Milena Lutovac Đaković

University of Belgrade
Faculty of Economics and Business
Department for Economic Policy and
Development

NEW INDUSTRIAL POLICY OF SERBIA: POSSIBILITIES AND LIMITATIONS

Nova industrijska politika Srbije - mogućnosti i ograničenja

Abstract

Numerous factors have contributed to the growing interest in industrial policy. In recent years, industrial policy has been increasingly used as a response to crises. Developed countries of the world strongly intervened in their industries after the global economic crisis in 2008, and it has become much more intense after the crisis caused by the COVID-19 pandemic (with the goal of restarting economic growth). Finally, industrial policy has become a significant instrument for the industrial transition to a green and digital economy. The goal of the new industrial policy of Serbia is to promote structural changes in the industry in favor of the production of goods and services with greater added value, modernization and increasing the role of industry. New industrial policy has become more complex with new goals beyond conventional industrial development and structural changes, such as integration and upgrading into global value chains (GVCs), developing a knowledge-based economy, building sectors related to sustainable development goals and competitive positioning for a new industrial revolution [12, p. 199]. The paper analyzes the effects of state aid in 72 successfully implemented investment projects to attract investment in Serbian industry in the period from 2006 to 2016. Four bootstrap confidence intervals were used: bootstrap-t interval, percentile interval, BCa interval, and ABC interval. The constructed intervals give us information on the assessment of the average number of newly created jobs and average investments in realized projects in the period from 2006 to 2016.

Keywords: *industrial policy, state incentives, bootstrap method, new industrial policy of Serbia*

Sažetak

Brojni faktori su doprineli većem interesovanju za industrijsku politiku. U novije vreme, industrijska politika se sve češće koristi kao odgovor na krize. Razvijene zemlje sveta su snažno intervenisale u svojim industrijama nakon svetske ekonomske krize 2008. godine, da bi to postalo mnogo intenzivnije nakon krize izazvane pandemijom COVID-19 (sa ciljem da ponovo pokrenu privredni rast). Konačno, industrijska politika je postala značajan instrument za industrijsku tranziciju prema zelenoj i digitalnoj ekonomiji. Cilj nove industrijske politike Srbije je da promoviše strukturne promene u industriji u korist proizvodnje roba i usluga sa većom dodatom vrednošću, modernizacijom i povećanjem uloge industrije. Nova industrijska politika postala je složenija sa novim ciljevima izvan konvencionalnog industrijskog razvoja i strukturnih promena, poput integracije i nadogradnje u globalne lance vrednosti, razvoj ekonomije zasnovane na znanju, izgradnju sektora vezanih za ciljeve održivog razvoja i konkurentno pozicioniranje za novu industrijsku revoluciju [12, p. 199]. U radu se analiziraju efekti državne pomoći u 72 uspešno realizovana investiciona projekta za privlačenje investicija u industriju Srbije od 2006. do 2016. godine. Za istraživanje ovog pitanja korišćena su četiri *bootstrap* intervala poverenja: *bootstrap-t* interval, percentilni interval, BCa interval i ABC interval. Konstruisani intervali nam daju informaciju o oceni prosečnog broja novootvorenih radnih mesta i prosečnih investicija kod realizovanih projekata u periodu od 2006. do 2016. godine.

Ključne reči: *industrijska politika, državni podsticaji, bootstrap metod, nova industrijska politika Srbije*

Introduction

Industrial policy is defined as a "concerted, focused, conscious effort on the part of government to encourage and promote a specific industry or sector with an array of policy tools" [33, p. 14]. A commonly used and widely cited definition is that of Pack and Saggi, who defined industrial policy as "any type of selective intervention or government policy that attempts to alter the structure of production toward sectors that are expected to offer better prospects for economic growth than would occur in the absence of such intervention" [33, p. 16]. Rodrik uses the term "industrial policy" to denote policies that stimulate specific economic activities and promote structural change [19, p. 4]. A number of factors have led to the growing interest in industrial policy. Although there is a wide range of definitions of industrial policy, in this paper we decided to use one proposed in the Industrial policy strategy of the Republic of Serbia from 2021 to 2030, "industrial policy is a set of objectives and measures defining the intended Government intervention in the industry structure segment so as to promote general economic growth" [28, p. 7].

Firstly, the success of East Asian countries is often linked to industrial policy. The role of the "good state" is to generate and implement policies to mitigate the consequences of market failures. Countries like South Korea, Taiwan, and China have not developed suddenly just by improving their institutions, but with industrial policies that have overcome market barriers [9, p. 5], [11, p. 356], [18, p. 147]. "Economists from developing countries were concentrated on explanation of the necessity for industrial policy as a lever for convergence and catch up" [3, p. 235].

Secondly, there is a consensus among economists that the COVID-19 pandemic has only worsened the problems of economies and societies around the world, which were serious and evident long before it [1, pp. 293-299], [14, p. 18], [22, p. 1], [7, pp. 1-15]. Increasing inequality within and between countries, the social exclusion of millions of people around the world and the unsustainability of modern patterns of production and consumption, all combined with the atrophy in the capacity of state institutions is the result of unjustified reliance on the invisible hand of the market. The impact of the COVID-19 pandemic on different social classes, generations, social groups, countries is indisputable and has only just begun to be revealed [17, p. 1], [16, p. 1], [23, p. 2]. However, it had the greatest impact on the most vulnerable social groups and economies that were already in danger [27, pp. 280-286].

Thirdly, the high costs caused by the COVID-19 pandemic around the world encourage us to make fundamental changes in our economic and social systems [8, pp. 359-381], [6, p. 20], [14, p. 18]. Strengthening the industrial sector is the key to the recovery. "To achieve this important goal, industrial policies must be at the center of governments' reactions" [25, p. 1]. Sustainable development goals (SDGs) need to be put at the center of industrial strategy. "The post-pandemic recovery must be transformative, and countries should place a primary focus not only on economic growth but also on the direction of growth" [25, p. 1]. The current situation offers an opportunity to place social responsibility and environmental awareness firmly at the center of the decision-making process, and to redefine the paradigm of the link between production dynamics, well-being, and sustainability.

Finally, industrial policy is increasingly seen as a powerful instrument for the industrial transition to a green and digital economy [5, p. 1]. Industrial policy is considered as the main part of recovery strategies of renewal for the necessity of government intervention. Governments in many countries clearly promote actions intended for their manufacturing sectors [26, p. 6]. As the dynamics of production in each state are greatly under the influence of crisis, renewed industrial policy must be part of the response for solving economic and social problems [25, p. 1].

The specific strategic goals of the new Serbian industrial policy are to improve the competitiveness of Serbian industry and build sectors connected to the goals of sustainable development through competitive integration for Industry 4.0 [12, p. 205].

The subject of research in this paper is the analysis of the effects of state incentives in successfully implemented investment projects to attract investments in Serbian industry. The paper has four parts. As part of the first, an overview of changes in the perception of the industrial

policy of Serbia over time was given. The second part of the paper explains the concept of the new industrial policy of Serbia. After a brief review of the state incentives for attracting investments and new employment in the Republic of Serbia in the period from 2006 to 2018, the fourth part of the paper follows a detailed explanation of the methodological procedure used. The bootstrap method was used in the research. Four bootstrap confidence intervals were used: bootstrap-*t* interval, percentile interval, BCa interval and ABC interval. Constructed intervals give us information about the average number of newly created jobs and average investments in realized projects in the period from 2006 to 2016. Empirical research was done as part of Milena Lutovac's PhD thesis.

Industrial policy of Serbia: Changing perception over the course of time

Industrialization was the basic model of our country's development after the Second World War. Achieved industrial growth and the attained level of development were the basis of economic development of the former Yugoslavia, which was based on the strategy of import substitution. The collapse of post-war industrialization began with the process of the disintegration of the former Yugoslavia and continued into the first decade of the 21st century. Serbian industry has a large number of problems (low-tech, unequal regional development, low export competitiveness, unfavorable structure of industrial production...). "All efforts during the past two decades were focused on reviving economic growth. Initially, the main source of growth was consumer demand financed by external grants and privatization proceeds, followed by industrial revival and new jobs financed by external borrowing and strong FDI flows" [32, p. 161]. Serbian industry is facing great challenges. "The crisis for the most part could be explained by political and professional inability to find the right answers to inherited and evolving geopolitical challenges as well as limited economic policy capacity to respond quickly and adequately to old and emerging macroeconomic imbalances" [2, p. 2].

There is a pressing need to replace the current strategy for the development of Serbian industry to contribute to economic progress and raise living standards in Serbia. Based on the experience of successful countries, it can be seen that after a certain stage of development, they replaced the strategy of import substitution with the strategy of export expansion. Although it cannot be expected that the path of development characteristic of the developed countries of the world will be copied to Serbia, the most acceptable strategy of industrialization for our country would be the strategy of export expansion.

In order to implement the strategy of export expansion, it is necessary to increase the competitiveness of Serbian industry. It requires the development of a modern industrial structure, production diversification of industry and systematic expansion of the production and export economic base. To achieve all the aforementioned objectives, the basic condition is the development of competitiveness at all levels, from individual companies, through industries, to the national economy as a whole.

The industrial policy goals that are determined must be based on realistic foundations. At the same time, they should take into account institutional capacity and the level of economic development.

In addition, the new industrial policy is needed, "which must be in the function of supporting the chosen directions of development" [21, p. 498]. The goal of Serbia's new industrial policy is to promote structural changes in the industry towards the production of goods and services with higher added value, modernization, and an increased role of industry. The new industrial policy has become more complex, encompassing new goals beyond conventional industrial development, such as integration into global value chains, the development of a knowledge-based economy, building sectors related to sustainable development goals (SDGs), and competitive positioning for Industry 4.0. However, even though technology-intensive industries should be a major part of the new industrial structure, traditional industries (textiles, leather and footwear, and the furniture industry) should not be ignored. As traditional industrial sectors dominate in Serbian industry, their further development should continue only with the application of digital technologies. Bearing in mind that the level of development of a country is reflected in the structure of its exported goods, intensive digitalization

of these sectors could enable Serbia to raise the level of added value and increase exports. Monitoring the ongoing digital transformation leads to the need to master new skills. The advantages of electronic over traditional business are evident in increased quality and efficiency, but also lower sales prices, reduced time to market and the implementation of various transactions [30, p. 1].

Having in mind that the Communication of the European Commission from March 2020 and the Action Plan for the implementation of the Industrial Policy Strategy of the Republic of Serbia from 2021 to 2030, for the period from 2021 to 2023 [15, p. 1], are two most important guidelines for economic growth and recovery, state digitalization and the circular economy, the activities were focused on digitalization, innovation, investment, export restructuring and the circular economy.

The biggest negative effects of the COVID-19 pandemic on economic activity in Serbia were felt in April 2020. According to the estimates of the Statistical Office of the Republic of Serbia, the decline in domestic demand led to a year-on-year GDP decrease of approximately 6.3% in the second quarter of 2020. The decline in the GVA industry in the second quarter of 2020 was 7.6%, year-on-year. The decline was influenced by a significant slowdown in external demand, difficult transport, and temporary disruption in global supply chains [15, p. 1].

From May 2020, a recovery followed, partly encouraged by the measures taken by the government. Due to the implemented measures, the recovery in most production and service activities was faster than expected. The decline in industrial production slowed to 9.3% in May 2020, and already in the subsequent months, positive year-on-year growth rates were achieved, which are the result of an increase in the production volume of the manufacturing industry.

To reduce the negative effects of the COVID-19 crisis and provide conditions for faster growth of the industry, it is necessary to work on approaching innovative and technology-intensive sectors, investing in human capital, attracting investment projects which engage high-level technology, high added value and significant spillover effects, better education and training in accordance with the requirements of the economy and the circular economy,

the use of the advantages of digital technologies [30, p. 1]. The implementation of the Smart Specialization Strategy in the Republic of Serbia is one of the key documents adopted by the Government of the Republic of Serbia in order to develop a knowledge-based society [29, p. 1].

The concept of the new industrial policy of Serbia

The key driver of the future growth of Serbian industry is the increase in productivity and competitiveness in accordance with the macroeconomic situation in the country. The specific strategic goals of the new Serbian industrial policy are to improve the competitiveness of Serbian industry and build sectors connected to the goals of sustainable development through competitive integration for Industry 4.0 [12, p. 205].

Industrial policy represents a vision for the future development of industry. The vision of Serbia's new industrial policy is to create a favorable business environment through various activities, eliminate government and market failures, satisfy the specific needs of individual sectors with products and services of high added value, all aimed at increasing the competitiveness of the industry, the development of sustainable sectors, and positioning Serbian industry competitively for the Fourth Industrial Revolution.

By developing a new strategy of industrial development, the Republic of Serbia at the same time lays the foundation for defining the basic directions of economic development. When setting goals, the priority must be to strengthen national competitiveness, i.e. to increase the competitiveness of industry. In order to increase competitiveness, it is necessary to make the business environment more favorable.

The goal of the new industrial policy of Serbia is to promote structural changes in the industry in favor of the production of goods and services with greater added value, modernization and increasing the role of industry. Certain strategic goals and sub-goals are:

- Improving the competitiveness of Serbian industry,
- Increasing investments in Serbia's industry,
- Increasing the export of domestic products with higher added value,

- Developing a high level of workforce skills and improving the quality of education,
- Establishing sectors related to sustainable development goals and competitive positioning for the Fourth Industrial Revolution [12, p. 205].

Policymakers need to choose a particular development path and apply a range of different measures that affect the industry's movement toward that path. Industrial policy instruments serve as tools available to governments for implementing industrial policy. They range from direct and indirect support to specific firms and industries (grants, subsidies, loans, tax breaks) to very broad ones, which include all government initiatives to improve business. For many years, selective industrial policy instruments have been used. They were most often related to the protection of young industry and applied at the sector, branch, and enterprise levels. After that, non-selective instruments have been made available, affecting all industry entities equally.

The instruments of the new industrial policy of Serbia must be harmonized with the requirements imposed by the EU candidate status. Direct state intervention measures must be reduced to a minimum and have a limited lifespan. "The key to the success of state incentive reforms lies in the reallocation of incentives to those sectors that eliminate market failures and thus affect the increase in living standards" [20, p. 261].

Industrial policy, with its instruments and measures, can intervene only in cases of market failure and in the process of implementing structural adjustments in sectors where it is most needed. Preference should be given to non-selective instruments of a general type that will facilitate the creation of favorable business environment for faster product, enterprise, or industry development [24, p. 161].

Proposed instruments for basic industrial policy aimed at supporting business and regional development include subsidies, loans, favorable loans, guarantees [10, p. 24], "state incentives of small value" (*de minimis* state incentives) [10, p. 29], promotion of business startups (business incubators, accelerators, micro loans, startup capital, training for business startups, micro and small enterprises, development of human resources), development of infrastructure and connection of industrial centers, and adoption of EU standards [12, p. 212].

Further in this paper, incentives for attracting the investments and new employment in Republic of Serbia in the period from 2006 to 2018, as one of the instruments of industrial policy of Serbia, are introduced.

Incentives for attracting investments and new employment in the Republic of Serbia in the period from 2006 to 2018

In the period from 2006 to January 1, 2019, a total of 381 projects were supported with funds from the Budget of the Republic of Serbia for attracting investments and encouraging new employment, of which 168 domestic and 213 foreign, with 632,156,352.04 euros (see Table 1). In that period, incentive funds were paid or have been paid for 274 projects, of which 133 projects have been successfully completed, 66 are in the process of monitoring, and there are 75 active projects. Incentives in the total amount of 538,380,602.2 euros were allocated for the realization of these projects. In the same period, 107 contracts were terminated, of which 80 were domestic and 27 foreign investors. 79,481,109.10 euros were set aside for these projects, and 25,222,650.66 euros were paid until the termination of the contract, while court disputes are being conducted for the amount of 22,228,525.66 euros. The most common reason for termination of the contract is non-fulfillment of contractual obligations (impossibility of realization or withdrawal from investments).

During the signing of the contract on the allocation of incentive funds, 102,576 new jobs are planned, 6,947 in projects implemented by domestic investors and 75,790 in projects implemented by foreign investors. Due to the termination of the contract, the planned employment was reduced by 19,839 new workers, 7,182 in projects implemented by domestic investors and 12,657 in projects implemented by foreign investors [12, p. 135].

Empirical research

In this paper, the author analyzed the employment of 72 successfully implemented investment projects in the period from 2006 to 2016, to which incentive funds were allocated. The term a "completed project" means that

Table 1: Overview of investment projects accomplished in the 2006-2019 period according to the origin of the investor

Project status	Origin of the investor	Number of the projects	Investment value in euros	Number of new hires	Value of incentives granted in euros	Value of paid incentives in euros
Projects which are implemented or are in the process of implementation	Domestic	88	222,208,067.5	6,947	39,268,246.74	24,524,109.3
	Foreign	186	1,980,809,108	75,790	513,406,996.2	364,102,160
	Domestic and foreign	274	2,203,017,175,5	82,737	552,675,242.94	388,626,269.3
Terminated projects	Domestic	80	241,875,456	12,657	376,081.25	10,214,850.66
	Foreign	27	120,251,561	7,182	79,105,027.85	15,007,800
	Domestic and foreign	107	362,127,017	19,839	79,481,109.10	25,222,650.66
Total	Domestic	168	464,083,523.5	19,604	39,644,327.99	34,738,959.96
	Foreign	213	2,101,060.669	82,972	592,512,024.05	379,109,960
	Domestic and foreign	381	2,565,144,192.5	102,576	632,156,352.04	431,848,919.96

Source: Author's processing based on database of the Ministry of Economy

investments have been made, new employees were hired, the monitoring period was completed, the number of new employees was kept. Empirical research on these companies was conducted using a different method outlined in the work of Savić and Lutovac [20, p. 261].

The decision to analyze only successfully implemented projects during this period stems from the fact that it only makes sense to talk about the effects of investment incentives in such projects. Taking into account that: "in the case of active projects, the allocated funds are paid in installments, in accordance with the Agreement, and the beneficiary is obliged to report to the Ministry on the implementation of the investment project for which the funds were allocated." [31, p. 10], it becomes clear that analyzing the effects of incentives makes sense when the contractual obligations end, in order to see what the state of the company's development indicators is without incentives.

Application of bootstrap method

In this paper, the bootstrap method was used for empirical research on the impact of incentives in the industry on selected development indicators of the Serbian economy. This method represents one of the resampling methods. During its application, a great number of resamples are generated from the original sample, all of which are of the same size as the original sample. In each resample, values of some statistics are calculated, and a bootstrap distribution is generated that way. Using this distribution, it is possible to construct various parameter estimate intervals. The most common intervals used in literature are the following four: bootstrap-*t* interval, percentile

interval, BCa interval, and ABC interval [4, pp. 184-186]. Through various comparisons with standard intervals, it was observed that the bootstrap method provides more accurate interval estimates. Therefore, in this paper, the bootstrap method is preferred over traditional methods. The bootstrap-t interval is determined based on the percentile of the bootstrap distribution of the Studentized statistic. The percentile interval is determined using the percentiles of the bootstrap distribution of the considered statistic. The BCa (bias-corrected and accelerated) interval uses two constants when determining percentiles: acceleration and bias-correction. ABC interval is approximation of BCa bootstrap confidence intervals.

The constructed intervals give us information on the assessment of the average number of newly created jobs and average investments in implemented projects in the period from 2006 to 2016. A confidence level of 95% was used, which means that with 95% confidence it can be claimed that the mean value is in the estimated intervals.

The determination to analyze only completed projects lies in the need to establish whether investment projects implemented through incentives have clear and measurable effects on established economic and industrial development goals.

Interval estimate of average employment per project

Using a sample[1] of 72 implemented investment projects, in which funds from the Ministry of Economy were allocated, in the period from 2006 to 2016, it is possible to estimate

---

1   In the further work, it will be assumed that these realized investment projects represent a random sample selected from the set of all implemented projects.

the average employment in all implemented projects in the previous period. Bootstrap confidence intervals can be used for this purpose: bootstrap-*t* interval, percentile interval, BCa interval and ABC interval [4, pp. 184-186]. In the case of using 95% confidence level, the interval estimates given in Table 2 are obtained.

Table 2: 95% bootstrap confidence intervals for the average number of newly created jobs per project

Confidence intervals	Lower boundary	Upper boundary
Percentile interval	141.7431	285.2500
BCa	137.4642	275.3141
ABC	148.7932	305.8364
Bootstrap-t	132.3203	278.8741

Source: Based on MATLAB output

Table 2 shows that the interval estimates are approximately the same width for bootstrap-*t* (132.3203; 278.8741), percentile (141.7431; 285.2500), and ABC method (148.7932; 305.8364). However, the most precise interval (which is expected) is the BCa interval whose range is from 137.4642 to 275.3141. Thus, with 95% confidence, it can be claimed that the average employment in all implemented projects is in the range from 137.4642 to 275.3141.

In addition to the tabular presentation, Figure 1 shows histograms of the corresponding bootstrap distributions, with the interval boundaries indicated.

From Table 2, it can be seen that the bootstrap-*t*, percentile and ABC intervals have approximately the same width. Wider confidence interval has lower precision, so it can be said that the most precise interval is obtained using the BCa method and is of the form (137.4642; 275.3141). Consequently, it can be claimed with 95% confidence that the average number of newly created jobs in completed projects is between 137 and 275. Based on the results obtained, it can be concluded that job creation incentives have a positive effect on employment growth in Serbian industry.

Interval estimates of average investments

The bootstrap confidence intervals for the assessment of average investments in all implemented projects in the previous period are shown in Table 3. In the case of using 95% confidence level, the interval estimates given in Table 3 are obtained.

Figure 1: Bootstrap distribution and different confidence intervals for average number of newly created jobs per project (a. percentile interval, b. BCa interval, c. ABC interval, d. bootstrap-t interval)
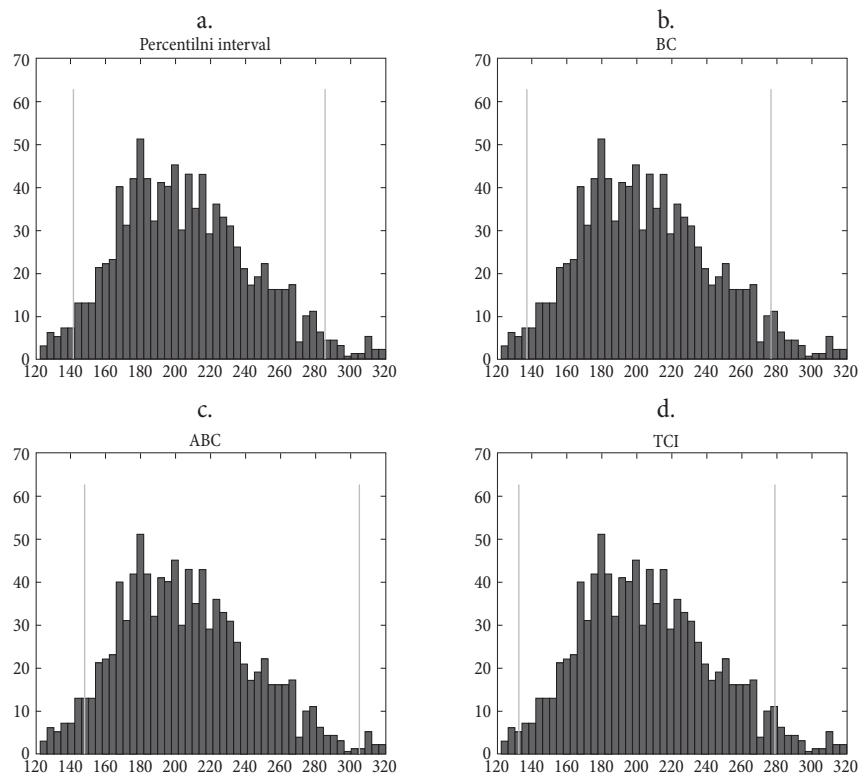
Source: MATLAB output

Table 3 shows that the interval estimates are approximately the same width for bootstrap-*t* (3.7117; 8.3248), percentile (3.9816; 8.4047), and ABC method (3.6972; 8.2969). The most accurate is again the BCa interval whose boundaries are from 4.3108 to 8.6114. Thus, with 95% confidence, it can be claimed that the average level of investment per project is in the range of 4.3108 to 8.6114 million euros.

Table 3: 95% bootstrap confidence intervals for average investments in all implemented projects

Confidence intervals	Lower boundary	Upper boundary
Percentile interval	3.9816	8.4047
BCa	4.3108	8.6114
ABC	3.6972	8.2969
Bootstrap-t	3.7117	8.3248

Source: Based on MATLAB output

In addition to the tabular presentation, Figure 2 shows histograms of the corresponding bootstrap distributions, with the indicated interval limits.

From Table 3, it can be seen that the bootstrap-*t*, percentile and ABC intervals have approximately the same width. The most accurate interval was obtained using the BCa method and is in the form of (4.3108; 8.6114). The rated intervals provide information on the estimate of the average level of investments per project. A confidence level of 95% was used, which means that with 95% confidence it can be expected that the mean value of investments is in the interval from 3.7117 to 8.6114 million euros. Since the compressed investment confidence intervals are quite wide, it can be concluded that, under the existing circumstances, investment activity in the given sample is quite heterogeneous in nature. Under existing conditions, average investments are unlikely to go outside the constructed interval. Finally, the introduction of incentive programs for direct investments, especially direct financial incentives in combination with other factors had a positive effect in increasing the number of investment projects implemented in the Republic of Serbia.

Conclusion

Increasing the competitiveness of Serbian industry is the first and basic goal of Serbia's new industrial policy.

Figure 2: Bootstrap distribution and different confidence intervals for average investments per project (a. percentile interval, b. BCa interval, c. ABC interval, d. bootstrap-t interval)
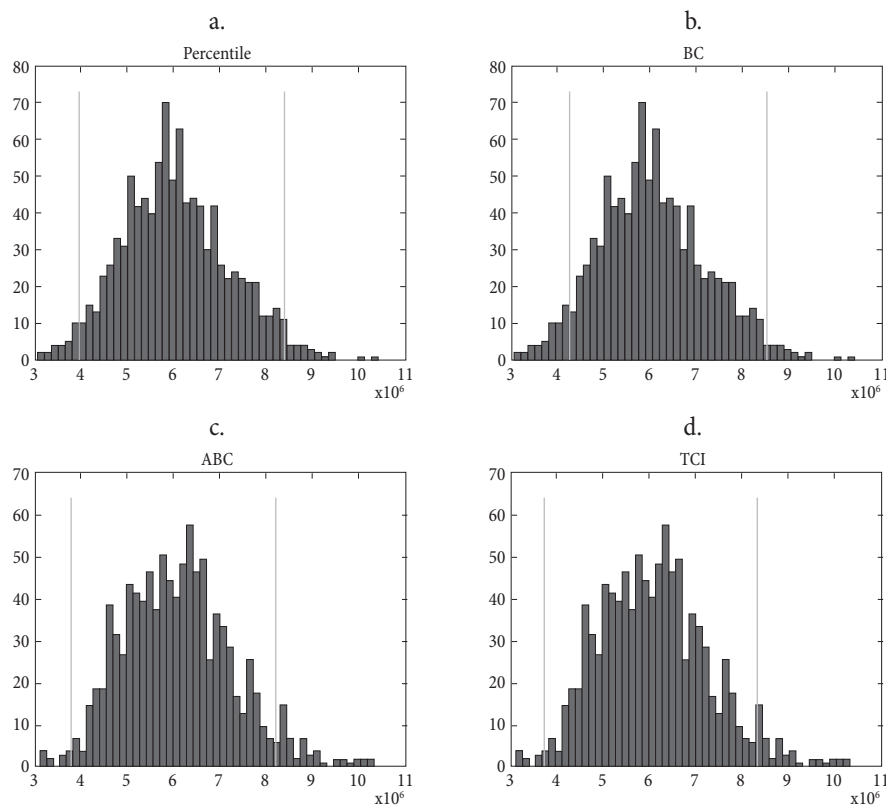
Source: MATLAB output

The establishment of sectors related to the sustainable development goals and competitive positioning for the new industrial revolution is identified as the second goal of the new industrial policy of Serbia. Digitization is at the core of the new industrial revolution. Relying on new sectors in the field of digital technologies and strengthening traditionally strong sectors, Serbian industry can take advantage of the potential opportunities offered by the Fourth Industrial Revolution, thereby securing its place in new markets for future products and services. Achieving this goal is only possible with interventions in other areas such as: strengthening of human resources, innovation, investments, international dimension, and circular economy.

Different measures and instruments can be used to achieve the goals of Serbia's new industrial policy. The new industrial policy of Serbia, with its instruments and measures, can intervene in the process of implementing structural changes in the sectors where it is most needed. Nevertheless, emphasis should be placed on those instruments that will influence the creation of a favorable business environment for faster development of products, companies, or branches (of the chosen development directions) related to Industry 4.0 [12, p. 205].

The European Commission has given a recommendation for reducing the general level of state aid and moving from sectoral to horizontal incentives. The emphasis is on achieving horizontal goals related to employment, regional development, environmental protection, training and research and development. Unlike the European Union, where an average of 0.6% of GDP is allocated for state incentive, in the Republic of Serbia, this amount ranges between 2-3% of GDP. In this sense, the Republic of Serbia would have to gradually reduce state incentives in the coming period [12, p. 173].

Based on the empirical analysis carried out in the paper, it can be concluded that the incentives of the Government of the Republic of Serbia, aimed at increasing the number of new jobs and investments, have a positive effect on employment growth and the increase in the number of investment projects implemented in the Republic of Serbia.

In the process of researching incentives, the question remains whether the nature of the program to attract direct investments was optimally designed, and to what extent it was really aimed at attracting investments versus facilitating projects that might have been realized even without direct financial incentives. In addition, by giving subsidies, an effort was made to create as many new jobs as possible, even if they were for a low-skilled workforce. For the above reasons, it is necessary to change the defensive development strategy, where the demands imposed by investors are practically accepted unconditionally and there are no clear conditions that must be met by investors.

References

1. Anand, P., Ferrer, B., Gao, Q., Nogales, R., & Unterhalter, E. (2020). COVID-19 as a capability crisis: Using the capability framework to understand policy challenges. *Journal of Human Development and Capabilities, 2(3)*, 293-299.

2. Đuričin, D., & Vuksanović Herceg, I. (2019). Three things an economy needs in the era of the fourth industrial revolution. *Ekonomika preduzeća, 67*(1-2), 1-15.

3. Đuričin, D., & Vuksanović, I. (2014). Quest for new development model and economic policy platform for Serbia: The role of industrial policy. *Ekonomika preduzeća, 62*(5-6), 229-250.

4. Efron, B., & Tibshirani, R. J. (1993). *An Introduction to the Bootstrap.* Chapman and Hall CRC: Florida, USA, pp. 184-186.

5. Europski gospodarski i socijalni odbor. (2020). *Industrijska tranzicija prema zelenom i digitalnom europskom gospodarstvu: Regulatorni zahtjevi i uloga socijalnih partnera i civilnog društva.* Europski gospodarski i socijalni odbor.

6. Fernandes, N. (2020). *Economic effects of coronavirus outbreak (COVID-19) on the world economy.* IESE Business School Working Paper No. WP-1240-E.

7. Ferrannini, A., Barbieri, E., & Di Tommaso, M. (2021). Industrial policy for sustainable human development in the post-Covid19 era. *World Development, 137,* January 2021, 1-15.

8. Hepburn, C., O'Callaghan, B., Stern, N., Stiglitz, J. E., & Zenghelis, D. (2020). *Will COVID-19 fiscal recovery packages accelerate or retard progress on climate change?* Oxford Smith School of Enterprise and the Environment, Working Paper No. 20 02, 359-381.

9. Holcombe, R. (2013). South Korea's economic future: Industrial policy, or economic democracy? *Journal of Economic Behavior & Organization, 88,* 3-13. Amsterdam: Elsevier.

10. Izveštaj o dodeljenoj državnoj pomoći u Republici Srbiji 2018. godine. (2018). Republika Srbija: Komisija za kontrolu državne pomoći, 24-29.

11. Lim, W. (2013). The Chaebol and Industrial Policy in Korea. *The Industrial Policy Revolution I, The Role of Government Beyond Ideology*, eds. J. Stiglitz and J. Yifu Lin. New York: Palgrave Macmillan.

12. Lutovac, M. (2020). *Nova industrijska politika kao pretpostavka efikasnog razvoja industrije Srbije.* Doktorska disertacija. Beograd: Ekonomski fakultet.

13. MATLAB2017

14. Mazzucato, M. (2020). *The Covid-19 crisis is a chance to do capitalism differently.* The Guardian, 18 (2020). Retrieved from https://www.theguardian.com/commentisfree/2020/mar/18/the-covid-19-crisis-is-a-chance-to-do-capitalism-differently

15. Ministarstvo privrede Republike Srbije. (2021). *Akcioni plan za sprovođenje Strategije industrijske politike Republike Srbije od 2021. do 2030. godine, za period od 2021. do 2030. godine.* Retrieved from https://privreda.gov.rs/sites/default/files/documents/2021-08/Akcioni-Plan-2021-2023-Industrijska-Politika.pdf

16. OECD. (2020*). COVID-19: Protecting people and societies, Tackling coronavirus (Covid19) - Contributing to a global effort.* Paris: OECD.

17. Rodrik, D. (2020). *Reshaping Economic Strategy after COVID-19.* OECD: New Approaches to Economic Challenges. Retrieved from https://www.oecd.org/naec/events/will-covid-19-remake-the-world.htm

18. Rodrik, D. (2013). *Paradoks globalizacije.* Beograd: Službeni glasnik.

19. Rodrik, D. (2008). Industrial policy: Don't ask why, ask how. *Middle East Development Journal, Demo Issue (2008).* 1-29, Economic Research Forum.

20. Savić, Lj., & Lutovac, M. (2019). Industrial policy and state incentives in Serbia. *Ekonomika preduzeća, 67*(3-4), 261-272.

21. Savić, Lj. (2017). *Ekonomika industrije.* Centar za izdavačku delatnost Ekonomskog fakulteta u Beogradu.

22. Sen, A. K. (2020). A better society can emerge from the lockdowns. Financial Times, 15 April 2020. Retrieved from https://www.ft.com/content/5b41ffc2-7e5e-11ea-b0fb-13524ae1056b

23. Stiglitz, J. (2020). *Recovering from the pandemic: an appraisal of lessons learned.* Foundation for European Progressive Studies.

24. UNCTAD. (2018). *World Investment Report 2018, Investment and New Industrial Policies.* United Nations: New York and Geneva.

25. UNIDO (2020). *Industrial policy and the road to the recovery.* Retrieved from https://www.unido.org/news/industrial-policy-and-road-recovery

26. United Nations. (2009). *The relationship between competition and industrial policies in promoting economic development.* Geneva: United Nations Conference on Trade and Development.

27. Venkatapuram, S. (2020). Human capabilities and pandemics. *Journal of Human Development and Capabilities, 21*(3), 280-286.

28. Vlada Republike Srbije. (2020). Industrijska strategija. Strategija industrijske politike Republike Srbije od 2021. do 2030. godine. Beograd: Vlada Republike Srbije.

29. Vlada Republike Srbije. (2020). Strategija pametne specijalizacije u Republici Srbiji 2020-2027. Beograd: Vlada Republike Srbije. Retrieved from https://mpn.gov.rs/wp-content/uploads/2021/12/Strategija-pametne specijalizacije_SR_WEB.pdf

30. Vlada Republike Srbije. (2020). Strategija razvoja digitalnih veština u Republici Srbiji za period od 2020. do 2024. godine, 1. Retrieved from http://www.pravno-informacioni-sistem.rs/SlGlasnikPortal/eli/rep/sgrs/vlada/strategija/2020/21/2/reg/

31. Vlada Republike Srbije. (2019). Uredba o uslovima i načinu privlačenja direktnih investicija: 1/2019, član 15. Beograd: Vlada Republike Srbije.

32. Vujović, D. (2022). Innovations, productivity and growth: reform and policy challenges for Serbia. *Ekonomika preduzeća, 70*(3-4), 161-178.

33. Warwick, K. (2013). *Beyond Industrial Policy: Emerging Issues and New Trends.* OECD Science, Technology and Industry Policy Papers, No. 2. Paris: OECD Publishing.

Milena Lutovac Đaković

is an assistant professor at the Faculty of Economics and Business, University of Belgrade. At the undergraduate level, she teaches the following courses: Industrial Economics and Technological Development and Policy. Also, she teaches the following master courses: Industrial Policy and Economic Development, Modern Trends in Global Economy, Scientific and Technological Policy and Economic Development. She is the author of a large number of papers in the field of industrial policy and a participant in numerous domestic and international conferences.