

# Middle-Income Trap

## A Literature Review

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# INTRODUCTION

- ❑ Different growth performances have been an interesting research subject in economics.
- ❑ In particular, the important question is that, why some countries can maintain their growth performance consistently for a long period of time and reach to a high income level, while others fail to do so.
- ❑ This fail is called as “middle income trap” and those countries “trapped” at the middle income level search for new policies in order to reach high income levels.

# DEFINITION

- ❑ The very first definition of middle-income trap was discussed by Gill and Kharas (2007), while evaluating the success of different growth policies pursued by various country groups.
- ❑ Later, Kharas and Kohli (2011) state that, country groups which struggle to surpass the middle income level, namely Latin American and Middle Eastern Countries, are unable to compete with rapid growing East Asian Economies which characteristicly have low waged or relatively high skilled labour force.
- ❑ «Growth Slowdown» and «Catching-Up» are two similar terms used instead of the term «Middle-Income Trap».

# REASONS

- ❑ In the literature add the following reasons while explaining the fact called middle income trap.
- ❑ According to Kharas and Kohli (2011), countries in the middle income trap could not manage to change their growth policies as they reach to level of middle-income.
- ❑ Felipe et al. (2012) states that, the knowledge and skill capabilities of the labor force in these countries are critically low to produce and export the high-tech commodities.

# REASONS

- ❑ Lin and Treichel (2012), strengthen this reason and emphasize that these countries could not manage the transition from low value-added to high value-added products.
- ❑ Similarly, Jankowska et al. (2012) list important reasons of the trap. These reasons are low productivity of labor and lack of structural labor transformation, respectively.
- ❑ Eichengreen et al. (2013) associate middle-income trap with some demographic and economic factors. Aging of the population, unproductive investment decisions and undervalued exchange rates which prevent technological progress.

# REASONS

- ❑ According to Kanchoochat (2014) and Kanchoochat and Intarakumnerd (2014) poor quality of education and institutional structure are important reasons of middle-income trap.
- ❑ They also state that, inappropriate and insufficient development policies of the countries play a major role while falling into this trap.

# REMEDIAL MEASURES

- ❑ In the relevant literature, several measures are suggested for coping with the middle income trap.
- ❑ These measures could be separated into two groups.
- ❑ The first group of measures include general ones while the second group include country specific ones.

# REMEDIAL MEASURES (GENERAL)

- First set of solutions were offered by Agenor and Canuto (2012). These are listed below.
  - ❖ Access to advanced infrastructure.
  - ❖ Ensuring property rights.
  - ❖ Reform in labor markets.
  
- Also Jankowska et al. (2012) and Felipe et al. (2012) suggested the following policy actions to cope with the trap.
  - ❖ Re-structuring education.
  - ❖ Innovation and diversification in financial markets.
  - ❖ Reforms to scale up export capability.



# REMEDIAL MEASURES (GENERAL)

- Remedial policy actions suggested by Lin and Treichel (2012) were much more detailed.
  - ❖ Public and private sector cooperation should be supported to gain international competitiveness.
  - ❖ Structural reforms including R&D investments should be realized in sectors which use natural resources and unskilled labor intensively.

# REMEDIAL MEASURES (CHINA)

- ❑ Country specific remedial measures mainly focus on three countries. These countries are China, Vietnam and Malaysia respectively.
- ❑ The set of solutions for China were offered by Cai (2012) and Woo (2012).
- ❑ Cai (2012) offers policy suggestions to improve total factor productivity.
  - ❖ Expansion of human capital accumulation.
  - ❖ Deepening and widening financial system.
  - ❖ Improving the support of government by functional reforms.

# REMEDIAL MEASURES (CHINA)

- ❑ Woo (2012) offers policy suggestions to improve weak parts in China economy in order to gain international competitiveness.
  - ❖ Increasing the efficiency in banking system and capital markets.
  - ❖ Removing administrative defects.
  - ❖ Ensuring sustainability by reducing environmental damage.
  - ❖ Decreasing trade protectionism.

# REMEDIAL MEASURES (VIETNAM)

- ❑ Similar policy offers for Vietnam were suggested by Ohno (2009) and Tho (2013).
- ❑ Ohno (2009) offers some governmental policy suggestions to retain the country's full potential.
  - ❖ A new style of leadership.
  - ❖ A technocrat team directly associated with the top leader.
  - ❖ Strategic alliance with international partners .
- ❑ On the other hand, Tho (2013) offers the following policy actions to avoid the middle income trap.
  - ❖ Increasing the capability for R&D activities
  - ❖ Increasing the quality of human resources.
  - ❖ Developing the institutional system that contribute private sector.

# REMEDIAL MEASURES (MALAYSIA)

- Policy suggestions for Malaysia were made by Flaaen et al. (2013). They emphasize the need for broad structural transformation for this country.
  - ❖ Policy makers should encourage entrepreneurship and innovation for improving information networks and providing skilled labor.
  - ❖ Policymakers should attract large scale international firms to import capital equipment and to collect substantial tax revenue.
  - ❖ Strategic alliance with international partners.

# EMPIRICAL STUDIES

- ❑ Im and Rosenblatt (2013) reveals the empirical studies related with the detection of countries which are in the middle income trap.
- ❑ They divide the studies into three groups according to the detection method used.
  - ❖ Absolute Threshold Studies.
  - ❖ Relative Threshold Studies.
  - ❖ Growth Slowdown Studies.

# ABSOLUTE THRESHOLD STUDIES

- ❑ Before examining the middle income trap the primary need is to determine the countries in the middle income trap by using income levels.
- ❑ In absolute threshold models, some pre-determined income thresholds like the World Bank's categorization could be used.
  - ❖ Low Income Group (GDP per capita lower than \$1.045 ).
  - ❖ Lower-middle Income Group (GDP per capita from \$1.045 to \$4.125)
  - ❖ Upper-middle Income group (GDP per capita from \$4.125 to \$12.736)
  - ❖ High Income Group (GDP per capita higher than \$12.736)

# ABSOLUTE THRESHOLD STUDIES

- ❑ Egawa (2013), Yiping et al. (2014), Dalgic et al. (2014) and Bozkurt et al. (2014) are the examples of absolute threshold studies. These studies and their main findings are stated below.
- ❑ Egawa (2013), examines whether income inequality is a cause of the middle-income trap for China, Malaysia and Thailand from 1990 to 2011.
  - ❖ They use sensitivity analysis.
  - ❖ Income inequality has a negative impact on growth rates and could be accepted as a causes of the trap.



# ABSOLUTE THRESHOLD STUDIES

- ❑ Dalgic et al. (2014) examine the effective indicators related with the middle income trap by using the data of 56 middle-income countries from 1990 to 2013.
  - ❖ They use probit regressions.
  - ❖ Human capital quality, technology level and institutional quality are the main indicators to be improved in order to escape from the middle-income trap.
- ❑ Yiping et al. (2014), examines whether financial liberalization has a role in escaping the middle-income trap by using the data of 80 countries from 1990 to 2013.
  - ❖ Financial liberalization is critical for middle-income economies and has positive impact among high income economies.
  - ❖ Financial liberalization is not significantly important for low income countries.

# ABSOLUTE THRESHOLD STUDIES

- ❑ Bozkurt et al. (2014) examine whether Turkey is in the middle-income trap or not by using data which covers the period between 1971 to 2012.
  - ❖ They use convergence and ARDL analysis.
  - ❖ Turkey converge to high-income countries with respect to two main indicators which have a significant positive effect over per capita GDP. These rates are schooling and domestic savings.
  - ❖ But these are not sufficient for Turkey to escape from the middle income trap.

# RELATIVE THRESHOLD STUDIES

- ❑ In relative threshold approach, the determination of the countries in the middle income trap is evaluated according to an economical or a technological leader country (generally, the USA or Japan).
- ❑ For instance, Woo (2012) uses the catch-up index (CUI) to define the middle income trap and to determine income levels.
- ❑ According to this, a country's CUI score is the ratio of the income level of the country to the income level of the USA.
  - ❖ Low Income Group (Countries with 20% and less CUI score).
  - ❖ Middle Income Group (Countries with 20% - 55% CUI score).
  - ❖ High Income group (countries with 55% and greater CUI score).

# RELATIVE THRESHOLD STUDIES

- Woo (2012), Jankowska et al. (2012), Im and Rosenblatt (2013), Paus (2012, 2014), Robertson and Ye (2013), Yilmaz (2014), Kocak and Bulut (2014), Bulman et al. (2014), Panther and Flechtner (2015) and Cherif and Hasanov (2015) are the examples of relative threshold studies. These studies and their main findings are stated below.
- Woo (2012) investigates some Latin American and Asian countries for 1960-2008 period.
  - ❖ Argentina, Brazil, Chile, Mexico and Venezuela are countries in the middle income trap. They need for more than 50 years to catch-up with the standard of living of the USA.
  - ❖ Taiwan and South Korea are the two countries that catch-up USA and escape the trap.

# RELATIVE THRESHOLD STUDIES

- ❑ Jankowska et al. (2012) builds a comparative analysis between Asian and Latin American countries for 1963-2005 period while investigating the middle-income trap phenomenon.
  - ❖ They use Product Space methodology .
  - ❖ It is approved that most Latin American countries are caught in the trap.
- ❑ Im and Rosenblatt (2013) examine income distribution in 125 countries from 1950 to 2008 to understand whether they are in the trap or not.
  - ❖ Their analysis remain incapable for explaining the existence of the middle-income trap. But, provides some significant additional policy implications for governments.

# RELATIVE THRESHOLD STUDIES

- ❑ Later, Paus (2014) investigates some Latin American countries for 2000s.
  - ❖ Their approach focus on productive capability.
  - ❖ It is stated that Latin American countries should achieve a structural change at institutional level to escape the trap.
- ❑ Robertson and Ye (2013) examine whether 46 middle income countries are in the trap or not by using the data covering 1950-2010 period.
  - ❖ They use ADF unit root test.
  - ❖ It is stated that 19 out of 46 middle-income countries are in the trap.

# RELATIVE THRESHOLD STUDIES

- By using the approach of Robertson and Ye (2013), Yilmaz (2014) examines whether 57 middle income countries are in the trap or not by using the data covering 1960-2010 period.
  - ❖ It is stated that only 8 out of 57 countries (Cyprus, Greece, Portugal, Hong Kong, Japan, Korea, Singapore and Taiwan) manage to escape the trap, while the others (including Turkey and the majority of Latin American countries) fall into.
- Again by using the approach of Robertson and Ye (2013), Kocak and Bulut (2014) explore whether Turkey is in the middle-income trap or not for the period of 1950-2010.
  - ❖ Turkey has not been caught in the trap yet.

# RELATIVE THRESHOLD STUDIES

- ❑ Panther and Flechtner (2015) analyse the middle-income trap for 67 middle-income countries by using the data covering the period 1976 to 2009.
  - ❖ They use fuzzy-set qualitative comparative analysis .
  - ❖ Global and domestic inequalities are the main causes of the middle income trap.
- ❑ Cherif and Hasanov (2015) discuss the middle-income trap for 167 countries by using the data covering the period 1970 to 2010.
  - ❖ They indicate that, high valued-added manufacturing and services concentrating on high-tech innovation are main strategies to escape from the middle income trap.



# GROWTH SLOWDOWN STUDIES

- ❑ In growth slowdown approach, the middle-income trap is identified as a growth slowdown in economic growth.
- ❑ Eichengreen et al. (2013), Aiyar et al. (2013), Agenor and Canuto (2015) and Chen and Dai (2014) are the examples of growth slowdown studies. These studies and their main findings are stated below.
- ❑ By using probit regressions and Chow test, Eichengreen et al. (2013), identify the middle-income trap as a slowdown in economic growth.
  - ❖ According to them growth slowdowns and the middle income trap occur at \$11,000 to \$15,000 per capita GDP levels.

# GROWTH SLOWDOWN STUDIES

- Aiyar et al. (2013), defining the middle-income trap as a special case of growth slowdown. They examine 138 countries for the period of 1955 to 2009.
  - ❖ They use Bayesian Model Averaging (BMA) and the Weighted Averaging Least Squares (WALS).
  - ❖ They found that institutional quality, demography, infrastructure, macroeconomic environment, the structure of production and the structure of trade are related with the middle income trap.
  - ❖ A sudden decrease in gross capital inflow and outflow and weak export diversity are the main causes of the middle income trap.

# GROWTH SLOWDOWN STUDIES

- ❑ Agenor and Canuto (2015) discuss the middle-income trap by using an overlapping generations (OLG) model.
  - ❖ They indicate that, investments for innovation and advanced infrastructure will provide access to global knowledge networks and make it easy to escape from the middle-income trap.
- ❑ Chen and Dai (2014) suggests a new explanation to the middle-income trap in terms of political economy.
  - ❖ They use a common-agency model in order to show the trade-off between social welfare and political contributions.
  - ❖ They found that, when the economy moves up the new development stage (high productivity), the distorted government actions reduces social welfare and create the middle income trap.

# CONCLUSION

- ❑ After examining several empirical studies we reach to the conclusions stated below.
- ❑ The majority of the empirical studies draw more attention to the majority of Latin American countries like Brazil and Mexico and some Asian countries like Malaysia and Thailand as these countries desperately struggle to get rid of the trap.
- ❑ According to the majority of the empirical studies, main determinants of middle income trap are listed as gross capital inflow, gross capital outflow and weak export diversity.

# CONCLUSION

- ❑ Besides, most of the empirical studies emphasize that countries should re-organize sectoral economic conditions according to microeconomic behaviors, re-structure institutions and arrange high value-added manufacturing and services in order to escape the middle-income trap.
- ❑ Also most of the empirical studies find a significant relation between MIT and
  - ❖ Income inequality (-)
  - ❖ Financial liberalization (+)
  - ❖ Global and domestic inequalities (-)
  - ❖ Economic equality (+)

THANKS FOR YOU ATTENTION...