

## **Economic Freedom, Larger Freedoms and State Intervention**

Simrit Kaur, Reader, Institutional Affiliation: Faculty of Management Studies, University of Delhi, India

### **Abstract**

What is the relationship between economic freedom and larger freedoms? Arguably, if economic freedom (EF) promotes growth and if it trickles down EF promotes larger freedoms (e.g. a healthy and productive life, free from want and deprivation). However, higher EF by definition entails lower government interventions in sectors such as health and education, thereby curtailing some aspects of larger freedoms. Thus ambiguity exists with respect to the effect of EF on larger freedoms. Therefore, the basic objective of the paper is to examine how various aspects of economic freedom impinge on larger freedoms. The econometric analysis suggests that higher levels of EF promote not only higher levels of GDP per capita but also impact larger freedoms favourably. However, results also confirm that higher levels of EF associated with few of its sub-components, particularly *lower government consumption expenditures* and *lower transfers and subsidies*, affect larger freedoms adversely. Since the role of the State in creating and expanding social opportunities, and in mitigating risks and vulnerability from the broader perspective of human freedoms is well documented, a policy dilemma exists regarding the appropriate level of EF. In light of this dilemma, and acknowledging that public action expands larger freedoms, the paper questions the commonly held belief that government interventions are necessarily less productive. Emphasizing that government expenditure in providing freedoms is vital, it is argued that the role of the government, in an era of liberalization and privatization, needs to be redefined and not necessarily curtailed.

## **Economic Freedom, Larger Freedoms and State Intervention**

### **1. Introduction**

The past three decades have seen an unprecedented and a dramatic reduction in extreme poverty. Spearheaded by progress in China and India, many in the world have been able to escape the burdens of extreme impoverishment and begin to enjoy improved access to food, education and health care. Yet at the same time, many countries have become poorer and millions of families have been thrown into poverty. While overall global wealth has grown it is less and less evenly distributed within countries, within regions and in the world as a whole. Today, more than a billion people - one in every six human beings - still live on less than a dollar a day, and 20,000 die from poverty each day, lacking the means to stay alive in the face of chronic hunger, disease and environmental hazards. In other words, this is a poverty that kills. We live in a world in which every year 11 million children die before their fifth birthday and three million people die of AIDS. Very many people across the world suffer from many other varieties of unfreedom. Famines continue to occur in particular regions, denying to millions the basic freedom to survive.

Further, inequality between men and women afflicts the lives of millions of women and severely restricts the substantive freedoms that women enjoy. This is definitely not a world with *larger freedoms*.

The absence of economic growth implies the continued existence of poverty and hardship. Neoclassical economic theory explains economic growth as a function of four factors, namely capital, labour, human capital and technology. But according to a new line of research, the policies that are most favourable to growth are the ones that promote *economic freedom*. The freedom to produce and trade- to earn an honest living- without undue interference is the essence of economic freedom (EF). It includes the right to own, use and dispose property, right to proper and speedy resolution of disputes and enforcement of contracts, and overall protection of life and property so that everyone can earn their livelihood safely and peacefully. The Fraser Institute's Economic Freedom Index (EFI) measures the degree of economic freedom in five major areas<sup>1</sup>. They are:

- i) Size of government: When government spending increases relative to spending by individuals, households, and businesses, government decision-making is substituted for personal choice and economic freedom is reduced.
- ii) Legal structure and security of property rights: Security of property rights, protected by the rule of law, is essential to economic freedom.
- iii) Access to sound money: Countries that follow policies and adopt institutions that lead to low (and stable) rates of inflation and avoid regulations that limit the use of

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<sup>1</sup> Within the five major areas, 21 components are incorporated into the index but many of those components are themselves made up of several sub-components. Counting the various sub-components, the Economic Freedom of the World (EFW) index utilizes 38 distinct pieces of data.

- alternative currencies, should citizens want to use them, have greater economic freedom.
- iv) Freedom to trade internationally: This implies that the country must have low tariffs, a large trade sector, efficient administration of customs, a freely convertible currency, and few controls on capital.
  - v) Regulation of credit, labour and business: Countries that allow markets to determine prices and refrain from regulatory activities that retard entry into business and increase the cost of producing products have greater EF<sup>2</sup>.

In other words economic freedom promotes free markets. In fact, it is well documented that in the absence of imperfections such as natural monopolies, externalities and public goods (also including the informational asymmetries) free markets achieve better economic efficiencies and higher per capita incomes. The levels of real income that people enjoy are important in giving them corresponding opportunities to purchase goods and services and to enjoy living standards that go with those purchases. But sometimes, income levels may often be inadequate guides to such important matters as the freedom to live long, or the ability to escape avoidable morbidity, or the opportunity to have worthwhile employment. These non-income variables point to opportunities that a person values but that are not strictly linked with economic prosperity. Thus, as put by Sen (2000), both the *process* aspect and the *opportunity* aspect of freedom

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<sup>2</sup> Each component is placed on a scale from 0 to 10 that reflects the distribution of the underlying data. The component ratings within each area are averaged to derive ratings for each of the five areas. In turn, the summary rating is the average of the five area ratings. The index is based completely on empirical data and does not include subjective judgment of the authors.

require us to go well beyond the traditional view of development in terms of “the growth of output per head<sup>3</sup>.”

In UN 2005, the MDGs are visualised in terms of freedom from want, freedom from fear and freedom to live in dignity. Recent experience of growth in developing countries is associated with accentuation in income inequalities. Understandably, inequality in income distribution is a narrow concept and cannot be equated to equity - a broader concept. By equity we mean that individuals should have equal *opportunities* to pursue a life of their choosing, and be spared from the most extreme forms of deprivation in *outcomes*. The high levels of inequalities in different dimensions make it harder to reduce poverty and to meet the Millennium Development Goals (MDGs). These adverse affects of unequal opportunities on development are all the more damaging because economic, social and political inequalities tend to reproduce themselves over time and across generations.

Investing in people’s health and education promotes *human security* (Human Security Now, 2003) and contributes to *larger freedom* (UN Report, 2005). Addressing inequalities requires public action in the form of transfer policies that provide for efficient and equity enhancing redistribution. The role of government in these domains, especially in the short run, derives from the presence of externalities and other market failures, and cannot be ignored. This necessitates re-examination of the role of government in an era of privatization (Scully 2002; Kaur 2003, 05).

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<sup>3</sup> The differences arise for two rather distinct reasons, related respectively to the “process aspect” and the “opportunity aspect” of freedom. First, since freedom is concerned with processes of decision making as well as opportunities to achieve valued outcomes, the domain of our interest cannot be confined only to the outcomes in the form of the promotion of high output or income, or the generation of high consumption (or other variables to which the concept of economic growth relates). Such processes as participation in political decisions and social choice cannot be seen as being—at best—among the means to development (through, say, their contribution to economic growth), but have to be understood as constitutive parts of the ends of development in themselves.

What is the relationship between economic freedom and larger freedoms? Arguably, if economic freedom promotes growth and if it trickles down then economic freedom promotes larger freedoms (e.g. a healthy and productive life, free from want and deprivation). However, higher economic freedom by definition entails lower government interventions in sectors such as health and education, thereby curtailing some aspects of larger freedoms. Thus ambiguity exists with respect to the effect of economic freedom on larger freedoms. The basic purpose of the paper is thus to study how various aspects of economic freedoms impinge on larger freedoms. In order to study this relationship, the paper is divided into four sections. In Section 2, the relationship between economic freedom, growth and larger freedoms is discussed. In section 3, the role of the State in promoting larger freedoms is analyzed. Specifically, the role of the State in creating and expanding social opportunities, in mitigating risks and vulnerability from the broader perspective of human freedoms and also in enabling the poor to break the poverty-nutrition-trap is reviewed. Section 4 contains empirical evidence linking economic freedom to larger freedoms. This section discusses the methodology and estimation strategy, the choice of variables and data, and the key results obtained. The econometric results provide evidence that higher levels of economic freedom promote not only higher levels of GDP per capita but also impact larger freedoms favourably. However, our analysis also confirm that higher levels of economic freedom associated with few of its sub-components, particularly *lower government consumption expenditures* and *lower transfers and subsidies*, affect larger freedoms adversely. Since public interventions enhance larger freedoms, while it necessarily lowers economic freedom a policy dilemma exists between the desirability of having higher or lower economic freedom. In light of this dilemma, and taking note of the role of the State in expanding larger freedoms, the paper in section 5 questions the commonly held belief that government

intervention is necessarily less productive. Finally, emphasizing that government expenditure in providing freedoms is vital, section 6 concludes the paper by stating that the role of the government, in an era of liberalization and privatization, needs to be redefined and not necessarily curtailed.

## **2. Economic Freedom, Prosperity and Larger Freedoms**

### *2.1. Economic Freedom, GDP per capita and GDP Growth*

The economic literature highlights the importance of three alternative theories of growth. First, the neoclassical theory, based primarily on the work of Robert Solow (1956), argues that growth is a result of expansion in the supply of productive inputs and improvements in technology. According to this theory, investment in physical and human capital is the key to economic growth. Second, is the geographic and locational theory of growth (Sachs, 2001; Gallop, Sachs, and Mellinger, 1998; Diamond, 1997). According to this theory, climatic conditions and access to major markets are the primary determinants of growth. Third, is the institutional approach which stresses the importance of creating an institutional and policy environment conducive for the smooth operation of markets and realization of gains from trade and entrepreneurial activities (North, 1990; Hayek, 1945, 1960). Clearly, economists who argue that economic freedom is a key ingredient in the growth process fall into the institutionalist's camp. Many empirical studies have found a positive relation between economic freedom and growth (Barro, 1991; De Vanssay and Spindler, 1994; Gwartney et al, 1998; Ayal and Karras, 1998; Kneller et al 1999; Grubel, 1998; Hanke, 1997). On theoretical grounds, there are primarily three factors that make free economies grow more rapidly than those that are less free. They are:

- Competition

- Entrepreneurship, and
- Investment

In the final analysis, however, the relationship between free markets and growth is an empirical one. For instance, Carlsson and Lundstrom (2002), in their paper investigate which components of the economic freedom indices are important for growth and the direction of these effects. Based upon their analysis, they conclude that a number of economic freedom measures have a significant effect on growth of GDP. However, this does not mean that increasing economic freedom in general increases growth since some of the categories have a negative effect on growth. They find that, four of the significant economic freedom indices (Economic Structure and use of markets, Freedom to use Alternative Currencies, Legal Structure and Security of Ownership, Freedom to exchange in Capital Markets) are positively related to growth, while two are negatively related. In their study, they find that increased freedom to trade with foreigners decreases the growth rate. Increased freedom in terms of *lower government consumption and transfers* has a positive or a negative impact on growth depending upon the *size of the government*. Consequently, they conclude that there is a hump shaped relation between government size and growth.

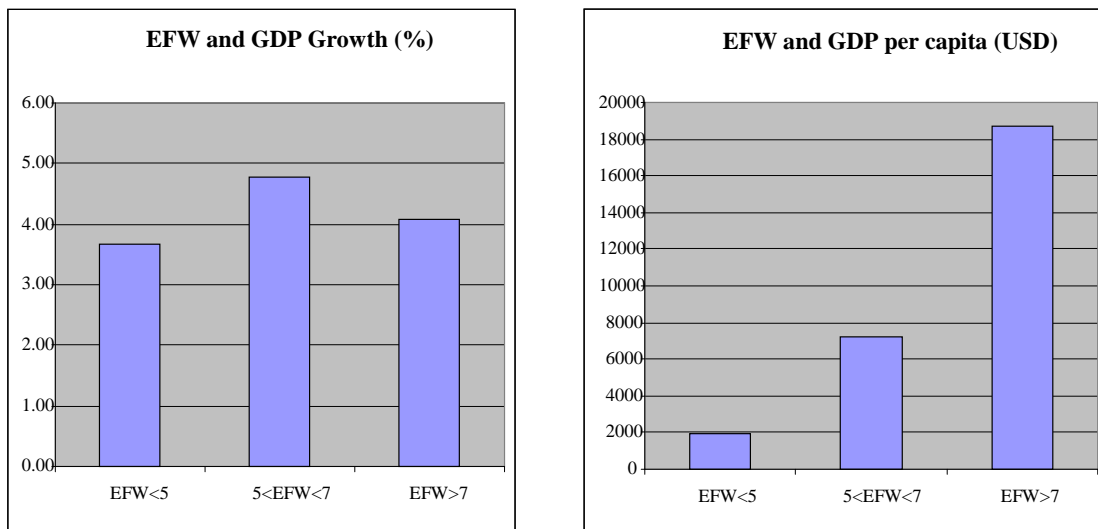
Niclas Berggren provides a synoptic view, highlighting the positive effect of economic freedom on growth. This is summarized in Table 1 below. No results showing that economic freedom hampers growth or that it is associated with lower GDP per capita have been reported. To the contrary, the results in general show that an increase of economic freedom exerts a positive influence on the development of economic growth.

**Table 1: Effect of Economic Freedom on GDP Growth and GDP Per Capita**

<b>Studies</b>	<b>Dependent Variable</b>	<b>Independent Variable</b>	<b>Effect</b>
Dawson 1998, Gwartney, Lawson, and Holcombe 1999; de Haan and Sturm 2000, 2001; Adkins, Moomaw, and Savvides 2002; Pitlik 2002; Weede and Kampf 2002	Growth	Change in the EFI	Significant, positive
Gwartney, Lawson, and Holcombe 1999; de Haan and Sturm 2000, 2001; Heckelman and Stroup 2000; Adkins, Moomaw, and Savvides 2002	Growth	Level of the EFI	Not Significant
Ali 1997; Easton and Walker 1997; Goldsmith 1997; Dawson 1998, Wu and Davis 1999; Hanson 2000; Ali and Crain 2001, 2002; Carlsson and Lundstrom 2002; Pitlik 2002; Scully 2002; Weede and Kampf 2002; Hanke and Walters 1997;	Growth	Level of the EFI	Significant, positive
Hanke and Walters 1997; Leschke 2000	GDP Per Capita	Level of the EFI	Significant, positive
Heckelman and Stroup 2000	Growth	Level of a version of the EFI with different weights	Significant, positive
De Vanssay and Spindler 1994	Growth	Level of the Scully-Slottje economic freedom index	Significant, positive

Figure 1 shows the average growth rate of GDP and GDP per capita over the period 2003 to 2005, for countries with Economic Freedom of the World (EFW) rating of more than 7, between 5 and 7, and less than 5. The Figure shows that the persistently free group had a much higher per capita GDP though the same cannot be said about the GDP growth<sup>4</sup>.

**Figure 1: Economic Freedom, GDP Growth and GDP Per Capita**



Kaur (2006) estimated the correlation between the EF and the GDP per capita for the countries reporting their EFI for the period 1975 to 2002. The results show that there has been a positive relationship between Economic Freedom and GDP per capita since 1975. Further, the correlation seems to have strengthened over time. While it was less than 0.5 in 1975, the corresponding value was close to 0.7 in 2000.

## 2.2. Economic Freedom and Larger Freedoms

<sup>4</sup> However, some economists have expressed concern that the observed correlation between the EFW variables and growth may, at least potentially, reflect reverse causality. The proponents of this view suggest that rather than economic freedom causing growth, the relationship may reflect a tendency of rapidly growing economies to liberalize.

Even if it can be demonstrated that economic freedom contributes to economic growth, some people may resist policy changes that increase this sort of freedom because they fear that such changes will entail bigger income differences. Different studies have reported different results. While a simple mapping by Gwartney and Lawson (2002) shows that no clear-cut relationship between economic freedom and the relative situation of the poorest seems to exist, studies by Berggren and Scully present alternate set of results. Berggren's (1999) results show that the level of economic freedom is negatively related to the level of equality, plausibly because of less redistribution. On the other hand, Scully (2002) shows that economic freedom is beneficial for both economic growth and equality because it has a significant negative effect on gini coefficients. In addition, increased equality decreases growth, but by only a small amount. Further, Grubel's (1998) results support the hypothesis that income redistribution policies reduce economic freedom and the levels and the rates of growth of per capita income.

In addition to the variables growth, wealth, and equality, the effect of economic freedom on other variables, such as, Human Development Index and quality of life has also been studied. For instance, Esposito and Zaleski (1999) find that the quality of life, in terms of literacy and life expectancy, increases as economic freedom is increased, both if one compares nations and if one looks at the same countries over time. Norton (1998a) shows that countries with stronger protection of private property, as measured in the EFI, rank higher on the United Nations Human Development Index. Goldsmith (1997) uses the EFI and shows that developing countries that protect economic rights have a higher level of human well-being. Norton (1998b) reaches the conclusion that strong protection of private property rights, as measured in the EFI, has beneficial environmental consequences. Carlsson and Lundström (2001) find that economic freedom has a hampering effect on emissions of carbon dioxide. Lundström (2002) studies how

the components of economic freedom are affected by the degree of democracy in developing countries, where democracy is measured by the Freedom House indices of political and civil liberty. Grubel's (1998) results show that greater economic freedom index is associated with superior performance on most of the criteria of human well being such as income levels, income growth, unemployment rates and human development.

### **3. Freedom from 'Want and Deprivation' and Role of State**

#### *3.1. Sen's concept of Development as Freedom*

The efficiency achievement result (called the Arrow-Debreu theorem) is of great significance in explaining the role of economic freedom in attaining higher growth and per capita GDP, despite the simplifying assumptions. However, these efficiency results do not say anything about the equity of outcomes, or about the equity in the distribution of freedoms. A situation can be efficient in the sense that no one's utility or substantive freedom can be enhanced without cutting into the utility or freedom of someone else, and yet there could be enormous inequalities in the distribution of utilities and of freedoms.

The problem of inequality, in fact, gets magnified as the attention is shifted from income inequality to the inequality in the distribution of *substantive freedoms* and *capabilities* (Sen, 2000). As Sen points out, this is due to the possibility of some "coupling" of income inequality, on the one hand, with unequal advantages in converting incomes into capabilities, on the other. Sen further goes on to discuss five types of instrumental freedoms: *Political Freedom, Economic Facilities, Social Opportunities, Transparency Guarantees and Protective Security*. Social Opportunities refer to the arrangement that society makes for education, health care and so on. On the other hand protective security is needed to provide a social safety net from preventing the

affected population from (say famines) being reduced to abject misery and in some cases even starvation and death. The domain of protective security includes fixed institutional arrangements such as unemployment benefits and statutory income supplements to the indigent as well as ad hoc arrangements such as famine relief or emergency public employment to generate income for destitutes. The overarching implication is that state actions and social arrangements are needed to secure and expand the freedom of individuals. There is evidence that even with relatively low income, a country that guarantees health care and education to all can actually achieve remarkable results in terms of the length and quality of life of the entire population. In fact in the past of the presently rich countries there has been quite a remarkable history of public action, dealing respectively with education, health care, land reforms and so on. The wide sharing of these social opportunities made it possible for the bulk of the people to participate directly in the process of economic expansion. It is interesting, in this context, to refer to the work presented by Sudhir Anand and Martin Ravallion. On the basis of inter-country comparisons, they find that life expectancy does indeed have a significant positive correlation with GNP per head, but that this relationship works mainly through the impact of GNP on (i) the incomes specifically of the poor and (ii) public expenditure particularly on health care. In fact, once these two variables are included on their own in the statistical exercise, little extra explanation can be obtained from including GNP per head as an additional causal influence.

This indicates that the connection between GNP per capita and life expectancy tends to work particularly through public expenditure on health care, and through the success of poverty removal. The basic point is that the impact of economic growth depends much on how the fruits of economic growth are used. Sen (2000) presents two interesting and interrelated contrasts:

I. for high economic growth economies, the contrast between:

- i) Those with great success in raising the length and quality of life (such as South Korea and Taiwan), and
- ii) Those without comparable success in these other fields (such as Brazil).

II. for economies with high success in raising the length and quality of life, the contrast between:

- i) Those with great success in high economic growth (such as South Korea and Taiwan and the Indian state of Punjab), and
- ii) Those without much success in achieving high economic growth (such as Sri Lanka, pre reform China, and the Indian state of Kerala).

In contrast with the growth-mediated mechanism, the support-led process does not operate through fast economic growth, but works through a program of skillful social support of health care, education and other relevant social arrangements. In the context of developing countries particularly, the need for public policy initiatives in creating such social opportunities is crucially important.

### *3. 2. Freedom from 'Want and Abject Poverty' and Role of Government*

In view of the poverty-nutrition-trap, economists for long have analyzed the links between nutrition and poverty. The notion that poverty causes under-nutrition dates back at least to Adam Smith. Economists have also suggested the reverse causation: that inadequate nutrition is the reason for low productivity and poverty. This idea, captured in the notion of 'efficiency wages', dates back to Leibenstein (1957) and was subsequently given a stricter formulation by Mirrlees (1975), Stiglitz (1976), and Bliss and Stern (1978a,b) . The backbone in these models is the so-called efficiency-wage function. It is derived on the assumption that the amount of 'efficient' work that can be extracted from labourers by an employer is a function of their pay,

which determines the labourers' consumption, including that of food. The efficiency wage hypothesis postulates that in developing countries, particularly at low levels of nutrition, workers are physically incapable of doing hard manual labour. Hence, their productivity is low which then implies that they get low wages, have low purchasing power and, therefore, low levels of nutrition, completing a vicious cycle of deprivation. These workers are unable to save very much. Therefore, their assets, both physical and human, are minimal. Since the poor do not own assets (both human and capital), non-wage income is low. This accompanied by a low wage income reduces their chances of escaping the poverty-nutrition-trap.

In order to break the vicious cycle of deprivation, while economic growth is essential, evidence suggests that this happens at a modest rate. In fact, governments, which focus on growth as a means to address nutrition, require an extra generation to make substantial inroads compared to governments that successfully implement nutritional programmes. Thus, the commonly held belief that nutrition programmes are welfare interventions that use resources which could profitably be used elsewhere to raise national incomes is a myth. Direct investments in nutrition are desirable (Alderman, 2005). This requires that governments increase their role and provide greater targeted interventions. However, as public interventions increase, the economic freedom of that country goes down. In other words a trade off is likely to exist between choosing higher economic freedom and larger size of the government.

### *3. 3. Risk, Vulnerability and Role of Government*

The objective of this section is to broaden the scope of anti-poverty strategy by focusing on the role of government in reducing risks and vulnerability of the affected population. Two UN reports (2003, 2005) draw attention to the close connection between human security and development. More specifically, one cannot be sustained without the other. Human security

demands protection from various risks and hazards that result in sudden deprivation. In UN 2005, the MDGs are visualised in terms of freedom from want, freedom from fear and freedom to live in dignity.

As discussed in IFAD (2005), risks can be classified by level (micro, meso and macro), and by nature of event<sup>5</sup> (natural/environmental, political, social and economic). Responses to risks are classified into (i) risk reducing, (ii) risk mitigating, and (iii) risk coping. Risk reducing measures *reduce* the probability of a shock or negative fluctuation in income/output. Risk mitigating measures aim at reducing the impact of a shock through *anticipatory* measures while coping measures seek to minimise the severity of a shock *after* it occurs. This is further elaborated as follows:

#### *Risk Reduction Policies*

1. For example awareness building with respect to epidemics (e.g. HIV, tuberculosis, malaria). This requires deeper understanding of links between health and human security, need for larger donor funding agencies, better awareness of preventive measures, and knowledge systems such as better analyses of disease risks and spread.
2. Expansion of basic medical facilities, hygiene and sanitation facilities and access to safe drinking water.

#### *Risk Mitigating and Coping Policies*

1. Targeted transfers: This requires transfers to certain sections of the population, such as, the elderly, the disabled, and protection of human capital of the poor (e.g.

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<sup>5</sup> Note that this classification is not a rigid one as both in terms of causation and outcomes there may be considerable overlap (e.g. ethnic conflicts may be driven by economic disparities).

withdrawal of children from schools may be discouraged by providing snacks for attending school).

2. Self-targeting: Rural public works could be started to build livelihoods and mitigate economic hardships. These could be introduced on priority in regions with high concentration of poor. Subsidized food grain could also be provided to supplement incomes of those willing to work at low wages.
3. Community-based services: The basic objective is to raise community awareness of preventing spread of epidemics (e.g. village hygiene, sanitation, safe sex practices), resource mobilisation for support to children and women and campaign against ostracization of HIV/AIDS victims.
4. Others: strengthening coalitions of poor through livelihood expansion and more equitable access to human, physical and financial capital.

It is thus clear that governments have a role to play in providing not only risk reduction measures but also in risk mitigating and risk coping policies that may help reshape the development strategy and lead to larger freedoms such as amelioration of poverty and reduction of income inequality.

#### **4. Econometric Analysis: Impact of Economic Freedom on Prosperity and Larger Freedoms**

##### *4.1. Policy Variables Included*

In addition to the economic freedom variables three other independent variables viz. size of country, population density and percentage of population living in coastal area have also been included in the regressions. The percentage of population living in coastal areas controls for the influence of geography on development. Based on the evidence in the paper by Gallup, Sachs

and Mellinger (1998), it is believed that geography continues to matter importantly for economic development, alongside the importance of economic and political institutions. Therefore the authors believe that geographical considerations should be re-introduced into the econometric and theoretical studies of cross-country economic growth, which so far have almost completely neglected geographical themes<sup>6</sup>. Specifically their results show that higher coastal population density is associated with faster growth, while higher interior population density is associated with lower growth. Thus, there appear to be economies of agglomeration at play in the coastal regions. We now turn to a more formal consideration of these factors and focus on the roles of geography and economic freedom as determinants of prosperity and larger freedoms.

#### *4.2. Methodology and Data Sources:*

In trying to provide an answer to the question of how economic freedom relates to prosperity and larger freedoms, we have come to the empirical study, which makes use of the regression analysis. In accordance with the availability of data, two separate data sets were prepared. The first set consisted of constructing a panel data for a group of 120 countries over the period 2000 to 2005. This dataset was used to estimate the effect of economic freedom on GDP growth and per capita GDP. Use of panel data also minimized the causality that may exist between economic freedom and growth. Due to the non availability of time series data on coastal population, the second dataset was prepared by averaging the economic freedom and larger freedoms data over the period 2003 to 2005. Data availability restricted the analysis to a set of 110 countries. Further, based on the EFI the data is classified into three sub-groups viz:

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<sup>6</sup> Leading thinkers have pointed to four major areas in which geography will play a fundamental direct role in economic productivity: transport costs, human health, agricultural productivity (including animal husbandry); and proximity and ownership of natural resources (including water, minerals, hydrocarbon deposits, etc.). The factors may also have indirect effects, if first-mover advantages or population densities affect subsequent growth dynamics through agglomeration economies or other feedback mechanisms.

- EFW greater than 7,
- EFW between 5 and 7 and
- EFW below 5.

Suitable dummies have been introduced to capture the effect of these sub-groupings on prosperity and larger freedoms (with EFW less than 5 being the default category). Further, in order to study what happens if one divides the original group of countries into two different groups on the idea that the way in which a country functions may differ considerably on say the level of income and the development level, the model has been run on the division between OECD and non-OECD economies. Dummy has been introduced for OECD and non-OECD economies with non-OECD as the default category.

Most of the data is taken from the World Development Indicators. Data on various measures of economic freedom index has been collected from the Fraser Institute's EFW, 2007. The data on coastal population, reflecting the proportion of population in 1994 within 100 km of the coastline is from the John L. Gallup, Andrew D. Mellinger, and Jeffrey D. Sachs' Geography Datasets posted on the Harvard website <http://www.cid.harvard.edu/ciddata/geodata.csv>

### *4.3 Empirical Results*

#### **4.3.1. Economic Freedom and Prosperity**

The regression results presented in table 2 show that the aggregate measure of Economic Freedom Index (EFI) has a positive and significant effect on GDP per capita<sup>7</sup>. Studies by Hanke and Walters (1997) and Leschke (2000) also arrive at similar results. However, the regression results also show that the economic freedom has no significant impact on GDP growth. These

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<sup>7</sup> Further, econometric results show that countries with lower size of government have higher GDP per capita.

results are in agreement with the evidence obtained in the studies by Ali (1997), Hanson (2000), Carlsson and Lundstorm (2002), Pitlik (2002), Scully (2002) and Dawson (2003).

**Table 2: Regression Results of Impact of Summary Index of Economic Freedom on GDP Per Capita and GDP Growth**

Dependant variable	GDP Per Capita	GDP Per Capita	GDP Growth	GDP Growth
Explanatory Variable	Estimated Coefficient	Estimated Coefficient	Estimated Coefficient	Estimated Coefficient
Country Size	0.0000703 (0.33)	0.0000555 (0.25)	8.92e <sup>-08</sup> (0.91)	7.40e <sup>-08</sup> (0.75)
Population Density	4.60 (8.24)***	4.77 (8.32)***	0.0001 (0.38)	0.00013 (0.53)
Log GDP			0.602 (2.13)**	0.6838 (2.42)***
EF Summary Index	461.485 (5.11)***		0.312 1.36	
EF Size of Government		268.44 (5.12)***		-0.085 (-0.60)
D Oecd	21895 (17.87)***	22601 (17.89)***	-2.80 (-3.91)***	-2.33 (-3.70)***
Constant	-569.98 (-0.70)	664 (0.97)	-4.09 (-1.24)	-2.480 (-0.85)
Rho	0.990	0.9909	0.298	0.300
No. of Observations	715	715	715	715
No. of Groups	120	120	120	120
Wald Chi 2	427.68	404.51	17.95	16.38
Prob > Chi 2	0.000	0.000	0.0030	0.0058
R Square Within	0.1082	0.1194	0.0185	0.0252
R Square Between	0.7544	0.7435	0.1021	0.0987
R Square Overall	0.7606	0.7494	0.0486	0.0457

Z statistics are in parenthesis

\* Significant at the 10 percent level, \*\* significant at 5 percent level and \*\*\*significant at 1 percent level.

D: Dummy for OECD economies

### 4.3.2 Economic Freedom, Geography and Larger Freedoms

The purpose of this section is to study the impact of economic freedom on larger freedoms.

Larger Freedoms are captured by:

1. Human Development Index
2. Life Expectancy at Birth
3. Infant Mortality Rate
4. Poverty Headcount Ratio at USD 1 a day
5. Poverty Headcount Ratio at USD 2 a day and
6. Equality (both absolute and relative measures).

Some of these results are presented in table 3 below.

**Table 3: Regression Results of Impact of Overall Measure of Economic Freedom on Larger Freedoms**

Dependant variable	HDI	Life Expectancy	IMR	Poverty Hd. Ct. Ratio at \$ 2	Gini Index
Explanatory Variable	Estimated Coefficient	Estimated Coefficient	Estimated Coefficient	Estimated Coefficient	Estimated Coefficient
Country Size	1.09e <sup>-08</sup> (2.23)**	7.14e <sup>-07</sup> (1.80)*	-2.17e <sup>-06</sup> (-1.71)*	-5.37e <sup>-07</sup> (-0.28)	1.36e <sup>-07</sup> (1.87)*
Population Density	0.0000154 (1.11)	0.001 (0.98)	-0.003 (-0.71)	0.108 (2.14)***	-0.033 (-1.75)*
Coastal population	0.1027 (2.88)***	12.168 (4.23)***	-26.284 (-2.91)***	-12.39 (-0.82)	9.85 (1.69)
EF Summary Index	0.058 (3.97)***	2.79 (2.37)***	-12.611 (-2.91)***	-14.60 (-2.35)**	-1.51 (-0.63)
D Oecd	0.1765 (5.87)***	10.39 (4.28)***	-24.10 (-3.10)***	-11.16 (-0.49)	1.09 (0.12)
Constant	0.2588 (2.98)***	39.50 (5.63)***	139.84 (6.14)***	119.11 (3.14)***	51.36 (3.52)***
Adjusted R Square	0.55	0.49	0.386	0.326	0.073
No. of Observations	110	110	109	31	31
Prob > F	0.00	0.00	0.00	0.0094	0.2349

t statistics are in parenthesis

\* Significant at the 10 percent level, \*\* significant at 5 percent level and \*\*\*significant at 1 percent level.

D<sub>1</sub>: Dummy for EFW greater than 7

D<sub>2</sub>: Dummy for EFW between 5 and 7(Reference group being countries with EFW less than 5)

D<sub>3</sub>: Dummy for OECD economies

The regressions presented in Table 3 show that higher the level of EFI for a country the higher is the Human Development Index (HDI) and the Life Expectancy at Birth for that country. Results also show that the Infant Mortality rate is lower for countries with higher EFI. Similar results hold for the effect of coastal population on HDI, Life Expectancy at Birth and Infant Mortality Rate. However, the regression results show that both the EFI and the percentage of population living in coastal areas have a non-significant effect on other measures of larger freedoms such as poverty and income inequality.

#### **4.3.3 Size of Government and Larger Freedoms**

As a next step we sub-divide the aggregate measure of EFI into five sub groups of the index. These less aggregated EFI measures have respectively been included into the same regression equation as that of Table 2. The reason for this is to see if it is possible to infer what kind of economic freedom is related to larger freedoms. However, here we present the results related to Size of Government. For instance *government consumption* as a share of total consumption and *transfers and subsidies* as a share of GDP are indicators of the size of government. When government consumption is a larger share of the total, political choice is substituted for private choice. Similarly, when governments tax some people in order to provide transfers to others, they reduce the freedom of individuals to keep what they earn. Thus, greater the share of *transfers and subsidies* in an economy, the less is economic freedom. Therefore, countries with low levels of government spending as a share of the total, a smaller government enterprise sector, lower transfers and subsidies and lower marginal tax rates have higher economic freedom ratings.

The desegregation of the EFI measure into one of its sub-components viz. *government consumption expenditure* reveals few interesting results (Refer Table 4). In particular the results

show that higher the Economic Freedom Index as measured by *lower government consumption expenditure*:

- Lower is the Human Development Index
- Higher is the Infant Mortality Rate
- Higher is the Poverty Head Count Ratio and
- Higher are the income inequalities as measured by the Gini coefficients.

Thus increases in economic freedom, particularly as measured by lower ‘government consumption expenditure’ is detrimental for larger freedoms. Further, all these results are significant at the 1 percent level. This result has interesting policy implications that are addressed in the next section. A synoptic view of the contrasting effect of EF (Summary Index) and EF (measured by government consumption expenditure) on larger freedoms is shown in Figure 2. The figure clearly shows that while EF (Summary Index) affects larger freedoms favourably, EF (measured by government consumption expenditure) affects these parameters adversely.

**Table 4: Regression Results of Impact of Economic Freedom as Measured by Government Expenditure on Larger Freedoms**

Dependant variable	HDI	Life Expectancy	IMR	Poverty Hd. Ct. Ratio at \$ 2	Gini Index
Explanatory Variable	Estimated Coefficient	Estimated Coefficient	Estimated Coefficient	Estimated Coefficient	Estimated Coefficient
Country Size	8.95e <sup>-09</sup> (1.81)*	6.69e <sup>-07</sup> (1.65)	-1.81e <sup>-06</sup> (-1.40)	2.38e <sup>-06</sup> (1.24)	2.27e <sup>-06</sup> (3.27)***
Population Density	0.000025 (1.86)*	0.0015 (1.40)	-0.0026 (-0.52)	0.078 (1.60)	-0.05 (-2.88)***
Coastal population	0.1409 (4.26)***	14.26 (5.24)***	-35.91 (-4.14)***	-35.20 (-3.08)***	6.95 (1.69)
EF Government Expenditure	-0.0230 (-4.09)***	-0.708 (-1.53)	4.19 (2.83)***	9.82 (3.29)***	3.24 (3.02)***
D Oecd	0.1955 (6.99)***	11.94 (5.19)***	-29.60 (-4.04)***	-29.98 (-1.45)	-3.63 (-0.47)
Constant	0.751 (17.25)***	60.47 (16.88)***	38.12 (3.32)***	29.32 (1.07)	22.01 (3.02)***
Adjusted R Square	0.559	0.432	0.3989	0.5215	0.3091
No. of Observations	110	110	109	31	31
Prob > F	0.00	0.00	00.00	0.0016	0.0123

t statistics are in parenthesis

\* Significant at the 10 percent level, \*\* significant at 5 percent level and \*\*\*significant at 1 percent level.

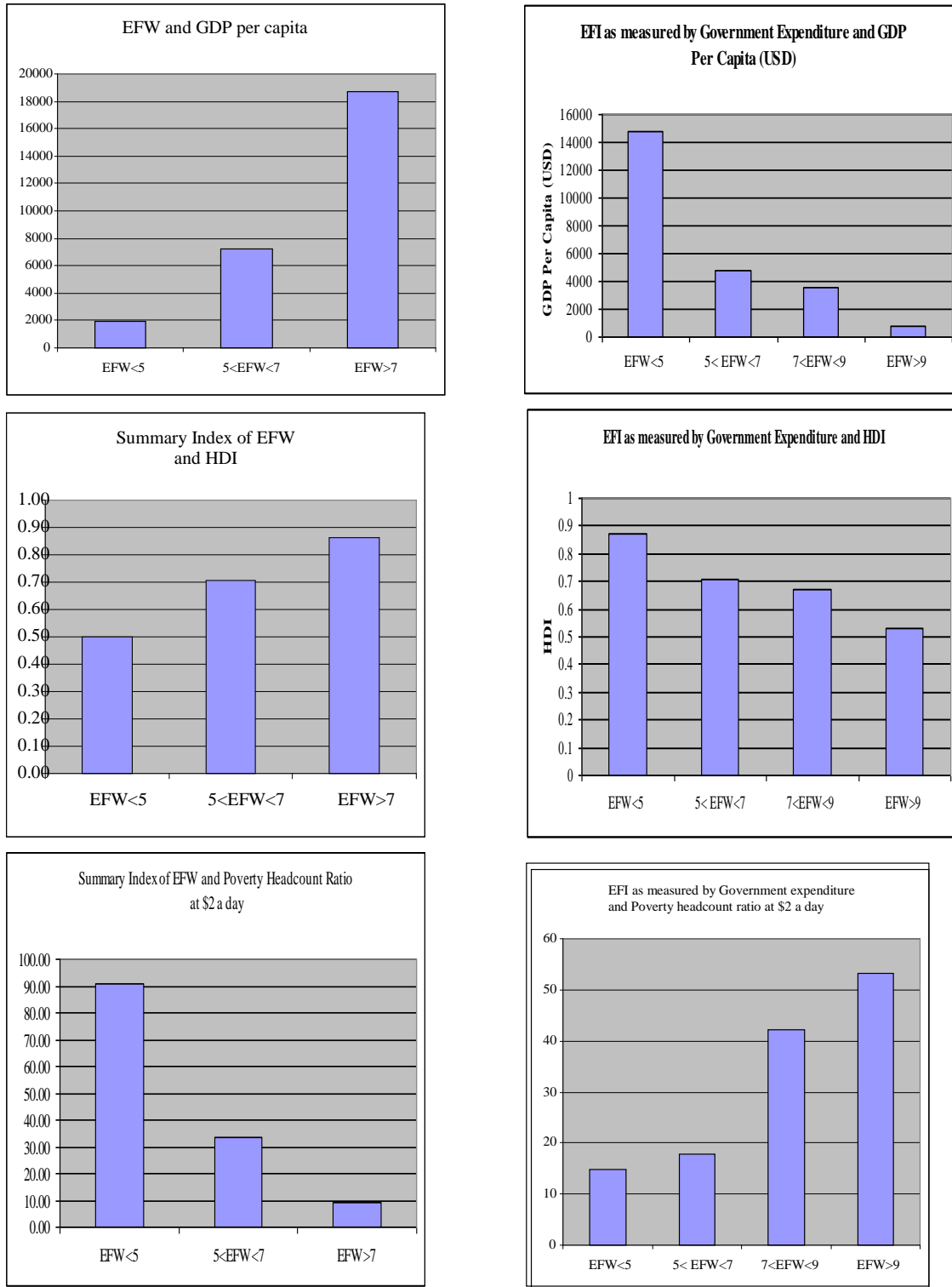
D<sub>1</sub>: Dummy for EFW greater than 7

D<sub>2</sub>: Dummy for EFW between 5 and 7(Reference group being countries with EFW less than 5)

D<sub>3</sub>: Dummy for OECD economies



**Figure 2: Synoptic View of Contrasting Impacts of Summary Index of EF and EF measured by Government Expenditure on Larger Freedoms**



## **5. Enhancing Larger Freedoms at the Cost of Lower Economic Freedom: A Question of Desirability**

The apparent swing in the profession from whole - hearted espousal of extensive government intervention to its diminishing role seems to be an example of unbalanced intellectual growth. There are problems and virtues of both State intervention and the free market. The problem should not be viewed as one of a simple choice. There is no doubt, however, that whether one sees a very large or very small role for the market depends on how one judges the seriousness of the problems with markets and planning which we have been describing. In my judgment the problems of the market are particularly severe (relative to those of State intervention) in the areas of health, infrastructure (roads, communications, power, and water), education (i.e. in areas where markets might fail) and social security.

Dreze and Sen (1989), in their study regarding the performance of developing countries over a certain period of time - not just in terms of growth in GNP but increasing living standards, say, increasing life expectancy - have also drawn attention to the role of government in the areas of health and education. Using the criterion of under five mortality (taking account of both infant and child mortality) they looked at the percentage reduction brought about between 1960 and 1985. They found that the group of top ten countries in their ranking includes some in which the private sector has been immensely powerful and a major engine of expansion, raising GNP per head very fast, but where much resources and efforts have been put into public health and public education. However, the group also includes some that have remained poor in terms of GNP, but that have benefited significantly, especially in health and education, from the public sector. Of the top ten countries, there are five in each of these subgroups. On the growth-utilization side are Hong Kong, the Republic of Korea, Kuwait, Singapore, and the United Arab

Emirates. The other 5 countries having strong public interventions are: China, Costa Rica, Cuba, Jamaica, and rather interestingly Chile. Although their growth rates have been low, its policy interventions have continued to be strong, particularly in health and infant care.

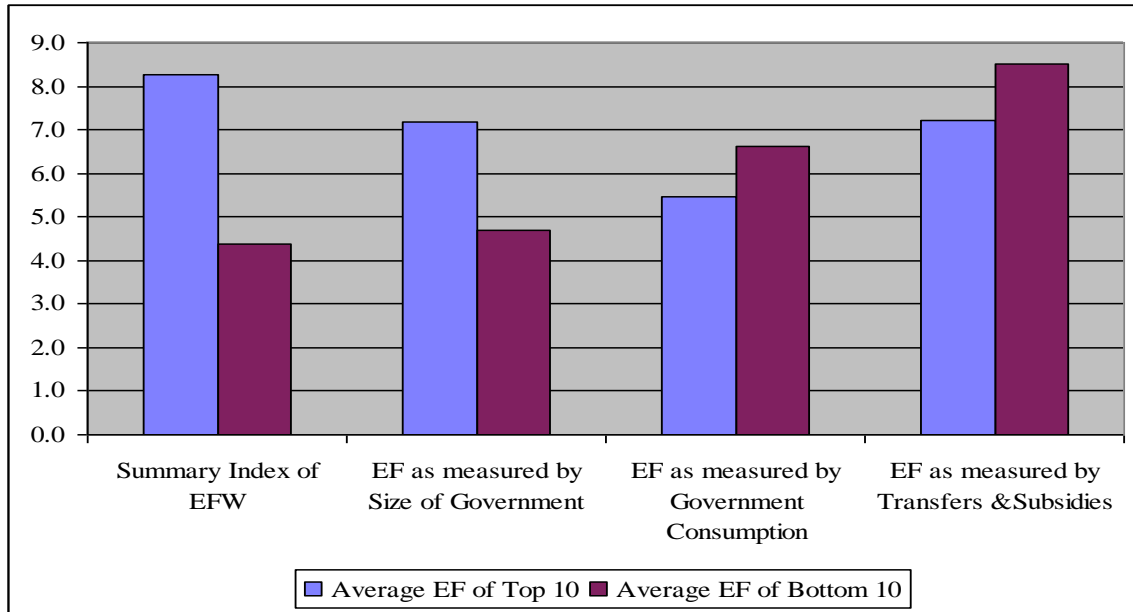
Incidentally, the latter group with strong public interventions would have also included Sri Lanka if they had started not at 1960 but earlier, because the health transition in Sri Lanka took place in the 1940s and 1950s, when public health arrangements were dramatically expanded and when the system of free and subsidized rice distribution was initiated. Between 1940 and 1960 Sri Lanka's death rate went down from 20.6 per cent to 8.6 per cent. So, in terms of at least some of the criteria to which we might attach importance, health and education particularly, the performance of the government has been significant. This is not only the case in China, Costa Rica, Cuba and so on; it is also the case in some of the countries with active private sectors and with high growth of disposable incomes. Nearly all of these countries have devoted a tremendous amount of growth - generated resources to the government sector for health, education, and social security. The point is that even for the case of high growth performance coupled with substantial private sector success, one sees the fruitfulness of using growth-generated returns as a means of expanding social security and the quality of life through public interventions.

In fact, China presents a very interesting set of contrasting experiences. During the pre-reform period, between the Revolution in the late 1940s and the economic reforms of 1979, the Chinese experienced very little expansion of food output per head, and also very moderate increase in GNP per head. However, in contrast to the low growth of GNP per capita, the reduction in mortality was very high. Life expectancy in China went from being close to forty years to high sixties in that period. In contrast, in the post-reform period, a time during which

economic reforms and incentives had a dramatic affect on the expansion of agricultural and food output (agricultural output nearly doubled between 1979 and 1986), the fast expansion of life expectancy was halted. The Chinese official statistics indicate that mortality reached a floor in 1978-79 and has been high every year since then. There is no doubt at all that the sharp decline in mortality has been halted and there has been a considerable decline in public health services.

We now analyze the economic freedom of the top 10 and bottom 10 countries with respect to their size of governments. EF associated with *government consumption expenditure* and *transfers and subsidies* as a measure of public intervention is presented in Figure 3. The data is for the year 2005, the most recent year for which comprehensive data are available (Gwartney and Lawson, 2007). Hong Kong and Singapore occupy the top two positions in terms of EFI. The other nations in the top 10 are New Zealand, Switzerland, United Kingdom, United States, Canada, Ireland, and Luxembourg. At the bottom of the list are countries such as Venezuela, the Republic of Congo, Myanmar and Zimbabwe.

**Figure 3: Economic Freedom of Top 10 and Bottom 10 Economically Free Nations  
(Select EF Indicators)**



Few interesting patterns emerge from the analysis of Figure 3. They are:

- The average of the top 10 economically free countries reveals that these economies are not very free in terms of size of government, with an average EFI rating of 7.2 in this area, as compared to the composite EFI of 8.3. On the other hand, the bottom 10 countries have a greater economic freedom with respect to size of the government as compared to the overall EFI.
- The bottom 10 countries have economic freedom that is half of the EF as enjoyed by the top 10 countries (4.4 for bottom 10 as against 8.3 for the top 10). However, surprisingly, in respect to economic freedom related to the size of the government as measured by two of its sub components viz. *government consumption expenditure* and *Transfers and Subsidies* (T&S), they have higher EF (at 6.6 and 8.5 respectively in 2005) than the top 10 countries (EF at 5.5 and 7.2 respectively in 2005). This implies that the bottom 10

countries have a relatively greater economic freedom as measured by these two components of *size of government*.

However, this result should be interpreted with caution, as it could be misleading. The smaller size is because these countries do not have large welfare programs or large transfer payments. This reduces the size of the government substantially. In countries such as Myanmar, Zimbabwe, Niger, Togo, Rwanda, Burundi, Democratic Republic of Congo and Republic of Congo public interventions are low. Based on the evidence of this paper, this has serious implications for provision of larger freedoms.

## **6. Conclusion**

Given that size of the government (as measured by government consumption expenditure) affects larger freedoms adversely, it is recommended that these economies increase public interventionist policies even at the cost of lowering overall economic freedom. In fact, few of the reasons cited to analyze why mortality is exceptionally high in almost all the African countries given their per-capita real income levels are:

- (1) government under-investment in the social sectors,
- (2) low quality of the public services provided, and/or that
- (3) public services are ill targeted.

It is of interest to mention here that during the 1980's the theory of market failure was overtaken by the theory of non market or bureaucratic failure (Stiglitz, 1989). The privatization and de-regulation wave that swept the world had a significant effect on developing countries including India (World Bank, 2000; Kaur, 2003a,b; 2005). However, today, views concerning a smaller and more limited role of government which were held so strongly in the early 1980s are coming under question. Deregulation is no longer viewed as an unmitigated success. Therefore,

once again we stand at the threshold of an era of increased government involvement. This indicates that both systems, private as well as public are marked by imperfections and that neither is perfect. Nevertheless, economists generally agree that governments have a role to play in the area of health and education.

Finally, before answering the question “Is government intervention desirable for improving the nutrition levels in an economy” one needs to know whether the impacts of successful interventions can be rapid and striking. To provide a perspective on the potential benefits from reducing nutritional deficiencies one can use the report on vitamin and mineral deficiencies by UNICEF and the Micro- nutrient Initiative (2004) to translate their estimates of the share of GNP lost to all forms of vitamin and mineral deficiencies in various countries into dollar terms. For example, with one of the highest shares of GNP lost to these deficiencies in Asia (1.7 per cent) Pakistan gives up one billion dollars annually. While the estimates find that India, Indonesia and China lose smaller shares of GNP to deficiencies -1.0, 0.5 and 0.2 per cent respectively, the dollar cost to their larger economies is substantial. For instance, China loses USD five billion annually to micronutrient deficiencies while India loses USD 2.5 billion and Indonesia loses USD 0.75 billion. This implies that there are considerable benefits of government interventions arising from: resource saving due to reduced mortality; resource saving arising from reduced morbidity; direct links between nutrition and physical productivity; and indirect links between nutrition, cognitive development, schooling and productivity. Since the economic costs of carrying this health burden are substantial and may be far greater than the costs of investing in programmes to reverse malnutrition, government action is desirable.

To conclude, in the context of the results obtained, the role of the government needs to be re-assessed and re-defined rather than necessarily curtailed, in an era of marketization and

liberalization. Further, while government intervention is desirable, caution must be exercised in terms of its quality and targeting.

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