DOES URBANIZATION MATTER IN THE PROCESS OF INCOME CONVERGENCE? EVIDENCE FROM SOUTH ASIAN ECONOMIES

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INTRODUCTION

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- Economists always consider about “Convergences” at the national productivity level.
- The theoretical logic behind these expectations is powerful.
- The per capita income of West has an edge on the basis of its application of technological and industrial revolution.
- On the basis of that “technology” is a public good.
- If poor countries grow faster than rich countries, over time they will catch up in terms of their level of income.
- This process is called income convergence.

INTRODUCTION

- The idea of convergence in economies is the hypothesis that poorer economics per capita incomes will tend to grow at faster rates than richer economies.
- As a result, all economies should eventually converge in terms of per capita income.
- Developing countries have the potential to grow at a faster rate than developed countries.
- Because diminishing returns are not as strong as in capital-rich countries.
- Furthermore, poor countries can replicate the production methods, technologies, and institutions of developed countries.

INTRODUCTION

- In economic growth literature the term "convergence" can have two meanings.
- The first kind refers to a reduction in the dispersion of levels of income across economies.
- "Beta-convergence" on the other hand, occurs when poor economies grow faster than rich ones.
- Economists say that there is "conditional beta-convergence" when economies experience "beta-convergence" but conditional on other variables being held constant.
- They say that "unconditional beta-convergence" or "absolute beta-convergence" exists when the growth rate of an economy declines as it approaches its steady state.

INTRODUCTION

- Many growth studies postulate that in long run due to technological transformation and factor of production would be a convergence of growth rates.
- Many of them has been failed to find support of income convergence among developing countries.
- Only few studies give evidence that among them fewer grow faster.

INTRODUCTION

- Since 2000’s the main focus of growing literature is income inequality on the basis of structural factors and process of economic development.
- Several researchers suggest that income inequality among the developing economies reflect the distributional unequally in the term of institutional, political, geographical, culture and historical environments.
- These inequalities rise to divergent growth performance, if these factors prevent the technological creation.

INTRODUCTION

- Urbanization is the key component of economic growth in several countries.
- The income gaps among rural and urban regions may causes migration and this situation effect the income generations.
- The income gaps are described well but these migrations become the reason of income convergences .
- The population urbanization creates regional population divergences.
- Rural region may affect decline population and urbanized expend due to rise in population.

INTRODUCTION

- The question rose how income distributed accordingly population patterns.
- If the people move toward higher income growth regions the result shows income divergence.
- In this context people move to higher growth cities but city regions don’t have higher income growth.
- Income convergences between the regions highly associated with income divergence among people because city stays on income top.
- But the urbanization literature assume that population flow contributed in income convergences .

REVIEW OF LITERATURE

THEORETICAL BACKGROUND

THEORETICAL BACKGROUND

- Countries are valued fundamentally on the basis of their economic wellbeing typically represented by their Growth rate along with various other measures such as governance, geographical and political settings to name a few.
- Growth rate while being dependent on a multitude of factors is deeply affected by level of participation of labor force, gross fixed capital formation and the composition of population in terms of urban and rural.
- Labor force of any country is responsible for the creation of goods and services given an amount of capital.
- The relationship between Growth rate and labor force is believed to be positive provided that the maximum labor is actively involved in production process.

THEORETICAL BACKGROUND

- The economic growth in a country is also dependent on whether the labor force is skilled or not. Active partition of skilled and well trained labor combined with certain amount of available capital will boost the market as well as the economy.
- Fixed Capital Formation (FCF) refers to the acquisitions or addition of physical assets in an economy excluding the amount of depreciation and land sales/purchases (Financial Times). The value addition in physical assets causes Growth rate to increase.
- The rise in investments of any type understandably will boost economic growth and so any national policy suggestive of increasing investment will inevitably increase economic growth.

THEORETICAL BACKGROUND

- The relationship between urbanization and economic growth discusses the role of urbanization in development and growth rate and finds a positive relationship between the two.
- Growth rate is a direct evaluation of a country's progress and is precisely a measure of percentage increase in a country's GDP over a certain period of time. The annual value addition in GDP would indeed cause GDP to rise.

EMPIRICAL STUDIES

EMPIRICAL STUDIES

- Different research paper was examined to find out that either does urbanization matter in the process of income convergence or not?
- Some studies provide a negative relationship which shows that income converges and some positively related shows income divergences.
- Some studies shows Inversely related trends between countries per capita growth rate and starting level of income per person.
- With respect to structural parameters and technology, if countries are similar then poor countries grow faster than rich countries.

EMPIRICAL STUDIES

- The studies gives a clear evidence of convergences but the finding can be related with neoclassical model only if diminishing returns to capital set very slowly.
- The outcomes for per capita domestic product for a wider sample of countries are similar if a constant proxy of variables is used.
- Because of difference in steady state level of characteristics.
- The empirical results of them gives an extension in the senses that economic trends grow faster.
- In the term of per capita when there are further below at the steady state position.

EMPIRICAL STUDIES

- Some of them investigate population divergence and income convergence.
- If agglomeration economies are established, a positive correlation between income and population is expected.
- The results shows that income convergences have a upward trend in the context of income distribution in low and middle income regions.
- The link between income and population growth is weak.
- Cities with higher increase in population have a higher increase in income.
- If other factors works properly rural region with lower income level may be stand in the line of higher income cities to have income convergences.

METHODOLOGY

METHODOLOGY

- This is a quantitative research.
- Using Fixed Panel Effect for
- South Asian Countries are selected for analyzing the effect of Urbanization on Income Convergence.
- 4 major countries: India, Pakistan, Bangladesh and Sri-Lanka.
- Due to unavailability of data in other countries of south Asian group, study is restricted only in these 4 countries.
- Data is collected from World Bank Indicator, time period is1972 to 2016.

METHODOLOGY

- Two type of convergence find out in this research:
  - Unconditional Convergence.
  - Conditional Convergence.
- Unconditional Convergence:
  - Unconditional convergence find out with growth rate as a dependent variable and labor force, gross fixed capital formation, and GDP (1973-1996) as an independent variable.
  - With a passage of time does country's growth rate converge or not?
  - Unconditional convergence find out with the following equation,

$$\mathbf{GW} = \boldsymbol{\beta_o} + \boldsymbol{\beta_1}\, \boldsymbol{LF} + \boldsymbol{\beta_2}\, \boldsymbol{K} + \boldsymbol{\beta_3} \boldsymbol{GDP} + \boldsymbol{\mu_i}$$

METHODOLOGY

- Conditional Convergence:
  - To find out the conditional convergence, urbanization rate incorporated.
  - Does urbanization having an impact on income convergence or not?
  - For conditional convergence following equation is used.

$$\mathrm{GW} = \beta_o + \beta_1\, LF + \beta_2\, K + \beta_3 GDP + \beta_4\, UR + \mu_i$$

RESULTS

RESULTS

Table 1: Descriptive Analysis (4 countries)

Variable	Obs	Mean	Std. Dev.	Min	Max
GW	108	3.732114	2.238092	-2.22795	8.763184
LF	108	1.33E+08	1.74E+08	7019888	5.13E+08
K	108	9.93E+10	1.80E+11	3.71E+09	7.47E+11
YUC	108	1.15E+11	1.53E+11	8.89E+09	6.43E+11
UR	108	0.269938	0.064692	0.18297	0.39224

GW = Growth Rate (1990-2016), LF = Labor Force (1990-2016), K = Gross fixed Capital Formation (1990-2016), YUC = GDP (1973-1996), UR = Urbanization Rate (1990-2016)

RESULTS

Table 2: Country wise descriptive analysis
PAKISTAN

Variable	Obs	Mean	Std. Dev.	Min	Max
GW	27	1.800145	1.798098	-1.44951	5.47816
LF	27	4.71E+07	1.15E+07	3.11E+07	6.84E+07
K	27	2.23E+10	4.05E+09	1.61E+10	3.09E+10
YUC	27	5.77E+10	2.53E+10	2.75E+10	1.05E+11
UR	27	0.343852	0.026138	0.30576	0.39224

RESULTS

Table 3: Bangladesh

Variable	Obs	Mean	Std. Dev.	Min	Max
GW	27	3.692604	1.377323	1.068843	5.962713
LF	27	5.06E+07	9600840	3.46E+07	6.54E+07
K	27	2.09E+10	1.30E+10	6.31E+09	4.95E+10
YUC	27	3.46E+10	1.00E+10	2.15E+10	5.53E+10
UR	27	0.262841	0.047523	0.19811	0.35035

RESULTS

Table 4: India

Variable	Obs	Mean	Std. Dev.	Min	Max
GW	27	4.870834	2.298608	-0.98255	8.763184
LF	27	4.27E+08	5.66E+07	3.28E+08	5.13E+08
K	27	3.44E+11	2.24E+11	1.03E+11	7.47E+11
YUC	27	3.52E+11	1.32E+11	2.02E+11	6.43E+11
UR	27	0.288878	0.023357	0.25547	0.33136

RESULTS

Table 5: Sri-Lanka

Variable	Obs	Mean	Std. Dev.	Min	Max
GW	27	4.564875	2.063009	-2.22795	8.556866
LF	27	7915449	493564.9	7019888	8630101
K	27	1.01E+10	5.54E+09	3.71E+09	2.14E+10
YUC	27	1.63E+10	5.78E+09	8.89E+09	2.78E+10
UR	27	0.184182	0.000838	0.18297	0.18566

RESULTS

Table 6: Unconditional Convergence

Variables	**Coefficient**	**Robust Standard Error**	**t. value**	**Probability**
LF	4.91e-08	1.37e-08	3.59	0.037
K	2.90e-12	2.43e-12	1.19	0.319
YUC	-1.56e-11	2.26e-12	-6.89	0.006
R^2 (overall)	**0.0967**	**Obs**	**108**	
R^2(within)	0.1821	R^2 (between)	0.2524	

RESULTS

Table 7: Conditional Convergence

Variables	Coefficient	Robust Standard Error	t. value	Probability
LF	3.75e-08	3.75e-08	19.04	0.000
K	2.90e-12	1.78e-12	4.95	0.016
YUC	-2.48e-11	3.66e-12	-6.79	0.007
UR	18.4775	2.127343	8.69	0.003
R^2 (overall)	**0.0612**	**Obs**	**108**	

CONCLUSION

CONCLUSION

- This study estimates the effect of urbanization on income convergence on South Asian countries. For this study, only 4 major South Asian countries included that are Bangladesh, Pakistan, India and Sri-Lanka.
- For analyzing this effect, Fixed Effect method is used (it is find out through Hausman test) and for removing the Heteroscedasticity from the model Robust Standard Error procedure is used.
- Results indicate that with a passage of time, income is converging not diverging in 4 major South Asian Countries.
- Urbanization having a positive effect on country's economy.

CONCLUSION

- Due to increase in production of the economy, Labor and capital usage is increases which ultimately effect country's growth rate in a positive way.
- Which prove that, Urbanization is good for increasing the growth rate of the country and it also improves country's economic condition.
- It indicates that, there is a positive and significant relationship between Urbanization and Growth rate of the country.
- The study found that urbanization improves the pace of income convergence between nations.

RECOMMENDATIONS

RECOMMENDATIONS

- Rather to increase the size of the city in any country, there is a need to increase the number of cities in a country. Which give a positive effect on the growth of the economy.
  - More cities lead to higher production, higher production leads to more consumption of labor and capital in an economy.
  - Increase in consumption of labor and capital indicate that employment rate of the country increases. Purchasing power of individual increases and poverty level decreases.
  - And this will ultimately give a positive impact on the growth of country's economy.

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