

The Relationship between Political Stability and GDP Growth: A Comparative Analysis of the Brics Nations

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Abstract: In many parts of the globe, the degree of political stability or otherwise largely determines the nature of nation building process. Ironically, both developed and developing countries at one time or another faces the challenge of poor political stability in their political dynamics and nation building history. This study investigates the nature of political stability amongst the BRICS nations with special emphasis on how it affects the Gross Domestic Product (GDP) of member states. The study was developed using quantitative methodology. Data on political stability were interpreted through regression analysis. The findings reveal that the degree of variation in economic growth due to political stability in the BRICS is relatively low but numerically, the higher the rate of political stability, the higher the positive growth of GDP within BRICS nations. Finally, it was recommended that nations within the BRICS member states should cooperate to ensure sustainable peace and political stability across their regions and multi-lateral organizations in order to have a positive GDP growth.

Keywords: Political Stability; GDP Growth; Emerging Economy; BRICS Nations

JEL Classification: O4; O57; P48

1. Introduction

BRICS is a platform for international relations amongst countries that represents 43% of the world population (Liu, 2016; Nayyar, 2016). They cooperate to promote peace, security and development in the globalized world. Members include Brazil, Russia, India, China and South Africa, which cuts across Latin America, Europe, Asia and Africa. Economic growth and political stability are believed to be directly connected (Mishra & Agarwal, 2017). It is also argued that the rise of autocratic and sit tight leaders naturally weakens the foundations for economic growth. On the other hands, when the economy of a state nearly collapses, there will be a lot of threats on

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political stability (Shen, Shuai, Jiao, Tan & Song, 2017). The hungry masses will begin to demonstrate and revolt against the existing national order. In many cases, the masses will call on the members of a country's leadership to resign on the ground that they are no longer able to provide the needed dividends of democracy or social welfare, which fundamentally drives the masses to vote.

Ironically, political stability in China and Russia unlike in South Africa, Brazil and India has been attained over the years through multi-dimensional approaches that include suppression of opposition and undermining human right issues (White, McAllister & Munro, 2017; Piper, 2015). The suppression of opposition has been used as an elitist model that sustained governance under the leadership of President Putin of Russia and the Chinese Communist party. Ironically, the same model, that is extensively criticized in many parts of the globe has promoted the economic growth of these countries more than the degree of economic growth that is witnessed in more stable democracies of South Africa, Brazil and India, where there is vibrant opposition as well as increased human rights consciousness (Öniş & Gençer, 2018; Shen et al. , 2017).

On the other hands, it is practically impossible to ensure economic growth through the suppression of the forces of demand and supply or production. Consequently, peaceful geopolitical environment promotes economic growth and development (Shahrokhi, Cheng, Dandapani, Figueiredo, Parhizgari & Shachmurove, 2017; White et al. , 2017). That is because an environment that is characterized with high protest like South Africa, Brazil and India, irrespective of the high human right and open governance culture will fundamentally have challenges with their economic growth. It is also practically impossible to ensure economic growth through the suppression of the forces of demand and supply or the suppression of the productive forces of a state. Consequently, peaceful geopolitical environment encourages economic growth and development (Zheng, 2017). Thus an environment that is characterized by armed conflict, terrorism and other forms of armed struggle will naturally weaken the chances for sustainable economic growth. Russia under President Putin could be described as a political stable sit-tight leader.

Unfortunately, a country that has a good culture of democratic stability but is very weak in managing corruption will fundamentally experience crippled or weakened economic growth and development (Hurrell, 2018; Mishra & Agarwal, 2017; Zheng, 2017). The degree of corruption in South Africa under President Jacob Zuma had a lot of negative implications for the economic growth and development of the rainbow nation. Consequently, Chinese fierce laws against national corruption ensures that greedy leakages are controlled and resources fully utilized for economic growth, unlike the situation in South Africa and Brazil, where disturbing cases of corruption are often experienced.

Innovation is a main driver of national development and national transformation. It creates opportunity for individuals and groups to invent new ideas, products and services that are of high demand or will solve a given problem of nation building (Ogbeide, & Akanji, 2018; Franco, & Oliveira, 2017). Consequently, when the innovative ideas are transformed into finished products that are reliable in meeting the needs of the masses, there will be high demand and popular patronage from the citizenry. Unfortunately, innovation and optimal productivity cannot be attained in a violent setting. This is because when the state is experiencing any form of insecurity or conflict, the workforce would concentrate their energy on the protection of their head as well as the preservation of their life and families (Shahrokhi et al. , 2017; White et al. , 2017). Competition and innovation also have implications for GDP growth. When there is growth in innovation within a country, many individuals and firms would begin to produce goods and services that deliver similar or related value at competitive cost. As innovation drives production, it promotes price reduction, increased consumer satisfaction as well as increased spending, which promoted promotes savings and GDP (Cavallo, Eichengreen & Panizza, 2018). It would be noted that with a stable body polity, there will be more innovation and increased competition.

Ironically, foreign direct investment (FDI) hardly attains its optimal level in a country that is under the yoke of conflict (Mishra & Agarwal, 2017; Liu, 2016). The conflict in Kashmir region of India and the quest by the Indian government to assert their sovereignty on the area naturally affects the aggregate economic growth and development of the country. Brazil in recent times has a rough history of protests that affected her national economy. The implication of Crimean conflict on Russia on one hand and Eastern Ukraine on the other also speaks volumes on the push and pull effect of economic growth on affected states. It is the relationship between political stability and economic growth variables that this study intends to unravel. Similarly, political stability is also meant to promote human capital development as well as private property rights, which could have positive or negative implications for productivity (Alper, 2018; Cox & Weingast, 2018). When there is sustainable human resource training, workforce will likely go back to the workplace and improve efficiency, quality and output, all of which are ordinarily meant to promote the multiplier positive effects on GDP growth.

2. Literature Review

The countries that made up where we know today as BRICS were historically characterized of warrior empires that constantly conquered communities and nations around it. At independence, some of the countries like Russia and China continued with territorial expansion, while the rest of the BRICS states struggled to be relevant through economic expansion (Li & Marsh, 2016; Ofondu & Eboh, 2016). Ironically,

all the countries in the BRICS has continued to experience one form of political unrest or another in their internal nation building process, thereby heating-up their body polity and influencing their GDP growth negatively.

Across Africa, there are enormous evidence to strengthen the argument that political instability undermines economic growth (Diao, & McMillan, 2018; Karra, Canning & Wilde, 2017). Firstly, the American led alliance that ensured the killing of Gaddafi institutionalized instability and economic collapse in Libya. “Libya is no longer a bastion of stability with comparatively well controlled borders in a conflict ridden and volatile regional neighborhood, as was the case in a relatively coherent state under Gaddafi. Libya has become factionalized around the sub-national structures that existed prior to Italian colonialism; that is Tripolitania in the Northwest, Cyrenaica in the East and Fezzan in the West” (Boas & Utas, 2013, p. 5). The American led invasion of Libya completely weakened the drivers of Libyan national economy, thereby institutionalizing political instability in the country.

Similarly, in the 1990s, Mali was heralded as a model for democratization in Africa (Boas & Utas, 2013, p. 5). The country had relatively high political stability that was necessary to drive their economy in the post-cold war era. Timbuktu became a major centre of human civilization and tourist attraction. There were massive reforms and liberalization which was soon to be high jacked by national political elites and selfish individuals. And the implication was that in 2012 the country became overtaken by the coup thereby weakening the bases of their national peace and economic development.

Wilfred (1968) identified the place of democracy in economic stability of states. The study showed how democracies could lead to higher rates of national development as it encourages small and medium scale businesses. Again, it advocates that more firms should enter the economic sector of the country. When there is political stability, there may be reliable environment for private companies to strive (Alper, 2018; Blackburn, Neanidis & Rana, 2017). Again, the presence of stable democracies would naturally promote the rise of stable economic institutions that in all cases may drive GDP growth. On the other hands, the adoption of democratic regime is not sufficient to achieve greater GDP growth but democracy with good institution might be (Pereira & Teles, 2010; Pereira & Teles, 2011).

Esposito, Kapoor and Mallur (2016) in their study found that while India still needs to invest its resources in meeting its basic human needs, countries such as China and Russia need to bring about institutional changes that could protect the rights and freedom of its people. They revealed that among the BRICS economies, South Africa, China and Russia should lay greater emphasis on policy dialogues to reduce the extent of their greenhouse gas emissions. In addition to that, they argued that South Africa and Brazil should focus on ensuring personal safety to its people.

Acemoglu and Robinson (2006) captured the continuous conflict of interest on the relations of economic institution's cost to the distribution of resources. Those institutions according to Rodrik (2007) are major source of economic growth across many countries. The institutions include property rights institutions, regulatory institutions, institutions for macroeconomic stabilization, institutions for social insurance and conflict management institutions. The nature and survival of economic institutions depends to some extent on the allocation and dynamics of political power across the elite in the BRICS states and the globe. That is because political institutions and their policies influences the constraints and incentives to key players in the economy of a country.

3. Methodology

This study investigated data on political stability and GDP growth of the BRICS nations for the period of ten years (2007-2016). Thus, the focus of the study was majorly on ascertaining the level of statistical impact of political stability on GDP growth. In essence, this study obtained the political stability rank indicator data from the Worldwide Governance Indicator (WGI) which comprise of variables such as stable political governance, absence of violence and terrorism. Secondly, a GDP data which comprise of annual percentage growth rate of GDP at market prices based on constant local currency and was obtained from World Bank national account data and OECD national account data files. However, for the purpose of this study, the following reasons justify the choice of data and the period investigated:

- The impact of political stability on GDP growth within BRICS nations after the global financial crisis;
- The political and business philosophy behind the recent rapid growth and industrialization of the BRICS nations;
- The contributions of political and institutional positive attributes towards GDP growth.

Thus, regression statistical analysis was used to ascertain the statistical relationship between the two variables investigated in this study. Indeed, regression analysis helps to statistically identify the level of relationships (positive or negative) between two or more variables (Desboulets, 2018; Ahlgren & Walberg, 2017). Indeed, the level of relationship between the two variables provides the explanation of X (independent variable) by the percentage variation of Y (dependent variable). Thus, given that there are several variables that affects the growth of GDP (Cox & Weingast, 2018), political stability in theory has been argued as one of the core variables that contributes to a platform that enhance the positive growth of GDP (Cox & Weingast, 2018; Amavilah, Asongu & Andrés, 2017; Giambona, Graham &

Harvey, 2017). As such, this study focus majorly on ascertaining the statistical relationship between political stability and GDP growth of the BRICS nations. Hence, the proposed regression model is presented below;

$$Y = \beta_0 + \beta_1 X + \varepsilon$$

Where;

Y represents GDP growth, β_0 represents Y-intercept, β_1 represents slop coefficient, X represents independent variable and ε represents random error term.

Thus, the objectives of a regression model afore, is focused on ascertaining the followings:

- Do we have a relationship between X and Y (Yes or No);
- If YES, how are they related (Positive or Negative);
- If they are related, how much impact does X have on Y (Numerical evidence);
- Is the impact statistically significant (Yes or No);
- Given that a relationship exists, what % of the variation in Y is explained by X (Numerical evidence; Goodness of Fit).

However, being that this study is underpinned by a comparative philosophy on the impact of political stability on the GDP growth within the BRICS nations. Thus, the regression analysis is performed individually on the five nations. Hence, this will enhance the identification of coefficient and the statistical significant within the variables of the individual nations.

4. Data Analysis and Discussion of Findings

Data analysis and discussion involves a statistical process that helps to give meaning to a mass collected data (Nishina et al. , 2018). Thus, this part of the study provides the statistical analysis and discussion on the relationship between political stability and GDP growth within the BRICS nations. In essence, the purpose of data analysis is to ascertain the different constituting elements of data by investigating the relationship between concepts and variables to identify if there are any patterns or trends among the variables (Andereck, 2017). Accordingly, when the results of the analysis are taken, inference and conclusions on the meaning and implications of the findings are made (Cranmer et al. , 2017). Hence, the subsequent section of this study presents the regression analysis output, which were used as a statistical method to identify the magnitude of relationship between political stability and GDP growth of BRICS nations within the period of 2007-2016.

4.1. Regression Output and Interpretation

The major question this study answered is how much effect political stability has on GDP growth. Thus, regression analysis was used to answer this question. However, going by the proposed linear regression model in this study, individual analysis was obtained for each of the nations to ascertain their statistically significant relationship. As such, the regression output is presented below.

Coefficient^a

Country	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
Brazil	1 (Constant)	-2.239	6.247		-0.358	0.728
	Political Instability	0.109	0.150	0.236	0.728	0.485
Russian Fed.	1 (Constant)	1.119	8.429		0.133	0.897
	Political Instability	0.077	0.478	0.054	0.162	0.875
India	1 (Constant)	5.918	3.520		1.681	0.127
	Political Instability	0.121	0.261	0.153	0.464	0.654
China	1 (Constant)	0.011	5.774		0.002	0.998
	Political Instability	0.324	0.199	0.477	1.626	0.138
South Africa	1 (Constant)	-5.214	7.029		-0.742	0.477
	Political Instability	0.176	0.161	0.343	1.094	0.302

a. Dependent variable: GDP Growth (%)

The Coefficients table above, contains the coefficients for the regression equation (model) and test of significance for the variable. The “Sig” column contains the p-values for the independent variable and the “B” column contains the coefficients for the independent variable in the regression model. Thus, to answer the first regression question whether a relationship exists between political stability and GDP growth, the Sig column shows that the output has a P-value > 0.05 for the five nations, indicating that the relationship between the two variables is insignificant. Although, the size of the P-value for a coefficient says nothing about the size of the effect that the independent variable is having on the dependent variable (Shah & Bühlmann, 2018; Gelman & Carlin, 2017). It is possible to have a highly significant result P-value < 0.05 for a less or no effect (Peyvandi et al., 2017).

However, in simple linear regression, the size of the coefficient for each independent variable gives the size of effect that the variable is having on your dependent variable, and the sign on the coefficient (positive or negative) gives you the direction of the effect. In regression with a single independent variable, the coefficient tells you how much the dependent variable is expected to increase (if the coefficient is positive) or decrease (if the coefficient is negative) when that independent variable increases by one. Accordingly, the sign of the coefficient is positive for the five nations. As such, if political stability by percentage increase by 1%, GDP growth for Brazil will increase by 10.9%, Russia 7.7%, India 12.1%, China 32.4% and South Africa 17.6%. Hence, the regression output shows that mathematically the positive increase of political stability reflects a positive growth of GDP for the five BRICS nations.

Finally, to answer the question on what percent of the variation in GDP growth is explained by political stability, the R-square (coefficient of determinant) was used to obtain percentage of the variation. Thus, the R-square in a regression analysis shows the fraction of the variation in the dependent variable that is predicted by the independent variables (Zakariah et al. , 2018; Everhart et al. , 2017). In regression with a single independent variable, it is the same as the square of the correlation between your dependent and independent variable (Deo et al. , 2017; Meloni et al. , 2014; Taghiyari & Malek, 2014). Although, the R-squared is generally of secondary importance, unless the main concern of the study is focused on using the regression equation to make accurate predictions (Betancourth et al. , 2018). Thus, the model summary of the study is presented below;

Model Summary^b

Country	Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
Brazil	1	0.236 ^a	0.056	-0.049	3.780479162
Russian Fed.	1	0.054 ^a	0.003	-0.108	5.102190796
India	1	0.153 ^a	0.023	-0.085	1.992252253
China	1	0.477 ^a	0.227	0.141	2.251432582
South Africa	1	0.343 ^a	0.117	0.019	2.043243937

Accordingly, the model summary shows that an R-square value of 0.056 was obtained by Brazil, Russia 0.003, India 0.023, China 0.227 and South Africa 0.117. As such, the R-square figures indicating that 5.6% for Brazil, Russia 0.3%, India 2.3%, China 22.7% and South Africa 11.7% can be explained by the model containing political stability. This is quite low for prediction, as such, it also means that the balance percentage of the variation in each of the nations are still unexplained so adding other independent variables could improve the fit of the model.

4.2. Key Research Findings

- The P-value from the regression analysis for the five nations is greater than 0.05 (P-value > 0.05) indicating that there is insignificant impact of political stability on GDP growth among the BRICS nations for the period of 2007-2016;
- Numerically, the higher the rate of political stability, the higher the positive growth of GDP within BRICS nations, indicating a positive effect between the two variables;
- The percentage of variation of GDP for the five nations that is been explained by political stability is low, indicating that there are other independent variables that explain more of this variation in the growth of GDP.

5. Research Contribution

The recent emerging powers of the BRICS are often deemed to the process changing in the political and economic domain of the 21st century. Especially the unprecedented economic growth observed in the “waking giants” of China, India and Brazil since the 1990s not only aroused the interest of investors in these future markets, but also astonished the political, scientific, economic and media world. However, what is unclear is what impact the political stability of these nations have in their GDP growth. Thus, this study succeeded in ascertaining the level of statistical relationship between political stability and GDP growth of the BRICS and thereby recommend the followings to policy makers:

- Policy makers within the BRICS should ensure a sustainable political stability as this study ascertained that numerically it positively increase GDP;
- The regression output is recommended for policy focusing as it reveals the variation between political stability and GDP growth;
- It is also evident that other variables apart from political stability exist which affects GDP growth and should be taking into consideration when making policies on how to improve GDP.

Hence, the argument that BRICS nations face significant political challenges, especially in terms of economic, social, environmental and demographic sustainability has been ascertained from the findings of this study that it has a minute statistical impact on GDP.

6. Conclusion

This study is centered on the BRICS Nations, which comprises Brazil, Russia, India, China and South Africa. They are amongst the world emerging economic giants. The study focused on the relationship between political stability and GDP growth in those states that are located in different continents. The study used secondary data to assess the statistical relationship between political stability and economic growth in the BRICS. The study recommends ethical politics, which will ensure that corrupt leaders as well as tyrants and other forms of protest politics that are promoted by selfishness does not arise. Again, the ruling governments of the BRICS states should increasingly diversify the foundation of their economic investment, production and export as a way of enhancing GDP growth. There is also need for increased exchange of goods and services amongst the BRICS states through increased trade agreement.

7. References

- Acemoglu, D. & Robinson, J. (2006). *Overview*. In Weingast, Barry R. & Wittman, D. (Eds). *The Oxford Handbook of Political Economy*. Oxford: Oxford University Press.
- Ahlgren, A. & Walberg, H. J. (2017). Generalized regression analysis. *Research Design: The Logic of Social Inquiry*, p. 285.
- Alper, A. E. (2018). An Analysis on the Relationship between Political Stability and Economic Performance in BRICS-T Countries. *Business and Economics Research Journal*, 9(1), pp. 49-56.
- Amavilah, V., Asongu, S. A. & Andrés, A. R. (2017). Effects of globalization on peace and stability: Implications for governance and the knowledge economy of African countries. *Technological Forecasting and Social Change*, 122, pp. 91-103.
- Andereck, K. L. (2017). *Inferential analysis of data*. In Sirakaya-Turk, E. ; Uysal, M. ; Hammitt, W. E. & Vaske, J. J. (Ed.). *Research methods for leisure, recreation and tourism*, pp. 269-283. Wallingford, Oxfordshire: CABI.
- Betancourth, J. M., Cuellar, M., Ortiz, P. I. & Pfaffen, V. (2018). Multivariate cathodic square wave stripping voltammetry optimization for nitro group compounds determination using antimony film electrodes. *Microchemical Journal*, 139, pp. 139-149.
- Blackburn, K., Neanidis, K. C. & Rana, M. P. (2017). A theory of organized crime, corruption and economic growth. *Economic Theory Bulletin*, 5(2), pp. 227-245.
- Bøas, M. & Utas, M. (2013). Introduction: Post-Gaddafi Repercussions in the Sahel and West Africa. *Strategic Review for Southern Africa*, 35(2), p. 3.
- Cavallo, E., Eichengreen, B. & Panizza, U. (2018). Can countries rely on foreign saving for investment and economic development? *Review of World Economics*, 154(2), pp. 277-306.
- Cox, G. W. & Weingast, B. R. (2018). Executive Constraint, Political Stability, and Economic Growth. *Comparative Political Studies*, 51(3), pp. 279-303.
- Cranmer, S. J., Leifeld, P., McClurg, S. D. & Rolfe, M. (2017). Navigating the range of statistical tools for inferential network analysis. *American Journal of Political Science*, 61(1), pp. 237-251.

- David, W. L. (1968). Democracy, Stability and Economic Development. *Caribbean Quarterly*, 14(4), pp. 7-24.
- Deo, R. C., Kisi, O. & Singh, V. P. (2017). Drought forecasting in eastern Australia using multivariate adaptive regression spline, least square support vector machine and M5Tree model. *Atmospheric Research*, 184, pp. 149-175.
- Desboulets, L. (2018). A Review on Variable Selection in Regression Analysis. *Econometrics*, 6(4), p. 45.
- Diao, X. & McMillan, M. (2018). Toward an understanding of economic growth in Africa: A reinterpretation of the Lewis Model. *World Development*, 109, pp. 511-522.
- Esposito, M., Kapoor, A. & Mallur, D. (2016). *What is the State of the BRICS Economies?* 19th April. Retrieved from <https://www.weforum.org/agenda/2016/04/what-is-the-state-of-the-brics-economies>.
- Everhart, J. S., Sojka, J. H., Kaeding, C. C., Bertone, A. L. & Flanigan, D. C. (2017). The ACL injury response: A collagen-based analysis. *The Knee*, 24(3), pp. 601-607.
- Franco, C. & de Oliveira, R. H. (2017). Inputs and outputs of innovation: analysis of the BRICS: Theme 6—innovation technology and competitiveness. *RAI Revista de Administração e Inovação*, 14(1), pp. 79-89.
- Gelman, A. & Carlin, J. (2017). Some natural solutions to the p-value communication problem—and why they won't work. *Journal of the American Statistical Association*, 112(519), pp. 899-901.
- Giambona, E., Graham, J. R. & Harvey, C. R. (2017). The management of political risk. *Journal of International Business Studies*, 48(4), pp. 523-533.
- Hurrell, A. (2018). Beyond the BRICS: Power, Pluralism, and the Future of Global Order. *Ethics & International Affairs*, 32(1), pp. 89-101.
- Karra, M., Canning, D. & Wilde, J. (2017). The effect of fertility decline on economic growth in Africa: A macro-simulation model. *Population and Development Review*, 43, pp. 237-263.
- Li, H. & Marsh, L. L. (2016). Building the BRICS: Media, Nation Branding, and Global Citizenship. *International Journal of Communication (19328036)*, 10.
- Liu, M. (2016). BRICS development: A long way to a powerful economic club and new international organization. *The Pacific Review*, 29(3), pp. 443-453.
- Meloni, A., Rienhoff Jr, H. Y., Jones, A., Pepe, A., Lombardi, M. & Wood, J. C. (2014). Cardiac R2* values are independent of the image analysis approach employed. *Magnetic resonance in medicine*, 72(2), pp. 485-491.
- Mishra, A. & Agarwal, A. (2017). Impact of FDI on Economic Growth and Employment: A Study of (BRICS) Nations.
- Nayyar, D. (2016). BRICS, developing countries and global governance. *Third World Quarterly*, 37(4), pp. 575-591.
- Nishina, K., Kawamura, H., Okamoto, K. & Takahashi, T. (2018). *Monitoring and Diagnosis of Causal Relationships among Variables*. In Sven, S. & Wolfgang, S. (Ed.). *Frontiers in Statistical Quality Control 12*, pp. 175-184. Cham: Springer.
- Ofondu, M. M. & Eboh, F. E. (2016). Globalization and Emerging Trends in Economic Environment: Lessons from the BRICS Nations. *International Journal of Economics, Commerce and Management*, 4(6), pp. 788-806.

- Ogbeide, S. & Akanji, B. (2018). Stock market development and economic growth of Brazil, Russia, India, China and South African (BRICS) Nations: An empirical research. *Accounting*, 4(2), pp. 83-92.
- Öniş, Z. & Gençer, A. Ş. (2018). Democratic BRICS as role models in a shifting global order: inherent dilemmas and the challenges ahead. *Third World Quarterly*, pp. 1-21.
- Pereira, C. & Teles, V. (2011). *Political Institutions, Economic Growth and Development: The Substitute Effect* 19th January. Retrieved from <https://www.brookings.edu/opinions/political-institutions-economic-growth-and-democracy-the-substitute-effect>.
- Pereira, C. & Teles, V. (2010). Political Institutions and Substitute for Democracy: A Political Economy Analysis of Economic Growth, Manuscript Presented at the *Annual Conference of the European Economic Association*.
- Peyvandi, F., Mannucci, P. M., Palla, R. & Rosendaal, F. R. (2017). SIPPET: methodology, analysis and generalizability. *Haemophilia*, 23(3), pp. 353-361.
- Piper, L. (2015). The BRICS phenomenon: from regional economic leaders to global political players. In *Working Paper 3: BRICS Initiative for Critical Agrarian Studies (BICAS) Conference, Cape Town, April*.
- Rodrik, D. (2007). *One Economics Many Recipes: Globalization, Institutions and Economic Growth*. Princeton: Princeton University Press.
- Shah, R. D. & Bühlmann, P. (2018). Goodness-of-fit tests for high dimensional linear models. *Journal of the Royal Statistical Society: Series B (Statistical Methodology)*, 80(1), pp. 113-135.
- Shahrokhi, M., Cheng, H., Dandapani, K., Figueiredo, A., Parhizgari, A. M. & Shachmurove, Y. (2017). The evolution and future of the BRICS: Unbundling politics from economics. *Global Finance Journal*, 32, pp. 1-15.
- Shen, L., Shuai, C., Jiao, L., Tan, Y. & Song, X. (2017). Dynamic sustainability performance during urbanization process between BRICS countries. *Habitat International*, 60, pp. 19-33.
- Taghiyari, H. R. & Malek, B. M. (2014). Effect of heat treatment on longitudinal gas and liquid permeability of circular and square-shaped native hardwood specimens. *Heat and Mass Transfer*, 50(8), pp. 1125-1136.
- White, S., McAllister, I. & Munro, N. (2017). *Economic inequality and political stability in Russia and China*.
- Zakariah, M., Zakariah, M. A., Astuti, D. P., Ridwan, R. & Maryam, S. (2018). Analysis Factor of Marketing Strategy of Funding Decision of Customers Choose Baitul Mal Wat Tamwil (BMT) In Kolaka Regency, Indonesia. *Jurnal Ekonomi Bisnis Syariah*, 1(1), pp. 38-47.
- Zheng, S. (2017). China's Political Stability: Comparisons and Reflections. *Governance, Domestic Change, and Social Policy in China*, pp. 149-169. New York: Palgrave Macmillan.