

## **ROADS TO ECONOMIC GROWTH: A CHINA-PAKISTAN ECONOMIC CORRIDOR PERSPECTIVE**

*Muhammad Zohair Durrani<sup>1</sup>*

*Sami Ullah<sup>2</sup>*

*Inam Ullah Khan<sup>3</sup>*

*Kaleem Ullah Irfan<sup>4</sup>*

*Basharat Raza<sup>5</sup>*

### **Abstract**

*CPEC seems to be a revolution for the economic development of Pakistan since China would be investing \$46 billion for the development of energy and infrastructure from Gawadar to kashgar. In order to forecast the impacts of CPEC on Pakistan, a thorough study was done by going through the existing literature of infrastructure development. My review paper concludes that CPEC will increase geographical connectivity, market development, improved export performances, create employment opportunities for the local people, appeals foreign investors which consequently pave way toward international trade and regional growth, increase tourism, overcome the prevailing energy crisis, improving living standards and reducing poverty, reduce fuel consumption resulting in decline of CO<sub>2</sub> emissions.*

**Keyword:** China Pakistan economic corridor, Energy crisis, Poverty, Fuel consumption, CO<sub>2</sub> emission

### **Introduction**

China and Pakistan are determined to extend their long lasting friendship to a deeper and broader level through the economic integration that will result from the completion of China Pakistan Economic Corridor (CPEC). It will enhance the welfare of the people and also boost economic activity in the backward areas of both the nations. CPEC

is the result of a legacy that both the nations have made through their everlasting friendship. New level of setting is added to this friendship with the objective to renew the old silk route and complete the one belt one road (OBOR) initiative that China is pursuing through its economic targets. This can only be achieved once CPEC reaches its completion stage.

---

<sup>1</sup>Author is Ph.D scholar at NCBA&E, E. mail : [zohair\\_16@hotmail.com](mailto:zohair_16@hotmail.com)

<sup>2</sup>Author is Ph.D scholar at NCBA&E

<sup>3</sup>Author is Ph.D scholar at NCBA&E

<sup>4</sup>Author is Ph.D scholar at NCBA&E

<sup>5</sup>Author is Ph.D scholar at NCBA&E

It is necessary to explain CPEC in order to understand its essential aspects.

CPEC is an initiative that comprises trade, investment, energy, infrastructure, telecommunication and connectivity as its key parameters. The latter is the most essential part of CPEC since it is the essence of this route that makes China more interested in this project than us. Most importantly, the transitory trade route that goes through Pakistan actually gives rebirth to the ancient Silk Route. The current connectivity through CPEC will connect Kashgar (China) with Gawadar (Pakistan). It will give access to the landlocked area of Western China to the sea and hence to the whole world with relative less distance to cover. Similarly, it will also boost economic activity in the backward areas of Pakistan. It was first mentioned by the then premier of China Li Keqiang in 2013 when the president visited Pakistan (Tiezzi, 2014). CPEC on the one hand strengthens the economic aspect of both Pakistan and China, on the other hand it has polished the key position of Pakistan that it occupies strategically. Pakistan has become a more focused nation politically, economically, and strategically due to the initiation of CPEC. The significance of CPEC is through the development and growth potential it possess, therefore it has attracted countries like Afghanistan and Iran to become part of this. Moving from the general importance of this project to more particular aspect of CPEC which are discussed at length. CPEC is a \$50 billion project that has to be completed in a time

frame of around 16 years from 2014-2016. It includes the construction of infrastructure that includes railroads, highways, motorways, and ports. In addition, the construction of energy infrastructure, economic zones, telecommunication up gradation, and improvement of other infrastructure is also part of the CPEC (Hali et al., 2015). The project is actually a transit route for the northwestern region of Xingjian province of China. The project contains a short term phase that will be completed until 2020, medium term phase that will be completed by 2025, and long term project which will be completed by 2030. The main element in Pakistan is the port of Gwadar. It is given on a 43 year lease to China due to its key aspect of being a deep sea port. The first Special Economic Zone (SEZ) is being built at the port of Gwadar. It is through this port that the access to the world would be shortened to its minimum for China. More importantly, it provides a great opportunity for the state of Pakistan to capitalize on the potential this project brings with itself. It will open new windows for prosperity and progress in Pakistan. It will bring back the backward provinces like Balochistan and Sindh to connect with the more developed part of the country. This is because infrastructure will enhance growth and welfare in any area it is lacking (Sahoo and Dash, 2009; Lakshmanan, 2011; Yu et al., 2012). Blum (1982) states that the relation between development and connectivity has been the subject of the policy makers for years. It makes the whole area independent to

continue its own development and progress in a country which will help that area to be more successful and have an important geographic location among its competitors (Diamond and Spence, 1989). CPEC thus possess many potentialities for the region while its benefit will accrue with Pakistan in particular. Its main component is the construction and improvement of infrastructure in Pakistan. Abundant of evidence from literature exist that prove that the more a country has access to good transport infrastructure the more will it succeed economically. Since infrastructure is the dynamic aspect of growth, development and productivity it has to be improved. It will attract Foreign Direct Investment (FDI) into the country. FDI is also attracted by good condition of infrastructure (Sahoo, 2006). The debate of growth and infrastructure has been the subject of many researchers for the last two decades. Aschauer (1989a, 1989b, 1989c) provided positive relation between the two. While Holtz-Eakin and Schwartz (1995) in another research found no such positive relation between the two. In contrast to it, Munnell (1992), Bank (1994), Calderon and Serven (2004), Crafts (2009), Sahoo and Dash (2009) have also found a positive relation between infrastructure availability and growth. In a similar way Fujira and Thisse (2002), Chen (2010), and Lakshmanan (2011) have also highlighted the optimal level of infrastructure that is required for a particular level of growth. More specifically, Canning and Pedroni (2008) have found a level of infrastructure model

that maximizes the growth rate in a country. Thus infrastructure improves growth. It also increases income level and reduces income inequality. This is why infrastructure has been the priority of developing nations. In the global crisis of 2007-2008 more focus in the emerging nations had been on the infrastructure of the economies. Around 40% of fiscal spending was on infrastructure of the nations. In comparison developed nations allocated only 21% for it (ILO, 2011). Pakistan is in a transition phase with its focus more on service based economy than being core agriculture based one. The inefficient transport sector of the country cost it 4.6% of its GDP. Therefore, Pakistan required improving this sad state of its economy. Such improvement will come with the completion of CPEC. This paper thus reviews the prevalent theoretical and empirical evidences available in the literature on the consequences of infrastructure development on the growth, poverty reduction, income distribution, tourism development. In the light of such literature it presents a similar proposition of the effects that CPEC will have for Pakistan.

### **Literature Review:**

The work of Aschauer (1989) is mainly focused on effects of infrastructure development on income growth, productivity and welfare. According to Arrow and Kurz (1970) the output impacts of infrastructure has been considered as additional input in the economy's aggregate production function. An increase in the volume of infrastructure services not

only directly but also indirectly related to output and marginal productivity. Effective transport network helps in reduction of cost of new capital. Same in the case of efficiency in electricity system which play role in minimizing human capital accumulation. Aschauer focused that the stock of public infrastructure capital is a considerable factor of US aggregate TFP and empirical studies reported significant GDP resulted in the contribution of infrastructure. A part from that dual approaches are adopted by Berndt and Hansson (1991) and consider the estimation of cost or profit functions which depends on either infrastructure or public stock measures. The empirical finding also shows that improved infrastructure decreases production cost and increases profit. Comparison of measures of infrastructure and other variables is not an easy task. So those papers using monetary measures of public capital stocks or public capital investment give mixed results. E.g. Holtz-Eakin and Schwartz (1995), Crihfield and Panggabean (1995) find no major growth effects resulted in infrastructure development in US. Moreover, Easterly and Rebeleo (1993) find that there is direct relationship among public investment in transport and communication and growth in economy. Contrary to it, Devarajan et al (1996) find inverse relationship between the infrastructure in total capital expenditure and economic growth in developing countries. However, Datta (2012) examines the result of major road improvement program in India. The

finding of study is that the firms located on the highways made better inventory management and reduced their input costs by switching suppliers. Moreover, there is abundant history in relation to the role of infrastructure in economic growth and social welfare (Sahoo & Dash, 2009; Lakshmanan, 2011; yu et al 2012). According to blum, (1982) it has become the part of debate amongst politicians, planner and researcher that the road transport infrastructure and regional developments directly related to regional economic activity. It serves to incorporate the economic system and fastens its transactions in geographical spaces (Diamond & Spence, 1998).

Pakistan like other South Asian States shifted from agriculture based economy to a service based economy with the annual cost of an inefficient transport sector to be 4.6 % of its GDP. Literature reveals that the economic development mainly depends upon efficient transport system. It is one of the key factors in enhancing the growth of a country. There is no denying the fact that a good infrastructure raises productivity and improvement in transportation and communication system. It also encourages foreign investment. FDI inflows are also depending upon infrastructure (Sahoo, 2006). The nexus between infrastructure and economic growth was debated in the last two decades which were as following,

➤ Empirical insight into the subject came from Aschauer (1989a, 1989b, 1989c), mentioned direct relationship between infrastructure and economic developments.

- Holtz-Eakin and Schwartz (1995) also showed positive relationship between infrastructure and economy.
- Mannell, 1992; Bank, 1994; Calderon and Serven, 2004; Canning and Bannan, 2007; Sahoo and Dash, 2009; Crafts, 2009; Chen, 2010; and Lakshmanan, 2011; highlighted optimal level of infrastructure for economic growth.

A part from economic growth, development in infrastructure also minimizes economic inequality as powerful tool for poverty reduction. Owing to this it has become priority policy of many countries. On average, developing economies devoted major chunk of budget to infrastructure spending. In a nutshell, existing above mentioned studies prove that development in infrastructure makes sure economic growth, prosperity, reduction in poverty and economic equality. It also encourages tourism and shows the positive image of nation which attracts FDI. So development in infrastructure works as back bone of any nation. Majumder, (2012) says that improvements or enhancements in regional infrastructure facilities (e.g. power and roads) in particular regions and districts of India have resulted in increased living standards while decreasing the number of people living on the poverty line. Prideaux (2000) defines the transport system relevant to tourism as “the operation of, and interaction between, transport modes, ways and terminals that support tourists into and out of destinations and also the provision of transport services within the

destination.” A good and attractive transportation system rests to a large extent on quality and availability of transportation infrastructure comprising air services and airport, land transport systems and routes and water transport infrastructures as well. Moreover improved transport infrastructure, particularly for the case of road and land transport, likely leads to reduced cost of transport. Road capacity improvements (such as more lanes, improved reliability, higher quality road surfacing, improved safety through more and wider lanes and improved signage) reduce fuel consumption, wear and tear, and transit time of traffic. Adelheid Holl study’s results revealed that building up of new highways or motorways affect the spatial distribution of manufacturing establishments at the municipality level while most benefits are usually observed near the new infrastructure, with evidence that is consistent with negative spillover effects. Firms prefer locations closer to new motorways at the cost of more distant municipalities. Zeinelabdin, (1993) study reveals that to achieve sustainable development a substantial investment is needed or is a precondition for environmental technology and in an environmentally sensitive infrastructure. Bougheas et al. (1999) have studied the results of infrastructure services using hybrid Ricardian model and taking the infrastructure and transportation cost and their impact on trade in European countries. Cost reduction and over all raise in volume of trade were the prominent

change of observed in the study. Practical literature suggests that the transportation and physical infrastructure boosts the overall trade, while poor transportation and physical infrastructure limits the trade scope. Economic studies suggest that poor and inferior infrastructure services results in 40-60% of increased costs.

The study explores the relation of physical infrastructure, increased regional integration and growth. The study implies that accessibility to basic infrastructure by public sector is vital for growth in trade and regional integration and overall economic growth. Such growth eventually results in general productivity of the region. Edmonds and Fujimura (2006) explores the impacts of physical infrastructure for transport between countries and the trade between them. They say that superior cross border infrastructure directly amplifies the intra-regional trade as well as domestic trade. Export stats and freedom in trade totally rely on the intuitions and provision of infrastructure. Therefore, intuitions and developed infrastructure makes a sound foundation for the growth and development (Francois & Manchin, 2007). Bhattacharyay (2008) analyzed that the infrastructure is the crucial element that supports the provision of basic element contributing to the overall welfare and growth of the region like electricity, education, sanitation, transportation etc. Further, he elaborates that it also elevates the growth domestically as well as internationally by regional integration and expansion of market. Consequently

generates overall economic growth, international trade and foreign investment. According to gravity equation of African countries transportation and communication leads to better export performance, which in turn improves trade and economic growth of a country (Canning & Pedroni, 1999; Fan et al., 2002; Esfahani & Ramirez, 2003; Seethepalli et al., 2008 & Raihan, 2011). On the other hand strong domestic infrastructure is another indicator of a successful economic country Iwanow and Kirkpatrick (2009). Regional economic integration (REI) as discussed by Miesner (2009) is dependent on effective infrastructure which not only helps in increasing the technological exchange, healthy competition and protection of common interest but also helps in reducing the trade disputes. Gravity equation for the Chinese economy as studied by Miesner (2009) mainly focuses on the improved transportation infrastructure.

The above mentioned gravity equation for different countries has been approved by the economic literature on regional economic integration. Physical infrastructure can play a very important role. It can either help reducing poverty and cost of trade in return enhancing economic growth of a country or limit the cross border international trade between two countries (Jouanjean, 2015). Low economic growth, total factor productivity and development in Pakistan is due to the under developed infrastructure of the country. Pakistan needs to build up its infrastructure stock of electricity transport

and water supply for its economic development (Imran & Niazi, 2011). Unfortunately for some African countries like Nigeria huge investments are needed to develop infrastructure in their cities in order to reduce the increasing poverty rate in urban areas. As investigated by Ogun (2010) infrastructural development will have a very prominent influence on the economic growth of country and providing a poverty relief to its citizens. In order to bring a positive change in economy and to eliminate poverty from the country, government and policy makers should not only focus but formulate policies and invest largely in the physical and social infrastructure of a country (Muhammad Zahir Faridi, 2015).

### **Conclusions**

The China-Pakistan Economic Corridor will be a game changer for both countries in terms of economic development. After going through the literature it can be deduced or forecasted that the whole corridor from Gwadar to Xingjian, will bring positive impacts of economic growth, social uplift, tourism, and poverty elevation in Pakistan by its three routes. The CPEC projects are expected to give fruits manifold. It will not just be a project of increasing the geographical connectivity i.e. improved road network will boost local community along with market development, improved export performance along with trade openness due to the availability of developed infrastructure, but will also be a cause of huge employment generation for the residents or the local people while

attracting regional stakeholders thus resulting in an increase in household incomes, attract foreign investments. The multi-billion dollar project will improve cross border physical infrastructure and eventually decrease transportation cost, raise the international as well as domestic trade volumes and will be a vital cause of increased regional integration. The current initiatives under CPEC will not only improve infrastructure in terms of road network but also in energy sector i.e. help to overcome the prevailing energy crisis, telecommunication i.e. improved optic fiber, trade and investment i.e. boosting FDIs. Furthermore the literature supports that improved access to electricity may raise educational attainment and reduce the cost of human capital accumulation while the same will be observed by CPEC's energy projects. CPEC will not only improve the living standards of people within the economic belt, lowering the number of people living on or below the poverty line but will also tend to reduce fuel consumption, wear and tear and savings of transport in terms of transit time. By doing so, there will be a complimentary effect of decline in the CO<sub>2</sub> emissions being produce due to efficient fuel consumption.

## References:

- Barro, R. J. (1996). *Determinants of economic growth: a cross-country empirical study* (No. w5698). National Bureau of Economic Research.
- Calderón, C., & Servén, L. (2004). *The effects of infrastructure development on growth and income distribution* (No. 270). World Bank Publications.
- Canning, D., & Bennathan, E. (2007). The rate of return to transportation infrastructure. In *REPORT OF THE ROUND TABLE ON TRANSPORT ECONOMICS-EUROPEAN CONFERENCE OF MINISTERS OF TRANSPORT* (Vol. 132, p. 29). ECMT; 1999.
- Canning, D., & Pedroni, P. (2008). Infrastructure, long-run economic growth and causality tests for cointegrated panels. *The Manchester School*, 76(5), 504-527.
- Crafts, N. (2009). Transport infrastructure investment: implications for growth and productivity. *Oxford Review of Economic Policy*, 25(3), 327-343.
- Faridi, M. Z., Chaudhry, M. O., & Ramzan, M. (2015). Role of Infrastructure in Poverty Alleviation: Evidence from Pakistan. *Pakistan Journal of Social Sciences (PJSS)*, 35(2), 533-542.
- Fujita, M., & Thisse, J. F. (2013). *Economics of agglomeration: cities, industrial location, and globalization*. Cambridge university press.
- Holl, A. (2004). Manufacturing location and impacts of road transport infrastructure: empirical evidence from Spain. *Regional Science and Urban Economics*, 34(3), 341-363.
- Holtz-Eakin, D., & Schwartz, A. E. (1995). Spatial productivity spillovers from public infrastructure: Evidence from state highways. *International Tax and Public Finance*, 2(3), 459-468.
- Iqbal, Z., & Zahid, G. M. (1998). Macroeconomic determinants of economic growth in Pakistan. *The Pakistan Development Review*, 125-148.
- Iqbal, Z., & Zahid, G. M. (1998). Macroeconomic determinants of economic growth in Pakistan. *The Pakistan Development Review*, 125-148. Vol. 37, No. 2 (Summer 1998), pp. 125-148
- Lakshmanan, T. R. (2011). The broader economic consequences of transport infrastructure investments. *Journal of transport geography*, 19(1), 1-12.
- Munnell, A. H. (1992). Policy watch: infrastructure investment and economic growth. *The Journal of Economic Perspectives*, 6(4), 189-198.
- Pakistan, China to Further Deepen Strategic Ties: Joint Statement', April 20, 2007, at <http://pk.china-embassy.org/eng/zbqx/t313472.htm> (Accessed June 4, 2007).
- Prideaux, B. (2000). The role of the transport system in destination development. *Tourism management*, 21(1), 53-63..
- Rahman, M. M., & Salahuddin, M. (2010). The determinants of economic growth in Pakistan: Does stock market development play a major role. *Economic issues*, 15(2), 69-86.

- Shahbaz, M., Ahmad, K., & Chaudhary, A. R. (2008). Economic growth and its determinants in Pakistan. *The Pakistan Development Review*, 471-486.
- Tiezzi, S. (2014). China, Pakistan flesh out new 'economic corridor'. *The Diplomat*, 20.
- World Bank Staff. (1994). *World development report 1994: Infrastructure for development*. Oxford University Press, Incorporated.