

## INVESTIGATION OF TR82 REGION ACCORDING TO THE GROWTH STAGES OF ROSTOW



**Hayrettin  
KESGİNGÖ<sup>1+</sup>  
Serkan DİLEK<sup>2</sup>**

<sup>1</sup>Assistant Prof.Dr., Karabuk University Faculty of Economics and Administrative Sciences

<sup>2</sup>Associate Prof.Dr., Kastamonu University Faculty of Economics and Administrative Sciences

(+ Corresponding author)

### ABSTRACT

#### Article History

Received: 6 April 2016

Revised: 2 May 2016

Accepted: 19 July 2016

Published: 21 September 2016

#### Keywords

Rostow

Economic growth

Development

TR82 region

Black sea economy.

Rostow tried to explain economic development levels by introducing five basic stages. These stages are Traditional Society, Transitional Society, Society at the Stage of takeoff, Society at the stage of Drive to Maturity and Society at Age of High Mass Consumption. By this way economic development of countries or regions can be understood and explained. TR82 Region consists of Kastamonu, Sinop and Çankırı Provinces. This region is trying to solve problems about economic growth and development. Our research aims to evaluate region's economy by considering growth stages of Rostow. This study contributes in the existing literature by analysing TR82 region according to Rostow Growth stages method first.

## 1. INTRODUCTION

Economic development has been one of the most important problems of nations since Adam Smith's writing "Wealth of Nations". For many years economic development and growth have been discussed by economists. One of the most important contributions to literature was done by Rostow's. As we mentioned before, Rostow (1956;1960) classified five stages of economic development. Country begins with traditional society in which agricultural facilities played important role on whole economy and ends with high mass consumption.

After 20<sup>th</sup> century many countries achieved high rates of economic growth and development while others can't. In these conditions the difference between developed and non-developed countries increased. World's richest nation was 900% richer than the poorest in 1870; however it becomes 4500% in 1990's (Baldwin *et al.*, 1998).

In our study we aim to evaluate TR82 region which involves Kastamonu, Çankırı and Sinop as Rostow approach. To this aim after reviewing literature about economic development and growth we analyzed data about this region.

## 2. LITERATURE REVIEW ABOUT ECONOMIC DEVELOPMENT AND GROWTH

One goal of policy makers has been economic development of country. For that reason, Economists and scholars have paid great attention to economic development. In literature we witness many manuscripts and researches about the stages during developing of a country (Yavilioğlu, 2002). Modern view defines development as

sophisticated ways of producing and competing, the evolution from a resource based view to knowledge based economy (Wennekers *et al.*, 2005). Factors such as Entrepreneurship, Resources, education levels etc. affect economic development positively. In other words development involves not only change of socio-cultural structure of society but also increase in income and economic growth. We can review or summarize literature about growth and development as follows.

According to Adam Smith difference between rich and poor countries is sourced from work-sharing. In rich countries production is organized such a way that every part of work is done by a little number of workers. So workers are specialized in their work and have higher labor productivity. However in poor countries workers employed in every part of work and are not specialized. As a result poor countries have lower labor productivity (Smith, 2006). The other factor that affects labor productivity is capital accumulation (Smith, 2006). Adam Smith considers labor productivity as a source of wealth.

Classical economic development theories are established by Adam Smith, David Ricardo and Robert Malthus. Theory depends on new techniques and crops as technological improvements. An increase in productivity causes increase in agricultural production and immigration to urban. Immigrants start to work in production of machines and tools. Their income and level of wealth increase. However their level of wealth comes back into old level by new immigration (Emsen, 1999). They agree that economy will not always grow but will sometimes stop or shrink. Adam Smith is optimistic about this recession while David Ricardo and Malthus is pessimist (Turanli, 1994).

According to Schumpeter, economic development is the result of technological progress and entrepreneurship. Innovative entrepreneur introduced new inventions so that firms are changed (Carree and Thurik, 2003). Entrepreneurs always look for new techniques and products so that creates dynamism in society (Turanli, 1994). When they find new techniques and products, in market most of things will change and a firm can be monopoly or dominant firm. This process is known as creative destruction in literature. Creative destruction causes economic growth and development in society.

Modern economic theories started with Harrod-Domar model in 1939. This model accepts investment as main factor of economic growth. The aim of model is to set up equilibrium between income, savings investment and production for full employment level. Economic growth means an increase in savings and investment (Uysal *et al.*, 2009).

Solow and Swan developed economic growth models that are called as neo-classical growth models. Until 1980's neo classical models are dominant in economic growth literature. Neo-classical models assumes that growth rate of labor is fixed and exist diminishing returns of capital and no improvement in technology (Genç and Atasoy, 2010). The only factor that affects economic growth is growth rate of capital. Only savings can provide growth in capital. However when economy comes into steady-state savings can't affect economic growth. In steady-state, Main factors that affect economic growth are technological change and increase in population (Uysal *et al.*, 2009). But technological change and population growth are exogenous factors in model.

Neo-classical models are replaced by endogenous models that are developed by Romer, Barro, Grossman, Helpman etc. because of insufficiency of neo-classical models. Endogenous economic growth models assume technology, Research and Development, Human Capital as endogenous factors. According to these models economies can achieve higher economic growth even in steady-state (Genç and Atasoy, 2010). One of economic growth's dynamic is technological improvement which is assumed as fixed or exogenous in neo-classical models. Application of technology in production process enhances factor productivity in economic development. However application of technology in production process is closely related with human capital (Keskin, 2011).

Vicious circle theorems claim that undeveloped countries have difficulty in developing. This difficulty is insufficient capital accumulation. They need capital accumulation to be developed, however they are unable to have capital accumulation because of poverty. It is impossible to lower consumption to have enough savings for

investment. In developing countries they should invest increasingly for development and economic growth (Kar and Tatlısöz, 2008).

Latin American Structuralism has played an important role on economic development literature since 1950s. Structuralism rose with the studies of Paul Prebisch. His studies tried to understand development and underdevelopment of economies. This approach emphasized on two points. First one is the active situation of government on economic life. Second one is unsuitable international conditions for development of undeveloped countries. Especially in 1950s and 1960s this approach has covered important place in development economics (Şen, 2005).

Developing countries cut forests, pollute environment, exploit natural beauties while they are trying to be developed and industrialized. However such development can't be sustained because of environmental reasons. Denis Meadows and Donella Meadows prepared a model that prevents environmental pollution during economic development. Sustainable development aims to meet human development goals while protecting natural resources and ecosystem services (Kartal, 2007).

### 3. ROSTOW'S APPROACH

Another important contribution to development is done by Rostow. He defined five stages of economic development. By this way he aimed to explain development of each society in historical process. Rostow's approach represent modernization theorem clearly. According to this approach economic development is assumed as historical process which is made of following stages. Transforming steady economy into dynamic economy can be achieved by increasing savings and investments ratio in national income (Arıcıoğlu, 2012). This theorem claims that undeveloped countries can achieve their goals by following western countries. However some scholars think that experience of undeveloped countries are more different than Western countries and their conditions are heavier. By this way Rostow approach is criticized (Taban and Kar, 2015).

#### *First Stage: Traditional Society*

Agriculture has a great importance in whole economy. Most of production factors (more than 75%) are used in agricultural production (Taban and Kar, 2015). Society devoted very high proportion of their sources to agriculture. Because of weather conditions the production often fluctuates so that these fluctuations often affect whole economy. Matsuyama (1992) denotes that agricultural revolution is precondition for industrial revolution. As agricultural productivity increases three results revealed in society. First, because of increased food production high population in industrial sector can be fed. Also foods can be produced with less labor so that some of labor force shifts to industry sector. Secondly, because of high income in agriculture sector demand exists for industrial products. Third, domestic savings increased by the help of high income in agriculture sector (Matsuyama, 1992). In traditional society there is no sufficient savings because of low income. Addition to this people who has savings uses their sources in inefficient sectors so that stagnation goes on (Taban and Kar, 2015). However, we can't say that production is stable. Production can be increased by improvement of irrigation works or discovery and diffusion of new crops. However, attainable output per capita is limited (Rostow, 1960). Landlords have great economic and political power in society. At least 75% of work force is employed in agriculture sector (Yıldırım and Örnek, 2012). Inaccessibility of science prevents increase in the level of productivity. Families and clans are important elements of society. Dominance of Long-run fatalism philosophy is observed in society. Rostow (1960) described long-run fatalism as the assumption that the range of possibilities open to one's grandchildren would be just about what it had been for one's grandparents. Though long-run fatalism, individuals have limited opportunity to improve their wealth (Yıldırım and Örnek, 2012).

*Second Stage: Transitional Society*

In the second stage pre-conditions for growth are developed. Transforming a traditional society needs time. Great Britain is the first country in Western Europe which completed this stage with the support of geography, natural resources, trading possibilities, social and political structure (Rostow, 1960).

The main characteristics of this stage are acceleration of capital accumulation, starting of infrastructure construction, increase in technical innovation and application of these innovations in production (Taban and Kar, 2015). New production techniques are introduced and used in both agriculture and industry by the help of modern science (Yıldırım and Örnek, 2012). More productive and commercial agriculture production is developed. Investments are increased to 10% of national income so that economic growth can be guaranteed (Taban and Kar, 2015). With establishment of banks and financial institutions, investment to communication, transport and raw materials are increased (Rostow, 1960). In this stage Modern manufacturing firms which are using new techniques are appeared, Level of education and productivity in both agriculture and industry are increased (Yıldırım and Örnek, 2012). In this stage agriculture lose its importance against manufacture. Most important change is happened in political body of society. National government is set up (Taban and Kar, 2015). At the same time rural population starts to be increased and new intellectual class arose.

*Third Stage: Takeoff Stage*

Economies which are in the stage of takeoff witness increase in the rate of investment and real output per capita. This changed production techniques and disposition of income radically so that new scale of investment and rising trend in output per capita goes on Rostow (1956). Improvement in any industry needs preparation process like any other improvement. Rostow (1956) gives an example of remarkable development in Britain of 1780s and 1790s; United States of 1840s and 1850s; Russia and Japan. All of these countries have prepared themselves in a period. In other words, countries passed transition process successfully and became ready for development. Table 1 shows takeoff dates of selected countries.

Table-1. Takeoff Dates of Selected Countries

Country	Takeoff	Country	Takeoff
Great Britain	1783-1802	Sweden	1868-1890
France	1830-1860	Japan	1878-1900
Belgium	1833-1860	Russia	1890-1914
United States	1843-1860	Canada	1896-1914
Germany	1850-1873		

Source: Rostow (1956).

According to Rostow countries should provide 3 main conditions to take off (Rostow, 1956).

- 1- ) the rate of productive investment should rise for example from %5 to %10.
- 2- ) At least one substantial manufacturing sector should be developed with a high rate of growth so that lead all economy.
- 3- ) Political, social and institutional infrastructure should be exist that can encourage developments in modern economy.

Many governments think that entrepreneurship affect economic development level positively and therefore they promote new enterprises and entrepreneurs (Wennekers *et al.*, 2005).

*Fourth Stage: Drive to Maturity*

After Takeoff stage modern technology started to be applied in whole economy (Taban and Kar, 2015). Approximately 10% or 20% are used in investments (Yıldırım and Örnek, 2012). The numbers of sectors which are

taking off are increased, multiple industries expand. New pioneer industries replaced others (Taban and Kar, 2015). Production of goods that needs complex production processes such as machine and tools, chemicals, electrical equipment industries increased (Rostow, 1960). The labor force which is employed in agriculture decreased from %40 to %20. Opportunities to export and import are increased. In this stage, country starts to export and import new products so that the amount of foreign trade increases. New entrepreneurs get power in society. Urban population, the number of white collars increased. Manufacturing shifts from capital goods towards consumer durables. England reached to maturity stage in 1850, USA reached to maturity stage in 1900, Germany and France in 1910 (Yıldırım and Örnek, 2012). Large scale investments are realized in society such as universities, highways.

#### *Fifth Stage: High Mass Consumption*

Social wealth and security come into prominence. Society gives up choosing improvement in modern technology as target (Taban and Kar, 2015). Sectors of durable goods and services are improved and become main sectors of developing economy. Great numbers of machines, bikes, electric vehicles are produced in economy. Real income per capita rose so that society started to interest in demand and wealth instead of supply. Number of qualified labor enhanced (Rostow, 1960). Most of labor employed in manufacturing sector. USA reached to High Mass consumption in 1914 by serial production of automobiles of Henry Ford (Yıldırım and Örnek, 2012). Consumers have disposable income for additional goods.

We can summarize main characteristics of Rostow development stages in Table 2.

**Table-2.** Rostow Criteria of Stages

	<b>Traditional Society First Stage</b>	<b>Transitional Society Second Stage</b>	<b>Takeoff Stage Third Stage</b>	<b>Drive To Maturity Fourth Stage</b>	<b>High Mass Consump. Fifth Stage</b>
Rural Population	%75-%100	%60-%74.9	%40-%59.9	%25-%39.9	0-%24.9
Sectors Share in Production	Agricult:>0,75 Industry:<0,10 Services:<0,15	0,50<Agricult:<0,75 0,10<Industry:<0,15 0,10<Services:<0,35	0,20<Agricult:<0,50 0,15<Industry:<0,25 0,35<Services:<0,50	0,10<Agricult:<0,20 0,25<Industry:<0,40 0,50<Services:<0,65	Agricult:<0,10 0,20<Industry:<0,35 0,65<Services:<0,80
Employment	Agricult:>0,75 Industry:<0,10 Services:<0,15	0,50<Agricult:<0,75 0,10<Industry:<0,15 0,15<Services:<0,25	0,30<Agricult:<0,50 0,15<Industry:<0,20 0,25<Services:<0,45	0,10<Agricult:<0,30 0,20<Industry:<0,25 0,45<Services:<0,65	Agricult:<0,10 Industry:<0,25 Services:>0,65
Critical Products	Wheat, corn, cow, sheep	Wheat, corn, cow, sheep raw materials,	Textile, food industry, forestry Infrastructure investments	Several Industries, consumer durables, Foreign trade	Automobiles, electrical devices, electronical devices, machines

Source: Table is organized by authors by using (Rostow, 1956; Rostow, 1960; Yıldırım and Örnek, 2012; Taban and Kar, 2015).

#### **4. TR82 REGION**

TR82 region includes three provinces (Kastamonu, Çankırı and Sinop) which are located in West Black Sea part of Turkey. Region was engulfed by Byzantine empire, Pontus Kingdom, Seljuk Empire, Çobanoğlu, Jandarid and Candaroglu beyliks. The region has been under control of Ottoman Empire since Sultan Mehmet II conquered. This region is mostly covered with forests thanks to Black Sea climate. General Economic data about region is given in Table 3.

Export of region is unstable. It has increased until 2008 and reached maximum amount. However, then it has started to be decreased. In 2010 export of region has decreased to minimum amount. Only Çankırı province has stable export income between 2007 and 2013. Export of Çankırı has increased during this period and reached more than 72 million Dollars in 2013. Generally, Çankırı exports manufactural products and this is why Çankırı's export is stable. However, instability of TR82 export sourced from Kastamonu. Export of Kastamonu depends on mining

and quarries, agriculture and forestry sectors whose production is heavily instable because of natural reasons such as climate. Instability of Kastamonu exports can be seen from Table 3. The same results can be seen in imports. Generally, TR82 region imports machine, vehicles that are used in mines, agricultural production and manufacture. Because of this reason it is highly depended on production. Another attractive result shows that generally export is bigger than import in this region- foreign trade surplus- while Turkish economy has foreign trade deficit. Both export and import of region has very low share in Turkish foreign trade because of region's undeveloped economy.

Table-3. General Economic Characteristic of TR82 Region

Export (.000\$)	2007	2008	2009	2010	2011	2012	2013*
Kastamonu	114.482	260.437	82.726	7095	29.210	30.383	110.264
Çankırı	6074	14.155	18.303	23.254	38.947	50.910	72.001
Sinop	17.899	16.444	20.129	29.086	25.436	27.305	35.343
TR82	138.455	291.036	121.158	59.435	93.593	108.598	217.608
Turkey	107.271.750	132.027.196	102.142.613	113.883.219	134.906.869	152.536.653	151.802.637
TR82/Turkey (%)	0,1	0,2	0,1	0,1	0,1	0,1	0,1
Import (.000\$)							
Kastamonu	55.744	77.911	38.277	33.909	32.387	29.571	29.529
Çankırı	5628	7403	8194	13.911	31.956	28.345	25.499
Sinop	1918	4857	4129	7348	4308	9331	8499
TR82	63.290	90.171	50.600	55.168	68.652	67.247	63.527
Turkey	170.062.715	201.963.574	140.928.421	185.544.332	240.841.676	236.544.494	251.661.250
TR82/Turkey (%)	0,13	0,22	0,12	0,05	0,07	0,07	0,02
Gross Value Added Per Capita (\$)							
	2006	2007	2008	2009	2010		
TR82	6.952	7.756	8.551	8.758	9.930	-	
Turkey	9.632	10.744	12.020	12.000	13.406	-	
TR82/Turkey (%)	72,2	72,2	71,1	73,0	74,1	-	
Labor Participation Rate (%)							
	2007	2008	2009	2010	2011	2012	
TR82	-	53,3	51,5	55,3	59,5	54,5	
Turkey	-	46,9	47,9	48,8	49,9	50	
Unemployment Rate (%)							
	2007	2008	2009	2010	2011	2012	
TR82	-	6,7	9,4	8,3	5,7	5,6	
Turkey	-	11,0	14,0	11,9	9,8	9,2	

Source: Kuzka (2015). \*TUİK (2014a)

Gross Value Added Per Capita (GVAP) in region has increased in all years between 2007 and 2011. GVAP is difference between value of production and value of goods and services used for this production (TUİK, 2014a). It has reached to 9930\$ however it is always below GVAP of Turkey. This result shows that region is not developed part of Turkey but it is developing by following Turkey. In TR82 region GVAP increased approximately 43% in 2010 according to 2006 while the same number increased approximately 39% in same period. Dilek and Kandemir (2013) revealed that Kastamonu province has not used its economic potential successfully.

Labor participation rate is always above Turkey while unemployment rate is below Turkey. In 2012, unemployment rate in TR82 is only 5,6% which is one of the lowest rates in Turkey. Labor participation rate is 54,5% in 2012 which is higher than the rate of whole Turkey. However, it should be increased to approximately 70% to have strong and stable economy that can provide sustainable economic growth. Though unemployment is not problem of TR82 region, concentrated rates of immigration to İstanbul is witnessed. The results of this problem should be searched by further academic studies. Kandemir (2010) stated that the most important reason of immigration from rural area to urban area is development differences between regions. Kastamonu has occupied

47<sup>th</sup> place, while Sinop has occupied 51<sup>th</sup> place and Çankırı has occupied 54<sup>th</sup> place between 81 provinces of Turkey according to socio- economic development ranking in the Ministry of Development 2011 data (Ministry of Development, 2013). So, we can say that region has a problem of development and can't reach to high mass consumption society. According to Rostow's criteria one of the most important criteria is population in urban. Population and population ratios in Urban and rural areas can be seen in Table 4. We evaluate province and district centers as urban. While approximately 62% of Çankırı population lives in urban areas, more than 50% of Kastamonu and Sinop Population lives in urban areas.

Table-4. Population Variables (2013)

	Population	Urban/Total Population (%)	Rural/ Total Population (%)
Kastamonu	368.093	56,20	43,80
Çankırı	190.909	62,60	37,40
Sinop	204.568	53,70	46,30
TR82	739.997	Average: 57,13	Average:0,4287

Source: TÜİK (2014b).

The most crowded province of region is Kastamonu with a population of 368.093. Population of Sinop and Çankırı follows Kastamonu. 57,13% of entire population in TR82 region lives in urban areas. When we consider criteria in Table 2 it can be said that TR82 Region shows characteristics of takeoff stage. Meanwhile 91,3% of Turkish citizens live on urban in other words provinces and district centers in 2013 (TÜİK, 2014b). Urbanization is lower in TR82 according to Turkey. This result shows that development of region is behind Turkey. Urbanization has been going on Turkey increasingly since 1923 (Kandemir, 2010).

Table-5. Sector's Share in Gross Value Added (2013)

	TR82	TR
Agriculture	23,1	9,0
Industry	20,1	27,5
Services	56,9	63,5

Source: TÜİK (2014c)

In TR82 region the share of agriculture has more than 20% while in Turkey it is smaller than 10%. Turkey shows characteristics of High Mass Consumption society with the numbers in Table 5. However, the share of agriculture is higher in TR82 according to Turkey. If we consider "sectors share in production" in Table 2 we can say that TR82 region shows characteristics of Takeoff stage. When we benchmark Turkey and TR82 it is obviously seen that the share of industry and Services in Turkey is higher than the share of industry and services in TR82 region. Meanwhile the industry sector in TR82 region is concentrated on light industries such as forestry, food, textile, clothing industries. Export items of Region in 2013 are shown in Table 6.

Table-6. Export Items of TR82 Region in 2013

	.000\$
Agriculture and Forestry	11.006
Fishing	880
Mining and quarrying	96.854
Manufacturing	100.719
Wholesale and retail trade	8149
Total	217.608

Source: TÜİK (2014a).

Export of TR82 region is mostly came from Mining and quarrying and Manufacturing items. More than 50% of TR82 region comes from Kastamonu. In addition to this export of Kastamonu is sourced from mining and quarrying item because of rich copper, gold and silver mines in Küre Mountains. Çankırı has received 71.974.000\$ income from export of manufacture. So, most of manufacturing exports in region are sourced from Çankırı (TUİK, 2014a;2014b).

**Table-7. Employment Rate In Sectors in 2013 (%)**

	<b>Agriculture</b>	<b>Industry</b>	<b>Services</b>	<b>Total</b>
Employment	40.6	18.6	40.8	100

Source: TUİK (2014a).

Work force of region is generally employed in Agriculture and services sector while only approximately 19% of them are employed in industry. By considering Table 2, we can say that employment in region shows characteristics of Takeoff stage society. Though governors are trying to improve industry sector, we can't say that they have gotten success. Organized Industrial Zone was set up in Kastamonu, Korgun, Şabanözü, Çerkes. Also organized industrial zones in Taşköprü and Tosya are planning to be activated soon. Industry of Çankırı is more developed than Kastamonu and Sinop because of organized industrial zones in Korgun, Şabanözü and Çerkes. Therefore export of manufacture in Çankırı is higher than Kastamonu and Sinop.

Industry groups which earn the highest income are shown in Table 8. As it can be seen, generally light industries (we mean industries except machinery, automobile, industries with high technology, electrical and electronical devices) are at the top. Kastamonu has rich forest sources so one of the most important industries in TR82 region is forestry industry (Tree, Tree and Mushroom Products). With the same reason furniture production entered to this list. The strength of agricultural sector improves food production industry in TR82 region. Other improved industries are textile and clothing, metal products except machine and equipment. These results show that industries which depended on natural resources are improved in TR82 region and so, characteristics of region is appropriate to takeoff stage society.

**Table-8. Selected Important Industry Groups**

	<b>Number of Firms</b>	<b>Employment</b>	<b>Revenue</b>
Tree, Tree and Mushroom Products	1.066	3.630	576.933
Food Products	491	3.685	571.139
Clothing Products	238	4.280	222.583
Other non-metallic mineral products	180	2.314	103.256
Metal Products Except Machine and equipments	431	1.286	67.502
Textile Products	78	974	31.504
Furniture Production	444	927	31.200

Source: Kuzka (2015).

One characteristics of maturity society is investments on social infrastructure of region. Kastamonu University was established in 2006 while Çankırı Karatekin University and Sinop University was established in 2007. Addition to this Kastamonu airport went on action in 2013. Ilgaz Tunnel and Black Sea coastal highway are planning to be completed in future days. Kastamonu, Korgun, Şabanözü and Çerkes organized industrial zones went on action, thus Tosya and Taşköprü organized industrial zones are planning to be opened soon.



## 5. RESULTS AND CONCLUSION

One of the most important problems of countries is economic development and growth. Since Adam Smith, scholars have generally interested in solving development problem of societies. One of the attractive studies is done by Rostow. He claimed that countries should follow path of western countries passed by. TR82 region which is consisted of Kastamonu, Çankırı and Sinop provinces is one of the undeveloped parts of Turkey. First policy makers should diagnose problem and look for methods to solve problem. In this study first we reviewed literature about economic growth and development. Then we searched Rostow development model. Then we searched in which stage TR82 region is in. While doing this research we considered characteristics of each stage. According to our analysis TR82 region is in takeoff stage and behind development level of Turkey. To reach targeted development level, investments on transportation, education and infrastructure should be done in TR82 region. Industries which depend on natural resources such as forestry, food, mining etc. are improved. Modern technology is not adapted on manufacture sector. To provide development, new technological production methods should be improved and these methods should be used in manufacture sectors. Further studies should be done to search how TR82 region can get success in providing development.

Funding: This study received no specific financial support.

Competing Interests: The authors declare that they have no competing interests.

Contributors/Acknowledgement: All authors contributed equally to the conception and design of the study.

## REFERENCES

- Arıcıoğlu, E., 2012. Kalkınma kavramına küreselleşme perspektifinden bir bakış. Niğde Üniversitesi İİBF Dergisi, 5(1): 36-53.
- Baldwin, R., E. Martin, Philippe, Ottaviano and I.P. Gianmarco, 1998. Global income divergence trade and industrialisation: The geography of growth take-offs. IUI Working Paper No. 496.
- Carree, M. and R. Thurik, 2003. The impact of entrepreneurship on economic growth. Handbook of Entrepreneurship Research. Editor: Zoltan Acs and David Audretsch, Springer US: 437-471.
- Dilek, S. and O. Kandemir, 2013. In the in the process of global crisis the importance of tourism in decreasing regional development differences: An evaluation of Kastamonu province in Turkey. International Journal of Management and Innovation, 5(1): 12-30.
- Emsen, Ö.F., 1999. Kapitalist Kentleşme ve Marksist Yedek Sanayi Ordusu: Analitik Bir Bakış. Atatürk Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi, 13(1): 161-172.
- Genç, M. and Y. Atasoy, 2010. Ar-Ge Harcamaları ve Ekonomik Büyüme İlişkisi: Panel Veri Analizi. Bilgi Ekonomisi ve Yönetimi Dergisi, 5(2): 27-34.
- Kandemir, O., 2010. İktisadi Gelişme Sürecinde Göç Olgusu, Sakarya university social sciences institute. Unpublished Doctorate Thesis.
- Kar, M. and F. Tatlısöz, 2008. Türkiye'de Doğrudan Yabancı Sermaye Hareketlerini Belirleyen Faktörlerin Ekonometrik Analizi. KÜ İİBF Dergisi, 10(14): 436-458.
- Kartal, Z., 2007. Gelişme ve ekolojik modeller. CÜ Sosyal Bilimler Dergisi, 31(2): 115-124.
- Keskin, A., 2011. Ekonomik Kalkınmada Beşeri Sermayenin Rolü ve Türkiye. Atatürk Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, 25(3-4): 125-153.
- Kuzka, 2015. Available from [www.kuzka.org](http://www.kuzka.org) [Accessed 25.12.2015].
- Matsuyama, K., 1992. Agricultural productivity, comparative advantage and economic growth. Journal of Economic Theory, 58(2): 317-334.
- Ministry of Development, 2013. İllerin ve Bölgelerin Sosyo-Ekonomik Gelişmişlik Sıralaması (Socio-economic development rankings of the provinces and territories). Ankara: Bölgesel Gelişme ve Yapısal Uyum Genel Müdürlüğü.

- Rostow, W.W., 1956. Take-off into self-sustained growth. Economic Journal, 66(261): 25-48.
- Rostow, W.W., 1960. The stages of economic growth: A non-communist manifesto. 13th Edn., Cambridge: Cambridge University Press.
- Şen, A., 2005. İktisadi Kalkınmada Devlet-Piyasa Nispi Rollerine İlişkin Tartışmalara Washington Sonrası Konsensüs Son Noktayı Koydu mu?, Atatürk Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, 6(2): 325-342.
- Smith, A., 2006. Ulusların Zenginliği. Translator: Metin Saltoğlu, Palme Yayıncılık.
- Taban, S. and M. Kar, 2015. Kalkınma ekonomisi. Bursa: Ekin Yayınevi.
- TUİK, 2014a. Seçilmiş göstergelerle Kastamonu 2013. Ankara: Türkiye İstatistik Kurumu.
- TUİK, 2014b. Seçilmiş göstergelerle Çankırı 2013. Ankara: Türkiye İstatistik Kurumu.
- TUİK, 2014c. Seçilmiş göstergelerle Sinop 2013. Ankara: Türkiye İstatistik Kurumu.
- Turanlı, R., 1994. İktisadi düşünce tarihi. İstanbul: Bilim Teknik Yayınevi.
- Uysal, D., H. Özer and M. Mucuk, 2009. Dış borçlanma ve ekonomik büyüme ilişkisi: Türkiye örneği 1965-2007. Atatürk Üniversitesi İktisadi ve İdari Bilimler Dergisi, 23(4): 161-178.
- Wennekers, S., S.A. Van, R. Thurik and P. Reynolds, 2005. Nascent entrepreneurship and the level of economic development. Discussion Papers On Entrepreneurship, Growth and Public Policy, Max Planck Institute For Research Into Economic Systems Group Entrepreneurship Growth and Public Policy.
- Yavilioğlu, C., 2002. Kalkınmanın anlambilimsel tarihi ve kavramsal kökleri. CÜ İktisadi ve İdari Bilimler Dergisi, 3(1): 59-77.
- Yıldırım, M. and İ. Örnek, 2012. Walt Whitman Rostow'un Kalkınma Aşamaları Yaklaşımına Göre Gaziantep Ekonomisinin İncelenmesi. Türkiye Ekonomi Kurumu, Working Paper Tartışma Metni: 2012/84: 1-16.

*Views and opinions expressed in this article are the views and opinions of the authors, Asian Journal of Economic Modelling shall not be responsible or answerable for any loss, damage or liability etc. caused in relation to/arising out of the use of the content.*