Alternative Financing Models for Sustainable Housing Finance System: Some Proposals for Participation Banks in Turkey

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Abstract: This study examines some alternative financing models for sustainable housing development. As alternatives to conventional interest-based home financing modes, several financing models are currently in existence, the dominant among which are *the cost plus sale* (buy-and-sell principle) and *the diminishing partnership and lease contracts*. In this study, the alternative financing models compare to the conventional financing (interest-based) system using illustration from banking practices. The paper examines the differences between the two and goes on to discuss specific problems of housing finance. In relation to the alternative financing models, the paper concludes that *the diminishing partnership and lease contracts* have several advantages over the cost plus sale for the customer. When implemented through Turkish participation banks and cooperatives, the diminishing partnership can provide an investment avenue for members through the fractional reserve money creation process. Consequently, if alternative housing financing models are adopted worldwide, sustainable housing finance system might be more stable and fair.

Introduction

Home is a necessity for human life and owning a good home is an aspiration of everyone. People fulfill this need by building a home on their own, purchasing it or renting it from others. Payment for conventional home mortgage normally takes a good chunk of one's monthly income. Conventional home mortgages are interest-based. Alternative financial practices for house financing arise from the Islamic contracts. Alternative methods of finance for home do not involve interest. In an alternative house financing contract, the property should be owned by the bank or the financial institution. In practice, this means that a financial institution would buy a property at a certain price (exactly like any other buyer or trader). When the bank becomes a complete owner of this property, it would then be resold at a higher price to any client who would like to buy this specific property. This prospective buyer shows his or her interest by submitting a documented or written promise to the bank assuring that he will re-purchase the property. There is no interest at all because the price is not changeable. Whatever happens after the sale agreement nothing will justify any increase of the cost of the house. There is no room for any speculation to take place in the light of any possible monthly interest rate change. Everything completely relies on the agreed price in the contract, whether payment will be after five years or twenty. The bank deal with properties as an original owner and sell the houses directly to the clients based on instalments or some other mode of the alternative mortgage (Dwaikat, 2008).

Some financial institutions have introduced a number of modes for home ownership, the dominant of which are the cost plus sale (CPS) contract and the diminishing partnership and lease (DPL) contracts. The CPS is the popular concept in countries like Malaysia, Indonesia and Brunei whereas the DPL is widely practiced in the Middle East, United States, Canada, United Kingdom and Australia (Meera and Razak, 2005, p. 5–6).

The objective of this paper is to make theoretical analyses between the CPS and the DPL contracts. For the benefit of the interested readers, managers and customers of participation banks, the paper also provides some examples for the DPL contract.

Alternative House Financing Models

As alternatives to conventional interest-based home financing modes, several alternative modes are currently in existence, the dominant among which are;

– Cost plus sale (Murabaha[5])

– Leasing to rent (Ijara):

    – Lease to own (Ijara wa Iqtina'a[6])

– Diminishing partnership and lease model (the Musharakah Mutanaqisah Partnership)

Controversy about alternative home financing practices can arise when the translation is made from Arabic to English. For this reason, British government departments use the same words for different concepts: Ijara (FSA, 2006, p. 3) (leasing to rent), Ijara wa Iqtina'a (HM Treasury, 2007, p. 9) (lease to own).

The Cost Plus Sale (CPS)

Cost plus sales (CPS) similar to a buyer's credit (see, Jackson, 2004, p. 26; UNCTAD, 2006, p. 12). *Cost plus sale* is a contract between the customer and the financial institution that entitles the institution to purchase the goods and sell them again to the customer on deferred instalments without the need to have an interest–bearing loan (Hassan, 2007, p. 4–5). Here, it could be said that when the banks undertake the transactions according to CPS contracts, they actually play the role of traders (Akhtar, 2005, p. 26). The process of this contract starts when the customer requests a tangible asset from a supplier, the financial institution sells it, and then the customer pays the money to the institution on a deferred sale basis with a mark- up reflecting the institution's profit, which is called a cost-profit (Segrado, 2005, p. 10). It means that this contract is a sale transaction. A specified profit margin goes to the institution by special agreement whereby the institution funds the purchasing operation for the benefit of the customer, but in an indirect way, through buying the goods then selling them again to the customer, who should return the money within an agreed time limit, in instalments or in a lump sum.

Any risk connected to the goods bought by the institution should remain its responsibility until they are delivered to the customer. This method of financing used to be one of the most important tools used extensively by participation banks for funding commodity trade by acquisition of long-term assets. In other words, the financial institution (bank) gives the client a commodity loan, the value of which will be returned to the bank at a cost to the bank plus a mark up (Gaber, 2007, p. 6). There are some conditions for a correct *cost plus sale* contract:

– The bank (the seller) keeps the ownership rights of the commodity from the time of negotiation until the end of the contract.

– The bank should give the client the exact cost of the commodity, and define the sum of profit in advance. That must be added together and quoted to the client as a final price (Abdelhamid, 2005, p. 37).

– The contract with all its transactions must be free from interest.

– Any defect in the goods to be sold must be disclosed by the bank (the seller) (Gaber, 2007, p. 6).

Cost plus sale is one of the best known forms of alternative finance; it is also applicable to financing commercial transactions which require liquid short- term instruments, and it can also be used for long-term investments (Lovells, 2004). In a CPS contract, the client is certain about all the details of the contract, the original price and the mark-up that should be paid back to the bank, in addition to the clarity of the deferred instalments, without any future changes. This means the client is not concerned about many other details, especially in connection with a fluctuating rate of interest influenced by very changeable market prices. The client can pay all the money back at any point without any kind of restriction or redemption fee being charged. He can pay higher instalments than the instalments agreed on, but of course not lower. This point is a very important difference between the CPS and conventional mortgage (Khanfar, 2009, p. 9).

The CPS is basically a sale contract which provides the buyer the benefit of a deferred payment, whereby the deferred price of the sale object carries an additional profit. The commodity exchanged is "delivered" immediately but the sale price (with profit) is paid in instalments, over a long period. The current CPS home

[5] Literally, this means a profitable sale and is also called *the al-Bay' Bithaman Ajil* meaning deferred payment sale (Thomas, 2001, p. 5).

[6] The words mean "leasing and acquisition" and it is variably called "leasing ending in ownership" (Thomas, 2001, p. 8).

financing, instead of charging the customer interest, financiers charge a profit derived through a buy-and-sell contract, but the profit rate is dependent on the market interest rate due to arbitrage activities. Therefore, while the CPS is practiced in some countries, it is, nonetheless, converging to the conventional mode where the computational formulas are similar to the conventional and where the profit rate tracks the market interest rate.

The current difference between the fixed-rate CPS and the conventional mode is that once the profit rate is fixed in the CPS, say at 7% per annum, it will remain the same for the entire duration of financing. This, in fact, causes problems for the financiers as it is difficult to estimate accurately the cost of funds and hence the appropriate profit rate over long periods like 20 years, due to the volatility of economic conditions. This encourages customers to refinance their home from CPS to conventional during low interest periods and vice versa (Meera and Razak, 2005, p. 4–5).

The CPS Home Purchase plan is based on the principle of trading or buying and selling goods at a profit Investment Banking Unit contracts with the vendor and pays the deposit required when the contracts are exchanged. The sale price from Investment Banking Unit to the client is the price paid by Investment Banking Unit to the vendor, plus the return Investment Banking Unit pays its investors, plus administrative expenses and a profit margin. The property after sale to the; buyer is registered in the buyers name and the buyer repays Investment Banking Unit fixed monthly installments.

The key features of CPS are described below (Tlemsani and Matthews, 2003, p. 7):

– Clients identify the property that wish to buy and agree the purchase price with the seller of the property in the normal way.

– The Investment Banking Unit will buy the property, and immediately sell it to the client at a higher price. This is calculated depending on the property value, payment terms (up to 15 years) and the amount of the first payment.

– When purchased, the property is registered in client's name. The sale between client and the bank is recorded in the CPS Contract.

– Clients first payment to the bank is made on the day of completion and is client's initial contribution is a minimum of 20% of the purchase price.

In a CPS based mortgage; firstly, customer find a property requests the bank to purchase it to sell it to him at cost plus a declared profit, and then the bank purchases the property directly and sells it to on the basis of a fixed mark-up-profit, finally, the customer agrees to pay the price in agreed upon easy installments.

Example of a CPS Financing

Assume that a customer wishes to buy a houses priced at €200, 000. The customer puts a down-payment of 10 percent, i.e. €20, 000 and finances the remaining 80 percent, i.e. €180, 000 using the CPS method. Also assume that the Annual Profit Rate (APR) charged by the bank is 10 percent per annum and the duration of financing is for 20 years. The bank would first buy the house for €180, 000 and then sell the house to the customer at a profit, with deferred payments over the 20-year period. The monthly payment for the above financing is €1,737.04[7], payable for 240 months which adds up to €416, 889.35 in total.

The difference between this figure and the original financing of €180,000 which equals €236, 889.35 is the total profit for the bank from this transaction. The profit of €236, 889.35 is capitalized upfront in the CPS mode, unlike under the conventional mortgage, where the interest due is not recognized until the elapse of time. One important difference of the CPS compared with the DPL and the conventional mortgage is that of the balance of financing remaining before the expiry of the duration of financing. For our example, the CPS balance after 10 years (i.e. after 120 payments) is the total of the remaining 120 payments, i.e. €208, 444.80 whereas under conventional mortgage, this amount would represent the total interest paid for the loan over the 20-year period. The bank, however, may give some rebate for the early repayment, but the amount of rebate is determined at the discretion of the bank. Note that even after ten years of repayment, the balance under the CPS mode can even exceed the original financing of €180,00014 (See, Meera and Razak, 2005, p. 7).

While both the bank and the conventional bank create the original principal amounts through fractional reserve banking system (i.e. loans given out do not really reduce the deposits of the depositors), a customer owes more money in the alternative mode than the conventional mode at any time thereafter until the 'loan' is settled. This fact alone is very attractive for even the conventional bankers to provide alternative mode financing (See Meera, 2004).

[7] Computed using the standard formula for present value of annuities (See, Meera and Razak, 2005, p. 7).

Lease

Lease is proving to be most popular method of house finance. This is because it is more flexible than cost plus sale if the client wishes to pay bank early or if the client wish to make additional, 'lump sum' payments.

The key features of lease are described below (Tlemsani and Matthews, 2003, p. 9):

– The client identifies the property that wish to buy and agree the purchase price with the seller in the normal way.

– The Investment Banking Unit will then sell the property to the client as detailed in an agreement titled 'Promise to Purchase' The purchase price between The Investment Banking Unit and client is the same price as the original purchase.

– At the same time Client will enter into a lease with The Investment Banking Unit which details client rights to occupy the property.

– The client pays The Investment Banking Unit monthly payment which is calculated so that part is applied towards the purchase of the property from The Investment Banking Unit and part of it is rent.

– The payments are fixed every 12 months, April to April. At the beginning of April each year, The Investment Banking Unit will reassess the rent and payments are likely to vary.

– Client may purchase the property from The Investment Banking Unit at any time by paying the bank the balance of the purchase price.

Two versions of the leasing house are *"lease to own"* and *"diminishing partnership and lease"* model.

Lease to own (LTO) model:

The key features of LTO model are described below (Tlemsani and Matthews, 2003, p. 8):

– Bank buys the property from the vendor.

– Customer enters into two contracts; Promise to purchase contract and Lease contract

– In the promise to purchase contract, clients purchase the property from the bank for the original purchase price spread over T years.

– In the lease contract, the lease contract deals with occupancy prior to completion of the purchase.

– Each monthly payment consists of rent and contribution to profit.

– The amount of the rent may be set annually and is normally aligned to the return required buy the banks investors.

The LTO is a mode in which the financial institution buys the house and the customer repays the money back in monthly instalments according to an agreed period in advance. During this arrangement, the client pays an agreed rent to the financial institution for occupying the house (Wilson, 2007, p. 10). Some of the writers refer to this mode as Lease-Purchase.

The Diminishing Partnership and lease (DPL) model:

DPL is a form of partnership in which one of the partner promises to buy the equity share of the other partner gradually until the title to the equity is completely transferred to him. Under DPL arrangement agreement is required; verbal or written; capital is contributed by both parties in cash or in kind; profit is shared as per agreement while loss is shared according to share in equity; cost of repair and maintenance, insurance etc are shared by both parties; one partner (financial institution) leases his share in asset to other (client) for a consideration. Contract of buying and selling of equity units between partners cannot be stipulated in diminishing partnership contract; price of units to be sold /purchased is fair value or else as agreed between parties but face value of units cannot be stipulated (Hanif and Hijazi, 2010, p. 4).

Under this contract, the parties agree in advance that one of them will own the shared asset gradually by paying the value of the other party's shares until the complete cost of transferring the title to the buyer is paid. In the case of the mortgage contract, the bank and the customer agree to enter into a partnership to share the same property but under two contracts: *Leasing to rent* contract and *partnership* with a period defined in advance. Here the client pays two kinds of instalments, one as a rent for the bank's share, the other to increase the client's share in the ownership, which diminishes the share of the bank until the client owns all the property at the end of the defined period (OICU–IOSCO, 2004, p. 11).

The DPL contract is based on two portions to the contract. First, the customer enters into a partnership under the concept of joint ownership agreement with the bank. Customer pays, for example, 10% as the initial share to co-own the house whilst the bank provides for the balance of 90%. The customer will then gradually redeem the financier's 90% share at an agreed portion periodically until the house is fully owned by the customer. Second, the bank leases its share (90%) in the house ownership to the customer under the concept of lease, i.e. by charging rent; and the customer agrees to pay the rental to the bank for using its share of the property. The periodic rental amounts will be jointly shared between the customer and the bank according to the percentage share holding at the particular

times which keeps changing as the customer redeems the financier's share. The customer's share ratio would increase after each rental payment due to the periodic redemption until eventually fully owned by the customer (Meera and Razak, 2005, p. 8–9).

The key features of DPL model are the financier and the client to participate in the joint ownership of a property and the share of financier is divided into a number of units. The client can purchase those units periodically (Tlemsani and Matthews, 2003, p. 8).

Example of a DPL Financing

Consider the same example as for the CPS concept where a customer wishes to buy a house priced at €200,000. Let's assume again that the customer pays 10 percent of the price, i.e. €20,000, the financier puts the remaining 80 percent, i.e. €180,000 and that the average rental for similar homes in the locality is agreed upon between the two parties to be €1,000 per month. In addition, the customer wishes to add another €289.58 monthly[8] in order to redeem the financier's share in 20 years. This gives the total monthly payment as €1,289.58. Table 1 below provides the schedule for the DPL contract:

Month	Monthly Rent (€)	Monthly Redemption	Total Payment	Customer's ratio	Rental Division		Customer's Equity	Financier's Equity	Financier's Cashflow
					Customer	Financier			
	A	B	C=A+B	D	E	F	G	H	
0				0.10000			20,000.00	180,000	(180,000
1	1,000	289.58	1,289.58	0.10195	100.00	900.00	20,389.58	179,610.4	1,289.58
2	1,000	289.58	1,289.58	0.10391	101.95 *	898.05	20,781.11	179,218.9	1,289.58
3	1,000	289.58	1,289.58	0.10587	103.91*	896.09	21,174.59	178,825.4	1,289.58
4	1,000	289.58	1,289.58	0.10785	105.87	894.13	21,570.05	178,430.0	1,289.58
5	1,000	289.58	1,289.58	0.10984	107.85	892.15	21,967.48	178,032.5	1,289.58
6	1,000	289.58	1,289.58	0.11183	109.84	890.16	22,366.89	177,633.1	1,289.58
.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.
240	1,000	289.58	1,289.58	1.00000	993.59	6.41	200,000	0	1,289.58

Total = €309, 499.20 IRR = 6%

Rental Distribution i.e. E-2 (Customer's) = 20,389.58 X $\frac{1,000}{200,000}$ = € 101.95*; F – 2 (Bank's) € 898.05

G-1 Customer's Equity = € 20,000 + € 289.58 + € 100 = € 20,389.58

H-1 Bank's Equity = € 200,000 – € 20,389.60 = € 179,610.40

Table 1. Payments Schedule for DPL
(Meera and Razak, 2005: 10)

Notice that while the amount to be paid monthly was €1737.04 under the CPS concept, the monthly amount needed under DPL is only €1, 289.58. Therefore, the customer saves €447.46 monthly but acquires the home also in 20 years. Indeed, if the customer pays €1, 737.04 for the DPL mode as in the CPS, then the customer can own the home in 12 years 3 months, i.e. saving about 8 years of monthly payments. Table 2 below provides a comparison for financing the home using the conventional, CPS and DPL methods.

[8] Mathematical derivations for DPL are used to obtain this amount of €289.58 (See, Meera and Razak, 2005: 24-27).

Price of house = €200,000 Customer puts = €20,000 Financier provide = €180,000 Monthly Rental = €1,000			
	APR = 10%	APR = 10%	APR = 6 %
	Conventional Loan	**CPS**	**DPL**
Monthly payment	1737.04	1737.04	1289.58
Total Payment in 20 years	416,889.60	416,889.60	309,499.20
Total Interest/ Profit to Bank	236,889.60	236,889.60	129,499.20
APR	10%	10%	6%
Balance after 10 years	131,443.76	208,444.68	116,156.56

Table 2. Comparison between Conventional Loan, CPS and DPL
(Meera and Razak, 2005: 11)

From Table 2, it is obvious that so long the annual percentage rates (APRs) are the same the total interest in the conventional equals the total profit in the CPS. But when customer wants to settle the financing earlier, say after 10 years, the loan balance under the CPS is always higher than under the conventional loan. The balance under the conventional is much lower because here the balance is the present value of the remaining 120 payments whereas under the CPS it is simply the monthly payment times 120 (i.e. under CPS the total profit for the twenty years is capitalized upfront). Nonetheless, the bank may give a rebate for early settlement which is decided at its discretion. Nevertheless, the total payments and loan balances are lowest in the DPL among the three financing methods.

The mathematical derivation for DPL in the Appendix shows that the return to the DPL is solely determined by the rental rate, which in this case is 0.5% per month (accordingly the APR is 6%)[9]. Interestingly, this return to the financier is neither determined by the initial capital provided by the financier nor the duration of the contract which is usual under debt financing. The return is solely but determined by the rental alone as a percentage of the house price. Such as the case, financiers of DPL would be tempted to finance only homes with high rental rates, whereas it would be in the interest of the customers to negotiate for low rentals. If, in our example, the rental rate for the DPL equals an APR of 10 percent (i.e. where the rental is €1, 666.67 per month) then, indeed, the 'amortization' schedule for all the three methods will be the same (though they differ conceptually). But one important difference would still remain, i.e. the balance of financing before expiry of the contract. The balance under the conventional loan and DPL would be the same while the balance under CPS would still be higher. This is because the conventional and diminishing partnership and lease methods follow a diminishing balance schedule. Therefore, the balance under conventional and DPL can never exceed the financiers original contribution, but under the CPS it can[10] (Meera and Razak, 2005, p. 10–12).

The Differences between the CPS and the DPL Contracts

In summary, the main differences between the joint ownership DPL and debt-type CPS financing are as follows (Meera and Razak, 2005, p. 17–18):

– There are two separate contracts under the DPL method. The first is a partnership where the client is a partner and the second one is a rental which involves the leasing of the property. The CPS, on the contrary, follows the cost plus concept of buying and selling of property.

– Under CPS, the selling price of the house does not reflect the market value since the mark-up for the deferred payment is quite substantial. On the contrary, the value of the house under DPL always reflects the market price and the rental is determined by the market rental values.

– The return to the CPS is based on a fixed selling price (that uses the prevailing interest rate as the benchmark). But under DPL, the financer need not be tied to a fixed profit rate throughout the financing tenor. This is because the rental rate can be revised periodically to reflect current market conditions. Indeed, as argued earlier, the rental can be tied to some economic variables like Rental Index, House Price Index etc.

[9] The annual percentage rate (APR) in the DPL is determined by the rental rate, i.e. the annual rent divided by the original price of the house. In the example, it is (€1,000 x 12)/200,000 x 100% = 6% (See, Meera and Razak, 2005, p. 24-27).

[10] As in the above example where after 10 years of payments, the balance under CPS is €208,444.68 which exceeds the original amount of €180,000.

– The financier can manage the liquidity risks better as rental payments can be adjusted at the end of each subcontract period. This is not possible under the 17current fixed-rate CPS as the profit rate is a constant throughout the entire tenor of financing.
– Even compared with a floating-rate CPS, the DPL still differs in the balance of financing at any point in time before the end of the contract. Under DPL the balance can never be larger than the original price/finance of the house. Rebates for early redemption under CPS cannot be specifically stated in the contract.
– The DPL is a more flexible financing structure than the CPS as the customer can own the property earlier by redeeming faster the principal sum of the financier, without the need to compute rebates as in CPS.
– In the event of payment defaults, the penalty charges under CPS can be challenged, while under DPL, defaults will cause the equity of financier to remain constant and therefore entitled to higher rental portions when payments made later.
– Currently many customers opine that the CPS is similar to the conventional loan with some "disadvantages" for the customer particularly for early redemptions.
The DPL is accepted internationally whereas the CPS is recognized predominantly in the east, i.e. in Malaysia, Indonesia, Brunei etc.

Conventional and Alternative Home Financing Models Comparison

In the case of basic home financing, alternative products under the CPS structure, which is deferred payment sale, might offer more competitive deals than conventional banking. In comparing the two models, an ordinary conventional housing loan is based on debtor-creditor relationship and the interest rate charged is based on a certain percentage above the base lending rate over loan period. Fluctuation in the base lending rate will affect total loan cost. Simultaneously, arrears in conventional loans are normally capitalized. However, under the CPS scheme, a seller-buyer relationship is established and the selling price is fixed upfront. The sale price is then repaid in installments, with the amount remaining fixed throughout the financing period. This eliminates the customer's interest rate risk and furthermore, arrears will not be capitalized. The CPS scheme eliminates additional or hidden costs that will change the price of the property purchased — providing clients with a better value-for-money option compared to conventional home financing (Islamic Finance, 2008, p. 34).

Under conventional financial system, interest is charged which is determined on the basis of demand and supply of the capital while under alternative financial system rent of the property is charged, determined through demand and supply of real asset. As conventional banks do not own the underlying asset, hence sharing of risk and reward of property is not required while alternative housing finance institutions (AHFIs) are co owner of the property and share risk and rewards attached with ownership. Return for conventional home financing model starts from the date of loan extension facility which is not the case in AHFIs. Under DPL model return is due when the property is ready for use either through acquisition or through construction. Conventional banks are not required to share any loss occurred to the underlying property while AHFIs being co owner will share any damage occurred to the house. Conventional banks will continuously receive the installments (containing interest & principal) even if property is not use able and needs some repair. During the repair period AHFIs cannot receive the rent. Return of conventional banks is fixed as interest while AHFIs will receive rentals as well as shares any appreciation (depreciation) (Hanif and Hijazi, 2010, p. 6).

CONVENTIONAL HOME FINANCE	*ALTERNATIVE HOME FINANCING*
The lender advances funds to the borrower and charges [interest] for the use of their money.	Based on trade (cost plus sale) and leasing, alternative home financing models are interest free.
Credit references, sources of income to be able to retune the loan before 65 birthdays.	Credit references, sources of income to be able to retune the loan before retirement age.
Most of the lender has no lower limit to the property value.	Minimum property value £50,000.
Up to 125% of the property value.	Up to 80% of the property value
Life insurance and building are mandatory in most cases.	There is no compulsory life and building insurance are required.
Lender never owns the property.	The bank puts itself in the position of owner of the property. Higher risks.
Payment term up to 40 years.	Cost plus sale up to 15 years minimum 5 years Lease up to 25 years minimum 7.5 years
Income Multiples Up to 5 times primary annual income sole applicant.	Cost plus sale 2.5 times primary annual income Lease 3 times primary annual income sole applicant
Arrangement fee usually up to £500.	Arrangement fee of 0.75% of the property value less the first payment.

Table 3. A Comparison between Conventional and Alternative Home Financing
(Tlemsani and Matthews, 2003, p. 12)

For example the price is £ 100,000.00 the banks require 10% deposit if the bank agrees to give a 30-year mortgage of £90,000, at an annual interest rate of 8%, the monthly payments would be £660.39. Each payment will consist partly of interest due and partly the repayment of principal. The buyer will make 360 monthly payments, which add up to a total of £237,740.40 paid to the bank accruing £147,740.40 interest to the bank.

Payment Number	Monthly Payment	Interest	Principal	Balance after Payment
1	£ 660.39	£ 660.00	£ 60.39	£ 89,939.61
2	£ 660.39	£ 599.60	£ 60.79	£ 89,878.82
3	£ 660.39	£ 599.19	£ 61.20	£ 89,817.62
….				
120	£ 660.39	£ 527.13	£133.16	£ 78,951.84
….				
240	£ 660.39	£ 384.83	£ 295.56	£ 54,428.98
….				
359	£ 660.39	£ 8.70	£ 651.69	£ 653.09
360	£ 660.39	£ 7.30	£ 653.09	£ 0.00
Total	£ 237,740.40	£ 147,740.40	£90,000.00	

Table 4. Amortization schedule for a 30 year conventional housing finance at 8% interest: £ 90,000 principal
(Tlemsani and Matthews, 2003, p. 13)

Just as in the conventional arrangement, the coop bank will require some down payment. That will be client initial equity share. Let's assume client make the same down payment of 10 %, or £10,000. The coop bank puts up the remaining £90,000.

Now client and the bank are co-owners. If client occupy the house, client will be required to pay rent to the owners. But client are also allowed to increase his/her ownership share at any time by making additional payments to the coop bank, in effect, buying out the bank's interest in the house. As client do so, his/her proportionate share increases while the coop bank's share decreases and the distribution of the rent payments will change accordingly.
Let's compare this arrangement with the conventional mortgage in the example given above. The big question, of course, is what is a fair amount for the monthly rent? It might be reasonable to assume that it is equal to the monthly payments client would have made under the conventional mortgage arrangement, in this case, £660.39. At the outset,

client will receive 10% of that rent as his/her ownership share and the bank will receive 90 percent, Let also assume that client apply his/her share of the rental payments to increasing his/her share of the ownership.

Payment Number	Payment Amount £	Client Share £	Bank's Share £	Client Equity £	Client Equity %	Bank's Equity £	Bank Equity %
1	660.39	60.04	594.35	10,066.04	10.07	89,933.96	89.93
2	660.39	60.48	593.91	10,132.52	10.13	89,867.48	89.87
3	660.39	66.91	593.48	10,199.43	10.20	89,800.57	89.80
…							
24	660.39	76.83	583.56	11,711.34	11.71	88,288.66	88.29
….							
120	660.39	144.54	515.85	22,030.94	22.03	77,969.06	77.97
…							
240	660.39	318.43	341.96	48,536.24	48.54	51,463.76	51.46
…							
359	660.39	652.52	7.87	99,461.37	99.46	538.63	0.54
360	660.39	538.63	3.56	100,000.00	100.00	0.00	0.00
Total	231,018.30						

Note: (With Rent Equal to Conventional 8%, 30 Year Monthly Payment Owner's share applied to repurchase: No additional principal Payments

Table 5. Diminishing Partnership and Lease Model
(Tlemsani and Matthews, 2003, p. 15)

Table 5 is an abridged amortization table which shows the respective returns to client and the coop bank. Under this arrangement, client will own 100% of the property after making the 350th payment. Client will have paid total rent of £231,018.30. The bank's total share will have been £141,018.30. This is a saving of more than £6,000.00 or 4.1% over the amount of interest paid on the conventional home finance.

The Practices of Alternative House Financing In the World

Alternative house financing models in Germany are equity based *diminishing partnership and lease (DPL),* debt based *DPL, CPS* and adjusting *CPS*. Ansar Finance, Manchester operates equity based *DPL* concept.
Equity based mode is no debt, but possibly longer purchasing period and less prone to asset price bubbles. *Debt based modes* could have identical cash flow. In CPS, if the sale is void, so is the financing – one contract; contrary to credit to be repaid because fraud is only with property not with loan. There is no penalty interest if default is due to difficulties (Kennedy and Gassner, 2009: 5–9).

The practices of alternative house financing have been fortunate in getting legal obstacles removed so that they are applicable under English law. This has been intended to facilitate the needs of consumers so that they can have an alternative mortgage with equal safeguards to those available under existing FSA mortgage regulation. The British government confirmed its positive standpoint by releasing the necessary regulations which allowed the Islamic mortgagees to be treated in the same way as the mortgagees of conventional mortgage modes (Solé, 2007, p. 17). Based on that, the alternative mode of mortgage has become more available and more widely accessible (Russell, 2004, p. 13).

The Islamic Investment Banking Unit of the United Bank of Kuwait (UBK) in London has been offering alternative house financing since 1997. The products are *CPS Home Purchase Plan*[11] and *Lease Home Purchase Plan*[12]. Al Baraka Bank's the operations were similar to DPL model. The bank and its client would sign a contract to purchase the house jointly, the ownership share being determined by the financial contribution of each of the parties. The bank would expect a fixed predetermined profit for the period of the mortgage. The client makes either monthly or quarterly repayments over a 10-20 year period, which covered the advance plus profit share. There was some

[11] This program is named Manzil Murabaha.
[12] This program is named Manzil Ijara.

debate if the profit share could be calculated in relation to the market value of the property, but this was rejected as frequent revaluation of the property would be expensive and administratively complicated. Furthermore, given the fluctuating prices in the London property market, there would be considerable risk for the bank (Tlemsani and Matthews, 2003, p. 6–9).

The British government has realised the significance of the growth of alternative types of finance in the UK, especially the mortgage. Some writers consider that the cancellation of double stamp duty has supported the promotion of the Islamic market mortgage expansion (Alam, 2004, p. 2). Besides that the government also permitted the mode of *lease to own* to be used for asset finance, as well as the CPS; the latter became included in the definition of a regulated mortgage and is now covered by FSA mortgage regulation. This also happened with the mode of the diminishing partnership when the government included this mode as part of the concept of alternative finance arrangements instead of standard loans within the Finance Act 2006 (HM Treasury, 2007, p. 9).Co-operative Housing Corporation, Canada uses the *LTO model*. MSI housing Fund Houston, Texas [USA] applies the *DPL model* (Tlemsani and Matthews, 2003).

Participation Banks in Turkey

Participation banks are an indispensable and complementary element of the financial system in Turkey. They operate under the Banking Act, regulated and supervised by the Banking Regulation and Supervision Agency–BDDK (Büyükdeniz, 2006).

Participation banks provide not only classical banking activities but also some more, as leasing, insurance, barter in financial sector. Participation banks perform almost all operations of classical banks in various methods, without any confliction on their principals. The objective of this typical banking is to bring in, the idle capital of interest sensitive people in to national economy, under the interest free banking principals. While performing classical banking operations, not interest but profit-loss participation investment method made this banking type to be called as interest free banking in literature. These institutions perform almost all banking services in different methods. Nevertheless, they do not do such operations depending to interest. This creates a complementary issue between banks and participation banks. Besides, they are such institute which increases the financial deepening and diversification (Özulucan and Deran, 2009, p. 85).

Turkish Participation Banks's Home Financing Methods

Turkish participation banks's home financing methods are *decreasing installments* model, *real estate consumer price index leasing* model and *home loan*.

Decreasing installments model in home financing is based on applying different monthly profit rate for every year during financing. Monthly profit rate is same for each twelve months. Next years' monthly profit rate will be less than that of previous years'. At the beginning of home financing, the monthly profit rates are already determined. The monthly profit rates **to be apply** are (http://www.kuveytturk.com.tr);

	1st Year	2nd Year	3rd Year	4th Year	5th Year	6th Year	7th Year	8th Year	9th Year	10th Year	Annual Cost Ratio
120 months installments	1.19%	1.15%	1.14%	1.05%	1.04%	0.95%	0.89%	0.84%	0.79%	0.74%	13.46%
60 months installments	1.04%	0.99%	0.95%	0.89%	0.84%						12.61%

Table 6. Decreasing installments model

For each 12 months installments, monthly profit rates shown above are applied.

Unlike other fixed price installment term Turkish Lira leasing transactions, a *consumer price indexed real estate leasing* product is a new leasing product where leasing installments can be indexed to inflation through the Consumer Price Index (CPI) rate announced by the Turkish Statistical Institute on the 3rd day of every month and vary according to economic conditions. Thanks to this payment system, with the increase in installments indexed to CPI, not changing throughout the year, and installments up to 10 years, in an environment of falling inflation client will be able to own a home as if client was paying rent. In fact, under this payment system, with the change in the

CPI index for the past year, client will be able to calculate his/her installments for the following year (http://www.kuveytturk.com.tr).
Home loan is a transaction where the Bank purchases the real property required by the customer and then resells it thereto by adding a profit according to the required term. Home loan includes (http://www.turkiyefinans.com.tr/en/retail_banking/personal_loans);
– *Discounted Home Finance:* With discounted home finance, customer can reduce the profit share on his/her loan and thus greatly reduces his/her monthly installment payments by paying an amount in 1% to 10% of his/her loan at the beginning.
– *Home Finance with increasing installments*: If customer wishes to pay his/her installments at lower amounts at the beginning and then increases them gradually.
– *Home Finance with decreasing installments*: If customer wishes to reduce, his/her installment amounts in the next period and then pays a higher installment at the start
– *Flexible Payment Home Finance:* Under Flexible Payment Home Finance, customer can make regular extra payments at every 3, 6 or 12 months at his/her option or lower his/her monthly installment by adding an interim payment to any month of his/her choice.
– *Deferrable Home Finance:* With Deferrable Home Finance, customer can defer his/her loan up to 3 months from the start of its term and starts his/her payments in the next period. Therefore, customer can more easily meet other costs of his/her house during such deferment period.

Conclusion

A home is basic necessity, it consumes a large chunk of peoples' income for long periods. In the present interest-based system, owning a home is increasingly becoming burdensome. Mortgages are one of the significant causes of bankruptcies. While price of homes keep rising, the mortgage duration also keep rising, till two-generation mortgages are even being talked about.

The practices of alternative housing finance are concerned with issues of sustainable rather than efficiency. These practices focus on the necessity of sharing risk in a fair and stable society, and upon problems of exploitation in markets where power is asymmetric, this is the real interest issue.

In this study, the case analyses shows that the principles differences between alternative and conventional housing finance is that the former is equity based and the latter is debit based. In an alternative home financing situation, both the bank and the client share ownership [equity] and therefore share the risk of equity ownership. In conventional banking, the client owns all the equity and the banks loan to the client is secured on the value of the property.

The essence of alternative house finance system is sharing; sharing of risks and rewards by both parties. Alternative housing finance is unique and unmatched with traditional mortgages. Internal rate of return cannot be determined in advance. It is true DPL, which demands the sharing of risk and reward by both partners. Under alternative home finance, financier is earning more as compare to conventional banking (in case of appreciation) but after capacity building of customer, while under conventional financial system return is fixed which put the client in trouble in early years and prosperity in following years if property value appraises and vice versa.

This paper made a comparative analysis between the CPS and DPL contracts as means for home ownership. This paper attempted to argue in favour of the DPL as a better alternative to the conventional mortgage and the CPS. The CPS is a contract that is based on a buy-and-sell principle while the diminishing partnership consists of a partnership contract and a rental contract where the equity of the financier follows a diminishing balance method.

The paper concludes that the DPL has several advantages over the CPS for the customer. It can be made to avoid interest totally and can reduce the cost of homes and the duration of financing. The balance of finance, at any point in time, never exceeds the original price of the asset, unlike under the CPS where it can.

When a home is purchased from a developer and financed using the present conventional or CPS, the customer would end up paying about four times the original cost (both the developer and the bank are assumed to make a gross 100 percent mark-up). This, undoubtedly, can burden particularly the low income group. DPL allows people to own homes with limited initial capital. In doing so, it promotes the welfare of the people.

The DPL is less attractive to the banker compared to the CPS. For that matter, a viable avenue to implement the DPL is through a cooperative setting. When implemented through cooperatives, the DPL can also provide an investment avenue for members while substantially reducing the price of house and the duration of financing. The concept has a positive impact on the economy and reduces inflation as no additional money is created in the system compared to debt-financing, as currently done under the fractional reserve banking system.

The DPL is just and fair compared to the conventional loan and the CPS as there is no interest charge or 'advanced' profit involved in the DPL contract. It is purely based on rental payments of property and the redeeming of the financier's shares.

As a benchmark, the paper suggested the use of a Rental Index or House Price Index in determining the rental to be charged for each specified rental contract period.

The DPL concept is a viable alternative to the conventional floating rate financing since the rental rate can be adjusted if there are fluctuations in the economy. Hence, it is more flexible, wherein the Turkish Participation banks will not be faced with too many uncertainties due to variations in economic conditions.

As for the society, the DPL brings stability into the economy by promoting positive partnership instead of negative indebtedness thus assisting in the equitable distribution of society's wealth; minimizing the large number of debt defaults and bankruptcies that are observed in the current financial system.

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