Diminishing balance model for Islamic home finance: Final version

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Abstract

This brief note supplements the argument of an earlier paper *Islamic Home Financing: Current Models and a Proposal from Social Perspective"*; it explains that the *Diminishing Balance Model* for Islamic home financing is operable in a Shari'ah compliant way even without the Islamic Banking laws accommodating the notion of constructive ownership as envisaged earlier. It further clarifies how the new model scores over the models currently being used for the purpose.

Key words: Islamic home finance; interest based model; MMP model; Diminishing Balance model.

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1. Introduction

Shelter is one of the basic needs for human beings. Islamic banks have of late entered the field of home financing with various schemes. Of the models they are currently using for the purpose BBA has been relatively popular but attracted also the more of criticism the others invited. This led, of late, to a drift in favor of *musharakah mutanaqisah partnership* arrangements commonly abbreviated as the MMP model. Even though the MMP is also not found entirely free of legal blemishes, its use is on the rise. I have demonstrated in an earlier paper that concerns about MMP looking alike with -- rather worse than -- the interest based home financing, especially from the buyers' viewpoint, is growing faster than the worries surrounding its juridical compliance. Searching for a better alternative, I erected one that was in my opinion better than the other in uses. This I named as the *Diminishing Balance Model* or the DBM.

A simple illustration was used with identical details applying in each case for ensuring the compatibility of results. The skeleton assumed that a person wants to purchase an already built house from a seller, its cash down price being RM 100,000. He pays RM 20,000 as earnest money to the seller with a promise to clear the balance in three month. He thus needed RM 80.000 to meet the deadline. In search of the cheapest terms

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[1] This brief note is in continuation of my earlier article published in the January-March 2011 issue of this Journal under the title *Islamic house finance: Current Models and a proposal in a social context.* Another version of the paper has appeared in the *ISRA : International Journal of Islamic Finance,* vol. 3, no. 1, June, 2011, To make this note self-cntained, three explanatory tablrs from these papers appear as appendix.

available (faith not affecting his choice), he approaches two banks, one conventional and the other Islamic. The customer plans to clear the amount payable under the contract with the financing bank in 10 years, spread over 20 six-monthly installments.

The conventional bank offers to meet his conditions at 8% interest a year plus a capital redemption factor of 6.71%. The overall annual rate would thus be 14.71%, the six-monthly charge being half or 7.355%. Each installment at that rate turns out to be equal to (80,000 x 0. 07355) or RM5,884 The bank terms also say that all interest payments would stop if the outstanding amount is fully paid on any date prior to the expiry of the stipulated 10 year period. The house is registered in the name of the customer and he simultaneously mortgages it with the bank as security.

The Islamic bank also agrees to the payment scheme of the customer but shuns interest. It offers him a *Diminishing partnership scheme* or what is described as the MMP model. Here the bank and the customer start with a co-ownership of the house the customer buying away the bank's share in installments via a sharing of rent plan. Under the plan the customer pays installments designed for clearing the debt as also give a return to the bank. The bank would not only receive part of the rent proportionate to its own share in the house at any point in time but also get the part of rental accruing to the customer. Consequently, with each installment payment the bank's share in the house ownership will decrease by the amount of his rental share surrendered to the bank. That would progressively increase the rental share of the customer and help him reduce the debt at an increasing rate so that it is fully cleared on the due date. The parties agree to a rental value of 8% per annum for the house.

However, as the customer's surrender of his part of the rental to the bank will not be enough to redeem the amount, a redemption factor of 6.71% would be added to the 8% rental giving an overall six-monthly charge of 14.71 / 2 = 7. 355%. Note that the annual rate – rent plus redemption – is to be halved for half yearly payments. This would fix the installment at 80000 x 0.07355 = RM 5884: the same as in the case of the conventional bank. Since the entire rental goes to the bank the redemption component in the

installment will be 5884 – 4000 = RM 1884; It can be viewed as the price of one unit of bank's ownership the customer is obliged to buy each six months the remaining RM 4000 (i.e. 80000 / 20) in the installment being the capital repayment component.

To set the stage for final comparison, let us explain briefly the working of our *Diminishing Balance Model* the DBM. We continue with our illustration. The bank proposes to the customer as follows. We will pay RM 80000 the balance to the seller for the house. He will get a sale deed prepared in our names showing ownership division as 20% for you and 80% for the bank. The bank would sell its share to you for 80,000 plus an annual 8% mark-up on its share in the property cost. However, the amount will be calculated on a diminishing balance principle as is at times done in accounting for depreciation provision. The starting point will of course be [80,000 + (80,000 x 08 x 10)] = RM 144,000. That would help progressively reduce your liability to the bank. The registration of the house in the court will be in your name but you will have to sign simultaneously a mortgage deed pledging the property with the bank as security until installments have all been cleared in full. The Figure below explains the working of the model. It may be noted that four separate contracts are involved in completing the sale-payment process.
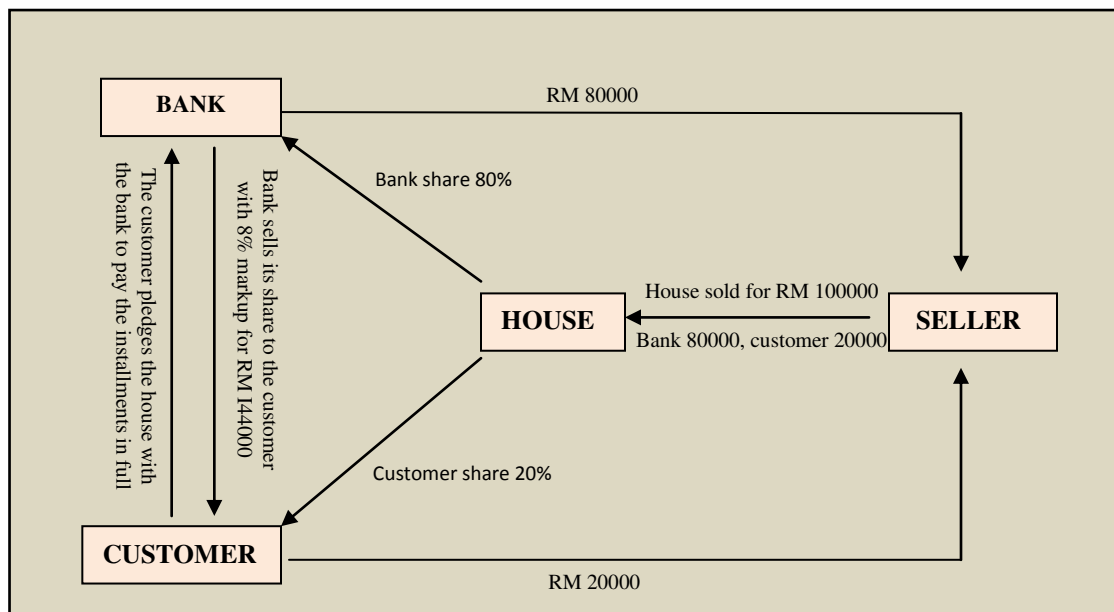
Figure 1: Diminishing Balance Model: operation

1.   First is a contract for joint ownership of the asset involving three parties: the bank, the customer and the seller. The seller promises to sell a house to the co-ownership of the bank and the customer on a three month deferred payment with a non-refundable earnest money deposit of RM 20,000. The customer agrees to pay the earnest money on behalf of the partners.

2.   Second is a sale contract for joint ownership of the asset involving three parties: the bank, the customer and the seller. The seller sells the house to the co-ownership of the bank and the customer after the latter pays the balance of RM 80,000 to the seller to acquire an 80% share in the property

3.   Third contract is between the customer and the bank, the latter selling his share in the property to him with an agreed mark-up spread at 8% a year on the outstanding amount.

4.   Fourth is a contract whereby the customer mortgages the house with the bank until the payments are all cleared in accordance with the terms of the mortgage.

Table 1: Returns under each Model

| Installment number | RM | | | |
	Conventional Interest	MMP Rent	DBM Mark-up	Difference MMP - DBM
1	3200	3200	3200	0
2	3093	3093	3040	53
3	2981	2981	2880	101
4	2865	2865	2720	145
5	2744	2744	2560	184
6	2619	2619	2400	219
7	2488	2488	2240	248
8	2352	2352	2080	272
9	2211	2211	1920	291
10	2064	2065	1760	305
11	1911	1912	1600	312
12	1752	1752	1440	312
13	1587	1588	1280	308
14	1416	1415	1120	295
15	1236	1236	960	276
16	1050	1051	800	251
17	857	856	640	216
18	656	656	480	176
19	447	447	320	127
20	229	230	160	70
Sub-total	**37757**	**37757**	**33,600**	**4157**
Residual	**75**	**89**	**00**	**89**
Total	**37832**	**37846**	**33,600**	**4246**

The last three contracts are to be executed simultaneously. The house is to be registered in the name of the customer. The customer now compares the three models to make a choice. To help him, let us place side by side in Table 1 the amounts he would have to pay as return to the bank in addition to the capital component in the installments in each case.

Table 2: Comparison of competitive house financing models

Model Description	% of finance provided	Nature of installments	Residuals RM	Profit of the financier
1. Conventional	80%	Uniform	75.0	4.73%
2.Diminishing partnership	80%	Uniform	89.0	4.73%
3. Diminishing balances	80%	Diminishing	00.0	4.20%

The installments are uniform in the first two cases because of the addition of a capital redemption factor (6.71%) to 8%. But uniformity is no virtue as it has a cost. Its absence makes the DBS a cheaper finance model for the customer in terms of cost by 0.53%. See the difference column in Table 1[2]. The DBS is simple for the customer to understand. It is straight forward, transparent and equitable; it does not bring in interest from the back door. Compare payments of the conventional model and the MMP in the Table; why are they identical? The model makes the banks at once Shari'ah compliant. Charging lower cost, they must attract more business than the conventional banks. It offers a big incentive for non-Muslims' diversion to Islamic banking.

References

Hasan Zubair (2011): *Islamic house financing: Current models and a proposal from social perspective*, Journal of Islamic Banking & Finance, Karachi, Vol. 23, No. 1 January-March.

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[2] Total difference over the 10 years is 4257. Thus per year difference RM 425.7 over 80,000 = 0.53%

Hasan Zubair (2011): *Islamic home finance in the social mirror*, ISRA: International Journal of Islamic Finance, Vol. 3, No.1 June

APPENDIX

Conventional Bank

S. N0.	Installment	Interest	Principal	Balance
1	5884	**3200**	2684	77316
2	5884	**3093**	2791	74525
3	5884	**2981**	2903	71622
4	5884	**2865**	3019	68603
5	5884	**2744**	3140	65463
6	5884	**2619**	3265	62198
7	5884	**2488**	3396	58802
8	5884	**2352**	3532	55270
9	5884	**2211**	3673	51597
10	5884	**2064**	3820	47777
11	5884	**1911**	3973	43804
12	5884	**1752**	4132	39672
13	5884	**1587**	4297	35375
14	5884	**1415**	4469	30906
15	5884	**1236**	4648	26258
16	5884	**1050**	4834	21424
17	5884	**857**	5027	16397
18	5884	**656**	5228	11168
19	5884	**447**	5437	5730
20	5884	**229**	5655	75
Total	**117680**	**37757**	**79923**	

TABLE 2 The MMP Model

	Rental Division		Customer's	Bank's
Installment	Customer	Bank	Equity	Equity
Number			RM	RM
0			20000.0	80000.0
1	800	**3200**	22684.0	77316.0
2	907	**3093**	25475.4	74524.6
3	1019	**2981**	28370.4	71629.6
4	1135	**2865**	31389.2	68610.8
5	1255	**2744**	34528.8	65471.2
6	1381	**2619**	37793.9	62206.1
7	1512	**2488**	41189.7	58810.3
8	1648	**2352**	44721.3	55278.7
9	1780	**2211**	48386.1	51613.9
10	1935	**2065**	52205.5	47794.5
11	2086	**1912**	56175.7	43624.3
12	2247	**1753**	60306.7	39693.3

13	2412	**1588**	64602.7	35397.3
14	2584.1	**1416**	69070.8	30929.2
15	2763	**1237**	73717.6	26282.4
6	2949	**1051**	78565..3	21449.7
17	3143	**857**	83591.9	16408.1
18	3344	**656**	88819.6	11180.4
19	3553	**447**	94256.4	5743.6
20	3770	**230**	99910.6	89.4
Total	**42243**	**37757**		

Table 3: Diminishing Balance Model

Installments	Return of capital	Diminishing balance	Mark-up on C 8%	installment Payments
A	B	C	D	E = B + D
0	0	**80000**		
1	4000	**76000**	3200	7200
2	4000	**72000**	3040	7040
3	4000	**68000**	2880	6880
4	4000	**64000**	2720	6720
5	4000	**60000**	2560	6560
6	4000	**56000**	2400	6400
7	4000	**52000**	2240	6240
8	4000	**48000**	2080	6080
9	4000	**44000**	1920	5920
10	4000	**40000**	1760	5760
11	4000	**36000**	1600	5600
12	4000	**32000**	1440	5440
13	4000	**28000**	1280	5280
14	4000	**24000**	1120	5120
15	4000	**20000**	960	4960
16	4000	**16000**	800	4800
17	4000	**12000**	640	4640
18	4000	**8000**	480	4480
19	4000	**4000**	320	4320
20	4000	**0**	160	4160
Total	**80,000**		**33,600**	**113,600**