Economic issues of tax reforms

Экономические проблемы налоговых реформ

Original Paper

https://doi.org/10.15826/jtr.2023.9.3.145



Empirical Studies of Taxation in BRICS Countries: Literature Review

Anna P. Kireenko^{1, 2} D

- ¹ Irkutsk National Research Technical University, Irkutsk, Russian Federation
- ² Ural Federal University named the first President of Russia B.N. Yeltsin, Yekaterinburg, Russian Federation

⊠ sw.tpk.rt@mail.ru

ABSTRACT

The cross-country studies in taxation could provide a number of unique advantages over national studies The paper aims to analyze existing empirical research devoted to tax issues in BRICS countries to classify them according to their aim and empirical base and answer the question: could BRICS countries really be compared in tax frame, and for what extend. The sample for this study includes all papers available in Science Direct, Google Scholar and E-Library databases, which include pair of words "tax" and "BRIC(S)" or "налог" and "БРИКС" simultaneously in the title, abstract, keywords. Literature sources were sorted by relevance and search depth was not limited. The literature review showed that studies devoted to taxation in BRICS countries have different approaches based on their aim and data. The most part of research is based on tradition approach (tax rates and tax legislation) only few research of taxes and related topics in BRICS are based on indices. We also separated several directions in studies related to taxation in BRICS countries: comparative description of taxation; tax avoidance and tax evasion and their determinants; examination of the particular tax or particular industry to find relevant experience to apply; examination the interaction between taxes and other variables (taxes and economic development; taxes and economic inequality; taxes and environment). The majority of articles do not aim to find some regularities for BRICS countries they only use these countries as random sample comparing them with G7 or MINT or other groups of countries. While almost the BRICS member countries are rapidly developing, they are diverse in culture, economic conditions and social and political structures. From this perspective we could not address to BRICS countries as a homogeneous group that could be used for observation in tax frame.

KEYWORDS

literature review, taxes, taxation, BRICS, tax indices, economic development; economic inequality, environment

JEL A14, H20, O57

УДК 336.22

Эмпирические исследования налогообложения в странах БРИКС: обзор литературы

А.П. Киреенко^{1, 2} [□ ⊠

- ¹ Иркутский национальный исследовательский технический университет, г. Иркутск, Россия
- ² Уральский федеральный университет имени первого Президента России Б.Н. Ельцина, г. Екатеринбург, Россия
- ⊠ sw.tpk.rt@mail.ru

КИЦАТОННА

Межстрановые исследования в области налогообложения могут обеспечить ряд уникальных преимуществ перед национальными. Целью статьи является анализ существующих эмпирических исследований, посвященных проблемам налогообложения в странах БРИКС, их классификация в зависимости от цели и эмпири-

ческой базы, чтобы и ответить на вопрос: можно ли сравнивать страны налоговые системы этих стран и в какой степени. В выборку для данного исследования вошли все статьи, доступные в базах данных Science Direct, Google Scholar и E-Library, которые содержат одновременно пару слов «налог» и «БРИКС» в названии, аннотации, ключевых словах. Литературные источники сортировались по релевантности, глубина поиска не ограничивалась. Обзор литературы показал, что исследования, посвященные налогообложению в странах БРИКС, имеют разные подходы в зависимости от цели и данных. Большая часть исследований основана на традиционном подходе (налоговые ставки и налоговое законодательство), лишь немногие исследования налогов в БРИКС и связанных с ними тем основаны на индексах. Также мы выделили несколько направлений в исследованиях, связанных с налогообложением в странах БРИКС: сравнительное описание налогообложения; уклонение от уплаты налогов и уклонение от уплаты налогов и их определяющие факторы; изучение конкретного налога или конкретной отрасли, чтобы найти соответствующий опыт для применения; изучить взаимодействие между налогами и другими переменными (налоги и экономическое развитие; налоги и экономическое неравенство; налоги и окружающая среда). Большинство статей не ставят своей целью выявить какие-то закономерности для стран БРИКС, они используют эти страны лишь в качестве случайной выборки, сравнивая их с G7 или MINT или другими группами стран. Хотя большинство странчленов БРИКС быстро развиваются, они разнообразны по культуре, экономическим условиям и социальным и политическим структурам. С этой точки зрения мы не можем рассматривать страны БРИКС как однородную группу, которую можно использовать для наблюдения в сфере налогообложения.

КЛЮЧЕВЫЕ СЛОВА

обзор литературы, налоги, налогообложение, БРИКС, налоговые индексы, экономическое развитие; экономическое неравенство, окружающая среда

1. Introduction

Awareness that national tax policies is connected with domestic and international economic activity has long history in Russia. On 22 of July (2 of August) 1763, Catherine the Great proclaimed Manifest "On the permission of all foreigners entering Russia to settle in whatever provinces they wish and, on the rights". "Foreigners that have settled themselves in Russia [to] erect Fabrics or Works, and manufacture there such Merchandizes as have not yet been made in Russia ..." the right to "sell and export said Merchandizes out of our Empire for 10 years, without paying any inland Tolls, Port Duties or Customs on the Borders ..."1.

But a concept of international taxation does not exist until 1907, when in Genoa, Italy, a group of scholars held the first international conference to meet the new challenge of worldwide trade [1].

It should be noted that, tax convergence is slower than in other areas for many reasons. In 1944 the economic historian Karl Polanyi wrote that a "double movement" propels modern society. On one hand, governments seek to better the lives of their citizens by increasing economic prosperity through heightened ties with other countries. On the other hand, as market forces expand, they increasingly constrain government policymaking, and people demand that their governments protect them from the socially disruptive effects of those market forces [2]. This create numerous barriers prevented states from working together cooperatively in tax sphere; these barriers included heterogeneity of state interests, reluctance to cede national tax sovereignty, interest-group capture, and views that tax competition was normatively desirable [3].

Creation of the European Union and other regional economic communities such as the Eurasian Economic Union (EAEU), Shanghai Cooperation Organization (SCO); North American Free Trade Agreement (NAFTA), the Trans Pacific

¹ Complete collection of laws of the Russian Empire, since 1649: [Collection 1: to December 12, 1825]. St. Petersburg: In the printing house of the Second Department of His Imperial Majesty's Own Chancellery, 1830–1851. https://www.prlib.ru/item/358609

Partnership (TPP), Asia Pacific Economic Cooperation (APEC), Regional Comprehensive Economic Partnership (RCEP), the Association of Southeast Asian Nations (ASEAN) renewed the interest among public finance and international finance economists in the issues of tax harmonization and coordination.

However, new global bloc of countries which does not represent a region could redefine the global economic and political landscape. This is about Brazil, Russia, India, China and South Africa or the BRICS. As the framework of the world economy changes dramatically, the BRICS countries have expressed a strong urge to participate in and take action on international economic governance.

Many of BRICS' current members already have real GDP growth rates that are higher than their G7 counterparts, with current members having an average GDP growth of 189% to 2050 compared to the G7's average of 50%. BRICS' newly added members like Ethiopia (1,170% GDP growth projected by 2050) and Egypt (635% GDP growth projected by 2050) have even higher rates of potential economic growth, further raising the bloc's economic potential². Both economic and political reasons generate popularity of BRICS research.

The rise of the BRICS (Brazil, Russia, India, China and South Africa) as major emerging powers has challenged existing important structures in the global economy. For this reason, there is an expectation that this restructuring may also occur in the tax sphere. Taxation is one potential area for cooperation between the BRICS countries.

The author hypothesis in spite of BRICSs are particularly interesting cases to analyze in the regard of taxation, the substantial differences among the BRICS prevent them from developing a unified and cohesive tax policy. From this perspective we could not address to BRICS countries as a homogeneous group that could be used for observation in tax frame.

This paper aims to analyze this developing literature by offering a cohesive framework of the existing empirical research devoted to tax issues in BRICS countries.

The paper is organized as follows: methodology of research is presented in the in the second part, in the third part general considerations regarding to comparison of tax systems are viewed, in the fourth part we examine several directions in comparative studies devoted to taxation in BRICS countries based on statistics and surveys, in the fifth part we examine comparative studies devoted to taxation in BRICS countries based on indices and BRICS Best Tax Practices and in final part we draw some conclusions from literature review.

2. Methodology

The sample for this study includes all papers available in Science Direct, Google Scholar and E-Library databases, which include pair of words "tax" and "BRIC(S)" от "налог" and "БРИКС" simultaneously in the title, abstract, keywords. Literature sources were sorted by relevance and search depth was not limited.

As can be expected, most of comparative research devoted to BRICS emerged after 2012. The BRIC is the group of five emerging economies viz. Brazil, Russia, India, China was formed in September 2006 and was called "BRICS" after the joining of South Africa in the year of 2010 and mechanism of BRICS tax cooperation was firstly initiated by India in 2012.

So far, we have examined research papers devoted to different aspects of taxes in the BRICS countries and tried to classify them according to their aim and empirical base trying to answer the question: could BRICS countries really be compared in tax frame, and for what extend.

3. General considerations regarding to comparison of taxation and tax systems

At the start, it should be noted that comparative tax studies aim to capture differences and similarities respect to the variables analyzed. The cross-country comparative approach provides a num-

² https://www.goldmansachs.com/intelligence/pages/gs-research/the-path-to-2075

ber of unique advantages over national studies: it can exploit institutional variation that does not exist within countries; draw on much larger variation than is usually available within any country; reveal whether any result is country-specific or more general. Such studies also have many limitations.

One of the most credited research in this field is Sedric Sandford's "Why tax systems differ: A Comparative Study of the Political Economy of Taxation" [4] which analyses and compares taxation in different countries, mainly developed countries. It looks at what tax systems have in common, how they differ and seeks to explain the similarities and the differences using tax rates and tax structure.

It must be noted that tax rates are the main indicator used for comparing the competitiveness of country tax systems. For example, the School of Public Policy at the University of Calgary provides an annual snapshot of countries' effective marginal tax rates (mainly to assess the competitiveness of Canada's corporate tax regime)³, a similar approach, focused on G20 countries, was used by the Centre for Business Taxation at the University Oxford for assessing the UK corporate tax system4. The Heritage Foundation's Tax Burden Index is similar as its scoring is mostly derived from marginal tax rates on both personal and corporate income⁵.

However, recently indices have become increasingly popular for comparing tax systems. They provide a simple and understandable way to evaluate and compare national tax systems at the aggregate level. The rankings and indices that are used to compare tax systems are primarily based on the assumption that a more competitive and less complex tax system is more efficient. They also allow countries to be ranked, making comparisons easier. They are increasingly being referred to by policymakers and stakeholders when pursuing tax reform. Wong et al. [5] offered detailed description of those indices.

Many indices use a composite indicator that combines several sub-indicators that measure various taxes and administrative processes. These include indices such as the World Bank and PwC Tax Paying, the Tax Foundation's International Tax Competitiveness Index, the Global Multinational Tax Complexity Project, and the VAT Compliance Burden Index. There are also sub-indices such as the IMD World Competitiveness Yearbook and the TMF Group Global Business Complexity Index. Other studies include tax perception surveys such as the World Bank Enterprise Surveys and Deloitte's Asia Pacific Tax Complexity Survey.

Databases such as the OECD Tax Administration Comparative Information Series and the USAID Tax Collection Database focus primarily on the efficiency and capacity of tax administration and can provide additional information for the analysis of tax systems. To benchmark tax administration performance, the International Monetary Fund (IMF) also developed a Tax Administration Diagnostic Assessment Tool (TADAT) score based on government spending and financial reporting data from the World Bank. However, TADAT assessments for different countries are not carried out simultaneously, which complicates cross-country comparisons. In general, indices aim to measure and aggregate a number of aspects of tax systems.

Therefore, they can be used to study tax systems within groups of countries or inter-country associations. The rankings and indices that have been produced to compare tax systems primarily operate off of an assumption that a more competitive tax system and a less complex tax system will both generate a more efficient tax system.

There are a number of cross-country comparisons established over recent years that seek to assess and compare multiple aspects of national tax systems. But we would concentrate only on studies devoted to BRICS countries.

³ https://journalhosting.ucalgary.ca/index.php/sppp/article/view/69779

⁴ https://core.ac.uk/download/pdf/ 288286506.pdf

⁵ https://www.heritage.org/index/pdf/ 2020/book/index_2020.pdf

4. Empirical studies of taxation in BRICS countries

We could separate several directions in comparative studies devoted to taxation in BRICS countries. The most part of research is based on tradition approach (tax rates and tax legislation).

First direction is devoted to comparative description of taxation in BRICS countries.

For example, Bird [6] review the evolution and current state of sub national taxation in five large emerging countries i.e., BRICS.

Brauner & Pistone [7] examines the impact of shifting economic powers on the evolution of the international tax regime and on tax treaties that follow the OECD Model.

Yadav [8] made a comparison of BRICS countries on the basis of various tax related parameters such as tax revenue – GDP ratio, number of tax payments, time

taken in tax compliance, profit tax paid by businesses, labor tax and contributions paid by businesses, other taxes paid by businesses to government, total tax rate imposed by countries on businesses.

The next part of literature considers the potential possibilities of changing the tax policy in one of BRICS countries based on other's countries experience.

For example, Jacobs et al. [9] try to determine the potential tax bias risk of oil and gas companies in BRICS countries exploring the effect of debt-equity tax bias on weighted-average cost of capital.

Maddox [10] examines the story surrounding India's proposed general anti-avoidance rules and how this episode has damaged investor confidence in the Indian system.

Emerging literature raises questions about the tax avoidance and tax evasion in BRICS countries and their determinants (Table 1).

Table 1
Articles devoted to tax avoidance and evasion in BRICS countries

Author	Purpose	Data	Result
Nguyen & Duong [11]	To examine the impact of social capital on the size of the shadow economy	The BIRCS countries over the period 1995–2014	The unemployment rate and tax burden positively affect the size of the shadow economy
McGee et al. [12]	To learn the attitude toward tax evasion in the four BRIC countries	World Values Survey data for Brazil, Russia, India and China collect- ed between 2017–2021	Overall, the Chinese were most opposed to tax evasion, followed by the Indians, the Brazilians and the Russians
Cabello et al. [13]	To examine whether tax avoidance determinants result in different levels of avoidance depending on the economy and sector	A sample of firms from the G7 and BRICS coun- tries (IMF, 2019)	There is no differences in tax avoidance levels between deve- loped and emerging economies but rather between individual countries
Du & Li [14]	To analyze the tax avoidance and corporate social responsibility (CSR) performance nexus		negatively associated with CSR
Gopalan & Rajan [15]	To propose an alternative framework to overcome the problem of offshore financing centers and tax havens in FDI flows statistics	Bilateral FDI inflows data with M&A data for Brazil, Russia, India, and China, for the pe- riod 2001–2012	Several offshore financing centers (OFCs) and tax havens emerge as top sources of FDI flows which provide a mis- leading picture of bilateral real linkages between countries
Lesage et al. [16]	To investigate the BRICs' willingness to accept the Automatic Exchange of Information rules	BRIC and G20	The BRICs' acceptance of the OECD rules resulted from pragmatic interests, together with the absence of coercive mechanisms within the OECD's Common Reporting Standard regime

The most part of Russian papers in this division examines the particular tax or particular industry in BRICS countries and consider the potential possibilities of changing the tax policy in the Russian Federation.

For instance, Bachurin [17] provides an overview of legal regulation of VAT in the BRICS countries, the current state of value-added taxation of financial services in the BRICS countries [18] or an overview of value-added taxation in the field of labor relations of the BRICS countries [19].

Vinnitskiy & Kurochkin [20] focus on some prospects of the international coordination of approaches of BRICS countries to cross-border taxation and other cross-border economic relations.

Kurochkin [21] analyzes the legal regimes of combating tax offences in the legislation of the BRICS countries using the example of tax evasion.

Rakov [22] examines problems of requalifying taxpayer's profits and operations in order to prevent tax avoidance in Brazil and Russia.

Table 2
Articles devoted to interconnection of taxes and economic development in BRICS countries

in brics countries			
Article	Purpose	Data	Result
Fernández- Rodríguez et al. [24]	To study the determinants of Effective Tax Rate (ETR) in emerging economies	A sample of 7844 listed companies from the BRICS and MINT countries	Both business variables and in- stitutional factors have a signifi- cant effect on the tax burden for firms in emerging countries
Fernández- Rodríguez & Martínez- Arias [25]	To study the determinants of the effective tax rate (ETR) for corporate taxation	A panel of 3,565 listed companies in the BRIC countries for 2000–2009	The ETR for one year depends on the tax burden borne the previous year
Fernández- Rodríguez et al. [26]	To study the relationship between the corporate effective tax rate (ETR) and several institutional factors	A panel of 25,878 listed firms in the G7 and the BRIC coun- tries in 2010–2018	The statutory tax rate, government effectiveness, regulatory quality, rule of law, and open markets – affect all countries, whereas corruption control and economic freedom, affect only the BRIC countries
Halim & Rahman [27]	To examine the effects of the corporate tax rate on sustainable development	The BRIC and CIVETS countries in 2000–2021 years	The corporate tax rate is positively and significantly associated with the sustainable development goals (SDG)
Chakrabarti & Gruzin [28]	To determine the effects of corporate tax rates on capital structure in public nonfinancial companies	A Sample of BRICS companies over the period from 2010 to 2015	The effective tax rate has a negative relationship with the capital structure in Russia, India and South Africa
Chhabra et al. [29]	To study the impact of trade openness and output gap on inflation	BRICS countries trade statistics	A more open trade policy helps to reduce rising domestic inflation
Duong et al. [30]	To tests the hypothesis that corruption, shadow economy, and foreign direct investment (FDI) affect the BRICS econo- mies' tax revenue collec- tion	The data from the Transparency International, World Development Indica- tors, and Worldwide Governance Indica- tors for 2001–2017	The control of corruption has a strong positive impact on tax collection. Meanwhile, the shadow economy's size has a nonlinear relationship with the BRICS countries' tax revenue
Neog & Gaur [31]	To analyze the effects of economic and political variables on tax revenue performance	BRICS for the period 1996–2017	Economic development, trade openness and control of corruption are revenue-enhancing factors for BRICS, whereas the agriculture sector discourages the tax revenue performance

Kudryashova & Shashkova [23] analysed the tax incentives for the sustainable energy innovations announced in the BRICS countries documents.

The second broad part of literature examines interaction between taxes and other variables. This part of literature could be devoted at three sub-directions: (1) taxes and economic development; (2) taxes and economic inequality; (3) taxes and environment.

Various data are used to estimate interconnection of taxes and economic development in BRICS countries. The most part of research in this set of literature explore business data of listed companies (Table 2).

The topic of connection between taxes and inequality in BRICS countries is not so popular as previous one. Only three examples were founded.

Walayat et al. [32] observe the impact of globalization on net and market income inequalities for BRICS countries using pretax/transfer and the post-tax/transfer GINI indices as the measures of income inequality.

Cevik & Correa-Caro [33] investigates the empirical characteristics of income inequality in China and a panel of BRIC+ countries, with a focus on the redistributive contribution of fiscal policy. Anikin & Tikhonova [34] aim to show that poverty and inequality have different natures in different BRICS countries and note the particular relevance of tax policies to combating poverty "in a way appropriate to the Russian context.

Recent years have seen great interest in the relationship between taxes and different aspects of green agenda: environmental sustainability, environmental protection, pollution reduction, renewable and clean energy development etc. This set of literature is presented in Table 3.

5. Research based on indices and government agencies documents

It was mentioned that indices have become increasingly popular for comparing tax systems. However, only few research of taxes and related topics in BRICS are based on indices.

For example, Bantwa [46] explores the impact of reforms made by BRICS nations on their performance using the secondary data collected from the website of World Bank for doing business project and "doing business reports" published by world bank.

Yarygina & Zhiglyaeva [47] study the legal and financial features of the BRICS trade and economic cooperation using trading floor indices.

Table 3 Articles devoted to interconnection of taxes and environment in BRICS countries

Article	Purpose	Data	Result
Wang et al. [35]	To study the impact of environmental regulations and fiscal decentralization on health outcomes in BRICS economies	health indicators for four	Total revenue and expenditure decentralization affect health outcomes positively, while tax revenue decentralization negatively impacts them
Yao et al. [36]	To evaluate the impacts of green monetary and fiscal policies on the sustainable development of fossil fuels resources in BRICS countries	Economic freedom index, green parts trade, and innovation index, renewable energy consumption in BRICS countries from 1995 to 2021	Green monetary policies have a greater impact on the development of clean energy compared to green fiscal policies
Dong et al. [37]	To examine the interactions between economic growth, green financing, green credit, renewable energy investment, geopolitical risk (GPR), and environmental sustainability	Panel data from BRICS countries) from 2000 to 2020	Adoption of renewable energy in BRICS countries is significantly and favourably impacted by geopolitical risk

End of Table 3

			End of Table 3
Article	Purpose	Data	Result
Yilanci et al. [38]	To investigate the effects of foreign direct investment and the trade openness on clean energy consumption	BRICS countries during the period 1985–2017	Trade openness influences clean energy consumption negatively in Russia, China, and South Africa. Proper environmental policies include the imposition of the carbon tax and subsidy on cleaner energy consumption design
Steenkamp [39]	To examine the energy landscape and energy taxation in the BRICS countries		The common features of energy taxes could serve as a useful tool in helping countries to transition to clean energy
Haseeb et al. [40]	To unveil the liaison between human capital, trade openness, and envi- ronmental quality in the BRICS countries	Human capital, trade statistics and carbon dioxide emissions in the BRICS countries from 1998 to 2018	Imposing high tariffs and excise duties, changing tax structures, discouraging the inflow of polluted commodities, and encouraging green trade can help BRICS combat high environmental pollution
Meng & Li [41]	To study the role of efficient natural resource rents in mediating the financial sector's readiness for green development in the BRICS nations concerning carbon taxes	Carbon taxes and the distribution of natural resource rents in BRICS economies between 2000 and 2021	Effective management of natural resource rents combined with carbon taxing measures is essential for easing the transition to green development
Sadiq et al. [42]	To examine the effect of green finance, eco-innovation, renewable energy output, renewable energy consumption, and carbon taxes on carbon dioxide emissions in BRICS countries	Different factors and carbon emissions in BRICS countries in 2001–2020	Relationship of these factors with carbon emissions is negative in nature in BRICS economies. Government and economists need to initiate policies to impose carbon taxes
Chishti et al. [43]	To link fiscal and mone- tary policies with carbon dioxide emissions	Aggregate domestic consumer spending per capita, fossil fuel consumption, renewable energy consumption, carbon dioxide emis- sions in BRICS econo- mies from 1985 to 2014	Expansionary fiscal policy intensifies the harmful repercussions of CO2e, contractionary fiscal policy serves as an effective measure to mitigate the detrimental effects of CO2e
Dippenaar [44]	To compare the tax instruments (both incentives and disincentives) applied in four BRICS countries to reduce their emissions from electricity generation	duce the emissions from electricity generation (direct or indirect taxes) in four BRICS countries,	All the countries use incentives, rather than disincentives. They focus equally on the use of direct and indirect taxes, with the exception of South Africa
Li & Xu [45]	To investigate the determinants of ecological sustainability by considering fiscal policy, strict environmental governance, and green innovations in the BRICS countries	Fiscal policy, natural resources rent, environ- mental policy, green technologies, ecological footprint in the BRICS countries from 1990 to 2020	Fiscal policy and natural resources rent instigate the ecological footprint significantly

Bhat et al. [48] examine the dynamics of trade between India and the BRICS countries using the index of trade integration.

Not only scholars investigate tax issues in BRICS countries. Various tax administration issues are in focus of the five tax administrations. Meetings of heads and experts of tax administrations of the BRICS countries are held annually. A mechanism has also been created for the exchange of best practices to resolve a particular tax administration issue. In November 2022, the BRICS partners decided to create a collection of "The Best Tax Practices from the BRICS Countries", which presents case studies of the leading practices of each BRICS tax administration. It is planned that such a document will be published annually based on the results of meetings of heads and experts of tax services on the official websites of the tax administrations of the BRICS countries. The brief description of this case studies is presented in Table 4.

The literature review showed that studies devoted to taxation in BRICS countries have different approaches based on their aim and data. Generalized approaches to data used to explore tax-related issues is presented on Figure 1.

6. Conclusion

In this review, we analyzed existing empirical studies on tax issues in the BRICS countries. We separated several directions in studies related to taxation in BRICS countries: (1) comparative description of taxation in BRICS countries;

BRICS countries reports about best tax practices

Table 4

Country	Title	Aim
Brazi	Cooperative Compliance Program	To implement a more cooperative and transparent relationship between tax administration and large taxpayers
Russia	New Tax Debt Management Strategy	To encourage voluntary compliance by simplification of tax procedures for taxpayers and use of big data to ensure that tax collection is effective
India	Annual Information Statement (AIS)	To display complete information to the taxpayer with a facility to capture online feedback, promote voluntary compliance and enable seamless prefilling of return
China	Smart Individual Income Tax Reconciliation	To innovate and upgrade multiple aspects of the individual income tax system including tax collection and administration, electronic filing channels, tax refund processes and multi-party collaboration
South Africa	Taxpayer Compliance Evaluation and Moni- toring	To identify areas of significant non-tax compliance across all tax types so that focused interventions could be deve- loped and implemented accordingly

Note: Completed by the author using information from official cite of Federal Tax Service of Russia. https://www.nalog.gov.ru/rn77/about_fts/inttax/cooperation/

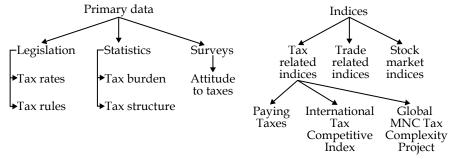


Figure 1. Main approaches to data used to study taxation in the BRICS countries

(2) tax avoidance and tax evasion in BRICS countries and their determinants; (3) examination of the particular tax or particular industry in BRICS countries to find relevant experience to apply; (4) examination the interaction between taxes and other variables (taxes and economic development; taxes and economic inequality; taxes and environment).

The literature review showed that studies devoted to taxation in BRICS countries have different approaches based on their aim and data.

Although, only some articles try to draw conclusions for BRICS as a united group. The majority of articles do not aim to find some regularities for BRICS countries they only use these countries as random sample comparing them with G7 or MINT or other groups of countries.

The reason is that in regional associations such as the, for example, EAEU, tax systems demonstrate greater similarity

than in associations with large geographical distances as BRICS. So, it is hazardous to try to generalize too much about the BRICS member countries. While almost all are rapidly developing, they are diverse in culture, economic conditions and social and political structures. From this perspective we could not address to BRICS countries as a homogeneous group that could be used for observation in tax frame.

Literature review helped to demonstrate that taxation is the field where BRICS countries are working toward on their own, rather than as part of an integrated, coordinated effort on the part of the BRICS. So, we confirmed our hypothesis that BRICSs are particularly interesting cases to analyze in the regard of taxation, but the substantial differences among countries do not allow to observe BRICS countries as a homogeneous group in tax frame.

References

- 1. Avers A.A. Adventures of International Taxation. *Tempo*. 1975;21(1):21–23. Available at: https://egrove.olemiss.edu/cgi/viewcontent.cgi?article=1579&context=dl_tr (accessed: 13.09.2023).
- 2. Polanyi K. For a New West: Essays, 1919–1958. John Wiley & Sons; 2014. Available at: https://voidnetwork.gr/wp-content/uploads/2020/01/For-a-New-West-Essays-1919-1958-Karl-Polanyi.pdf (accessed: 13.09.2023).
- 3. Mason R. The transformation of International Tax. *American Journal of International Law*. 2020;114(3):353–402. https://doi.org/10.1017/ajil.2020.33
- 4. Sandford C.T. Why tax systems differ: A Comparative Study of the Political Economy of Taxation. Fiscal Publications; 2000. https://doi.org/10.1017/S0143814X01221059
- 5. Wong T.C., Breunig R., Stewart M. *How can we compare tax systems*? TTPI Policy Brief 5/2020. Australian National University, 2020. Available at: https://taxpolicy.crawford.anu.edu.au/sites/default/files/uploads/taxstudies_crawford_anu_edu_au/2020-09/complete_tax_systems_sep_2020.pdf (accessed: 09.09.2023).
- 6. Bird R. Subnational Taxation in Large Emerging Countries: BRICS Plus One. ICEPP Working Papers No. 53. 2012. Available at: https://scholarworks.gsu.edu/icepp/53 (accessed: 13.09.2023).
- 7. Brauner Y., Pistone P. BRICS and the Emergence of International Tax Coordination, IFBD; 2015. Available at: https://www.ibfd.org/sites/default/files/2021-06/BRICS_Emergence_International_Tax_Coordination.pdf (accessed: 09.09.2023).
- 8. Yadav S.K. A Comparative Study of Tax Structures of BRICS Countries. *Vision: Journal of Indian Taxation*. 2018;5(1):1–17. https://doi.org/10.17492/vision.v5i1.13215
- 9. Jacobs L., Swanepoel M.J. Effect of debt-equity tax bias on the WACC of oil and gas companies in BRICS countries. *International Journal of Business and Management Studies*. 2018;10(2):149–165. Available at: https://sobiad.org/eJOURNALS/journal_IJBM/arhieves/ijbm_2018_2_ek/l-jacobs.pdf (accessed: 09.09.2023).
- 10. Maddox C.D. Tax policy and economic growth within the BRICS: A case study of tax structuring in the face of India's general anti-avoidance rules. *Jindal Global Law Review*. 2014;5(1):59–78. Available at: https://pure.jgu.edu.in/id/eprint/2198 (accessed: 09.09.2023).

- 11. Nguyen V.D., Duong T.H.M. Corruption, shadow economy, FDI, and tax revenue in BRICS: a Bayesian approach. *Montenegrin Journal of Economics*. 2022;18(2):85–94. https://doi.org/10.14254/1800-5845/2022.18-2.8
- 12. McGee R.W., Petrides Y., Zhou J. Attitude toward tax evasion in Brazil, Russia, India and China (BRIC). *Philosophy, Economics and Law Review*. 2022;2(2):70–84. https://doi.org/10.31733/2786-491X-2022-2-70-84
- 13. Cabello O.G., Watrin C., da Costa Moraes M.B. Does tax avoidance differ between economies and sectors? Determinants of tax avoidance in developed and emerging economies. *Advances in Scientific & Applied Accounting*. 2022:15(2):89–106. https://doi.org/10.14392/asaa.2022150204
- 14. Du M., Li Y. Tax avoidance, CSR performance and financial impacts: evidence from BRICS economies. *International Journal of Emerging Markets*. 2023. https://doi.org/10.1108/IJOEM-05-2022-0747
- 15. Gopalan S., Rajan R.S. Revisiting bilateral foreign direct investment inflows into BRIC economies. *Global Policy*. 2016;7(4):510–520. https://doi.org/10.1111/1758-5899.12332
- 16. Lesage D., Lips W., Vermeiren M. The BRICs and International Tax Governance: The Case of Automatic Exchange of Information. *New Political Economy*. 2020;25(5):715–733. https://doi.org/10.1080/13563467.2019.1584168
- 17. Bachurin D.G. Typology of Legal Regulation of Value-Added Taxation in the BRICS States. BRICS Law Journal. 2022;9(2):145–162. https://doi.org/10.21684/2412-2343-2022-9-2-145-162
- 18. Bachurin D.G. Current Trends in the Legal Regulation of Value-Added Taxation in the Financial Sector of the Economy of the BRICS Countries. *Financial Law.* 2021;8:19–26. https://doi.org/10.18572/1813-1220-2021-8-19-26
- 19. Bachurin D.G. The Impact of Value-Added Taxation on Labor Remuneration in BRICS Countries (A Comparative Legal Aspect). *Taxes*. 2021;5:8–12. (In Russ.). https://doi.org/10.18572/1999-4796-2021-5-8-12
- 20. Vinnitsky D.V., Kurochkin D.A. Prospects for international coordination of approaches of the BRICS states in the field of cross-border taxation. *Taxes and Taxation*. 2018;11:1–15. (In Russ.). https://doi.org/10.7256/2454-065X.2018.11.27977
- 21. Kurochkin D.A. Issues of Improving the Effectiveness of Enforcing the BRICS Countries' Legislation Against Tax Evasion. *Russian Journal of Criminology*. 2019;13(4):671–679. (In Russ.). https://doi.org/10.17150/2500-4255.2019.13(4).671-679
- 22. Rakov I.A. Problems of recharacterization of income and transactions for the purposes of counteracting tax evasion in the BRICS states (on the example of Russia and Brazil). *Taxes and Taxation*. 2017;2:45–57. (In Russ.). https://doi.org/10.7256/2454-065X.2017.2.21527
- 23. Kudryashova E., Shashkova A. Tax Incentives Issue for Innovations in Sustainable Energy within the BRICS strategic partnership framework. *E3S Web of Conferences*. 2020;220:01007. https://doi.org/10.1051/e3sconf/202022001007
- 24. Fernández-Rodríguez E., García-Fernández R., Martínez-Arias A. Business and institutional determinants of Effective Tax Rate in emerging economies. *Economic Modelling*. 2021;94:692–702. https://doi.org/10.1016/j.econmod.2020.02.011
- 25. Fernández-Rodríguez E., Martínez-Arias A. Determinants of the effective tax rate in the BRIC countries. *Emerging Markets Finance and Trade*. 2014;50(3):214–228. https://doi.org/10.2753/REE1540-496X5003S313
- 26. Fernández-Rodríguez E., García-Fernández R., Martínez-Arias A. Institutional determinants of the effective tax rate in G7 and BRIC countries. *Economic Systems*. 2023;47(2):101079. https://doi.org/10.1016/j.ecosys.2023.101079
- 27. Halim M.A., Rahman M.M. The effect of taxation on sustainable development goals: evidence from emerging countries. *Heliyon*. 2022;8(9):e10512. https://doi.org/10.1016/j.heliyon.2022.e10512
- 28. Chakrabarti R., Gruzin A. The Impacts of Taxation on Capital Structure in BRICS Countries. *Journal of Corporate Finance Research.* 2019;13(3):94–110. https://doi.org/10.17323/j.jcfr.2073-0438.13.3.2019.94-110
- 29. Chhabra M., Giri A. K., Kumar A. Do Trade Openness and Output Gap Affect Inflation? Empirical Evidence from BRICS Nations. *Millennial Asia*. 2022. https://doi.org/10.1177/09763996221116586

- 30. Duong T.H.M., Nguen D.V. Corruption, shadow economy, FDI, and tax revenue in BRICS: a Bayesian approach. *Montenegrin Journal of Economics*. 2022;18(2):85–94. https://doi.org/10.14254/1800-5845/2022.18-2.8
- 31. Neog Y., Gaur A. K. Shadow economy, corruption, and tax performance: A study of BRICS. *Journal of Public Affairs*. 2021;21(2):e2174. https://doi.org/10.1002/pa.2174
- 32. Walayat K., Qamar M. K., Iqbal Z. I. Effectiveness of Globalization and Human Capital on Market & Net Income Inequality in BRICS Countries: A Panel Data Analysis. *Journal of Arts & Social Sciences*. 2022;9(1);90–99. https://doi.org/10.46662/jass.v9i1.207
- 33. Cevik S., Correa-Caro C. Growing (un) equal: fiscal policy and income inequality in China and BRIC+. *Journal of the Asia Pacific Economy*. 2020;25(4):634–653. https://doi.org/10.1080/13547860.2019.1699985
- 34. Anikin V., Tikhonova N. Poverty and inequality in BRICS Countries: The Case of Russia. *Sociological Research*. 2016;55(5):305–341. https://doi.org/10.1080/10610154.2016.1294432
- 35. Wang F., Gillani S., Nazir R., Razzaq A. Environmental regulations, fiscal decentralization, and health outcomes. *Energy & Environment*. 2023. https://doi.org/10.1177/0958305X231164680
- 36. Yao S., Li T., Li Y. Promoting sustainable fossil fuels resources in BRICS countries: Evaluating green policies and driving renewable energy development. *Resources Policy*. 2023;85:103990. https://doi.org/10.1016/j.resourpol.2023.103990
- 37. Dong C., Wu H., Zhou J., Lin H., Chang L. Role of renewable energy investment and geopolitical risk in green finance development: Empirical evidence from BRICS countries. *Renewable Energy*. 2023;207:234–241. https://doi.org/10.1016/j.renene.2023.02.115
- 38. Yilanci V., Ozgur O., Gorus M.S. The asymmetric effects of foreign direct investment on clean energy consumption in BRICS countries: A recently introduced hidden cointegration test. *Journal of Cleaner Production*. 2019;237:117786. https://doi.org/10.1016/j.jclepro.2019.117786
- 39. Steenkamp L.A. Transitioning to Clean Energy-An Overview of Energy Taxes in BRICS. In: 7th International Conference on Clean Electrical Power (ICCEP). 2019, pp. 656–663. https://doi.org/10.13140/RG.2.2.30218.08644
- 40. Haseeb A., Xia E., Saud S., Usman M., Quddoos M.U. Unveiling the liaison between human capital, trade openness, and environmental sustainability for BRICS economies: Robust panel-data estimation. *Natural Resources Forum*. 2023;47(2):229–256. https://doi.org/10.1111/1477-8947.12277
- 41. Meng L. Y., Li J. Efficient natural resource rents and carbon taxes in BRICS green growth. *Resources Policy*. 2023;86:104043. https://doi.org/10.1016/j.resourpol.2023.104043
- 42. Sadiq M., Cyau K.Y., Ha N.T.T., Phan T.T.H., Ngo T.Q., Huy P.Q. The Impact of green finance, eco-innovation, renewable energy and carbon taxes on CO2 emissions in BRICS countries: Evidence from CS ARDL estimation. *Geoscience Frontiers*. 2023:101689. https://doi.org/10.1016/j.gsf.2023.101689
- 43. Chishti M.Z., Ahmad M., Rehman A., Khan M.K. Mitigations pathways towards sustainable development: assessing the influence of fiscal and monetary policies on carbon emissions in BRICS economies. *Journal of Cleaner Production*. 2021;292:126035. https://doi.org/10.1016/j.jclepro.2021.126035
- 44. Dippenaar M. Tax instruments applied in selected developing countries to reduce emissions from electricity generation recommendations for South Africa. *International Business & Economics Research Journal (IBER)*. 2015;14(3):485–500. https://doi.org/10.19030/iber.v14i3.9205
- 45. Li H., Xu R. Impact of fiscal policies and natural resources on ecological sustainability of BRICS region: Moderating role of green innovation and ecological governance. *Resources Policy*. 2023;85:103999. https://doi.org/10.1016/j.resourpol.2023.103999
- 46. Bantwa A.A Comparative Study on Ease of Doing Business in BRICS Nations. November 22, 2020. https://doi.org/10.2139/ssrn.3735391
- 47. Yarygina I.Z., Zhiglyaeva A.V., Vershinina O.V., Kuvshinova Yu. A. Trade and Economic Cooperation of BRICS: Problems and Prospects. *Academic Journal of Interdisciplinary Studies*. 2020;9(6):89. https://doi.org/10.36941/ajis-2020-0114
- 48. Bhat M.A., Jamal A., Beg M.N. Trade Integration and Export Aspiration: Evidence from India's Trade in Goods with BRICS Countries. *Organizations and Markets in Emerging Economies*. 2022;13(2):490–514. https://doi.org/10.15388/omee.2022.13.90

Information about the author

Anna P. Kireenko – Dr. Sci. (Econ.), Professor, Dean of BS BRICS, Irkutsk National Research Technical University, Irkutsk, Russia (664074, Irkutsk, Lermontova st., 83), Professor of the Department of Financial and Tax Management, Ural Federal University named the first President of Russia B.N. Yeltsin, Yekaterinburg, Russia (19 Mira St., 620002, Yekaterinburg, Russian Federation); ORCID: https://orcid.org/0000-0002-7860-5929; e-mail: sw.tpk.rt@mail.ru

For citation

Kireenko A.P. Empirical Studies of Taxation in BRICS Countries: Literature Review. *Journal of Tax Reform*. 2023;9(3):330–342. https://doi.org/10.15826/jtr.2023.9.3.145

Article info

Received October 15, 2023; Revised November 20, 2023; Accepted December 1, 2023

Информация об авторе

Киреенко Анна Павловна – доктор экономических наук, профессор, директор БИ БРИКС, Иркутский национальный исследовательский технический университет, г. Иркутск, Российская Федерация (664074, Иркутск, ул. Лермонтова, 83); профессор кафедры финансового и налогового менеджмента, Уральский федеральный университет имени первого Президента России Б.Н. Ельцина, г. Екатеринбург, Российская Федерация (620002, Российская Федерация, г. Екатеринбург, ул. Мира, 19); ORCID: https://orcid.org/0000-0002-7860-5929; e-mail: sw.tpk.rt@mail.ru

Для цитирования

Kireenko A.P. Empirical Studies of Taxation in BRICS Countries: Literature Review. *Journal of Tax Reform*. 2023;9(3):330–342. https://doi.org/10.15826/jtr.2023.9.3.145

Информация о статье

Дата поступления 15 октября 2023 г.; дата поступления после рецензирования 20 ноября 2023 г.; дата принятия к печати 1 декабря 2023 г.