Expected Credit Loss Provisioning

The 2008 financial crisis highlighted the weakness in the current accounting standard, IAS 39 Financial Instruments: Recognition and Measurement, which adopts the incurred loss model for impairment of financial assets. The issue with the incurred loss model is that impairment losses and resulting write-downs in the reported value of financial assets can only be recognised when there is evidence that they exist (i.e. have been incurred). Reporting entities are not allowed to consider the effects of expected losses.

Following the crisis, the G20 tasked global accounting standard setters to strengthen accounting recognition of financial asset provisions by incorporating a broader range of credit information. In response, the International Accounting Standards Board (IASB) in 2014 published IFRS 9 Financial Instruments which replaces IAS 39 mandatorily in 2018. IFRS 9 includes a new impairment model that is more forward-looking.

CLP elected to early adopt HKFRS 9 (equivalent to IFRS 9) in 2016.

The general purpose of an impairment test is to ensure that an asset is not carried for financial reporting purposes at an amount that exceeds its recoverable amount. To do so would overstate a reporting entity's financial position and performance. As such, a timely recognition of credit losses of financial assets is important. The issue of the recognition of credit losses has been discussed vigorously in the accounting regime since the financial crisis. This accounting mini-series explains the new impairment model under the new accounting standard.

Old – Incurred loss model

The incurred loss model under HKAS 39 (equivalent to IAS 39) only requires the recognition of credit losses that have been incurred as of the balance sheet date. There is no consideration of probable future losses. Loss identification is based on the occurrence of a "triggering" event supported by observable evidence such as loss of business, default on interest payment, bankruptcy etc. During the financial crisis, it was observed that the recognition of credit losses under the current incurred loss model was not timely reflected in the financial statements. In addition, although higher interest margins were set for riskier financial assets to compensate for expected losses, interest incomes derived from these assets were recognised in full. To overcome these issues, a new expected credit loss model under HKFRS 9 is introduced which replaces the current model and is effective from 1 January 2018.

New – Expected credit loss (ECL) model

The new ECL model is a forward-looking approach that emphasises on the assessment of increase in credit risk since initial recognition. Under this approach, a loss event is no longer needed to occur before a provisioning is recognised. This also involves a considerable judgment as to how changes in macroeconomic factors will affect credit losses.

Credit losses under the ECL model are measured at expected values. As a result, this new model is more subjective in nature compared to the incurred loss model since it relies significantly on the cash flow estimates prepared by an entity which are inherently subjective. To work out credit losses, the entity needs to consider the probability-weighted outcome, the time value of money and reasonable and supportable information that is available. Credit losses have to be updated at each reporting date to reflect changes in credit quality.

As the ECL model is more forward-looking, the new requirements are expected to increase credit losses of reporting entities with substantial long-term financial assets. The impact for short-term financial assets such as trade receivables is likely to be relatively small.

Two periods three stages

The new provisioning model bifurcates the estimation into (1) a 12-month ECL (Stage 1) and (2) a lifetime ECL. The computation of the lifetime ECL is further separated into two stages (Stages 2 and 3). Credit risk of a financial asset determines which stage of the model to be applied.

12-month ECL

Stage 1 – It is a measurement of the probability of a default event occurring in the next 12 months after the reporting date.

When a financial asset is initially recognised, the 12-month ECL is recognised in profit or loss. This is akin to a day one loss, the rationale of which is that interest rate charged by a lender includes a margin to cover ECL. Interest revenue at Stage 1 is calculated on the gross carrying amount (i.e. before deducting ECL).

Measurement of ECL	
12-month ECL	Probability of default over **the next 12 months** × Present value of lifetime cash shortfalls
Lifetime ECL	Probability of default over **the lifetime** × Present value of lifetime cash shortfalls

If credit risk has increased significantly since its initial recognition, the 12-month ECL would be replaced by lifetime ECL. Alternatively, the credit loss allowance reverts to 12-month ECL if its credit quality subsequently improves.
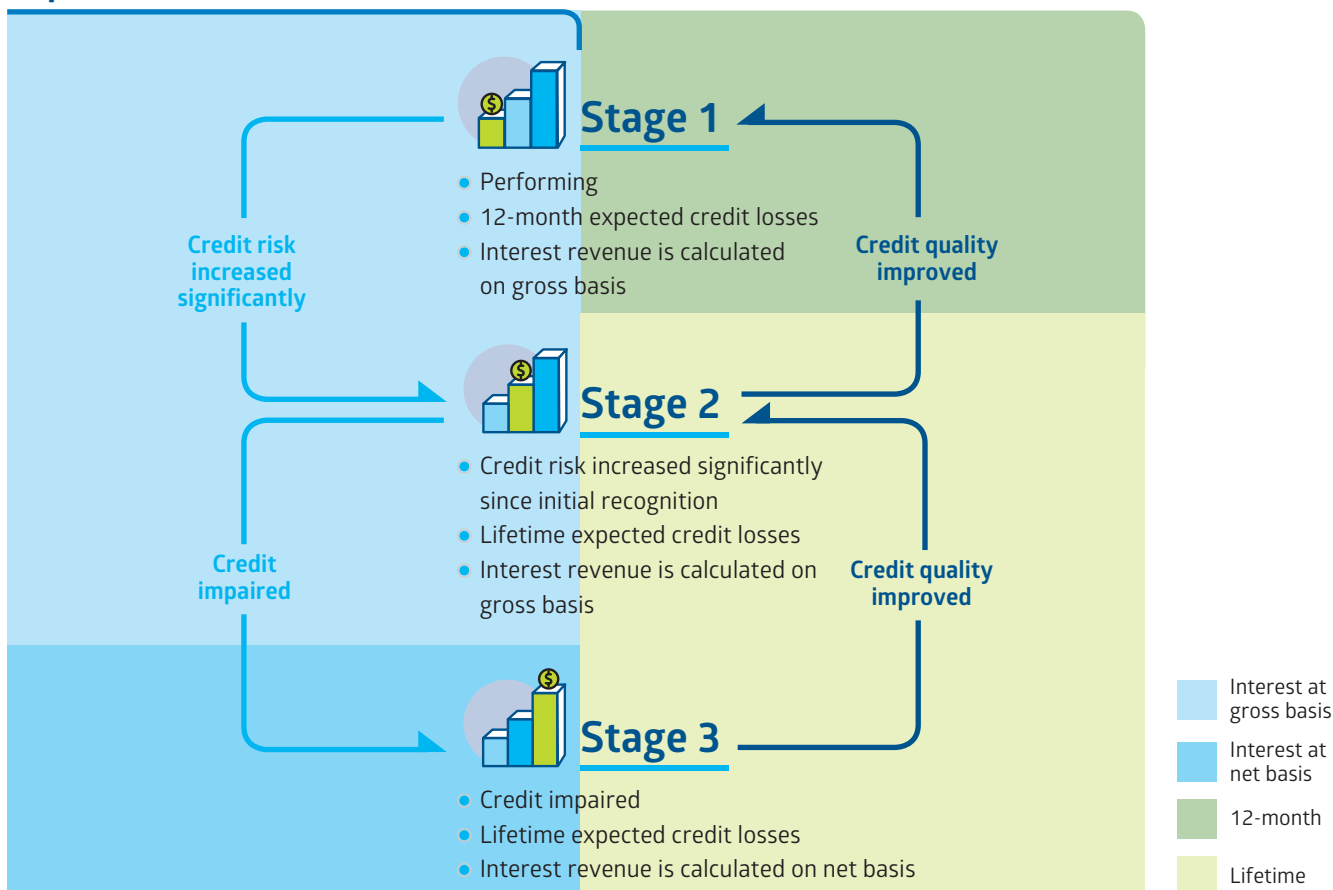
Lifetime ECL

Lifetime ECL is a measurement of the probability of credit losses expected over the remaining life of a financial asset irrespective of the timing of the default. It is estimated based on the present value of all expected cash shortfalls over the remaining life of the financial asset. The assessment of which stage of lifetime ECL to be applied is based on the increase in credit risk.

Stage 2 – When the credit quality deteriorates and the resulting credit risk of a financial asset increases significantly since its initial recognition, lifetime ECL has to be recognised. Interest revenue on this financial asset remains to be calculated on gross basis.

Stage 3 – If credit risk of a financial asset increases to the point that it is considered credit-impaired (similar to the current incurred loss model), lifetime ECL has to be recognised. However, interest revenue is calculated on the net carrying amount (i.e. after deducting ECL). A financial asset

Expected Credit Loss Model

Stage 1
- Performing
- 12-month expected credit losses
- Interest revenue is calculated on gross basis

Stage 2
- Credit risk increased significantly since initial recognition
- Lifetime expected credit losses
- Interest revenue is calculated on gross basis

Stage 3
- Credit impaired
- Lifetime expected credit losses
- Interest revenue is calculated on net basis

Credit risk increased significantly

Credit impaired

Credit quality improved

Credit quality improved

- Interest at gross basis
- Interest at net basis
- 12-month
- Lifetime

becomes credit-impaired if an objective event occurred that has a detrimental impact on the estimated future cash flows of the asset. Financial assets at this stage are generally assessed individually.

Simplified approach

To apply the ECL model, entities need to keep track of the credit quality of financial assets. For entities with many customers, tracking of changes in credit quality of all these customers would require huge administrative effort. To lessen this administrative burden, the standard introduces a simplified approach.

Under this approach, trade receivables that do not contain significant financing component shall recognise lifetime ECL at all times. In fact, lifetime ECL does not differ from 12-month ECL in general as these trade receivables have typically less than 12-month duration.

Lifetime ECL could be calculated using a provision matrix based on historical loss patterns or customer bases. However, those historical provision rates would require adjustments to take into account current and forward-looking information.

Expected Credit Loss Provisioning in CLP

Trade receivables are our major financial assets. Trade receivables in Hong Kong and Australia cover enormous numbers of retail customers. For our generation businesses in the Mainland China and India, the counterparties (i.e. offtakers) are mainly state or state-owned entities. We apply the simplified approach in the provisioning of trade receivables. Let us see how we do it in different regions.

At 31 December 2017	Gross Carrying Amount HK$M	Lifetime Expected Credit Loss HK$M	Net Carrying Amount HK$M
CLP Power Hong Kong	1,967	(9)	1,958
EnergyAustralia	8,168	(994)	7,174
CLP India – Wind	482	–	482
CLP China – Renewables*	611	–	611

* Represent receivables related to the unpaid Renewable National Subsidies

CLP Power Hong Kong

CLP Power Hong Kong classifies its trade receivables by nature of customer accounts, i.e. active accounts and terminated accounts. Trade receivables are mostly secured by cash deposits or bank guarantees from customers. These, together with very low default rate, resulted in very minimal credit losses.

EnergyAustralia

In Australia, credit losses for trade receivables are assessed on both individual (wholesale customers) and collective (retail customers) basis. Customer segmentation is done according to the historical credit loss experiences by geographical region, product type, customer rating, collateral or trade credit insurance, type of customer, etc. Based on the customer segmentation and its ageing profile, EnergyAustralia derives a provision matrix to estimate the credit losses for each segment, which will be adjusted, where necessary, for forward-looking macroeconomic factors. The provision matrix applied by EnergyAustralia is set out in page 228 of this Annual Report.

CLP India - Wind

Trade receivables in India are assessed on individual basis. Certain state offtakers of CLP India's wind portfolio experience financial difficulties and thus delaying the payments of power purchase. As such, CLP India is exposed to credit risk and has aged debt. No provision has been made as periodic payments have been received, penalty interests for late payments have been charged and no history of default was recorded from the offtakers. The business environment has been improving. The exposure is classified as a sovereign credit risk.

CLP China - Renewables

CLP China's renewable projects are entitled to a national subsidy. Across the industry, there have been delay in payments of the Renewable National Subsidy. The Group recorded a total outstanding amount of HK$611 million at 31 December 2017. We consider that there are no credit losses on the basis that the counterparty is the Central Government, periodic payments have been received, no losses have been experienced in the past as well as no adverse change is anticipated in the business environment.