Microcredit using Equity Financing: An Alternate Approach to Equity Financing in an Interest Free Financing

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Abstract
Interest is prohibited in all monotheist religions; however, it features as an essential element in practiced capitalism. Interest based financial system has created two major havocs in last two decades i.e. in East Asia in 90s and in the Great Recession since 2007. This paper highlights the extent of development problems faced by the world. With interest at zero bound in U.S since 2008 and with unemployment at 11% level, scarcity of capital cannot solely explain this. However, interest based Microfinance has had mixed results. Interest based lending at Micro level is usually carried out at very high interest rates, more so when the lending takes place informally without institutional intermediation. Institutional intermediation serves a good purpose, but it can also be designed using equity modes of financing. This can relieve the financee and increase diversity of entrepreneurial activities as in debt based microfinance, not much diversity can happen with compulsory servicing of debt. The related questions as to how the institutional arrangement would work to carry out this system, how documentation problems be resolved, how trust level can be created, how effective monitoring can be undertaken and how the intermediaries generate finance themselves and mobilize funds are answered in this paper.

Keywords: *Interest free economy, Public finance, Taxation, Inequality, Income redistribution, Islamic Economic System, fiscal policy, deficit financing.*

1. Introduction

The major problems in Economic Development of any country include poverty, inequality and unemployment. All other problems are more or less a result of the above-mentioned problems or the manifestation of these problems. Problems like terrorism and political instability that apparently seem unrelated to economics are also a consequence of poverty, inflation, inequality and unemployment. In the following pages, some pertinent development statistics obtained from World Development Indicators, 2005 published by World Bank are provided.

As can be seen from Table 1 through Table 4, the number of people living in poverty declined in last two decades; however, people living in poverty rose in Latin America, Sub Saharan Africa, Central and South Asia.

Table1: Number of people living below poverty line i.e. $1 (millions)

Region	1981	1984	1987	1990	1993	1996	1999	2001
East Asia & Pacific	796	562	426	472	415	287	282	271
China	634	425	308	375	334	212	223	212
Europe & Central Asia	3	2	2	2	17	20	30	17
Latin America & Caribbean	36	46	45	49	52	52	54	50
Middle East & North Africa	9	8	7	6	4	5	8	7
South Asia	475	460	473	462	476	461	429	431
Sub-Saharan Africa	164	198	219	227	242	271	294	313
Total	1,482	1,277	1,171	1,218	1,208	1,097	1,096	1,089
Excluding China	848	852	863	844	873	886	873	877

Source: World Bank's Development Research Group

Table2: People in population living below poverty line i.e. $1 (%)

Region	1981	1984	1987	1990	1993	1996	1999	2001
East Asia & Pacific	57.7	38.9	28	29.6	24.9	16.6	15.7	14.9
China	63.8	41	28.5	33	28.4	17.4	17.8	16.6
Europe & Central Asia	0.7	0.5	0.4	0.5	3.7	4.3	6.3	3.6
Latin America & Caribbean	9.7	11.8	10.9	11.3	11.3	10.7	10.5	9.5
Middle East & North Africa	5.1	3.8	3.2	2.3	1.6	2	2.6	2.4
South Asia	51.5	46.8	45	41.3	40.1	36.6	32.2	31.3
Sub-Saharan Africa	41.6	46.3	46.8	44.6	44	45.6	45.7	46.4
Total	40.4	32.8	28.4	27.9	26.3	22.8	21.8	21.1
Excluding China	31.7	29.8	28.4	26.1	25.6	24.6	23.1	22.5

Source: World Bank's Development Research Group

In Table 3 and 4, instead of defining poverty line at $1, it is raised to $2. People earning $2 are still poor even if not extreme poor.

Table 3: People in population living below poverty line i.e. $2 (millions)

Region	1981	1984	1987	1990	1993	1996	1999	2001
East Asia & Pacific	1,170	1,109	1,028	1,116	1,079	922	900	864
China	876	814	731	825	803	650	627	594
Europe & Central Asia	20	18	15	23	81	98	113	93
Latin America & Caribbean	99	119	115	125	136	117	127	128
Middle East & North Africa	52	50	53	51	52	61	70	70
South Asia	821	859	911	958	1,005	1,029	1,039	1,064
Sub-Saharan Africa	288	326	355	382	410	447	489	516
Total	2,450	2,480	2,478	2,654	2,764	2,674	2,739	2,735
Excluding China	1,574	1,666	1,747	1,829	1,961	2,024	2,111	2,142

Source: World Bank's Development Research Group

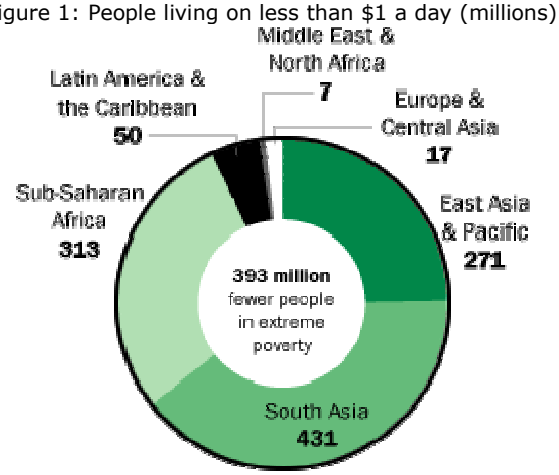
Table 4: People in population living below poverty line i.e. $2 (%)

Region	1981	1984	1987	1990	1993	1996	1999	2001
East Asia & Pacific	84.8	76.6	67.7	69.9	64.8	53.3	50.3	47.4
China	88.1	78.5	67.4	72.6	68.1	53.4	50.1	46.7
Europe & Central Asia	4.7	4.1	3.3	4.9	17.2	20.7	23.8	19.7
Latin America & Caribbean	26.9	30.4	27.8	28.4	29.5	24.1	25.1	24.5
Middle East & North Africa	28.9	25.2	24.2	21.4	20.2	22.3	24.3	23.2
South Asia	89.1	87.2	86.7	85.5	84.5	81.7	78.1	77.2
Sub-Saharan Africa	73.3	76.1	76.1	75	74.6	75.1	76.1	76.6
Total	66.7	63.7	60.1	60.8	60.2	55.5	54.4	52.9
Excluding China	58.8	58.4	57.5	56.6	57.4	56.3	55.8	54.9

Source: World Bank's Development Research Group

In 2001, there were 1,100 million people living in poverty. But in Sub-Saharan Africa, the number of people in extreme poverty rose to 313 million.

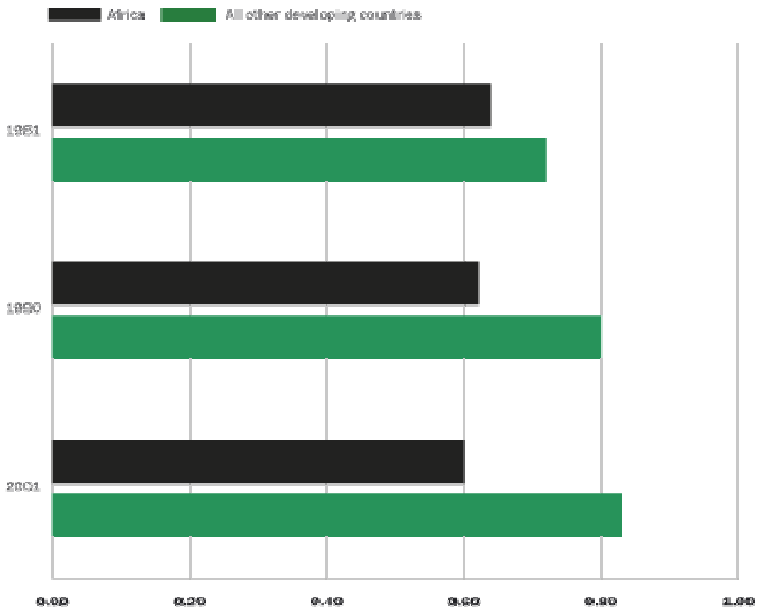
Figure 1: People living on less than $1 a day (millions)



Source: World Bank staff estimates.

As people living in extreme poverty increased in number in Africa, they also became poorer. The average daily income or consumption of those living on less than $1 a day fell from 64 cents in 1981 to 60 cents in 2001. In the rest of the developing world, it increased from 72 cents to 83 cents. Because In Sub-Saharan Africa, the median share of income going to the poorest 20 percent of the population is 4.9 percent, almost 2 percentage points less than in other developing regions. Only in Latin America and the Caribbean, do the poorest 20 percent fare worse.

Figure 2: Average daily income of the extreme poor (1993 PPP$)

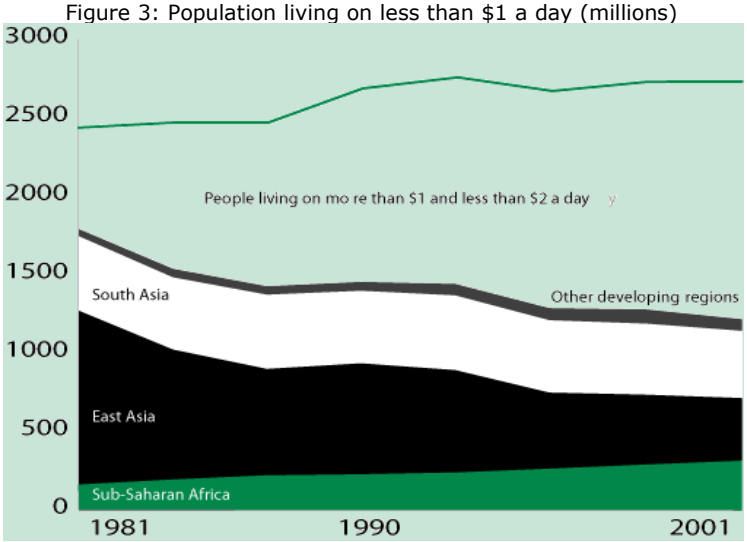


Source: World Bank staff estimates.

The number of extremely poor people in Sub-Saharan Africa has almost doubled since 1981 to 313 million people in 2001. This is a terrible human tragedy and represents the greatest challenge to development.

The number living on less than $2 a day increased from 2.4 billion in 1981 to 2.7 billion in 2001. The 1.6 billion people in the middle, between the $1 and $2 a day poverty lines, are still very poor and remain vulnerable to economic slowdowns.

Figure 3: Population living on less than $1 a day (millions)



Source: World Bank staff estimates.

In Table 5, it can be observed that highest unemployment rate is usually found in African countries.

Table 5: Countries with Unemployment Rate more than 20%

Adult (15+) unemployment rate				
Country or area	**Year**	**Total**	**Men**	**Women**
Albania	2001	23	19	28
Bosnia and Herzegovina	2006	31	29	35
French Guiana	2006	29	24	35
Guadeloupe	2006	27	24	31
Liberia	2007	6	7	4
Martinique	2006	25	23	27
Mauritania	2000	21	9	41
Montenegro	2005	30	26	36
Namibia	2004	22	19	25
Occupied Palestinian Territory	2007	22	22	19
Reunion	2006	29	28	30
Saint Lucia	2004	21	17	25
South Africa	2007	23	20	27
TFYR of Macedonia	2007	35	35	36

Source: United Nations Statistics Division

In table 6, it can be observed that countries with more than 50% population living in poverty line include mostly African and few Latin American and Central Asian countries. In Zambia, 86% of the population is living below the poverty line.

Table 6: Countries with more than 50% people living in poverty line

Country Name	% of People Below Poverty Line
Zambia	86
Chad	80
Haiti	80
Liberia	80
Sierra Leone	70
Mozambique	70
Nigeria	70
Suriname	70
Angola	70
Swaziland	69
Zimbabwe	68
Burundi	68
Niger	63
Comoros	60
Bolivia	60
Tajikistan	60
Rwanda	60
Guatemala	56
Senegal	54
Sao Tome and Principe	54
Afghanistan	53
Malawi	53
Honduras	51
Madagascar	50
Kenya	50
South Africa	50
Eritrea	50

Source: CIA, World Fact Book, January 2008

In Table 7, it can be seen that countries with literacy rate below 60% are mostly African, Latin American and South Asian countries.

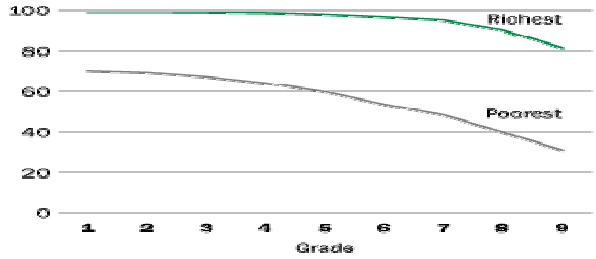
Table 7: Countries with less than 60% literate people

Country or area	Year	Adult (15+) literacy rate			Youth (15-24) literacy rate		
		Total	Men	Women	Total	Men	Women
Afghanistan	2000	28	43	13	34	51	18
Bangladesh	2007	53	59	48	72	71	73
Benin	2007	41	53	28	52	63	41
Bhutan	2007	56	67	42	78	83	73
Burkina Faso	2007	29	37	22	39	47	33
Burundi	2000	59	67	52	73	77	70
Central African Republic	2000	49	65	33	59	70	47
Chad	2000	26	41	13	38	56	23
Côte d'Ivoire	2000	49	61	39	61	71	52
Ethiopia	2004	36	50	23	50	62	39
Guinea	2003	29	43	18	47	59	34
Liberia	2007	56	60	51	72	68	76
Mali	2007	23	31	16	29	36	23
Mauritania	2007	56	63	48	66	70	62
Morocco	2007	56	69	43	75	84	67
Mozambique	2007	44	57	33	53	58	47
Nepal	2007	57	70	44	79	85	73
Niger	2007	30	44	16	39	53	26
Pakistan	2007	55	69	40	70	79	60
Papua New Guinea	2007	58	62	53	64	63	65
Senegal	2007	43	53	32	51	59	44
Sierra Leone	2007	38	50	27	54	64	44
Togo	2000	53	69	38	74	84	64
Yemen	2007	59	77	40	80	93	67

Source: United Nations Statistics Division

As mentioned above, attainment to education has also become a function of one's income. In Egypt, school attendance of the poorest 20 percent of the population lags from 30 to 45 percentage points behind that of the richest.

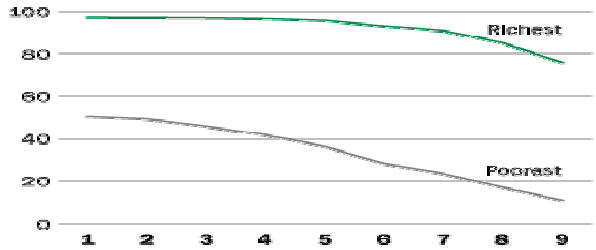
Figure 4 a): Share of 15- 19-year-olds completing each grade or higher in Egypt in 2000, by family wealth quintile (%)



Source: World Bank staff estimates.

In India, most children from rich families enroll and stay in school. But, many poor children never enroll, and those who do, stay for only a few years.

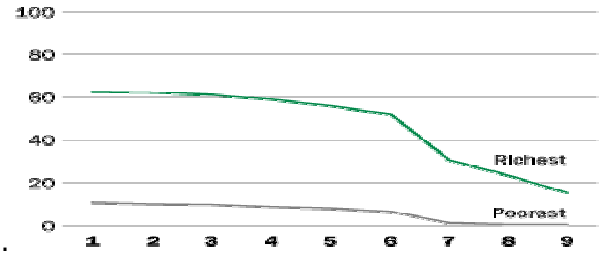
Figure 4 b): Share of 15- 19-year-olds completing each grade or higher in India in 1998-99, by family wealth quintile (%)



Source: World Bank staff estimates.

In a poor country, children from the richest families may not attend primary school. In Niger, few children, rich or poor, stay in school past primary stage.

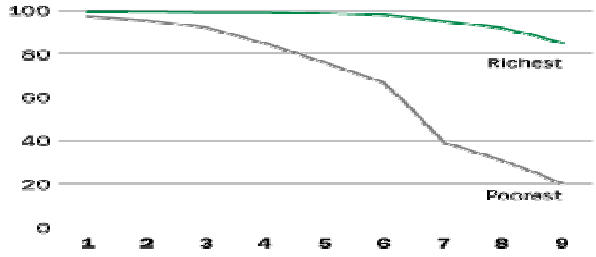
Figure 4 c): Share of 15- 19-year-olds completing each grade or higher in Niger in 1998, by family wealth quintile (%)



Source: World Bank staff estimates.

Enrolling all children in school is the starting point. Keeping them in school is the next step. In Peru, many children from poor families soon leave school.

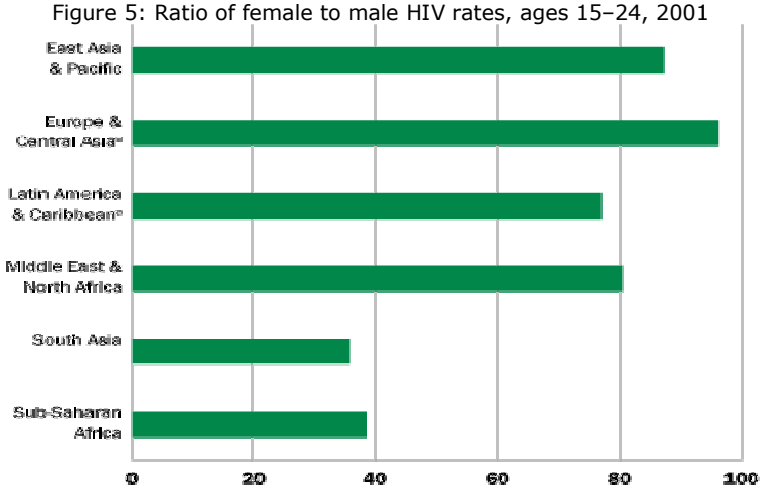
Figure 4 d): Share of 15- 19-year-olds completing each grade or higher in Peru in 2000, by family wealth quintile (%)



Source: World Bank staff estimates.

Just like education, access to better health conditions has also become a function of one's income. Women are most in need of skilled care during and immediately after delivery, when most maternal deaths occur. About half the births in developing countries are not assisted by a skilled health worker.

Figure 5: Ratio of female to male HIV rates, ages 15–24, 2001

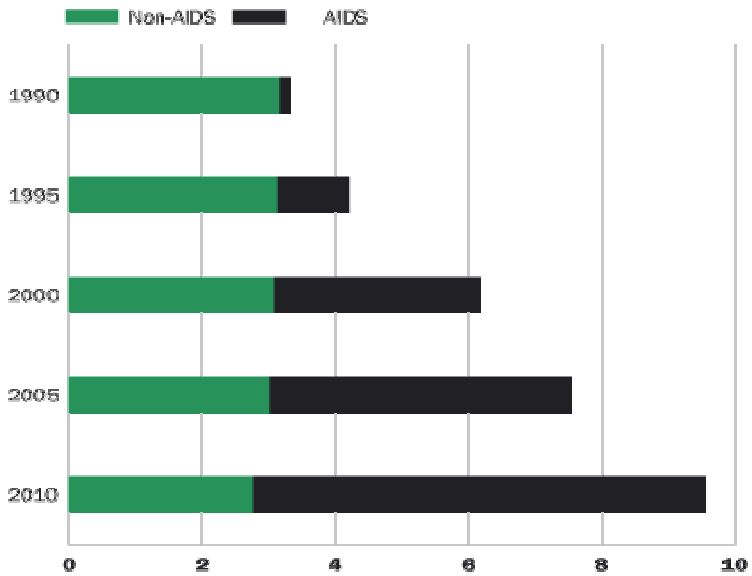


Source: World Bank staff estimates.

AIDS is an increasing cause of death in young children, but it is also leaving millions of children orphaned. By the end of 2003, 15 million children worldwide, 12 million in Sub-Saharan Africa, had lost one or both parents to AIDS.

In Sub-Saharan Africa, where the epidemic is most widespread, the number of children who have lost both parents is increasing rapidly. These children are particularly vulnerable to disease and neglect, creating an unprecedented social problem.

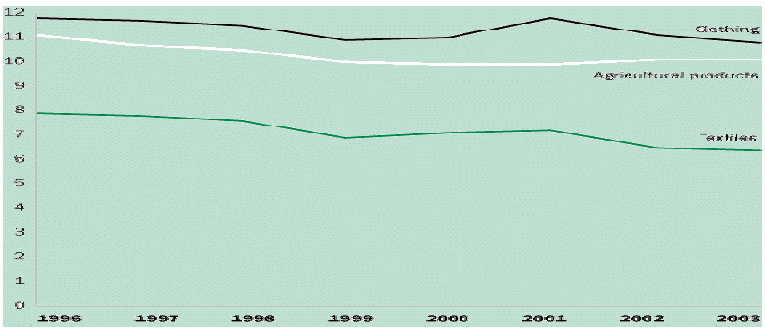
Figure 6: Children losing both parents (millions)



Source: UNAIDS.

Coming out of a debt and poverty trap requires consistent growth for a sustainable period. But, international trade restrictions take much of the ability to grow from developing countries. Tariffs charged by high-income countries on goods important to developing countries, such as textiles and agricultural products, remain high. Subsidies of $350 billion a year to agricultural producers in OECD countries are another barrier to developing country exports. Global trade is not yet a level playing field.

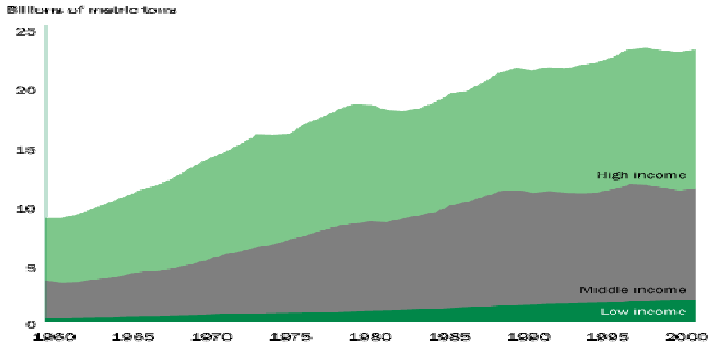
Figure 7: Average Tariffs by High-Income countries on developing country imports (%)



Source: International Trade Centre, World Trade Organization, and United Nations Conference on Trade and Development.

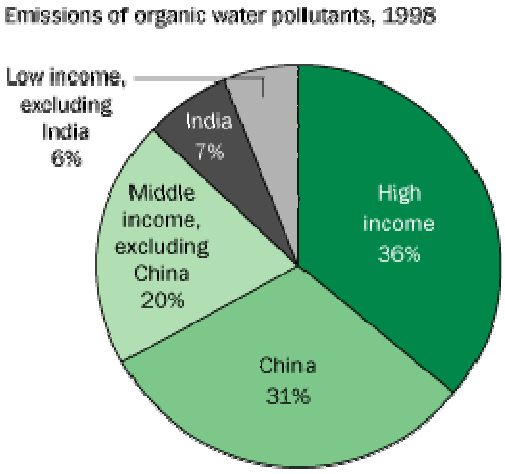
Other than tariffs, high-income countries accuse developing countries of not following environmental standards, TBT, SBT etc and thereby reduce further the ability and capacity of developing countries to gain from exchange and get out of debt and poverty trap. In Figure 8, it is shown that high-income countries account for half the world's Co_2 emissions.

Figure 8: High-income countries account for half the world's Co_2 emissions



Source: Carbon Dioxide Information Analysis Center data

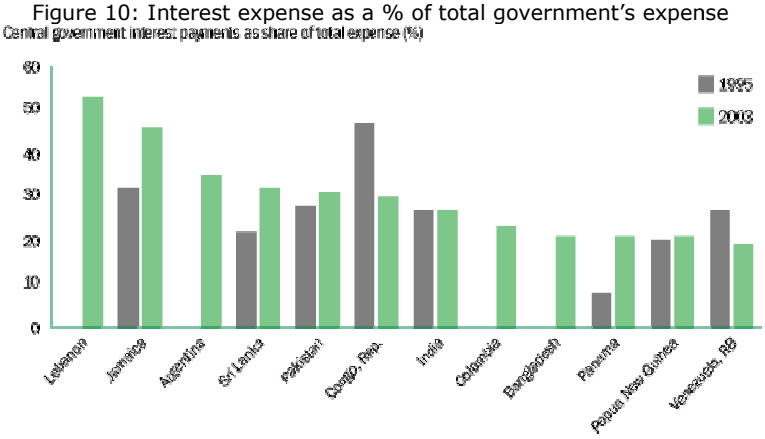
In Figure 9, it is shown that high-income countries account for 36% of emissions of organic water pollution.



Source: World Bank staff estimates.

Due to this, most developing countries are going through a perpetual debt trap which takes away resources that could have been used on development, but instead are used to service compounded debt. In figure 10, it is shown that interest payments take up most of the resources of government. It must be kept in mind that principal amount of debt remains same even if debt is serviced each year. Even if only debt is serviced each year, the debt servicing amount would continue to increase each year with compounding effect.

Figure 10: Interest expense as a % of total government's expense

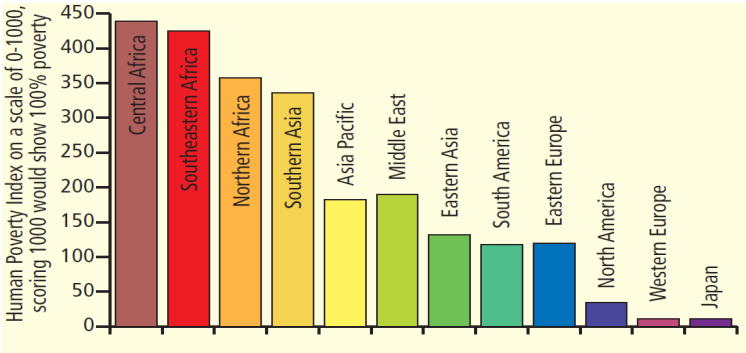


Note: Data for 2003 refer to the most recent year for which data are available in 2001–03. No data are available for Lebanon, Argentina, Colombia, and Bangladesh for 1995.

Source: International Monetary Fund, Government Finance Statistics data files.

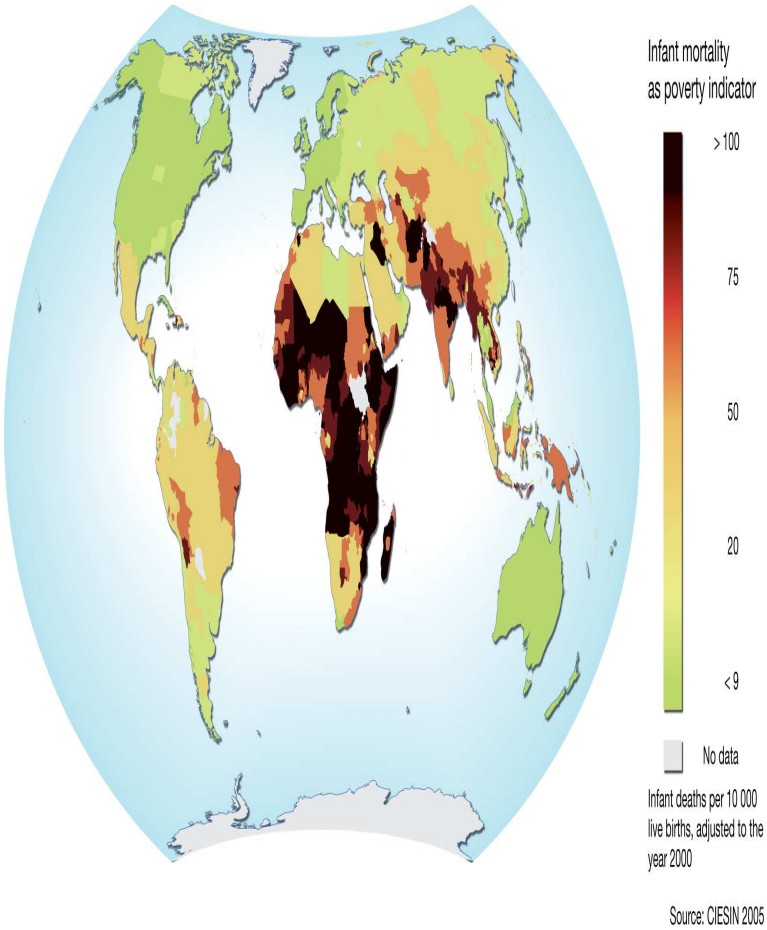
It would be interesting to see where the poor of the world are. As is shown in figure 11, most of the poor are living in Asia, Africa and Latin America. These three continents are the most populous continents of the world.

Figure 11: World Poverty Map by Continents



Source: UNDP 2004 Human Development Report

Figure 12: World Poverty Map



As we can see in Figure 12 as well, most of the world's poor reside in Africa, Latin America, South Asia and Central Asia.

2. Challenge of Economic Development in Pakistan

2.1 Poverty

Pakistan saw decrease in poverty levels in later part of 90s and until at least by 2005 when the economy experienced a booming period. But, in the aftermath of the economic meltdown, poverty has started to increase again as poor people have lost jobs and those who have retained their jobs have not been getting increase in their real wages. Increase in wages is not proportionately equal to the increase in inflation.

In Pakistan, 25% of the people live below the line of poverty. Hence, one fourth of the population is not even able to get subsistence standard of living. Poverty is not just a standalone problem; it is a mother of many problems.

Poor people are deprived of clean drinking water, adequate sanitation, and affordable medical facilities and therefore, they have malnourished children, infant deaths and plethora of other diseases.

Poor people are also not able to get adequate education. Even if free education is provided to them, their opportunity cost of not sending their child to work is usually greater than the cash subsidy provided to them for education and leaving work. Therefore, the children of poor families remain uneducated and then it becomes extremely difficult for them to get out of the poverty trap.

2.2 Inequality

In Pakistan, there is significant income inequality. Income inequality results in social stratification. This stratification affects social relations like marriages (assertive mating) and economic relations in the form of nepotism. Cartels are also a reason why most industries remain oligopolistic. Many industrialists form conglomerates especially having stakes in complimentary industries. Consolidation in industries beyond a certain level would bring market imperfections inevitably.

The dearth of documentation and security/collateral deprives poor people of official and formal sources of financing. Hence, poor people use informal sources of financing paying higher interest rates and if they default, they often become subjects to their lenders and have to submit themselves and their siblings after them to bonded labor. It makes it very difficult for them to get out of the debt trap.

Access to quality education also becomes a function of one's level of income. Therefore, income inequality also results in unequal access to quality education. In most developing countries, developed expenditure is almost always contingent on the loans and grants obtained. Therefore, state patronage of developing SME financing and micro financing remains an issue given low priority.

2.3 Unemployment

Unemployment is also another big problem facing Pakistan. Even if unemployment has decreased a bit in last 5 years, it has created many other problems. Employment generation has taken place for educated people mostly. Employment generation for poor and uneducated has increased only in urban areas. It has resulted in huge migration from rural areas to urban areas. This massive migration in last 10 years from rural areas to urban areas hasn't been complemented by the same increase in infrastructure. Therefore, it has resulted in increase in cost of real estate in urban areas, power shortage, pollution and even crimes.

Furthermore, after WTO implementation, textile and other sectors of Pakistan have been exposed to the global competition and domestic producers are finding it very difficult to be competitive as government is also short of funds and cannot provide incessant subsidies to the ailing industries. Therefore, this has and unfortunately may further result in more layoffs and unemployment in the times to come.

3. Rationale for an Interest Free Approach

Riba is a technical term in Islamic Shariah. It refers to 'Anything paid/charged over and above the principal amount on a loan'. It is an undisputed and agreed upon definition of Riba and is backed up by the consensus of all Islamic scholars and schools of jurisprudence. It is used in this specific sense in Islamic Shariah and does not include all forms of exploitation. Most definitely, Islam prohibits all forms of exploitation; however, Riba is a technical term and refers to the particular type of exploitation in a loan transaction when something over and above the principal is taken or is charged. Allah in Quran said "Do not do wrong nor be wronged" (2:279). It means that interest either results in injustice to the borrower or sometimes it results in injustice to the lender. That is why, lending or borrowing and taking or giving interest both are not allowed in Islam.

More importantly, prohibition of interest is also due to its discouraging effects on enterprise. If one wants to invest money to earn profit, Islam has allowed trade over lending for interest. If one does not want to invest money for profit, but has some surplus funds, Islam has encouraged spending in charity over lending for interest (2:276). This second directive is testimony to the fact that prohibition of interest is inclusive of a situation where the lender has surplus funds.

On the economic reasons of looking for interest free alternatives, it is worthwhile to mention few studies on this issue. Siddiqui (2002) criticized interest stating that even in commercial loans, the borrower may suffer a loss, yet interest based lending obliges him/her to repay the principal plus compound interest. Conversely, the borrower may reap huge profits, yet the lender gets only the stipulated rate of interest which may likely turn out to be small part of the actual profits. It results in inefficient allocation of society's

resources and increases the inequality in the distribution of income and wealth as it guarantees a continuous increase in the monies lent out, mostly by the wealthy, and puts the burden of bearing the losses on entrepreneurs and through loss of jobs on the workers.

Highlighting the moral void in current approach to achieve development, Chapra (2003) viewed secular societies continuing to belittle the need for moral development; though all of them now profess commitment to development with justice. He emphasized that even material development with justice is not possible without moral development. The rationale for this contention is that development with justice requires an 'efficient' and equitable use of all resources and both 'efficiency' and 'equity' can neither be defined nor actualized without the injection of a moral dimension into economic pursuits.

He outlined unrealistic assumptions in capitalism which will not make invisible hand alone to address the issues of equity:

1. Harmony between individual and social interest e.g. unscrupulous consumption and imposing externalities on society.

2. Individual preferences reflect social priorities e.g. precedence of self interest over social priorities).

3. Equal distribution i.e. unequal distribution of income gives more weight to resourceful class to influence allocation of resources to their desired use.

4. Prices reflect urgency of wants i.e. no mechanism to differentiate between necessities and not so necessities, e.g. want satisfaction of few does not mean need satisfaction of all especially when resources are scarce and can only be used for alternative uses.

5. Perfect Market i.e. price mechanism can have a minimum impact on socially desirable allocation of resources; it works when there is perfect competition. But, market imperfections even dilute this little influence that price mechanism could have on socially desirable resource allocation when prices are completely out of line of real costs.

6. Social Darwinism i.e. richest are the fittest to survive by the sheer weight of their purchasing power to influence the resource allocation.

Sameulson (1948) in his criticism on extra reliance on market forces stated that market forces will only lead to 'starving couples' to malnourished children who grow up to produce malnourished children, to perpetuation of Lorenz curves of great inequality of income and wealth for generations or forever.

Khan (2004) argued against elimination of interest by a legal decree and favored free market forces to bring the interest rates down to zero. He proposed following policy measures:

I. Strengthening the system of social security and income maintenance to safeguard the interest of lenders whose major source of income is interest i.e. pensioners, widows, retirees, disabled, old etc.

II. Gradual decline in interest to make investments in debt based instruments less lucrative and shift loanable funds towards equity based instruments.

Providing indexation as a basis of pricing loans, Zaheer (2007) argued that Islam has emphasized that in case of transactions involving credit, whether in the case of sale or financial debt, it is highly important that the returned article be absolutely identical to the one borrowed; otherwise there is a danger of interest being involved in the exchange. This principle can be applied to index financial loans in the inflationary or deflationary periods when the value of the amount returned undergoes either depreciation or appreciation compared to what it was when borrowed. He further stated that giving interest to a lender in a period of high inflation at a rate less than the inflation rate, which is called negative rate of interest, is also unfair for the lender and, therefore, should be avoided. In other words, the prohibition of Riba applies

to real interest, not nominal interest, as with inflation a ban on the latter may result in negative real interest.

This recommendation is a deviation from conventional thought, but following arguments can be raised against it. Real interest rates in most developing countries are and have been negative. Following the true spirit of Quran and Hadith, we would be better off devising an alternative system in which we do not have to continually make a compromise between interest and inflation, growth in aggregate demand and inflation and money supply and interest rates.

Furthermore, real interest rates net of inflation are still not real ideally. Opportunity cost of forgoing use of money at a given point in time will include many other things and different for different individuals. Even the best alternative forgone is not quite known in many given situations and it would be different for different individuals having different circumstances. Best alternative forgone cannot even be restricted to a financial paradigm. If a catastrophe damages the asset for which money was borrowed, both parties or at least one of them will lose no matter what they decide as a matter of resolving the issue. Furthermore, the very basis of our existence is that we have been sent here for a trial. Absolute justice cannot be provided in this world for natural, financial, physical, knowledge, social and legal constraints.

Time value of money is the problem of the lender. It is not the problem of the borrower. Lender cannot demand any compensation or the opportunity cost. The borrower cannot be obliged to pay the opportunity cost other than the principal amount. Interest rates in a given country are a function of many things other than just domestic inflation. Cost-push inflation is driven by supply shocks. Therefore, deterioration in real purchasing power is caused by factors not in the control of the borrower. He cannot be held liable to compensate in a matter in which he was not responsible. Furthermore, inflation is measured by an index which has an urban bias, period bias and representative bias inherently. If indexation is permitted, we will have to index compensation to other factors of production e.g. wages, rent etc.

On the fiscal front, Islahi (1985) explained that it is not necessary to make some living person the owner of the Zakah. Zakah can be given to any person or cause or an organization working for a cause. It is not necessary to make some living person the owner of the Zakah. This argument provides an opportunity to use Zakat funds by using an intermediary to make allocation widespread, efficient and effective.

Ghamidi (2007) in his monumental book ‘Meezan’ has argued that no tax can be levied other than Zakah. Further, concept of ‘Ushr’ can be applied in industrial production as well on the premise that rain fed land was taxed at 10% and irrigated land was taxed at 5%. Based on this argument, he deduced that rain fed land use primarily labor as a factor of production; whereas, irrigated land use both labor and capital. Thus, industries employing both labor and capital can be taxed at 5% and those employing only labor or capital can be taxed at 10%. This proposal will expand the tax base in an interest free economy and hence the revenues which will provide access to funds to the micro equity intermediaries in the proposed framework.

In the proposed framework, it is suggested to discontinue interest based financial system complimented by an imposition of broad based wealth tax (Zakah). An imposition of wealth tax (Zakah) would ensure that loanable funds increase even when there is no interest. The loanable funds would be invested in equity modes of financing including Mudarabah and Musharakah. Investments in equity will be exempted from wealth tax. This would ensure that investors get a minimum return i.e. tax savings plus income on their equity investments. This tax exemption would also ensure the availability and supply of loanable funds.

Such a lenient taxation structure will itself increase productive activities, employment generation on a large scale and higher tax collection for the government. It will allow the government to allocate more resources on development.

The presence of an active public sector is required to achieve the social targets that cannot be achieved through the private sector. The income from those public enterprises will not only put a check on the private sector but also achieve the social objectives, such as reducing inequality of income. Industry

specific studies can be undertaken to determine which industries must be kept in public sector and which must be privatized. Since the fiscal incentives are attractive enough to lure foreign investors, they can be asked to buy at least one loss incurring public enterprise with a cash cow enterprise. A hefty license fee can be charged to generate fiscal space for subsidizing the public sector enterprises and turning them around.

A Natural Monopoly provides an important necessity to masses. We call it natural because of the peculiar nature of that industry which requires heavy capital expenditure. Now, when more firms enter a market, market share gets divided, but not the capital expenditure. For that capital expenditure to be recovered, a firm needs volume and economies of scale. Therefore, market in that situation "naturally" needs to be concentrated.

When a Natural Monopoly is privatized, the market at best can be oligopolistic. There is no problem with oligopolistic markets in usual if the demand for the products is elastic. But, if it is inelastic, as is the case for products of a Natural Monopoly, the oligopoly would run into cartelization or by the application of game theory would again turn into a monopoly. The size of the pie can hardly be increased because the demand is inelastic. Since the demand is inelastic, the decrease in price will decrease revenue and not increase it assuming that the products are not exportable i.e. market size cannot be increased.

Therefore, competition in such a market may not depress prices, it will (even if number of firms increase in short run) result in exit of firms to once again make market oligopolistic. But, the market will not be stagnant as an oligopoly as the demand is inelastic, it will either result in cartels or in monopoly after firms try to predict other firms' behavior and make strategic choices. That is why, a Natural Monopoly exists in industries which produce an important necessity, but require heavy capital expenditure.

Privatization of a natural monopoly in "developing countries" raises few questions as in most developed countries; there is less inequality in infrastructure, income, wealth, job opportunities than developing countries in South America, Africa and South Asia. Therefore, in developed countries, the whole operations can be subdivided and sold in pieces to individual companies. But, in a developing country like Pakistan, hardly anybody would be willing to buy an electric company in NWFP and Baluchistan where line losses and significantly different infrastructure facilities, law and order situation and dispersed population exists. Therefore, operations of a giant big Monopoly cannot be easily divided and sold in pieces. Some can be sold, but not all divisions can be sold. If government takes over those pieces, then it will be more inefficient with less profitable business divisions than having all mixed up in one big corporation. In addition to that, a Natural Monopoly can adjust losses from one with profits from another division. It can fulfill deficiencies internally. If some divisions remain unsold, the less profitable divisions will have to fill the gap paying the market price than just a mere transfer of shortfall from one division to another as in Natural Monopoly. This will further increase the gap between profitable and less profitable divisions and eventually it will once again become a consolidated industry and may even become a monopoly.

In that case, a Natural Monopoly is better off being in Public ownership and hence the concept 'Public Monopoly'. The only thing forgone is tax revenue. But, it comes if it is profitable. If it is profitable, then, profits do overcome taxes. Tax revenue cannot be greater than profits. Further, the government avoids regulation. Moreover, in developing countries, this huge capital expenditure would usually be provided by foreign companies. They can repatriate profits and hence will increase capital flight.

In other cases, we can give private sector the chance to lead the economy. In the proposed model, Defense, Communication, Transport, Education and Health would be run in Public sector as is the case in most other countries too. In other sectors, government can either privatize or give operating rights to private sector and retaining ownership to some extent.

Privatization would increase layoffs and increase structural unemployment. Structural unemployment is classified as natural in Economics. The government is only responsible to avoid cyclical unemployment. Structural unemployment requires education to be in Public sector and subsidized. Scandinavian and many European countries have an efficient public sector education system. It is subsidized and it needs to be subsidized to enable people to change their fortunes after structural unemployment. In the time lag between the changes of fortunes, they also need subsidized health facilities and hence health should also be in public sector. Private education system and health can run in tandem with public sector. But, some education and health must exist in public sector.

4. Poverty Alleviation in Proposed Framework

In Pakistan, more than 25% people live below the poverty line. Approximately, more than half of the population of Pakistan still lives in rural areas where Microfinance is needed. Approximately 40% of the labor force is employed in Agriculture and this sector can be the main target market for Microfinance.

Pakistan is the 7th largest country in population and has huge supply of young labor aged between 15 and 40. Informal credit markets already exist and recovery rates are higher i.e. 95% offering a great opportunity for sustainable growth. Density of population is high in Pakistan and therefore, transaction costs would be lower than in regions where density of population is low.

Agri-based economies of Africa and Asia have fared well with increase in agriculture prices worldwide. Agriculture sector has not witnessed recession in the economic crisis of 2007-08. Inelastic demand of agriculture goods can better mitigate inflation risk and profitability risk. Grameen Bank in Bangladesh initiated by Nobel Prize winner Muhammad Younis has been a resounding success.

A Microfinance institution targets poor and whose average loan size is less than 250% of GDP per Capita of a country. In the proposed economic framework, employment in urban areas will already increase. But, we cannot solely depend on it for two reasons. There will be poor people residing in both urban and rural areas without any basic education and training, but they have needs to be fulfilled. Secondly, urban areas will increasingly become congested places with excessive migration into urban areas and therefore, we need to suggest tailor-made solutions for rural areas suited to the rural setting. Microfinance institutions usually provide interest based loans. Since interest is not allowed in Islam, we will have to suggest an alternative to serve the same need without resorting to interest.

4.1 Financing Arrangements

It is a hard enough job to keep record and supervise/regulate lending business in a grossly undocumented area. It would be a very daunting task to supervise/regulate while providing equity based financing. Profit Participation Certificates or Qard-e-Hasan can be provided, but that will create problems of supervision and documentation besides increasing the risk and limiting business profit potential.

The need will be met through two separate institutions:

1. Several Micro VC funds will be established either privately owned or government owned that will invest in Micro enterprises. The idea is that it is difficult to document each and every person's business. Therefore, group based lending will be provided. The group will form itself as a Micro enterprise. A Micro enterprise will be able to obtain economies of scale, better bargains and tap market effectively.

2. There will be individuals left who will not be able to form a group and hence a micro enterprise and will require standalone financing. They will be financed through Qard-e-Hasan for consumption or small hard to be repayable business loans or by issuing Profit Participation Certificate (PPC). Showing honest records would be incentivized and bad performance will cease doors for further financing and hence incentives honest showing of business performance.

4.2 Sources of Funds

The source of funds will be as follows:

1. Government (Zakat Receipts).
2. Donors both local and foreign.
3. General and limited partners in a VC.
4. Small savings of dwellers.
5. Reserves built-up in past
6. Commercial enterprises investing to get tax rebates and improve corporate image through below the line activities.

Now, the question arises where will the work come from?

4.3 Employment Creation

The work will come in following forms:

a) Corporations outsourcing some of their tasks and operations. Corporations will need an incentive to outsource work to the micro enterprises funded by the Micro VC fund. The incentive will come from
   i. Lower wages in rural areas than urban areas.
   ii. Obtaining production even without incurring huge capital expenditures, acquisition of fixed assets, factory etc and
   iii. Operational efficiency as there will be no need to hire permanent labor for the whole year.

b) Domestic work projects in rural areas producing a particular need of a rural, urban or export market.

c) Herding livestock in one's ownership or rendering this service for others.

d) Sharecropping using tenant-landlord or Musharakah / Mudarabah model. A precursor to this initiative would be an extensive land reform. Group based lending would ensure that land size is not reduced to an economically inefficient size.

e) Development/Construction projects in rural areas, e.g. building roads, schools, colleges, healthcare centre, mosques, bridges, cold storage, warehouse, railway tracks, post office etc.

The regions where population density is lower, mobile banking would be introduced in those areas. With the increase in number of Micro enterprises and Self-Employed Persons (SEP), wages in rural areas would increase. But, since there would be a disincentive to migration, corporations outsourcing their work projects will still save money in labor cost.

The human resource involved in Micro VC fund will be given compensation based on profit sharing, so that moral hazard and agency problem is avoided.

The group will constitute members who can bring social collateral i.e. hold good image in their locality. SEP opting for Qard-e-Hasan (provided only where PPC cannot be used) or Profit Participation Certificate (PPC) would be asked to bring peer guarantees as is the practice in contemporary interest based microfinance institutions. Repayment incentive will be provided e.g. enhancing future credit line and a child's tuition fee for 1 year reimbursed if loan is paid on time.

4.4 Issue of Documentation, Security & Collateral

Poor villagers have limited capacity to enter in corruption. They can hardly migrate abroad but they may decide to migrate to urban areas. To confront this case, a special mention can be made on their I.D cards that they have benefited from such Poverty Alleviation Fund. Furthermore, they will be asked to bring NOC from such and such Poverty Alleviation Fund. They are hardly trained in diverse works than the

ones in which they are provided with training. They will hardly have any work experience other than the work they will be trained to do under the auspices of the Poverty Alleviation Fund. Therefore, they will have to mention their training and/or work experience to get a job in urban areas and at that point, they will have to show their IDs. Urban employers might hire them paying below minimum wages, but they will be penalized if such a happening comes under the knowledge of labor inspection team which would make regular visit to urban work settings to identify such a happening and prevent it to at least not becoming a norm.

Poor Villagers are members of a family system which usually has a larger family size than urban areas and has close relations with other families in the villages. Unlike in urban areas, an adult man in a village is better known in his locality. Training shall be made compulsory to all loan candidates. Training would be provided before they are provided with any financing.

Conclusion

With interest at zero bound in U.S since 2008 and with unemployment at 11% level, scarcity of capital cannot solely explain surge in unemployment. However, interest based Microfinance has had mixed results. Interest based lending at Micro level is usually carried out at very high interest rates, more so when the lending takes place informally without institutional intermediation. Institutional intermediation serves a good purpose, but it can also be designed using equity modes of financing. This can relieve the financee and increase diversity of entrepreneurial activities as in debt based microfinance, not much diversity can happen with compulsory servicing of debt. The related questions as to how the institutional arrangement would work to carry out this system (introducing Micro equity funds), how documentation problems be resolved (centralized computerized database), how trust level can be created (strong communal bonds in rural areas will serve the purpose), how effective monitoring can be undertaken (cross guarantees) and how the intermediaries generate finance themselves (Zakat, CSR contributions by corporations, opening saving accounts and mobilize funds are answered in this paper.

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