from the regression results is evident if;

- R Square is greater than 0.6 (or 60%).
- Absolute values of both Intercept (c) and X Variable 1 (m) T statistics are greater than the Critical t value.

Economic significance from the regression results is evident of m, the slope of the regression equation, is negative for GDP and positive for inflation, unemployment and lending rates.

Consideration was given to the following forward-looking information:

Gross Domestic Product Annual Growth Rate

Prime lending interest rate

Inflation rate

Unemployment rate

The macro factors covered the 7 quarters up to December 2019.

Forecast macroeconomic factors, for 12 months from the calculation date, are then applied to the established statistical relationship to project a forward-looking ECL. An adjustment factor is established indicating the adjustment from the ECL before a forward-looking adjustment to the final IFRS 9 ECL.

	Quarterly Loss Rate	Quarterly loss rate changes	GDP Annual Growth Rate	Inflation Rate	Unemployment Rate	Lending rate
Mar 2018 Q1	4.85	0.00	5.36	4.07	26.70	10.25
Jun 2018 Q2	5.61	0.76	2.50	4.50	27.20	10.02
Sep 2018 Q3	5.80	0.18	4.03	4.97	27.50	10.00
Dec 2018 Q4	6.02	0.22	4.00	4.93	27.10	10.07
Mar 2019 Q1	4.14	-1.88	5.36	4.07	26.70	10.25
Jun 2019 Q2	4.32	0.17	2.50	4.50	27.20	10.02
Sep 2019 Q3	4.62	0.30	4.03	4.97	27.50	10.00
Dec 2019 Q4	4.80	0.18	4.00	4.93	27.10	10.07
12mnth Forecast			1.40	4.80	27.60	10.50

Monthly Ultimate Loss Rate

The ultimate loss rate for each month was calculated as the proportion of Trade Debtors at inception that is lost (i.e. credit loss) as follows:

$$\bullet \text{ Ultimate Loss Rate} = 1 - \frac{\text{Recovery Rate}}{(1 + \text{Prime Rate})^{\frac{\text{Recovery Period}}{12}}}$$

2018 Recovery Rate	17.78000 %
2018 Recovery Periods (months)	3
2018 Ultimate Loss Rate	82.64 %

2019 Recovery Rate	21.26000 %
2019 Recovery Periods (months)	3
2019 Ultimate Loss Rate	79.24 %

Prime Rate	10 %
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The Calculated IFRS 9 Expected Credit Loss

The ECL has been determined by simply multiplying the loss rates and the trade debtors as follows;

$$ECL = \text{Trade Debtors as at the measurement date} \times \text{Loss Rate}$$

The ECL is 7301.41 as at 31-Dec-2019

Annexure A: Summary of forward-looking information

OUTCOME OF REGRESSION ANALYSIS

		GDP Annual Growth Rate	Inflation Rate	Unemployment Rate	Lending Rate
Forecasted Change in Loss Rate		1.56%	0%	0%	0%
Benchmark R Square	60%				
Critical T value		2.01504837208812	2.01504837208812	2.01504837208812	2.01504837208812
T statistic Intercept (c)		2.65061112841495	-2.10255981916748	-2.51120997941054	5.68524330837119
T statistic X Variable 1(m)		-2.74013104927836	2.10483551570666	2.51092104695923	2.10483551570666
R Square		60.07%	46.96%	55.72%	86.55%
Intercept coefficient		0.024792443	-0.078654111	-0.631302967	0.902412297
X Variable coefficient		-0.659527265	1.672889499	2.321818587	-8.970021413

ADJUSTMENT TO LOSS RATE

	Dec 2019	IFRS 9 loss rate before FLI	ECL before FLI	IFRS 9 loss rate after FLI	ECL after FLI	Adjustment factor
Current	103543	0.55%	569.49	0.72%	745.51	
30 dpd	3246	15.56%	505.08	20.47%	664.46	
60 dpd	539	58.15%	313.43	76.51%	412.39	
90 dpd +	5149	80.87%	4164.00	106.41%	5479.05	
	112477	4.94%	5551.99	6.49%	7301.41	
Overall loss rate		4.94%		6.5%		1.3158

[\[1\]](#) IFRS 9 paragraph 5.5.3

[\[2\]](#) IFRS 9 paragraph 5.5.4

[\[3\]](#) IFRS 9 paragraph 5.5.5

[\[4\]](#) IFRS 9 paragraph 5.5.17

[\[5\]](#) IFRS 9 paragraph 5.5.15

[\[6\]](#) IFRS 9 paragraph B5.5.35