International Journal of Social Science and Human Research

ISSN (print): 2644-0679, ISSN (online): 2644-0695

Volume 08 Issue 03 March 2025

DOI: 10.47191/ijsshr/v8-i3-49, Impact factor- 8.007

Page No: 1726 - 1730

Amortized Cost and Impairment – An Application

Eduardo Sá e Silva[1], Adalmiro Pereira[2], Tânia Teixeira[3]
[1,2,3]ISCAP-P Porto

ABSTRACT: The amortized cost of a financial asset or financial liability is the amount at which it is measured on initial recognition, less any repayments made, plus or minus the cumulative amortization (using the effective interest method) of any difference between the initial amount and the maturity amount, and less any reduction for impairment or uncollectible (IAS 27, paragraph 5).
This work aims to present a review of the topic and a concrete application, showing how this topic can be worked on.

KEYWORDS: Amortized cost; Impairments; NCRF 27; NCRF 12

INTRODUCTION

The effective interest method is the method of calculating amortization within the amortized cost and of allocating interest income or expense over the relevant period using the effective interest rate. The effective interest rate is the rate that discounts future payments or receipts over the expected life of the financial instrument (or shorter period, if appropriate) to the net carrying amount of the financial asset or liability (IAS 27, paragraph 5) and is the internal rate of return (IRR) of an investment.
The difference between the effective interest and the nominal interest constitutes the amortization of the initial difference, being recognized in the item's heading against interest expenses, complementing the nominal interest and thus achieving the effect of the effective interest on the results. In the following periods, the same procedure is adopted, based on the balance, considering the amortizations made in previous periods. (Garcia, 2000)
It is advisable to maintain two sub-accounts, one for the nominal value and another offsetting the part to be recognized (amortized) in future results using the effective interest method, to preserve information on the nominal amount.

1 – Amortized Cost

Consider taking out a loan with a nominal value of 5000 euros and transaction costs of 150 euros (commissions and other initial expenses)
So we have
Nominal (contracted) value: 5000
Transaction costs: 150
Amount received: 4850
Contracted interest rate: 6%
Nº years: 3

The first step will be to calculate the IRR which corresponds to the effective rate

effective rate calculation		
year	Description	value
0	amount received	4850
1	interest 6%	-300
2	interest 6%	-300
3	capital + interest 6%	-5300
	TIR	7.15%

Then, we have the following plan

the balance Home	b flow nominal interest	w effective interest	e=cb difference	f=a+e Balance End
4850.00	300.00	346.59	46.59	4896.59
4896.59	300.00	349.92	49.92	4946.51
4946.51	300.00	353.49	53.49	5000.00
			150.00	

. Amortized cost at beginning (4850 = 5000 – 150)
+ Effective interest (Amortized cost at the beginning x IRR)
- Money flow (in this case corresponding to nominal interest = nominal capital (5000) x contracted rate (6%))
. Amortized cost at the end = Amortized cost at the beginning + effective interest – nominal interest flow

It should be noted that the difference between the effective interest and the nominal interest flow (e=cb) corresponds to the deferral over time of the transaction cost (it is recommended to use a specific account for this purpose)

Case 2

Consider the following data relating to a financial asset

Period	Flow
0	-1000
1	100
2	550
3	80
4	585
IRR	10.20%

Note: the outflow (loan) is considered by the negative value and the inflows by the positive value

Amortized cost table – original situation

initial balance amortization cost	effective rate	Flow	Difference	final balance amortization cost
1000.00	102.04	100.00	2.04	1002.04
1002.04	102.24	550.00	447.76	554.28
554.28	56,56	80.00	23.44	530.84
530.84	54.16	585.00	530.84	0.00
total	315.00			

As in the previous example, the final balance of the amortized cost = beginning balance of the amortized cost + movements at the effective rate – money flow What happens if the person who benefits from this loan has had to bear related expenses, for example, with commissions worth 100?

In this case, the amount received is smaller, which will be reflected in the IRR.

period	
0	-900
1	100
2	550
3	80
4	585
TIR	14.52%

Amortized Cost and Impairment – An Application

Amortized cost table – alternative situation

initial balance amortization cost	effective rate	flow	difference	final balance amortization cost
900.00	130.71	100.00	30.71	930.71
930.71	135.17	550.00	414.83	515.89
515.89	74.93	80.00	5.07	510.81
510.81	74.19	585.00	510.81	0.00
total	415.00			

In this situation, it can be seen that the total movements at the effective rate increase by 100, which is exactly the value of the expenses incurred.

A comparative table of the two situations can then be constructed.

comparative map of movements by effective rate			
	effective rate		deferral
period	**1000.00**	**900.00**	
1	102.04	130.71	28.68
2	102.24	135.17	32.93
3	56,56	74.93	18.37
4	54.16	74.19	20.02
	total		100.00

In the deferral column, the amounts to be recognized due to expenses

2 - Impairment

Let's now assume that there will be an impairment

Impairment represents a loss of value suffered by an asset due to factors external or internal to the entity, reflecting a reduced capacity of the asset to generate future economic benefits.

The recoverable amount of an asset or cash-generating unit for measuring impairment losses to be deducted from its carrying amount is the higher of its fair value less costs to sell and its value in use. The value in use is the present value of the estimated future cash flows expected to arise from the continued use of an asset or cash-generating unit and from its disposal at the end of its useful life (IAS 12, paragraph 4).

Thus, impairment must reflect (permanent loss) of the value of a financial asset, and which occurs when the value expected to be obtained from the liquidation of that asset (realizable value) is below its acquisition cost recorded in the balance sheet.

To assess whether there are indications that an asset may be impaired, an entity must consider in its test the indicators of asset impairment, which the standards present, in a list of information sources classified as external and internal sources.

As external and internal sources of information we have, among others:

- Market value decreases more than expected, depending on time and its use;
- Existence of evidence that proves that an asset is obsolete or damaged;
- Significant changes have occurred in the technological, market, economic or legal environment in a way that affects the entity's assets;
- Identification of significant changes in the way an asset is used, including the discontinuation of the asset;
- Interest rates increase to the point of affecting the discount rate used to calculate the value of the asset in use (cash flow);
- Indication of a greater than expected decline in the economic performance of an asset, highlighted in an internal report.
- The net book value of assets is greater than their capitalized market value

Returning to the values of case 2 described above, there is evidence of impairment (financial difficulty of the debtor) immediately after receiving the cash flow from period 1, that is, after receiving 100. Therefore, the entity must record an impairment loss given that the balance sheet value is lower than the current value of the estimated future cash flows discounted at the asset's original effective interest rate.

Amortized Cost and Impairment – An Application

At the end of period 1 the situation without impairment loss is as follows:

effective rate 10.20%
Current value without impairment loss

period remaining	flow box	factor update	value current
1	550.00	0.907412	499.08
2	80.00	0.823396	65.87
3	585.00	0.747159	437.09
	total		1002.04

Note: The update factor is based on the effective rate of 10.20%
Note that this value is equal to that determined in the amortized cost table at the end of period 1.
Taking into account the objective evidence that the debtor is experiencing serious financial difficulties, with the possibility of bankruptcy, the following recoverable flows were estimated.

Current value with impairment loss

period remaining	flow recoverable	factor update	value current
1	200.00	0.907412	181.48
2	30.00	0.823396	24.70
3	300.00	0.747159	224.15
	total		430.33

Then it follows that the impairment loss is calculated by the difference
Amount of impairment loss: 571.70 = 1002.04 – 430.33
Which can be confirmed through the current value of impairment losses corresponding to each future period

period remaining	flow impairment	factor update	value current
1	350.00	0.907412	317.59
2	50.00	0.823396	41.17
3	285.00	0.747159	212.94
	total		571.70

Finally, this loss must be recorded in accounting terms.
Debit: impairment loss 571.70
Credit: accumulated impairment 571.70

CONCLUSION

As already mentioned, the impairment requirements set out in IFRS 9 introduce an expected credit loss model, rather than an incurred loss model set out in IAS 39. As such, it is expected to have a significant impact on financial institutions. This will require a link between finance and accounting, as the calculation of impairment will affect the definition of the risk model, the provision (impairment) methodology and the operating models. It is difficult to predict with precision the likely magnitude of impairments associated with the requirements of IFRS 9. However, there are reasons to believe that the amounts of losses may be materially higher than those given by the requirements of IAS 39 for a given set of facts. Therefore, entities will have to design and implement new systems, databases and internal controls. Institutions wishing to use data on expected credit losses used in the calculation of the capital requirements required by law will need to identify the differences between the two types of requirements.

REFERENCES

1) GARCIA DIEZ, Julita (2000) The new accounting strategy of the European Union: A step forward in the approach to the IASC, Revisores e Empresa Magazine, October/December.
2) Instruction 9/2005 Bank of Portugal https://www.bportugal.pt/sites/default/files/anexos/instrucoes/9-2005i2.pdf
3) Accounting and Financial Reporting Standard 12 – Impairment of assets https://www.cnc.min-financas.pt/_siteantigo/snc_projecto/ncrf_12_imparidade_activos.pdf
4) Accounting and Financial Reporting Standard 27 – Financial Instruments https://www.cnc.min-financas.pt/_siteantigo/SNC_projecto/NCRF_27_instrum_financ.pdf
5) International Financial Reporting Standard 7 – Financial Instruments: Disclosures https://www.oroc.pt/uploads/normativo_tecnico/contabilidade/IFRS/IFRS%207.pdf
6) International Financial Reporting Standard 9 – Financial Instruments https://www.oroc.pt/uploads/normativo_tecnico/contabilidade/IFRS/IFRS%209.pdf