



## **NOTICE ON THE COMPUTATION OF INTEREST RATES**

The **Securities and Exchange Commission** ("SEC"), in its commitment to foster consumer protection, enhance loan information transparency and promote the adoption of fair lending practices, advises the public to observe the updated rules in implementing the **Truth in Lending Act (Republic Act No. 3765)**, particularly the **Bangko Sentral ng Pilipinas** ("BSP") **Circular No. 730 dated 20 July 2011** and the **SEC Memorandum Circular No. 7, Series of 2011**. This Notice is issued in view of the numerous queries entertained by the operating department/s of the SEC with regard to the correct computation of the interest rates imposed by Lending Companies ("LCs") and Financing Companies ("FCs").

Adopting **BSP Memorandum No. M-2011-040** in the case of LCs and FCs, an effective interest rate ("EIR") calculation model for a loan, founded on established principles of discounted cash flow analysis, should be based on the actual features thereof. Attached herein are some Illustrations/models of common loan features, which are also present as annexes in the BSP memorandum. Moreover, LCs and FCs shall be solely responsible for the propriety and accuracy of its EIR calculation model. However, for purposes of determining compliance with the afore-stated circular, the BSP's determination of the reasonableness and accuracy of an EIR calculation model shall prevail.

Should you have any questions regarding the computation of interest rates imposable by LCs and FCs, please contact the Corporate Governance and Finance Department-Monitoring Division of the SEC at telephone numbers 818-5476 or 818-9227, or email [imessagemo@sec.gov.ph](mailto:imessagemo@sec.gov.ph).

Pasay City

06 June 2019

**ILLUSTRATION 1****EFFECTIVE INTEREST CALCULATION MODEL  
FIXED EQUAL AMORTIZATION SCHEDULE**

	Period	%	Amount
Loan Amount			P100,000.00
Monthly Installment Payments			9,455.96
Contractual/Interest Rate (Monthly)		2.00%	(See Annex A)
Penalty Charges in case of default/late payment on outstanding balance		3.00%	(See Annex B)
Other Charges (i.e. service charge, processing fee that will be deducted to the loan proceeds)		3.00%	3,000.00
No. of Monthly Installment	12		
Loan Proceeds (Loan amount less Other charges)			97,000.00

**ANNEX A: Scenario where No Default/Late Payment**

**Computation based on the Contractual/Interest Rate:**

Installment Period	Gross Loan	Principal (A) = C - B	Contractual Interest (i=2.00%) (B) = Prior period D * i	Monthly Installment (C)	Outstanding Balance (D) = Prior Period D - A
	P100,000.00				100,000.00
1		7,455.96	2,000.00	9,455.96	92,544.04
2		8,067.80	1,388.16	9,455.96	84,476.24
3		8,188.82	1,267.14	9,455.96	76,287.43
4		8,311.65	1,144.31	9,455.96	67,975.78
5		8,436.32	1,019.64	9,455.96	59,539.45
6		8,562.87	893.09	9,455.96	50,976.59
7		8,691.31	764.65	9,455.96	42,285.28
8		8,821.68	634.28	9,455.96	33,463.59
9		8,954.01	501.95	9,455.96	24,509.59
10		9,088.32	367.64	9,455.96	15,421.27
11		9,224.64	231.32	9,455.96	6,196.63
12		9,363.01	92.95	9,455.96	-
TOTAL		103,166.38	10,305.14	113,471.52	

**Computation based on the Effective Interest Rate:**

Installment Period	Gross Loan	Cash Flows (A)	Principal (B) = A-C	Effective Interest 2.499% (C) = Prior period D*2.499%	Outstanding Balance (D) = (Prior Period D - B)
	P100,000.00				P100,000.00
0		97,000.00	3,000.00		97,000.00
1		-9,455.96	7,031.45	2,424.51	89,968.55
2		-9,455.96	7,207.20	2,248.76	82,761.34
3		-9,455.96	7,387.35	2,068.61	75,373.99
4		-9,455.96	7,571.99	1,883.97	67,802.00
5		-9,455.96	7,761.26	1,694.70	60,040.75
6		-9,455.96	7,955.25	1,500.71	52,085.50
7		-9,455.96	8,154.09	1,301.87	43,931.41
8		-9,455.96	8,357.90	1,098.06	35,573.51
9		-9,455.96	8,566.80	889.16	27,006.71
10		-9,455.96	8,780.93	675.03	18,225.78
11		-9,455.96	9,000.41	455.55	9,225.37
12		-9,455.96	9,225.37	230.59	-
Total			100,000.00	16,471.52	

**Total Payments to be made by the borrower: 3,000.00 (Other charges deducted to the loan proceeds)**  
**113,471.52 (12 Monthly payments of P9,455.96)**  
**116,471.52**

Monthly Installment (C)	=	Principal	÷	$\frac{((1+i)^n - 1)}{i(1+i)^n}$
	=	100,000.00	÷	$\frac{((1+.015)^{12} - 1)}{(.015(1+.015)^{12})}$
	=	100,000.00	÷	10.58
	=	<u>9,455.96</u>		
Where:				
	i	=	Contactual interest	
	n	=	Period	
	principal	=	Loan amount	

Effective Monthly Interest Rate (MIR) = IRR(F10:F22) = 2.499%  
 (using Excel IRR Function)

**ANNEX B: Scenario where there is Default/Late Payment**

**Computation based on the Contractual/Interest Rate: (Default on the 5th Installment)**

Installment Period	Gross Loan	Principal (A) = C - B	Contractual Interest (B) = Prior period D * i	Monthly Installment (C)	Penalty Charges in case of default on outstanding balance	Outstanding Balance (D) = Prior Period D - A
	P100,000.00					100,000.00
1		7,455.96	2,000.00	9,455.96		92,544.04
2		8,067.80	1,388.16	9,455.96		84,476.24
3		8,188.82	1,267.14	9,455.96		76,287.43
4		8,311.65	1,144.31	9,455.96		67,975.78
5 (defaulted)		8,436.32	1,019.64	9,455.96	2,039.27	61,578.73
6		8,532.28	923.68	9,455.96		53,046.45
7		8,660.26	795.70	9,455.96		44,386.19
8		8,790.17	665.79	9,455.96		35,596.02
9		8,922.02	533.94	9,455.96		26,674.00
10		9,055.85	400.11	9,455.96		17,618.15
11		9,191.69	264.27	9,455.96		8,426.46
12		9,329.56	126.40	9,455.96		-
TOTAL		102,942.37	10,529.14	113,471.52	2,039.27	

**Computation based on the Effective Interest Rate (Default on the 5th Installment):**

Installment Period	Gross Loan	Cash Flows (A)	Principal (B) = A - C	Effective Interest 2.81% (C) = Prior period D * 2.81%	Outstanding Balance (D) = (Prior Period D - B)
	P100,000.00				P100,000.00
0		97,000.00	3,000.00		97,000.00
1		-9,455.96	6,734.17	2,721.79	90,265.83
2		-9,455.96	6,923.13	2,532.83	83,342.70
3		-9,455.96	7,117.39	2,338.57	76,225.31
4		-9,455.96	7,317.10	2,138.86	68,908.21
5 (defaulted)		-11,495.23	9,561.69	1,933.54	59,346.52
6		-9,455.96	7,790.71	1,665.25	51,555.81
7		-9,455.96	8,009.32	1,446.64	43,546.49
8		-9,455.96	8,234.06	1,221.90	35,312.43
9		-9,455.96	8,465.10	990.86	26,847.33
10		-9,455.96	8,702.63	753.33	18,144.70
11		-9,455.96	8,946.83	509.13	9,197.87
12		-9,455.96	9,197.87	258.09	- 0.00
Total			100,000.00	18,510.79	

<b>Total Payments to be made by the borrower:</b>	<b>3,000.00</b> (Other charges deducted to the loan proceeds)
	<b>113,471.52</b> (12 Monthly payments of P9,455.96)
	<b>2,039.27</b> (Penalty charge on the default/late payment)
	<b><u>118,510.79</u></b>

Effective Monthly Interest Rate (MIR) (using Excel IRR Function)	=	IRR(F10:F22) = 2.81%
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2.80596937%