## Impact of Inflation on Mudarabah Profits: Some Observations

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ABSTRACT. The depreciation of currency and its use as unit of account jeopardises the ability of *mudarabah* (profit sharing) to do justice to the *rabb-al-mal* (capital owner) and it results in transfer of most of the gains (real) and in some cases even part of the capital to the *mudarib* (entrepreneur). In addition to moral hazards, it is an important cause of non prevalence of profit sharing mode of finance. It adversely affects *musharakah* and it has reduced the availability of *qard hasan* to almost nil. The viability of these modes of finance is vital for ensuring the full utilisation of Islamic finance. If *mudarabah* contract is modified so that it provides for sharing of real profit in agreed proportions (instead of nominal profits), inflation would not affect profit sharing and both *mudarib* (entrepreneur) and *rabb-al-mal* share real profit in agreed proportion.

## The Problem

The mudarabah is a highly favored Islamic mode of finance and it has been under discussion from the very beginning. The renowned Islamic economist Dr. M.N. Siddiqi authored the book entitled 'Shirkat awr Muzarbat ke Sharaie Usool', in 1968. His work entitled 'Issues in Islamic Banking' in 1983, devotes one full chapter to 'Economics of Profit Sharing'. Dr. M.U. Chapra (1985, 2002) has also discussed mudarabah as well as inflation. Almost anyone who discusses Islamic banking or Islamic finance considers it. However, the perusal of the literature of contemporary Islamic economics shows that the effect of inflation on the share of profits (real) accruing to rabb-al-mal (capital owner) has not been properly studied and it seems that without any analysis, it has been assumed that inflation does not produce any significant effect. For example, A.L.M. Abdul Ghafoor (2000) writes, 'The analysis in the book has shown that the action necessary to counteract the effect of inflation is limited to only three areas: time deposits, medium and long term loans and government bonds, all other areas of commercial banking can continue as at present.' Muhammad Anwar (1987) did consider the effect of inflation but due to miscalculation wrongly held, 'ceteris paribus interest free contract yields the real rate of return to both the entrepreneurs and financiers desired at the time of contract, regardless of inflation.'

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This writer is not aware of any serious study in the literature of Islamic economics in this regard. The use of paper currency as a unit of account in the presence of depreciation counts as a part of capital (ras al-mal) itself as profit. It may be explained with the help of an example that represents a common mudarabah based activity. Suppose, the input made when business was started was 10 units, business came to completion after two years and the during running of the business, the average price level has increased 25% with respect to the paper currency that is used as unit of account. Assume that output on completion of the business was 14 units and rabb-al-mal and entrepreneur have agreed to share the profit equally. In terms of the depreciating paper currency we have the following results:

- (1) Profit = 4 units that gives rate of profit as, 20% per annum.
- (2) *Mudarib* 's share in profit = 2 units that is 10% per annum.
- (3) Rabb-al-mal's share in profit = 2 units i.e., 10% per annum
- (4) Total amount received by the *rabb-al-mal* = *ras al-mal* (10 units) + his share in profit (2 units) = 12 units.
- (5) Total profit to *rabb-al-mal* in real terms = (12/1.25 = 9.6) 10 = -0.4 units. Minus sign shows that in real terms *rabb-al-mal* has suffered a loss.

In case stable unit is used as unit of account and real profit is equally shared, we get:

- (1) Input = 10 units
- (2) Out put = 14/1.25 = 11.2 units.
- (3) Profit = 1.2 unit.
- (4) Entrepreneur's (mudarib) share in profit = 0.6 unit
- (5) Rabb-al-mal's share in profit = 0.6 unit.
- (6) Total amount received by the financier in real terms = 10.6 units.
- (7) Total profit to creditor *rabb-al-mal* in real terms =10.6 10 = 0.6 units.

Thus, when depreciating currency is used as unit of account:

- (1) While in nominal terms *rabb-al-mal* has earned a profit of 10% per annum, in real terms he has suffered an over all loss of 4%.
- (2) Mudarib earned a profit of 10% even in real terms.
- (3) Considering that in real terms the *mudarib* earned more profit than the total profit (real) produced by the business it has to be held that not only the profit but also a share of the capital itself got accounted as *mudarib*'s share of profit.

We considered an example that represents a normal business in an inflationary environment Similarly we can consider other cases by varying rate of profit as well as rate of inflation. Effect of inflation on profit sharing on a *mudarabah* based business for many other probable cases is presented in the following Table:

TABLE No.1

Rate of inflation	Rate of profit		Sharing of nominal profit		Sharing of real profit	
			Rate of profit (real) accruing to			
	Nominal	Real	Rabb-al-Mal	Mudarib	Rabb-al-Mal	Mudarib
Nil	2%		1%	1%	1%	1%
	4%		2%	2%	2%	2%
	6%		3%	3%	3%	3%
5% .	6%		-2%	3%		
		1%			0.5%	0.5%
	9%		-0.5%	4.5%		
		4%			2%	2%
	12%		1%	6%		
		7%			3.5%	3.5%
10%	8%		-6%	4%		
		-2%			-2%	Nil
	13%		-3.5%	6.5%		
		3%			1.5%	1.5%
	18%		-1%	9%		
		8%			4%	4%
15%	12%		-9%	6%		
		-3%			-3%	Nil
	17%	•	-6.5%	8.5%		
		2%			1%	1%
	20%		-5%	10%		
		5%			2.5%	2.5%

Data tabulated above clearly show that use of paper currency as unit of account under inflationary situations leads to very unjust and impracticable distribution of profit (real) between *rabb-al-mal* and *mudarib* where *rabb-al-mal* is normally a loser even if *mudarib* makes significant profits. We have not considered business with higher rates of return because normally entrepreneurs do not seek *mudarabah* based finance for highly profitable businesses. This problem can be addressed by considering a lower share of profit for the *rabb-al-mal*. However, if lower profit sharing ratio is considered, increase in the rate of return will not be much effective in doing justice to the *rabb-al-mal*.

It may be of interest to consider the effect of inflation generally. The following Table lists mathematical expressions that give the real profits accruing to the *rabb-al-mal* and *mudarib* generally.

TABLE No. 2

System	Type of profit sharing	Real rate of profit accruing to		
		Rabb-al-Mal	Mudarib	
Mudarabah	Sharing Nominal profit	$\alpha (P + b) - b$	$(1-\alpha) (P + b)$	
Based business	Sharing real profit	αρ	(1-α)p	
Interest	Creditor charges interest	r - b	P - r + h	
Based	and balance accrues to	1 - 0	1-110	
business	entrepreneur			

Where r is rate of interest, b is rate of inflation, P is real rate of profit, and  $\alpha$  is the share of profit accruing to *rabb-al-mal*.

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It is seen that in case the real profits are shared, the inflation has no effect on the profit sharing and *rabb-al-mal* and *mudarib* share real profit exactly as they would have shared it in absence of inflation.

Effect of inflation in case of interest based business is included for comparison. It can be argued that in the interest based finance, creditors suffer more loss due to inflation than the loss suffered by *rabb-al-mal* in *mudarabah*. However, in practice and in case of interest based business rate of interest includes expected rate of inflation while profit sharing in *mudarabah* is normally not based on any consideration of expected rate of inflation.

Considering that *rabb-al-mal* understands that despite business making profit he suffers losses (in real terms) normally no *rabb-al-mal* will like to provide capital for *mudarabah* based business. Thus, use of depreciating paper currency as a unit of account turns *mudarabah* into an unjust and impractical business practice. Clearly this adverse division of profits is a very important cause of failure of Islamic banks and other Shari'ah compliant creditors to finance businesses on the basis of *mudarabah*. It is also seen that use of a stable unit of account that will result in sharing of real profits makes *mudarabah* a very just and equitable mode of finance.

## **Solution**

While the data (Table No. 2) under the head "sharing the nominal profit" demonstrate the severity of the problem, the data under the head "sharing the real profit" suggest the solution. Clearly the solution is that while formulating the contract, the *rabb-al-mal* and the *mudarib* should agree to share the real profits in mutually agreed proportions. From the Table that lists mathmetical expression for the real profit earned by the *rabb-al-mal* and the *mudarib* generally we see that in case of profit-sharing agreement that stipulates sharing of real profit inflation does not have any effect on the sharing of profits.

While any measure of inflation may be considered appropriate, the best is to use the most reliable measure. As regards the Shariah perspective, the gold standard, the silver standard or a standard based on equal weighing for gold and silver may be considered best. However, wealth represented by a basket of amwal ribawiyah (commodities mentioned in the hadith of riba al-fadl and the like) is Shariah compliant. Considering that non use of gold and silver as currency and restrictions against its holding in most of the countries, has neutralised much of the superiority of gold as a stable measure of wealth, a basket of anwal ribawiyah consisting of gold, silver, one major agricultural produce and one major mineral may constitute the best choice. Whole Sale Price Index (WPI) and Consumer Price Index (CPI) do not constitute very good measures of inflation. Nor do the Special Drawing Rights (SDRs) constitute very good measures of inflation because major economic events (e.g., global recession) tend to effect the currencies comprising the SDR in the same way and thus, it may not provide the desired level of stability. The author has discussed reliability as measure of wealth in his paper 'Problems created by fiat money, gold Dinar and other alternatives' (2002). The highest level of reliability is achieved when currency linked with a properly selected basket of amwal ribawiyah, is used as unit of account.

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