

# Comparative Analysis of the Literature on Economic Growth in the Perspective of Advanced and Emerging Economies

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## Abstract

In this paper we have critically analyzed previous literature on economic growth with special reference to advanced and emerging economies in order to understand what research so far has been made by different researchers on various determinants and what they have opinion about the growth of these economies in future. The objective of this study is to investigate the phenomenon why do some countries record fast economic growth and why some other countries have stagnant situation in spite of all efforts, policy initiatives, latest technology, and human capital. For this purpose, we specifically selected G-7 countries and E-7 (Emerging economies). Then we analyze their specific economic indicators such as human capital, technology, aging population and its likely financial burden on the respective economies, ratio of working population to total population, manufacturing capacity and export potential. The advanced countries included in this study are the United States, United Kingdom, Germany, France, Canada, and Italy and Japan while emerging economies included into this study is China, India, Brazil, Russian Federation, Indonesia, Turkey, and Pakistan. After critical analysis of literature we conclude that economists have dismal view about the economic growth of advanced countries in future due to mounting high level of debt, income inequality, less revenue generating space, aging population and growing burden of social spending. In contrast, the economists who conducted research on emerging economies are very much optimistic about their consistent economic growth in future because they have younger working population, less debt burden, growing per capita income and living standard, big consumer markets, expanding middle class, increasing exports, and fiscal discipline.

**Keywords:** Economic growth, fiscal discipline, aging population, consumer markets.

## 1. INTRODUCTION

Economic growth is a complicated and multi-faced phenomenon. It has got attraction for the economists since 1954 when Solow Growth Model was emerged. Since then the economists have been extensively working on this subject keeping in view different perspectives growth potential of different countries. G-7 countries are 1950s phenomenon while Emerging Market Economies was 1990s phenomenon whereas emerging economies are 21<sup>st</sup> century phenomenon. Emerging market economies have lost attraction for the economists because they could not cope with the onslaught of 1997 speculative currency crisis and their economic growth had not brought any significant impact on world economy due to their small population, territory and market size. But the phenomenon of emerging economies is quite different because these economies have been consistently growing since 2000, and their growth has significant impact on the world economy because these economies have huge population, a large quantity of workers, a vast consumer markets, and huge foreign exchange reserves, expanding manufacturing capacity and growing per capita income of households.

The advanced economies are still growing but the momentum of growth is very slow and stagnant. Their productivity level, pace of inventions and innovations and new products and services is also very slow. Their future growth solely depends upon the continuous innovations which appears to be difficult due to aging their human capital, capital stock, and infrastructure.

### 1.1 MAIN RESEARCH QUESTIONS

Main research questions of our study are as under:-

1. What are the causes of the economic slowdown of advanced economies?
2. What are the cause of the fast economic growth of selected emerging economies?
3. What policy initiatives should be taken by advanced economies to stimulate their productivity growth?
4. What policy initiatives should be taken by the emerging economies to sustain their economic growth and further improve their productivity?

### 1.2 OBJECTIVE OF THE STUDY:

The objective of this study is to investigate the phenomenon of slow productivity growth of selected advanced

countries and fast economic growth and rising productivity level of selected emerging economies so that we will be able to understand the phenomenon of economic growth in its real perspective.

### 1.3 SCOPE OF THE STUDY:

The scope of this study is very vast because economic growth is the problem of every country whether it is developed or under-developed. The results of this study can be generalized as well as applied to all economies because all countries have the same economic indicators and their policy makers use same conventional policy tools to stimulate growth momentum irrespective of the fact whether they succeed or not. The analysis of literature on economic growth will provide a very useful guideline for policy decision-making to correct economic fluctuations, business cycles and to use natural, physical, and human resources in more efficient way. Now we first analyze the selected literature on advanced economies.

### 2.G-7 ECONOMIES

Hagemann and Nicoletti (1988) analyze the economic effects and policy implications of aging population in the developed countries. He said that all developed countries are facing the problem of demographic decline. When compared the existing demographic situation with the situation of 1950 we find that average population growth in the U.S.A. was 1.73 percent in 1950 while now it is 0.54 percent. The population growth in Canada was 2.66 percent in 1950 while it was 0.65 percent in 2011. The population growth rate in Britain, Germany, France, Italy, and Japan was 1.73 percent, 0.78 percent, 1.11 percent 0.39 percent in 1950 respectively. In 2011 the population growth in Britain was 0.9 percent, 0.14 percent in France, 0.65 percent in Canada, -0.57 percent in Germany, -0.22 percent in Italy, and 0.12 percent in Japan. There is a sharp decline in the population growth rate in all above stated countries during the last 60 years. The friction of population below 16 was substantially reduced 24 percent to 18 percent during the same period. It means that the working age population has reduced significantly, affecting productivity growth. If we look at the aging population we find that percentage of population over 67 years age in the aforesaid seven developed countries was 12.60 percent in 1985, which was increased to more than 16 percent in 2012. The population falling in this bracket is 21 percent in Germany, 18 percent in Japan and Italy, 13 percent in the United States and 15 percent in the United Kingdom. The rapidly aging population has increased the population dependency ratio in these countries. The population dependency ratio in the G-7 countries has increased 25 percent in 2013. According to the OECD (1987) and IMF (1988) the growing aging population has generated many complications for the developed countries. These countries will have to bear huge financial burdens in the shape of higher spending on healthcare to look after their old population, higher expenditures on pension, unemployment insurance, higher outlays to assist families and low productivity because the high friction of population above 67 years is unable to work and to participate in national productive activities. The level of social spending will likely to increase further in future due to change in population structure. Similarly, these countries will have to face smaller workforce which will bear the burden of large friction of aging population. There is likely to increase in tax rates in future because the expenses to be incurred on pension and social security is financed by taxes. High tax rates will affect corporate profit, disposable income of earning class and in overall term economic growth [1].

Finer (1996) says that the population of all industrialized and most industrializing societies is currently aging. Aging is a multi-faced, multi-caused, and multi-causal phenomenon. Population ageing persons can be viewed from a number of perspectives in this context. Demographically, it means that there are more old or elderly people around than there were before, relative to the size or some or all other age groups in the population. It is associated with declining personal autonomy and increasing states of dependency on other. Economically the elderly may be 'forced to be burden' to the extent they are obliged to retire at a stipulated age from fulltime employment; though the extent to which this may give rise to actual states of economic hardship and dependency will of course depend on the precise nature of pension arrangement as well as on the earnings patterns which preceded them. Improved standards of living, coupled with improvements in health and hygiene (especially at childbirth), and are seen as having contributed to increased life expectancy, among infants and women (e.g. Minois, 1989). Modern population ageing is regarded as having been an "invention" of northern and western Europe like industrial revolution. The share of ageing population in the advanced countries was around 10 percent in 1950, which has increased to about 17 percent in 2010. Population ageing has been a consequence of post-industrialism rather than of industrialization per se (Hugman, 1994). After second world war, the European countries introduced a dynamic pension entitlements on "Pay As You Go" basis (Wilson, 1974). This system later on, threw the European welfare states in crisis to maintain the levels of public and especially social expenditure in relation to national earning power and international competitiveness, then the accumulated commitment to old age/retirement pensions was in a sense the biggest single cause of problem of advanced economies [2].

Blanchard (2006) examined the rise and fall of world empires in the light of history. He argues that since Roman Empire collapse in 1500 A.D. the per capita output growth in Europe was very little because the

large number of working population was engaged in agriculture sector and there was not possibility of innovations in other sectors of the economy. Other sectors contribution was nominal in overall production and output. But output per capita improved but in small ratio during next two centuries and it was nearly 0.1 percent per year which was negligible. During next 120 (1700-1820) years the output per capita was 0.2 percent. Though the industrialization brought a tremendous change in the living standard but per capita output was increase with small friction. The period 1820 and 1950 was that in which huge technological advancements were taken place in the United States but per capita output grew only 1.5 percent. Blanchard pleads that the study of economic history reveals the fact that economic growth is the twentieth century phenomenon. Two hundred years record of economic growth reveals that highest growth was recorded during the period of 1960-1973. Since then growth has retreating in almost all developed world. He maintained that the United States could not always be a leader. History tells us that countries compete the race of economic growth. One country becomes a leader for a certain period and after touching the potential limit of growth it hands over the leadership to another country. China was a world leader by 1500 century on the basis of high level of per capita output. Then leadership moved to Italy and then to Netherlands and by 1820 the Great Britain emerged as world leader. It enjoyed leadership for about 50 years (1820-1870) and after that the United States has been leading the world by producing high per capita output. He said that countries moves like leapfrogging, reaching close to the leader and then snatching leadership from it. It is the same as the process of convergence in which one country gradually move forward and then come close to the leader. He assumed that the United States will not likely to remain world leader in future [3].

Hudson (2003) has made comparison of US's fundamental political and economic ideologies and policies. The initial ideology led the United States to become world economic power and attain high productivity as well as enjoy high living standard but its subsequent divergent policies reduce its economic potential, role in international affairs and slower productivity growth. He mentioned that US political economist such as E. Peshine Smith, Henry Carey and their follower if its economy is saved from the manipulation of the British and European nations. They felt that the European nations are the real competitors of the United States and might create impediments in its economic growth and world leadership. The emphasized that the United States should create a new society having high living standard, high wages and high per capita income by achieving higher productivity level. The United States should be a country of resources and wealth abundance rather than scarcity of resources and low income. They strongly opposed Thomas Malthus and David Ricardo's theories who pleaded the controlling of population and increasing public debt to enhance economic growth. They stressed that the rate of return on investment both in agriculture and industry should be increased to optimum level and new moral values should build by improving living standard. They opposed the British and the European countries on the logic that they had imperial policies, they fought wars for centuries to capture each other's resources and markets and they wanted to establish their dominance over the large market of the United States. Therefore, the United States should not allow the British and the European countries to enter its market. Hudson continue to argue by saying that the US Republicans also oppose the imperialistic policies of establish colonies in abroad and the revenue generated through taxes and import tariffs should be spent on improvement the living standard of its people rather than wasting money on wars. These philosophy of the earlier US leaders kept the United States away from wars. The United States entered First World War in 1917 when it appears that the Great Britain and its allies were losing wars and US Bankers might lost billions of dollars lend to pro-US warring nations in case of their defeat. Another reason for joining that war was business motives rather than political because the United States had supplied arms and ammunitions worth \$12 billion to Great Britain and its allies. If these countries were defeated the US economy might have collapsed. At the end of that war, all European countries including United Kingdom had become US debtor and later on, the United States forced them to cut their defense and social spending to repay the loans. The level of debt was so high that the European debtors had no capacity to pay shortly. The United States pressurized the European nations to minimize their role in the world economy and focus on the improvement of their domestic economy. The United Kingdom arranged Ottawa conference in 1932 to form Common-wealth tariff preference system to generate more resources and to phase out its war debt. It laid the seed of World War Second because almost all European nations bent upon to snatch natural resources from each other. The scarcity of resources to pay US debt was widen gulf among them and they preferred to use force rather than mutual consultations and adjustment of their needs. The United States had desired to see the disintegration of European empires and for obtaining this objective it manipulated the economic and political weakness of European nations. In spite of improving their economies, the European nations continued to spend money on preparation of war to capture resources through wars. They also followed protection policies which generated economic recession. It squeezed international trade and decrease national income and employment in the whole Europe. The result was the occurrence of Great Depression in 1930 that widen Governments' role under Lord Keynes's economic prescription of deficit financing to pull the economy out of depression. Almost all governments acted upon Keynesian prescription. Hudson claimed that it was the culmination of *laissez-faire*. As the government's intervention in business affairs increased private capital reduced. Now the European nations have no option but to meet their budgetary deficits by borrowing loans from

the United States, which strangled their economic and political freedom. When the Second World War ended, the British Empire was disintegrated and all European nations became the debiting nations. These nations apparently were developed but politically and economically they were US dependent. The US involvement in the European nations' affairs were the defying of the industrial philosophy enunciated by the earlier US political economists. The United States also denounced the Laissez-faire ideology by increasing government's role inside and outside the country. The policies followed by the United States during 1980s and 1990s were clear denial of past philosophy. The European nations allowed US investor to purchase those industries of their colonies which are extractive in nature. It provided the United States cheap source of raw material for its manufacturing sector. It generated trade surplus due to US low production cost, earning huge profits to US manufacturers. It enabled them to buy more and more productive assets all over the world. Hudson has said that US's earlier model was enforced for a short period and it could not prolong due to change in US policies. The United States followed distortionary policies and cut tariffs of those goods which did not hurt to domestic industrial vested interests and continued to keep high tariffs on those commodities and goods which were produced cheap in other countries but costly in the US market. The closing of market for cheap goods and providing protection to domestic vested interest was the negation of free trade. International Trade Organization, which was constituted to ensure free trade in the world market, could not properly play its role due to the US restrictive policies. The United States amassed 75 percent of world's gold and generated huge surplus in the production of goods and services. But neither the IMF, World Bank loans nor US investment abroad had capacity to finance US exports at the prices prevailing in the early years of 1950s. The other countries had not ability to buy US products as they had no financial resources. Korean war in mid-1950s and US confrontation with the Soviet Union during 1950-1980s had brought significant change in the its economic and strategic policies. It turns US budget and trade surplus into twin deficits because the United States would have finance its military adventures and foreign aid programs on large scale. Within a short period ten year, the United States, which had capacity to finance global war expenditure fell into deep recessionary sea like European powers which set up their colonies abroad in 19<sup>th</sup> century. The shifting of resources from social development projects to war activities in abroad was reduced the productive capacity of the United States. But it also generated a class of vested interest within the country which vehemently supported imperial policies to enhance US role and establish its dominance without assessing it huge financial cost.

The continuous involvement in the Gulf and Afghanistan wars changed the status of the United States from creditor to debtor country. It also brought realignment in world relationships. The world financial system has reached the point where it might burst at any time. The US budget and trade deficits are disrupting the whole world, but its character has shifting from a military focus to one of insisting that foreign economies supply the consume goods and investment goods that the domestic U.S. economy no longer supplying at it post industrializes and becomes a bubble economy, while buying American farm surpluses and other surplus output. In the financial sphere, the role of foreign economies is to sustain American stock market and real estate bubble, producing capital gains and asset price inflation even as the U.S. industrial economy is being hollowed out [4].

Lingwiler (2004) analyzed capital assets pricing model and investigated into the continuous decline in return on financial assets in the advanced economies. He empirically examined the causes of this decline by discussing all available mathematical models. He predicted the continuous rise of real economy (goods market) and fall of nominal economy (money markets). His hypothesis is worth reading in the context of our study. Lingwiler argues that a typical life from a purely financial point of view consists of first accumulating assets when young and working and then disposing of these assets when old and retired. He discussed overlapping generation model in which the agents for two periods. They are called "young" in the first period of their lives and "old" in the second. At each point in time, an old and young generation is present. The economy functions without capital. The young produces a consumption good (food), which is not storable. The old are retired and produce nothing. But the old own a number of green pieces of paper that are of no intrinsic value. They trade these pieces of paper (money) with the young in exchange of a share of the food they produce. The young agree to this trade because they are after the green pieces of paper (money). These pieces of paper-money or more generally financial assets allow inter-temporal smoothing of consumption. This is essentially the same role that a pension system fulfills. Without the institution, consumption would be possible only for those who grow food, that is, the young. The old would obviously die at the beginning of his retirement (Samuelson, 1958).

Lingwiler further argues that a change in the age composition of the population perhaps result from a demographic shock; can have a strong impact on the exchange rate between food and money, i.e., asset prices. Consider an extreme situation when everyone is old and no one work. Assents are worth nothing and consumption is zero. If everyone is young, on the other hand, assets are worth infinitely much except that there are no assets to be found. From these extreme cases, we may conclude that an economy that grows younger should experience rising assets prices and an economy that grows old should experience falling assets prices [5].

Collander (2004) is an American economist, argues that "when baby boomers, like me, retire in 2020

we will stop producing real goods, but will continue consuming real goods. And given our medical needs, we will likely to consume quite heavily-medicine, travel and all that good stuff. Real goods must be provided to us. Our social security payments, our other pensions, our savings will give us significant nominal income to spend. If nominal income is not matched by significant real production, the quantity of aggregate demand will exceed the quantity of aggregate supply and the result will be inflation. The problem is that someone has to produce the goods that we are spending on. That is where you and your fellow workers come in. Put blatantly, starting in 2020 you must produce not only enough real goods for yourself and your family but also enough for retired baby boomers. In other words, the real output per worker must increase but the real consumption of workers must not increase if the retired baby boomers are to have real goods to consume. This matching of real production with real expenditure could be accomplished if you and your fellow workers save a large portion of your income rather than consuming it, if the government taxes you heavily starting in 2020, so you don't have income to spend. If social security recipients choose to save rather than spend their income, or if foreign saving come in. But some combination of these must occur so that real aggregate demand will not exceed real aggregate supply, which would cause strong inflationary pressure and strong pressure on government to reduce aggregate demand through contradictory fiscal policy."

He further argued that population control policies in developing countries have played an important role in discussion of increasing per capita growth rates. Population among low-income countries has grown an average 1.9 percent a year since 1980, compared to 0.6 percent for high-income countries. Population growth (high) presents a problem for economic growth need sufficient capital and education for everyone difficult. The factors of production have to be shared among more people and the law of diminishing productivity set in. Workers cannot produce as much as before and per capita growth falls. Population growth means increase in relative number of dependents (people too old or too young to work). Each worker must support a larger number of people. China, which has one-fifth of world's population, adopted one-child policy in 1980 and enforced it by harsh penalties, such as job loss for violators. This policy has reduced population growth rate from over two percent in 1970 to just one percent today. In the United States, where birth rate is below replacement levels, immigration has provided one source of growth in population and total output. Immigration in the United States was substantial in the 1990s and early 2000s, in some years approaching one million per year. This has increased the labour force and output. However, there is debate whether the greater immigration has increased or decreased output per capita. Colander (2004) says that the significant sources of economic growth include: capital accumulation, available resources, growth compatible institutions, technological development, and entrepreneurship. They have so far not be able to determine how they all fit together to bring about growth. Thus, the development of actual growth policy prescription is difficult. GDP serves the same function for government as income does for an individual. It provides measure of much debt and how large a deficit, government can handle. The economies of emerging markets are far below their potential level. It has been estimated that about sixty percent public budget will likely to be utilized to meet the expenditures of social security and health are in 2030 60 as compared to current 35 percent in 2010 [6]

Colander (2004) highlights another aspect of demographic changes brought about by baby boom related to stock market prices. Stock prices were soaring in the late 1990 as baby boomers moved into their peak earning periods and through pension system, saved for the future by buying stock. Even with the fall in stock prices in the early 2000s, stock prices were still higher relative to their long term trend because of this demographic fact. He predicted that in 1914, when the boomers start anticipating retiring and selling stock, the effect of the baby boom on the stock market will be in the opposite direction. Many elders will be redeeming their stocks as they retire, hoping to live off the proceeds of their savings. (These forces are the reverse of those that were pushing the stock market prices up at the turn of century). As the expectations of that happening develop, stock prices will likely fall precipitously, and remain low relative to their long-run trend, and there will be much less there than people thought. In the USA, an additional year of education increases workers' wages by an average of 10% against 15 to 20% increase in wages in developing countries. New technology can result intentionally from R&D and unintentionally from some other activity or simply from wandering mind (big idea). Investments in R&D take years to pay off [6].

Mankiw (2006 P: 424) contends that high public debt may affect a country leading role in the economy of the world. The reduction in national savings due to high budget deficit forces the country facing deficit to borrow funds from foreign sources. He argued that the US fiscal policy has generated huge deficits and reduced savings, which forces the United States to finance its imports through foreign borrowing. It has made the United State as a major debtor country of the world because its public debt has exceeded its annual gross output. The deficit in budget and trade has further deteriorated debt situation. He further contends that high level of public debt creates multi-dimensional risks that result in the capital outflow, reduce demand and prices of valuable domestic assets in the world capital market, and lessen the confidence of foreign investors. He argues that the investors have kept remembered the history that the only option before the government to deal with debt problem is to declared itself bankrupt as dis the British King, Edward-III, when he was failed to pay his debt to Italian

bankers in 1335. Similar strategy was followed by Latin American countries when they defaulted international loans in 1980s. The temptation of default is more attractive when the level of debt is high. The interest of foreign investor is decreased as the debt of government is increased and they start reducing their holdings and lessening their lending. When the investors both local and foreign investors loss confidence in any economy they pull their cash out of this economy as was experience in Mexico, East and South Asian countries in 1990s. This result in the deterioration in the value of local currency and increase in interest rates. Financing debt by external borrowing shatters the image of the country in the world community. Mankiw while quoting the fear of Ben Friedman in 1988 in famous book "Day of Reckoning" pleads that history reveals the fact that the creditor countries always enjoy the power and influence. He said that the United States became a world power only when it had paid out its debt and lent loans to other nations. Its influence is increases with the increase in the volume of its credit. He feared that the United States may lose influence in the world community if it continues to face deficit problem. He concluded that the United States is continued to survive as the Superpower of the world in spite of sustaining deficit in the second decade because there is no other power which can challenge to it after the collapse of Soviet Union. But the future may be different.[7].

Glyn (2006) contends that the period of 1950s and 1960s were the gold period enjoyed the developed countries and productivity slowdown was occurred in the early years of 1970s. The policy makers took it as a temporary phase and predicted that output would increase by 5.6 per year between 1975 and 1980. But the slowdown was continued and had negative impact on the developed economies during 1970s. He said that the basic measure of productivity is the output per hours worked which reduced to half in the United States in 1973. The other countries such as Japan and the members of European Union also faced the similar situations. Their productivity also decline very fast after 1973. The main factor to be responsible for the fall of productivity decline is the level of investment. The quantity of capital stock in Europe and Japan was reduced by one-third during the period of 1973 and 1990 as compared to the period of 1960s when all developed countries had made investment to accumulate capital stock at optimum level. The situation of capital stock in the United States is also declining due to declining profitability in corporate sector. It is very difficult to measure total effect of slow capital growth on labour productivity but in the U.S.'s case it is estimated that half of labour productivity slowdown is due to slow growth of capital stock [8]

Gruber (2009) has analyzed the problem of Japan's public debt and its impact on its economy. He said that the public debt of Japan has reached 200 percent of its gross domestic products. It is the highest among all developed countries. It lost confidence of the investors who think that Japan's public debt level is unsustainable. The major cause of increase in the public deficit is the consistent budget deficit since 1993 due to stagnation of GDP growth and continuous business recession. The deflation prevailed in the Japanese economy throughout 1990s has caused low collection of revenue but high government expenditures to pull the economy out of crisis. However, the interest payment on the debt is low because of low interest rate. This payment is only 1.2 percent of GDP for the last twenty years and it is on average very less when we compare it with other developed countries. Another factor that has averted economic collapse is the trade surplus that enables Japan to accumulate huge foreign exchange reserves that are exceeded one trillion US dollars. Gruber concludes that the countries follow deficit policies will have to face high level of public debt and in case of high interest rate they will have to pay high debt services [9].

Weil (2011 P: 252) has also analyzed the productivity growth slowdown phenomenon in the developing world by saying that the fall in productivity since 1970s is an interesting puzzle to study. He mentioned that US productivity on average was 1.72% per year in 1890-1971 but after that it fell to 0.86% during 1972 and 1995. This is the mystery that has dominated not only the United States of America but also the whole developed world. He said that the main cause of productivity slowdown is the fast technological progress that has improved the living standard of the citizens of advanced countries, has suddenly halted. He contended that the productivity and technology are two different thing. It is undeniable fact that in the long-run productivity growth comes from technological advancements but in the short-rune it comes from efficiency. He argues that productivity slowdown during the two decades of 1970s and 1980s did not mean that technological progress has been stopped completely. But the fact it the efficiency of US economy which fell during that period. The efficiency fell due to abrupt increase in the prices of oil and gas twice in 1973 and 1979, throwing the whole economy into an anarchy. The inefficiency was produced in the energy-intensive industries as their cost was increased abnormally. It also slower the production in auto and electronic appliances industries, leaving the capital stock idle. Both unemployment and inflation reached the highest level since world war second. The Information Technology revolution could not improve the level of efficiency. The productivity in industrial sector has marred the improvement in information technology sector. This is the reason that innovations made in the information technology sector could not bring visible impact on overall productivity level [10].

Gordon (2012 P:413) pleads that future growth of productivity is highly uncertain. The economic crisis of 2008-2009, including the collapse of profits and stock market, echoed what happened eight years earlier. Because firms cut costs so drastically, they overacted in laying off workers more than was justified by the decline in

output and measured productivity growth bounced up. But in 2010-11 productivity growth had slowed sharply after the 2009 spurt, just as it did in 2005-07 after the 2005-2007 after the 2001-2004 upsurge. Over a long period 10 or 20 years, future U.S. growth in real income per capita is likely to be slower than over the 20 years 1987-2007 for two main reasons. First, the impending retirement of the baby boom generation (those who were born in 1947-63) will reduce the number of workers relative to the number of retired people. Since hours of work per person (including the entire population aged from 16 to above 100 in age) will fall, this means by definition that income per person will grow more slowly than productivity. The second underlying cause of slower future growth, not just in the standard of living but in productivity itself, is the end of a century-long increase of an increase in the educational attainment of Americans. Steadily as elementary education spread in the late nineteenth century, as high school education became universal between 1910 and 1940, and then as millions went to college after World War II, the average number of years of education of the American population marched steadily higher. But this progress stopped around 1990. The average number of school years completed by Americans stopped increasing. Yet other nations that had long remained behind caught up and surged ahead. Why? Because US higher education has become a “cost disease” almost as pernicious as that of medical care. Many elite universities enroll the same number of students as 30 years ago but at much higher real cost, that is, the nominal cost adjusted for economy-wide inflation. Among the components of higher cost are faculty salaries, no-teaching leaves given to faculty as part of faculty recruiting, extra buildings despite the same number of students and cost of maintaining those buildings. Another reason is the problems that students and their parents have in financing the higher cost of college education. Federal aid and scholarships is less generous than previously, and budget problems of state governments have caused rapid increase in tuition fee. In short, many young Americans are not going to college because they and their parents cannot afford it, and they do not want to burden themselves with six-digit students’ loans. As we know that education is an input into the production function that makes each worker more productive. He concluded that high cost of education will slowdown in the growth of human capital in the United States and it will likely to affect negatively the pace of innovation and living standard [11].

### 3. EMERGING ECONOMIES

Awan & Vashma (2015) say that development of infrastructure in the emerging economies has accelerated economic activity and consequently economic growth [12]. Awan (2014) argue that huge number of working age population in the emerging economies is the big asset and has been paying dividend to respective countries. Now human capital is a very rare resource vis-à-vis technological progress and capital accumulation [13] Awan and Haroon (2015) have emphasized on the formation of human capital by improving social indicators and ensuring distribution of income [14].

Henrique I. And Sadorsky P analyzed China’s economic growth in the context of heavy investment made in capital stock and high volume of international trade. They have to determine whether the Chinese growth is investment-led and export-led. They said that China has made heavy investment to expand industrial base, develop infrastructure and to produce vital goods in 1950s. This process was continued till 1979 when China gradually started opening its economy to outside world and enhance its international trade and economic ties with other countries. They also included exchange rate and foreign output in their empirical analysis. They pleaded that a strong foundation was laid down before 1979 which made the economic reforms successful in subsequent period. They found that there were positive relationship between investment, productivity, and exports in the long run. Their results show that the effect of exports was larger on productivity than investment and factors contributed to improve productivity were of economies of scales and technology transfer, proper allocation of resources and competitiveness in the world market. They noted short-term effect of R&D on investment and productivity. They further argue that rapid exports precipitate more productivity than output. It means Chinese economy has become more efficient due to spillover effects of external trade. They have identified three channels of Chinese rapid economic growth and these channels are investment, trade, and exports—these three factors expedited productivity growth. The policies like open door, deregulation and privatization, liberation of market, increase in R&D expenditures and proper utilization of resources other factors that indirectly contributed in sustainable Chinese economic growth during last forty years [15].

IMF (2010) conducted its survey in April, 2010 to analyzed fiscal challenges to be faced by advanced and emerging economies. According to this survey, the main challenges for the developed economies are entitlement spending, high unemployment rate, growing public debt and falling corporate profit. The entitlement spending is the major issue because it consumes major chunk of tax revenue and its volume will increase in future due to aging population and shrinking working population. Similarly, growing unemployment due to shrinking of industry is another major problem in the developed countries. This problem is more severe than is expressed in numerical figures because most of workers who are counted as employed are working for some hours like four to six hours jobs. While others are working on daily wages, which are purely temporary jobs. The survey suggests that there is no single tool to measure unemployment rate or under-unemployment but data

reveals that it may be more than 25 percent in real term. Unemployment is more dangerous when it becomes permanent and jobless persons is regarded as an unskilled and unproductive. He only consumes without producing anything. High ratio of public debt might jeopardize the economic growth and create management problem for public finance in the advanced countries. IMF (2010) survey also measure the effect of 2008 financial crisis on the emerging economies. They survey says that when the financial crisis was occurred the quantity of debt of emerging economies was relatively very low and manageable. This enables these economies particularly China to continue its expansionary fiscal policy to create balance in growth generated from internal and external forces. China extended subsidies to different sector of economy to make them competitive in international market, provide health insurance to farm workers, and widen pension system to improve social safety net for the poor segment of the society. India and Brazil have less maneuvering potential on account of having high volume of debt and large public sectors. Their pace of growth and social sector expansion was slow vis-à-vis China. However, the survey of IMF concludes that the emerging economies have better financial health as compared to advanced economies [16].

Toloui, (2010) contends that emerging economies played a key role in the global economy's recovery in 2009 that was historically unique. Like industrialized countries, the financial crisis hit emerging markets hard, particularly in the fourth quarter of 2008 and first quarter of 2009 as the collapse in international trade following Lehman's bankruptcy rippled across the globe. But unlike in previous episodes of financial distress; emerging economies generally entered the crisis with strong balance sheets. This was especially true in China, where low levels of government debt enabled an aggressive program of infrastructure investment and government-sponsored credit growth that not only supported economic growth at home, but also had a strong positive spillover to growth in other emerging markets and commodity-exporting industrial countries like Australia. PIMCO estimates that China contributed more than 1½ percentage points to global GDP growth in the first half of 2009, at a time when the global economy needed such an engine. It was not just China. In the second quarter of 2009, the contribution of the twenty largest emerging markets, excluding China, to global demand growth turned positive, at a time when domestic demand in the United States was still contracting. The emerging world as a whole, with the critical role played by China, was an agent of its own recovery in this crisis to a degree not previously seen. [17]. The reason this occurred is that low levels of public debt gave systemically important emerging economies scope for aggressive fiscal policy to counteract the headwinds from industrialized markets. And debt levels in the major emerging economies are projected to stay manageable. Public debt as a percentage of GDP is projected to decline between 2009 and 2013, in sharp contrast to industrialized countries where debt levels are higher and rising sharply [18].

#### 4. FINDINGS

We summarize the findings of our analysis of literature both on selected advanced and emerging economies in the followings:-

Hagemann and Nicoletti (1988) analyze the impact of aging population in the advanced economies. They mentioned that population growth rate has dropped to less 0.5 percent or negative in some advanced countries. They predicted the population under 15 years age would decline significantly from an average 17 percent in 2030. They also mentioned that overall age dependency ration in advanced countries has been estimated 24.17 percent in 2010. The smaller workforce will have to support a larger dependent ratio and in this way it will increase tax burden on working population against the old population which will need more social expenditures for consumption and health care. It will definitely dampen economic growth in advanced economies in future. [1].

Finer (1996) also analyzed the impact of aging population in the advanced countries. He argued that modern population is regarded as having been "an invention" of northern and Western Europe industrial revolution. The share of aging population has increased from 10 percent in 1950 to 17 percent in 2010. The European countries has based its pension system on "Pay as you Go" principle. He predicted that this system will throw the Europe into crisis in future when level of social expenditures will increase as compared to their earning power and it will definitely affect their international competitiveness [2].

Blanchard (2006) analyzed the rise and fall of Empires in historical context. He argued that the convergence of OECD countries to US per capita level indicates that the United States will not always be world economic leader. He also argues that histories looks more like leapfrogging in which countries first get close to the leader and then overtake it. If history is any guide, the United States may not remain in the lead much longer, he concluded[3]

Hudson (2003) the U.S. economic and defense policies vis-à-vis Europe and said that the U.S. balance of payment and budget deficit problems are the outcome of these policies. He said that U.S. budget and trade deficits are disturbing world economy. He argues that the U.S. economy has become a bubble economy and foreign economies has been forced to sustain American stock market and real estate bubble in order to produce capital gains and assets price inflation because the U.S. industrial economy is being hollowed out [4]

Lingwiler (2004) compared real economy (goods market) with nominal economy (money market). He argues that bullish housing market in 1970s and bullish stock market in 1980s and 1990s was driven by baby boomer who looked for investment opportunities in anticipation of their retirement in 2010. He surmised that economic slowdown in advanced countries is the result of the end of baby boom that caused the decline of the value of financial assets. He suggested that the world will be balanced only if emerging economies particularly China bail out baby boomer by purchasing their assets [5].

Collander (2004) also analyzed the impact of the retirement of baby boomers. He argues that in 2020 when baby boomers will stop producing goods and continue to consume real goods heavily including availing Medicare. It will expedite demand for real goods vis-à-vis supply, creating inflation in advanced countries. He predicted the stock market will likely to fall in 1914 when baby boomers will start liquidating their holding and stock prices will likely to remain low as compared to their long-run trend [6].

Mankiw (2006) said that the U.S. fiscal policy has switched off the United States from a major creditor to a major debtor in the world economy. He predicted that the growing deficit and national debt will decrease the influence of the United States in the world affairs [7].

Glyn (2006) investigated into the causes of US productivity slowdown and concluded that it was the result of low investment due to decline in profitability. He mentioned that half of the slowdown in labour productivity growth is due to slow growth of capital stock [8].

Gruber said that the main cause of productivity slowdown is the fast technological progress that has improved the living standard of the citizens of advanced countries, has suddenly halted. He contended that the productivity and technology are two different things. It is undeniable fact that in the long-run productivity growth comes from technological advancements but in the short-run it comes from efficiency. [9]

Weil (2011) contended that productivity slowdown in the advanced economies particularly in the United States is the most puzzling phenomenon. He said that rapid technological progress that had done so much to improve living standards had abruptly come to an end. He maintained that change in productivity slowdown has an enormous impact on the standard of living. He disclosed that productivity slowdown during 1970s and 1980s was due to the fall of the efficiency of US economy. He concluded that negative change in the efficiency of production undid the positive progress in technology [10].

Gordon (2012) has discussed the role of human capital in productivity growth. He said that future growth of productivity is highly uncertain. He concluded that high cost of education will slowdown in the growth to human capital in the United States and it will likely to affect the pace of innovation and living standard [11].

Awan (2014) argues that aging infrastructure, flight of capital, lack of innovation and advanced countries involvement in the Gulf, and Afghanistan war has brought negative effect on the economies of advanced countries [12]. Awan (2015) pleads that rising imports and debt and widening budgetary and trade deficits are the major problems of advanced countries [13,14,15].

## 5. CONCLUSION

We conclude that the slow economic growth and productivity in the advanced countries is due to growing debt burden which has exceeded to more than hundred percent of their annual gross domestic products, aging population, social security spending, income inequality and greed for accumulation of wealth by their Corporations. This has caused social unrest in the advanced societies where heinous crimes are growing due to falling living standards. These countries have limited fiscal space because they have been living beyond their means. Their economic growth and productivity growth is slow because their innovations process has also become stagnant and are not making new innovations in the field of products and services.

In contrast, the emerging economies have been growing since 2000s because they have learnt lesson from their previous mistakes and have almost discipline their economies. They have reduced their external debt level and are mostly depending on their indigenous resources. Their large market size are attracting multinational companies which are not only investing their capital there but also transferring latest technology to emerging economies. The continuous pouring of FDI in fixed capital has increased employment opportunities for local labour, development of innovative products through latest technology and raising per capita income and living standard of their people. This is the reason the poverty level in emerging economies are decreasing rapidly while education level are steeply growing.

## 6. RECOMMENDATIONS

Keeping in view the above conclusions we would like to make the following recommendations:-

1. The advanced countries should focus on research and development in order to make radical innovations, which are the sole need of their productivity growth stimulation.
2. The advanced countries should soften their immigration policies so that skilled workers can move and contribute their economic growth process as was occurred in past in the United States. The restriction

- on the movement of human capital under the pretext of advanced countries' policy of war against terrorism appear to be counter-productive.
3. The advanced countries should reduce their consumption level and promote habits of living within the means by reducing their domestic and external debt level.
  4. When the level of debt and interest payment is reduced it will lessen tension and frustration in the advanced societies.
  5. The emerging economies should focus on widening income inequality and distribution of the benefits of economic growth equitably.
  6. They should build infrastructure to accelerate economic activity which will, in turn, expedite economic growth and national income.
  7. The people should be provided equal opportunities of employment and business so that they may be able to grow parallel.
  8. The emerging economies should focus on efficiency and innovations which will lead them close to advanced economic. In this way, the emerging economies will be able to reduce economic gap with advanced countries.
  9. The emerging economies must focus on the development of human capital so that they have trained and skilled manpower to efficiently develop and use latest technology. They should frame policies to make their economies efficient and innovative.
  10. The emerging economies should enhance their domestic consumption level so that their dependence on the exports may be reduced. It will save them from abrupt wild economic fluctuation due international recessions and downturn.

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