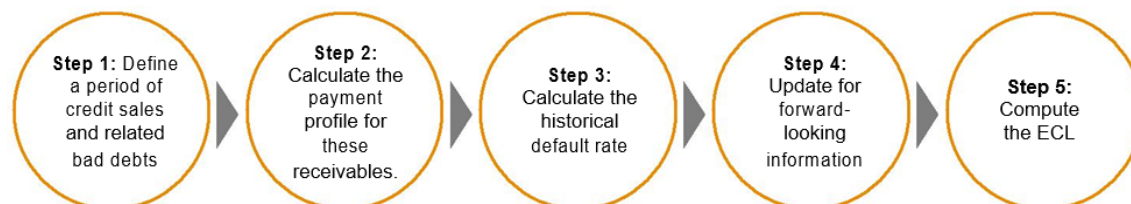


## 4.4.1.1. Provision matrix

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### GX Industry guide

IFRS 9 allows an operational simplification whereby entities can use a provision matrix to determine their ECL under the impairment model. A provision matrix method uses past and forward information to estimate the probability of default of lease and trade receivables.



 View image

### Step 1

The first step, when using a provision matrix, is to define an appropriate period of time to analyse the proportion of lease and trade receivables written off as bad debts. This period should be sufficient to provide useful information: too short might result in information that is not meaningful, while too long might mean that changes in market conditions or the tenant base make the analysis no longer valid. In the example below, a period of one year has been selected, with a focus on lease receivables. The overall lease receivables were C10,000 and the receivables ultimately written off were C300 in that period.

<b>Total lease income</b>	<b>C10,000</b>
Bad debts written off out of this lease income	C300

### Step 2

In step 2, the amount of receivables outstanding at the end of each time bucket is determined, up until the point at which the bad debt is written off. The ageing profile calculated in this step is critical for the next step, when calculating default rate percentages.

<b>Total lease income(C)</b>	<b>10,000</b>	<b>Total paid</b>	<b>Ageing profile of lease income (step 3)</b>
Paid in 30 days	(2,000)	(2,000)	8,000
Paid between 30 and 60 days	(3,500)	(5,500)	4,500
Paid between 60 and 90 days	(3,000)	(8,500)	1,500
Paid after 90 days	(1,200)	(9,700)	300 (written off)

### Step 3

In this step, the entity calculates the historical default rate percentage. The default rate for each bucket is the quotient of the defaulted receivables at each bucket over the outstanding lease income for that period. For example, in the above information, C300 out of the C10,000 lease income for the period was written off.

### Current lease income: historical rate of default

Since all of the receivables relating to the lease income for the period and those written off were current at some stage, it can be derived that, for all current amounts, the entity might incur an eventual loss of C300. The default rate would therefore be 3% (C300/C10,000) for all current amounts.

### Lease income outstanding after 30 days

An amount of C8,000 was not paid within 30 days. An eventual loss of C300 was a result of these outstanding receivables. Therefore, the default rate for amounts outstanding after 30 days would be 3.75%.

### Remaining buckets

The same calculation is then performed for 60 days and after 90 days. Although the amount outstanding reduces for each subsequent period, the eventual loss of C300 was, at some stage, part of the population within each of the time buckets, and so it is applied consistently in the calculation of each of the time bucket default rates.

The historical default rates are determined as follows:

	<b>Current lease income</b>	<b>Lease payments outstanding after 30 days</b>	<b>Lease payments outstanding after 60 days</b>	<b>Lease payments outstanding after 90 days</b>
Ageing profile of lease income (1)	10,000	8,000	4,500	1,500
Loss (2)	300	300	300	300
<b>Default rate: (2)/(1) (%)</b>	<b>3</b>	<b>3.75</b>	<b>6.67</b>	<b>20</b>

### Step 4

IFRS 9 is an ECL model, so consideration should also be given to forward-looking information.

Such forward-looking information would include:

- changes in economic, regulatory, technological and environmental factors (such as industry outlook, GDP, employment and politics);
- external market indicators; and
- tenant base.

For example, the entity concludes that the defaulted receivables should be adjusted by C100 to C400 as a result of increased retail entity failures, given that its tenant base is primarily retail focused. The entity also concludes that the payment profile and amount of lease income are the same. Each entity should make its own assumption of forward-looking information. The provision matrix should be updated accordingly.

The default rates are then recalculated for the various time buckets, based on the expected future losses.

	<b>Current lease income</b>	<b>Lease payments outstanding after 30 days</b>	<b>Lease payments outstanding after 60 days</b>	<b>Lease payments outstanding after 90 days</b>
Ageing profile of lease income (1)	10,000	8,000	4,500	1,500
Loss (2)	400	400	400	400
<b>Default rate: (2)/(1) (%)</b>	<b>4</b>	<b>5</b>	<b>8.9</b>	<b>27</b>

### Step 5

Finally, take the default rates from step 4 and apply them to the actual receivables, at the period end, for each of the time buckets. There is a credit loss of C12 in the example illustrated.

	<b>Total</b>	<b>Current lease income</b>	<b>Lease payments outstanding after 30 days</b>	<b>Lease payments outstanding after 60 days</b>
Lease receivable balances at year end: (1)	140	50	40	30
Default rate: (2) (%)	-	4	5	8.9
<b>Expected credit loss: (1) x (2)</b>	<b>C12</b>	<b>C2</b>	<b>C2</b>	<b>C3</b>

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