THE DEVELOPMENT EXPENDITURE BY THE CENTRAL GOVERNMENT OF INDIA AND ITS IMPACT ON POVERTY AND PER CAPITA INCOME IN THE COUNTRY

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Abstract
This study tests the impact the four major Development Expenditure heads of the Government, namely Agriculture, Education, Health and Social Security schemes and whether they have the desired effect in increasing per capita incomes and reducing poverty in the country.
The recent report from World Bank indicated that 32.7% of Indians lived under the internationally poverty line of $1.25 a day. USA’s CIA’s international rankings for Per Capita Income, puts India far behind at 161, behind majority of the nations. The government of the largest democracy is scurrying to fix a crippling economy, and its economic policies are very crucial.
This study makes inferences that can be adopted in future macro policies, especially deciding the budgetary levels of the various heads. Also, it points out how plugging of ‘leaked’ or mismanaged funds can lead to drastic benefits for the country.

INTRODUCTION
In its annual fiscal policy, the Government of India allocates certain amounts to be spent on budgetary heads such as health, education, etc. These are also called Developmental Expenditure Heads as they are expected to directly lead to the public’s development, i.e., rise in standard of living. It is one of the key responsibilities of the government to meet its citizens’ basic needs and increase their standard of living. A huge proportion of Indian population is under acute poverty. Therefore in this context, reducing poverty is a major aim of any governmental expenditure. Increasing a country’s health levels means that the people’s basic nutritional and health needs are met and they are able to work consistently, better and for longer and hence earn higher incomes. Higher education levels empower people, increasing their capacity to earn. So is assumed to be the effect of other expenditure heads.
Per Capita Income can be used as an indicator of standard of living, as is a common practice. Per Capita Income or PCI indicates the average income of the citizens in a country, hence indicating their spending capacity and the relative standard of living they can afford. A general rise in PCI indicates a general rise in standard of living. The other choice to indicate standard of living would be to study health and education in relation to income, but NSSO gives the most frequent data in the context, but that is at time gaps of 7-10 years. The infrequent data is not used in order to get a more accurate analysis. Also, the Developmental Expenditure includes numerous heads, of which this study would focus on four key heads where the highest expenditure is done and which are expected to directly raise the per capita income of people and reduce poverty.

It is commonly debated that rising incomes lead to reduction in poverty. However, according to a recent UNDP report – rise in incomes has not corresponded to reduction in poverty. Therefore this study includes formulation of two separate regression equations for each of the variables as they are reflected to be independent of each other.
India is affected by acute poverty levels - In Bihar, certain sects of people eat rats to curb hunger. BBC reported children in UP that chew on mud. The disparity is very evident - while the rich parents worry about children getting wasted on grass, there are the ultra-poor sects which are forced to eat the staple version out of sheer hunger. The per capita income in the poorest states of UP and Bihar lag behind the high PCI of some states such as New Delhi, and are well below national averages.

Nationally, the Agricultural Sector in India employs 58% of our population, but its share in GDP is extremely low as compared to services – this widens the disparity between the rich and the poor, where the benefits of a growing economy are concentrated to a few.

On a more macro observation, our neighboring countries in the South Asian region might be diagnosed of the same chronic illnesses. It is no wonder that our per capita GDP’s are so closely pegged. In 2011, while India was ranked 161st, Bangladesh, which is hailed for its much better economic situation, was only marginally behind at 193 in terms of global rankings for Per Capita Income. "The tragedy is that not only China, but even Bangladesh is now doing better on almost every one of these social indicators than India is doing"– Nobel Laureate Amartya Sen said, in his recent address at Delhi Economics Conclave organized by CII. Pakistan followed close behind at 173, Nepal 204 and Afghanistan 213. Sri Lanka was the leader at 142. Conclusions from this study can thus be used in policy-making for our neighboring countries (CIA, 2012).

To quote Arun Pereira, Senior Faculty at the Indian School of Business, “If you torture data enough, it will confess.” However, the empirical results and inferences from this study are constrained by the availability of data.

OBJECTIVE
The conclusions from such a study should help in policy-making at both central and state levels wherein the respective decision-makers realize the effect of various developmental heads on the poverty scenario and per capita income of the beneficiaries. This should help in more efficient allocation of resources when it comes to making of Macroeconomic Developmental policies by the government for the Indian citizens. Furthermore, these ramifications can be extended to the neighboring South Asian countries that are plagued by similar structural, social and economic problems as India, resulting in long-term prevalence of high poverty levels and low Per Capita Incomes.

LITERATURE REVIEW
A lot of literature is available on analysis of various state-level schemes. Dutta, S., et al(2011) have concluded that different state-level strategies work for different states. While states such as Gujarat might have benefited from industrialization, Kerala has shown lowest poverty levels due to its long-term emphasis on raising the literacy rate of the state. There are various potent developmental heads, which have reduced poverty in the past and raised the employment levels. Fan, S., et al (1999) have further pointed out these heads - rural development, especially in terms on infrastructure, agriculture and education, in this sequence, had a substantial role in reducing poverty levels for the rural poor. However, they noted importantly that while such expenditure helps the poor in the short-term, it does not help them in the long-run by any enhancement in productivity.

Although certain development expenditures bring down poverty, M. Panda and R. Radhakrishna (2006) found that it is often unaccompanied by real rise in incomes. They study the various other crucial influencers, which are important for the background of this study, for
example, the determinants of urban and rural poverty are different. Increasing the non-farm sectors is crucial in alleviating rural poverty in future. They note that the East-Asian economies, which had opened, to trade in 1950’s grew fast. India entered late with its reforms in 1991 and thus lags behind in economic betterment. Also, the GDP growth was more due to the service sector whose share was over 50 percent. Acceleration in agricultural and industrial sector could thus enhance national income growth. They point out to the increasing concentration of poverty in the Eastern and Central part of India especially among the Scheduled castes and Scheduled tribes. India lags behind global standards of basic health and education (only the state of Kerala qualifies up to these standards).

“The poor are more vulnerable to world market price volatility” draws on the fall in prices in the world market in 2004, which added to the farmers’ suicides in Central India. This, in contrast to US, which had mitigated the shock via high subsidies given by US government. Better schemes are thus needed in such situations and the poorer states fall behind even on this head. Furthermore, case studies on Bihar, Orissa, Rajasthan and Tamil Nadu – bring out fascinating facts. Bihar and Orissa, the two states with highest proportion of poor, have similar problems of natural calamities, land fragmentation, low investment, low irrigation, poor connectivity and poor delivery of government services. Rajasthan’s high performance on both growth and poverty front can be attributed to avenues beyond agriculture and improvement of rural infrastructure. Better connectivity, literate farming population and credit availability to small farmers in Tamil Nadu, on the other hand, helped implementation of better agricultural technologies and hence rise in incomes in reduction in poverty.

Development problems are not homegrown, but are prevalent globally. Barro (2001) analyses a vast range of developing economies to conclude that Educating the masses is a key method to empowering them and increasing their employability and consequently standard of living. However, education may be deemed to have an indirect impact, as found by Wolfe and Haveman in Helliwell (2000), that both Health and Education have indirect returns. Furthermore, Education in turn changes Health levels. However, the micro-changes due to one on the other cannot be aggregated on the macro-level, i.e., such connectivity has low importance for macro policies. He draws upon Takashi Omori’s inference that enhancing social capital accompanied with institutional support and efficient markets leads to economic growth – the entire process in turn fuels strengthening of social capital. He stresses on the importance of the integration of government’s economic policy with social development, as the micro-implications have an overall strong effect on the community as a whole.

However, not enough support is being provided and not all expenditure done yields to public’s development. Conway, P., et al. (2010) in their working paper for OECD note that the health accessibility for India is extremely low along with low per capita expenditure on health. This contrasts with other developing nations’ such as Brazil and South Africa’s expenditure equivalent to that of the world. The Gini index is used to find that both of the aforesaid nations also have inequality, while inequality in India is much lesser than the two, and further behind China and Indonesia. However, the head count ratio of poverty remains high, and thus shows that there is not much inequality among Indian citizens, it is, to an observer’s great dismay, because the majority is poor and thus in the same segment. These developing nations in general also lag behind OECD levels of economic and equality. They cite that the average income increase before the Asian crisis’
interruption in the 1990s, is yet to be regained and leave great gaps to the GDP (PPP) growth in non-Asian BIICS nations, namely Brazil, India, Indonesia, China and South Africa. Thus it is important to increase health and education levels in general, even if not with the target to reduce poverty, but a longer-term’s strategy.

Some game-changing observations have been made by Devarajan, S., et al. (1996). They noticed that increased expenditure on public heads actually either has insignificant or negative effect on GDP. They interpreted this shocking result to find some valuable inferences – public expenditure increases eat away from current expenditure that has more impact on growth. Thus, developing countries might be misallocating their resources. Excessive spending on a single head can become unproductive.

Jones, D. and Andrzej, K., 2010, note that in face of international price rises on the agricultural front, trade restrictions, as a measure, is only helpful for well-developed countries. In contrast, developing regions such as Brazil and South Africa, focus on targeting those most affected, by raising its ground level aid. However, such benefits are hard to decrease and may increase long-run costs for the exchequer. The same is evident in India where the government has ended with high fiscal costs related to aid distribution to the public. Both China and India have used input-linked support to help curb rising prices (this gets summed up into agricultural expenditure policies). While in short-run such help may help production, the government may end-up with excessive stock the next season, which only burdens the economy further (already evident from the Economic Times report at end of 2011 about the dumping of potatoes in Punjab due to fall in prices in face of excessive supply). Thus, the final effect of agricultural expenditure by the government is highly debatable.

Work has also been done to find the way forward. Herd, R. and Leibfritz W. (2008) in their paper explore the various aspects of India’s fiscal policy, especially government spending, the tax system and fiscal federalism and discuss possible future reforms that can reduce economic troubles and improve the provision of public services. The subsidies on agriculture and food distribution leave ample space for quality improvement and can be better targeted for reducing poverty. Also, central expenditure has been appreciated (in the name of “fiscal federalism”) where nation’s resources can be deployed for reforms in the poorest of the states, and the government possesses the tools to efficiently use their funds.

**DATA SET AND SAMPLE PERIOD**

The regression for Poverty Head Count Ratio and Developmental Expenditure is drawn on an annual frequency data from 1986-87 to the most current available annual data of 2010-11, with 25 data points. The regression for the Per Capita Income and Developmental Expenditure is drawn on an annual frequency data for the same time period. The data used was secondary in nature, obtained from reliable sources such as the World Bank, IMF, and various governmental sources online, including the Planning Commission and RBI website.

The sample period has been taken from post-independence time, which is when the Indian government became a democratic institution and got the powers to make nation-wide policies for development, up till the current year for which the data is available. Free from the imperial rule which focused on spending on military and civil administration, the socialist government spent great amounts to recoup its people out of their dismayed condition.

The largest available time-period would help in analyzing the policy impact over the years and also give more accurate results. However, the period taken starts from 1980’a because of both the
availability of data and as it was then that both the state and central budgets showed a marked changed position – following the oil price rises in 1976 and the government was left with huge outstanding debt. The eventual reforms in 1991 were part of the macro-economic stabilization, and although the share of development expenditure was markedly reduced, it is still high in absolute terms, however, the growth rate of non-development expenditure is increasing faster (Vatsyayan, 2009).

METHODOLOGY
The method of Multiple-regression via SPSS would be used to empirically analyze the data sets. This study would require two different regression equations as two relationships, i.e., between Developmental Expenditure and poverty level, and Developmental Expenditure and PCI have to be tested. The Regression equations are:

PCI_i = \alpha_1 + \beta_1 EDU_i + \beta_2 HEALTH_i + \beta_3 AGRI_i + \beta_4 SS_i + \mu_1_i \quad (1)

PCI_i = Per Capita Income in the Indian household
\alpha_1 = the intercept for equation 1.
EDU_i = Per Capita Government Expenditure on “Education and Skills”
HEALTH_i = Per Capita Government Expenditure on “Health”
AGRI_i = Per Capita Government Expenditure on “Agriculture, Food and the Marine”
SS_i = Per Capita Government Expenditure on “Social Security” or Rural Development and Special area Programmes.
\beta_1 = Slope coefficient of EDU_i
\beta_2 = Slope coefficient with HEALTH_i
\beta_3 = Slope coefficient with AGRI_i
\beta_4 = Slope coefficient with SS_i
\mu_1_i = error term for regression equation 1

And

HCR_i = \alpha_2 + \delta_1 EDU_i + \delta_2 HEALTH_i + \delta_3 AGRI_i + \delta_4 SS_i + \mu_2_i \quad (2)

Where,
HCR_i = Head Count Ratio of Poverty
\alpha_2 = the intercept for equation 2.
EDU_i = Per Capita Government Expenditure on “Education and Skills”
HEALTH_i = Per Capita Government Expenditure on “Health”
AGRI_i = Per Capita Government Expenditure on “Agriculture, Food and the Marine”
SS_i = Pre Capita Government Expenditure on “Social Security”, or Rural Development and Special area Programmes.
\delta_1 = Slope coefficient of EDU_i
\delta_2 = Slope coefficient with HEALTH_i
\delta_3 = Slope coefficient with AGRI_i
\delta_4 = Slope coefficient with SS_i
\mu_2_i = error term for regression equation 2

Note: The study uses data at the significance level of 5%.

HYPOTHESIS
This study will test four sets of hypothesis for each regression equation, after the checking for significance of the entire equation.

Equation 1
Null Hypothesis H_0: \beta_1 = \beta_2 = \beta_3 = \beta_4 = 0
(None of the variables have statistically significant impact on Per Capita Income)
Alternate Hypothesis $H_a$: at least one of $\beta_1$, $\beta_2$, $\beta_3$, $\beta_4 \neq 0$ (Atleast some variable has statistically significant impact on Per Capita Income)

Individual hypothesis for each slope coefficient would be undertaken as follows:

1) Hypothesis for $\beta_1$
   Null Hypothesis $H_0$: $\beta_1 = 0$ (i.e. Education does not have statistically significant impact on Per Capita Income)
   Alternate Hypothesis $H_a$: $\beta_1 \neq 0$ (i.e. Education has statistically significant impact on Per Capita Income)

2) Hypothesis for $\beta_2$
   Null Hypothesis $H_0$: $\beta_2 = 0$ (i.e. Health does not have statistically significant impact on Per Capita Income)
   Alternate Hypothesis $H_a$: $\beta_2 \neq 0$ (i.e. Health has statistically significant impact on Per Capita Income)

3) Hypothesis for $\beta_3$
   Null Hypothesis $H_0$: $\beta_3 = 0$ (i.e. Agriculture does not have statistically significant impact on Per Capita Income)
   Alternate Hypothesis $H_a$: $\beta_3 \neq 0$ (i.e. Agriculture has statistically significant impact on Per Capita Income)

4) Hypothesis for $\beta_4$
   Null Hypothesis $H_0$: $\beta_4 = 0$ (i.e. Social Security schemes do not have statistically significant impact on Per Capita Income)
   Alternate Hypothesis $H_a$: $\beta_4 \neq 0$ (i.e. Social Security schemes have statistically significant impact on Per Capita Income)

Equation 2

Null Hypothesis $H_0$: $\delta_1 = \delta_2 = \delta_3 = \delta_4 = 0$
(None of the variables have statistically significant impact on Per Capita Income)

Alternate Hypothesis $H_a$: at least one of $\delta_1$, $\delta_2$, $\delta_3$, $\delta_4 \neq 0$ (Atleast some variable has statistically significant impact on Per Capita Income)

If alternate hypothesis is accepted then individual hypothesis for each slope coefficient would be undertaken as follows:

1) Hypothesis for $\delta_1$
   Null Hypothesis $H_0$: $\delta_1 = 0$ (i.e. Education does not have statistically significant impact on HCR)
   Alternate Hypothesis $H_a$: $\delta_1 \neq 0$ (i.e. Education has statistically significant impact on HCR)

2) Hypothesis for $\delta_2$
   Null Hypothesis $H_0$: $\delta_2 = 0$ (i.e. Health does not have statistically significant impact on HCR)
   Alternate Hypothesis $H_a$: $\delta_2 \neq 0$ (i.e. Health has statistically significant impact on HCR)

3) Hypothesis for $\delta_3$
   Null Hypothesis $H_0$: $\delta_3 = 0$ (i.e. Agriculture does not have statistically significant impact on HCR)
   Alternate Hypothesis $H_a$: $\delta_3 \neq 0$ (i.e. Agriculture has statistically significant impact on HCR)

4) Hypothesis for $\delta_4$
   Null Hypothesis $H_0$: $\delta_4 = 0$ (i.e. Social Security schemes do not have statistically significant impact on HCR)
   Alternate Hypothesis $H_a$: $\delta_4 \neq 0$ (i.e. Social Security schemes have statistically significant impact on HCR)

RESULTS

1.DESCRIPTIVE STATISTICS (A summary of the variables used)
### DESCRIPTIVE STATISTICS

<table>
<thead>
<tr>
<th></th>
<th>HCR</th>
<th>PCI</th>
<th>HEALTH</th>
<th>AGRI</th>
<th>EDU</th>
<th>SS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>33.7656</td>
<td>18600.28</td>
<td>5052.777</td>
<td>93.43046</td>
<td>113.2415</td>
<td>194.276</td>
</tr>
<tr>
<td>Standard Error</td>
<td>1.140187</td>
<td>1286.338</td>
<td>14.55104</td>
<td>18.1017</td>
<td>36.53053</td>
<td></td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>5.700934</td>
<td>6431.689</td>
<td>72.7552</td>
<td>90.50848</td>
<td>182.6526</td>
<td></td>
</tr>
<tr>
<td>Sample Variance</td>
<td>32.50065</td>
<td>41366622</td>
<td>5293.319</td>
<td>8191.785</td>
<td>33361.99</td>
<td></td>
</tr>
<tr>
<td>Kurtosis</td>
<td>-0.78066</td>
<td>-0.26012</td>
<td>-1.52065</td>
<td>2.580351</td>
<td>-0.54006</td>
<td>2.017817</td>
</tr>
<tr>
<td>Skewness</td>
<td>0.025129</td>
<td>0.858887</td>
<td>0.615575</td>
<td>1.778663</td>
<td>0.856062</td>
<td>1.707786</td>
</tr>
<tr>
<td>Range</td>
<td>19.2</td>
<td>22029.27</td>
<td>12165.76</td>
<td>280.7606</td>
<td>268.7385</td>
<td>628.9451</td>
</tr>
<tr>
<td>Minimum</td>
<td>26.1</td>
<td>11027.46</td>
<td>1077.492</td>
<td>28.74189</td>
<td>15.53826</td>
<td>42.74968</td>
</tr>
<tr>
<td>Maximum</td>
<td>45.3</td>
<td>33056.73</td>
<td>13243.26</td>
<td>309.5025</td>
<td>284.2768</td>
<td>671.6948</td>
</tr>
<tr>
<td>Sum</td>
<td>844.14</td>
<td>465007</td>
<td>126319.4</td>
<td>2335.762</td>
<td>2831.037</td>
<td>4856.9</td>
</tr>
<tr>
<td>Count</td>
<td>25</td>
<td>25</td>
<td>25</td>
<td>25</td>
<td>25</td>
<td>25</td>
</tr>
</tbody>
</table>

### SKEWNESS ANALYSIS

HCR, PCI, Health and Education are all negatively skewed, (as their skewness statistic is more than zero), on an average the values in the data set are concentrated on the higher compared to the minority extreme cases of low values. All of the variables including poverty, CPI and expenditure include greater number of larger values. However, HCR does not have too much deviation from mean and has almost negligible skewness (skewness statistic is almost equal to zero) and the data does not vary much around the mean. Agriculture and Social Security expenditure vary much more and barring few low figures are concentrated in the higher region.

### KURTOSIS ANALYSIS

Kurtosis helps in analyzing how normal the distribution is. All the kurtosis statistics are below 3, showing that it is Platykurtic distribution, and is flatter than a normal distribution with a wider peak. The probability of extreme values is less than for a normal distribution, and the values of the data used in the study are wider spread around the mean.

### 2. REGRESSION EQUATIONS

#### EQUATION 1 SPSS OUTPUT:

<table>
<thead>
<tr>
<th></th>
<th>Unstandardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>B</td>
<td>Std. Error</td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>10282.619</td>
<td>281.874</td>
<td>36.479</td>
</tr>
<tr>
<td>EDU</td>
<td>22.239</td>
<td>7.255</td>
<td>3.065</td>
</tr>
<tr>
<td>HEALTH</td>
<td>20.511</td>
<td>4.434</td>
<td>4.626</td>
</tr>
<tr>
<td>AGRI</td>
<td>20.726</td>
<td>12.207</td>
<td>1.689</td>
</tr>
<tr>
<td>SS</td>
<td>9.007</td>
<td>4.633</td>
<td>1.944</td>
</tr>
</tbody>
</table>

Dependent variable PCI
R Square                         .991 F-stat 568.049
Adjusted R square          .989 Sig. .000

The entire model is a relatively good one, with 98.9% (Adjusted \( R^2 \)) of the data being explained by the equation. It is statistically significant as the \( f \)-statistic is within the significance level. Hence, the null hypothesis is rejected and the alternate accepted, where at least 1 independent variable has significant impact on PCI.

Individual Hypothesis results:
1. Null hypothesis for \( \beta_1 \) rejected, i.e., Education’s effect on PCI is significantly different from 0. Significance of .006 validates this result as it lies in the confidence interval of 95%, and thus null hypothesis is rejected. Increase in Per Capita expenditure on Education by Rs1 increases per capita income drastically by Rs.22.
2. Null hypothesis for \( \beta_2 \) rejected, i.e., Health’s effect on PCI is significantly different from 0. The result is within the significance level and thus accepted. Increase in Per Capita expenditure on Health by Rs1 increases per capita income drastically by Rs.20.5.
3. Null hypothesis for \( \beta_3 \) cannot be rejected as it breaches the significance level necessary to reject the \( H_0 \). Increase in Per Capita expenditure on Agriculture and allied services do not significantly impact the PCI.
4. Null hypothesis for \( \beta_4 \) cannot be rejected, i.e., Rural Development and Social Schemes do not significantly impact PCI.

EQUATION 2 SPSS OUTPUT:

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>38.316</td>
<td>1.714</td>
<td>22.377</td>
</tr>
<tr>
<td>EDU</td>
<td>-.026</td>
<td>.042</td>
<td>-.613</td>
</tr>
<tr>
<td>HEALTH</td>
<td>-.061</td>
<td>.026</td>
<td>-2.366</td>
</tr>
<tr>
<td>AGRI</td>
<td>-.018</td>
<td>.072</td>
<td>-.257</td>
</tr>
<tr>
<td>SS</td>
<td>.032</td>
<td>.027</td>
<td>1.193</td>
</tr>
</tbody>
</table>

Dependent variable HCR
R Square                         .599 F-stat 7.470
Adjusted R square          .519 Sig. .001

The entire model explains only 52% (Adjusted \( R^2 \)) of the data, but is statistically significant as \( f \)-statistic is within the significance level. Hence, the null hypothesis is rejected and the alternate accepted, where at least 1 independent variable has significant impact on HCR.

Individual Hypothesis results:
1. Null hypothesis for \( \beta_1 \) cannot be rejected, i.e., Education’s effect on HCR is not statistically significant. Increase in Per Capita expenditure on Education does not lead to an immediate reduction in poverty. However, the model may have encountered a Type I error, where null hypothesis tends to be rejected due to...
small number of observations. The economic implication of this head is intact, and we see a negative relationship, i.e., more expenditure on Education reduces poverty. Also, the variable may act as a lag-variable and not show immediate effect.

2. Null hypothesis for $\beta_2$ rejected, i.e., Health’s effect on HCR is significantly different from 0. The result is within the statistically significant and thus accepted. Increase in Per Capita expenditure on Health by Rs1 reduces HCR by .061, in national terms, it means millions rising out of poverty.

3. Null hypothesis for $\beta_3$ cannot be rejected as it breaches the significance level necessary to reject the $H_0$. Increase in Per Capita expenditure on Agriculture and Allied Services does not significantly impact the PCI. However, owing to possibility of a Type I error, we go ahead and find that there is a negative relationship between agricultural expenditure and poverty.

4. Null hypothesis for $\beta_4$ cannot be rejected, i.e., Rural Development and Social Schemes do not significantly impact HCR.

INTERPRETATION
Both the equations have turned out to be statistically significant if taken holistically. Of the four, Health has the most significant and immediate effects on PCI increase. Such services are generally directed to those who cannot afford them. Thus it is generally the poor and marginalized that are targeted. Once health services are imparted to such sections, they are able to rise above their situation and either start working, work more or better, earning better incomes in the immediate time.

Education has the next big impact. Firstly, as this includes skill empowerment and human development programs supported by the government, it can be deduced that this would empower the workforce and they would be able to earn better wages/salaries.

Secondly, this head also includes the very ambitious mid-day meal program to encourage primary education now also given impetus under its Right to Education Act of 2009. Taking off the burden of education and nutrition from the poor it leaves them with more disposable income.

Agriculture and Special area Programs and Rural Development have not come out to be significant in increasing PCI, however, this result can be supported with the economic logic drawn from Devarajan (1996) that certain developmental expenditures actually eat away from current expenditures, which are better influencers of income. Also, spending on such activities acts as a short-term crutch, and eventually does not lead to any real empowerment. Real empowerment for agriculture would be when the land-holding pattern is changed to attract more investments, or when rural

CONCLUSION
The regression equations showed a positive relationship between Developmental Expenditure and the PCI, with the latter increasing with the first. Also, poverty levels as shown by the Head Count Poverty Ratio go down on increasing government expenditure. The very aim of Developmental Expenditure is to reduce poverty and increase average incomes. It may be reflected that an increased expenditure on developmental heads by the Government is a safe strategy, validated by this study, to ward
off poverty and empower citizens to increase their per capita income.

Of all the four variables studied, Health is significant in both capacities - raising per capita incomes of the people and reducing poverty, hence budgetary allocations under this head are worthwhile as such expenditures have a dual positive impact. Followed by Education and Agriculture, the underlying mantra remains to empower people to fend better for themselves. The Social Security schemes seem to more of a curative option – to mitigate future poverty/loss in income, and thus not applicable to act as substantive long-term schemes, however it is still important to include them as budget heads as they pose focused solutions for specific people in need of them. Future studies can be done to calculate the effect of development expenditure vis-à-vis non-development heads, as these expenditures are complimentary, or at the least they coexist.

Of much importance is to policy-making is the efficacy of any expenditure. Some of the heads do not have the required effect in increasing incomes and reducing poverty – especially agriculture. In the current situation of our country, the role of corruption cannot be ruled away. Numerous loopholes are prevalent at every stage, especially in ambitious schemes for the rural areas including NREGA and the potential Food Security Act. Arun Maira, member of the Planning Commission, confessed to The Economic Times on 27th March: “The definition of who is poor and who deserves to get assistance is ultimately a political decision.” With this background - Rs. 9 have to be spent to give one rupee benefit to the final beneficiary (Economic Survey of India, 2012), one actually wonders if our situation has worsened from the times of the Prime Minister-ship of Rajiv Gandhi, who had made the bold acceptation that of every rupee spent by the government it eventually gave benefits of only 15 paisa. Has corruption gnawed away at the largest democracy of which we are so proud? The implications of corruption is a variable that this study grossly misappropriated and thus excluded from the analysis, and with this exclusion proved the significance of this variable from the loopholes in the result. Not all the benefit of the Developmental Expenditure intended by the government is delivered. The major drawback for ambitious government schemes remains the defunct local government system, especially in rural areas; this can be plugged by better-focused service delivery systems. For this, the Aadhaar or Unique Identification Number (UID) as proposed by UIDAI under Nandan Nilekani’s guidance, is a good approach, wherein the target beneficiaries would receive the benefit directly in their accounts and thus increase the impact of Developmental Expenditure by the government as desired.

It is ironic that one of the reasons why UID has been facing problems is that it would legalize the immigrants in India by entering them into the nation’s database. On the other hand, the illegal immigrants form a major chunk of the poor population in India. They go unaccounted for in the nation’s population but their presence in reality utilizes national resources and thus influences the impact of national expenditure.

In the 2012 budget, Finance Minister Pranab Mukherjee addressed the “structural” problems of our agricultural sector, and how this has led to inflation. With limited land sources, which are further being divided, the smallholdings are not attractive for large investors. Secondly, investment in agriculture gives marginal results as the land resources cannot be increased, which refers to the diminishing returns concept. Investments in industrial sector lead to an increased revenue as more inputs can be employed. Thus if investors were to invest in such a scenario, they require higher returns on
investment, and as the yield cannot be increased at par, the prices of the output is increased. Government expenditure on this front can be better directed and by solving these structural problems, better results can be expected.

Even though the policies that target income elevation, do not necessarily benefit poverty reduction, there is some overlap. More research is required to ascertain these correlations, and such research would be able to indicate whether assumptions of growth’s positive effect in reducing poverty is overhyped or not. In their recent meeting with RBI governor D Subbarao, the bank chiefs pointed out that it was of critical importance to the nation to hit back the 9% growth levels which is credited to pull out millions from poverty (economic times, 5th april 2012).

The recent debate of the Tendulkar Committee poverty line and whether it is justified to say that sustenance itself is possible at such low levels, has brought a lot of issues to light again. The Akhilesh Yadav government in UP has committed to giving Rs.1000/month to anyone above 35 and unemployed. This would effectively eradicate poverty in numbers. Also, it pressurizes the government itself to scale up employment which would empower people (this has a highly optimistic assumption - that unemployment numbers would actually not go up to avail of the benefit! India is no stranger to castes fighting to be called “backward”, just to qualify for accompanying benefits).

In his recent article in Economic Times, Neeraj Kaushal, Assoiate Professor at Columbia University, has looks beyond this debate to a critical global observation of region-wise poverty stories. China, which had 84% people under poverty in 1981, in the recent World Bank reports had shocked the world with the poverty numbers dropping to 14%. The other extreme case at hand is of the Sub-Saharan and African nations, which in 1981 stood with 51% population under poverty, and in 2008 had only marginally improved to 48%. These numbers tell a certain story. While in view of its resource-base one would expect the Saharan countries to fare well, they have failed to, losing out decades to no or negative GDP growth, whereas China on the other hand has far exceeded expectations. The difference is that China has seen high levels of sustained growth for three decades averaging around 10%. This in turn has been possible due to heavy investments in Education and Health, and this transpired over decades.

There is also the plague of gender inequality that infects our country. With women lagging behind in both Education and Health, and their role as caretaker in the family, female literacy can be a valid focus-point wherein educating one female leads to better health, education within the family and the progeny.

The grave situation of female literacy in India can be contrasted with China’s growth story where 75% women are in the work-force, a positive effect of its Communist outlook. There exist considerable gender gaps against females in literacy and mortality rates. An important observation is to be noted: Growth elasticity of poverty for these groups of the population is lower as compared to others, i.e., increased growth levels have minimal effect on poverty in these states. Hence, more stress on Governmental expenditure on public infrastructure and human capital development, is required in these areas “BIMARU” or ill-affected areas. Urban-rural disparity has worsened post-reform period, i.e., the benefits of the growth have not been distributed evenly. (Panda, 2006)
them are listed on Hyderabad stock exchange in the better off South India).

The State level data, which is much more easily available, can be studied in relation to central expenditure, as it includes grants to states and expenditure on national schemes, and the relative relationship between the two would show which administrative channel is better for developmental policy implementation.

From an idealist’s view, the extreme difficulty in procuring poverty and expenditure data is an important point. The Indian government needs to procure more frequent data and make it publicly available, but this at the end of the transformation of becoming dedicated to the nation’s needs.

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