Serbia spends relatively large amounts on state aid programs, many of which will have to be phased out or restructured to comply with EU laws. There is room to restructure the existing programs to target activities that have more growth and job dividends; for example, by targeting startups and innovating firms and phasing out support for ailing industries, state-owned enterprises, and large or old private
domestic firms. Although Serbia’s program to attract foreign direct investment has helped create new jobs, the focus should now shift to instruments that facilitate technology spillovers and domestic linkages. Finally, improving the scope and quality of data collection will contribute to better monitoring and more efficient targeting. The sooner Serbia starts to adjust its state aid programs, the larger the economic and fiscal benefits will be.
Overview

To comply with EU laws, Serbia must phase out and restructure a significant number of its current state aid programs. Serbia spends significantly more on state aid than EU countries; in 2016 the total cost was 2.2 percent of GDP—triple the EU28 average. Like several new EU member states before their accession, in order to harmonize its state aid system with the EU’s, Serbia has to significantly reduce sector-specific state aid and subsidies designed to attract foreign direct investment (FDI). State aid to support ailing industries, such as those that had tax arrears or difficulties in repaying loans, may have adverse short-term social effects. Moreover, Serbia must phase out the widespread use of tax breaks, tax holidays, and tax credits to attract foreign investment, which may have adverse short-term economic effects. The earlier Serbia starts to adjust its state aid programs, the larger the benefits will be and the fewer the short-term disruptions. Also, reducing state aid ailing industries would free up fiscal space for more productive spending. Finally, it is very important to recognize that state aid cannot substitute for substantive improvements in the business environment generally.

Restructuring state aid programs to target activities that produce larger growth and jobs dividends and address market failures will make spending more efficient and reduce fiscal costs. This requires addressing several areas where Serbia’s state aid spending falls short of best practices and EU standards. EU regulation recognizes both the potential benefits and the costs of state aid. State aid can promote economic integration, support efficient use of public resources, boost growth and jobs, and reduce regional disparities. But it can also reduce aggregate economic activity, distort competition, discourage innovation, and waste public resources, especially when used to keep alive unsustainable business models or activities. That is why in the EU state aid is carefully regulated to ensure that government interventions minimize both distortions to competition and trade and the risk that selective advantages are granted to well-connected firms and that state aid is being used primarily to address market failures. Redirecting state aid to firms that have the potential to generate more jobs and growth would be justified if those recipients cannot expand their activities due to market failures. For example, startups and innovating firms encounter more risks, and that may prevent them from accessing such market services as credit or more productive foreign technology, which state aid may help to address. State aid may also be warranted if the outcome of the market process is efficient but not socially acceptable. To align its current system with these principles, among the issues that Serbia will need to address are the following:
• Sector-specific (vertical) aid dominates, sometimes supporting ailing industries. In general, the EU considers that sectoral aid is more likely than horizontal state aid to limit competition.

• Horizontal aid supporting common interests like environmental protection, research, innovation, and regional development is much lower in Serbia than in EU countries.

• State-owned enterprises (SOEs) receive about 60 percent of all corporate subsidies, which often cover operating losses, but SOEs account for just 19 percent of value-added and formal jobs.

• Most state aid bypasses the domestic firms that may need it most. Startups are more likely to find it difficult to access export, credit, or other markets—that is, they are more likely to face market failures than incumbent firms—but receive only 16% of subsidies and 3% of income tax incentives targeting private domestic firms. Similarly, SMEs are more likely to face market failures than larger domestic firms but receive only 20% of subsidies and 26% of the income tax incentives.

• There is little help for innovators. The share of subsidies distributed to innovating domestic firms (8%) is even lower than these firms’ share in total value-added (12%). In other words, targeting firms randomly would have resulted in a higher subsidy share for innovators.

State aid targeting FDI has helped create new jobs. But now the economic benefits can best be maximized by targeting instruments that facilitate technology spillovers and domestic linkages. An impact evaluation for the Serbian Attracting Direct Investment enterprise support program found that between 2006 and 2015 it created a total of 11,616 additional jobs that would probably not have been created without it. The wage subsidy per additional job created amounted to €2,086 annually for the duration of the program—30 percent of total employment costs to a firm for each additional job, which is comparable to the costs per job created by such programs in other countries. The largest impact on jobs and growth, however, materializes through long-term linkages between foreign firms and domestic suppliers or corporate clients that maximize knowledge spillovers.

State aid support programs to SMEs should be reoriented. There is a need for better targeting, more carefully defining objectives in relation to market failures, and significantly improving monitoring and evaluation (M&E). While it is nearly impossible to identify ex ante whether or not a firm will grow, those who are expanding their capabilities and working to raise their productivity will be better-positioned to do so, or at least stay competitive as competition heats up. Capabilities that correlate with productivity
enhancement and growth are those required to invest in innovation, improve management, export, and tighten links with customers and peers. The emphasis should be on upgrading firm capabilities: technology adoption, innovative capacity, and managerial skills and practices. Export promotion and market intelligence should be enhanced. Government support should be rebalanced toward market links, particularly helping domestic exporters to connect with foreign markets and global and regional value chains.

There is room to improve the scope and quality of the data collected to allow for systematic, rigorous impact evaluations of state aid programs. The information needed includes, for example, years of participation and firm identifiers (such as the tax ID) for all beneficiaries that would make it possible to identify the firms in the business registry and similar databases; the dates when state aid has been granted; state aid disbursement schedules; the duration of the support; program design elements, such as an embedded M&E system; and detailed ownership characteristics of state aid beneficiaries.
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Why State Aid Policy Is Important

State aid policy should target activities that have high potential for creating growth and jobs, with few adverse effects on competition that could reduce the growth and jobs potential of the rest of the economy. Well-designed support and effective state aid instruments can help efficient and innovative companies grow stronger, and promote the orderly exit of inefficient firms. This is especially relevant for Serbia, where productivity growth has been sluggish, and corporate innovations and market entry and exit rates have been lagging European peers. But state aid can also discourage innovation and market entry by favoring specific firms or businesspeople over others, causing unfairness in the competition between subsidized and nonsubsidized firms. It can also cause inefficiencies in public spending when it is used to keep alive unsustainable businesses or activities. That is why in the EU state aid is regulated to ensure that government interventions minimize distortions to competition and do not discourage nonparticipating firms from investing or innovating.

Introduction

State aid is defined as an economic advantage of any form granted to enterprises by public authorities on a selective basis. According to the EU definition, state aid is any aid that (1) is granted from state resources; (2) constitutes an economic advantage to a certain company, economic sector, or region; (3) is selective because it affects the balance between companies receiving the aid and their competitors; and (4) has an adverse effect on competition and trade between member states. In some cases, such as subsidies, loans, or guarantees, the actual aid element may differ from the nominal amount. From an economic standpoint, central to this definition is the notion of “favoring”—providing an advantage. That is why subsidies to individuals or general measures open to all enterprises do not qualify as state aid. For instance, tax relief or subsidies can be considered state aid only when they give the recipient an advantage on a selective basis, for example, to specific companies or economic sectors.

Since state aid can be very distortive there has to be a very clear rationale for why and when it is used. In principle, state aid intentionally distorts market outcomes to correct market failures or reduce inequalities. Specific circumstances (market failures) in which state aid is allowed are those in which unfettered markets are, in principle, not likely to give optimal results, and interventions are required. Among these are support for industrial restructuring, accelerating the development of less-developed regions by attracting investments, supporting development of SMEs, advancing goals that protect the environment, and supporting EU cultural and social policies (CEVES 2019).
State aid can be provided in a variety of ways, such as grants, tax exemptions and relief, equity participation, soft loans, tax deferrals, and guarantees. The EU has classified it in three broad categories:

1. **Horizontal** aid targets economic activities that are limited by market failures and are common to many sectors and firms.
2. **Sectoral** (vertical) aid targets a specific sector or an individual firm.
3. **Regional** aid supports less-developed regions or addresses structural weaknesses in one or more regions.

The EU Stabilization and Association Agreement (SAA) defines requirements in relation to development and state aid. Control of state aid begins after the SAA is signed. Paragraph 4, Article 73 of the SAA requires Serbia to establish the state aid regulatory authority or commission as an independent body whose responsibility will be, among other things, to approve aid and requests to recover aid unlawfully granted. Paragraph 5 requires Serbia to publish an annual report of state aid, based on EU methodology.

Serbia’s 2010 Law on State Aid Control is the basis for the country’s system. It was applied by two bylaws. The first defines the rules and procedures for granting state aid. The second, as stipulated in paragraph 5 of the SAA, is the rulebook on the methodology for drafting annual reports on granted state aid which was adopted in 2011.

The Structure of State Aid in Serbia

Serbia spends significantly more on state aid than EU countries. In 2016, total state aid, including to agriculture, amounted to 2.20 percent of GDP and in 2017 it was 2.15 percent—more than triple the EU28 average of 0.6 percent (Figure 1). Moreover, in Serbia state aid amounted to 6.4 percent of all general government spending—four times higher than the EU28 average and over two times higher than the average for new member states. It should be noted that the new EU member states (NMS) had spent more on state aid before joining the EU, but even then they generally spent less than Serbia does currently. For example, from 2000 to 2003 NMS state aid spending averaged about 1.3 percent of GDP (CEVES 2019). The structure of Serbia’s state aid is comparable to that of the EU in that most of the funds

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1 See Annex 1 for a detailed analysis of how Serbia’s registration of state aid compares to the EU.
are distributed through direct grants, which account for 61 percent of all state aid, or tax incentives, which account for 27 percent.

**Figure 1. Fiscal Costs of State Aid in Serbia, 2016, Share of GDP**

State aid expenditures (2.2% of GDP)

- Sectoral aid 0.9% of GDP
  - Mining (0.14% of GDP)
  - Agriculture (0.6% of GDP)
  - Transport (0.14% of GDP)
- Horizontal aid 0.7% of GDP
  - Employment (0.1% of GDP)
  - Environmental protection (0.05% of GDP)
  - Culture and information (0.3% of GDP)
  - Rescue and restructuring (0.3% of GDP)
  - Other (0.02% of GDP)
- Regional aid 0.6% of GDP

Source: Commission for State Aid Control and World Bank staff calculations.

Not only is Serbia’s state aid larger but, relative to EU standards, it is also dominated by selective sectoral or firm-specific aid, sometimes to support ailing industries. In the EU28 countries, 94 percent of total state aid spending was allocated to horizontal objectives of common interest, such as environmental protection, research, development, innovation, and regional development. In Serbia, horizontal state aid accounts for only one-third of the total (Figure 2).

**Figure 2. Types of State Aid in Serbia, 2016, Percent of Total**

- Regional 29%
- Sectoral 38%
- Horizontal 33%

Source: Commission for State Aid Control and World Bank staff calculations.
According to business registry data, transport firms receive almost half of all direct corporate subsidies.\textsuperscript{2} Urban and suburban passenger land transport services alone receive 24 percent of all subsidies to corporations; for 2014–17 this was equivalent to RSD15 billion a year (Figure 3). Inter-urban passenger rail and air transport receive another 9 percent each. Engineering services absorb 9 percent of all corporate subsidies. Most of the rest go to utility companies (9%), manufacturing firms other than food, beverages, and tobacco (9%), agribusinesses (7%), and mining firms (6%). Data from land transport companies reveal that a large share of their subsidies went to cover operating losses.

Firms in manufacturing, agribusiness, wired telecommunication services, mining, and retail trade absorb 85 percent of all corporate income tax (CIT) incentives.\textsuperscript{3} Manufacturing firms excluding food, beverages, and tobacco alone receive 24 percent of all CIT incentives and another 19 percent go to ICT companies (Figure 3). The vast majority of the tax incentives for ICT, however, are provided for conventional wired telecommunication activities (18% of all tax incentives) rather than for modern IT service companies. Significant CIT incentives also go to firms extracting crude petroleum (15%), growing cereals (8%), manufacturing motor vehicles (5%), and retailing food (2%). Balance sheet data thus suggest that the rationale for distributing tax incentives to firms is substantially different from the rationale for distributing direct subsidies.

\textsuperscript{2} The analysis is based on Serbia’s business registry data if not reported otherwise, and not on data from the Commission for State Aid Control, which is not detailed enough to allow for this type of analysis. Thus, there are likely to be some differences between what is considered state aid in a technical sense and what is discussed here. The business registry data provide balance sheet information on firm revenues from premiums, subsidies, grants, reimbursement, compensation, and tax returns, which is used as the measure for subsidies. The data also provide firm information on capital subsidies, state allocations to cover operating losses, and other state allocations. Total subsidies in the business registry data add up to 1.8 percent of total value added (GDP) in the sample. The total value of tax incentives amounts to another 0.9 percent of total value added. (See also the Introduction.)

\textsuperscript{3} CIT incentives are approximated as deferred-tax assets for firms whose balance sheets show that they make profits. Deferred-tax assets for loss-making firms may represent carry-over losses rather than tax incentives, which is why firms with negative profits are not included when tax incentives are calculated.
The dominant spending programs in recent years have been for regional development, movies and media, and SOEs. The annual reports from 2011–18 published by Serbia’s Commission for State Aid Control categorize spending in the major government programs for state aid (Figure 4). Excluding land transport and coal mining subsidies, regional development programs accounted for about half of all spending in 2011–18, . They are designed to attract investments and economic activity to disadvantaged regions. In 2016, Serbia’s state aid for regional development peaked at about 0.8 percent of GDP—much higher than the EU28 average of 0.06 percent. Moreover, state aid for the movie and media industry has recently surged; since 2015 it has accounted for one-third of all state aid spending.
SOEs benefit disproportionately from direct subsidies—they receive RSD149 billion, 60 percent of all corporate subsidies, but account for only 19 percent of value-added and formal jobs in Serbia. Moreover, a disproportionate share of the subsidies covers SOE operating losses (Figure 5). This is not consistent with the objective of promoting growth and jobs.

Tax incentives primarily target foreign firms. Foreign firms received 45 percent of all CIT incentives in 2014–17, RSD58 billion, but accounted for just 30 percent of total value-added and 22 percent of all formal jobs. The relatively generous tax incentives to attract FDI may be justified if these foreign-owned companies bring new technologies and knowledge that spill over to domestic suppliers or competitors. In fact, the CEM background note evaluating the impact of FDI shows that FDI in high-technology sectors does bring large technology spillovers to private domestic suppliers, unleashing their growth and job creation potential. On the other hand, FDI in lower-value-added sectors brings few productivity spillovers to the domestic economy. There is thus room to improve spending efficiency or to consolidate tax incentives, with limited repercussions for the economy, by shifting the focus of state aid to strengthening technology spillovers from FDI and thus links to the domestic economy (see below).
Subsidies in Serbia often finance loss-making activities, though this type of support has recently been declining. Still, the state allocated RSD73 billion to cover SOE operating losses from 2014 to 2017, according to business registry corporate balance sheet data (Figure 5). SOEs thus accounted for 86 percent of all such state aid. They also dominated subsidies allocated for investment and construction (RSD121 billion in 2014–17) and other direct subsidies (RSD71 billion).4

Private domestic firms account for the majority of formal sector GDP and jobs but receive smaller shares of corporate subsidies and tax incentives. In Serbia private domestic firms create more than half of all formal sector value-added (51%) and jobs (59%) but receive only 23 percent of corporate subsidies and 32 percent of CIT incentives (Figure 5).

What is more, the state aid directed to private domestic firms does not seem to promote the types of firms that have the most potential to grow, innovate, and create jobs (see also Box 1). Most new jobs in continuously fast-growing or developed countries come from a few high-growth firms. In Serbia, high-

4 Historically, there were a number of cases of SOEs receiving substantive support from state-owned banks through soft budget support.
growth firms—those growing an average of at least 20 percent for three consecutive years—in 2017 were only 5 percent of all formal firms but created 60 percent of all net new net jobs (World Bank 2019). High-growth firms tend to be younger (i.e., startups), more productive, and more innovative (World Bank 2015, 2018). Startups and innovating firms also take more risks and are thus more likely to confront market failures that state aid may help to address. State aid programs effectively targeting growth and jobs should thus focus on startups and innovation activities to increase the pool of the young and adventurous firms that have the highest potential to become high-growth firms.

**Today, only a small share of corporate subsidies and tax incentives go to domestic startups** They mainly benefit larger and older firms instead of young firms and SMEs whose growth may be constrained by market failures and have the highest potential to grow and create jobs (Figure 6). Startups, usually defined as firms within the first five years after market entry, receive only 16 percent of corporate subsidies and 3 percent of all tax incentives targeting private domestic firms. In contrast, 62 and 83 percent of domestic private sector subsidies and tax incentives are allocated to older firms than have already entered the market more than 10 years ago. Similarly, among SMEs, firms with fewer than 20 employees receive only 26 percent of domestic private sector subsidies and 20 percent of domestic private sector tax incentives; firms with fewer than 50 employees get just 46 percent of the subsidies and 43 percent of the tax incentives. Meanwhile, most state aid goes to larger firms that are less likely to face market failures in accessing export, credit, or other markets.

![Figure 6. Subsidies and Tax Incentives to Private Domestic firms by Firm Size and Age](image.png)

*Source: Serbia Business Registry 2014-17.*

*Note: RSD billions, 2014–17 averages; based on balance sheet data from over 200,000 firms per year.*
Box 1: Serbia’s SME Support Programs

The World Bank has recently completed the Public Expenditure Review of Small and Medium Enterprise and Competitiveness programs (PER) to better understand the breadth and depth of Serbian government programs for SME development. The PER reviewed 37 programs active at the end of 2017 to examine the range of SME support initiatives and delivery models, the resources and coverage of these programs, their alignment with government objectives, and how they might be improved. The PER benchmarks both the policy mix (type of programs, target firms, program objectives, etc.) and how the programs are designed, conducted, and governed, drawing on international good practices.

In 2017, the Government of Serbia dedicated RSD 17.2 billion (about €142 million) to SME support programs, among them:

- Development Fund: 6 programs (loans) totaling RSD 8.1 billion (47% of total funding)
- Serbian Export Credit and Insurance Agency (AOFI, for its initials in Serbian): 3 programs (loans, guarantees, factoring) totaling RSD 4.1 billion (24%)
- Ministry of Agriculture: 7 programs (grants) totaling RSD 1.3 billion (7.6%)
- National Employment Service: 2 programs (grants and employment subsidies), RSD 1.2 billion (7.0%)
- Development Agency of Serbia: 12 programs (grants, matching grants, investment incentives, and activities at Regional Development Agencies), RSD 926 million (5.4%)
- Innovation Fund: 3 programs (matching grants), RSD 715 million (4.2%)
- Ministry of Economy (excluding Development Fund): 2 programs (grant + loan; business infrastructure), RSD 693 million (4.0%)
- Ministry of Education, Science, and Technological Development (excluding Innovation Fund): 2 programs, RSD 91 million (0.5%).

The PER concentrated on programs other than those run by the Development Fund and AOFI, as these are covered in detail in a separate note, “Finance for Growth.” The PER found that a variety of interventions are typically used to address the wide range of potential impediments to SME growth. In general, Serbia’s SME programs deliver the outputs they are designed to deliver, but there is no information on outcomes or impact, and program outputs would need substantial adjustment to achieve the government’s policy goals. Most of the programs reviewed are relatively simple grants or loans for specific outputs, such as a certification, loan to purchase equipment, or participation in a trade fair. Many of the initiatives provide only small amounts of funding and related support that are unlikely to have a major impact. This type of support is unlikely to much affect Serbia’s SME environment in the aggregate. Programs are mainly targeted to individual firms and not to enterprise development and innovation ecosystem players. Beneficiaries are mainly selected based on eligibility criteria only—if applicants
have certain features they are eligible for assistance, regardless of their capability, interest in growth, or how well the support to be provided would affect growth. The ‘eligibility-based’ model for selecting beneficiaries is transparent but makes targeting difficult. The global evidence is that most SMEs simply do not grow. As Serbian programs rarely have selection criteria based on any qualitative assessment of the growth orientation and strategy of applicant firms, most support is probably going to firms that are unlikely to contribute much to advancing the government’s policy objectives and the economy. At best, resources are being provided to SMEs that will not grow, although the resources may make them more efficient, and at worst, the funding does not even affect their productivity. In fact, these resources may be keeping SMEs in business that would otherwise close. Although such businesses could be seen as sources of employment—thus justifying support if the program is focused on jobs as a social objective—they will probably not grow. Meanwhile, growth-oriented businesses and new entrepreneurs may not be receiving the support that would most benefit Serbia in terms of economic growth and sustainable job creation.

Two important areas where support is lacking are SME market entry and expansion (e.g., exporting and links with multinational companies), and financing for higher-risk startups. The Country Needs Analysis (part of the PER) found that Serbian firms had a low and diminishing level of international competitiveness. SMEs cannot rely on the domestic market if they are to grow substantially, so they must significantly boost their sales overseas and sales involvement in global value chains. Strikingly, however, programs to support market linkages receive little financial support, which keeps them small in scope. In 2017, the six programs that provided some support for market linkages together had a total budget of only RSD 91 million, equivalent to just 0.5 percent of total assistance. Further, start-ups looking to grow by introducing and expanding on new ideas are an important potential source of growth and quality employment; they can help bring new Serbian ideas to market or act as diffusers of overseas technological knowledge. Yet outside the activities of the Innovation Fund, there is little support for start-ups or for the ecosystem that supports them, even though they arguably face more challenges and risks than most of the SMEs currently being supported.

Monitoring and evaluation (M&E) tends to be the weakest aspect of program implementation. M&E is important for understanding whether initiatives are achieving an impact, but for most programs in Serbia they are generally limited to counting the disbursement of grants (e.g., the number of grants or other funding awarded; the beneficiaries; and the amounts disbursed). Program design often does not require setting objectives, problem identification, and logic frameworks that outline how a program will achieve the government’s objectives. Objectives identified are not generally outcomes (e.g., more sales, better productivity) but are instead outputs (e.g., equipment purchased). The lack of M&E means that it is not possible to state whether the programs reviewed are achieving change or will enable Serbia to meet its SME Strategy’s goals.
To increase the impact on economic growth and job creation, there is a need to reorient some SME support programs through better targeting; better define objectives based on market failures; and significantly improve M&E. Design and delivery of programs for SME firms should target new companies and help existing SMEs to increase their capabilities and productivity, rather than targeting just any SME. They should also focus more on helping firms build stronger market linkages. Only SMEs that are constantly improving and adding new capabilities will be able to grow and sustain growth. Initiatives that provide only inputs (e.g., cheap loans, machinery) without improving the firm’s ability to use them will often not produce any real change in SME performance. While it is nearly impossible to discern ex ante whether a firm will grow, those that are building their capabilities and aim to become more productive will be better-positioned to grow, or at a minimum remain competitive if competition builds. Capabilities that correlate with productivity enhancement and growth are those required to invest in innovation, improve management, export, and improve links with clients and peers (Grover Goswami et al. 2019).

**Private domestic innovators receive little state aid.** The share of subsidies distributed to innovative private domestic firms is even lower than these firms’ share in total value-added—randomly selecting firms might have resulted in a higher subsidy share for innovators than what they receive. Of all private domestic firms with available data, only 8 percent of the subsidies and 9 percent of tax incentives go to firms that invest in R&D; that is less than the value added by private R&D firms, which sums up to 12 percent (Figure 7). Similarly, only about half of subsidies and tax incentives go to firms that invested in intangible assets and only about one-third of the subsidies go to firms that acquired patents or foreign technology licenses. This pattern is reflected in aggregate R&D activities—total spending on R&D amounts to 0.9 percent of GDP in Serbia and 2 percent of GDP in the EU28.
Figure 7. Types of Private Domestic Firms Receiving State Aid, Percent


Note: Private domestic firms only, 2014–17 averages; based on balance sheet data from over 50,000 firms per year (only about 25 percent of firms report spending on R&D).

Box 2. Lessons from New EU Member States on Harmonizing State Aid Legislation

In new EU member countries, reform experiences varied widely by country and types of subsidy. The enlargements of 2004 (Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia, and Slovenia), 2007 (Bulgaria and Romania), and 2013 (Croatia) were prepared by pre-accession agreements in which candidate countries were to gradually take over the *acquis communautaire* and prepare for accession. Where state aid was identified as incompatible with EU rules, countries had to adapt, abolish, or gradually phase it out. In addition, in all accession treaties there was a specific section on reducing or eliminating state aid. To prevent incompatible aid from being "imported" into the EU on the date of accession, a system was set up for examining beforehand measures put into effect in the candidate country. The national authorities were entrusted with the task of enforcing state aid rules until accession (the interim measures procedure).

For the 2004 EU enlargement countries, state aid at the end of the transitory period was targeted to drop from 1.42 to 0.67 percent of GDP. Most of this decline was concentrated in countries with the most difficult initial conditions, where the European Commission created joint supervisory teams with the local branches of government in charge of implementing the reform.

As in Serbia, before accession to the EU in 2004 some of the new EU members had been providing extensive subsidies to attract foreign investments. Before the Czech Republic, Hungary, Poland, and Slovakia became members, they had attracted significant FDI, largely thanks to those subsidies, which EU rules do not allow. Recognizing that these countries had to eliminate those subsidies before they joined the EU, many investors left the countries in 2002 and 2003, so that FDI had fallen in most new member states when they joined in 2004.
Two types of aid proved particularly difficult to reform during the transition period: (1) fiscal aid regimes that were incompatible with EU law (tax breaks, tax holidays, and tax credits used to attract foreign investment) and (2) aid to bail out ailing industries, such as enterprises that had tax arrears or difficulties in repaying loans. As Serbia currently has both types of aid, it will be beneficial to start streamlining the state aid schemes early to avoid disruptive consequences once mandatory enforcement of the EU state aid rules kick in as the country comes closer to EU membership.

Source: World Bank staff based on European Commission annual reports.

The Impact of State Aid in Serbia?

The Attracting Direct Investment Program

The Serbian enterprise support program, Attracting Direct Investment, is currently the largest individual state aid program for private sector development. Although it started smaller, from 2015 to 2019 incentives for this program amounted to at least €50–60 million annually. To evaluate its impact, at the request of the Ministry of Economy the World Bank studied the job creation impact of Attracting Direct Investment in 2006–15.

Within the program, firms in Serbia can apply for subsidies conditional on investing and creating jobs. The program is administered by RAS, the Development Agency of Serbia on behalf of the Government. RAS program administrators and interested companies negotiate an investment project plan in which a firm agrees to invest within a given time a certain amount in the business and hire an agreed number of new employees. After this is done, RAS monitors the firm for a limited period to ensure that the proposed investments have been made, the agreed number of jobs have been created, and the employees are retained. The government grants a cash subsidy to participating firms based on meeting milestones.

5 RAS was created in late 2015 and inherited the incentive program, which had been administered by the now-closed Serbian Investment and Export Promotion Agency.
6 For example, in the 2010 decree (a representative year), the milestones and funding amounts were: “Periodically in increments of 25% of the total amount of the allocated funds, namely: (1) Upon concluding a purchase contract for a structure or land, or a land lease agreement or excerpt from the cadastre or land records, or a lease agreement for a structure whose contractual period may be no less than six years; (2) Upon obtaining a construction permit or a permit for the reconstruction and/or adaptation of a structure which may not be older than three years from the day the request for payment is submitted; (3) Upon obtaining a usage permit; [and] (4) Upon achieving full employment envisaged in the investment project.
Conditional on successful monitoring, the firm is moved to the completed projects group and is no longer required to report on any of the requirements of the program. Both domestic and foreign-owned companies can apply, but in practice a large majority of the beneficiaries are foreign-owned.

**Between 2006 and 2015, 274 projects were started within this program and a total of €171 million in public funds were allocated** as follows:

2. Projects in the monitoring phase: 94; €128 million paid;

Firms participating firms were active in a variety of sectors but primarily automotives, components and machinery, textiles and clothing, and food. Most were located in the greater Belgrade region (17%) with another large agglomeration in Grad Niš and nearby municipalities in Nišava County (about 13%).

**The econometric evaluation technique used is mainly based on conditional difference-in-difference treatment effects estimation:** Participating companies are observed before they enter the program and while they are executing the agreed investment project. In this study employment is the main variable of interest. The number of employees per firm is recorded before firms enter the program, those hired during the program, and where possible after the investment project is completed. Differences, however, may not be directly attributable to program participation—other macroeconomic shocks may influence hiring decisions. To control for changing macroeconomic conditions, employment changes in participating firms were compared to such changes in nonparticipating companies in the same time period. The control group of nonparticipants are similar to participants in terms of, e.g., firm size before entering the program, growth rates before participation, type of business, and region of operation (see Box 3).

**The program produced 11,616 new additional jobs in 2006–15.** It is important to note that this is the treatment effect, i.e., an estimate of the number of jobs created as the direct result of this program that would not have been created otherwise; the number is considerably smaller than the total of 30,579 jobs per government-approved contractual obligations reported by subsidy recipients. Of firms that had either completed the program or reached at least the monitoring phase, each created 96 new jobs on average. Using the difference-in-differences methodology, these were jobs that were causally related to
participation in the program. Again, these are not all the jobs firms reported having been created after the investment project, several of which might have been created anyway. They are the results of the econometric analysis after controlling for macroeconomic trends and other relevant variables that affect job creation in both participating and nonparticipating firms. These jobs were created during the contracted investment period and retained through the monitoring phase after project completion. The impact evaluation reveals that they would most likely not have been created without the program.

The wage subsidy per additional job created through the program amounts to €2,086 annually. Since at the time the average gross wage of participating firms was about €7,000, the wage subsidy amounts to 30 percent of total employment costs for each additional job created because of the program.

Evaluating the efficiency of the program is difficult. On the one hand, it is known how much was spent on subsidies, but it is currently not known for how many years the new jobs were sustained, since not enough time has elapsed to check whether the positions created continue to exist after project monitoring ends, or whether the firms lay off the employees after they receive the subsidy from the government. It is therefore recommended that the study be repeated in a few years when more observations will be available. It is too early to draw reliable conclusions on post-program job outcomes. Further, since the amounts allocated to the program have been rising in recent years, and so have the number of projects and jobs created, a follow-up study would be even more relevant.

Thus, the results demonstrate that the investment attraction program led to jobs being created which would not have been created otherwise. This policy focus made sense especially after the 2008 global financial crises when unemployment in Serbia shot up past 20 percent and FDI largely stopped. However, in recent years unemployment has been cut in half, to close to 10 percent, and Serbia is now an established FDI destination. In these changed circumstances, policymakers should consider transitioning away from the investment attraction program towards alternative means of incentivizing investments that rely less on direct subsidies. This approach should center on building the capacities for coordination and business development of relevant agencies, such as RAS at the national level and similar regional agencies and institutions. Improving the business environment should also be a priority. In recent years

7 For example, Serbia was top ranked globally in the latest fDi global, which looked at inbound greenfield investment in 2018 relative to the size of country’s economy; see https://www.fdiintelligence.com/Locations/Asia-Pacific/Greenfield-FDI-Performance-Index-2019-Serbia-storms-to-top.
Serbia has made progress in enhancing the business environment, as shown in the *Doing Business Report*. However, certain barriers to investment, among them regulatory burdens and lack of transparency, problems with the court systems, and land rights issues, continue to be obstacles for investors and entrepreneurs in Serbia.

**The authorities should now consider realigning incentive programs to go beyond just job creation to take into account ways to facilitate domestic linkages and technology spillovers.** How well a company is integrated into the local economy and how long it has operated in a given investment area are important indicators of the actual long-term effectiveness of programs to attract investment. The longer a company is successful in a location, staying competitive and growing, the more opportunities it has to create linkages and spillovers that have real impact on the domestic economy.

**In addition to the Attracting Direct Investments program, the government has in recent years allocated significant amounts of state aid to support “strategic investors.”** To support some of Serbia’s largest investments the government has in some cases resorted to direct negotiations with the investors, such as Fiat Chrysler Automobiles, which resulted in the FCA Serbia joint venture; Etihad Airways, related to an Air Serbia investment; and Eagle Hills, related to the Belgrade Waterfront project. These types of negotiations often result in substantial amounts of state aid in a variety of forms, such as cash incentives, tax incentives, subsidized loans, state guarantees for loans, or subsidized infrastructure costs. However, there is little transparency—full details of these deals are not made available to the public. Therefore, they were not subject to the same scrutiny as the Attracting Direct Investment program. From now on, the authorities should consider making more details of such mega-deals public—especially a cost-benefit analysis of their fiscal impact and their impact on competition.

**Box 3: Evaluating the Impact of State Aid: Approaches and Lessons**

If policymakers are to understand how effective their programs are and to ensure fiscal efficiency and design more targeted interventions to support companies and citizens, the impact of state aid must be evaluated. Many programs are focused on the private sector to boost firm performance, which is often measured through higher productivity and innovation, capital investment, and employment.
However, measuring the causal impact of state aid on improvements in firm performance is not a simple empirical exercise. The economic literature has identified robust methods to establish such a relationship, often in an experimental framework. One common method is randomized control trials (RCT), where firms are randomized to receive the state aid and changes in their firm performance are compared to a control group (similar firms that did not receive the aid). These methods require careful planning because the experiment has to be designed and baseline data collected. Because policymakers rarely incorporate such designs into state aid, an alternative is to employ quasi-experimental methods ex post. This exercise involves collecting data on beneficiaries and firm financial variables; it relies on econometric methods to establish a control group of comparable firms not affected by state aid, against which the performance of aid recipients can be benchmarked.

State aid can have a positive impact on firm performance. The evaluation results of Serbia’s investment incentive using the quasi-experimental methods is described in the text above. Similarly, a World Bank team that analyzed the impact of Poland’s innovation support grants in 2007–13 using quasi-experimental methods and found that the grants increased employment and exports but had less effect on firm productivity and capital investments. Another World Bank study on Poland (Bruhn and McKenzie 2017) used the regression discontinuity method to examine how funding from Poland’s In-Tech program affected firms. The authors used program application data to examine firms just above and below the funding cut-off to ascertain the effects of the funding on their innovative activities. They found that the In-Tech program resulted in more collaborations, more patents and publications, and some commercialization of products that resulted from the project.


The Importance of Better Data on State Aid

There is a need to improve the scope and quality of the data collected to allow for systematic, rigorous impact evaluations of state aid programs. The recent evaluation of the impact of Attracting Direct Investment found that the program had substantial impact. Ensuring the scope and quality of the data collected from all state aid programs would support comprehensive and detailed evaluations. Information that is often missing but is needed to conduct meaningful impact evaluations is, e.g., firm identifiers like the tax ID for all beneficiaries and years in which they participated in programs, that would make it

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8 Another common method is regression discontinuity, which can be used when there is a competition (for example, business plans) and firms are scored on their submissions. The winning firms, those receiving grants or loans, will be above a threshold score. The empirical exercise then compares winners and losers just above and below the threshold.

9 For example, propensity score matching can be used to find firms very similar to beneficiary firms. This can be paired with difference-in-difference methods to remove any unobservable firm characteristics.
possible to identify these firms in the business registry and other databases of firms; the date when state aid was granted; disbursement schedules; the duration of support; program design elements, such as an M&E system; and detailed firm and ownership characteristics of state aid beneficiaries.

Systematic collection of such data will inform government decisions to promote high-impact, well-targeted programs and phase out ineffective ones. For example, it would make it possible to answer questions like

- Which state aid programs have a positive net benefit and should be expanded?
- Which have negative social benefits and should be discontinued?
- Which economic activities benefitted from state aid?
- Which state aid instruments, such as cash or training programs, were most successful?
- Did specific design features determine the success of state aid programs?
- Does it matter which types of firms, e.g., SOEs, SMEs, startups, or innovators, are targeted?

Policy Options

Table 1 summarizes policy options that could support restructuring of state aid to target activities that have larger growth and jobs dividends, increase spending efficiency and thus reduce fiscal costs, and align Serbian state aid with EU best practices. The table complements the policy options in section Policy recommendations of the note “Removing Regulatory Barriers to Competition” and Conclusions section in the FDI spillovers note of this report.

<table>
<thead>
<tr>
<th>Reform Purpose</th>
<th>Action</th>
<th>Timing: ST (&lt;1 year), MT (&gt;1 year)</th>
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<tbody>
<tr>
<td><strong>An effective state aid system</strong></td>
<td>Reduce aid that keeps ailing companies alive, such as those with tax arrears or that have difficulties repaying loans.</td>
<td>MT</td>
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<td></td>
<td>Shift the focus to horizontal aid that supports economy-wide interests, such as research, innovation, regional development, and environmental protection.</td>
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<td>Reorient SME programs so that they</td>
<td>Facilitate market linkages, by, e.g., export promotion and development, and linkages between domestic SMEs and foreign investors.</td>
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</tr>
<tr>
<td>Reform Purpose</td>
<td>Action</td>
<td>Timing: ST (&lt;1 year), MT (&gt;1 year)</td>
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<td>Support startups, which have the most potential to grow and create jobs and are more likely to be confronted by market failures in accessing export, credit, labor, or other markets.</td>
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<td>Set up a comprehensive registry of state aid:</td>
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<td>• Ensure that all entities granting state aid regularly report aid to the State Aid Commission.</td>
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<tr>
<td>• Raise the capacity of the State Aid Commission to enforce data collection and supervise monitoring and evaluation (M&amp;E).</td>
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<td>• Raise awareness among companies of state aid rules.</td>
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<td>Improve the scope and quality of data collected to allow for more rigorous impact evaluations of state aid programs:</td>
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<tr>
<td>• Collect firm identifiers, such as the tax ID, for all beneficiaries for all state aid programs, making it possible to identify the firms in business registry and other firm databases.</td>
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<tr>
<td>• Collect the following addition information: the date when state aid has been granted; state aid disbursement schedules; the duration of the support; program design elements such as M&amp;E systems; and more detailed information on ownership of beneficiaries.</td>
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<td>Increase the transparency of state aid:</td>
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<td>• Publish the data collected periodically on the Commission website in accessible and searchable summary tables.</td>
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<td>Periodically conduct systematic and rigorous impact evaluations for samples of state aid programs to evaluate outcomes:</td>
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<tr>
<td>• Apply accepted evaluation methods, such as randomized control trials and quasi-randomized experiments, based on the additional data recommended for collection.(^{10})</td>
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<td>• Rely more on third parties to evaluate economic impact.</td>
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\(^{10}\) In randomized control trials, beneficiaries are randomly selected from a pool of firms that satisfy specific criteria so that their performance over time can be compared to that of similar firms from the same pool that did not receive funding. In quasi-randomized experiments, beneficiary performance over time is compared to comparable other firms that had performed similarly in the year before the intervention.
<table>
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<tr>
<th>Reform Purpose</th>
<th>Action</th>
<th>Timing: ST (&lt;1 year), MT (&gt;1 year)</th>
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<tbody>
<tr>
<td>FDI support</td>
<td>To comply with EU law, phase out or restructure the widespread use of tax breaks, tax holidays, or tax credits to attract foreign investment.</td>
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<td></td>
<td>Shift the focus to instruments that facilitate technology spillovers from foreign firms and that maximize the links between foreign and domestic suppliers.</td>
<td>ST/MT</td>
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ANNEX 1. Regulation of State Aid in Serbia and the EU

EU Principles for State Aid Control Systems

On the path to EU accession, countries must establish an effective state aid control system. The EU recognizes that state aid has both potential benefits and costs: State aid can promote economic integration, supporting efficient use of public resources, and boost growth and jobs. For example, private investors may find activities that might have positive social externalities too costly or risky (e.g., environmental protection, use of renewable energy, or research and development), which could justify the use of state aid to promote such activities. However, state aid can reduce aggregate economic activity, discourage innovation, and waste public resources if it is used to keep alive unsustainable businesses or activities. It can even harm growth and job creation if it privileges specific firms or businesspeople over others, resulting in unfair competition between subsidized and nonsubsidized firms. State aid in the EU is regulated to ensure that government interventions minimize both distortions to competition and trade and the risk that selective advantages are granted to specific, well-connected firms.

The EU State Aid Modernization program launched by EU in May 2012 sets out an ambitious program. It has three objectives: (1) foster growth in a strengthened, dynamic, and competitive internal market; (2) focus on cases with the most impact on the internal market; and (3) streamline rules and the decision-making process.

State aid is defined as an economic advantage of any form granted selectively to enterprises by public authorities. According to the EU definition, it is any aid that (1) is granted from state resources; (2) constitutes an economic advantage to a certain company, economic sector, or region; (3) is selective in that it affects the balance between companies receiving the aid and their competitors; and (4) has an adverse effect on competition and trade between member states. (In some cases, the actual aid element may differ from the nominal amount, as in the case of subsidies, loans, or guarantees.)

State aid can be provided in a variety of ways: grants, tax exemptions, other tax relief, equity participation, soft loans, tax deferrals, and guarantees. The EU classifies it in three broad categories:
1. **Horizontal aid** refers to measures targeting economic activities that are limited by market failures and are common to many sectors and firms. It is often used for
   - Environmental aid, including energy savings
   - Research, development, and innovation
   - SME support, such as risk capital
   - Employment promotion
   - Rescue and restructuring of enterprises
   - Aid for the cultural sector.

2. **Sectoral (vertical) aid** targets a specific sector or an individual firm. It is often used for
   - Rescue and restructuring
   - Transport
   - Agriculture
   - Fisheries and aquaculture
   - Coal, steel, and shipbuilding.

3. **Regional state aid** supports less-developed regions or addresses regional structural weaknesses. It is often used for
   - Promoting investment in a region
   - Regional aid for new small enterprises
   - Regional operating state aid.

**The EU considers sectoral aid to be more likely to limit competition than horizontal aid.** Sectoral aid can also be abused to favor specific firms or businesspeople for reasons other than addressing market failures. That is why the European Commission is encouraging member states to reduce sectoral aid.
The Legal Basis for Serbia’s State Aid Control System

The Stabilization and Association Agreement (SAA) sets out requirements for the field of development and the functioning of state aid control. Revision of Serbia’s system of state aid control began after the document was signed. Serbia’s state aid obligations are defined by SAA Article 73; paragraph 4 of Article 73 sets out the obligation to establish the regulatory authority or commission as an independent body whose responsibility will be, among other things, approval of aid and requests for recovering aid unlawfully granted. Paragraph 5 obliges the signee to publish an annual report of state aid, using EU methodology.

The 2010 Law on State Aid Control is the basis for establishing such a system in Serbia (Official Gazette of the Republic of Serbia, no. 51/09). It was implemented by two bylaws: the regulation on the rules for granting state aid (Official Gazette, nos. 13/10, 100/11, 91/12, 37/13, 97/13 and 119/14) and the regulation on rules and procedure for granting state aid (Official Gazette, no. 13/10). In addition, as stipulated in paragraph 5, in 2011 Serbia adopted the Rulebook on methodology for drafting annual reports on state aid granted (Official Gazette, no. 3/11).

The Commission for State Aid Control

The Commission for State Aid Control is an independent body established to monitor public grants. As in EU countries, all government bodies must report all state aid granted and notify the Commission before making any grants. The Commission can order the recovery of state aid it has not authorized. Currently, the Commission is responsible for state aid control until the formal entry of Serbia into the EU. It was established by decree in January 2015 (Official Gazette, no. 6/15 and 104/17).

The government determines the composition and staffing of the Commission according to Article 6 of the Law on State Aid Control (Official Gazette, no. 51/09). However, its five members must represent:

- The ministry responsible for finances
- The ministry responsible for the economy and regional development
- The ministry responsible for infrastructure
• The ministry responsible for environmental protection
• The Commission for Protection of Competition.

The law stipulates that the representative of the ministry responsible for finances is to chair the Commission, and the deputy chair will be the representative of the Commission for Protection of Competition (see Box A1 on that Commission and its cooperation with this one). Commission members are appointed to five-year terms and can be reappointed.

Box A1. The Commission for Protection of Competition

The Commission for the Protection of Competition is an independent body separate from the Commission for State Aid Control but with which it is required to cooperate closely in the area of state aid.

The Law on Protection of Competition (Official Gazette, no. 79/05) established this Commission as an autonomous and independent organization that exercises public powers and that is accountable to the National Assembly. Its independence from the executive power is strengthened by the fact that the its president and the other members are selected, and dismissed, by the National Assembly, upon the suggestion of the Assembly’s Committee for Finance. Its financial independence is also ensured by the fact that it is financed from its own resources; it draws up its own annual financial plan to be approved by the government.

The goal of the Commission is to protect competition in the domestic market in order to promote economic progress and the welfare of society for the benefit of consumers. Its establishment, organization, and responsibilities are regulated by the Law on Protection of Competition (Official Gazette nos. 51/09 and 95/13).

Even though the Commissions for State Aid Control and for Protection of Competition are separate, their interests converge in the field of state aid. Both issue annual reports but there is direct coordination between them that is guaranteed by the legal requirement11 that the deputy chair of the Commission for State Aid Control be a member of the Commission for Protection of Competition. The close cooperation is stated directly in the 2017 annual report of the Commission for the Protection of Competition: “In the course of the previous year, the Commission’s representative participated actively in the work of the Commission for State Aid Control by offering concrete suggestions for amending draft decisions (decisions and conclusions), in addition to opinions concerning the implementation of the Law on Control of State Aid…”

11 In accordance with Article 6(2) of the Law on Control of State Aid (Official Gazette no. 51/09)
The Ministry of Finance prescribes the technical requirements for the activities of the Commission according to Article 7 of the Law on State Aid Control. It also drafts legislation regulating it. The Rules of Procedure of the Commission (Official Gazette no. 13/10) govern the issues relevant to the work of the Commission for State Aid Control. Specifically, the Commission

- collects and processes notifications and data about state aid.
- prepares its decisions on *ex ante* and *ex post* control procedures.
- keeps records of state aid.
- prepares annual reports on state aid granted and submits them to the government.
- cooperates with the Supreme Audit Institution (the authority on budget inspection), the local self-government unit responsible for budget inspection, and other domestic and international institutions in the field of state aid control.

The Department for State Aid Control is an independent unit within the Ministry of Finance that performs administrative and technical tasks for the Commission. As a specialized service provider for the Commission, it processes cases, drafts decisions, organizes Commission sessions, drafts annual reports on state aid granted, maintains records on aid granted, and drafts regulations on state aid to be adopted by the National Assembly or the administration. It is therefore responsible for harmonizing Serbian state aid laws with EU legislation.

The Commission publishes annual reports on state aid. The Rulebook adopted in 2011 (Official Gazette, no. 3/11) determines the schedules for grantors of state aid to submit relevant data to the Ministry of Finance and for the Commission to submit annual reports to the government. The annual reports must be drafted in accordance with the Rulebook, are based on data collected from grantors, who are usually ministries, tax administration, National Employment Service, Development Fund, Serbia Investment and Export Promotion Agency, Government of the Autonomous Province of Vojvodina, and local self-governmental units).

Access to the annual reports of the Commission is available at the following web address:
http://www.kkdj.gov.rs/eng/izvestaji.php