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Relationship between Economic Freedom and Pro-poor Growth: Evidence from Pakistan (1995-2010)

Khalid ZAMAN
Department of Management Sciences, COMSATS Institute of Information Technology

Muhammad Mushtaq KHAN
Department of Management Sciences, COMSATS Institute of Information Technology

Mehboob AHMAD
Department of Management Sciences, FUIEMS, Foundation University, New Lalazar

ABSTRACT

The relationship between economic freedom and pro-poor growth is examined in Pakistan from 1995-2010. The concept of pro-poor growth is derived from the literature of Kakwani and Pernia (2000) and Kakwani and Son (2003). The domino effect shows that there is a strong link between economic freedom indicators and pro-poor growth. Econometric analysis proves a strong relationship between economic freedom, poverty reduction and income inequality. Results reveal that larger the business freedom and / or trade freedom, greater the economic growth. This will ultimately reduce poverty in the country.

Keywords: Economic Freedom indicators, pro-poor growth, poverty, inequality, Pakistan

JEL codes: I30, I32, O10

1.Introduction

Economic freedom is defined as the freedom to produce; trade and consume any goods and services without any pressure / force, fraud or theft. This is embodied in the rule of law, property rights and freedom of contract and is subject to external and internal openness of the markets (Heritage foundation, 2009).

In the Index of Economic Freedom - 1995, there are 10 different viewpoints for measuring and ranking economic freedom. Some features of economic freedom are external in nature, measuring the extent of an economy's openness to investment or trade. Others are internal in nature, such as assessing the liberty of individuals to use their labor or finances without restraint and government interference.

Pakistan's economic freedom score is 57. Pakistan is ranking at 102 freest in the 2009 Index[1]. Its score has improved by 1.4 points over last year, reflecting modest improvement in six of the 10 components of economic freedom. Pakistan is ranked 19th out of 41 countries in the Asia–Pacific region, and its overall score is below the world average. Pakistan has followed reform to improve its overall business climate and encourage private-sector development, but these efforts have been sporadic and destabilized by political instability, thus producing only marginal expansions. Regardless of some success in achieving steady economic growth and reducing poverty, Pakistan lags significantly behind other countries in the region.

Pakistan scores above the world average only in business freedom, fiscal freedom, and government size. Confronts to overall economic freedom include a wide range of institutional weaknesses. Trade freedom remains loaded by high tariffs and non-tariff barriers. Despite ongoing reforms to cut tax rates, broaden the tax base, and increase transparency, the tax system is unproductive. Pakistan's financial market is guarded by burdensome regulations and bureaucracy. The judicial system is understaffed with low level of security and suffers from a serious case backlog. Substantial corruption contaminates the judiciary and civil services.

Table 1 A snapshot of Economic freedom Indicators-1

Years	Business Freedom	Trade Freedom	Fiscal Freedom	Government Size
1995	55.0	32.4	59.1	82.1
1996	55.0	31.0	65.0	66.3
1997	55.0	30.0	67.5	71.2
1998	55.0	35.0	67.4	72.6
1999	55.0	29.0	78.5	70.6
2000	55.0	43.0	82.1	78.1
2001	55.0	49.4	82.0	90.3
2002	55.0	59.0	73.8	85.5
2003	70.0	44.2	65.8	83.9
2004	70.0	55.6	68.2	86.3
2005	70.0	54.6	69.7	89.7
2006	72.2	59.0	71.4	89.5
2007	71.6	63.6	73.0	92.3
2008	70.8	65.2	79.1	90.1
2009	72.5	65.6	80.4	90.7
2010	71.7	67.0	80.5	88.8

Source: The Heritage Foundation and Wall Street Journal: The 2009 Index of Economic Freedom.

[1] The Heritage Foundation and Wall Street Journal: 2009 Index of Economic Freedom.

In Pakistan, Inflation is reasonably high, averaging 7.9 percent between 2005 and 2007. Pharmaceutical and fuel prices are governed by government. Subsidy is given to agriculture sector. State-owned enterprises play a major role in energy sectors i.e., petroleum, electrical power generation, methane gas and water generation. Foreign investment is encouraged because foreign investors may usually own 100 percent of their businesses. The state-dominated banking sector has gradually moved toward a more privately owned system as a result of consolidation, improved transparency, and rejuvenation of the regulatory framework. About 80 percent of Pakistan's commercial banks are now in private hands. Despite this progress, the sector remains concentrated and vulnerable to government influence. Pakistan's judiciary, separate by law from the executive, remains hampered by poor security for judges and witnesses, sentencing delays, a huge backlog of cases, and corruption. The government has taken steps to protect the intellectual property rights. Corruption is perceived as omnipresent. Pakistan ranks 138th out of 179 countries in Transparency International's Corruption Perceptions Index for 2007. Corruption among executive and legislative branch officials is viewed as widespread[2].

Table 2 A snapshot of Economic freedom Indicators-2

Years	Monetary Freedom	Investment Freedom	Financial Freedom	Property Rights	Freedom from Corruption
1995	69.9	70.0	70.0	70.0	10.0
1996	68.5	70.0	70.0	70.0	30.0
1997	68.0	70.0	50.0	70.0	23.0
1998	69.0	70.0	50.0	50.0	10.0
1999	68.8	70.0	50.0	30.0	25.0
2000	72.3	70.0	50.0	30.0	27.0
2001	75.5	50.0	50.0	30.0	22.0
2002	76.6	50.0	50.0	30.0	22.0
2003	78.1	50.0	50.0	30.0	23.0
2004	78.4	50.0	30.0	30.0	26.0
2005	74.0	30.0	30.0	30.0	25.0
2006	77.2	50.0	50.0	30.0	21.0
2007	72.6	50.0	40.0	30.0	21.0
2008	72.2	40.0	30.0	30.0	22.0
2009	72.2	40.0	40.0	30.0	24.0
2010	69.4	30.0	40.0	30.0	25.0

Source: The Heritage Foundation and Wall Street Journal: The 2009 Index of Economic Freedom.

Sen[3] (1999) has defined Freedom as the basic capabilities of a person to choose the life / lifestyle with the autonomy he or she has reason to value. These capabilities include good health, education, social networks, and command over economic resources, and influence on decision-making that affects one's life. There are two specific measures pertaining to pro-poor

[2] www.heritage.org/Index

[3] Amartya Sen, *Development as Freedom* (New York, Alfred A. Knopf, 1999, p. 87.

growth used in recent literature and policy-oriented discussions. The first and relative definition of pro-poor growth compares changes in the income of the poor with respect to changes in the incomes of the non-poor. Using this definition, growth is regarded as pro-poor, when the distributional shifts accompanying growth favor the poor (Kakwani and Pernia, 2000; McCulloch and Baulch, 1999; Kakwani and Son, 2003). This relative definition of pro-poor growth presents three limitations, particularly when applied in an operational context. First, by focusing on inequality the relative definition could lead to sub-optimal outcomes for both poor and non-poor households. Second, under this definition an economic retrenchment could be pro-poor, if the incomes of poor households fall by less than those of non-poor households — despite the fact that poverty has not fallen. Third, this definition might favor public sector intrusions that reduce inequality regardless of their impact on growth.

The second and absolute definition evades these problems by focusing instead on what happens to poverty. Growth is considered to be pro-poor if and only if poor people benefit in absolute terms, as reflected in some agreed measure of poverty (Ravallion and Chen, 2003; Kraay, 2003). In this case, the extent to which growth is pro-poor depends solely on the rate of change in poverty, which is determined by both the rate of growth and its distributional pattern. In short, under this definition the aim is to achieve the greatest amount of poverty reduction possible through growth and progressive distributional change[4].

To review impact of economic freedom on pro-poor growth concept, the paper is organized as follows. Section 2 provides literature review. Data and Methodological frame work is presented in Section 3. Analysis is described in Section 4. The final section concludes the study.

2. Literature Review

A view widely held in the sphere of development economics is that the benefits of economic growth distribute automatically across all segments of society. Several studies have shown that countries with more economic freedom grow more rapidly and attain higher per-capita income levels than those that are less free (Berggren, 2003; Dawson, 1998; de Haan, Lundstrom, and Sturm, 2003; Easton and Walker, 1997).

Several other studies demonstrate that economic freedom is a predictor of growth and investment while corruption is found to be negatively and significantly correlated with the level of education, judicial efficiency, and economic freedom. It is positively and significantly correlated with foreign aid and the size of government ((Ali, Abdiweli M., and W. Mark Crain (2002, 2003)). Economic freedom augments growth both via increasing total factor productivity and by enhancing capital accumulation (Ayal, Eliezer B., and Karras Georgios (1998). Some studies based upon foreign direct investment and economic freedom show that Foreign direct

[4] http://web.worldbank.org

investment is positively correlated with economic growth in the host countries. The host country needs adequate human capital, economic stability and liberalized markets to benefit from long-term capital flows (Bengoa, Marta, and Blanca Sanchez-Robles (2003). While continued and gradual raises in economic freedom influence equality measures positively but the absolute level of economic freedom appears to be negatively related to equality in some cases (Berggren, Niclas (1999).

The relationship between growth and inequality has also been debated extensively. Simon Kuznets has mentioned in his well renowned article published in 1955 that there is an inverted U pattern between per capita income and inequality based on a cross–section of countries. The foremost driving force was presumed to be the structural change that occurred because of labor shifts from a poor less productive traditional sector to a more productive differentiated modern sector. The proposition was supported by a number of studies including Oshima (1962); (1973); Ahluwalia (1974, 1976); Robinson (1976). Kuznet's inverted U pattern has been challenged and seems to have evaporated by the number of studies including Anand and Kanbur (1984); Fields (1989) and Deininger and Squire (1996).

The pro-poor growth spat has its roots in the pro-distribution arguments given by Chenery and Ahluwalia - 1970s. In 1974 their model of "redistribution with growth" could be regarded as main-stay on the entire debate on pro-poor growth, which culminated the critique of the trickle – down hypothesis. In 1990, pro-poor growth was re-coined as 'broad-based growth' in the World Development Report, but this term did not gained significant impetus. A number of studies have attempted to redefine and evaluate a pro-poor growth, including Kakwani and Pernia - 2000; McCulloch, *et al.* (2000); and Son (2004). Kakwani and Pernia (2000) proposed an index to measure the degree of pro-poor index. This index is known as the Pro-Poor Growth Index (PPGI). Pro-Poor Growth Index (PPGI) is obtained from the relationship between total poverty reduction and poverty reduction in the case of distribution-neutral growth. In reality, this relation is expressed as the ratio of poverty elasticity, i.e., if greater than one then, growth scenario is pro-poor.

Few studies have been examined in the context of Pakistan's pro-poor growth scenario. Saboor (2004) found out trend analysis of rural poverty and income inequality by employing axiomatic approach, to assess the impact of various factors on poverty status of household in Pakistan, to develop Poverty Equivalent Growth Rate (PEGR) for analyzing the trickle down impact of agricultural growth to the rural poor and to forecast the co-integrated trends of agricultural growth, rural poverty and income inequality. Anwar (2006) examines the change in inequality profile from the most recent micro economic data sets published in Pakistan Integrated Household Surveys (PIHS) 2001/02 and Pakistan Social and Living Standard Measurement Survey (PSLM) 2004/05. The results reveal that consumption inequality has shown worse pattern in Pakistan during this period. Malik (2006) expressed that globalization in Pakistan has insignificant impact on poverty reduction. Jamal (2006) examines the relationship between poverty, growth and inequality in the context of Pakistan, that due to high inequality, poverty reducing effort are nullified. Zaman, K *et al* (2009) examines the poverty, agriculture growth and inequality nexus in the context of Pakistan. They investigate the pro-poor growth index in the agriculture sector, by employing a methodology proposed by Kakwani and Pernia, during 1985-2006. Their results reveal that cumulative effect for two decades remain anti-poor growth in the agriculture sector of Pakistan.

The above cited literature has a gap between the economic freedom and pro-poor growth. Economic freedom and Income Inequality has a key role in poverty reduction in context of Pro-poor Growth. The paper attempts to identify possible elements of pro-poor economic growth and economic freedom with the help of poverty and inequality statistics. It is evident that economic growth and economic freedom is necessary but it is insufficient to make a dent to poverty reduction. Economic growth and growth-oriented policies are necessary for sustainable poverty reduction. These policies are not ensured at the country level.

3. Data Source and Methodological Framework

Base-line for poverty is derived from Economic Survey of Pakistan (2009-10) where 2,350 Calories are mentioned as cut-off point for poverty for Pakistan. The latest estimate of inflation-adjusted poverty line is Rs.944.47 per adult equivalent per month, up from Rs.878.64 in 2004-05. Income inequality data has been extracted from Federal Bureau of Statistics – Pakistan (2008) and it is reproduced in Table 3.

Table 3 Poverty and Income Inequality Data Sets: Consistent Estimates

Survey Years	Percentage of Population Below the Poverty Line (%)	Gini Coefficient (%)
1993-94	25.0	40.0
1996-97	21.8	40.0
1998-99	30.6	41.0
2001-02	34.5	41.3
2004-05	23.9	42.0
2005-06	22.3	43.1

Source: Data taken from Economic Survey of Pakistan, various issues, Anwar, T. (2005).

Data is evaluated by Pro-poor Growth Index (PPGI) in Pakistan. To get reliable estimates of poverty and income inequality measures, a simple interpolation technique is used to take the growth trends between two points in time. The data gaps between two points are derived through this technique.

The pro-poor freedom index is the ratio of the total poverty elasticity of growth to the growth elasticity of poverty. The poverty elasticity of growth captures the percentage change in poverty when there is a 1 percent growth in mean income of the society provided the growth process does not change inequality. Economic freedom indicators are pro-poor (anti-poor) if the change in inequality does not affect the total poverty. Mathematically,

$$\eta = \frac{\Delta(P)/P}{\Delta(Y)/Y} = \frac{d\ln(P)}{d\ln(Y)} \quad (1)$$

The distribution effect (ζ) captures the percentage change in income inequality when there is a 1 percent change in economic freedom – provided the growth process does not change poverty.

$$\xi = \frac{\Delta(I)/I}{\Delta(Y)/Y} = \frac{d\ln(I)}{d\ln(Y)} \quad (2)$$

where:

L (P): Log of Poverty (HCR);

L (I): Log of income inequality (GINI);

L (Y): Log of economic freedom (proxy for economic growth).

The total poverty elasticity is the sum of both growth elasticity and income inequality elasticity.

$$\delta = \eta + \zeta \quad (3)$$

Moreover, the pro-poor growth index or PPGI (θ) is the ratio of the total poverty elasticity to the growth elasticity of poverty.

$$\theta = \frac{\delta}{\eta} \quad (4)$$

where:

$\delta = dLn(\theta)/\gamma$.

Thus, economic freedom index is pro-poor (anti-poor) if the total elasticity of poverty is greater (less) than the growth elasticity of poverty. ϕ is the pro-poor freedom index, therefore, if $\phi > 1$ growth is highly pro-poor otherwise it is considered as anti-poor.

4. Analysis

This section examines the linkages between economic freedom indicators and pro-poor growth in Pakistan by using time series data set for the period of 1995 to 2006. This study focuses on the empirical question: Whether the link between economic opportunity and prosperity contributes to pro-poor growth? At least two of the three dimensions of pro-poor growth: poverty and income inequality are taken as dependent variables to examine this phenomena. Table 4 presents results estimated econometrically by Ordinary Least Square (OLS) technique.

Table 4 Linkages between Economic Freedom and Poverty at National Level
Dependent Variable: Log (Poverty)

Indicators of Economic Freedoms	Coefficients	t-statistics	R-square	F-statistics
Business freedom	-0.313	-0.685	0.044	0.470
Trade Freedom				
	0.204	1.040	0.097	1.082
Fiscal Freedom				
	1.273*	2.708	0.470	8.880*
Government Size				
	0.589	0.722	0.091	0.455
Monetary Freedom				
	2.990	1.678	0.268	1.650
Investment Freedom				
	0.161	0.424	0.058	0.278
Financial Freedom				
Property Rights	0.100	0.302	0.016	0.231
Freedom from Corruption	-0.733*	-5.683	0.790	16.996*
	0.103	0.589	0.075	0.364

*Note: The t-values significant at * 1 percent, ** 5 percent and *** 10 percent levels are indicated by.*

The results reveal that that fiscal freedom and property rights contribute to poverty significantly during the said period. Property rights are negatively correlated while fiscal freedom has positive correlation with poverty. This result concludes that the protective property rights may be associated with reduction in poverty. Further analysis of economic freedom includes Business freedom, trade freedom, Government size, monetary freedom, financial freedom and freedom from corruption hence can not tackle poverty and vulnerability directly or indirectly.

Inequality refers to the variation of income from perfect equality as measured by Gini Coefficient. It is not an ultimate outcome of growth but plays a central role in formative the rate and pattern of growth. The result in Table 5 suggests relationship between freedom indicators and inequality by applying simple OLS regression analysis.

Table 5 Linkages between Economic Freedom and Income Inequality at National Level
Dependent Variable: Log (Inequality)

Indicators of Economic Freedoms	Coefficients	t-statistics	R-square	F-statistics
Business freedom	0.1388*	3.712	0.579	13.779*
Trade Freedom				
	0.067*	4.912	0.707	24.132*
Fiscal Freedom				
	0.093	1.471	0.169	2.046
Government Size				
	0.156*	3.651	0.571	13.331*
Monetary Freedom				
	0.326*	4.425	0.662	19.587*
Investment Freedom				
	-0.060*	-3.126	0.494	9.771*
Financial Freedom				
Property Rights	-0.049**	-2.181	0.322	4.758**
Freedom from Corruption	-0.048*	-4.893	0.705	23.951*
	0.023	1.294	0.143	1.671

*Note: The t-values significant at * 1 percent, ** 5 percent and *** 10 percent levels are indicated by.*

The analysis synthesizes that investment freedom, financial freedom and property rights exhibit a negative and significant relationship with inequality. The result suggests that in the non-existence of above freedom indicators, income inequality increases which will trim down economic growth and thereby aggravate poverty. A key point of freedom indicators and income inequality relationship suggests that poor freedom indicators has significant distributional implications and, given its negative efficiency implications, should be considered harmful to both growth and equity. In brief, a successful trade freedom, business freedom and monetary freedom should persuade macro economic stability that would leads to increase government size.

Economic freedom is a prevailing anti-poverty tool. Pakistan's economy has specific factors, which favor growth benefit to the poors. Pro-poor growth deals with the dynamic aspects of growth-poverty-inequality. To calculate Pro-poor Growth, two sets of household survey are required, which are conducted at two different points of time. By using Pro-poor Growth Index on these data sets that period is regarded as pro-poor or anti-poor. In this study 15 years data is used from 1995 – 2010.

Table 6 Economic Freedom and Pro-Poor Growth Index at National Level

Indicators of Economic Freedoms	Total Poverty Elasticity	Pro-Poor Growth Index	Decision
Business freedom	-0.174	0.556	Anti-Poor
Trade Freedom	0.271	1.328	Pro-Poor
Fiscal Freedom	1.366	1.073	Pro-Poor
Government Size	0.745	1.264	Pro-Poor
Monetary Freedom	3.316	1.109	Pro-Poor
Investment Freedom	0.101	0.627	Anti-Poor
Financial Freedom	0.051	0.511	Anti-Poor
Property Rights	-0.781	1.065	Pro-Poor
Freedom from Corruption	0.126	1.223	Pro-Poor

In Table 6, Total Poverty Elasticity is calculated by the sum of growth elasticity and income inequality elasticity. This total value is divided by the growth elasticity of poverty which gives us Pro-poor Growth Index (value is greater than one). During a fifteen years period data sets trade freedom, fiscal freedom, Monetary Freedom, property rights, freedom from corruption and government size are regarded as pro-poor in Pakistan. Periods specified above are pro-poor while remaining are pro-rich or anti-poor (value is less than one). Out of 9 freedom indicators, 6 are Pro-poor, while 3 indicators are anti-poor. It means that overall poverty has decreased throughout the specified time.

5. Conclusions

The aim of this study is to investigate the linkages between economic freedom indicators and pro-poor growth in Pakistan for the period of 1995-2010. The analysis shows that freedom indicators such as Business freedom, Trade Freedom, Fiscal Freedom, Government Size, Monetary Freedom, Investment Freedom, Financial Freedom, Property Right and Freedom from Corruption have low scores as compared to other countries. The findings of the paper illustrate that one percent increase in the rule of law to protect property rights; poverty decreases by 0.73 percent while fiscal freedom increases the poverty by 1.27 percent. It clearly shows that government should focus on pro-poor fiscal policies which would benefit the poor as compared to the rich. While in the absence of freedom indicators, income inequality increases which will reduce economic growth and thereby exacerbate poverty.

At last, the results on the performance of freedom indicators depict an unfavorable situation. Weak economic freedom is not conductive environment for entrepreneurs for long-term investment. Pakistan needs to focus on improving levels of economic freedom to reduce poverty by removing trade barriers, so that Pakistan can enjoy the benefits generated by division of labor, economies of scale and specialization; building the rule of law to protect property rights, encourage investment and reduce corruption.

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