American Journal of Economics 2016, 6(4): 226-239
DOI: 10.5923/j.economics.20160604.05

Financial Capital an Entrepreneurial Factor of Production

Randa I. Sharafeddine

Doctoral Program of Economics Science, Faculty of Economics and Business, Jinan University, Lebanon

Abstract The conventional theory of production discusses the choice between different non-entrepreneurial resources (Land, Labor, and Capital). Why these resources choose to be so and not to become entrepreneurial resource is rather untouched in economic theory. Also, should owners of land, labor and capital decide to work for others on rent, wages and interest respectively or should they take entrepreneurial risk to earn profit? This is a choice often made in reality but has never been explicitly explained in economic theory. The conventional theory does not recognize money capital as an explicit factor of production but recognizes interest as a reward of capital. Interest rate is the price of money capital but it is treated as representing the price of physical capital too. This article would present a critical review of the conventional classification of factors of production and reformulate a new classification for the allocation of resources and the distribution of income (Rent, Wages, Interest, Profits) that would be considered more rational even for the conventional theoretical framework to review and develop the theories of production and distribution. Interest rate should enter into the rewards of factors of production only if money or finance is treated as an explicit separate factor of production capable of providing a service. This classification of factors of production that distinguishes financial capital from physical capital and makes financial capital entirely different from physical capital having different types of factor prices, would create entrepreneurial factors of production encouraging "Institution of Participation" or initiating a "Productive Venture". The main economic purpose that the institution of participation can serve is to distribute entrepreneurial risk so that more and more potential entrepreneurial resources may come forward to avail the entrepreneurial opportunities in the economy. This participation would increase output; A and B together will be larger than the sum of their individual outputs because of division of labor and specialization. This new approach towards money as a factor of production has its implication to enhance entrepreneurial activity and economic development as they are based on the supply and demand for the factors of production. Only entrepreneurial resources can participate with each other, there can be no other form of participation.

Keywords Economic theory of production, Financial capital, Physical capital, Factor price, Entrepreneurial factors of production, Distribution of income, Institution of Participation, Economic development

1. Introduction

The factors of production are resources that are the building blocks of the economy. Inputs that provide a productive service in a production process are called Factors of Production; they are what people use to produce goods and services. Economics is to utilize the limited resources in a way that maximum needs and wants are met to ensure the well-being of all members of the human society.

The four basic economic problems are:

- Determination of priorities;
- Allocation of resources (Land, Labor, Capital, Entrepreneur);
- Distribution of income;
- Development.

1.1. Factors of Production in Conventional Economic System

Conventional economic theory divides the factors of production into **four categories**:

1. Land
2. Labor
3. Capital, and
4. Entrepreneurship.

The **first factor of production is land**, "natural resources", that is to say, those things which are being used as means of production without having previously undergone any process of human production, but this includes any natural resource used to produce goods and services. This includes not just land, but anything that comes from the land. Some common land or natural resources are water, oil, copper, natural gas, coal, and forests. Land resources are the raw materials in the production process.

* Corresponding author:
randa.sharafeddine@gmail.com (Randa I. Sharafeddine)
Published online at http://journal.sapub.org/economics
Copyright © 2016 Scientific & Academic Publishing. All Rights Reserved

These resources can be renewable, such as forests, or nonrenewable such as oil or natural gas. The income that resource owners earn in return for land resources is called **rent.**

The **second factor of production is labor.** Labor is the effort that people contribute to the production of goods and services, that is to say, any exertion on the part of man. If you have ever been paid for a job, you have contributed labor resources to the production of goods or services. The income earned by labor resources is called **wages** and is the largest source of income for most people.

The **third factor of production is capital**. This does not mean capital in the sense of money. It refers to man-made units like buildings, factories, machine tools that produced goods and services. The income earned by owners of capital resources is **interest**. Capital without labor cannot possibly provide any output.

The **fourth factor of production is entrepreneurship**. An entrepreneur is a person who combines the other factors of production - land, labor, and capital – exploits them to produce output and bears the risk of profit and loss in production. The most successful entrepreneurs are innovators who find new ways to produce goods and services or who develop new goods and services to bring to the market. Without the entrepreneur combining land, labor, and capital in new ways, many of the innovations we see around us would not exist. They perhaps have the hardest job of all decision making. The payment to entrepreneurship is **profit.**

You will notice that I did **not include money as a factor of production.** You might ask, isn't money a type of capital? Money is not capital as economists define capital because it is not a productive resource. While money can be used to buy capital, it is the capital good (things such as machinery and tools) that is used to produce goods and services. Money merely facilitates trade, but it is not in itself a productive resource.

This division plays a role in explaining the theory of production and theory of distribution of output. All current theories of economic development try to explain the process of development within the framework of these four factors of production.

1.2. Factors of Production in Islamic Economic System

In Islamic economy there are **three factors of production:**

1. Land
2. Labor
3. Capital

Entrepreneur and Capital is a single factor of production, anyone investing financial capital must also take the risk of the investment.

- **Land:** that is those means of production which are so used in the process of production that their original and external forms remains unaltered, and which can hence be let or leased, for example, lands, houses, machines etc…

  Compensation: Rentals
- **Labor:** that is human exertion whether of the bodily organs or of the mind, or of the heart, this exertion thus includes organization and planning too.

  Compensation: Wages
- **Capital:** that is, those means of production which cannot be used in the process of production until and unless during this process they are either wholly consumed or completely altered in form, and which therefore, cannot be lent or leased, for example, liquid money or food stuffs etc.

  Compensation: Profit

2. Problem on Conventional Factors of Production

No economic rationale is given to justify or adopt this classification. The economist themselves consider the division as arbitrary (Samuelson, p. 557). The arbitrariness of the division may not have implications for the theory of production but it must have serious implications for the theory of distribution.

- The conventional theory does not recognize money capital as an explicit factor of production but recognizes interest as a reward of capital. Interest rate is the price of money capital but it is treated as representing the price of physical capital too.
- While determining the distribution of output, economists have explicit theories how the share of land, labor and capital is determined in the market, but there is no theory on how the entrepreneurial profit is determined, The fact that conventional theory is practically devoid of a coherent theory of the supply and demand of entrepreneurship is recognized in the works of Leibenstein (1968), Baumol (1968) and Leff (1978). This may be tolerable in static analysis with the assumption of perfect certainty and knowledge of input and output prices and a determinate and predictable production function, but this does not help much in understanding the development process of an economy.
- The reward of factors of production goes to those who own them. Thus rent goes to the landlord, interest goes to the capitalist, wage goes to labor and the profit goes to the entrepreneur.

Should owners of land, labor and capital decide to work for others on rent, wages and interest respectively or should they take entrepreneurial risk to earn profit? This choice has never been explicitly explained in economic theory. The theory discusses the choice between different non-entrepreneurial resources. Why these resources choose to be so and not to become entrepreneurial resource is rather untouched in economic theory.

- The basis of distribution of the share of output is same for the first three factors of production land, labor and capital. The basis is the marginal productivity. Such a classification that requires the same basis for

determining the rewards of all factors of production cannot be considered very meaningful if distributive justice is to be studied.

- Economic literature generates a lot of confusion between rent of physical capital and interest rate. It is often said that interest rate is the rent of capital equipment (Scott and Nigro, p.314; Samuelson, p.557). Why it is to be mentioned as a rate "per dollar value of capital goods"? Why it is not referred to as per machine, per building, per tool etc., as it is done in case of wage of labor and rent of land. A conventional economist would argue that since it is not possible to account for all types of capital goods and their separate rentals, it is analytically convenient to consider all capital goods in money value and consider their rental as a rate per dollar value of capital goods.

Land generates a service. The same is done by capital goods. Capital equipment is like land which is used without its being fully consumed during its use. The same is true for labor. There is no substantial difference between the rent of services of capital equipment and the wages of the services by human being. Both result from a contract for delivering a service in reward for compensation (rent or wage).

An analytical confusion is generated when interest rate is called a rent of capital goods. For the purpose of this article, interest rate should enter into the rewards of factors of production only if money or finance is treated as an explicit separate factor of production capable of providing a service. No economist likes to do so.

3. Objective of the Study

This article would consider Money as an Entrepreneurial Factor of Production-EFP and would allow only entrepreneurial resources to participate with each other. This classification would create entrepreneurial factors of production when combined together would enhance growth and allow more equity in the distribution of wealth in the economy.

For this, we would divide productive inputs or factors of production into two categories. The first category comprises those inputs that do not get 'consumed' while used in the production process, but they retain their original nature and shape (except normal wear and tear). Let us call this category "factor inputs". The other category includes those inputs which get "consumed" during the production process and lose their original nature and shape. Money can easily be recognized in the production process as "consumed inputs".

According to the above classification money is useless unless it is "consumed" to convert it either into factor inputs or into consumed inputs. Money has to be "consumed" to be usefully utilized in a production process.

4. Net Cash-Flow of Asset Valuation

Conventional economist argue, that since it is not possible to account for all types of capital goods and their separate rentals, it is analytically convenient to consider all capital goods in money value and consider their rental as a rate per dollar value of capital goods.

To consider money as an entrepreneurial factor of production sharing in profit and loss in the project, we would show in our analysis that no needs to calculate the cost of capital and we would introduce the net cash-flow concept of asset valuation by charging the cost of capital as a cash payment when the asset is bought.

The net cash-flow is the cash-flow between the firm and its stockholders. A positive net cash-flow represents a cash payment by the firm to the stockholders, while a negative net cash-flow represents a cash payment by the stockholders to the firm.

Let us have a look at the benefit of the net cash-flow:

I would show in this part that depreciation and implicit cost (cost of capital) need not be considered since they don't give rise (fall) to cash-flows, creating or destroying value. Cash-flow analysis or financial capital, accounts for these costs much more simply, by charging the cost as a cash payment when the asset is bought.

Example of Project NPV

Maple Media is considering a proposal to enter a new line of business. In reviewing the proposal, the company's CFO is considering the following facts:

The new business will require the company to purchase additional fixed assets that will cost $600,000 at t = 0. For tax and accounting purposes, these costs will be depreciated on a straight-line basis over three years. (Annual depreciation will be $200,000 per year at t = 1, 2, and 3.)

At the end of three years, the company will get out of the business and will sell the fixed assets at a salvage value of $100,000.

The project will require a $50,000 increase in net operating working capital at t = 0, which will be recovered at t = 3.

The company's marginal tax rate is 35 percent.

The new business is expected to generate $2 million in sales each year (at t = 1, 2, and 3). The operating costs excluding depreciation are expected to be $1.4 million per year.

The project's cost of capital is 12 percent.

What is the project's net present value (NPV)?

Solution

1. New project NPV

	0	1	2	3
Equipment purchase	-$600,000			
NOWC	-50,000			
Sales increase		$2,000,000	$2,000,000	$2,000,000
Operating costs		1,400,000	1,400,000	1,400,000
Operating income		$ 600,000	$ 600,000	$ 600,000
Depreciation		200,000	200,000	200,000
EBIT		$ 400,000	$ 400,000	$ 400,000
Taxes (35%)		140,000	140,000	140,000
EBIT(1 - T)		$ 260,000	$ 260,000	$ 260,000
+Depreciation		200,000	200,000	200,000
Operating cash-flow		$ 460,000	$ 460,000	$ 460,000
Recovery of NOWC				50,000
Equipment sale				+100,000
Taxes on sale				-35,000
Net CF	-$650,000	$ 460,000	$ 460,000	$ 575,000

First:

In our calculation of NPV, first, we will be excluding the salvage value of the fixed asset:

NPV = -$650,000 + $460,000/1.12 + $460,000/$(1.12)^2$ + $510,000/$(1.12)^3$

= -$650,000 + $410,714.29 + $366,709.18 + $363,007.9264

= $490,431.3964 ≈ $490,431

Let us calculate the Economic profit. Then calculate the discounted present value of the economic profit:

Economic profit = Earnings – Cost of equity

Hint: Equity is decreased every year by the depreciation

Year 1 = $260 000 – ($650 000 x 12%) = $182 000

Year 2 = $260 000 – ($450 000 x 12%) = $206 000

Year 3 = $260 000 – ($250 000 x 12%) = $230 000

PV (Economic profit) = $182 000/ 1.12 + $206 000 / $(1.12)^2$ + $230 000 / $(1.12)^3$

= $490,431.39 ≈ $490 431

The discounted economic profit is equal to the discounted cash-flow or the Net Present Value (NPV). The important thing to notice is that Depreciation and implicit interest need not be considered since they do not give rise to cash-flows. Cash-flow analysis accounts for these costs much more simply by charging the cost as a cash payment when the asset is bought.

This come to emphasize what have been already challenged by Professors Biddle, Bowen, and Wallace in their article "EVA and its Critics" in the Journal of Applied Corporate Finance, Summer 1999, where they argue that Cash-flow from operations, accruals and interest expense, are already included in the profits numbers that companies are required to disclose in their annual reports. The question is whether or not the two elements not explicitly included in mandated disclosures, the capital charges and accounting adjustments are significantly related to asset prices. Unhappily the answer is NO.

Second:

In our example we excluded the salvage value. What about if we add the salvage value to our calculation:

NPV = -$650,000 + $460,000/1.12 + $460,000/$(1.12)^2$ + $575,000/$(1.12)^3$

= -$650,000 + $410,714.29 + $366,709.18 + $409,273.64

= $536,697.11 ≈ $536,697.

Under the discounted economic profit we consider the salvage value as cash payments from the firm to the providers of funds and in our case it is equal to:

Equipment sale $ 100 000

Taxes on sale $ (35 000)

PV (Economic profit) = $182000/1.12+ $206 000 /$(1.12)^2$ + $230 000 /$(1.12)^3$ + $ 65 000 /$(1.12)^3$

= $536 697.1119 ≈ $536 697

The important thing to notice is that Depreciation and implicit interest need not be considered since they do not give rise to cash-flows. Cash-flow analysis accounts for these costs much more simply, by charging the cost as a cash payment when the asset is bought.

We have already concluded that the cost of equity or the required rate of return (opportunity cost) is already included in the net cash-flow at year zero creating value or destroying value. Because when discounting two streams of cash-flow at the same discount rate and giving equal numbers, this mean that they are equal. One of these components is the "Economic Profit" we included in its computation a cost of equity (implicit cost- bearing the risk of the project) whiles in

the other component or the cash-flow no computations for depreciation or implicit cost is included. So, the cash-flow implicitly takes into consideration the explicit cost and the implicit cost (economic cost) without having access to its computation. The only variable linked to valuation is the increase or the decrease in the cash-flow. Nor the financing decision of the firm (Debt or Equity Financing) would have its effect on the cash-flow. If the cash-flow increases this mean an increase in the value of the assets and vice versa. The cash-flow is a better measure than the market value for asset valuation. So, we should be interested in the variables affecting the net cash-flow (cash-flow increase and cash-flow decrease) rather than in the implicit cost, depreciation and its valuation. The better measure for asset valuation rather than market value is the net cash-flow.

4.1. Debt or Equity Financing under the Cash-flow Theory of Asset Valuation

If we continue with the same example of Maple Media Corporation using debt financing we will find out that the discounted present value of the economic profit using debt financing is always equal to the Net Present Value meaning that the way of financing is not affecting the value of the firm as long as the net cash-flow is not changing. We will have access to reducing debt financing only when the net cash-flow is decreasing in order to reduce the effect of reduction on the net cash-flow on the value of the firm.

Though capital structure decisions are influenced by a firm's ability to generate future cash-flows, the theoretical literature has neglected the dynamic relation between leverage and firm specific earnings behavior. HOWEVER, with the cash-flow theory of asset valuation, under a theory of continuous time, we have adjustments in the business capital structure, policy and optimality on hour per hour and day per day basis in order to avoid the risk inherent in the capital structure of the business. I will use the article of Steven Raymar "A Model of Capital Structure when Earnings are Mean-Reverting" to give a clear meaning to a theory of continuous time. Raymar assumes a linkage between firm value and earnings, which would affect the optimal leverage decisions. So, leverage is reviewed and reoptimized every period and the variability of leverage is positively related to variability in earnings and firm value. EBIT follows an exogenous process that is unaffected by leverage or default. Its parameters are such that the firm never liquidates if optimal policies are followed. The autocorrelation between earnings at time t and t+1 is ϕ, if $\phi=0$, earnings are serially independent, and as ϕ approaches 1 the process tends toward a random walk, implication of the process is that, while a firm may experience a bad or a good year, over time it is expected to revert to a normal performance level. An unlevered firm is valued as the discounted sum of expected future after-tax earnings, because stockholders receive the firm's income stream in perpetuity, it must never be optimal for them to relinquish ownership, as it might be if income were negative, this would be optimal for stockholders to maintain the unlevered firm as a going concern, given any feasible earnings realization. When debt is introduced in the financing activities of the corporation, the firm is assumed to issue single period debt and to optimally recapitalize at each date.

As firm optimally and continuously recapitalize, under continuous time the focus is not on conflicts of interest among claimants, because debt has a one period maturity, the optimal policy should maximize both equity and firm value, so adjustments are made on daily basis and when earnings are low, a firm should optimally reduce its leverage ratio and debt level or otherwise said reducing its cost of capital and the earnings process permits one firm to be safer than another over a short horizon. At each date, the firm is recapitalized so as to maximize the wealth of current owners. This process is costless if the firm is solvent, but otherwise the transfer of ownership and control is assumed to induce bankruptcy reorganization costs and the model is unaffected as long as a clear distinction between debt and equity remains. Default that caused liquidation in the past is now resulting in an optimal reorganization. Since an optimal debt decision needs to consider only the future cash-flows of the firm and is independent of past earnings and debt levels. Then a change in the autocorrelation between earnings at time t and t+1, also affects future debt decisions and firm values. From here rises a cash-flow concept of profit associated with the cash-flow theory of asset value.

This theory of asset valuation is based on the assumption that the cash receipts and the cash payments to the firm have been projected for each time period for ever. So, we should live day per day this reality in order to operate in the future. And the whole financial system would become a Cash-flow system where a continuous adjustment on hour per hour, day per day of the variables affecting the discounted present value of the cash-flow stream will show its effect on the value of the company's assets and firm valuation.

And this Net Cash-Flow is the cash-flow between the firm and its providers of funds. A positive net cash-flow represents a cash payment by the firm to the providers of funds, while a negative net cash-flow represents a cash payment by the providers of funds to the firm.

4.2. From Economic Value Added (EVA) to the Cash-Flow Concept of Asset Valuation

Let us take the following example to show the link between the Economic Value added and the cash-flow concept of asset valuation to create or to destroy value. In this example, we will be able to see a very simple model of the business. Adding hired labor and raw materials to the model makes it a bit more complex, but the lesson still holds. Here then, is the problem:

In 1/1/ X, I buy a business for $250,000. I pay &100,000 of my own money (Which I could have "invested" elsewhere at 10%), and borrow $150,000 from a bank, on which I pay a 10% interest rate. At that point, my balance sheet shows Assets of $250,000; Liabilities of $150,000, and a Net Worth

of $100,000. To focus on the issues at hand, let us suppose the business is extremely simple. Specifically, I have no outlays on raw materials or hired labor, and I don't supply any of my own labor or entrepreneurial services. Over the course of the year, suppose I receive revenue of $47,000 and pay out bank interest of $15,000. Also suppose the value of my physical assets (machines building and tools) decreases by $17,000, from $250,000 to $233,000. Then my economic income statement is very simple:

Item	Amount
Revenue	$47,000
Bank Interest	15,000
Foregone Interest on my Investment	10,000
Decrease in Value of Assets	17,000
Economic Profit	**5,000**

Remember that economic profit is calculated by subtracting total economic cost from total revenue. Total economic cost, in turn, is the sum of explicit cost and implicit cost.

Explicit cost is the outlays the firm makes for resources that are used up during the year.

In this example, the only explicit cost is bank interest. Implicit costs are forgone inflows. Because the owners' resources are put to use in this firm, instead of their best alternative use, those owners are not able to obtain the flow of dollars they would get in the alternative use (of course, the reason the resources are put in this use is that the owners expect to get more here). In this example, an implicit cost (foregone interest plus "economic depreciation") is $27,000 ($10,000 plus $17,000). Thus total economic cost is $42,000, and economic profit (total revenue minus total economic cost) is $5,000.

What we want to show is that the $5,000 economic profit represents the amount by which I am richer than I would have been if I had deployed my resources (in this case, my $100,000) in their best alternative use rather than in this business. What would my position have been if I had invested my $100,000 in my best alternative instead of in this business? I started with $100,000 on 1/1/X, and that amount would have grown to $110,000 by 12/31/X if invested at 10% my assumed opportunity in my best alternative investment vehicle. What is my situation in this business? We can determine that by looking at my new balance sheet

Assets	Liabilities
$233,000 (M, B and T)	$150,000
$32,000 (cash)	
	Net Worth
	$115,000

Notice the asset item for $32,000 (cash). This comes from the fact that I received $47,000 in "Total Revenue" during the year, but only paid out $15,000 in bank interest. The remainder is assumed to have gone into my bank account. The M, B and T asset reflects the "true economic depreciation" in their value from $250,000 to $233,000 over the year. I also assumed that I paid only the interest due on my bank loan. The key thing to notice is that I am $5,000 wealthier because I bought and operated this business than I would have been if I had invested my $100,000 in my best alternative. (It would be easy to put items for supplying my own labor, hiring other labor, and buying raw materials, but they would only complicate the story at this point, without giving us any new insights).

Now, how the results could be seen under the cash-flow concept of asset valuation?

We know that Pure Earning P1 is equal to:

P1 = N1 – D1 + B1 + rNo (here No is a negative number because it is a flow of cash from stockholders to the firm).

P1 = Pure earning in year one

N1 = $32,000 (Cash-flow generated in year one)

D1 = $17000 (Depreciation expense)

B1 = Zero (Current Debt repayment)

rNo= 10% ($-100,000) (Cost of Equity Capital)

P1 = $32,000 - $17,000 +0 – $10,000 = $5,000 which is the EVA calculated above, and which is the pure profit which is above the normal profit of 10% of the beginning investment by providers of funds at the start of the year, leading to the following new balance sheet under the cash-flow concept of asset valuation:

Assets	Liabilities
$233,000 (M,B and T)	$150,000
$32,000 (cash)	
	Net Worth
	$115,000

The expected increase in net worth was 10% out of the $100,000 the initial investment of providers of funds at the beginning of the period. However an increase in wealth of $5,000 was created to providers of funds:

Pure profit = Actual end-of-period wealth – Expected end-of-period wealth

= $115,000 - $100,000 (1+0.1)

= $115,000 - $110,000 = $5,000

Business Profit = Pure profit + rSo

= $5,000 +$10,000 = $15,000

How would things be different if we looked at them in an accounting framework?

Accounting profit is calculated by subtracting total accounting cost from revenue. Accounting cost, in turn, is equal to explicit costs plus what might be called a capital consumption allowance, or accounting depreciation. The accounting measure of depreciation will usually differ from economic depreciation. Remember that economic depreciation is the actual decrease in the market value of the firm's assets over the year. By way of contrast, accounting depreciation is calculated by using the original purchase price, the assumed life of the asset, and a salvage value at the end of its life, and some rule or formula for allocating the difference between the original purchase price and the

salvage value over the assumed life of the asset.

Accounting cost can differ from economic cost (and accounting profit can differ from economic profit) both because the two approaches measure depreciation differently and because accountants do not attempt to measure foregone inflows, such as interest that the owners could have earned if they had invested their funds elsewhere (or, in a more complicated example, wages that a proprietor could have earned if he had been employed elsewhere instead of running his own business).

In this story, accounting profit is simply revenue ($47,000) minus bank interest paid ($15,000) minus accounting depreciation. Let's suppose that accounting depreciation is $20,000. Then accounting profit is $12,000. What does this tell us? Since the calculation does not ascertain what the resources that are being used in this firm could have done elsewhere. It could be that owners are happy earning what they earn here or unhappy, but there is no way of knowing just from looking at the accounting profit number. By way of contrast, economic profit tells owners at a glance what they want to know, namely whether they are doing better here than they would in their best alternative employment. **If** economic profit is positive, they are doing better here than they could anywhere else. If economic profit is negative (even if accounting profit is positive) owners' resources would be able to earn more in their best alternative employment than they could here. **If** economic profit is zero, owners are doing exactly as well here as they could in their best alternative employment. Thus, if owners of a firm could get an accurate measure of economic profit, they would know whether or not they could increase their wealth by leaving this business.

What we claim in economics is that, if decision-makers are interested in increasing their wealth, they should make decisions using economic profit, because that number will tell them whether they are in the right business. But since that number is inherently subjective, this means that business decisions must necessarily be subjective. Decision-makers must make a subjective judgment about what the owners 'resources could earn in their best alternative use and what the firm's assets could be sold for today and in the future.

In our example, suppose that accounting depreciation is equal to economic depreciation ($17,000). Then accounting cost would be $32,000, and accounting profit would be $15,000. The only difference between economic cost and accounting cost is now that economic cost counts the amount the owners could have earned by investing elsewhere as a cost, whereas accounting cost does not include this item. By adding to accounting cost an item for forgone interest, we can get an approximation to economic cost. In this case, that foregone interest (calculated by multiplying the return owners could earn elsewhere by the amount they could have cleared by selling out at the beginning of the year) is $10,000. Subtracting that $10,000 from the year's accounting profit gives us our measure of economic profit, $5,000.

While it can be useful for a decision-maker to know whether the firm made an economic profit over the past year by calculating the economic cost, the economic depreciation and the cost of capital, the way economists use economic profit is always forward-looking. That is, we assume decision-makers decide what to do (for example, whether to stay in this business) by trying to estimate the resources supplied by owners can be better here than in their best alternative, that is, they try to estimate whether the firm will make an economic profit, an economic loss, or break-even economically in the future.

In conclusion, as the present value of the pure profit is the present value of the net cash-flows, we can simplify all this by using the cash-flow concept of asset valuation where we have shown that the depreciation and implicit interest need not be considered since they don't give rise to the cash-flow. So, the cost of capital accounting for risk and return can be charged as a cash payment when the asset is bought. From here rises cash money allowed to bear the entrepreneurial risk of the project.

5. Factor Inputs

Factors of production will be identified according to either of the following functions:

- They provide a definite productive service for which they are entitled to receive definite reward (i.e., wage or rent). We will call these factors as **"Hired Factors of Production or simply HFP";** or
- They choose to bear the entrepreneurial risks of a project rather than having a fixed wage or rent. We will refer to these factors of production as **"Entrepreneurial Factors of Production or simply EFP"**. Although the conventional economic theory recognizes both the functions described above, most of its analytical framework centers on the first type of factors of production which are the inputs that generate productive service for a fixed reward and not get consumed.

Factor inputs are allowed to serve as HFP as well as EFP. As EFP they will not claim fixed rent or interest and instead will claim profit by bearing entrepreneurial risk. Our classification clearly distinguishes financial capital from physical capital and makes financial capital entirely different from physical capital, both having different types of factor prices.

Money is not allowed to serve as HFP, but can serve as EFP if it decides to bear the risk. Besides assigning the EFP role to the factor inputs, it is also the peculiarity of the Islamic economic system that it implicitly recognizes money as a separate independent factor of production to the extent that it is capable of bearing risk, and hence comes entitled to the same reward that all EFP get profits,. In an Islamic framework, it is convenient to define and classify factors of production according to the method of determining their reward or price.

Islamic framework recognizes two categories of factor prices:

- One category is called Ujrat. This is a broad name for rents which includes the rent of human services that is normally recognized as wages in conventional economic theory. Thus, all factor inputs are paid Ujrat for their use. Islamic economy allows Ujrat only for those inputs which are not directly "consumed" in the production process. Thus money in Islamic framework cannot be rented and it cannot claim any Ujrat or rent (interest). On the same grounds, raw materials cannot be rented or placed on Ujrat. All Ujrats are fixed and known in advance with certainty. Ujrat is always positive because the services or benefits for which they are hired have to be by Islamic law positive.
- The other category of factor prices is called profit, which can be positive or negative. Profit is a reward for visualizing a profitable productive venture and bearing the risks, if any, associated with the establishment of these activities. This may be treated as a reward for bearing risk as it is sometimes recognized in conventional economic theory too. Islamic economy categorically entitles factor inputs as well as money to earn this reward. Money which is disallowed Ujrat is allowed profits provided it performs the function that justifies profit. Raw materials are generally priced in the commodity market and therefore are not allowed to share profits or to be placed on rent. The only way for the raw materials to earn profit is to treat their money equivalent as a financial capital invested in a productive project. All profits, by definition, are uncertain and are not known in advance or fixed in advance. Any so-called profits that are claimed to be fixed and known in advance come into the category of Ujrats by definition.

According to these two distinct factor prices, the Islamic framework identifies only two categories of factors of production namely:

- Entrepreneurial Factors of Production (EFP) which claim only profits by bearing risk.
- Hired Factors of Production (HFP) which claim Ujrats (rents or wages) only and do not bear risk.

In conclusion, before discussing the nature and function of these two factors in the following section, it may be instructive to summarize the main points of difference between our classification of factors of production and the classification used in the conventional economic theory. First, our classification clearly distinguishes financial capital from physical capital and makes financial capital entirely different from physical capital, both having different types of factor prices. Secondly, financial capital is disallowed to earn a fixed, known-in-advance, rent which is a cornerstone of the conventional economic theory and is known as interest. The logic of depriving financial resources of a fixed rent has already been discussed. Since Islamic economy does not allow Ujrat to an economic resource if it gets consumed during the production process, the financial resources, therefore, are not entitled to any rent or interest. The paradox in renting such a commodity becomes very clear from a quotation given by Samuelson himself in his chapter on interest, "How to have your cake and eat it too, lending it out at interest" (Samuelson, p. 557). Islam does not allow this irrationality. Such resource which is consumed during the production process can be sold in an Islamic framework in a commodity market only. But Islam prohibits money to be treated as sellable commodity[1]. The conventional economics theory in fact does not consider it as a factor of production but treats it as a commodity. The theory determines its price not in the factor market but in the money market - a prohibited institution in Islam. This leads to the third major difference - institutional, in nature - arising out of our classification. Financial market which is in our framework, a factor market for monetary resources, is a real sector and merely a money-market.

The following section now discusses the nature and function of the two types of factors of production recognized in Islamic economics. It should be noted that the two types of factors of production:

- Are mutually exclusive; for example, the same resource cannot be an entrepreneur and Ujrat-receiving at the same time;
- Perform entirely different function.

6. Institution of Participation

Islamic economy encourages participation in production process. All economic resources are allowed to join each other to initiate a joint project. So, it is possible that a person with his human resources alone and the other with financial resources alone decide to initiate a productive venture. The participation will be entirely on profit and loss sharing basis. There can be no other form of participation. In other words **only entrepreneurial resources can participate with each other.** A combination where a person invests his resources to bear the risk of a project and the other simply rents his resources will not be participation.

The participation between non-human resources alone is also possible. For example, it is possible that two or more persons initiate a project by investing financial resources only. They hire managers to organize and run the project.

Islamic finance and economy has laid down rules for sharing profit in any economic participation. The principle is that profits of a joint project can be shared by the participating entrepreneurial resources on any basis agreed in advance. For example, two participating parties may decide to share the profits of the project on 50:50 basis or 40:60

1 The logic behind not treating money as sellable commodity is very clear. A commodity is sold in the market at a price which is composed of the following:
- Cost of materials gone into its productions,
- Ujrats of HFP used to add value in it,
- Opportunity cost of EFP used to bring this commodity to the market.

Commodities can be exchanged in the market only if they differ in terms of any of the above 3 features.

basis or 70:30 basis or on the basis of the ratio in which they have invested their respective financial resources or on the basis of any other pre-agreed ratio. Whether there is a person A participating with no financial resources at all with a person B participating with financial resources or whether two persons are investing only financial resources in any ratio, the participating parties are allowed to decide profit sharing ratios irrespective of their volume of investment. The ratios have been left to be determined by mutual bargaining. It is obvious that since the participating resources are likely to be different in nature as well as in such economic characteristics as productivity, scarcity etc., it is fair to leave the profit sharing ratio to the market forces.

The freedom of bargaining will obviously develop a market for participation where the profit sharing ratio will be determined by the relative supply and demand of the participating resources. It is however, instructive to note that whereas the profit sharing ratio can be agreed upon by mutual negotiation the losses can be shared only in the ratio in which financial resources have been invested.

The main economic purpose that the institution of participation can serve is to distribute entrepreneurial risk so that more and more potential entrepreneurial resources may come forward to avail the entrepreneurial opportunities in the economy. The participation also increases output. Output of A and B together will be larger than the sum of their individual outputs because of division of labor and specialization.

No society prohibits participation. All capitalist economies have the institution of participation. But there is something peculiar about this institution in the Islamic system. The peculiarity is that **Islamic institution of participation is supported by various elements in the economic system to promote the institution whereas the capitalist system has elements to discourage participation.** In the capitalist system, all productive resources are rentable. In an economy with high business risks, all productive resources will prefer to be on Ujrat rather than to be entrepreneurial resource. Scarce factors obviously will have high Ujrat. They will have no compelling reason to opt for participation in an economy where entrepreneurial risks are very high.

They will be willing to participate only in projects that ensure them very high profitability. They will usually be looking for big ventures. The abundant resources will have very low Ujrat. Bulk of them would be willing to look for entrepreneurial jobs. They will, however, not be able to find participation from the scarce resource. This is because they being abundant (implying marginal utility or productivity close to zero) have very little at risk compared to the scarce factor when participating in an entrepreneurial activity.

Thus we observe that in labor abundant developing countries operating under capitalist system, bulk of the population in working age sits idle[2]. This is because the wage level is too low to induce them to forego the leisure and the family privileges that they enjoy and the social benefits that the family gets even from the non-working members.

(4) This so-called surplus labor obviously would fail to get participation from the physical or financial capital because the risk is great and the labor being surplus does not have much at risk in the event of a loss. There is nothing in a capitalist economy to impose compulsion of entrepreneurial participation particularly between scarce and abundant resources.

Islamic economic system has several elements to promote the institution of participation. Keeping the ethical norms away that require co-operative spirit among economic agents let us see only a few of the institutional provisions. **Islamic economy has made one scarce factor to be totally available for participation. This is the monetary resources. These resources are prohibited to earn rent. But they have been allowed to participate in entrepreneurial activities.** Disallowing the earning of rent is, obviously, not enough to compel a resource to participate in the risk bearing. The resource may sit idle. Besides ethical restrictions,

6.1. Institutional Penalty on the Idle Monetary Resources

Islamic system provides an institutional penalty on the idle resources. One of the Islamic injunctions is that a Zakah at the rate of 2.5 percent has to be paid on the productive assets. The revenue from Zakah is distributed among the poor. Any person who decides to keep his monetary resources idle will have to pay a Zakah of 2.5 percent every year, ultimately losing almost all his financial resources. The only way to save his financial resources is either to purchase capital equipment which he can rent or to become an entrepreneur and initiate a productive venture of his own, or to participate on profit-loss sharing basis in anyone else's project. This is required so that Zakih could be paid out of the income earned from such investment. Thus, there is a compulsion in the system for the finances to opt for initiating own investment or participating with someone else.

The capitalist system does not encourage participation of big entrepreneurs with small entrepreneurs even if small entrepreneurs can prove themselves to be more productive. In the interest-based system there is always demand from the entrepreneurs to acquire financial resources on fixed rent (interest). These entrepreneurs have to be entrepreneurs who have the surety to earn profits much higher than the interest rate. The system makes the existing entrepreneur bigger and bigger because they can offer guarantees to the banking system for the payment of interest. This prohibits small entrepreneurs from entering; particularly those who cannot expect to earn profits higher than the interest rate. The big corporation thus becomes bigger and bigger mostly relying on interest-based finance. The restriction to make the

2 This is what Arthur Lewis calls unlimited supply of labor in his well-known work, *Economic Development with Unlimited Supplies of Labor*, The Manchester School of Economics and Social Studies (May 1954). Reprinted in **B. Okun** and **R.W. Richardson**, *Studies in Economic Development* (New York: Holt, Rinehart and Winston, 1961).

finances available only on a profit-loss sharing basis reduces the profits of big entrepreneurs because the entire profit is now to be more widely distributed. This induces new entrepreneurs to enter into the market that was previously out because they were not big. All financial entrepreneurs now become equal.

Also, an institution that compels a scarce factor to participate rather than claim Ujrat creates demand for entrepreneurship by reducing the risk. **Participation is more fruitful the more it is between abundant and scarce factors. Such participation promotes the interests of the abundant factor as bulk of the burden of risk bearing comes to the scarce factor due to its opportunity cost.**

Before closing the discussion on the economic implication of this institution it may be instructive to discuss, in the context of participation, the implications of keeping the loss sharing ratio strictly in accordance with the ratio of financial resources whereas profit sharing ratios are allowed to be different.

No project is initiated for earning a loss. This is against rationality and against Islamic injunctions. The participating resources, therefore, participate for profit. The resulting profit is the reward of the invested resources (both human as well as financial).

This reward, in nature, is a price of entrepreneurial resources as Ujrat is a price of the services of hired factors of production. As Ujrat is determined in the market by mutual negotiation so is the profit sharing ratio which too is determined in the market by mutual negotiation. Now suppose two entrepreneurs decide to participate with their respective financial resources only. There is no reason that market forces of supply and demand will lead to a profit sharing ratio different from the ratio of financial resources. A rupee will be valued a rupee in the market whether it is invested by person A or person B.

But suppose person A invests financial resources only and person B invests human resources only. Negotiations in the market will determine a profit ratio, irrespective of the ratio with which financial resources are invested by the two parties. Since expected profits are assessed in advance, the profit sharing ratio would reflect the relative productive worth of the resources invested by the two parties. As soon as one of the parties or both mix human entrepreneurial resources in the joint enterprise, the ratio of financial resources loses its relevance to determine the basis for sharing the profit.

Now consider the sharing of losses. It is totally wrong from the economic point of view to consider losses as negative value of profits on the same scale (though in accounting it is right). Profit is a result of deliberate efforts which were geared towards making this profit. Loss is not the result of deliberate efforts which were geared to achieve this loss.

Loss is a result of unforeseen factors. It is these unforeseen factors that are the basis of entrepreneurial risk.

Participation has two aspects: Profit sharing and risk bearing. Risk bearing is loss bearing, for example, bearing the fruits of the unforeseen or uncontrolled factors or the fruits of chance factors. Profit sharing should be done on the basis of efforts contributed by participants. Market determines the value of respective efforts. Risk bearing cannot be determined by the market because unforeseen are not offered in the market. They are unknown. So there should be some other mechanism for fair sharing of risk. Consider the participation of human resources on the one hand and financial resources on the other hand. When a loss arises, it is a loss in financial terms and not an economic loss. It does not take into account the opportunity cost of the lost human resources that were invested in the project. The human resource has already lost what he invested, his labor. The remaining loss, that is the total financial loss, is to be borne by the remaining resources, the financial resource. The rule is that financial loss is to be borne by the financial resources as the human resources loss has already been borne by the human resource.

In conclusion, a basic requirement for the promotion of participation of entrepreneurial resources is that the risks of the project being participated should be distributed fairly among the participants. It will discourage participation if human resources are asked to share the financial loss too, which would be over and above the entire loss of the own investment, such as the human resources invested in the project.

A further provision in the Islamic framework conducive to promoting the institution of participation, social security is discussed in the next section. Thus there is not only a mechanism to promote the Islamic institution of participation but also this institution creates demand for entrepreneurial resources by:

- Creating new entrepreneurs to come into the market to avail entrepreneurial opportunities;
- Promoting participation of scarce resources with abundant resources hence causing abundant entrepreneurial resources to come into the market as EFP;
- Promoting participation of big entrepreneur with small entrepreneurs and hence creating demand for small entrepreneurs;
- Reducing risk in the economy by distributing risk fairly among the entrepreneurs and hence making the potential entrepreneurs to come forward to take up entrepreneurial activities.

6.2. Institution of Social Insurance

Islam has put the share of the have-nots in the resources of the haves. This means Muslims are required to feed the deprived section of the population who for some reason cannot earn their living. This is basically a voluntary institution. This institution is the institution of Zakah, Sadaqat and charity. The institution will be stronger; the stronger is the practice of ethical norms of Islam by the Muslims. The state is, however, authorized to-take part of what is due from the resources of the haves to distribute it to the have-nots.

The presence of this institution in Islamic economy is conducive to promoting participation and hence the demand for EFP resources. Human resources with nothing else to live upon would hesitate to involve in entrepreneurial activities, because in the event of loss, the risk is too much - starvation for himself and his family. He would, therefore, prefer getting a job at a low wage rather than initiating a higher profit venture if it has a slight chance of ending up with a loss. However, if the system ensures looking after his and his family's minimum living needs[3], he is quite free to take entrepreneurial risks. He will have no compelling reason to opt for a low wage against higher expected profit having the risk of loss.

7. Factor Markets for EFP and HFP

As described earlier, there are two types of factors of production - EFP and HFP. Output is to be distributed among these two types of resources. Ujrat which is the price of the HFP resources is determined in the market by the supply and demand of these resources. The EFP resources share the residual which is called profit. Profit determines the demand of EFP resources in the economy. Only those goods/resources can be rented or hired which are not "consumed" while they are used. Renting or hire is the sale or purchase of the benefits/services of physical assets or resources including human resources. The assets or resources that generate benefits in the form of real goods (like tree giving fruits or animals giving milk) cannot be rented for such benefits. Financial resources cannot be rented because they cannot generate any service without being "consumed".

7.1. Entrepreneurial Factors of Production (EFP)

Entrepreneurship, in our framework, is to perform the following functions:

- Making a decision whether or not to participate in or initiate a particular productive activity.
- Be willing to bear the risks associated with it.

Thus, in our framework, an entrepreneur does not have to be a special man. If he can simply visualize a productive profitable venture, can take a decision to initiate it and is willing to subject the resources at his command to bear the risks, if any, associated with this project, he becomes an entrepreneur. He may not be having the special organizational capabilities as highlighted in economic literature. It is assumed that organizational capabilities can be hired by offering appropriate Ujrat to the managers or executives capable of doing the job. Organizers thus are ujratable resource rather than entrepreneurs.

The two functions, decision making and risk bearing are capable of being isolated. Whereas decision making rests solely upon the human resources, the risk bearing can be done by the human resources, or physical resources or monetary resources. Suppose a person sees a productive opportunity. He can take the decision to initiate the project as well as bear the risk by investing his own human resources in the project. Alternatively, he may take the decision to initiate the project but may make his non-human resources to bear the risk by investing his physical capital or monetary resources alone. **No human resource can become entrepreneurial simply on the basis of decision making function.** Some resources have to be offered to bear the risk[4]. The share in the profits of the project will be dependent upon the resources that are invested to bear the risk. That is why we find it expedient to use the term "entrepreneurial factors of production (EFP)" rather than simply entrepreneurs, to reflect the combination of human and non-human that are willing to bear risks involved in initiating or participating a productive economic venture. This definition of entrepreneurship obviously does not require the EFPs to be "innovative" or "social deviants". We are assuming that EFPs are simply economic resources who, when confronted with a choice to work for a wage or to have their own work (or whether to rent their resources or earn profit on them), decide in favor of the latter. In several situations, the economic resources may find no choice but to become an EFP. This may occur, for example, in the following cases:

- A man wants to pursue an economic activity but finds it religiously prohibited to rent the resources at his command, such as a man having money as the only utilizable resource with him.
- A man wants to pursue an economic activity but finds it uneconomic to rent the resources at his command because of too low a wage level to rent his labor or too low a rent to lease his buildings, assets etc.

The economic resources may not be allowed to sit idle or a man may not decide to keep his resources idle. As discussed before, certain penalties in the system will leave him no choice but to become an entrepreneur. This indicates an obligation feature of the system to generate entrepreneurs in the economy.

The supply and demand on EFPs and their determinants means the willingness or availability of the economic resources to initiate a productive venture and to bear the risk associated with it. By demand of EFPs we mean the actual involvement of entrepreneurial resources in the entrepreneurial jobs. In other words, demand of EFPs is reflected by the availability of entrepreneurial opportunities to engage the EFPs.

3 For further information of the institutions guaranteeing minimum living needs in an Islamic system, see **M.N. Siddiqi**, "Guarantee of a Minimum Level of Living in an Islamic State" included in **Munawar Iqbal (ed.),** *Distributive Justice and Need Fulfilment in an Islamic Economy* (Islamabad: International Institute of Islamic Economics, 1986), 249-284.

4 In fact, risk bearing is the necessary and sufficient condition to define an entrepreneur. Any resources willing to bear the risks of a project implicitly are making a decision to initiate or participate in a project. The distinction between decision making and risk bearing has been made to highlight the nature of human resources which may make a decision without subjecting themselves to risk bearing.

7.2. Hired Factors of Production (HFP)

All resources that offer definite productive services for a definite reward known in advance are called hired factors of production. All physical capital and human resources can fall into this category as long as they don't get "consumed" in the process of production while offering their production services. "Organization" and "managers" as factors of production too are treated as HFPs as long as they are not willing to bear the entrepreneurial risks.

HFPs get employed only by the EFPs. Their employment and their demand will increase as the EFPs avail more and more entrepreneurial opportunities. The determinants of the supply of the HFPs are more or less same as discussed in conventional economic theory.

HFPs include land, labor, physical capital goods and human capital. It excludes monetary resources. HFPs are derived from the same resources which can offer themselves as entrepreneurial resources. The supply and demand for HFPs thus competes with the supply and demand of EFPs. All these resources have to make a choice whether to opt in favor of becoming an HFP and get an Ujrat or to become an EFP to enjoy the profits.

7.3. Factor Markets Equilibrium

Any excess demand in the HFP market will result into raising the Ujrat level hence clearing the HFP market. Any excess supply in the HFP market is available to become an EFP rather than waiting at the doors of the entrepreneur as HFP. Thus HFP market can be said to be always in equilibrium.

All supply of EFP, however, may not be able to get involved in entrepreneurial activities. In other words, there may not be enough demand for EFP in the economy.

Thus, it is possible to have an excess supply or disequilibrium in the EFP market implying that there are several EFP resources that are willing to take up entrepreneurial jobs but there are not enough jobs available. There cannot be excess demand in the EFP market because that would shift resources from the HFP market to EFP market. The only reason for disequilibrium in the factor market is, therefore, the excess supply in the EFP market. Otherwise the factor markets are in equilibrium in the economy. The growth in the economy will simply raise Ujrats as well as profits. Depression will result in lowering the Ujrats and profits till the Ujrats become downward rigid which will result into creating excess supply in the EFP market.

Physical capital has a choice to become HFP or EFP. The rent at which physical capital will be supplied in the HFP market will depend on the cost of production of these goods (which is to be recovered from the rent by the time it completely depreciates) plus the expected profits on the investment of resources used in the production of these capital goods. The demand for the capital goods as HFP will depend upon the productivity of these goods as HFP. If there occurs an excess supply of capital goods, i.e., their marginal productivity as an HFP falls, they will be offered a rent lower than what the capital goods are willing to accept. This will cause the capital goods to shift from HFP market to EFP market. An increase in supply of capital goods in the EFP market may reduce the expected profits of capital goods. A new equilibrium level of rent and expected profits of capital goods will, therefore, be achieved clearing both the markets for these goods.

It can easily be visualized that there cannot remain substantial excess supply of capital goods even in the EFP market. Suppose the stock of capital goods reached a level that has brought the Ujrat in its HFP market and profits in its EFP market to a level where a further decline would compell the owners to keep their assets idle till more profitable opportunities arise in the EFP market. This situation will obviously lead further production of capital goods to stop because of lack of demand. The excess supply will either be soon wiped out or will not remain quite substantial.

Similarly, human resources too have a choice to become HFP or EFP. The wage at which human resources will be supplied in the HFP market will depend on the marginal utility of leisure. The demand for the human resources as HFP will depend upon the productivity of these resources as HFP. If there happens to be an excess supply of human resources, they will be offered a wage lower than what they are willing to accept. This will cause the human resources to shift from HEP market to EFP market.

An increase in supply of human resources in the EFP market may reduce the expected profits of human resources in this market. A new equilibrium level of wage and expected profits (of human resources) will, therefore, be achieved, clearing the market for these resources.

It is, however, always a possibility that the excess supply of human resources, not getting employed in the HFP market, also fail to get absorbed in the EFP market. This means that there are not enough entrepreneurial opportunities that these resources can visualize or initiate or participate to yield them a profit equal to or more than the wage. In other words there is not enough demand in the EFP market.

We treat this situation as disequilibrium, an excess supply in the human resource EFP market. The HFP market will remain in equilibrium as the wage will be determined where markets clear supply and demand. The wage level determines the expected profit level in EFP market. The demand for EFP resources at this expected profit is exogenously given and fixed in EFP market. The EFP market will clear as the demand for EFP shifts upwards. Wage and expected profit level remain same. The EFP market may also clear if expected profits in the economy rise. But in this case, wages and profit levels increase too as the EFP market clears.

Money does not have a choice to become HFP. Its can only become EFP. Savings that are not converted into assets or capital goods become the money available for investment. The supply of monetary savings for investment will depend

on the income as well as the profits on the investment that these savings can bring[5]. Some part of savings will always be in the form of monetary savings. As physical capital/assets are usually quite expensive, **the smaller savers, therefore, have no choice but to have their savings in monetary terms.** Even all those who can afford to buy a physical asset may not do so as they have to take double risk - first, at the time of buying the asset which requires adequate knowledge of the market of the assets along with the ability to anticipate future prices of the assets and second, at the time of renting the assets which involves the risk of keeping the asset idle during the search of a tenant for the desired rent as well as the risk of loss or of damage to the asset during the period of tenancy.

An excess supply of monetary resources is hardly conceivable in any capital scarce economy in general and in an Islamic economy in particular. An excess demand in EFP of money market may arise which will mean more profits on the monetary resources. The higher profits will lead to more savings in monetary resources till the market is cleared. Supply of monetary resources to meet the demand may get constrained by the capacity to save in the economy. This may let the excess demand in the economy persist if adequate monetary and fiscal measures do not intervene in the EFP market of monetary resources or if the monetary resources from abroad are not allowed to fill the gap.

Factors determining the demand for entrepreneurial resources may be listed as:

- Capability to visualize a productive activity that would yield him an expected profit greater than the prevailing level of Ujrat for his resources;
- Risks involved in initiating the project;
- Supply of other productive resources;
- Institutional arrangement conducive for free entry in the market.

8. Conclusions

The capability to visualize a profitable venture in turn depends on several factors like education, means of communication, level of incomes, consumption and spending patterns etc. The risks in an economy are determined by the sociopolitical climate on the one hand and the moral fiber of the society on the other hand. The resources required to initiate the project can either be entrepreneur's own resources or he can work with the resources owned by the others. Rent reflecting the relative supply of other productive resources will be a key factor in the demand for entrepreneurial resources. Higher the rents in the economy, the lower will be the demand for the EFP. The factors relating to free entry are promoted by the institution of participation and the institution of social security as described earlier.

The total stock of capital goods may exceed demand at any one point of time. If this situation persists the holders of physical capital will have no choice but to look for an entrepreneurial activity utilizing their physical capital which, otherwise, will be depleted by the Zakah deductions. With regard to **the second question:** why a resource not finding adequate Ujrat paid job would be willing to bear entrepreneurial risk, the answer is clear in case of physical capital. Zakah deductions force the owner to deploy the physical capital in any project that would at least yield some positive expected profits i.e., anything greater than 0, so that a part or total of the Zakah could be paid out of the profit, instead of from the asset itself. Thus all such capital goods that fail to get employed on Ujrat are available for entrepreneurial employment. For human resources, though there is no such formal institutional compulsion as Zakah to refrain him from sitting idle if he cannot get employed on Ujrat, yet the human instincts do force individuals to achieve something for themselves and their families. Social norms too encourage human beings to do some productive work. A man involved in productive work always has a social status higher than a person sitting idle. Thus a person having been unable to get employment on the basis of Ujrat is assumed to be available for an entrepreneurial activity. Besides "profit" is a recognized motive even in conventional economic theory. Human beings want to make, rather maximize, profit. Those who are unable to get employment to earn "profit" from their services should look for an opportunity where they can earn "profit" by utilizing their capability to bear entrepreneurial risk.

The supply of different EFPs raises each other's demand. Thus availability of entrepreneurial capital, risk bearing capital will raise the demand for the entrepreneurial human resources and vice versa. Hence there is an indirect application of Say's law to the EFP in the sense that the aggregate supply of EFPs generates their own demand provided supply of all EFPs increases more or less in equal proportion.

5 The institution of moderation not discussed in this paper is the peculiarity of an Islamic system which enables the economy to generate savings more than it would be in a non-Islamic economy in a similar economic conditions. Some discussion of this institution can be seen in **M. Fahim Khan**, "Macro Consumption Function in an Islamic Framework", *Journal of Research in Islamic Economics*, "Vol. **1**, No. **2**, (Winter 1984): 1-24.

REFERENCES

[1] Baumol, W. J. (May 1986), "Entrepreneurship in Economic Theory", *American Economic Review,* Vol. LVIII, 64-71.

[2] Brigham Eugene F. and Houston Joel F., (2001), *Fundamentals of Financial Management,* Ninth Edition, Harcourt Inc., Orlando, Florida.

[3] Khan, F. Fahim, (1984), "Macro Consumption Function in an Islamic Framework". *Journal of Research in Islamic Economics,* Vol. 1, No. 2, pp. 1-24.

[4] Khan, F. Fahim, (1990), "Factors of Production and Factor Markets in Islamic Framework", *JKAU: Islamic Economy,*

Vol. 2, pp. 25-46.

[5] Leff, N.H., (1979), "Entrepreneurship and Economic Development, the Problem Revisited". *Journal of Economic Literature.*

[6] Leibenstein, H., (1968), "Entrepreneurship and Economic Development", *American Economic Review*, Vol. LVIII, pp. 72-83.

[7] Munawar Iqhal (ed.) *Distributive Justice and Need Fulfilment in an Islamic Economy*, Islamabad: International Institute of Islamic Economics, pp. 249-284.

[8] Raymar Steven, (1991), "A Model of capital Structure When Earnings are Mean- reverting", *Journal of Financial and Quantitative Analysis*, no3, September.

[9] Samuelson, P., (1983), *Economics*, 11th Edition, New York, Mc-Graw Hill.

[10] Scott, R.H. and Nigro, N., (1982), *Principles of Economics*, New York: Macmillan.

[11] Siddiqi, M.N., (1986), "Guarantee of a Minimum Level of Living in an Islamic State" in.

[12] Stern M. Joel and Shiely S. John with Ross Irwin, (2001), *The EVA Challenge, Implementing Value-Added Change in an Organization,* John Wiley & Sons, Ijc., New York.