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## The Rate of Return from the Basseri's Livestock Investment

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### Abstract:

Surrounding villagers give agricultural products to the nomadic herders in south Persia to sustain them during a very lucrative investment process in raising sheep. However, this livestock herding activity is not as lucrative as it might first appear, once labour costs and risks of losing some of the herd are incorporated.

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In his study of the Basseri tribe, Fredrik Barth (1961; 1964) presents an interesting analysis of nomadic life in south Persia. By considering the ecological and sociological constraints, Barth generates a remarkably consistent set of behaviour. However, one point remains unclear. The villagers give the Basseri agricultural products to sustain the nomadic herders during a very lucrative investment process in raising sheep. When the returns from these livestock investments are realised, the Basseri are allowed to repay their debts at little, if any, interest (1961: 98-100). One is left to ponder why the villagers do not strive to reap more of the Basseri's returns by charging higher interest rates.

Three alternative explanations can be advanced. First, the villagers do not want to push for higher interest rates, in specific, or higher profits, in general. In keeping with Barth's theoretical approach, it might be suggested that sociological constraints forbid such behaviour. However, Barth, who throughout the study has carefully delineated any constraints that might be operative, does not give any indication that such profit-seeking behaviour is outside the realm of choice. He does suggest that the village traders may fear that high interest charges will cause default on the repayments (1961: 99). This would be more convincing if the rates of return for the Basseri were not as large as they appear to be. Second, the price that the villagers charge the Basseri disguises implicit interest charges. In this case, high Basseri profits are transferred into high yields for the villagers, too. This point may well have some validity, but we cannot assess its significance with the data or observations from Barth's study. And third, the rate of return from the investment in livestock may not be as high as it at first appears. The remainder of this article focuses on the third explanation and questions the high rate of return concept. In the process, it is hoped that a simplified procedure for calculating investment returns will be made more accessible.

Drawing upon communal grazing rights and the private ownership of animals, the Basseri allocate much of their time towards raising sheep. Monetary returns are reaped through the sale of wool, clarified butter, and lambskins. To maintain their capital stock, the Basseri must refrain from selling some lambskins in order to replace dead animals (obsolescent capital). The production process also yields lamb's meat, buttermilk, and curds, which are consumed by the household. In addition, many of the Basseri's consumption needs during the investment process are supplied by the village traders through the exchange relationships mentioned above.

Barth's figures on the value of products resulting from herding and the price that each animal brings on the market indicate that the rate of return appears to be high. An animal worth 80 Tomans in the market annually produces 60 T. worth of products (20 T. attributable to wool, 25 T. to clarified butter, and 15 T. to the lamb's skin) (1961: 17). Because Barth presents the data on a yearly basis, I too shall conduct the estimation as if the costs incurred during the year bring returns to the herder for that particular year only.<sup>1</sup> if we define the rate of return as that rate which equalises the cost and return streams for each year, we have:

$$r = R/C = 60 \text{ T.} / 80 \text{ T.} = 75\%$$

However, this rough approximation should be corrected for the presence of rams and billygoats in the herd and also for the replacement of dead animals. Barth says that such corrections should be 10 and 15 per cent. respectively. Hence, given the 10 per cent. probability that a member of the herd is a billygoat or a ram and will yield no marketable produce, the expected return from one animal will be:

$$0.90 \times 60 \text{ T.} = 54.00 \text{ T.}$$

From this must be subtracted 15 per cent. of the return attributable to lambskins for the replenishment of the herd, or

$$0.15 \times 15 T. = 2.25 T.$$

The corrected rate of return, which is still quite high, becomes:

$$\frac{51.75 T.}{80.00 T.} = 64.7\%$$

This concurs with Barth's statement that 'a flock of 100 head should give a total product per annum of more than 5,000 T. value at 1958 prices' (1961: 17).

To leave the investment calculations at this stage would be grossly to overestimate the rate of return. Two important corrections must be made for labour costs and risk.

A household must incur the labour costs of herding, which is usually done by one's family. According to Barth, a Basseri family of six needs to purchase agricultural goods valued in excess of 3,000 T. in order to maintain a normal standard of living (1961: 17). One might argue that the labour costs would be overstated if the returns above, times the number of sheep, were reduced by 3,000 T. All Basseri activities do not involve herding. However, being the only suitable number supplied by Barth, this figure is used to reflect the opportunity cost of herding. Barth's description suggests that the nomadic life centres around herding. The minimum cost of such a way of life can be considered as an expenditure necessary to maintain the investment process, much as a farmer investing in land must pay for his subsistence. I suggest that the errors of overstatement of costs in this assumption are considerably less serious than the errors of understatement concomitant with neglecting labour costs entirely. For a herd of 100 head, this assumption reduces the rate of return from 64.7 per cent. to:

$$\frac{5175 T. - 3000 T.}{8000 T.} = 27.2\%$$

Risk is another important element in the Basseri investment process. Although average losses reach 50 per cent. in bad years (1961: 7), Barth does not specify the extent of losses during

normal years. To pursue the estimation any further, we must hypothesise some relationship between good and bad years. I shall define a good year as one where there are no irregular livestock losses through disasters, pests, accidents, etc. The return for these years will be reflected by the 51.75 T. figure calculated above. I shall define a bad year as one where irregular losses are 50 per cent. of the original herd size. The returns for these years will be:

product per female	54.00 T.
- lost product per female	- 27.00 T.
- lost product for replacement (0.5x 15 T.)	- 7.50 T.
	19.50 T.

The third term implies that losses in capital stock can be overcome simply by allocating more lambs towards stock replenishment (1964: 71). The specific relationship assumed between good and bad years will be that each extreme alternative has the same chance of occurring.<sup>2</sup>

Therefore, the expected returns under these conditions are:

$$\frac{1}{2}(51.75 T.) + \frac{1}{2}(19.50 T.) = 35.63 T.$$

The rate of return on a sheep initially worth 80 T. is 7.0 per cent.<sup>3</sup> (assuming that labour costs are again distributed over 100 sheep).

In conclusion, there appears to be consistency in the Basseri's behaviour of not passing on large profits to their village trading-partners. The livestock investment process is not as lucrative as it might first appear. This does not exclude the possibility that the credit extended to the Basseri includes implicit interest charges in the price of the agricultural goods. Nor does the lower rate of return mean that some Basseri would not find it quite profitable. Moreover, the 7 per cent. return is not necessarily inconsistent with Barth's observations that, in general, the Basseri enjoy a higher standard of living relative to other Middle Eastern people (1961: 17).

However, there appears to be no evidence that wealth through this investment process is being accumulated as rapidly as Barth's rate of return would suggest. If herding was this profitable, it appears unlikely that the accumulation of wealth could be adequately restricted by the several constraint mechanisms suggested by Barth. One would expect that most Basseri could gradually transfer their livestock-generated wealth into land and eventually be led to a sedentary existence. According to Barth's ethnography (1961: 103-11), this does not happen. Nomadic life has not been replaced in this part of south Persia, and the sedentarisation that does occur is predominantly that through impoverishment, and not through accumulation. These considerations seem to support the contention that the return of the livestock investment process is not astronomical for the Basseri in general.

#### NOTES

I wish to acknowledge the encouragement and comments of Professors Michael Horowitz and William Waldorf and the students in the former's seminar in social anthropology. The sole responsibility for any remaining errors or omissions is mine.

<sup>1</sup> A more rigorous investment calculation would probably want to include such information as the variability of costs and returns over the life span of a sheep, discounting appropriately the figures for each future year to reflect their value in terms of present desire. However, the data for such an approach not being available, no efforts were made to include these considerations.

<sup>2</sup> This assumption is not as biased as it first appears. The even-chance probability is a compromise between two extreme situations—a perfect year with absolutely no irregular losses via accidents, pilfering, and predatory animals and an average, bad year (when losses are heavy). Moreover, if one's concern is the magnitude of the rate of return compared to that suggested by Barth, the result is not that sensitive to the assumption made, as demonstrated by the figures below, relating the probability of a bad year with the corresponding rate of return:

one-half . . . . . 7.0

one-third . . . . . 13.8

one-quarter . . . 17.1

one-fifth . . . . . 19.1

Clearly, the inclusion of labour costs is the important correction for this investment process.

<sup>3</sup> It should be noted that one cannot determine whether this 7 per cent. return is high without knowing more about the Basseri's attitudes towards present consumption versus future consumption and towards uncertainty. The greater the desire for present consumption and for avoiding risk, the less the incentive provided by this rate of return.

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