MASTERARBEIT | MASTER'S THESIS

Titel | Title

The State, Global Production Networks, and the 'Green' Mining Boom: A Case Study of Copper Mining in Bor, Serbia

verfasst von | submitted by

Lucia Steinwender BA

angestrebter akademischer Grad | in partial fulfilment of the requirements for the degree of

Master of Arts (MA)

Wien | Vienna, 2026

Studienkennzahl lt. Studienblatt | Degree programme code as it appears on the student record sheet:	UA 066 589
Studienrichtung lt. Studienblatt | Degree programme as it appears on the student record sheet:	Masterstudium Internationale Entwicklung
Betreut von | Supervisor:	Mag. Felix Malte Dorn PhD

Abstract (Deutsch)

Die globale Dekarbonisierung führt derzeit zu hochdynamischen geopolitischen und geoökonomischen Verschiebungen. So steigt beispielsweise die Nachfrage nach mineralischen Rohstoffen, deren Abbau und Weiterverarbeitung meist in globale Produktionsnetzwerke (GPNs) eingebettet ist. Gewinne und Kosten werden innerhalb dieser Netzwerke geografisch und sozial ungleich verteilt: Wertschöpfungsintensive Tätigkeiten sind in den Zentren der globalen Ökonomie angesiedelt, der Abbau selbst hingegen in postkolonialen und (semi-)peripheren Ländern.

Diese Arbeit zielt darauf ab, einen bislang wenig beachteten Aspekt der GPN-Forschung hervorzuheben: die politökonomischen Rahmenbedingungen, in die GPNs eingebettet sind. Dabei kommt dem Staat eine zentrale Rolle zu: Er reguliert unternehmerisches Handeln und steuert die Verteilung von Gewinnen und Produktionskosten. Oft fungiert die Integration in GPNs als Teil einer übergeordneten Akkumulationsstrategie.

Die Rolle des Staates in GPNs wird anhand einer Fallstudie des Kupferkomplexes im ostserbischen Bor untersucht. Die 2018 vom chinesischen Konzern Zijin Mining übernommene Mine zählt zu den größten Europas und steht beispielhaft für den aktuellen Rohstoffboom auf dem Balkan. Vor diesem Hintergrund analysiert diese Arbeit, wie regionale politische Besonderheiten, etwa klientelistische Regierungsstrukturen, mit den Strategien multinationaler Leitunternehmen zusammenwirken und welche sozialen und ökologischen Risiken sich daraus für Beschäftigte, die lokale Bevölkerung und die nationale Ökonomie ergeben.

Die vorliegende qualitative Untersuchung, gestützt auf Interviews und ergänzende Daten, zeigt, dass der serbische Staat im untersuchten GPN vor allem drei zentrale Funktionen erfüllt: (1) Vermittlung, (2) Verteilung und (3) Deregulierung. Er schafft dabei günstige Produktionsbedingungen für das Leitunternehmen Zijin Mining, während für Beschäftigte, die lokale Bevölkerung und die nationale Ökonomie kaum substanzielle Vorteile entstehen.

Umgekehrt trägt die Integration der lokalen Kupferindustrie in extraktive globale Produktionsnetzwerke zum hegemonialen Projekt der regierenden Serbischen Fortschrittspartei (SNS) bei. Der Bergbau-Boom stützt ein auf ausländischen Direktinvestitionen und billigen Lohnkosten basierendes Akkumulationsregime und befördert die hegemoniale Erzählung von allgemeinem Fortschritt. Meine Arbeit legt nahe, dass der derzeitige Bergbauboom Serbiens semiperiphere Stellung in der Weltwirtschaft verfestigt und skizziert alternative industriepolitische Pfade, die nicht zu Lasten der Beschäftigten und der lokalen Umwelt gehen.

Abstract (English)

Geopolitical and geoeconomic shifts driven by the global transition to low-carbon technologies show that the sharply increasing extraction and processing of raw materials is organized largely within global production networks (GPNs), which distribute costs and profits unevenly. Global lead firms strategically locate their extractive projects in postcolonial and (semi-)peripheral countries. This study seeks to realize a central promise of GPN literature: to demonstrate how states and their specific political-economic environments shape firms' capacities to capture value and externalize costs within their networks.

I present a case study of the Bor copper complex: one of Europe's largest mines which was acquired in 2018 by the Chinese lead firm Zijin Mining Group. Because a resource boom is currently emerging in the Balkans, my case study aims to show how political and national particularities – such as clientelist governments – in the region's semi-peripheral economies interact with the dynamics of lead firms and how these interactions may produce new 'green sacrifice zones'.

Drawing on qualitative interviews and data research, my findings show the state plays a crucial role in the GPN through (1) facilitation, (2) distribution, and (3) deregulation, offering the lead firm Zijin Mining favorable conditions while poorly capturing value for workers, local populations and the national economy. Conversely, GPN integration shapes the state's mode of regulation, accumulation regime and a hegemonial narrative of progress. My thesis suggests that the current mining boom enforces Serbia's semi-peripheral position in the global economy and sheds a light on possible industrial policy pathways aimed at upgrading and protecting local populations, workers and environments.

Acknowledgements

First and foremost, I want to thank my colleagues, friends, and companions Bartholomäus and Alexander, with whom working together doesn't feel like work but rather like discovering the world together. You have contributed so much to this research.

Thanks to all the people in Bor who welcomed me without hesitation: Vlada, Aleksandar, Tanja, Jasna, Miki, Dejan, Milan, and many others. Thank you for showing me your city, your workplaces and homes, and for sharing stories, sources, perspectives, and contacts. Thank you for never getting tired of my questions.

I am grateful to my parents and grandparents, who made it possible for me to study and always encouraged me to do so.

I thank my supervisor Felix Dorn for his patient, reliable, and valuable support.

Batman Zaječar and Bgd Racunarski Centar helped me out in technical emergencies – thank you!

Finally, I want to thank my amazing friends – especially Flora, Ines, Marlies, and Miloš. You've shared your love, patience, meals and even your laptops in technically critical moments. With friends like you, nothing can go wrong.

Content

List of Tables

List of Figures

List of Abbreviations

BRI	Belt and Road Initiative
EU	European Union
FOD	Equipment and Parts Factory (*Fabrika Opreme i Delova*)
GCC	Global Commodity Chain
GPN	Global Production Network
GVC	Global Value Chain
MNC	Multinational Corporation
R&D	Research and Development
VoC	Varieties of Capitalism

1 Introduction

While the impacts of 'green extractivism' in postcolonial countries in Latin America and Africa have received growing attention of researchers (Dorn & Dietz, 2024; Mutlokwa & Okoloise, 2025; Yang & Umar, 2026), a new resource frontier is emerging in the South-Eastern European periphery (Djukanović, 2025, 2026). The Balkans are currently experiencing a mining boom (Kraske, 2024). Bosnia and Herzegovina and Serbia have already granted many exploration rights to foreign firms and amended their mining and geological exploration laws (Kraske, 2024). In Serbia, the mining sector is already expanding rapidly, with industrial output in mining and quarrying rising 82.3% between 2020 and 2025 (Statistical Office of the Republic of Serbia, 2026b). President Aleksandar Vučić, in office since 2017, declared that the country "will soon become the biggest copper and gold producer in Europe" (Tanjug, 2025a). In 2023, the Serbian Minister of Mining and Energy announced that mining is becoming "one of the most important drivers of the economy" (Serbia Energy, 2023). Integration into extractive global production networks (GPNs) is thus gaining macroeconomic significance, opening up a new accumulation strategy for contested clientelist governments in the region (Bliznakovski et al., 2021).

The mining boom merges a semi-peripheral development model with rising resource demands from core economies. Geopolitical shifts in the Balkans are intensifying as major global powers compete for the region's rich mineral deposits. The European Union (EU), seeking to nearshore its critical raw material supply, signed a strategic partnership with Serbia to source lithium from Rio Tinto's proposed Jadar project (The Federal Government of Germany, 2024). China, meanwhile, is expanding its presence through the Belt and Road Initiative, investing heavily in transport and energy infrastructure as well as mineral extraction (Chen, 2022).

Is geopolitical and economic competition expanding room for maneuver for post-Yugoslav successor states that have been economically and politically dependent on Western investment for the past three decades? Could the investment surge deliver tangible benefits to low-income, deindustrialized regions left weakened after Yugoslavia's collapse? The example of Hungary shows how the government used geoeconomic 'polyalignment' in the early 2020s to drive reindustrialization and position the country as a hub in the global battery production network by attracting both German automakers and Chinese battery producers (Gagyi & Gerőcs, 2025). Indonesia has combined an export ban on raw nickel with Chinese financing to build substantial domestic nickel processing capacity (Rosada et al., 2023). Such examples point to the strategic importance of the state in governing investment inflows and in enabling *strategic coupling*

(Yang & Umar, 2026) between foreign lead firms and domestic development goals. Serbian President Aleksandar Vučić claims lithium extraction will drive industrialization and bring "enormous progress" (Tanjug, 2024) for Serbia.

Yet public response has been highly critical of the surge in extractivism: widespread opposition to the Rio Tinto Jadar project mobilized tens of thousands – blocking roads, bridges, and highways – and led the government in 2022 to temporarily suspend the project. Resistance has also arisen to planned projects in eastern Serbia and in neighboring Bosnia and Herzegovina. Local communities fear water and air pollution, displacement, and the loss of livelihoods in traditionally agricultural areas designated for mining (Djukanović, 2025, 2026; Dragojlo et al., 2024).

A major public concern is that weak institutions will fail to enforce environmental laws, allowing multinational corporations to pollute with little accountability. Many post-Yugoslav successor states – like other semi-peripheral countries – are governed by dominant ruling parties that exercise authoritarian control over large parts of the state apparatus and redirect financial resources from state budgets, potentially including revenues from mining royalties, into their clientelist networks (Günay & Dzihic, 2016; Pavlović, 2020; Petrović, 2024; Tiedemann, 2024).

It is, therefore, plausible that the mining boom will not translate into broad prosperity and industrialization, but that value will be captured by MNCs together with local clientelist elites, leaving the wider population with environmental damage and ruined livelihoods. This outcome remains uncertain, however, because most projects are still at the exploration or permitting stage, for example, Rio Tinto's proposed Jadar lithium project in the west and Dundee's planned gold mine in the east. One exception is the Bor copper-and-gold complex, which has been operated by China's Zijin Mining Group since its takeover in 2018.

In this mining town in eastern Serbia, one of Europe's largest copper mines has been active since 1903. It was initially run by a French company, occupied by Nazi Germany during World War II, and nationalized by the Yugoslav communist authorities after the war. In the second half of the twentieth century the RTB Bor mining complex was among Yugoslavia's largest and most successful enterprises: at its peak it employed around 25,000 workers, comprised numerous subsidiaries, supplied the national wire, cable, and automotive industries with copper cathodes, and exported to markets in both East and West. The breakup of Yugoslavia in the 1990s – marked by war, sanctions, and bombings – severely damaged RTB, and it never fully recovered during Serbia's 2000s transition to a market economy and the accompanying waves of privatization (D. Jovanović, 2025).

In 2018 the Serbian government sold the state enterprise to the Chinese Zijin Mining Group Ltd.[1] It is the world's third-largest mining company and operates mines worldwide: in the Democratic Republic of the Congo, Tibet, Argentina, Colombia – and now in Serbia (Zijin Mining Group Co., Ltd., 2022b). Since 2018 copper production in Bor has increased by almost 400%, generating enormous profits and integrating Serbia's copper industry into a global production network (Zijin Mining Group Co., Ltd., 2022a). How is this value *created*, *enhanced*, and *captured* within this GPN (Henderson et al., 2002)? Do workers, local communities, and the national economy benefit through higher wages, stable employment, and economic spillover effects – or do they primarily bear the costs of production in the form of pollution and exploitation? A case study of Bor can provide empirical insight into likely trajectories as critical-raw-material mining emerges as a new accumulation strategy for the region.

Of particular interest is the state's role, as it mediates how costs and benefits are allocated within global production networks (Alford & Phillips, 2018; Horner, 2017; Smith, 2015; Werner, 2021). Fiscal and wage policies can increase local value capture; industrial policy can channel value enhancement and upgrading into economic spillover and long-term regional industrialization; and environmental and labor standards can reduce negative externalities for workers and local communities. The state is the terrain on which social conflicts are negotiated and condensed, but it is not a neutral field: under capitalist modes of production, capitalist interests shape this terrain and become embedded in regulatory institutions, including raw-materials policy (Noever Castelos, 2023). This is especially true for (semi-)peripheral states, where foreign capital often exerts strong influence and thereby constrains the state's relative autonomy vis-à-vis capital. Consequently, there are strong concerns that post-Yugoslav successor states will inadequately protect their populations amidst the resource boom, leaving multinational corporations effectively unregulated and local environments exposed to pollution. Conversely, investment inflows aimed at GPN integration can consolidate the hegemony of authoritarian ruling parties (Gagyi & Gerőcs, 2025). In Serbia this potential dynamic meets a pivotal moment: Vučić's Serbian Progressive Party is facing unprecedented mass protests and political contestation since coming to power in 2012.

Therefore, this thesis examines how the Serbian state interacts with multinational lead firms during the recent mining boom, and what consequences this has for workers, local communities,

[1] Hereinafter, the Zijin Mining Group Ltd. will be referred to as Zijin; its Serbian subsidiaries Serbia Zijin Copper DOO as Zijin Copper and Serbia Zijin Mining DOO as Zijin Mining.

the environment, and the broader economic development of the region. I examine the Chinese investment in the Bor copper mine as a case study to address my research question: **What role(s) does the (Serbian) state play within the global production network, and why?**

My thesis is structured as follows. Chapter 2 develops the theoretical framework, combining GPN literature on the role of the state with materialist state theory to conceptualize state power. In Chapter 3, I explain the research design, ethics, and methods. Chapter 4 provides the case context: Serbia's political-economic structure, a brief history of copper mining in Bor, and the Chinese Belt and Road Initiative (BRI), in which the takeover of the mine is embedded. In Chapter 5, I present the findings of my empirical research, organized according to the analytical categories developed in Chapter 2. Chapter 6 summarizes and discusses the results. In Chapter 7, I present the conclusion regarding my research question.

2 Theoretical Framework

In this thesis I employ the theoretical framework of Global Production Network (GPN) analysis (Coe et al., 2008; Coe & Yeung, 2015; Henderson et al., 2002). Of all the approaches studying globalized industrial production, GPN theory is best suited to address my research question, that is the role of the state. More strongly than global commodity or value chain approaches, it captures not only ties between lead firms and suppliers but also the wider institutional landscapes that shape those relations. GPN's analytical category of *embeddedness* highlights how production networks or "commodity chains link not only firms in different locations, but also the specific social and institutional contexts at the national (sometimes sub-national) level (…)" (Henderson et al., 2002, p. 441).

However, this institutional context often remains something of a black box: most of GPN literature lacks a theoretically elaborated concept of the state (Smith, 2015; Werner, 2021). It is rarely clarified whether the state is treated as a monolithic actor or as a field where social contestations materialize, nor is the state's "articulation with capital in international production and wider strategies for accumulation" (Smith, 2015, p. 311). For these reasons, I draw on materialist theories of the state to address my research question. This chapter outlines the core premises of both approaches and their respective treatments of the state, before integrating them into a theoretical synthesis and operationalizing that synthesis for the empirical analysis.

2.1 The GPN framework

GPN analysis emerged in the early 2000s (Henderson et al., 2002), but its theoretical roots can be traced back to early world-systems theory. In 1977, Wallerstein and Hopkins introduced the concept of the *commodity chain* to describe how capitalism continuously reproduces global inequality between *cores* and *peripheries.* The international division of labor along commodity chains concentrates those stages of production that create higher value (such as research and development, product development, engineering or corporate governance) in early industrialized core countries, leading to higher capital accumulation and technological advance. Upstream, labor-intensive and low-technology stages of production on the other hand are placed in peripheral economies, enforcing their dependency on the export of raw materials and the import of capital goods (Palma, 1978).

In the 1990s, the concept became the foundation of Global Commodity Chain (GCC) research (Gereffi & Korzeniewicz, 1994), which analyzed industrial production along global supply chains and its impact on economic development paths. In the late 1990s and 2000s, the Global Value Chains (GVC) approach broadened the focus of GCC research, incorporating factors such as governance, organization and opportunities for upward mobility within the chain – that is, moving to more profitable positions in the production process (Cattaneo et al., 2010; Gibbon & Ponte, 2005).

Both GCC and GVC scholarship came to be dominated by a firm-centric perspective. Their research focus lies on 'inter-firm governance', understood as "the exercise of power by lead firms over suppliers or customers within the chain, and not to the politics of the much broader constellation of governance institutions, both public and private, that undergird GVCs" (Mayer et al., 2017, p. 130). *Buyer-* versus *producer-driven* chain governance distinguishes whether value chains are predominantly shaped by lead firms or suppliers (Gereffi, 1994, p. 97; Plank & Staritz, 2009, p. 9).

2.1.1 Key concepts

The GPN framework emerged as a critique of the GVC and GCC approaches (Coe et al., 2008; Henderson et al., 2002). Firstly, it aims to widen the focus of analysis and include (interactions between) all relevant actors in the study of global production networks, rather than limiting the analysis to relationships between involved companies (*inter-firm relations*): states, international organizations, trade unions and civil society organizations are considered integral actors in production networks (Coe et al., 2008, p. 287). These actors, according to GPN – and this is the

second crucial distinction from the 'chain approaches' – are not related in a strictly vertical or linear manner; rather, they are interdependent. The GPN-approach thus replaces the chain- with a network-metaphor which grasps "horizontal, multidimensional and multilayered" (Dorn & Hafner, 2023, p. 29) relations. Hence, it takes not only vertical, hierarchical connections between firms along the chain into consideration but also horizontal dynamics within one unit of the network, such as trade union bargaining and workers' struggles within lead firms (Coe et al., 2008, pp. 274–275).

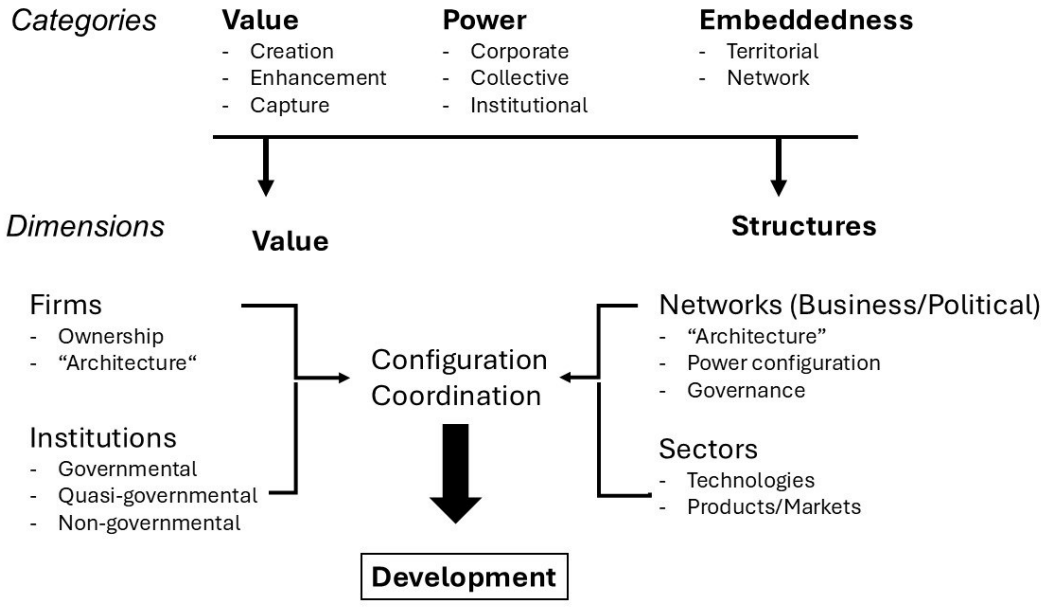

Figure 1: A GPN framework. Source: Henderson et al., 2002, p. 448

The GPN approach according to Henderson et al. (2002) operationalizes three categories for analysis: *value*, *power* and *embeddedness* (s. Figure 1). The *value* dimension encompasses processes of *value creation*, which primarily occur in the labor process and through the generation of rents, *value enhancement*, for instance through technological transfer and upgrading, and *value capture*. Value capture is shaped by government policies, property rights regimes (distinguishing, for example, public, private, or joint ventures), and forms of corporate governance, which may be shareholder- or stakeholder-oriented.

Power refers to the degree to which firms, institutional actors such as states and international organizations, and collective actors, including trade unions, non-governmental organizations, and other civil society groups can advance their interests within the network at the expense of others, exerting either *corporate*, *institutional* or *collective power*.

While the analytical categories of value and power were already part of earlier chain approaches, the GPN approach adds *embeddedness* as an additional dimension of analysis. *Network embeddedness* refers to the structures and relationships within the network, *territorial embeddedness* describes how production networks "constitute and are re-constituted by the economic, social and political arrangements of the places they inhabit" and is therefore crucial for analyzing the prospects for development at the local level (Henderson et al., 2002, p. 446). At the heart of GPN analysis lies thus the examination of broader political and institutional environments that GVC and GCC, due to their firm-focus, tends to relegate to the background (Dorn & Hafner, 2023, p. 29). This is partly owed to the Varieties of Capitalism (VoC) literature (Hall & Soskice, 2001; Thelen, 2014) that has influenced GPN analysis, arguing

> that different societies exhibit significant social and institutional variation – owing to differences in culture, polity, education systems, financial regulations, and so on – and therefore embody different production and welfare regimes, labour market practices, and capacities for state economic management. These variations will leave a distinctive imprint on firms that originate from, and/or are located in, particular national territories (Coe & Yeung, 2015, p. 14).

A country's specific political environment might thus not merely be a backdrop but a decisive factor for an MNC's decision to invest in the country. Regional political-economic configurations and GPNs interact reciprocally: lead firms may select a location based on its institutional or political environment and adapt to it, while production networks themselves influence the political economy of the host region (Coe & Yeung, 2015, p. 14).

2.1.2 Adding in the State

Despite this conceptual improvement, in practice, analyses of the state's role in GPNs remain limited compared to that of private actors, both quantitatively and qualitatively (Horner, 2017, p. 4). Most often, the state is treated as part of a broad institutional "background" (Hess, 2017, p. 2), regarded as a "(more or less passive) regulatory environment in which value chains and networks operate" (Hess, 2008, p. 454)[2].

However, in recent years "a consensus appears to be in the making that firm-centered scholarship has marginalized the state analytically for too long" (Werner, 2021, p. 179). Horner

[2] This theoretical is partly owed to globalization and neoliberalism, which further sidelined the state as a player in the regulation of the economic sphere (P. B. Evans, 1995; Werner, 2021). As Alford and Phillips (2018, p. 100) summarize it: "Most early GVC analysis was strongly influenced by the notion that economic globalization was propelling a 'retreat' of the state. (…) The influence and role of the state were perceived as being eroded by commercial forces inherent in value chains and the dispersal of authority to myriad private actors, leading to a situation in which states were deemed to be essentially irrelevant to the task of understanding economic governance". However, the 'farewell to the nation-state' has been proven wrong not only theoretically but also empirically. The global financial and economic crisis after 2007 has made it especially evident that nation-states continue to play a significant role in globalization processes (Hirsch et al., 2015, p. 114).

(2017), Alford and Phillips (2018) as well as Horner and Alford (2019) have introduced a typology of state roles within GPNs, drawing amongst others on political economy debates and the so-called developmental state school (Amsden, 1989; P. B. Evans, 1995; Mathews & Cho, 2000).[3] According to this typology, the state can assume various roles within the GPN, including those of a *facilitator*, *regulator*, *distributor*, *buyer* and *producer*.

In its *facilitative* role, the state can typically pass policies and develop strategies aimed at enabling integration into production networks, establishing new networks, or promoting upgrading within existing ones. Typical measures include opening markets to foreign capital through free trade agreements, eliminating import tariffs, providing fiscal incentives, and investing in research and development (Alford & Phillips, 2018; Horner & Alford, 2019).

On the other hand, the state typically acts as a *regulator* in GPNs, limiting corporate behavior to a certain extent. This includes mechanisms such as price controls, quality assurance, labor regulations, and environmental standards, but also industrial policy measures designed to foster upgrading within the network, for example, by conditioning foreign direct investment on technology transfer or training (Werner, 2021).

State governance also significantly shapes the *distribution* of the costs and benefits of production (Alford & Phillips, 2018). GPNs both enforce existing and cause new inequalities. The state can alter those via social and tax policies as well as laws on labor and labor mobility.

Horner (2017) and Horner and Alford (2019) furthermore add the *producer* and the *buyer* role. In many contexts, especially in China and so-called emerging economies, the state is a relevant producer through (semi-)state-owned multinational corporations (Horner & Nadvi, 2018; Lim, 2018a; Werner, 2021). Through public procurement, government bonds, or contracts for public infrastructure, the state can act as a buyer (Horner & Alford, 2019).

Research on extractive GPNs (Bridge, 2008, 2013, 2018; Dorn & Hafner, 2023) has further emphasized the *territorial* function of the state. In the vast majority of legal systems across the globe, natural resources are owned by the state, which can grant access to them in exchange for rents. Resource extraction also requires access to specific "upstream ends" (Bridge, 2008, p. 412), and the selection of these sites is far less flexible than the choice of production locations in manufacturing industries. Processes of zoning, expropriation, or resettlement are therefore

[3] Authors such as Amsden (1989), Evans (1995), Mathews and Cho (2000) have examined the key role states have played in catch-up industrialization, predominantly in the context of the IT industry in East Asia. They argue that state participation and industrial policy interventions were crucial in shaping industrial growth and integrating these economies into global production networks.

often required to make these areas accessible for resource extraction. Firms thus rely on the state for the acquisition both of resources themselves and the territories necessary to exploit them (Bridge, 2013). The analysis of the state's facilitative function within extractive GPNs must therefore pay specific attention to the provision of access to resources and relevant territories.

Table 1: State Roles in GPNs

State Role	Definition	Examples of Typical Measures
Facilitator	The state introduces policies and strategies that enable integration into production networks, creation of new networks, or upgrading within existing ones.	Free trade agreements; removing import tariffs; fiscal incentives; investment in R&D; exploration and extraction rights, concessions, and permits
Regulator	The state limits and shapes corporate behavior, sets rules and standards, or uses industrial policy to promote upgrading.	Price controls; quality assurance; labor and environmental regulations; mining and exploration laws; conditioning FDI on technology transfer or training
Distributor	The state shapes the distribution of costs and benefits of production, addressing inequalities created or reinforced by GPNs.	Social policies; tax policies; labor laws; labor mobility regulations; resource rents
Producer	The state acts as an economic actor producing goods or services, often through (semi-)state-owned enterprises, especially in emerging economies.	State-owned MNCs or state-owned firms operating within GPNs
Buyer	The state acts as a purchaser of goods or services, shaping demand and market access.	Public procurement; government bonds; contracts for public infrastructure

2.2.2 GPN's state-theoretical gap

Although the typology of state roles makes a valuable contribution to a systematic examination of state action in GPNs, it remains more descriptive than analytical, describing merely *how* states act within GPNs, rather than addressing the far more compelling question of *why* they act as they do (Werner, 2021). Adrian Smith (2015, p. 296) attributes this to the lack of a theoretically grounded concept of the state in GPN literature: "the state is theorized in a rather limited sense in GPN research as but one institutional ensemble wielding uneven forms of

power over global production networks". The conception of the state most GPN research operates with is at best nontransparent and at worst absent: does it refer to the 'state' solely as the state bureaucracy, narrowly defined, or to a broader state–civil society complex in the Gramscian sense? How is the state's general relation to the economy conceived – as a separate sphere in a state-market divide, as only relatively autonomous, or as subordinate to capital accumulation? These questions, however, must be clarified to enable a meaningful examination of state action in global production networks.

2.2 Materialist State Theory

To theoretically ground my concept of the state, I draw on materialist state theory. In this chapter, I will first outline its core concepts and principles, which I will then integrate with the GPN analysis in chapter 2.3 to develop a guiding framework and operationalize it for my empirical analysis.

Materialist state theory comprises a range of different approaches. What these have in common is the conceptualization of the state as a specific form and manifestation of social relations and structures of domination (Hirsch, 2005). In doing so, they explicitly distinguish themselves from (liberal) state theories which regard the state as an "institution of the common good" (Regier, 2023, p. 127, my translation) – that is, as a neutral terrain on which competing social interests are negotiated. Standing in a Marxist tradition, materialist state theorists emphasize that the state reflects relations of power and domination that are rooted in capitalist production relations (Demirović et al., 2010; Hirsch, 2005). Therefore materialist state theory is often referred to as *critical* state theory (Jessop, 2019b).

However, Marx himself did not provide a unified or coherent theory of the state. The body of literature discussed here, which gained theoretical significance in the 1970s, distinguishes itself from other Marxist approaches in several key respects (Brand & Görg, 2018; Hirsch, 2005). Unlike the Marxist-Leninist theory of state-monopoly capitalism (Hilferding, 1910; Lenin, 1948) it seeks not to reduce the state to a mere instrument in the hands of the ruling class. Rather, it seeks to examine the state according to its own functional logic, asking why political domination in bourgeois-capitalist society takes the specific form of the state and what constitutes its internal dynamics (Althusser, 2010). This includes the condensation of power relations (Poulantzas, 1978/2002), hegemony (Gramsci, 1971), strategic selectivity (Jessop, 1999, 2007) and regulation (Aglietta, 1979; Hirsch, 2005; Lipietz, 1987), all of which will be discussed in this chapter.

2.2.1 The State's Relative Autonomy

As opposed to liberal political economics, materialist state theory argues that despite its *formal* distinction from the economic sphere, the state is constitutively linked to capitalist production relations (Althusser, 1970/2010; Jessop, 1999). It plays a crucial role in the reproduction of labor, the means of production and "politico-ideological relations" (Jessop, 1999, p. 44 citing Gramsci), all of which constitute the conditions for (capital) accumulation (Atzmüller, 2014; Pimmer, 2017).

However, these authors argue that the political domain in capitalist societies does possess a *relative autonomy* from the economic, such that state politics cannot be reduced to economic constraints and interests (Buckel, 2007; Jessop, 1999; Poulantzas, 1978/2002). After all, the formal distinction of the political and the economic – state and capital – is precisely what distinguishes capitalism from, for example, feudalism (Hirsch et al., 2015). Its relative autonomy both from the economy at the structural level and from specific fractions of capital is what characterizes the capitalist state.

This autonomy is required in order for the state to ensure the functioning of the overall capitalist process – the "reproduction of the conditions of production" (Althusser, 1970/2010, p. 10), and the *extended reproduction* (Poulantzas, 1978/2002). For the bloc in power is usually not a homogeneous entity, but composed of multiple class fractions with frequently conflicting interests, for instance between fossil and green capital or between industrial capital and large agricultural landowners (Becker, 2006; Jessop, 1990; Novy, 2001). Therefore, only when the state maintains a relative independence from the particular interests of these class fractions can it "intervene as a mediator and organize the ruling classes in power as a bloc" (Pimmer, 2017, p. 207).

The state is thus the site where the classes in power organize to formulate a common hegemonic project (Demirović et al., 2010; Poulantzas, 1978/2002).

> In this sense, Poulantzas emphasized that the state is neither a monolithic bloc nor simply a sovereign legal subject. Instead, its different apparatuses, sections, and levels serve as power centers for different fractions or fractional alliances within the power bloc and/or as centers of resistance for different elements among the popular masses. (Jessop, 1999, p. 48)

In concrete terms, different class fractions might cluster in the military, others in a social ministry, and yet others at the top of the government or the judiciary (Demirović et al., 2010; Jessop, 1999). The state constitutes the terrain on which hegemonic projects are contested, it is therefore always exposed to struggles for power and shifting power relations within society:

"the effects of state power depend on a changing balance of forces within and beyond the state" (Jessop & Morgan, 2022, p. 86).

2.2.2 Structural Selectivity and State Forms

As classes and class fractions compete for hegemony on the terrain of the state, the state reflects social power relations. However, by condensing them into state apparatuses such as the military, police, parties, judiciary, schools etc. and thus into an "institutional materiality" (Jessop, 1999, p. 45, citing Gramsci), "the state actually helps to constitute that balance and does not simply reflect it" (Jessop, 2007, p. 125). In the sense that relations of power materialize in its institutions, the state generates a path dependency which Bob Jessop (1999) has termed *structural* or *strategic selectivity*. In other words, the state is a battlefield, but not an even one. It "has a strategic bias that makes it harder to achieve some goals rather than others" (Jessop & Morgan, 2022, p. 86) and favors the ambitions of certain groups over others.

The state's structural selectivity is thus the result of prior struggles, a "material condensation of the relation of forces between classes and class fractions" (Poulantzas, 1978/2002, p. 159, my translation). Strategic collective action can result in a transformation of the state's structural selectivities. However, the state tends to favor actions that reproduce the dominant position of the groups in power rather than challenge them (Alnasseri, 2018; Jessop, 1999). As some strategies are recurringly selected over others over the course of time, specific forms of state power emerge: "liberal parliamentary states, authoritarian interventionist states, military dictatorships or dependent developmental states" (Jessop, 1999, p. 55). These state forms exhibit a particular coherence in the ways in which they "privilege the access of some forces over others, some strategies over others, some interests over others (…)" (Jessop, 1999, pp. 54–55). To give an example, the dependent developmental state favors foreign capital fractions or foreign private capital more strongly than the liberal parliamentary state in an early-industrialized country.

To conclude, the state according to Poulantzas (1978/2002) and Jessop's (2007) Strategic-Relational Approach (SRA) is a dynamic strategic field which reacts to social power relations while acting back on them. It is strategic in the sense that it limits certain political actors and endeavors while favoring others – usually those that aim at the retention of power. It is relational, and thus not a unitary subject with a coherent political agenda but a condensation of power relations between social forces such as classes, markets, and social movements. Still, it has a certain degree of autonomy (*relative autonomy*), allowing it to act strategically without being entirely dependent on those forces.

2.2.3 Hegemony and the Integral State

Through its relative autonomy and institutional selectivity, the state sustains a relative stability despite societal conflicts and contradictions (Alnasseri, 2018). This stability is maintained partly by the monopoly on physical violence early state theoreticians (M. Weber, 1919/2018) have stressed and partly by securing the consent of subordinate classes – what Antonio Gramsci (1971) has described as hegemony. State power, according to Gramsci's famous dictum, thus consists of "hegemony, armored by coercion" (Gramsci, 1991).

Hegemony can be summarized as the consent of subordinate classes to their own domination, insofar as the ruling classes succeed in presenting their model of rule, development, or social order as being in the general interest (Hirsch, 2005). This is achieved, for example, through unifying narratives, such as economic growth or progress. Hegemonic narratives and discourses are not centrally directed by the state, but rather emerge from a plurality of often contradictory discourses (Gramsci, 1991). Those often stem from the sphere of *civil society*, which Gramsci understood to be an integral part of the state. His concept of the *integral state* (Opratko, 2012), which included the state's official political-administrative institutions (the "political society") as well as the civil society, significantly influenced subsequent materialist state theory:

> This is the ramified network of organizations and voluntary associations that are more or less independent of the state and serve to formulate and represent social interests, shape political opinion, express opinions, and engage in public debate: parties, associations, interest groups, churches, universities, media, clubs, citizens' initiatives, intellectual circles, think tanks, and many more. Alongside and together with the state in the narrower sense, this 'civil society' is part of the regulatory system insofar as it organizes interests, regulates social processes – for example, through collective bargaining agreements – forms general values and concepts of order, and mediates between 'state' and 'society'. (Hirsch, 2005, p. 92)

However, consent is produced not only ideologically but also materially, for example, through wage increases, welfare programs or the provision of public services (Opratko, 2012). Since material concessions to the subordinate classes are most often not in the immediate interest of capital, the state's relative autonomy is central to their implementation (Hirsch, 2005). Moreover, a hegemonic project needs to be related to an accumulation regime that provides the state with the material resources that can then be distributed to generate legitimacy among the population (Jessop, 1983).

2.2.4 Accumulation regimes, Modes of Regulation and the State

Whether a hegemonic project succeeds depends on "the flow of material concessions to subordinate social forces and thus on the productivity of the economy. It follows that those hegemonic projects will prove most successful which, other things being equal, are closely

linked with an appropriate accumulation strategy" (Jessop, 1983, p. 102). An *accumulation regime* (Lipietz, 1985) emerges when the material conditions of production, such as the amount of invested capital and the structure of economic sectors, markets and industries, is brought into correspondence with patterns of consumption and distribution among social classes and groups (Hirsch, 2005; Lipietz, 1985). In the case of the Fordist accumulation regime, to take the most salient example, the alignment of widespread, standardized mass production had to be paired with mass consumption. This required institutions that would guarantee purchasing power, such as trade unions negotiating rising wages and a welfare system to stabilize consumption in periods of unemployment (Lipietz, 1987).

An accumulation regime, regulation theorists of the 1970s and 80s argued (Aglietta, 1979; Lipietz, 1985)[4], has to be embedded in a broader framework of social *regulation*: it is relatively stable only when backed by social norms and institutions which "ensure that people behave in accordance with its conditions, that is, that they practice corresponding forms of work, life, and consumption, as well as particular ways of perceiving and pursuing their interests" (Hirsch, 2005, p. 87, my translation). Fordism thus relied on a social value system based on work ethic and consumerism as well as more abstract values such as growth and progress. A *mode of regulation* therefore encompasses the ensemble of social institutions – schools and universities, media, families, companies, trade unions and the political–administrative apparatus – within which behavioral patterns, ways of life, and dominant ideas about development are continuously produced and reproduced. Thus, accumulation regimes, modes of regulations and hegemonial projects do not automatically result from one another, but are most likely to be stable when they are complementary and form a coherent model of development and a state form (Hirsch, 2005; Jessop, 1983).

The state cannot be regarded as the central steering agent of regulation, since modes of regulation are understood, in a Gramscian manner, to be produced precisely in the interaction of various social processes and institutions. However, the state does act as the "institutional center" (Hirsch, 2005, pp. 90–91) of regulation, as it is the only place for social compromise to be institutionalized in a legally binding manner. At the same time, the state itself is shaped by regulation: its institutional structures adjust to the conditions of accumulation and the balance

[4] Regulation Theory emerged in the 1970s and 80s, at a time when a global economic crisis challenged the dominant Keynesian assumption that state intervention could ensure relatively crisis-free development. Instead, theorists belonging to the Parisian regulation school sought to explain how societies could, despite the inherently crisis-prone tendencies and structural contradictions of capitalism, (nonetheless) maintain relative stability and social cohesion.

of social forces, and different accumulation regimes assign different roles and functions to the state (Alnasseri, 2018; Jessop, 1990) .

Nonetheless, modes of accumulation and regulation evolve not only within a national context but also in relation to the global market.

> Fundamentally, the stability of individual capitalist societies depends on their ability to link their respective accumulation and regulatory frameworks to global market processes and integrate them into the international division of labor in such a way as to ensure relatively smooth capital accumulation and economic growth within the national framework. (Hirsch, 2005, p. 101)

The global economy thus provides a – more or less limited – field of possible national development models (Lipietz, 1987). Which of these a country's ruling classes decide to pursue depends both on its position within the global competition and their internal dynamics: class structure, conflicts and compromises (Becker, 2008; Hirsch, 2005; Lenner, 2008).

Reducing the state to a set of industrial and trade policy measures, such as tariffs and quotas or free trade agreements, as the typology introduced in Chapter 2.1.2 does, is thus misleading. The state does not engage in GPNs merely as an intermediary between different capital fractions along the supply chain or production network but as part of broader accumulation strategies. It is a central player in "establishing, constituting and restructuring global commodity chains as a key part of models of development" (Smith, 2015, p. 292). Adrian Smith (2015) has demonstrated this through an analysis of the Tunisian export-based development model in the 1990s and early 2000s. The concerted economic integration of Tunisia into EU-oriented production networks represented a macroeconomic accumulation strategy which aligned to the demand of global capital, in this case the EU's geoeconomic and geopolitical interests to access new markets along its southern frontier. The state, Smith argues, does not only shape the regulatory and institutional framework for global production networks, but also participates "in the very constitution of forms of economic integration through GPNs which articulate geopolitical with geoeconomic interest" (Smith, 2015, p. 311).

The state thus often actively chooses integration into GPNs as part of a broader accumulation regime that responds to both external, that is, global, restrictions and internal social and political power struggles. In Rwanda, for example, "the ruling party's coffee strategy is part and parcel of forging hegemony amongst sceptical business classes and oppositional rural smallholders" (Werner, 2021, p. 184). In Serbia, the opening to FDI in mining and automotive supplier industries followed a period of privatization, high unemployment, and widespread public dissatisfaction (Stošić, 2014). Integration into GPNs may therefore occur as part of an accumulation strategy and a corresponding hegemonic project.

2.2.5 Statehood in the Periphery

As outlined in Chapter 2.1, GPN analysis is concerned with uneven development in the global capitalist economy. "Dependency, 'underdevelopment,' and peripheralization are (…) not temporary malfunctions, but structural features of global capitalism, although their specific forms are by no means permanently fixed" (Hirsch, 2005, p. 104, my translation). In the global system of production and circulation, peripheral economies[5] – though changing in location and form – remain subordinated to the conditions set by core economies (Hopkins & Wallerstein, 1977; Wallerstein, 1974): accumulation regimes, resource demands, production technologies etc. (Alnasseri, 2018; Hirsch, 2005; Palestini & Madariaga, 2021).

Having this in mind, a materialist theory of the state, if it does not want to apply solely to capitalist core states, must take into account the specificities that distinguish peripheral statehood from that of the core countries. This chapter will examine how its key concepts of structural selectivity, relative autonomy, regulation and hegemony apply to the (semi-)periphery.

Dependent States? External and Internal Forces of Domination

Dependency theorists have rightly argued since the 1950s that statehood in the (semi-)periphery is significantly influenced by external factors (Cardoso & Faletto, 1979; Frank, 2009; Palestini & Madariaga, 2021). This is due to the fact that peripheral economies typically exhibit a specific type of outward orientation: passive extraversion, that is, import dependency (Becker, 2008). Exports are usually limited to primary (in the periphery) or intermediate goods (in the semi-periphery), while capital goods (means of production) must be imported from core countries. This becomes a constraint particularly in periods of economic growth: when imports increase, so does the trade deficit. Consequently, alternative sources of financing must be secured. In most cases, capital inflows can only be obtained through foreign direct investment (FDI) or by taking out loans (Becker, 2006). The latter often entails high interest obligations and increasing indebtedness, frequently granting creditors considerable economic and political leverage (Stallings, 2021).

FDI too, along with loans, shapes the nature of statehood in peripheral economies. As Evers (1977, p. 84) argues, foreign capital can assume the position of "the economically most powerful fraction of the [periphery's] ruling class." However, dependency theorists such as Fernando Henrique Cardoso and Enzo Faletto (1979) advocated to properly take into account

[5] Due to this subordination, dependency theorists considered peripheries to be *dependent* on core countries. In this chapter, I align with their definition and therefore use *peripheries* and *dependent economies* synonymously.

the internal dynamics of peripheral states, for foreign interests do not manifest in peripheral economies in "mere external forms of exploitation and coercion but are rooted in coincidences of interest between local dominant classes and international ones" (Cardoso & Faletto, 1979, p. xvi). As the interests of these groups align, an "internationalization of external interests" (Cardoso & Faletto, 1979, p. xvi) emerges. At the same time, however, there are also domestic classes contesting these interests. The structure of dependent or peripheral societies is therefore the result of both *internal* class struggles and *external* constraints of the capitalist world market. Despite the strong influence of foreign actors (foreign capital, creditors, international institutions) and external dynamics (accumulation regimes and developments in the core), peripheral states cannot be reduced to "puppet" or "dependent" states of the core, as they are also significantly shaped by their internal class composition, power relations, and struggles for hegemony.

Peripheral states should thus be treated, just like core states, as contested and strategic terrains in the Poulantzas sense (Lenner, 2008). Although directives from international organizations, development cooperation or structural adjustment programs appear as external forces on this terrain, these interventions are not fixed mechanisms but rather processes subject to political contestation.

> They develop strategic selectivity in various state apparatuses within the nation state, i.e., they privilege certain actors and political strategies while tending to exclude others; on the other hand, actors also have the opportunity to act strategically toward them and to change them (cf. Jessop 2005: 48ff). In the realm of the state in the Global South, there is also a struggle between different forces that gather in various cliques, factions, or state apparatuses and pursue their respective political strategies there (…). (Lenner, 2008, p. 68, my translation)

In Serbia, North Macedonia, and Turkey, to give examples discussed by Günay and Dzihic (2016), ruling parties have since the early 2010s used international neoliberalization and EU reform directives as a vehicle for authoritarian restructuring. International constraints and directives thus represent only one pathway of structural selectivity within the peripheral state, allowing different actors to strategically mobilize them in the pursuit of their respective hegemonic projects. Which model of implementing international directives prevails is contingent upon both the extent to which it can be integrated into global structures and its capacity to establish internal hegemony.

In the era of Latin American neo-extractivism in the early 2000s, for example, global demand was translated into a national accumulation regime with a respective hegemonial project: intensive resource extraction, meeting the raw material demands of the core economies, was consolidated and legitimized by social welfare measures to distribute the resource rents

(Burchardt et al., 2013; Brand & Dietz, 2014; Svampa, 2019). Consequently, while peripheral states face more limited options in selecting an accumulation regime than core states, such choices remain possible, and the state's central task is to formulate a corresponding hegemonic project.

Hegemony, Clientelism and Authoritarianism

Yet it is important to note that certain constraints limit the capacity for hegemony in peripheral contexts. Consent among subordinate classes is achieved not only through shared narratives or ideologies, but also through material concessions. In economies with lower levels of capital accumulation, however, the ability to provide such concessions is necessarily restricted (Becker, 2008).

Now, where the possibility of consent is limited, domination can be stabilized in at least two ways. The first is to increase coercive measures (Alnasseri, 2018). Authoritarian forms of governance are by no means an exceptional form of capitalist statehood (Jessop, 2015; Poulantzas, 1978/2002). Poulantzas (1978/2002) has described *authoritarian statism* as a new 'normal form' of the capitalist state as early as 1978. Among its characteristic features are a growing power within the executive, the increasing fusion of executive, legislative and the judiciary coupled with a decline in the rule of law (Kannankulam, 2010) as well as "the rise of parallel power networks that cross-cut the formal organization of the state, involving links among industrial and financial elites, powerful lobby groups, politicians from the 'natural' governing parties, top bureaucrats, and media magnates, with a major share in shaping its activities" (Jessop, 2015, p. 16).

Today, (semi-)authoritarian forms of governance are widespread – in fact, they predominate worldwide (Nordman et al., 2025). In many states of the European periphery, *competitive authoritarian* (Levitsky & Way, 2002) or *hybrid* (Levitsky & Way, 2010) regimes prevail, "situated somewhere in the 'grey zone' (Carothers 2002) between full-fledged authoritarian systems and liberal democracy" (Günay & Dzihic, 2016, p. 530). Although these regimes formally allow party pluralism and hold regular, mostly fraud-free elections, the ruling party's abuse of state resources, limits on media access, and harassment of opposition candidates create an uneven playing field and violate core democratic principles (Levitsky & Way, 2002; Günay & Dzihic, 2016).

There is another mechanism to which rulers can resort to when the possibility of generating hegemony is limited. Political clientelism (Eisenstadt & Lemarchand, 1981; Kitschelt & Wilkinson, 2007; Stokes, 2013) represents a third path between hegemony and coercion

(Becker, 2008, p. 20). In a clientelist system, material concessions are not generalized by law, instead they are directly granted by a *patron* to individual or collective *clients* (Aspinall & Berenschot, 2019). Consent to a ruling bloc is therefore not ideological in nature but is instead 'purchased' through clientelist practices (Kitschelt & Wilkinson, 2007; Stokes, 2013).

Political clientelism has implications for the architecture of state institutions – and vice versa. On one hand, clientelism, as Shefter (1977, 1994) has influentially argued, is less likely to emerge where a relatively autonomous state bureaucracy withstands party control[6]. Conversely, where clientelism is being practiced, the state bureaucracy is subjected to increasing pressure. When politicians buy voters with direct goods, this creates an incentive for incumbents to seize control of state institutions, "stimulating politicians to develop greater personal control over state resources, and further undermining bureaucratic autonomy" (Aspinall & Berenschot, 2019, p. 28). This 'clientelist trap' can lead to the emergence of *state capture* (Petrović, 2020) or *partocracy* (Simović & Gajić, 2024), where ruling parties exert control over state resources and institutions to an extent that "lines between state and party have become increasingly blurred" (Günay & Dzihic, 2016, p. 536).

To conclude, the relative autonomy of the state vis-à-vis elites is frequently constrained, particularly in peripheral contexts. Building on the Latin American theorists René Zavaleta (2009) and Luis Tapia (2009), Stefan Pimmer (2017) observed that periods of pronounced relative autonomy of the state alternate with more instrumental phases. What Poulantzas (1978/2002) and Jessop (2015) have already noted for the authoritarian state can therefore also be applied to 'captured' or 'party-patronage' states which are increasingly prevalent in peripheral regions: these are not exceptional states, but rather specific and historically contingent forms of capitalist statehood.

In summary, the following can be noted regarding the central concepts of materialist state theory in the periphery:

1. The choice of **accumulation regimes and modes of regulation** is more constrained in peripheral states – due to technological and financial dependence on the core, limited investment capacity and interventions by international organizations, creditors, and investors. Still, as in core countries, the state plays a decisive role both in shaping the mode of accumulation and in regulation.

[6] According to Shefter (1977, 1994), this is most likely when state personnel existed prior to the introduction of mass suffrage.

2. **Hegemony** in peripheral states is often substituted by a higher degree of coercion or authoritarianism, or – in the case of the patronage state – by clientelism. Nevertheless, these are primarily matters of degree, since liberal democracies also rely on coercion, while conversely even predominantly authoritarian regimes depend on some degree of hegemony, at least among "strategically significant sectors" (Jessop, 1990, p. 211) of society.
3. **Structural selectivity** is often further reinforced in authoritarian or patronage states through authoritarian or clientelist reorganization, meaning that the state becomes highly impermeable to projects or groups that are not affiliated with the ruling party or its clientelist network.
4. Thus, the **relative autonomy** of the peripheral state vis-à-vis certain capital fractions may be (at least temporarily) limited.
5. In peripheral states, external actors such as foreign capital and international institutions, as well as core states, often exert strong influence through FDI, loans, or other conditionalities. However, those external forces are being both internalized and contested from within, rendering peripheral countries strategic fields of political struggle for power.

2.3 Theoretical Synthesis and Operationalization

In this chapter, I integrate the GPN literature's approaches to the role of the state, as reviewed in Chapter 2.1, with key concepts from materialist state theory discussed in Chapter 2.2, and translate this synthesis into an operational framework for the empirical analysis. To this end, I identify the central roles of the state as well as the underlying rationalities. On this basis, I derive a set of guiding questions that structure and inform the empirical analysis.

From the GPN literature review in Chapter 2.1 (Horner, 2017; Horner & Alford, 2019; Smith, 2015; Werner, 2021), I have identified key roles the state may take on in GPNs. Following Horner (2017), I assume the roles of a potential *buyer*, *producer, facilitator*, *regulator* and *distributor* (Horner & Alford, 2019).

Table 2: State Roles and Functions

State Roles and Functions	
Theoretical Category	**Guiding questions for empirical analysis**

Buying	Does the state stimulate the GPN as a buyer, for example, through public procurement, government bonds or contracts for public infrastructure?
Producing	Is the state itself a producer within the GPN, for instance in the form of (semi-)state-owned MNCs?
Facilitation	How does the state facilitate the integration into the global copper production network, for example, through laws, policies or bilateral agreements with lead firms and other states? How does the state facilitate access to territories required for resource exploitation? How does the state enable the GPN by means of both consent and coercion?
Regulation	How and to what extent does the state limit corporate action through price controls, labor regulations or environmental standards? (How) does the state foster upgrading within the network, for example, by conditioning foreign direct investment on technology transfer or training?
Distribution	How does the state contribute to the distribution of profits and costs within the network, for example, through resource rent, environmental protection or compensation?

While this provides an apt framework to outline the roles states may take on in GPNs, they largely remain at a merely descriptive level. A comprehensive GPN analysis must therefore go beyond describing *how* the state acts to interrogate *why* it acts in particular ways (Smith, 2015; Werner, 2021). For this purpose, I draw on critical materialist state theory as laid out in Chapter 2.2. Its key concepts should help pose the right questions to illuminate the logics underlying state action within GPNs:

Table 3: Driving Logics and Strategic Rationales of the State within GPNs

Driving Logics and Strategic Rationales	
Theoretical Category	**Guiding questions for empirical analysis**

Accumulation strategy	Which wider accumulation strategy does Bor's copper GPN underpin?
Mode of Regulation & Hegemony	How does the GPN contribute to a corresponding mode of regulation? How does the GPN contribute to the consolidation of a broader hegemonic project of the state?
Strategic Selectivity	How do structural selectivities in the state favor certain interests and actors within the GPN over others? Which state fractions advanced their specific interests within the GPN, and what power struggles preceded these outcomes?

3 Methodology

In this chapter, I explain the methodological approach employed in my research. First, I make transparent the ontological and epistemological assumptions underlying my study, as well as my considerations of research ethics and a reflection on my own social positionality. Subsequently, I describe the methods employed to collect and analyze the data, namely interview techniques and qualitative content analysis.

3.1 A Critical Realist Approach to Social Science

In this thesis, I adopt a critical realist approach to (social) science, which aims to avoid both positivist and constructivist fallacies and to develop an ontologically realist yet epistemologically critical standpoint (Fletcher, 2017). Critical Realism emerged in the mid-1970s as a philosophy of science and was significantly shaped by scholars such as Roy Bhaskar (1979/2000, 1975/2008), Margaret Archer (1995), and Andrew Sayer (1992/2010). In *The Possibility of Naturalism: A Philosophical Critique of the Contemporary Social Sciences* (1979/2000), Bhaskar makes the case "for a qualified anti-positivist naturalism, based on an essentially realist view of science" (Bhaskar, 1979/2000, p. 3). It is realist in the sense that it assumes a reality exists independently of our knowledge of it (Bhaskar, 1979/2000) – as opposed to constructivist or poststructuralist approaches to science, which hold that objects do not exist *a priori* of our knowledge of them, but are rather constructed in the process of inquiry (Laclau, 1983).

However, Critical Realism also differs from poststructuralism's counterpart positivism by claiming that while reality exists independently of our knowledge of it, our capacities to investigate this reality are always dependent on and limited by the capacities that people possess at a given point in history and society, meaning that scientific knowledge is historically situated (Bhaskar, 1979/2000). Critical Realism is therefore ontologically realist but epistemologically critical or relativist (O'Mahoney, 2018).

Reality, according to Critical Realism's ontology, consists of three levels: the empirical, the actual and the real (Fletcher, 2017). The *empirical* is what can be directly observed or perceived by human beings and is therefore influenced by their capacity to do so. The *actual* is what happens independently of human knowledge about it – the *intransitive* (Bhaskar, 1979/2000) dimension. The *real* level includes causal forces, structures or mechanisms (Bhaskar et al., 2017). Rather than for laws, Critical Realists look for tendencies – so-called *demi-regularities* (Fletcher, 2017). Since these cannot be observed directly, any scientific endeavor must seek to identify them. A central procedure for doing so is *retroduction*, in which the researcher asks the question: "What must be the case for a certain activity or event to be possible?" (Bhaskar et al., 2017).

An essential task of social science based on this epistemological framework is therefore to identify the underlying social relations behind empirically observable phenomena or patterns of events, for example, relations of production or gender relations. These are not visible as such but must be inferred through retroduction and theoretical reflection. Accordingly, critical realist social science typically draws on theory to guide the research process (Fletcher, 2017). For this case study, I draw on materialist state theory, as introduced in Chapter 2, to shed light not only on the observable patterns of state action in Bor, but also on the underlying mechanisms causing these actions. These include, for instance, the state's general relation to capital, its role in modes of regulation and accumulation regimes, and – very importantly – the specific characteristics of peripheral statehood and its articulation with (foreign) capital.

However, the "initial theory" does not necessarily have to be confirmed or proven useful: It "facilitates a deeper analysis that can support, elaborate, or deny that theory in order to help build a new and more accurate explanation of reality" (Fletcher, 2017, p. 184). Thus, the case study of Bor may challenge the assumption of the relative autonomy of the state from capital interests, as posited by materialist state theory, while at the same time supporting the importance of state–GPN interactions in the formation of an accumulation regime.

3.2 Research Ethics, Positionality and Reflection

As Critical Realist epistemology emphasizes, the production of knowledge is always constituted and constrained by a researcher's position in a specific historical and social configuration, which must therefore be made transparent (Mader et al., 2017). My research was shaped by my positionality as a white member of the Western European middle class with access to higher education. In fact, without financial resources enabling me to undertake repeated fieldwork stays, this thesis would have been hardly possible in the first place.

Besides these personal advantages, it is important to reflect on the fact that my perspective as a researcher from a capitalist core country in Western Europe is directed toward the "European periphery" (Weissenbacher, 2018, p. 88). This positionality carries with it preconceptions and stereotypes prevalent in Western discourses about the Balkan region which are directly relevant to the topic of my research. *Balkanism*, described by Maria Todorova (1997) analogously to Orientalism, refers to a discursive representation of Southeastern Europe and often entails cultural-essentialist readings of phenomena such as corruption, deregulation, and clientelism. Through both theoretical engagement and personal reflection, I have sought to identify such Balkanist interpretive patterns and to critically examine my own scientific practice for these biases.

My fieldwork was embedded in a nearly two-year stay in Serbia, providing an opportunity to understand the broader context of the case study more deeply than would have been possible during short-term research visits. This also enabled me to maintain continuous contact with my interviewees, which was central to actively avoid 'knowledge extractivism' – a form of research in which information and insights flow unidirectionally from research participants to researchers. I have attempted to reciprocate the time and knowledge shared by interviewees through facilitating connections, collaborative engagement and broader public visibility. An example for this attempt was the organization of an educational trip with approximately 25 participants to Bor in September 2025, during which scholars, trade unionists, and members of communities affected by mining in Austria and Germany were able to engage with workers and activists in Bor.

My research aimed not at reproducing dominant knowledge, but at generating insights that could benefit those disadvantaged by prevailing power structures (Jäger & Springler, 2012, p. 27). This perspective also guided my decision not to focus primarily on the actions and strategies of social movements themselves, but on the role of the state in implementing extractive projects, their integration into global production networks, and the interweaving of

local and global power relations. In particular, this study sought to illuminate how the wage-dependent population of Bor benefits – or fails to benefit – from incorporation into the global production network. Accordingly, their perspectives were central throughout the data collection process. Consequently, their perspectives informed the design and conduct of the data collection.

3.3 Data Collection and Selection

I approached my research project using qualitative methodology. While quantitative methods are well suited to capturing broader trends, qualitative methods allow for in-depth insights into a research field (Guba & Lincoln, 1994). They provide access to the personal and emotional interpretations and meaning-making of participants (Mayring, 2002), which aligns with the research-ethical endeavor to foreground the perspectives of local stakeholders within the global production network.

My research was carried out over a period of three and a half years, during which I conducted three research stays of several days each in Bor: in August 2022, July 2025, and February 2026. During my fieldwork, I employed a range of qualitative methods depending on the stage of research. My first research stay was predominantly characterized by unstructured and walking interviews. As Cropley (2022, p. 149) notes, the "crucial element of open/unstructured interviews is that the researcher attempts to establish how respondents structure the area in question in their own thinking about it, and what categories they themselves choose when trying to communicate their views to another person." It was through this approach that my specific research question emerged, as state action proved to be an especially salient topic during the interviews.

After defining my research question based on the initial interviews and drawing on state and GPN literature as 'initial theories' to guide further empirical research (Fletcher, 2017), I developed interview guides for my second field research in July 2025. The semi-structured interviews conducted there included specific theory-driven interests and questions, while ensuring that interviewees had the space to raise their own topics. I continuously refined interview guides to incorporate insights from the interviews already conducted, in order to verify and corroborate data through data triangulation, which constitutes an important criterion of rigor in qualitative research (Flick et al., 2008).

I also used more dynamic interview methods such as walking interviews and group interviews. Walking interviews allow for a less structured flow of conversation and deeper insights into

people's living environments (J. Evans & Jones, 2011). This enabled me to observe neighborhoods and the interviewees' interactions within them. Additionally, I conducted group interviews in what Flick (1998/2022, p. 241) calls "natural groups" – groups that are not assembled by the researcher but exist in everyday life, such as families or groups of colleagues in the workplace. Compared to individual interviews, these tend to elicit different types of content, including controversies, collective interpretations, and shared experiences that emerge through interaction between participants (Flick, 1998/2022; Morgan, 1997).

Most interviews were conducted in Serbian. As I do not have full proficiency in the language, I prepared interview guides and key vocabulary in advance. My level of comprehension was nevertheless sufficient to ask ad hoc follow-up questions during the interviews. During the data analysis process, I occasionally consulted translation software to verify specific passages. Conducting the interviews in Serbian was necessary despite my imperfect language skills, as most interviews could not have been carried out in English.

In total, I conducted fifteen semi-structured, five group and four walking interviews, out of which I chose fifteen for detailed coding and analysis. This selection aimed to capture the greatest possible diversity of perspectives and was also guided by GPN literature (Coe et al., 2008; Coe & Yeung, 2015). I sought to interview actors identified as relevant within a GPN: lead firms and their suppliers, as well as 'non-firm' actors such as the state, civil society, and labor organizations. To complement this first-hand, on-the-ground knowledge from Bor with more systematic perspectives, I conducted three additional interviews with researchers in Belgrade. Table 4 below lists the interviewees, sorted by actor category. Because workers and activists in Serbia frequently face various forms of repression, their names are kept anonymous. The table provides contextual details about respondents while avoiding precise job titles or specific identifiers that could allow their identities to be inferred.

Table 4: List of Interviews

Interview Code	**Actor Category**	**Position and/or Organization (at time of interview)**	**Date & Place**	**Interview Format**
TU1	Trade Union	Representative of the trade union 'Samostalni sindikat metalaca Srbije organization' ('Independent Metalworkers'	02/07/2025, Bor	Semi-structured interview

		Union of Serbia') at Zijin Copper		
TU2	Trade Union	Representative of the trade union 'Samostalni sindikat metalaca Srbije organization' ('Independent Metalworkers' Union of Serbia') at Zijin Copper	03/07/2025, Bor	Semi-structured interview
W1	Worker	Warehouse foreman at Zijin	04/07/2025, Bor	Semi-structured interview
W2	Worker; Trade Union	Mechanical maintenance worker in the pit, trade union representative	11/02/2026, Bor	Semi-structured interview
CS1	Civil Society	Member of Citizens' Initiative 'Borani se pitaju' ('The People of Bor Have a Say')	04/08/2022	Walking interview
CS2	Civil Society	Local resident in Krivelj	03/07/2025, Bor	Semi-structured interview
CS3	Civil Society	Member of Pensioners' Club Bor	13/02/2026	Semi-structured interview
S1	State; Civil Society	Member of the civil society group and electoral list 'Nu dau' ('Won't Give In') in the municipal assembly of Majdanpek	16/10/2022, online	Semi-structured interview

S2	State	Deputy in the city assembly of Bor	13/02/2026	Semi-structured interview
R1	Researcher	Researcher at Northeastern University	05/02/2026	Semi-structured interview
R2	Researcher	Legal Advisor at the Renewables and Environmental Regulatory Institute (RERI)	27/4/2026	Semi-structured interview
R3	Researcher	Senior Research Fellow the Institute of Comparative Law	03/11/2024	Semi-structured interview
Group Interview 1	Trade Union	Representatives of the trade union 'Nezavisnost' ('Independence') organisation in Zijin	04/07/2025, Bor	Semi-structured group interview
Group Interview 2	Trade Union	Representative of the trade union 'Samostalni sindikat metalaca Srbije organization' ('Independent Metalworkers' Union of Serbia') at Zijin Copper	12/02/2026, Bor	Semi-structured group interview
Group Interview 3	Civil Society; Worker	Member of Women's organization NIKA Bor; Worker at the electrolysis plant at Zijin Copper	02/07/2025, Bor	Semi-strucured group interview

Due to my research question – the role of the state in the GPN – I placed particular emphasis on state actors and requested interviews with representatives across multiple governance levels and state institutions. I repeatedly requested the Development Agency, the Ministry of Mining and Energy, the Chamber of Commerce and Industry, as well as different departments within

the local administration and state inspections in Bor (June 30, 2025; January 19, 2026; February 2, 2026). However, these requests were either declined or left unanswered. Similar non-responsiveness was observed among the management of the lead firm Zijin, which I also requested for an interview (January 29, 2026). I was able to partially compensate for the latter by interviewing both workers and trade union representatives from Zijin. While the former possess in-depth knowledge of the organization of the labor process, including management practices on the shop floor, the latter, through their union activities, have closer access to higher management levels and aspects of corporate governance such as human resources and wage policy. Thereby, despite the unwillingness of the Zijin management to participate in interviews, a substantial amount of relevant data on processes, power relations, and hierarchies within the lead firm was collected, even though many other data remained unavailable.

To address the lack of interviews with state and lead-firm representatives, I supplemented interview data with other sources that document state action: relevant contracts, bilateral agreements, policy papers, trade, health and pollution statistics, and media statements by politicians about the case under study. This served two purposes: first, to supplement information that could not be obtained through qualitative interviews with the respective actors but was relevant for answering my research question and second, to enable data triangulation (Flick, Dannecker, & Englert, 2014). Data triangulation served both to *verify* information acquired through interviews, for instance regarding the acquisition of RTB; and to *compare* data, as in some cases the discrepancies between interview data and information provided by the state (for example, on pollution) were particularly striking.

3.4 Data Analysis

I analyzed the collective data using qualitative content analysis following Mayring and Fenzl (2014/2022). Qualitative content analysis is a systematic method for evaluating text(s). What distinguishes it from other methods such as Grounded Theory (Schultz, 2014) or hermeneutics (Kurt & Herbrik, 2014/2022) is its strictly category-guided approach. Categories can be formed either inductively from the material itself or deductively, that is, theory-driven. In the next step, textual passages are assigned to categories. This process is qualitative and interpretative; however, it systematically follows explicit rules – more so than, for example, open coding in Grounded Theory (Mayring & Fenzl, 2014/2022). This is supposed to make the analysis intersubjectively verifiable, for example, through intercoder reliability (Nili et al., 2020). Qualitative Content Analysis is suitable for a Critical Realist research agenda that aims to retroduce causal structures (‘demi-regularities’) through in-depth data analysis (Fletcher, 2017).

I combined both inductive and deductive methods in the data analysis process (Mayring & Fenzl, 2014/2022). As described in Section 3.2, my research process spanned three and a half years and comprised different phases. After the first field research in August 2022, interviews were coded inductively. From this initial coding resulted categories such as state neglect, territoriality, and cost-shifting. It was also this initial inductive coding that revealed the role of the state as a salient motif in interviews, which subsequently guided the formulation of my research question.

After defining my research question, namely the role of the state, I consulted relevant literature. Based on Global Production Network (GPN) theory and materialist state theory, I then deductively developed codes, which were applied to the interviews. Categories such as technological upgrading, hegemony, and structural selectivity were built deductively from these theoretical frameworks. For deductive coding, a coding manual was created in which each category is defined based on the theory, accompanied by an anchor example and rules for differentiating it from other categories. The coding manual was tested on a sample of the material and iteratively refined throughout the coding process. Subsequently, the coding process was repeated to verify consistency of results and ensure reliability (Mayring & Fenzl, 2014/2022).

Several software tools were used to support the data analysis process. MAXQDA was employed for coding, TurboScribe for transcription, and ChatGPT and DeepL to assist with translation.

4 Context: Copper Mining in Eastern Serbia

In this chapter, I outline the historical, economic, and (geo-)political context in which this case study is embedded. To this end, I first sketch out its national context – Serbia's political and economic landscape. Subsequently, I provide a brief overview of the historical development of copper mining in Bor. Finally, I sketch China's investments in the Balkan region within the Belt and Road Initiative (BRI) in order to illuminate the broader geopolitical and geoeconomic context in which the specific investment in Bor takes place.

4.1 National Context: Serbia's Political Economy

In this section, I will outline Serbia's political economy, arguing that its economic structure should be understood as semi-peripheral. Furthermore, following Jessop (1999, p. 46), who, drawing on Poulantzas (1978/2002), formulated the or a "regional theory of the capitalist state,"

I will describe the contemporary form of statehood in Serbia as a partly captured patronage state.

4.1.1 Semi-Peripheral Economy

Serbia emerged from the Socialist Federal Republic of Yugoslavia (SFRY), a state founded in 1945 that encompassed the territories of present-day Bosnia and Herzegovina, Croatia, Montenegro, North Macedonia, Kosovo, Slovenia, and Serbia. The federation began to disintegrate in 1991 through a series of breakup wars. In its current form, Serbia has existed since Kosovo's declaration of independence in 2008 (Djokić, 2023).

After the dissolution of Yugoslavia, its successor states underwent a transition toward a capitalist market economy, which continues to shape their political economies to the present day. In fact, major changes and adaptations in Yugoslavia's economy had already been introduced prior to its breakup. Following the global economic crisis of the 1970s, the country fell into a debt crisis (Reuter, 1983). Creditors such as the International Monetary Fund provided loans, but these were conditional on structural adjustment programs (World Bank, 1991). In 1989, the Yugoslav government implemented market reforms that marked the beginning of privatizations, which were implemented extensively after the end of the Yugoslav breakup wars in the 1990s (Sasso, 2020).

The way in which the process of privatization was carried out continues to shape the political economy of Serbia and other Yugoslav successor states up to the present day. The profits from privatization were seized first and foremost by members of the former political and administrative elite: high ranking party members, managers and directors of large public enterprises, giving rise to a new economic elite and rising inequality (Lazić, 2015). This new business elite kept strong ties with political actors, creating the foundation for a 'tycoon economy', that is, a system of business elites with strong political influence (Pešić, 2007). The consequences of this power structure are also relevant to the present case study and will be explained in more detail in the following section.

Formerly public assets were sold not only to domestic elites, but also to foreign investors (Estrin & Uvalić, 2016). "The existing state-owned factories of the former socialist economies were not competitive in new market conditions without large investment, and they became an easy target for multinational corporations" (Tamindžija & Simović, 2024). From the 2000s onwards, Serbia experienced a strong influx of foreign direct investments (Uvalić, 2010). Existing industrial plants were taken over, new ones established and integrated into global production

networks (Pavlínek, 2015). FDIs were mostly directed towards the low end of the supply chains, manufacturing basic components with limited economic spillover effects and little value added, while final assembly, product design, marketing as well as research and development largely remained in the core countries (Estrin & Uvalić, 2016; Tamindžija & Simović, 2024).

The structure of the Serbian industry is therefore dominated by rather low-processed, low value-added goods. In 2024, its leading exports included isolated wire, copper ore, refined copper, rubber tires and electric motors (The Observatory of Economic Complexity, n.d.). According to the United Nations Economic Commission for Europe (UNECE), value added in medium and high-tech industry amounted only to 22.6% of total value added, ranking the country 32nd of 48 in the UNECE comparison (United Nations Economic Commission for Europe, n.d.). The current mining boom – which I discuss in depth in the analysis of my results – risks reinforcing this pattern and deepening Serbia's reliance on primary commodity exports. In 2024, the mining and quarrying sector received the highest amount of FDI (eExpand, 2026).

Accordingly, due to Serbia's limited competitive export capacities, the country records a relatively consistent current account deficit (Ministarstvo Finansija Republike Srbije [Ministry of Finance of the Republic of Serbia], 2025). In the period from 2000 to 2024, the current account-to-GDP ratio averaged -6.64% (Trading Economics, n.d.). Foreign exchange inflows thus rely primarily on remittances from labor migrants, FDI, and loans (World Bank, 2025). A persistent current account deficit requires „continuous inflows of capital from abroad" (Uvalić, 2010, p. 9), further increasing the country's dependence on FDI.

The consequences of this dependency include both economic and political leverage of foreign capital over the country (Stallings, 2021). Economic leverage is manifested, for example, in the fact „that multinational companies are able to dictate conditions and shape the economy in economically dependent countries that compete in a "'race to the bottom' to satisfy foreign investors" (Tamindžija & Simović, 2024, p. 8). In Serbia, this manifests in relatively low wages and weak labor rights (Radić, 2019). Moreover, the strong presence of foreign capital in key sectors of the Serbian economy, such as energy, banking, raw materials, and retail (Milovanović et al., 2018), renders the economy vulnerable to geopolitical tensions and political leverage (Lađevac, 2025).

From a macroeconomic perspective, the previously discussed indicators provide an overview of Serbia's economic structure; however, they offer only limited insight into how economic performance translates into the living standards of the population. In this regard, GDP per capita amounted to €12,508 in 2024 (Ministarstvo Finansija Republike Srbije [Ministry of Finance of

the Republic of Serbia], 2025). In purchasing power parity (PPP) terms, GDP per capita reached $32,832.20, which remains significantly below Central European benchmarks such as Austria ($73,911.40), Germany ($73,551.90), Italy ($62,014.30), or Slovenia ($57,186.40), and is instead more comparable to countries such as Chile ($36,181.20), Belarus ($33,010.30), or Argentina ($30,431.20) (World Bank, n.d.). Taking into account Serbia's Gini coefficient of 31.7, which lies above the EU average, it becomes evident that income distribution is relatively unequal and that aggregate GDP figures do not reflect uniform welfare across the population (Statista, 2025; Statistical Office of the Republic of Serbia, 2025). In fact, the median net salary amounted to 90,819 RSD (€773.46) in December 2025 (Statistical Office of the Republic of Serbia, 2026a). Moreover, according to the 2024 Poverty Watch Report (European Anti-Poverty Network – Serbia, 2024), 28.1% of the population was at risk of poverty or social exclusion in 2022.

Overall, Serbia can be classified as a semi-peripheral economy. Key indicators for this include a relatively low value-added industrial structure, a persistent current account deficit, a high reliance on foreign direct investment, and a strong presence of foreign capital in key sectors of the economy as discussed above. Furthermore, GDP per capita in PPP terms remains significantly below that of core capitalist economies in Europe, while the living standards of the average population – reflected in median income levels and the high risk of poverty or social exclusion – lag even further behind.

4.1.2 Party-Patronage State

At the political level, Serbia exhibits strong dominance over the state apparatus by the ruling party, processes of authoritarian restructuring, clientelism and constrained democratic freedoms (Bieber, 2018; Günay & Dzihic, 2016; Tiedemann, 2024). Scholars have referred to this as "partocracy" (Beširević, 2014, p. 961), "state capture" (Petrović, 2020), or "hybrid regime" (Pavlović, 2020, p. 19).

After the breakup of Yugoslavia and the end of the one-party system in the 1990s, a comprehensive transformation toward liberal democracy did not come about (Bieber, 2003; Pešić, 2007; Laštro & Bieber, 2023). On October 5, 2000, the authoritarian president Slobodan Milošević was overthrown in a series of strikes and protest, and the Democratic Opposition of Serbia (DOS) came to power (Bieber, 2003). During the subsequent period of rule from 2000 to 2012, democratization took place in certain areas of society, such as media freedoms (Vladisavljević, 2020). However, clientelist practices, limited institutional autonomy, and processes of state capture started to become entrenched (Bieber, 2003; Pešić, 2007). As outlined

in Chapter 4.1.1, during the Yugoslav breakup wars and the subsequent transition process, a new political-economic elite emerged based on old structures: “the isolated owners of private companies, together with segments of the socialist nomenklatura, parastate and criminal actors, developed into a military-political elite” (Tiedemann, 2024, p. 196). Instead of the development of an autonomous bureaucracy within the state apparatus, this elite and its power networks consolidated, securing influence across political and administrative structures (Günay & Dzihic, 2016; Pešić, 2007).

After 2012, the Serbian Progressive Party (SNS) under Aleksandar Vučić – who had served as Minister of Information under Slobodan Milošević in the 1990s – came to power and intensified these trends. During the privatization and marketization processes of the 2000s, unemployment and poverty in the population had risen sharply (Uvalić, 2012). The global economic crisis and the subsequent implementation of austerity policies affected the Balkan region particularly hard, further aggravating living conditions of its population (Günay & Dzihic, 2016; Tiedemann, 2024). The SNS initially campaigned on promises to combat elite corruption and improve conditions for the broader population (Petrović, 2024). In practice, however, it further curtailed the autonomy of state institutions from party influence, in part legitimized by the EU reform agenda (Günay & Dzihic, 2016). Freedoms of the press, the judiciary, and the security sector were increasingly restricted (Čečen et al., 2018). By 2016, the OSCE noticed an increased “blurring of distinction between state and party activities“ (OSCE, 2016). Petrović (2020, p. 12) describes the Serbian state as “captured”:

> State capture is a process in which individuals and groups (business magnates, politicians, criminals and, as is often the case, all of these together) gradually and systematically rewrite the formal “rules of the game”, often with the goal to “redirect material and financial goods (whether public or private) into the hands of a tight circle of individuals and groups.

Not only are material resources distributed within the ruling party’s tight circle, but also in a wider broader clientelist network in order to gain support from a broader electorate (Vuković & Spaić, 2022). Clientelism, as has been explained in Chapter 2.2.5, refers to a system in which the loyalty of voters – *clients* – is effectively purchased through financial or other material inducements, leaving them dependent on their *patron*. Since this patron “holds public office and distributes state resources” (Stokes, 2013, p. 651) in Serbia, it can be classified as a *patronage state* (Tiedemann, 2024).

The Serbian patronage state operates in a “grey zone between democracy and authoritarianism” (Günay & Dzihic, 2016, p. 534). Elections are regularly held; however, they cannot be considered fair. The conditions for opposition parties and media are significantly skewed

(Pavlović, 2020; Tournois, 2021). Election irregularities are frequently reported (Günay & Dzihic, 2016; OSCE, 2016). Moreover, repression of political opponents remains common, including defamation, surveillance, violence, and arrests (Amnesty International, 2024; Surčulija-Milojević, 2018; Tournois, 2021).

A centralization of power can also be observed within the ruling party. The SNS is characterized as a "leader-driven party" (Spasojević, 2020, p. 219) and as exhibiting a "personalist" (Tournois, 2021, p. 590) governance style centered around the current president, Aleksandar Vučić. Regardless of his changing positions – prime minister, vice prime minister, or president –, authority is largely concentrated in his hands, contrary to the principle of the separation of powers (Spasojević, 2020, p. 226; Dragojlo, 2025). The "appointment of party bosses' loyal people to key offices in the state, the employment of loyal apparatchiks at all levels of governmental institutions and the removal of existing employees at these institutions who could later become inconvenient witnesses" (Petrović, 2020, p. 13) has contributed to an authoritarian restructuring of both the party and the state.

The current prevailing form of government in Serbia can therefore be described as "electoral authoritarianism" (Pavlović, 2020, p. 21) or "competitive authoritarianism" (Bieber, 2018; Levitsky & Way, 2002). The relative autonomy (see Chapter 2.2.5) of the state and state apparatus is thus limited not only in relation to actors of capital (for example, foreign investors and domestic elites), but also vis-à-vis the ruling party. Nevertheless, it would be an oversimplification to assume that the state is entirely 'captured'. During the latest protest wave against the government in 2025, government-critical factions mobilized also within the state apparatus, both in its narrow and wide sense. Parts of the judiciary as well as teachers and professors at schools and universities repeatedly went on strike (Advokatska komora Srbije [Bar Association of Serbia], 2025; Karaulić, 2025; Kljajić, 2025; N1 Belgrade, 2026).

Therefore, a materialist theory of the state can be fruitfully applied to the analysis of statehood in Serbia. Both Nicos Poulantzas (1978/2002) and Bob Jessop (2015, 2019a) argue that authoritarianism does not constitute an exception, but rather a specific form of capitalist statehood. In this type of state, its structural selectivities are further constrained, becoming even less permeable for oppositional groups and more favorable to actors in power than is the case in liberal democracies. more strongly while even more strongly skewed towards authoritarian configurations, meaning that they increasingly favor actors in power while becoming more impermeable to opposition groups, parties, and actors. Nevertheless, power struggles over and within the state apparatus also persist in the Serbian context. To account for these dynamics,

this analysis adopts the concept of an *authoritarian party patronage state* rather than that of a fully *captured* state.

4.2 Copper Mining in Bor

The history of mining in the Eastern Serbian town dates back far into the past. Archaeological findings indicate that copper mining in the region of present-day Bor has started as early as 4500 BC (Filipović, 2015). Modern mining and exploration began in 1903, when the industrialist Đorđe Vajfert opened the first underground copper mine, followed by the construction of a smelter and an open-pit mine (Institut za rudarstvo i metalurgiju Bor [Institute for Mining and Metallurgy Bor], n.d.; Urošević et al., 2018). He sold the concession to the French capital company Compagnie Française des Mines de Bor, which operated the mine until 1941 (D. Jovanović, 2025; Romelić, 2017).

During the Second World War, the Kingdom of Yugoslavia was invaded and occupied in 1941 by Nazi Germany and its allies. In Bor, the fascist occupiers established a labor camp. Up to 30,000 forced prisoners from across Europe were forced to work in the copper mines, among them thousands of Hungarian Jews as well as Italian and Soviet prisoners of war (Janjetović, 2017; Pajić, 1989; Rutar, 2005). Between 1942 and 1944, nearly one quarter of Nazi Germany's copper demand was supplied from Bor (Rutar, 2005). In the fall of 1944, the region was liberated by partisan fighters. Prior to their defeat, the fascist occupiers sent thousands of the remaining prisoners from Bor's labor camps on death marches (Pajić, 1989).

In November 1945, the Socialist Federal Republic of Yugoslavia (SFRY) was founded and a one-party system was established, with the League of Communists of Yugoslavia (then the Communist Party of Yugoslavia) under the leadership of former Partisan leader Josip Broz Tito as the ruling party (Calic, 2018). The copper mines around Bor were nationalized, and in 1951 the mining complex "Rudarsko-topioničarski Basen Bor" (RTB) was established (BDO, 2015). In the 1950s and 1960s, major investments followed: new smelting facilities, refineries, and mines were constructed (Institut za rudarstvo i metalurgiju Bor [Institute for Mining and Metallurgy Bor], n.d.). RTB developed into one of the largest enterprises in Yugoslavia, employing approximately 24,450 workers – not only in Bor, but also in production and processing facilities all over the country (D. Jovanović, 2025). The town of Bor, with its economy and society becoming strongly shaped by the mining project, expanded significantly (D. Jovanović, 2025).

In the SFRY, there was no private ownership of enterprises. Unlike in the Soviet Union and other Eastern European socialist states, companies in socialist Yugoslavia were – at least formally – not state-owned. Instead, they were considered 'social property' (*društvena svojina*) and were managed through worker self-management. In 1950, workers' self-management was legally introduced, and workers' councils were established in all enterprises. Economic planning was thus intended to be decentralized, carried out not by the state or the party, but by enterprises and their workers. Municipalities and autonomous provinces also played a role in this system (OECD, 1962; Statistisches Bundesamt, 1990; Musić, 2022).

In practice, however, the state intervened in the planning process and in the distribution of corporate profits, particularly in large or strategically important enterprises. Nevertheless, revenues generated by RTB were used to build housing and vacation facilities for its workers and to finance numerous infrastructure projects such as railways, highways or hospitals throughout Yugoslavia. Bor's copper was sold on the global market but also processed within the country's own industry. The mining operations in Bor were embedded in a local and national production network, including foundries and cable manufacturing plants, among others. RTB owned nineteen industrial sub-companies across Yugoslavia (D. Jovanović, 2025; Radulović, 2010).

Finally, in the 1990s, Yugoslavia disintegrated during a series of wars. The country's economy, including RTB Bor, suffered severely from the consequences of war and the harsh international sanctions imposed on the country in 1992. Both exports and imports of raw materials and parts for machinery were significantly hindered, rendering the company's technological equipment outdated (D. Jovanović, 2025). Additionally, industrial facilities in Bor were hit during the NATO bombing campaign in 1999 (Dimitrijević, 2019). In 1990, RTB Bor produced as much as 150,000 tons of cathode copper; by the early 2000s, annual output had declined drastically. In 2004, production reached a low of around 12,000 tons. This contraction represents a substantial loss of metallurgical capacity and a marked deterioration in the enterprise's competitiveness (Nikolić et al., 2011).

Even the political changes in 2000 (see Chapter 4.1.2) failed to bring about economic recovery for RTB. Some of its branches went insolvent or were sold without ever resuming production. Necessary investments to bring the severely outdated technology up to date were not made (Nikolić et al., 2011). However, unlike many other state-owned enterprises, RTB was not privatized yet. Through subsidies, the government sought to prevent massive layoffs in order to maintain "social peace" (D. Jovanović, 2025, p. 39), amid concerns that the unprofitable

company might otherwise be shut down, resulting in the loss of the central employer in the southeastern Serbian region (D. Jovanović, 2025).

In 2008, the Serbian government concluded a loan agreement with the World Bank (World Bank, 2015). The project was broadly designed to economically restructure the structurally weakened, mining-dependent Bor region. Its stated objectives were to address both the environmental liabilities stemming from decades of mining activity and the social consequences of anticipated workforce reductions at RTB, e.g. through labor-redeployment programs and "private sector's growth" (World Bank, 2015, p. 2). To improve environmental protection, the modernization of Bor's smelter was set as the central goal. Initially, the project identified RTB's "successful privatization as the preferred option" (World Bank, 2015) to solve Bor's problems. In line with this objective, the government tried from 2006 onwards to find a "strategic partner" (Privatization Agency of the Republic of Serbia, 2009) who would buy a share of 40% (with a potential increase to 67%) of RTB Bor for a purchase price of USD 116 million, which were to be dedicated to necessary modernization investments. The state itself offered the investor a concessional loan facility of up to USD 130 million to finance construction of a new smelter (Privatization Agency of the Republic of Serbia, 2009).

This privatization attempt as well as two further ones noted by the World Bank (World Bank, 2015) were ultimately unsuccessful, due among other reasons to unfavorable market conditions such as the declining copper price. The World Bank suspended its disbursements temporarily. Thereafter, from 2010 onward the government itself undertook investments in the construction of a new smelter (Nikolić et al., 2011).

> Since 2010, loans had been taken out many times to enable the company to survive or for building some other projects (…). This particular economic status, especially since 2010, protected the company from its creditors. The company's debts were temporarily blocked. The government would usually claim that the solutions for this company would be taken from the state's budget, but since the state did not have any major revenues, it would, most probably, be paid for by all taxpayers in Serbia. The company, however, tried to reassure the citizens that the debt would be returned from the company's own copper production, which would especially benefit from the high price of copper, presented as if it would never drop in the future. (D. Jovanović, 2025, p. 40).

This policy course was largely maintained both by the Democratic Opposition of Serbia (DOS) and, from 2012 onwards, by the Serbian Progressive Party (SNS). Interviewees frequently cited Aleksandar Vučić's broken promise to keep RTB in state ownership (Group Interview 2; Group Interview 3).

Despite the investments and the commissioning of the new smelter in 2014, many of RTB's structural problems remained unsolved. The promising upswing in global copper prices in the

early 2010s proved to be short-lived; in the following years, prices remained volatile and only partially stabilized (International Monetary Fund, n.d.). At the same time, the copper content of the extracted ore had declined dramatically compared to its 1900 level (Nikolić et al., 2011). RTB's debt levels remained high, and its production technology was far from competitive on the global market; yet wages were increased (D. Jovanović, 2025).

In 2017, the Republic of Serbia, under Prime Minister Ana Brnabić, committed in a letter to the International Monetary Fund to once again pursue the (partial) privatization of RTB and to launch a public tender by spring 2018 (Republic of Serbia, 2017). In July 2018, the strategic partnership was officially put out to tender, attracting – according to media reports – three bidders from Russia, Canada, and China (RTV, 2018). Ultimately, on 28 September 2018, a contract establishing a strategic partnership was signed with Zijin Mining (Ministarstvo Privrede Republike Srbije [Ministry of Economy of the Republic of Serbia], 2026).

4.3 Chinese Investments in the Balkans

It is important to note that investment in copper extraction in Bor does not constitute an isolated case; rather, it is embedded within a broader Chinese investment strategy in the Balkans. Since the early 2010s, there was a significant intensification of Chinese economic engagement in the Western Balkans.

The People's Republic has, through Belt and Road Initiative (BRI) lending and direct infrastructure investment, emerged as a preeminent financier of major projects across the Western Balkans – ranging from transport corridors to extractive-sector undertakings. Currently, there is a total of 136 Chinese projects in the region, among the most significant of which are the construction of the highway in Montenegro, the copper mine in Bor and the Belgrade-Budapest train line (BIRN, n.d.; Chen, 2022; Stekić & Nikolić, 2025; Vulović, 2023). Estimates suggest that, in the period between 2009 and 2021, Chinese investments in the Balkans have amounted to €32 billion, of which the overwhelming majority has gone to Serbia (BIRN, n.d.; Stanicek & Tarpova, 2022).

> Most of this investment has gone into sectors often considered low quality or environmentally and socially controversial, such as mining, metals and low-tech manufacturing. Notable examples include the Smederevo steel factory, the Bor copper mine, the Linglong tyre plant and the Čukaru Peki copper and gold project. In recent years, however, Chinese investment has begun to shift towards sectors with higher value added. (B. Jovanović, 2025)

Compared with traditional Western multilaterals, Chinese credit lines and contractor capacity offer relatively rapid, lower-conditionality financing (Stekić & Nikolić, 2025; Vulović, 2023). Contract confidentiality, limited transparency, and low standards concerning environmental

protection or procurement practices have in many cases already lead to critique of local populations or non-governmental organizations (Ćalović Marković & Milovac, 2020; CEE Bankwatch Network, n.d.). At the railway station in Novi Sad, for example, – renovated as part of the Chinese-financed Belgrade–Budapest railway – a canopy collapsed on 1 November 2024, resulting in the deaths of 16 people (Reuters, 2025). Researchers, experts, and opposition representatives have accused the government of Serbia of exploiting the secrecy of contracts with Chinese construction firms to allocate public tenders to politically connected subcontractors, who allegedly carried out the renovation in an improper and technically deficient manner (Steinwender, 2025; Stojsavljević, 2026).

Another point of criticism raised by civil society concerns the risks associated with loan conditionalities. In several projects, such as the Bar–Boljare highway in Montenegro or the Upper Horizons hydropower plant in Bosnia and Herzegovina, governments have contracted substantial loans from Chinese banks. There are concerns that the infrastructure – which is of strategic importance – could be transferred to Chinese ownership in the event of borrower default, as has been the case with the Sri Lankan port Hambantota (Chen, 2022; Hillman, 2018).

All in all, China's economic investment strategy entails significant political implications. First, the lack of transparency in many agreements creates room for non-transparent procurement practices and corruption, thereby increasing the financial resources for clientelist governance, strengthening authoritarian-clientelist governments in the Western Balkans (Steinwender & Laffert, 2025). Second, recipient states are able to leverage the geopolitical and geo-economic competition between China and the European Union to their advantage. After a prolonged period of uncontested EU dominance in the Western Balkans, the emergence of China as an alternative partner has expanded bargaining power (B. Jovanović, 2025; Laffert & Steinwender, 2025). In response, EU institutions and member states have increasingly sought to counter this competition with growth plans, grants, and concessional lending, aiming to stabilize their economic and political influence over the region (Vulović, 2023).

Certainly, the Chinese investment offensive brings a range of benefits to the region. Significant investments are being directed toward expensive large-scale infrastructure projects that have not been financed by the European Union (Gruebler, 2021). During the 2010s, EU accession negotiations stagnated, and comparatively limited financial resources were allocated to the region (Laffert & Steinwender, 2024). China, by contrast, has been heavily investing in regional connectivity, including the construction of Montenegro's first highway and a high-speed rail

connection linking the Serbian capital of Belgrade with Vienna (Gruebler, 2021; Stekić & Nikolić, 2025).

In addition, brownfield investments have contributed to the stabilization of structurally weak Serbian regions such as Bor, Zrenjanin, and Smederevo, where thousands of jobs are dependent on struggling industrial enterprises (B. Jovanović, 2025). In the case of RTB Bor, there have been multiple privatization attempts over the course of more than ten years – none of which Western companies have made credible bids to (see Chapter 4.2). Public opinion surveys indicate that more than 50% of Serbian citizens perceive Chinese investments as having positive effects on economic development (Mitić et al., 2025). Thus, there is a significant reconfiguration of the region's external economic orientation and strategic dependencies: China has become the largest single investor by value of investments in Serbia, Zijin Mining the country's biggest FDI (Razvojna agencija Srbije [Development Agency Serbia], 2025). Still, the EU remains by far Serbia's main trading partner, and accession negotiations continue (Curic & Tsaava, 2026).

5 Results

In this chapter I present the results of my empirical research. The analysis is structured by the categories of state roles and rationalities I formulated in my Theoretical Synthesis (Chapter 2.3): buying, producing, facilitating, distributing, and regulating, followed by sections on structural selectivity, modes of accumulation and regulation, and hegemonic projects.

5.1 From the Local to the Global Production Network: The State's Retreat

As outlined in Chapter 2.2.2, two central roles states can assume in GPNs are those of producer and buyer. As a producer, the state may participate through state-owned enterprises or joint ventures – more common in major Asian economies such as China or India (Lim, 2018b) and typically concentrated in "strategic sectors such as energy, infrastructure and defense" (Werner, 2021, p. 181). As a buyer, the state uses public procurement to steer demand: it can favor local suppliers, require local-content and environmental or labor standards, subsidize emerging suppliers through guaranteed contracts, and thus direct investment and upgrading within domestic value chains. Both roles can function as industrial-policy instruments to protect and nurture emerging industries or to secure essential goods (for example, pharmaceuticals, foodstuffs, raw material inputs for processing industries) for national supply and value-adding activities (P. B. Evans, 1995; Sparke et al., 2023).

In the case of Bor's copper industry, a retreat of the state from these roles is evident amid its GPN integration. After decades of acting as the main copper producer through the state company RTB, the state sold its majority stake to Zijin Mining and now retains only 34%. The newly established Serbia Zijin Mining d.o.o., which hosts most new mining operations, is wholly (100%) owned by the Zijin group. This change in ownership structure has, firstly, effects on value capture, which are discussed in depth in Chapter 5.3.1. Secondly, it has led to the resources extracted in Bor being predominantly exported. Serbia does not retain or procure a share of the operations' copper or related products. This contrasts sharply with the Yugoslav period, in which Bor's deposits were not only produced by a state-owned enterprise but also procured and processed by related state firms within a local production network (see Figure 2). That network carried the copper further down the value chain inside the country, yielding final products – cables, alloys, and other manufactured goods – that were sold on global markets at higher value added. This shift away from domestic procurement and downstream production was repeatedly emphasized by workers and trade unions I interviewed (Group Interview 1; Group Interview 2; Interview TU1, Interview W1; Interview W2):

> Back then, the company had a complete production line from the ore, from the piece of rock to the hairdryer. From that piece of rock, the concentrate was produced. The copper was poured and processed, and in the end, factories manufactured electrical appliances. Here in the surrounding area, we had satellite plants that made switches, hair dryers, all sorts of wonderful things. We had Megaplast in Donji Milanovac that made medals, charms, and trophies. We made coins for foreign countries. (Group Interview 2, pos. 338–344)

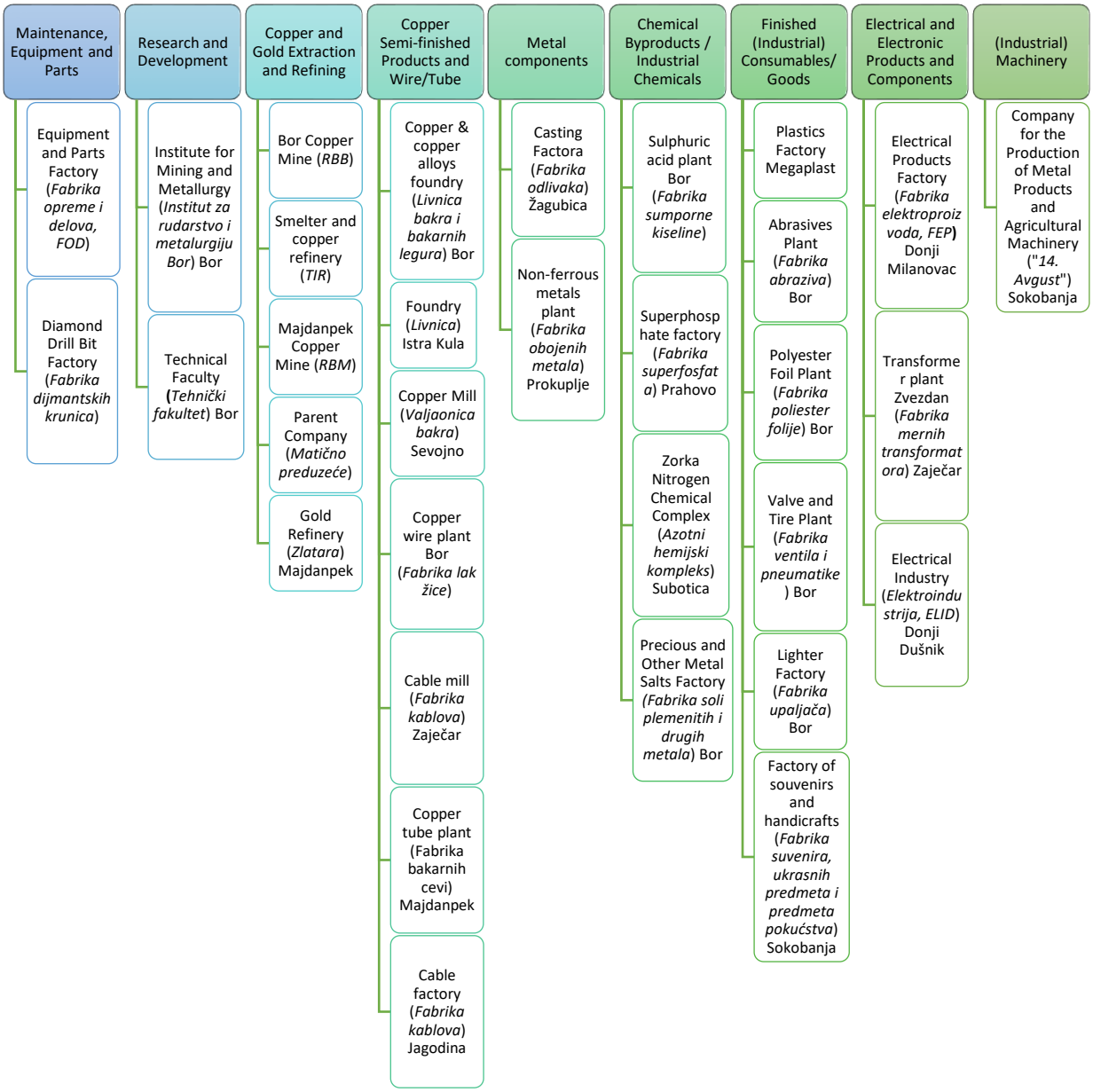

Figure 2: The copper production network in Yugoslavia (post 1975) – partial overview. Source: Author's depiction based on interviews and data (BDO, 2015; Institute for Mining and Metallurgy Bor, n.d.; Jovanović, 2025; Radulović, 2010)[7]

This local production network did not collapse only after Zijin's takeover; it had already been eroded by the wars and economic crisis of the 1990s and by the wave of privatizations in the 2000s and 2010s. As one interviewee put it, it was "directly shut down" (Interview W2, pos. 185) by the governments led by the Democrats in the 2000s, which progressively privatized the processing industry and sold assets to (often foreign) investors – often transferring company debts onto RTB's balance sheet while selling its subcompanies debt-free (Group Interview 2).

[7] This overview is not exhaustive, since data on RTB's full list of suppliers, buyers, and subcontractors is limited. The industrial facilities listed here are those that the cited sources as well as the interview partners identify as belonging to the former RTB group or as verified suppliers to or customers of the company.

In 2018 the SNS government completed the sale of RTB, integrating it into the global production network of the parent company Zijin (see Figure 3), which ships around 72% of its globally produced copper to China for further processing (Zijin Mining Group Co., Ltd., n.d.). Only about 11% of the cathode copper produced in Bor remains in Serbia; the rest is exported (Vasilić, 2025; WITS World Bank, n.d.).

Figure 3: Zijin's global production network: mining operations worldwide. Source: Author's depiction based on Zijin Mining Group Co., Ltd. (2022b)

This accelerated the shift away from downstream processing in Serbia. Bor now exports copper ore, copper concentrate, and cathode copper – products with relatively low levels of value added. Although the domestic processing industry had already declined in the two decades before RTB's sale as mentioned above, the GPN integration of the Bor complex still led to a turning point in the country's export structure. Between 2019 and 2022 exports of unprocessed copper ore increased roughly tenfold (see Figure 4). At the same time, "since Zijin's acquisition of the Bor mines, there has been a significant decline in the export of copper tubes and pipes (HS 7411) – formerly the second-highest export category for Serbia. Additionally, exports of refined copper (HS 7403) have also decreased (…)" (Stanojević, 2024, p. 25).

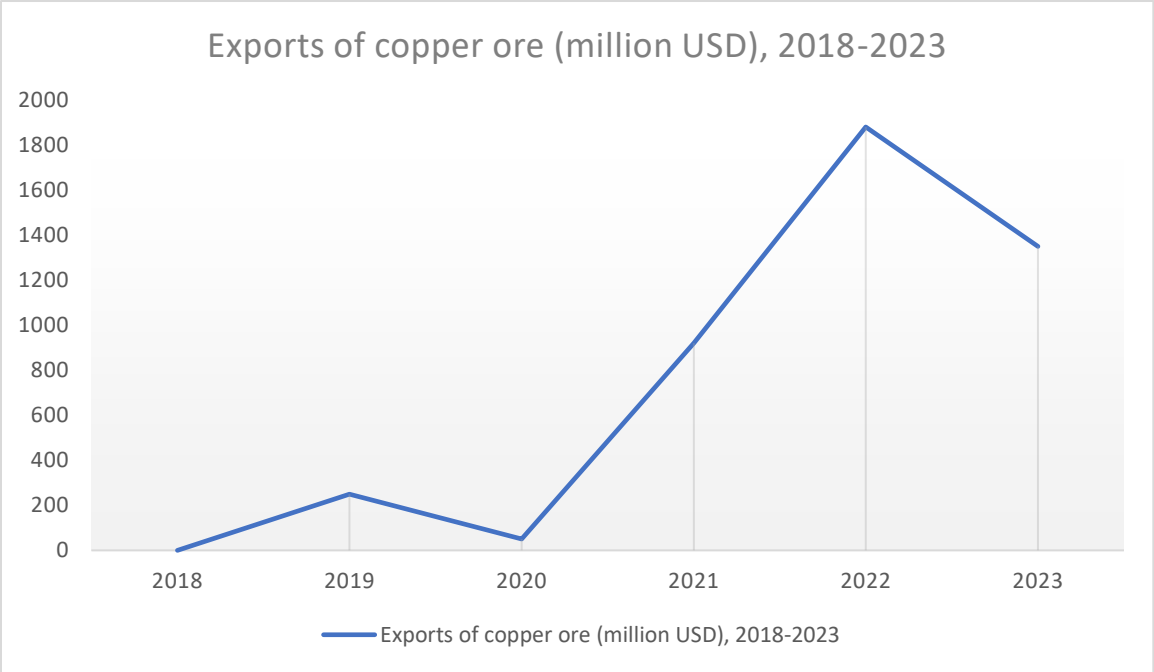

Figure 4: Exports of copper ore from the Republic of Serbia (million USD) 2018-2023 (Stanojević, 2024)

The effects of this shift on local value-creation and on industrial up- or downgrading are examined in detail in Chapters 5.2.1 and 5.3.3. At this point it should be noted that the Serbian state has largely withdrawn from its roles as producer and buyer within the copper GPN, marking a break with the former Yugoslav local production network in which state-owned enterprises not only produced copper but also processed the raw material into chemical products, cables, wires, electrical components, and machinery.

5.2 Facilitation

As outlined in Chapter 2.1, the state can act as a facilitator in global production networks, enabling integration into existing production networks or the creation of new ones (Alford & Phillips, 2018; Horner & Alford, 2019; Werner, 2021). This chapter evaluates whether and how the Serbian state fulfilled a facilitative role in integrating Bor's copper industry into a GPN. I argue that this process unfolded in several phases – from neglect and underinvestment in the 1990s to the 2018 sale – and was accompanied by enabling measures such as bilateral state-to-state agreements and FDI-friendly policies.

5.2.1 Passive Facilitation: Corruption, Underinvestment and Industrial Erosion in Bor

The process of facilitating GPN integration of RTB Bor did not begin only with the 2018 sale. Many interviewees view the company's prolonged crisis itself as a key step leading to its privatization: The state, during a period of over 20 years, refrained from making the investments

needed to bring the company back to viability (Interview T1; Interview W1; Group Interview 2).

This crisis – both interviewees and literature agree – was caused by the Yugoslav wars in the 1990s. War and bombardment, together with massive sanctions and hyperinflation, severely curtailed RTB's exports and sales and caused its profits to collapse (see Chapter 4.2). The enterprise could not procure spare parts for machinery sourced from the West (D. Jovanović, 2025; Interview T1, pos. 90). The company's production technology became increasingly obsolete, and the enterprise grew ever less competitive. As the newspaper NIN wrote in 2003, Bor had become a "remnant of former Yugoslavia that needs to be removed, or perhaps repainted and adapted to the demands of today's market" (Vučković, 2003). The state did neither – a shortcoming that, according to several interviewees, ultimately paved the way for the sale and privatization, which they argue could have been prevented by better management of the company (Interview T1; Interview W1; Group Interview 2).

This was, in fact, repeatedly demanded by the workers. Already in 2003, the employees of RTB went on strike, demanding "[a]long with regular pay, shifts, and everything else that accompanies almost every strike, (…) a resolution for the future of our mining industry" (Vučković, 2003). The remark by then-Prime Minister Zoran Đinđić – "if you can grow peanuts, grow peanuts" (Vučković, 2003) – is still recalled in Bor with considerable bitterness (Interview W2; Group Interview 3). Only one participant in Group Interview 1 (pos. 314) expressed understanding of the Đinđić government's inaction: "He knew the state couldn't lift this on its own. It couldn't handle RTB with its resources at that moment," said the representative of the trade union Nezavisnost (Independence). His colleague disagreed: "Sure, but the state failed in every sense of the word – it was wrong not to keep this wealth in public hands." (Group Interview 1, pos. 317) Still, the first representative cited maintains the state simply lacked the capacity because of the widespread war damage:

> Back then the state really didn't know where to start rebuilding – what was destroyed, what was bombed, what was happening across the country. If you invest here, what are the others going to do? Everything had to be rebuilt after 2000, the whole country. Many companies left, firms that had been under sanctions, so it was very difficult for the state to do it at that moment. Now, if the same thing happened, the state probably wouldn't let it slip – if the Chinese packed up and sold, the state here would likely step in and things would carry on as they do now. But at the start, in 2000, the state simply didn't have the means. (Group Interview 1, pos. 271)

As opposed to this, the majority of interviewees believe there were indeed opportunities to revive RTB into a modern, sustainable operation via investment – the state just failed to seize them (Interview W1; Interview T1; Group Interview 2). Quite the opposite: from the 1990s onward, according to workers, RTB suffered massive mismanagement – and corruption. While

corruption had existed on a small scale under socialism (Group Interview 1, pos. 292–295; Group Interview 2, pos. 333–336), it became widespread during the poverty and wars of the 1990s, both on the state and the company level of RTB.

In the state-owned enterprise, these levels were traditionally closely intertwined. Both under socialist Yugoslavia and thereafter, RTB's directors typically had close ties to the ruling parties (D. Jovanović, 2025). Long-serving director Blagoje Spasovski, for example, was appointed in 1990 as a member of the ruling Socialist Party. He was removed when the Democratic Opposition assumed power in 2000 but was reappointed in 2008 after aligning himself with the new political leadership. Following the rise of Aleksandar Vučić's Serbian Progressive Party (SNS) in 2012, Spaskovski joined the party in 2013 and remained director until the sale of RTB (Istinomer, 2015). Some workers have alleged his involvement in corrupt practices: "He himself no longer even knew where he owned apartments, weekend houses, and villas" (Interview W1, pos. 148).

However, most workers agree that the primary responsibility for the company's mismanagement lies with the state. According to a Zijin Copper pit worker and trade-union representative, the downfall of RTB was

> pure political responsibility. The state ran its affairs very badly. For example: it was claimed that RTB owed EPS [Electropower Serbia] a huge sum and did not pay the electricity bill – yet both are state-owned enterprises. The profit from copper sales and any other revenue went to the state as net profit. From that net profit the state could do whatever it wanted. So the company director at that time did not have the authority to decide, 'Well, we need to pay for the electricity the company used.' No – we had to hand the net profit to the state, and the state would decide whether to cover the electricity. The same applied to investments: you must put money aside for reinvestment. (…) None of that happened. The net profit went to the state. As long as I remember it was that way. Until the Chinese bought it. That's why it collapsed – That's why it collapsed: there is no other reason, just bad management. Not the company's management, but political management. (Interview W2, pos. 157–160)

The former foreman at the Novo Cerovo mine interviewed for this study also believes the state could have raised the capital needed to rehabilitate RTB to the standard the Chinese investors reached. According to him, only the corrupt interests of the state leadership stood in the way.

> Because it was a small pond with many crocodiles. Everyone wanted a share. And nobody invested. The state did have money. I swear they had enough money to invest in RTB as much as the Chinese did. To buy equipment and everything, and to keep RTB state-owned and running – not at this scale, but doing at least half of it. The state would have had gold and copper, there would have been wages for workers and everything. If only it were run properly. (Interview W1, pos. 144–145)

To contextualize the interviewees' statements, it is useful to situate Zijin's investment within the overall budgetary framework of the Republic of Serbia. Upon purchasing RTB in 2018, the Chinese investor committed to invest $1.26 billion over the subsequent six years. The entirety

of the Serbian state's capital investments in 2018 – collectively – amounted to approximately the same sum, covering road construction, dams, wastewater treatment plants, modernization of railway lines, and refurbishment of schools and museums. For more expensive projects such as highways, rail lines and stations, or energy infrastructure, the state relied largely on FDI, grants, or loans from foreign institutions such as the European Investment Bank, the World Bank, or the Export–Import Bank of China (Zakon o budžetu Republike Srbije [Law on the Budget of the Republic of Serbia], 2018).

For RTB, too, the World Bank and other multilateral actors provided credits and loans; however, at a total of USD 43 million these funds were far smaller than Zijin's investment. Moreover, those loans were designated for environmental improvements at the smelter and for regional economic diversification rather than for financing an expansion of production (World Bank, 2015). This distinction is important because expansion and modernization of capacity were explicit elements of Zijin's contractual commitments: Zijin undertook to "invest into technological upgrade, expansion or construction of its four mines and one smelter plant, etc." (Zijin Mining Group Co., Ltd., 2018, p. 1).

The question of how much the state itself benefited from any increase in production will be discussed in Chapter 5.3.1. What is certain is that $1.26 billion represented a considerable sum for the Serbian state. Averaged over six years (the same period given to Zijin), this amounts to roughly $210 million per year. In 2018, Serbia's biggest single infrastructure investment (a section of the "Miloš Veliki" highway) amounted to roughly $97 million. Coming up with double of that sum six years in a row to modernize RTB would likely have required foreign loans which, according to political scientist Dorothee Bohle (as cited in Laffert & Steinwender, 2024), are difficult to obtain from Western creditors for reindustrialization projects. For 'patient capital', that is, capital directed toward large, long-term projects that is not withdrawn when returns falter, but is committed to building infrastructure, acquiring production facilities, and promoting reindustrialization, Balkan governments have therefore increasingly turned to China.

5.2.2 Sale: Privatizing Resource Deposits

This ultimately led to the sale of RTB. In September 2018, the Chinese Zijin Mining Group purchased a 63% stake of the company in exchange for $1.26 billion, including an upfront payment and committed future investments. While states often exert their facilitative role in GPNs rather indirectly, by nudging or incentivizing lead corporations through favorable investment conditions, in this case the state itself very directly integrated Bor's copper industry into a global copper production network.

Parts of Bor's workforce, trade unions and civil society view this step positively, seeing the sale primarily as the rescue of a long-troubled company and thus of their economic livelihoods. This stance was reflected in some of the interviews I conducted (Interview CS3; Group Interview 1). The clear majority of interviewees, however, were critical of the sale, since they viewed the company's problems as having been largely caused by mismanagement and corruption. As one Zijin trade unionist put it, "if the management is no good, you don't sell the company – you replace the management" (Interview TU1, pos. 139). Many interviewees claim that the company was deliberately and wrongly portrayed as a financial burden on the state to legitimize its sale (Interview W1; Interview CS2). They often point to President Aleksandar Vučić's initial promise not to sell RTB, which was later replaced by a narrative portraying the company as a loss-making enterprise:

> TU1: When he [Aleksandar Vučić] came to power, then from the very first day it started to be spread that RTB was a losing game. There was such a media frenzy in the newspapers.
>
> TU3: A climate was being created that presented the sale as inevitable and the only possible path. (Group Interview 2, pos. 332-336)

With the privatization of its copper deposits, many argue, the state has sold the country's great "wealth" (Group Interview 1, pos. 317), a "strategic product" (Group Interview 2, pos. 336), and a key industry:

> When things at home aren't going well, you don't sell a full freezer, you sell a transistor – something you don't need most, instead of selling something you need. But we sold the best we had, we gave it to someone else to run it. (Interview TU1, pos. 260)

5.2.3 "Foreign Policy Play": State-State Relations in the GPN

Besides the sale to the company Zijin, the Serbian state also enabled the GPN integration of its domestic copper industry through bilateral state agreements and diplomatic cooperation with China. As Smith (2015, p. 291) argues, state-state relations are central to the establishment of new GPNs "as the development of GPNs (and economic globalization more generally) is leading states to articulate at new scales in order to form state alliances in the pursuit of accumulation opportunities". In the case of Bor, this is particularly evident – as the Zijin Mining Group noted explicitly when acquiring RTB, "Serbia maintains a friendly relationship with China for a long time" (Zijin Mining Group Co., Ltd., 2018, p. 3).

The sale of RTB is therefore embedded in a broader geopolitical and geoeconomic alliance. As outlined in Chapter 2, China's Belt and Road Initiative, among other objectives, aims to secure access to resources (Ministarstvo Odbrane Republike Srbije [Ministry of Defence of the Republic of Serbia], 2022). Several industrial enterprises were acquired as part of this

deepening relationship – a development President Vučić himself has referred to, alluding to the also-acquired Smederevo steelworks, as a "friendship of steel" (Ministarstvo Odbrane Republike Srbije [Ministry of Defence of the Republic of Serbia], 2022).

Apart from the BRI, China's acquisition of the Bor mine was accompanied by bilateral government agreements. In 2018, shortly before Zijin's official acquisition, Serbia ratified a bilateral agreement with China regulating social security for foreign workers – a law highly relevant for the several thousand Chinese workers at Zijin Bor (Zakon o potvrđivanju sporazuma [Agreement on Social Security], 2018). Furthermore, in 2023 Serbia became the first country in Central and Eastern Europe to sign a free-trade agreement with China (Vlada Republike Srbije [Government of the Republic of Serbia], 2023). The agreement gradually reduced customs duties to 0% for over 95% of products traded between the two countries. Considering that the vast majority (92%) of Serbian exports to China consist of copper ore and concentrate and cathodes of refined copper, it becomes evident how relevant the state-to-state FTA is for the GPN integration of the Zijin-run copper mine in Bor.

Another central factor in the Chinese investment offensive in the Balkans, in which Zijin's purchase of RTB is embedded, is the coupling of FDI with debt diplomacy– a dynamic in which both the Serbian and the Chinese state play important facilitative roles. China pursues a dual strategy, with its banks providing large loans to countries like Serbia for major infrastructure projects, and Chinese companies carrying out those very projects. A case in point is the Belgrade–Budapest railway, financed in part by the Export-Import Bank of China (The Export-Import Bank of China, 2022).

> These loans are usually expensive and the Chinese companies are literally using Chinese money. So they're literally using Chinese money to make profits. And China as a state is also making money from the profits of these loans. So it's something really tempting in an economic sense. This is probably why Chinese companies are here for so many projects. And this is probably why these projects are usually big ones. (...) Wherever you find a Chinese company, there's some infrastructure project or there's a state loan or there's some massive economic investment, like, Zijin, Linglong or whatever. (Interview R3, pos. 7)

In addition to the overarching state-backed loan and procurement policies that favor Chinese firms such as Zijin in Serbia, the Serbian state maintains close cooperation with Zijin, encompassing strategic coordination as well as joint publicity efforts. Both the Ministry of Mining and the Ministry of Economy regularly coordinate and often appear jointly with Zijin's management. At the opening of the new Čukaru Peki open-pit mine in Bor in 2021, President Vučić delivered a speech. He regularly meets with Zijin representatives, sometimes alongside Chinese state officials such as the ambassador (The President of the Republic of Serbia, 2021).

During his meeting with Chinese President Xi Jinping in Beijing, Zijin's investment in eastern Serbia was explicitly discussed (Tanjug, 2025b).

Some interviewees also highlighted the strong diplomatic dimension of Bor's GPN integration: one worker and trade union representative even believes foreign-policy motives were the primary factor behind the sale, noting that North American and Russian firms had also shown interest in the copper enterprise:

> I think it was pure foreign policy play. (…) They gave us to the Chinese in exchange for some loans, some investments elsewhere, or the Chinese wanted it for other influence. (…) They've got that thing they call Belt and Road, I think that's the name. They've got projects here in Bor around that. (…) I think everyone has different kinds of influence. The Americans probably also sought military influence together with the company. (Interview W2, pos. 167–169)

There is indeed evidence that not only Zijin as a firm, but also its country of origin, China, might have mattered for the choice. At the 7th Summit of Central and Eastern European Countries and China in Sofia – held before the tender was published – then-Minister of Mining and Energy Aleksandar Antić stated, "if it is a Chinese company, it will be good for Serbia" (Ministarstvo Rudarstva i Energetike [Ministry of Mining and Energy of the Republic of Serbia], 2018). The integration of the Bor mines into Zijin, one of the lead firms in the global copper GPN was thus heavily shaped by high-level political engagement, geoeconomic considerations and state-to-state diplomacy, mediated through bilateral agreements, official visits and coordinated economic policy.

5.2.4 Territorial Facilitation

In extractive GPNs the state plays an additional facilitative role, enabling the integration of *upstream ends* into GPNs through its territorial function (Bridge, 2008, 2013, 2018; Dorn & Hafner, 2023). Firms rely on the state to acquire both the rights for resource exploitation and the territories necessary to do so (Bridge, 2013). The analysis of the state's facilitative function within extractive GPNs must therefore pay specific attention to the provision of access to resources and relevant territories.

With its majority stake in RTB, Zijin also acquired the company's existing mining concessions and has since obtained numerous additional exploration permits. The state further facilitated the expansion of open-pit mining through changes in land-use classification. The interviewed deputy of the Bor city assembly criticized that the reclassification of, for example, agricultural land for mining is proceeding very rapidly and that the state does not pursue long-term spatial planning to contain mining:

> We have no boundaries for mining. It's not known where the mining boundaries are. So, wherever they wish, they [mining companies] can expand. (…) Zijin Copper is expanding without us knowing how far they might go. They've bought one thing, and they're expanding into another territory. (Interview S2, pos. 25-29)

The state's enabling role in providing territories for multinational mining corporations has already caused political conflict in other cases in Serbia. Mass protests against the Rio Tinto lithium project in the west of the country were sparked by proposed amendments to the Expropriation Law and to the local spatial plan, which eventually reached the Constitutional Court of Serbia (Todorović, 2024). In Bor, where the mining project has already been implemented, the state's territorializing function (Pachoud et al., 2022) is even more clearly manifest. The state enables the mining company both officially – by amending land-use plans and expropriating land (see Chapter 5.3.2) – and unofficially – by failing to sanction expansions of mining activity carried out without the required permits (see Chapter 5.4.2).

5.2.5 Discursive Facilitation and Coercion

Drawing on Gramsci (see Chapter 2.2.3), the state should not be seen as a monolithic actor that centrally controls discourse, yet it nonetheless wields discursive power – especially in the Serbian context, where the media landscape is heavily controlled by the ruling party. My research has shown that the state assists the lead firm Zijin to achieve local hegemony through both consent and coercion.

Discursively as well as materially, the state performs an important role in creating consent for the privatization of formerly state-owned RTB into a global production network. Materially, it participates in annual collective bargaining over wages, where state representatives, according to trade unionists, have sought to broker compromises between the company and trade unions, thereby promoting increasing acceptance among workers and local communities (Interview W2). Discursively, the state actively cultivates consent for the Chinese firm through joint public appearances (see Chapter 5.2.3) and frequent narratives spread in the media stating that Zijin has saved Serbia, brings prosperity and built the first green mine in the country (B92, 2026; Tanjug, 2025a, 2025b). In concrete conflicts between the company and the local population, the state also occasionally acts as a conciliator: when Majdanpek inhabitants accused Zijin of an illegal operation on Mount Starica in 2022 (see Chapter 5.2.5), then-Minister of Mining and Energy Zorana Mihajlović held a press conference in Majdanpek endorsing Zijin's claim that the work was a necessary remediation measure (Beta, 2022b).

Besides generating consent, the state also shapes conditions for the local production network through coercion. Activists in Majdanpek were subjected to house searches and arrests for

protesting the mining company. The Serbian state is not unique in this respect; only, coercion here is often exercised more informally – through intimidation, pressure, and threats (Interview CS1; Interview R2).

5.2.6 Creating Conditions for Lead Firms: FDI Policy and GPN Integration

In addition to measures specifically targeted at Zijin, Serbia's broader investment environment should be noted: it incentivizes not only the Chinese mining group but also numerous other lead firms to integrate Serbian production sites into their global networks. The governments under Aleksandar Vučić, in power since 2012, have introduced a range of such policies, as their economic strategy is strongly oriented toward attracting foreign investment (Interview R3; Interview R1). Serbia attracts GPN integration through low taxes, targeted subsidies, and rapid market access (OECD, 2024).

In addition to the bilateral agreement on social security with China in 2018, which paved the way for large-scale employment of foreign labor, Serbia's most important FDI-incentivizing policy package is the Law on Investments (Zakon o Ulaganjima, 2015). It grants foreign investors a range of state support measures, including tax incentives, reliefs and exemptions from fees, customs privileges, and the free disposal of real estate and land in public ownership. The Serbian state heavily subsidizes each job created by foreign investors: in eastern Serbia "the investor [receives] 30 percent of the eligible gross salary costs for newly employed people in the two-year period after reaching employment commitments" (U.S. Department of State, 2025), amounting to approximately €2,000–€5,000 per new job.

Serbia also offers (foreign) corporations a highly favorable tax environment: with a 15% corporate income tax rate it lies well below the European average (21.6%) and the US rate (25.6%) (Enache, 2026; Law on Corporate Income Tax, 2025).

5.3 Distribution

One of the central analytical categories of the GPN approach is *value* – its *creation*, *enhancement* and *capture* (Henderson et al., 2002). States can actively shape the capture, or appropriation, of value through resource rents, social and wage policies, and taxation. Alford and Phillips (2018, p. 7) refer to this as *distributive governance* of GPNs, describing "the strategies pursued to shape distributive outcomes: in essence, the question of who gets what, who wins and who loses from particular forms of political-economic organization." It is important to note that GPNs are influenced by general capitalist dynamics, meaning that firms always seek to maximize their profits. To do so, they minimize or externalize costs, for example,

with spatial, organizational or technological *fixes* (Coe & Yeung, 2015). This chapter will thus shed a light on how both profits and costs of production are being distributed within the network, that is between firms, workers, local populations and the environment, as well as the regional and national economy.

5.3.1 Profits

The takeover of RTB Bor and the establishment of Zijin Mining have generated enormous profits for the Chinese mining group Zijin. In particular, profits have risen sharply at the wholly-owned subsidiary Serbia Zijin Mining, where most of the new operations are located (see Figure 5). The mine Čukaru Peki, opened in 2021, ranks second on the company's list of most profitable mines worldwide. In 2024, Zijin Copper and Zijin Mining ranked as Serbia's most profitable companies (Serbian Business Registers Agency, 2025, p. 15). However, as Henderson et al. (2002) argue, "[i]t is one thing for value to be created and enhanced in given locations, but it may be quite another for it to be captured for the benefit of those locations" (Henderson et al., 2002, p. 449).

Wages & Jobs

The takeover of RTB Bor and its subsequent expansion under Zijin led to the creation of numerous new jobs. In 2017 the RTB Bor Group employed 4,831 people; today Zijin Copper employs approximately 6,000 and Zijin Mining about 1,300 (Zijin Mining Group Co., Ltd., 2025a). Most of the new hires related to the Zijin-operated copper projects, but occurred in subcontractor firms such as Zijin Construction, Hongda Lianshao Mining and JCHX, where the workforce is predominantly foreign and recruited largely from China and, in smaller amounts, Zambia (see Chapter 5.4.2).

Beyond employment effects, many workers and Bor residents report higher wages as a positive outcome of the Zijin takeover (Interview CS3; Interview W2; Group Interview 1). Average pay at Zijin Copper is substantially above the Serbian national average – roughly 40% higher than in earlier years and nearly 60% higher following the new collective agreement of February 2026 (Beta, 2025b; BizSrbija, 2026; Statistical Office of the Republic of Serbia, 2026a). Nonetheless, miners in Bor have typically received substantially higher wages than workers in other sectors, even before the Zijin takeover. While the company reported a 2.42-fold increase in wages in the seven years after the takeover, the statutory minimum wage rose by a similar factor (2.36) over the same period (Beta, 2025b; Paragraf Lex, n.d.).

Trade unionists complain that workers' share of company profits is very small (Interview TU1; Interview W2). Despite rising wages, the labor share of corporate profits is falling. Labor costs as a share of total revenue at Serbia Zijin Copper fell from 10.8% in 2023 to 7.5% in 2024 (Serbia Zijin Copper DOO Bor, 2024). At Serbia Zijin Mining the share is even lower and steadily declining: 2.6% in 2023, 2.4% and 2024, and about 2.2% in 2025 (Serbia Zijin Mining DOO Bor, 2023, 2025). These figures are very low, even for the mining sector, and are well below the labor shares of major miners such as Rio Tinto (13.2% in 2025) (Rio Tinto, 2026).

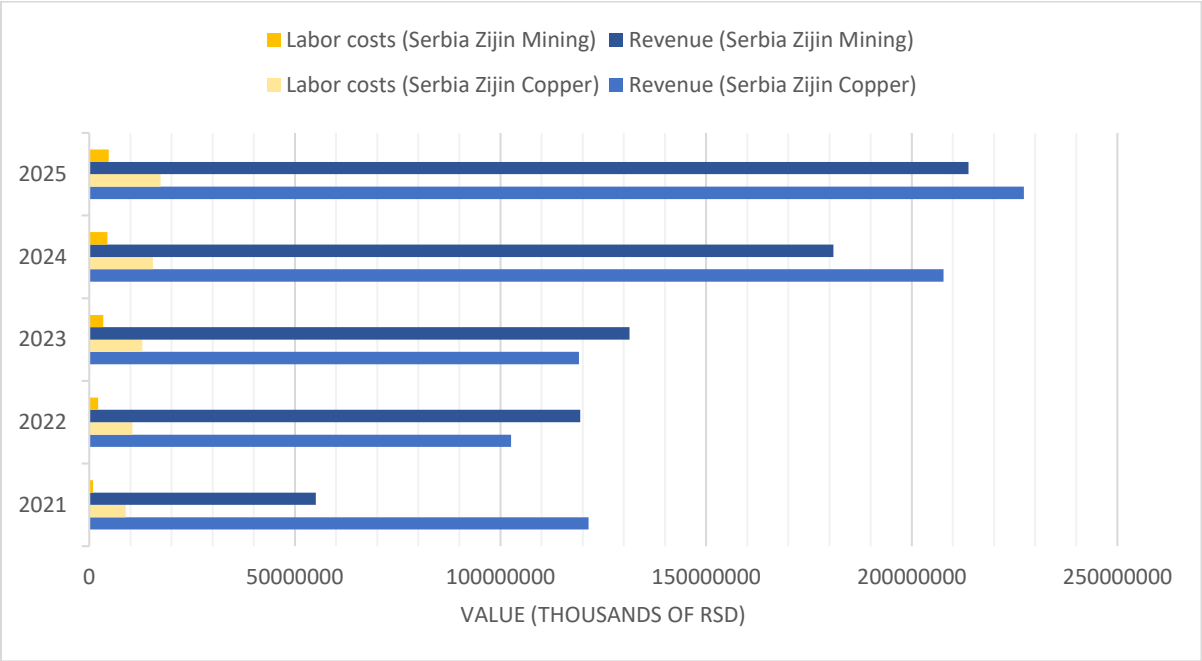

Figure 5: Revenues and labor costs of Serbia Zijin Mining and Serbia Zijin Copper. Source: Author's depiction based on company reports (Serbia Zijin Copper DOO Bor, 2023, 2024, 2025, 2026; Serbia Zijin Mining DOO Bor, 2023, 2024, 2025, 2026)

As a minority co-owner, the state is involved in wage negotiations at Serbia Zijin Copper. According to interviewed trade unionists, in past years the state used this role to press Zijin management in favor of demanded pay rises. In the most recent 2026 negotiations, however, its efforts were noticeably weaker, said the president of a trade union branch at Zijin: "It's clear to everyone: you can't overly accommodate six thousand workers if it will cost the state more elsewhere. (…) I don't believe the Chinese give a cent to workers without the state having to make concessions somewhere else" (Interview W2, pos. 89). The institutional power of both the state and the trade unions to increase workers' share of value capture is limited, leaving the bulk of value captured by the lead firm.

State

Besides the wages of those directly employed in the GPN, the state can pursue other forms of profit capture – for example through resource rents, corporate taxation, and economic

spillovers. Ownership structures also shape profit distribution: “the extent to which firms are totally foreign owned, totally domestically owned, or involve shared equity as in joint-venture arrangements” (Henderson et al., 2002, p. 449) crucially determines the degree of value capture in a given country.

Throughout my research, interviewees frequently criticized that the state ceded majority ownership of RTB to Zijin and therefore now receives only 37% of the profits of the company, now called Zijin Copper (Group interview 3; Interview W1). At the Serbia Zijin Mining entity established in 2019 the state holds no shares. The majority of new open-pit mines and extraction projects – such as the Čukaru Peki mine opened in 2021 – are, however, operated by this Zijin subsidiary, which therefore yields substantially larger profits, as Figure 5 shows. An interviewed worker from the electrolysis plant at Zijin criticizes the Serbian state's failure to capture these profits:

> That new mine is estimated to bear about 100 billion worth. It's no longer ours now, it's Chinese. A completely new mine is opening now. They say it also has large reserves of gold and copper. Which will surely be sold to foreigners. And we will have a 3% [sic!] mining rent. That’s the only thing Serbia gets. (…) In the past, the state got some benefits from the mine for its own development. When all the profit goes away, what do we have from that? Our mineral wealth goes to foreigners. (Group Interview 3, pos. 231–234)

In fact, the resource rent for metallic and non-metallic ores in Serbia, including copper, is 5% and therefore comparable to many Latin American tax rates (Reyes-Tagle et al., 2025). Minister of Mining and Energy Dubravka Đedović Handanović stated in 2023 that Zijin contributed more than five billion dollars to the Serbian economy in the first five years after its arrival, in wages, taxes, and payments to suppliers (Serbia Energy, 2023).

How strongly Zijin’s copper extraction actually generates economic spillover effects for the Serbian economy is not entirely verifiable. Because Zijin is not required to disclose its suppliers, verification of its supply chains must rely primarily on interviews and macroeconomic trade data. While Zijin claims to partner with 1,800 suppliers, the main subcontractors it discloses – and those reported by interviewees in the local GPN – are predominantly Chinese firms (Zijin Mining Group Co., Ltd., 2022a), as shown in Figure 6 below. The key supplier, Fabrika Opreme i Delova (Equipment and Parts Factory, FOD), formerly part of the RTB group and later privatized and sold to the Austrian company ATB, was acquired by the Chinese Wolong Group as early as 2011 (Shaanxi Wolong Nanyang Explosion-Proof Motor Co., Ltd., 2025).

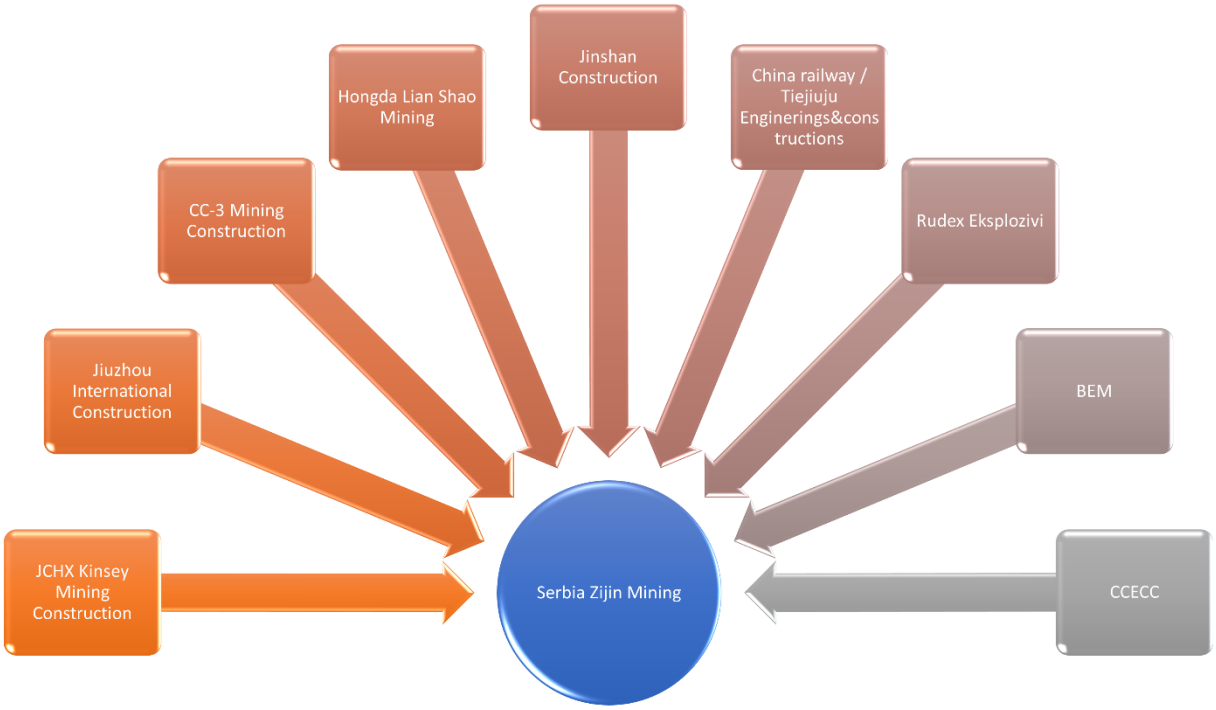

Figure 6: Serbia Zijin Mining's local production network: key contractors. Source: Author's depiction based on Serbia Zijin Mining (n.d.)

Also, there is consensus among interviewees that Zijin strives to import as much as possible from China: "everything they can, they bring from China" (Group Interview 1, pos. 319), say Zijin Copper trade union representatives in a group interview. Parts imported from China range from more advanced equipment such as mills and electrically driven trucks as well as simple components like pumps. An interviewed worker who used to be a foreman in the Novo Cerovo pit made the following observation:

> My workshop uses a lot of pumps. Which transport either water, reagents, or slurry. They wear out. And now we have, for example, pumps that are good, very good. They're very expensive, but they last about two to three years. But the Chinese won't buy that. The Chinese buy Chinese [products]. Which last three months. And they order Chinese again and again. (…) For us to replace a pump, we must shut down hat part of the plant for about a week, until the part arrives, until it's removed, until it's fitted. (…) They say: Well yes, but our industry there [in China] works. (…) Instead of 5 parts, they will buy 105 parts. But Chinese. That's how they will develop the Chinese economy. With their money, but also with ours. (…) The Serbian share [of Zijin Copper] is 33%, so when something needs to be bought, we pay for it too (Interview W1, pos. 65–67).

How much Zijin nevertheless procures in Serbia – and thus stimulates economic spillovers – is not quantifiable with precision. What is clear, however, is that the state does not actively promote such spillover effects or economic embedding within global production networks – quite the contrary (Interview R1). "Foreign investors are exempt from customs duties on all machinery and equipment imported for use in the manufacturing process", making the import of production equipment "consistently cheaper than buying equivalent equipment domestically

in Serbia" (Relocation Serbia, 2026). The 2023 trade relationship with China further facilitates duty-free imports from Zijin's home country: among Serbia's top imports from China in 2024 were electronic equipment, machinery, and vehicles (Trading Economics, 2026). By 2025 China had already become Serbia's largest import partner (Privredna Komora Srbije [Chamber of Commerce and Industry of Serbia], n.d.).

Local population

According to Serbian state officials, the incorporation of the Bor mines produced an enormously positive development outcome for the region (as discussed in Chapter 5.2.6). The company pays property taxes, municipal taxes, and 40% of the paid resource royalties go to the local municipality. The mayor stated in 2021 that the budget of Bor had grown due to the company's arrival: from 1.8 billion RSD in 2018 to 4.0 billion RSD in 2022 (BIZLife, 2021). How much of this growth can be attributed directly to Zijin is not fully verifiable, since budget items such as resource surcharges and municipal taxes are not disaggregated by company. The fee for the use of mineral resources and reserves, however, is likely paid exclusively by Zijin and amounted to 850,000,000 RSD in 2024 – about 7.2% of the City of Bor's total revenue that year (Odluka o završnom računu Grada Bora [Final Account Decision, City of Bor], 2025). For 2025 the resource fee was projected to constitute 41.48% of the budget, an extraordinarily large share (Odluka o budžetu Grada Bora [Budget Decision, City of Bor], 2024).

How much the local population benefits from the taxes paid to the municipality – in Henderson at al.'s (2002, p. 449) words, "whether value generated in a given location is retained there and indeed used to the benefit of the commonweal" – is disputed among the interviewees. On the one hand, several interviewees suspect that parts of the budget end up in questionable construction contracts awarded to government-linked companies (Interview TU1; Group interview 3; Interview W2). Furthermore, public funds are often used to build additional shopping centers and aqua parks while basic public infrastructure is lacking (Group interview 3). Others, such as a pit worker and a trade union representative, say this still represents progress compared with earlier times: "Realistically, given how bad it was, everything is needed" (Interview W2, pos. 121). Furthermore, Bor introduced free kindergartens and public transport, and Zijin donates money to schools and cultural associations and clubs – as noted positively by a member of the Pensioners' Club in Bor whom I interviewed (Interview CS3, Đorđević, 2024; Odluka o budžetu Grada Bora [Budget Decision, City of Bor], 2024).

Overall, Bor's population mostly benefits from the stable employment situation, which was threatened for many years by RTB's prolonged crisis – and has always been extremely dependent on mining. Even in RTB's days people in Bor used to say,

> "When RTB is doing well, the town is doing well too" *(Kad je RTBu dobro, dobro je i gradu).* People were not critical towards such dependency. (…) It was a known fact that the functionality of the service industry and private entrepreneurship in the town depended upon the living standards of the citizens. Those who worked in the secondary industry that cooperated with RTB depended directly on RTB having good production figures. (D. Jovanović, 2025, p. 52)

In conclusion, the mine's expansion has had positive effects on employment in Bor, although these effects are somewhat muted by the large number of Chinese subcontractors and foreign workers. Many mining-related contracts are awarded to Chinese suppliers (see Chapter 5.3.1), so that unemployment in Bor did not reduce at a significantly higher rate than it did on the national level: in Bor, unemployment fell by 41.6% from August 2018 (immediately before the RTB sale) to August 2024, in Serbia it declined by 36.3% over the same period (National Employment Service, 2025). The economic spillover effects of the GPN integration for the region, including developmental outcomes in the form of upgrading and economic diversification, will be further discussed in depth in Chapter 5.4.3.

5.3.2 Costs

When analyzing state policies for distributing value within global production networks, it is necessary to consider not only how profits are distributed but also how production costs are allocated. To maximize profits, firms seek to minimize production costs – a central capitalist imperative evident in GPNs (Coe & Yeung, 2015). This can involve intensifying labor or externalizing costs onto the environment and local populations.

Intensification of Work Pace

Labor costs can be reduced by suppressing wages, increasing mechanization, or intensifying labor – that is, more work performed in the same amount of time (Marx & Engels, 1867/1962). All workers interviewed report that the pace of work has increased significantly since Zijin's takeover.

Zijin has modernized production technology and introduced safety measures such as safety belts and alcohol tests before the shift, but workers on the shop floor and in the pits are being pressured to work faster. This leads on the one hand to greater overall exhaustion and on the other to workplace accidents. Particularly Chinese workers are often injured, sometimes fatally (Bor030, 2024; Radio Slobodna Evropa, 2025). "The problem is that people are exhausted; simply put, production is the priority. Production must be as high as possible – at all costs,"

(Group Interview 3, pos. 110) says a worker from the electrolysis plant. According to interviewees, middle management often pressures workers not to report injuries. Workers and a representative from the NGO RERI say that state labor and mining inspectorates fail to carry out their duties: inspections are carried out only sporadically and rarely produce conclusive results, and responsibilities are often shuffled between different inspectorates (Interview W1; Interview W3; Group interview 3; Interview R2).

Environmental and Health Hazards

Production costs can be reduced by externalizing them onto the environment or the local population. The GPN framework is not known for a sophisticated analytical toolkit to study the "unequal distribution of resources and environmental risks" (Dorn & Huber, 2020, p. 185) as Political Ecology (Perreault et al., 2015) does, for example. That approach, however, often lacks an understanding of how extractivist practices are embedded in production networks and practices of lead firms. Recent efforts have sought to combine the two approaches: Dorn and Huber (2020), for example, combine the GPN concept of *value capture* with a political-ecological perspective on social-ecological consequences to critically analyze development outcomes of (extractive) GPNs.

In the case of Zijin in Bor, cost-shifting is highly evident. Upon acquiring the mines in 2018 the company itself stated that "there are abundant water resources and electricity supply and the costs of utilizing these resources are relatively low" (Zijin Mining Group Co., Ltd., 2018, p. 3). The local population often bears the costs of this resource use – for example through dwindling water resources, polluted rivers or the expansion of open-pit mines without collective resettlement of affected villages being organized or funded. Figure 7 shows the social, ecological, and economic costs shifted to the local population as reported in the interviews; the most recurrent of these will be analyzed in greater depth below.

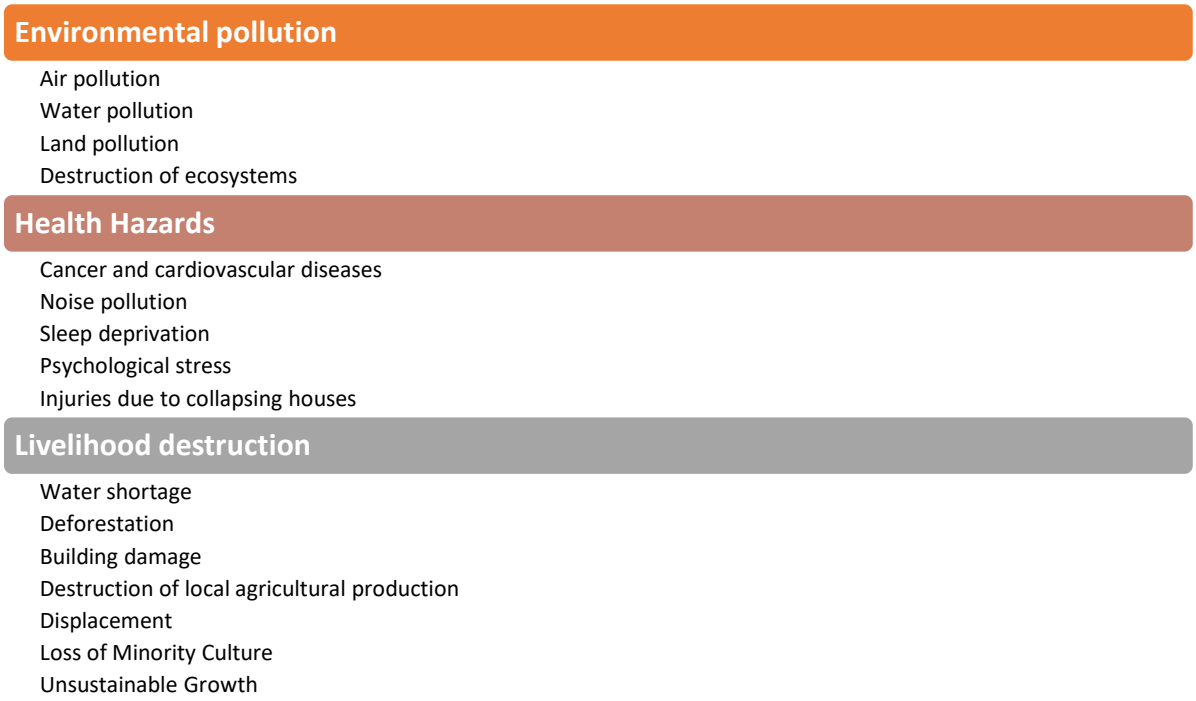

Figure 7: Adverse effects of mining on local populations in and around Bor

Bor has long been a heavily polluted area. Already during the Yugoslav period, it was one of the most contaminated regions and remains one of Serbia's "black spots" (Matić Savićević et al., 2020). Air, water and soil pollution from mining and smelting have severe effects on local public health. There is no official data on local life expectancy, but a local saying in Bor – "the postman at the door, the priest at the gate" (Interview TU2, pos. 185) – expresses the experience that death often follows soon after retirement. That many colleagues do not even reach retirement age has long been part of miners' reality and was noted with little surprise by trade-union representatives at Zijin whom I interviewed (Interview TU1; Interview TU2; Interview W2). However, many environmental burdens – and the related health impacts on the population – have increased since Zijin's takeover.

The company itself claims to have 'greened' production in Bor (Zijin Mining Group Co., Ltd., 2025b). Upon taking over the mining and smelting complex at the end of 2018, Zijin pledged to invest $136 addressing environmental problems (Tanjug, 2018). Measures have included the introduction of electric trucks, the construction of a new smelter commissioned in 2023 and a new desulfurization system, which the company promotes on its website:

> 'Now the environment in Bor has improved dramatically — the city is picturesque,' said a local government employee. 'The chimneys no longer emit black smoke. You can see lush mountains, clear lakes, and white doves flying in the sky. At night, you can even see the stars shining brightly.' (Zijin Mining Group Co., Ltd., 2025a)

Indeed, the modernizations have had a visible effect, which many interviewees confirm. One frequently cited anecdote concerns nylon tights that used to regularly burst because of sulfur dioxide (SO2) exposure (Group interview 3; Interview TU2). All interviewees report far less sulfur-dioxide-related smoke today, and the Serbian National Air Monitoring Network's (SEPA) yearly reports likewise show a reduction in annual SO2 exceedances in 2024 compared with 2017, before the privatization of the mines (Knežević et al., 2018, 2025; Group Interview 3; Interview TU2; Group Interview 1).

But while some technologies have been improved regarding environmental protection, production itself has increased enormously. Zijin has nearly quadrupled copper production in Bor, from 43,000 tons of cathode copper before its takeover in 2017 to 163,700 tons in 2024 (Tanjug/Beta, 2018; Vasilić, 2025). Consequently, many pollution indicators have also risen. Interviewees criticize that "the visible pollution, that visible smoke, has decreased. But the monitoring stations that measure air quality are constantly exceeding limits" (Interview TU2, pos. 133). Although sulfur dioxide concentrations have decreased, Bor records very high airborne concentrations of arsenic, lead, nickel and cadmium (Interview S2; Matić et al., 2025). In 2021, Bor had the highest lead pollution in all of Serbia (Knežević et al., 2022). The carcinogenic heavy metals arsenic and cadmium have remained persistently high and peaked – especially after the new smelter began operating in 2023 – with arsenic levels at some monitoring sites up to 73 times the permitted limit (Kukolj et al., 2024).

The expansion of mining dumps and tailings also poses ecological and public-health risks: toxic dust from these sites spreads and enters the human body (Group Interview 1, pos. 241; Group Interview 3, pos. 25). Soil and water are heavily contaminated. Zijin's expanded production in outdated facilities, often without adequate environmental investment or controls, has degraded water quality in rivers around Bor (Interview R2). Borska, Veliki Timok, Danube, Krivelj, Pek, Mali Pek, Brestovačka and Black Timok are all part of the Danube river basin; several have been classified as heavily polluted and pose ecological threats to the settlements they pass through (Institut za rudarstvo i metalurgiju Bor [Institute for Mining and Metallurgy Bor], 2024) (see Figure 8). Furthermore, the flotation process uses big amounts of water, so that "public authorities imposed drinking water restrictions in Krivelj [a village close to the mine] due to reduced water availability and increased consumption" (Office of the United Nations High Commissioner for Human Rights, 2025, p. 15).

Figure 8: The polluted Krivelj River. Photograph by author, 4 August 2022.

Both residents and experts fear that the health of Bor's population will worsen as open-pit mining expands, despite some technological improvements in production. "We are really afraid about our health. So many people have already died of cancer in Bor (…). What will happen to us if production increases by two and a half times?" (Interview CS1, pos. 57) said a local community member I interviewed in summer 2022. Since then, production has nearly quadrupled (Tanjug/Beta, 2018; Vasilić, 2025). Official cancer-rate data for Bor is not available; RERI says that state institutions deliberately withholds data (Interview R2). The Institute of Public Health of Serbia "Dr Milan Jovanović Batut" issued a related study, co-financed by the WHO, which was made public only after sustained public pressure (Balkan Green Energy News, 2021). The study finds that residents of Bor suffer from significantly higher cancer rates, increased deaths from chronic heart, lung and digestive diseases, and more frequent birth defects (Matić Savićević et al., 2020).

The state – primarily through its systematic failure to enforce environmental laws (see Chapter 5.4.3) – facilitates the company's shifting of environmental costs onto the local population. President Aleksandar Vučić said on the state broadcaster RTS: „They [the Chinese investors] have their own interests, because they have to shut down some of their steel mills and ironworks

in China, probably for clean air – which I don't understand enough to tell you honestly. And why would I care about that, that's their business (…)" (Slobodni Mediji, 2020).

Socio-Economic consequences

Besides environmental and health costs, my research identified a range of socio-economic impacts, including displacement, loss of community and minority cultural identity, destruction of agricultural livelihoods, and concerns about the long-term sustainability of development in the Bor region. These impacts disproportionally affect women, cultural minorities and marginalized groups.

Villages in the vicinity of the town of Bor are particularly affected by mining activities. For the Čukaru Peki open-pit mine, opened by Zijin in 2021, entire settlements had to be relocated and residents were expropriated. Expropriation in Serbia must be justified by "public interest," which the government declared in 2020 (FoNet, 2022). Some residents had their property seized even before the relevant court decision was passed, and many were paid amounts far below market value (Interview S2; Interview R2; Đorđević, 2021).

Other villages have not yet been evicted but lie in close proximity to the mine and are therefore critically affected by dust, pollution, noise, and contamination. The village of Krivelj, for instance, lies in direct vicinity of the Veliki Krivelj open-pit mine (see Figs. 9–10). Because living conditions have become increasingly untenable, many inhabitants have already left: the village population fell from 1,316 in 2002 to 754 in 2022 (Statistical Office of the Republic of Serbia, 2024). The once lively village with a school and several restaurants is now almost deserted. Most houses are abandoned and overgrown (see Figure 10); only at a single kiosk the few remaining residents gather.

Figure 9: Village Krivelj bordering the open pit mine's waste dump. Photograph by author, 5 August 2022

Figure 10: Former resident of Krivelj in front of his abandoned house. Photograph by author, 5 August 2022

The population has long been left waiting in vain for a collective relocation (as is common in German lignite regions). Although this was envisaged in several spatial plans, these were never implemented (Interview CS2; Interview R2; Beta, 2025). Instead, state representatives have strung out the local population: an interviewee from Krivelj says meetings, assemblies and working groups between the Mining Ministry and local representatives were a "farce" (Interview CS2, pos. 46). Individual solutions were always preferred – a strategy also pursued by Zijin. The company and the state "pass the ball to each other" (Interview CS2, pos. 56) over responsibility for the collective relocation: "The government says, 'Okay, but China has to pay,' and China says, 'No, we won't pay; (…)'" (Interview CS2, pos. 56). It appears to be more attractive for the company to buy out residents individually, since expropriation proceedings take a long time and could require higher prices (Interview R2). Instead, company employees reportedly pressure local residents – especially those in poor financial situations – to sell their land below its actual value:

> They call themselves employees of Zijin, introduce themselves politely and say they're the team responsible for cooperation with local community councils. The only "cooperation" is that they come to persuade you that you must move because they need the land for the mine. (…) So, I think many people didn't resist that situation. Many were simply forced, they did the math: I have no heirs or I have heirs, I don't want to live here anymore because the conditions are bad, maybe. (Interview CS2, pos. 63)

These conditions have rapidly worsened in recent years as extraction has been substantially accelerated and expanded. Because the legally required collective relocation of the village Krivelj has still not taken place, the company Zijin conducts mining activities in the bordering Veliki Krivelj open-pit mine without proper permits (Beta, 2025a). Thus, through a combination of unlawful corporate practices and inadequate state law enforcement (discussed further in Chapter 5.4.3) the costs of a collective relocation that should be borne by the state or the company are effectively being externalized onto the local population.

This leads to the loss of existing communities, which is particularly problematic in Krivelj and surrounding villages because a cultural minority resides there. Around 60% of Krivelj's population belongs to the Vlach minority (Office of the United Nations High Commissioner for Human Rights, 2025). Affected residents fear that the language and culture the minority has preserved in settlements around Bor will be lost as those settlements become depopulated by individual migration (Interview CS1; Interview CS2).

Further socio-economic costs cited in the interviews include the curtailment of subsistence livelihoods – that is, small-scale agricultural income sources – whose loss from mine expansion

and pollution disproportionately affects women, as reported by a representative of the civil-society Bor women's organization NIKA (Group interview 3).

Another highly salient topic in the interviews is the perceived unsustainability of the current path of industrial development in Bor. Most interviewees argue that the accelerated pace of extraction will quickly deplete the town's mineral resources and thus undermine its economic basis. As a Zijin trade-union representative put it: "These people [Zijin] will dig everything up and be gone in 20–30 years. Our people would mine it for 300 years. And they would live for 300 years" (Interview TU2, pos. 73). Life in Bor is heavily based on copper extraction. The state has done little to diversify the economy; indeed, an interviewed member of Bor's city assembly notes that other sectors are being actively displaced. Spatial planning is narrowly focused on mining while agriculture and tourism are being systematically undermined, leaving the region with little to fall back on after the mines are exhausted. Just as people settled here to work in the mines after 1903, they would likely leave again once it ends. A trade-union representative half-jokingly predicts, "It'll be like, as they say, the last one out turns off the lights" (Interview TU2, pos. 75). Many interviewees fear that, given Zijin's rapid increase of production, that moment will come sooner than expected (Interview CS1; Group Interview 3).

5.4 (De-)Regulation

GPN literature highlights the regulatory role of the state in two main respects. First, regulation encompasses industrial policy measures aimed at upgrading domestic industry within global value chains – for example, by conditioning foreign direct investment on product upgrading, technology transfer, or workforce training (Horner & Alford, 2019; Werner, 2021). Second, the state can constrain corporate behavior through securing environmental and labor standards. The following chapter will shed light on how these regulatory functions play out in the case studied here.

5.4.3 Industrial Upgrading

GPN literature has examined how states can promote upgrading. In Latin America during the "Pink Tide" of left-leaning governments elected in the late 1990s and early 2000s, for example, some administrations sought to shift agricultural production up the value chain. In Argentina, the "government reinstated *retenciones* (or export taxes) on soy exports, among other agricultural commodities, but tied tax rates to processing, charging lower taxes on derivative products in order to incentivize functional upgrading" (Werner, 2021, p. 185). In China, the Southern region of Dongguan was industrialized with the help of GPN-integration, whereby the

state provided tax incentives and bureaucratic facilitation to firms deploying high technologies, thereby conditioning foreign direct investment (FDI) on industrial upgrading (Rolf, 2019).

Before discussing the upgrading-relevant regulatory actions of the state in the present case, it is necessary to clarify the term 'upgrading'. GVC- and GPN-literature frequently refer to four types of upgrading:

> (1) product upgrading: moving into more sophisticated products with increased unit value;
>
> (2) process upgrading: achieving a more efficient transformation of inputs into outputs through the reorganization of productive activities;
>
> (3) functional upgrading: acquiring new functions (or abandoning old ones) that increase the skill content of activities;
>
> (4) inter-sectoral (or inter-chain) upgrading: applying competences acquired in one function of a chain and using them in a different sector/chain. (Ponte & Ewert, 2009, p. 1638)

Starting from the bottom up, in my research I found no evidence of (4) inter-chain upgrading – that is, the transfer of technologies, competences, or know-how from the Zijin-run copper industry in Bor to other sectors in Serbia. Regarding (3) functional upgrading, there is clearly no inflow of higher-skill activities such as research and development (R&D), marketing, or product design. On the contrary, central management and other high-skill functions have been relocated to the parent company in China.

Concerning (2) process upgrading, however, Zijin has implemented notable improvements. Output has increased both through the acquisition of new and higher-quality machinery and through the more efficient organization of production processes in certain areas (Group Interview 1; Group Interview 3). Since the crisis of the 1990s, work at RTB had been characterized by a shortage of workers as well as outdated machinery and tools, which led to inefficiencies due to frequent repairs (Interview W2). Zijin addressed these shortcomings by hiring new workers and procuring new machinery. As a worker employed in machine maintenance reports, working conditions and efficiency in this area have improved significantly. Work processes have also been partially optimized through reorganization, for instance by introducing regular maintenance of machinery instead of carrying out repairs only in response to acute breakdowns (Interview W2).

Nonetheless, the new production technology introduced by Zijin primarily consists of a greater number of *newer* machines (compared with the old, worn equipment at RTB), rather than representing technological innovation in the sense of product upgrading: "We're not doing anything new or experimental – it's not innovation, just new technology, new machines, and so on. The same copper ore is being extracted, it's just processed more precisely. That's how they

achieved much higher yield" (Interview W2, pos. 12). Trade unionist T1 reinforces this point: "Yes, they bring technology. But that's not in our interest. The technology they brought is just to dig out [the ore] faster – and they take it all to China" (Interview TU1, pos. 307).

Upgrading that increases value capture thus occurs primarily through process upgrading, which raises output – the resulting value gains, though, are mainly captured by the parent corporation, the Zijin Mining Group. Product upgrading does not occur, neither via technological transfer nor learning. The state's role would be central in fostering this, as both the developmental state literature (Amsden, 1989; Oqubay & Ōno, 2019) and interviewees emphasize: "Why didn't we make it a condition that they bring some technology here? So we could make some products of our copper here?" (Interview TU1, pos. 305) States can promote upgrading through industrial policy measures such as targeted technology imports and support for learning. Joint ventures such as the Zijin-state partnership are generally treated as a key vehicle for this purpose (Amsden, 1989; P. B. Evans, 1995; Oqubay & Ōno, 2019).

However, in the case of this partnership, substantial learning is rather unlikely to happen. First, workers report little or no training related to new technologies; second – and more importantly – the Serbian state makes no concerted effort to absorb knowledge spillovers from Zijin in Bor for deployment at other mining sites or in other industries. This contrasts with the Yugoslav period, when R&D, workforce education and the company's operations were closely integrated: RTB sponsored numerous scholarships at the Faculty of Mining and Metallurgy, and the local Institute for Mining and Metallurgy (IMM) remained incorporated into the enterprise until 2006 (Group Interview 1; Interview W2).

Conversely, knowledge spillovers in the Zijin–Bor case appear to flow in the opposite direction. As a more than 120-year-old mining hub, Bor possesses both skilled workers and institutionalized R&D – both the Institute of Mining and Metallurgy (IMM) and the Mining Faculty of the University of Belgrade are located here. Zijin draws on the insights generated in the long history of mining: "The Chinese had no idea that we separate brass to obtain pure copper" (Interview W2, pos. 188). The corporation transfers such know-how within its global production network: management frequently rotates between mines owned by the Zijin Mining group worldwide (Interview CS2; Interview W1; Interview W2). As one worker observes, "they'll easily take any simple change we implemented here and apply it to their other mines. (…) They basically bring innovations that way" (Interview W2, pos. 134). Although that way some knowledge comes into Bor from other mines, most appears to flow outward, since mining,

mechanics, and metallurgy have been developed and transmitted here across generations (Interview W1; Interview CS2; Group Interview 1).

Thus, knowledge transfer and learning are likely to benefit Zijin more than potential industrial development of industry in Serbia. As the company itself noted at takeover: “Bor is an active mining town (…). There are high-quality workers in the industry who possess the relevant skills” (Zijin Mining Group Co., Ltd., 2018, p. 3). The former Yugoslav company FOD, which once belonged to RTB and supplied the Bor copper industry with equipment and parts, was taken over in 2011 by the Chinese firm Wolong in what the company described as a “strategic move” explicitly aimed at industrial learning (Shaanxi Wolong Nanyang Explosion-Proof Motor Co., Ltd., 2025).

5.4.2 Labor and Environmental Standards

The establishment of labor standards and their enforcement, for example, through inspectorates, is a central state function in the regulation of global production networks. Selwyn (2012, 2016) and Rolf (2019) argue for greater attention to “class formation, labor exploitation and migration, and institutionalization – where developments in productive capacity continually upend established relations between capital, labor and the state” (Rolf, 2019, p. 49) within GVC- and GPN-analysis. The labor regime institutionalized by the state is also decisive in the Serbian case of Bor.

According to the labor-law expert from the Institute of Comparative Law, Serbia’s weak labor rights are a central element of the country’s strategy to facilitate FDI and integrate into GPNs. It promises itself as a business and production location on the basis that “workers are good and they are not well protected. Trade unions are weak” (Interview R3, pos. 7). In the present case, however, this characterization only partially applies for two reasons. First, Zijin Copper (formerly RTB) retains high levels of union organization due to its long history (Interview TU1, pos. 24). There are numerous representative unions and the legacy of former collective-agreement benefits – for example, additional leave days – remains in place (Group Interview 3, pos. 399, Interview TU1, pos. 221). Second, many employees at the site are relatively skilled – unlike many other foreign investments that concentrate in low-skilled segments – so “Zijin cannot afford to lose any mining engineers. Maybe they can replace some of them from China, but not all of them, and not as fast as they would like to. So, they're offering all these people really favorable working conditions” (Interview R3, pos. 13).

Nevertheless, Zijin has found a mechanism to make use of Serbia's comparably weak labor standard enforcement despite the locally high standards at the former RTB: subcontracting. This practice allows the company to externalize employment relations and evade the constraints imposed by established collective arrangements, thereby reshaping the local labor regime within the GPN.

As illustrated in Figure 5 in Chapter 5.3.1, Zijin relies on multiple subcontractor firms for its production. Whereas RTB carried out most of the work in the mines in-house, Zijin outsources many tasks, for example, construction works and other related activities at the mine to companies such as Zijin Construction, Hong-Da, JCHX and numerous others (Group Interview 3, pos. 153). Those firms employ almost exclusively foreign workers (Interview W2; Interview TU2). Exact figures are not publicly available, but sources estimate around 10,000 Chinese and several hundred Zambian workers in the town of Bor, which has a total population of approximately 41,000 (Group Interview 3; Interview TU2; Novović 2023).

While unions at Zijin Copper are being treated courteously by the management (the number of full-time released union representatives has not been reduced, and some were even taken on a trip to China), subcontractors pursue a hardline union-busting approach. First, efforts are made to actively prevent the formation of worker representatives in subcontracted firms, even in Zijin Copper's 'sister' company Zijin Mining (Interview 3, pos. 416). Second, outsourcing or subcontracting itself can be regarded as a union-busting strategy by dividing workers. According to interviewees, working conditions at subcontractors are severely worse than at Zijin Copper. Although wages for Chinese workers are reported by several sources to be higher than those of Serbian employees, their working and living conditions are substantially worse (Interview W1; Interview W2; Group Interview 3). Many foreign workers are housed in containers with documented severe hygiene problems: workers report sharing 10-square-meter rooms with nine other people, working 84-hour weeks, and having their movement restricted (Dragojlo, 2021). Also, Chinese workers appear to be killed in workplace accidents more often (Group Interview 3; Radio Slobodna Evropa, 2025).

The Serbian state does not intervene in these working conditions – thereby allowing Zijin largely to embed "attitudes towards labour-management relations, working conditions and welfare benefits" (Coe & Yeung, 2015, p. 16) from its original context into Serbia, primarily by bringing its own workforce. Serbian respondents report that their Chinese colleagues are more "obedient" (Interview W1; Interview W2; Group Interview 3) and more accepting of poorer or even hazardous working conditions. Such practices met greater resistance among Serbian

workers, particularly regarding surveillance, control and hierarchy, which according to workers and trade unionists strongly shape the company culture (Interview W1; Interview W2; Group Interview 2).

> They [the Chinese managers] often give orders even if they're not experts, and then problems arise when people refuse. (…) A concrete example: A senior management might order: 'Put a camera in this corner,' even if it violates moral values and Serbian law. (…) They might install an inappropriate crusher or a wrong part simply because someone decided so. (…) If something is improperly installed, you lose time and power, and production suffers. That bothers our people. (Interview W2, p. 61–64)

The circumvention of Serbian labor standards at Zijin's site in Bor is thus enabled by a combination of subcontracting, union-busting and labor migration. This is not an isolated case: the growth of industrial regions is often "predicated upon both new patterns of labour migration and modes of policy intervention to forestall labour activism" (Rolf, 2019, p. 49) – another prominent example of this is India's textile industry (Mezzadri, 2017). In Serbia, the state facilitates the emergence of such a GPN node based on a poorly protected migrant workforce through bilateral labor-migration regimes (see Chapter 5.2.3) and poor enforcement of labor-regulation standards.

When examining state regulation of GPNs, it is important to note that

> [s]tate regulatory governance strategies encompass not only active regulation, but also active de-regulation, the maintenance of unregulated environments, or the 'outsourcing' to private actors of regulatory functions, including standard-setting. Hence one of the key points of interest relevant to regulatory governance concerns the complex interplay between public and private forms of regulation, including in relation to labour standards. (Alford & Phillips, 2018, p. 7)

Environmental or labor standards are a core state tool to prevent firms from externalizing production costs onto the environment. While many companies avoid these rules by relocating polluting activities to jurisdictions with weaker regulations, Serbia's formal environmental requirements are broadly comparable to EU standards. The decisive problem in the Balkans, however, is not the legal framework but its enforcement: widespread non-compliance and weak implementation shape the region's political-institutional context (Steinwender & Laffert, 2025).

For the frequent exceedances of limits for air and water pollution (see Chapter 5.3.2), Zijin is very rarely held accountable. Individual fines imposed by courts have been, for example, 450,000 RSD and 1,000,000 RSD – roughly $4,500 and $10,000 respectively (Đorđević, 2020; Beta, 2022a). Interviewees suspect it is cheaper for the company to pay these occasional low fines than to comply with environmental laws (Interview TU1; Group Interview 3).

RERI lawyers observed that cooperation between the government and major lead corporations such as Zijin appears to rely on informal arrangements. This is particularly evident in villages

around Bor affected by the expansion of open-pit mines. As described in Chapter 5.3.2, there is no relocation process that genuinely involves the population – consultations are merely performative, says an interviewed resident from Krivelj (Interview CS2). A RERI law expert claims that "real involvement of the population would definitely slow down the process and might not even end up in the relocation that they thought is necessary for the activities of the company [Zijin] to develop" (Interview R2, pos. 17). According to RERI, relocations instead occur sporadically and "rather unofficially; the decisions on relocations are made based on knowing where the company will dig. It is outrageous that this activity is undertaken based on investor's decisions" (personal communication, May 7, 2026).

Furthermore, Zijin frequently operates without the required permits – not only in the Veliki Krivelj pit. Around 80 cases have been brought to court in which the company lacked adequate authorizations. Environmental impact assessments are evaded through salami-tactics (splitting projects into smaller parts) or omitted entirely. Major operations such as waste disposal, construction of mining facilities, flotation tailings and even parts of the new smelter are repeatedly carried out without permits or environmental assessment. Zijin is rarely prosecuted for this; courts frequently legitimize the works retroactively, citing urgency or similar justifications (Interview R2).

Both residents and the NGO RERI report that the relevant state inspectorates (for mining, construction or the environment) "look away when they see a breach" (Interview R2, pos. 49). The judiciary also shows a bias: Zijin is prosecuted rarely and receives small penalties for legal violations. While some judges remain independent, political pressure on the judiciary in high-profile cases seems to be intense, according to RERI (Interview R2). This reinforces that the state-political environment strongly influences lead firm's capability to capture value while shifting costs to workers and local populations. Legal experts I interviewed agree that the lack of separation of powers is a decisive factor attracting lead firms to locate in Serbia:

> We have many investors coming from all around the world who (…) do not feel that they have to respect the legal system here in Serbia fully. (…) You [as a foreign investor] sort of come here with some expectations, that some things will not be, you know, so closely monitored if you're just outside of the margin of the law. (Interview R3, pos. 7)

5.5 Structural Selectivity: Authoritarianism and Corruption

The internal power relations within the state apparatus that enable the strategy of weak enforcement already point to the need to examine not only the state's roles in the GPN but also the rationalities and power relations that underpin them. I therefore turn to the question of why the Serbian state adopts a facilitative, distributive, and de-regulatory role. In this chapter, I

examine which groups inside the state advance their interests in the GPN and what condensed social power relations and structural selectivities this reflects. In Chapter 5.6, I consider the broader accumulation strategies and hegemonic projects into which the integration and governance of the Bor copper GPN are embedded.

As outlined in Chapter 2.1.2, the strategic selectivity of the state – that is, "the strategic bias that makes it harder to achieve some goals rather than others" (Jessop & Morgan, 2022, p. 86) – is highly pronounced in Serbia and clearly visible in the case examined here. The ruling party has effectively 'captured' or aligned large parts of the state apparatus, including local administrations and parts of the judiciary. Zijin, which evidently enjoys the support of the dominant state forces, therefore has little accountability to other state institutions formally separated by the division of powers: to courts that should enforce environmental laws, to inspectors responsible for upholding labor standards, or to the local population suffering severe ecological and health impacts (Interview R2).

The state's facilitative, deregulatory, and distributive roles in the GPN therefore appear to be heavily determined by a dominant group – the leadership of the ruling party – which exerts strong influence over other state institutions. Thus, there is not only little relative autonomy of the state vis-à-vis the corporation Zijin, but also scarcely any relative autonomy within the institutions and levels of the state itself – contrary to what both materialist state theory and the GPN literature's *multi-scalar* approach suggest (Coe & Yeung, 2019). Instead, in the case of Bor examined here the state acts as a relatively homogeneous actor. Both the responsible inspectorates and the judiciary seem to follow an overarching state strategy (Interview R2). The same seems to apply to the local administration. Interviewed residents, trade unionists, and experts report that the local administration possesses little autonomy from the central party leadership in Belgrade (Interview TU1, Group Interview 3, Interview R2). My repeated written and telephone requests for interviews with the local administration went unanswered or were declined.

Which interests does this dominant group advance through the integration and governance of the local copper GPN in Bor? Several interviewees accuse the government of selling RTB to enrich its own financial resources rather than pursue a national economic strategy. In the context of a 'captured' state, where "they just siphon money off the budget" (Interview TU1, pos. 291), the sale of formerly state-owned assets can be a highly lucrative business for the party in power. Privatization can boost "the material resources of the rulers" and provide "the government with enormous resources to be distributed" (Günay & Dzihic, 2016, p. 535). As a trade-union

representative at Zijin put it: “When it's state-owned, you steal a little all the time. But when you sell it, you hit the jackpot all at once, you get loaded” (Interview TU1, pos. 291).

By contrast, civil society and trade unions – actors that materialist state theory treats as part of the extended state (see Chapter 2.2.3) and GPN literature recognizes as central actors in production networks – hold noticeably little power in the examined GPN. As Dorn and Huber (2020) argue, the distribution of power and the degree of value capture in a GPN are closely related, since the former “determines if and how value can be captured in a specific location” (Dorn & Huber, 2020, p. 184). In the Bor case value capture for the local population and workers is therefore low: they bear the costs and negative externalities of Zijin’s extraction to an extent that is existential, threatening their livelihoods, health, and life expectancy. At the same time, they capture only a minor share of the gains: wages for workers have not risen proportionally with the company’s profits, and citizens benefit only to a limited extent from the municipality’s increased budget through mining rents (see Chapter 5.3.1).

The strategic selectivities of the Serbian state are so consolidated that civil society and trade unions clearly have little leverage to shape the GPN configuration in their favor. Repeated, sometimes militant protests – such as the occupation of Mount Starica in 2022 and the months-long blockade of the road to the Krivelj mine in 2024 – have not achieved the change they aimed for (Interview CS2, pos. 191–195; Interview S1; Group interview 3). A member of the women’s organization NIKA I interviewed said:

> What can we do? Gather, make noise, write letters, file lawsuits and appeals. They [politicians] are like, ‘Just write.’ No problem. They don’t care that you write. It has no effect. Nothing gets achieved. I had so much hope for last year’s women’s blockades that they would somehow bear fruit. That someone would show up, someone would come and ask, ‘What do you women want exactly? What bothers you? How can we help you?’ No one showed up. Absolutely no one. (Group interview 3, pos. 272–273)

5.6 Accumulation Strategy and Hegemonial Project

Despite the financial incentive that the sale of a state asset can present in overly centralized systems with authoritarian structures and weak power balances (Günay & Dzihic, 2016, p. 535), the actions of the Serbian state in the case of the present copper GPN cannot be explained by this alone. In this chapter, I will argue that the integration of structurally weak regions like Bor into global resource GPNs is part of a broader accumulation strategy pursued by Serbia’s ruling party, as well as a mode of regulation and hegemonic project supporting it.

5.6.1 Accumulation Strategy: Mining Boom for the Global Energy Transition

Capitalist economies can exhibit different patterns of capital accumulation: dominant technologies, sectoral composition, investment patterns, productivity growth, and consumption structures determine how surplus is produced and realized. An export-oriented economy with a robust manufacturing base, for instance, can be maintained by low wages, since it depends on foreign markets rather than domestic demand. As has been discussed in detail in Chapter 4.1.1, Serbia's accumulation regime relies on the manufacture of low value-added parts, mainly for export to Western European – especially German – industry. Investment patterns have therefore been dominated by German firms that invest in low-paid, technologically simple manufacturing.

Recent developments not only include a massive inflow of Chinese investment but also a remarkable expansion of the extractive sector. As shown in Figure 11 below, industrial output in mining and quarrying rose by 82.3% between 2020 and 2025. Vučić declares that, thanks to Zijin, "we will soon become the biggest copper and gold producer in Europe" (Tanjug, 2025a). The expansion of mining and quarrying is becoming a central pillar of the accumulation regime: In 2023, the Serbian Minister of Mining and Energy announced that mining accounts for rising shares of GDP and public budgets, thus becoming "one of the most important drivers of the economy" (Serbia Energy, 2023) derived from the sector. From 2022, copper ore has become one of the country's most important export products, among insulated wire and other parts which mainly supply the German automotive industry (Privredna Komora Srbije [Chamber of Commerce and Industry of Serbia], n.d.).

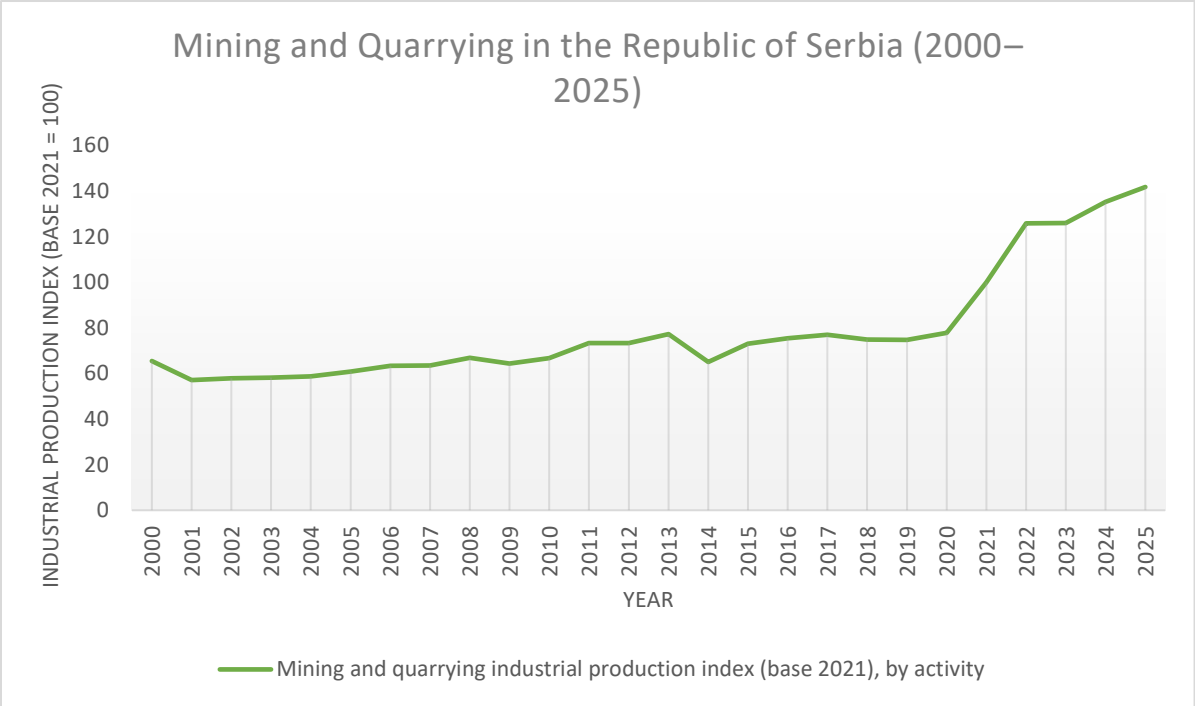

Figure 11: Mining and Quarrying in the Republic of Serbia (2000-2025). Source: Author's depiction based on data from the Statistical Office of the Republic of Serbia (2026b)

The mining boom in Serbia coincides with the rising resource demand in the centers of the global economy. The online portal Serbia Business positively notes that Serbia "possesses a resource base – particularly in copper and lithium – that is directly aligned with Europe's strategic priorities" (Serbia Business, 2026). Those priorities remain Western European: Serbia neither produces nor consumes electric vehicles (or the electric energy systems more broadly) that raw materials such as copper and lithium are intended to serve (International Energy Agency, 2023). Zijin is therefore emblematic of a broader trend: a mining boom driven not only by rising demand in the global economic centers but also by MNCs headquartered in those centers (for example, China, Canada, and Australia). This trend is particularly pronounced in the eastern Serbian region but is also spreading to other parts of the country. Many exploration rights have been awarded to such firms; according to BIRN, by 2022 an area of 5,673 km² – about 6.41% of Serbia's total territory – was under exploration licenses (BIRN, 2022). In 2021, Serbia also amended its Law on Mining and Geological Exploration, whose first premise states that the "continuous supply of sufficient quantities of mineral raw materials is essential for strengthening and sustaining a market economy in the Republic of Serbia" (Zakon o Izmenama Zakona o Rudarstvu [Amendments to Mining Law], 2021). Some international governments like the Canadian one already advertise Serbia as the „new European mining and exploration hub" (Global Affairs Canada, Trade Commissioner Service, n.d.) to their companies.

5.6.2 Securing Low-Paid Jobs: Mode of Regulation and Hegemony

As laid out in Chapter 2.2.4, an accumulation regime (as the material pattern of capital accumulation) is typically underpinned by a mode of regulation: a set of institutions, norms, and values. Serbia's current accumulation strategy, based on FDI in low-wage manufacturing and mining, relies on institutional ensembles, legal frameworks, wage-setting mechanisms, and social policies that offer relatively weak protection to workers, local communities, and the environment while providing profitable conditions for investors:

> The economic policy of Serbia is such that it is fully dependent on direct foreign investments. So, the government is not very picky about who will invest in Serbia. (…) And of course, when you advertise your country, you have these features like workers are good and they are not well protected, trade unions are weak. (…) I think that's how they promote themselves (…), which is not really flattering. (Interview R3, pos. 7)

At the same time, these jobs – though weakly protected, poorly regulated, and often low-paid – are a central component of the ruling SNS's hegemonic project. This is based less on a sophisticated ideological program than on a narrative of economic stability and progress. The breakup of Yugoslavia in the 1990s, the following waves of privatization, and the 2008–09 global financial crisis all severely affected the region's population. In 2012, the SNS came to power promising, among other things, to tackle the high unemployment rate. Vučić regularly asserts that the high number of foreign investments is making Serbia the "economic tiger" (Tanjug, 2016) of the region. (Günay & Dzihic, 2016; Tiedemann, 2024).

While most of these investments create jobs in the low-wage sector, for economically vulnerable groups with limited education and poor labor-market prospects, these jobs nevertheless make a real difference. In rural, structurally weak areas, foreign manufacturing plants often provide a crucial source of income for low-skilled workers (Interview R1). Lower wages are therefore tolerated, as is accommodating investor interests to retain those jobs. President Vučić is quite explicit about this fact: "What do you want, for us to close factories and scare off investors?" (B92, 2026). After all, German and Chinese companies and their suppliers employ hundreds of thousands in Serbia, the president added in the same media statement. Besides business "tycoons" (Pešić, 2007, p. 22), the SNS traditionally relies on groups with low income, poor education and little perspectives on the labor market (Laffert, 2025).

The creation of such jobs in structurally weak regions is also a central element of the economic rationale behind the Chinese investment in Bor examined here. President Vučić repeatedly reinforces his narrative that "the arrival of Zijin in Serbia (…) literally protects that part of our country" (Tanjug, 2025b). As elsewhere in Serbia, local support for the ruling party is tightly

linked to securing employment – which in the region essentially means securing the mining industry. As one interviewed worker from the pit put it, stable employment in Bor is political capital for the SNS:

> Given how many workers in Bor depend on it [mining], it's easily turned into political leverage. And it's not just Bor. If there's no money in Bor, there's no money in the surrounding towns – not in Zaječar, Negotin, Kladovo, or Knjaževac. The whole eastern part of Serbia depends on the earnings here (…). That's the main reason why it pays off for the state to keep things calm and well paid here. (Interview W2, pos. 90–94)

To conclude, China's employment-securing FDI in the structurally weak eastern Serbian region integrates not only into the mining boom as an accumulation strategy but also into the SNS's hegemonic project. Zijin thus represents the most advanced example of a broader trend of integrating Serbian mines into global extractive production networks. This linkage combines an accumulation strategy (an FDI-driven mining boom) with a corresponding mode of regulation (weak institutional power, poor law enforcement, weak labor and environmental protections, and a low-wage environment) and a hegemonic project (a narrative of progress and economic stability tied to securing low-paid but relatively stable jobs in structurally weak rural areas).

6 Summary and Discussion

In this chapter, I summarize the findings of my empirical research, discussing the Bor copper complex against the backdrop of theoretical debates and international developments in extractive GPNs.

6.1 The Role of the Serbian State in the Copper GPN

In contemporary debates on the global political economy of the energy transition, the term *green extractivism* denotes concerns that the extraction of so-called green minerals in post-colonial or (semi-)peripheral countries may reinforce raw-material dependence, while higher value-added activities within production networks associated with emerging low-carbon industries remain concentrated in early-industrialized core countries and recent technological leaders such as China. A question fiercely debated in both academia and politics is whether resource-rich countries can leverage their mineral endowments to upgrade into downstream segments of these value chains such as battery manufacturing. Chile and Mexico, despite measures such as nationalization or taxation, have so far failed to achieve large-scale downstream industrialization based on lithium, whereas Indonesia shows more promising prospects regarding nickel processing (Carrasco & Madariaga, 2026; Hernández Westpfahl et al., 2026;

Rosada et al., 2023). My case study examines Serbia, which has also been experiencing a recent mineral boom.

Its potential for product upgrading differs from postcolonial economies such as Chile or Zimbabwe. As I show in Chapter 5.1, the Bor copper mines were once embedded in a highly developed local production network for copper processing, producing numerous value-added goods in factories that were partly also organizationally linked to the mining and metallurgical complex in the overarching RTB Bor group. As one interviewee put it, "back then, we were already excellently developed" (Interview W2, pos. 184). The processing industry did not collapse only after the integration of the Bor complex into Zijin's global production network; however, that integration has accelerated an existing trend toward exporting less-processed commodities – more copper ore and fewer processed products – that is, downgrading.

The state significantly facilitated this development – first and foremost through long-term neglect and underinvestment (see Chapter 5.2.1). Peter Evans (1995), on whose "Embedded Autonomy: States and Industrial Transformation" Horner & Alford (2019) draw on for their state-in-the-GPN typology husbandry, identifies *husbandry* as one of the key roles the state can play in terms of industrial policy. Besides as a midwife (nurturing new industries), demiurge (strategic planning and large-scale technology programs) and custodian (upholding regulatory frameworks, environmental standards, labor protection, etc.) the state can act as a husband, stewarding and preserving industrial resources and competences to promote sustainability and resilience. Instruments associated with husbandry include capacity building, resource management, and long-term financing schemes – policies aimed at preserving strategic supplier networks, managing strategic raw-material stocks, and supporting training and R&D. Bor was once a regional hub of mineral wealth, with a long mining tradition, substantial local knowledge, R&D capacity, and processing infrastructure that husbandry-type policies might have sustained.

My case study of Bor demonstrates an exemplary failure of the state in this regard. Like in most other Yugoslav successor states, Serbia saw its industrial heritage from the Yugoslav period collapse. In the post-socialist transition, under pressure from Western actors and international organizations, the state withdrew from its roles as buyer and producer in the 2000s. Previously, state enterprises had conducted both extraction and downstream processing (Chapter 5.1). China provides a rare counterexample of this widespread trend in post-socialist countries: it largely avoided the shock-therapy prescriptions of international institutions and retained control over key sectors (notably energy and, to some extent, mining), enabling state actors and leading

state-linked firms to secure long-term resource supplies and support the development of low-carbon technology industries (Lim, 2018a; I. Weber, 2021). Because SOEs can act on longer strategic horizons than purely profit-driven firms, they have been able to prioritize supply security over quarterly returns, helping China acquire or secure strategic mineral deposits worldwide through leading firms such as Zijin, thereby underpinning its global leadership in certain low-carbon sectors.

Many interviewees in Bor criticized the Serbian state for having sold its own strategic mineral deposit. Unlike China, Serbia did not anticipate global trends such as electrification, which drove a sharp rise in world copper prices. That price surge, interviewees argue, is a key reason Zijin has reaped enormous profits from copper extraction in Bor – not only from modernizing the mine and increasing output (Interview W1; Interview TU2). Trade unionists and workers contend the state failed to recognize the enduring economic value and potential inherent in copper extraction: "We were always producing a strategic project," (Group Interview 2, pos. 336) a trade union representative from the Zijin smelter said. Several others added that selling the "most valuable" (Interview TU1, pos. 260) asset was a grave mistake by the state. Most interviewees agreed that RTB did not just become unprofitable but was presented as a loss-making enterprise (Group Interview 2; Interview CS2; Interview W2). This discourse, together with the actual industrial erosion in Bor caused by corruption, neglect, and underinvestment (see Chapter 5.3.1), provided the government with political justification for a broader privatization trend that had already been initiated by the governments led by the Democratic parties in the 2000s and was heavily imposed by international institutions and Western core states (Woodward, 1995). Also in the specific case of Bor, the World Bank urged the Serbian government to privatize the copper mines.

In 2018, the state ultimately carried out the sale. This was facilitated domestically by broader FDI-attraction measures – tax incentives, fee reliefs and exemptions, customs privileges, free disposal of publicly owned land and real estate, and high employment subsidies per paid job – and externally via interstate mechanisms (a dimension Smith (2015) highlights as a key state role in GPNs; see Chapter 5.2.3). Serbia and China signed a Free Trade Agreement in 2023, for which the takeover of the Bor copper mines likely served as an important occasion, as the FTA enables duty-free export of copper ore and duty-free import of Chinese parts. Zijin is also conspicuously embedded in diplomatic and foreign-policy relations: cooperation with the lead firm is "very political," as R3 (pos. 13) noted, with frequent joint public appearances. In general, the state frequently deploys its discursive capacity to build consent for Zijin – framing the deal

as a rescue for the region and legitimating contested measures – but also resorted to coercive measures, including arrests of activists and informal pressure (Chapter 5.2.6).

My research also shows the crucial role of the state in capturing value, that is, in distributing profits and costs within the GPN. Most actively, the state has sought to influence wage levels: Zijin was required at takeover to adopt the existing collective agreement, and trade-union respondents reported efforts to press the lead firm during subsequent wage negotiations to secure higher pay (Chapter 5.2.1). Zijin Copper in Bor has some of the most favorable collective agreements in Serbia. Yet, as my data evaluation has shown, wages' share of corporate profits has declined. The state therefore appears to possess limited power over the lead firm to extract a higher degree of local or national value capture.

State action has likewise failed to generate substantial economic spillovers. Although both the company and the government claim the investment supports local suppliers, the principal local subcontractors named both by the firm and by interviewed workers are mostly Chinese. Workers and unionists also report that the company sources parts from China, thereby strengthening Chinese industry rather than local supply chains. The Serbian state enables this through customs exemptions on machinery and other incentives it grants foreign investors, as well as by the FTA with China. The materialist state-theory observation set out in Chapter 2.2.5 – that peripheral states' relative autonomy vis-à-vis (foreign) capital fractions is often constrained – is confirmed by my case study: rather than conditioning investment on local-content or supplier commitments, the Serbian state offers foreign investors highly favorable terms.

Nonetheless, the local budget of the City of Bor has risen sharply since Zijin's takeover – driven by mineral-use fees and payroll taxes which multiplied municipal revenues within a few years. Among interviewed residents of Bor, it is disputed how much of this windfall reaches them: contracts for public works are often awarded to government-linked construction firms, raising concerns about corruption. Some interviewees, however, point to tangible benefits. Through free kindergartens and public transport residents seem to be feeling at least part of the budget increase. The most significant positive effect for the wage-dependent local population is undoubtedly the increase in employment – a crucial change for the otherwise rural, mining-dependent region after many years of crisis at RTB.

Yet the employment gains for the region are partly undermined by Zijin's recruitment of several thousand migrant workers, predominantly from China. Respondents report that these workers are not paid less but are often employed under miserable working conditions. By employing

almost exclusively Serbian workers (about 6,000) directly at Zijin Copper while subcontractors hire almost exclusively Chinese labor, the employer pursues a dual strategy: Zijin Copper (the former RTB) employs roughly 6,000 almost exclusively Serbian workers, while an even larger number of migrant workers are hired by new subcontractors. This circumvents the strict regulations and advanced collective agreement established through a long tradition of unionization at RTB, now Zijin Copper, and effectively divides the workforce along national lines: high wages and comparatively good conditions for local employees generate consent, while a parallel, poorly regulated labor segment is created through subcontracting. The state facilitates this strategy both through a bilateral labor agreement with China enabling migrant employment and via de facto deregulation – by systematically failing to inspect or sanction labor conditions for foreign workers, who do not represent a potential voter base for the ruling party. This new labor regime, based on highly unregulated and uncontrolled conditions, is not unique to Zijin. Similar developments are observable in automotive factories supplying the German car industry as well as in the public transport sector. These patterns occur not only in Serbia but across the European semi-periphery, where firms increasingly deploy foreign workers from peripheral countries (Heindlmaier & Assmus, 2026).

Deregulation was also evident in the domain of upgrading, where GPN literature locates a key opportunity for the state to link GPN integration to upgrading (Chapter 5.4.1). As Werner (2021, p. 179) notes, "[m]ost commonly, the goal of state action is for domestic capital to obtain or improve its position (i.e. upgrade) within these networks." In Bor, however, out of the four upgrading dimensions Ponte & Ewert (2009) defined, only process upgrading has been realized, that is, a rise in efficiency through newer machinery. Those gains primarily benefit the employer, who can increase output and extract higher quantities of raw materials. Apart from resource rents, Serbia derives little benefit from this (see Chapter 5.3.1). Product, functional and intersectoral upgrading did not occur – on the contrary: exports of processed goods have fallen since Zijin's arrival, while exports of unprocessed copper ore have risen dramatically. My research found no evidence of state measures designed to steer the lead firm or the GPN configuration toward upgrading – indeed, policy choices have facilitated the opposite. This distinguishes the Serbian case from countries like Indonesia, that have used export bans on raw materials to pursue upgrading (Rosada et al., 2023).

Finally – and perhaps most strikingly – deregulation is also evident in environmental protection (Chapters 5.3.2 and 5.3.3). Although Serbia has strict environmental laws (which the EU frequently invokes to guarantee 'green' lithium mining in the Jadar Valley [Ćemalović et al.,

2025]), my case study proves that responsible state institutions – inspections and courts – systematically fail to enforce these laws, or enforce them only weakly. Zones of de facto deregulation, where laws apply only partially, appear to be created for foreign investors such as Zijin. This regulatory gap is a key mechanism through which Zijin increases profits by externalizing production costs onto workers and local communities. My findings show the company routinely exploits loopholes, exceeds pollution limits, and proceeds with major projects without proper permits.

6.2 Unholy Alliance: MNCs and Authoritarian, Corrupt Governments

The GPN approach has long emphasized that global production networks exist precisely because of particular regulatory and welfare regimes. More explicitly than its predecessors, the GCC and GVC frameworks, scholars of the GPN school argue that institutional, political, and social contexts are highly consequential for firms' location decisions:

> What is added from a GPN perspective, however, is the recognition that institutional-cum-territorial logics matter for global production network actors. They are not just background context, as seems to be inferred in many GCC/GVC-styled analyses, but important shapers of why such actors do things in particular ways in particular places. (Coe & Yeung, 2015, p. 14)

Multinational mining companies may choose Serbia and other successor states of Yugoslavia precisely because of their politico-economic environment. This includes comparatively low labor costs, weaker labor standards, and other facilitative measures such as mining and exploration laws that both Serbia and the Republika Srpska (under controversial leader Milorad Dodik) adjusted during the recent mining boom (Chapter 5.6.1). Yet the issue goes well beyond these official policies, to which GPN analysis is often too narrowly focused. My case study of Bor shows that multinational lead firms benefit especially from the state's unofficial practices. In the Serbian example, the authoritarian restructuring of the state has limited the separation of powers, allowing the ruling party to influence state institutions so that laws are not or only weakly enforced (Chapter 5.5). The state also resorts to coercion, repression, and clientelism to limit resistance to the mining company's activities (Chapter 5.2.6). MNCs thus benefit from the weakened capacity of civil society and trade unions to assert their interests within the strategic field of the state, enabling the lead firm to shift costs in the form of environmental damage or intensified work pace to a higher degree than would be possible in states (such as Germany) where these actors are more strongly embedded in the state apparatus. For Zijin, the authoritarian government in Serbia thus presents a "stable political environment" (Zijin Mining Group Co., Ltd., 2018, p. 3).

Conversely, local elites also benefit from these deals. As early theories of imperialism (Lenin, 1917/1930) and the dependency school have shown, the global system of dependency is sustained by "coincidences of interest between local dominant classes and international ones" (Cardoso & Faletto, 1979, p. xvi). The interests of local elites always have an effect on the formation of global production networks (Smith, 2015). To give an example, where agro-industrial capital is dominant, an agro-export model is more likely to prevail than where industrial capital holds greater power in the state.

The present case study suggests that the incorporation of Bor's copper GPN was driven less by industrial capital fractions and more by a local elite closely aligned with the ruling party, which has established a great degree of control over public funds (Pavlović, 2020). Consequently, this dominant state fraction has a stronger interest in filling the budget – through the sale of state assets or mineral fees – than in fostering sustainable industrialization or economic spillovers for domestic capital. Consent among elites and poorer social groups is generated more through clientelist practices (and, to a greater extent than in core regions, coercion and repression) than through broad material concessions or widespread gains in welfare.

Still, the incorporation of Bor into global production networks should not be reduced to clientelism and corruption alone. It is also part of a broader hegemonic project pursued by the ruling party SNS. This project links a narrative of "general progress" (Danas, 2026) and Serbia as an "economic tiger" (Tanjug, 2016) to an accumulation regime oriented toward significant FDI in low value-added manufacturing – and now increasingly mining. For a semi-peripheral country, the choice of such an accumulation regime is not freely made but is heavily shaped and enforced by core countries, who have an interest in maintaining the existing global division of labor, placing low-value and polluting activities in the peripheries, and 'cleaner', high-value activities (such as R&D, management, product design, marketing, final assembly) in the cores. Germany's reliance on low-paid, low value-added manufacturing in Serbia for its own automotive sector has been manifesting this dynamic for years. It is therefore unsurprising that, amid the current boom in low-carbon technologies, MNCs and governments from global powers such as the EU and China more readily offer Serbia investments in extractive sectors (for example, lithium) than in the production of final goods (such as batteries). To put it simply, the policy space available to any Serbian government in selecting an accumulation regime is constrained by global power asymmetries.

6.3 From Extraction to Value Capture? Possible Industrial Policy Pathways

The policy space is therefore limited, but it nonetheless exists. First, Yugoslav successor states such as Serbia should consider investing in the protection and modernization of the numerous mines inherited from the Yugoslav period, rather than redesignating agricultural land – such as the Jadar Valley – for mining and displacing local populations. In the case of Bor, with its longstanding mining tradition, the conditions for sustaining a local production network were favorable. As one interviewee put it, "our people are skilled; we have a mining faculty in Bor, there's a copper institute. We had the whole infrastructure. Ancillary factories produced finished products from that copper alloy. So, we lacked nothing" (CS2, pos. 112). One factor the Serbian state did lack, however, was capital. The sum Zijin invested in modernizing and expanding the Bor mines would have been difficult for the Serbian state to raise (see Chapter 5.2.1). Although international institutions such as the World Bank provided loans for environmental upgrades to the smelter, they did not finance the modernization required to restart large-scale production.

Still, the government channels substantial funds into costly infrastructure projects – such as roads – that generated little direct revenue. A sequence of targeted, incremental investments in RTB's modernization could have initiated a longer-term reindustrialization path. Rising copper prices and growing copper demand associated with the global energy transition actually made such an industrial strategy promising: prices and demand had already led to a recovery of RTB in 2010 and contributed to Zijin's present success. Many interviewees emphasized that profitability at Bor increased not only because of new investments but also because the copper price has significantly increased during the takeover – a trend China had anticipated (Interview TU2; Interview W1).

Moreover, investing sums as large as those invested by lead firm Zijin would likely have been neither necessary nor desirable for the Serbian state. Given the severe environmental, health, and social consequences of current mining operations to local communities (Chapter 5.3.2), it would have been preferable to direct funds toward modernizing production technology rather than expanding output. This approach would have limited ecological damage while enabling more sustainable, longer-term development of livelihoods within ecological boundaries in the region. Mine revenues could then have been channeled into other industries or broader economic diversification. After all, despite political promises of 'saving the region' through FDI, Zijin's current strategy is unlikely to produce lasting regional development: "In a few decades, they will go and leave us with this waste," (Interview CS1, pos. 20), said many interviewees.

Aside from retaining state ownership – which, as corruption and managerial failures over recent decades have shown, also carries its own pitfalls – countries like Serbia could condition FDI from global lead firms to a range of measures.

Developmental-state scholar Alice Amsden, generally skeptical of FDI as an engine of development, argued that foreign investments should be permitted only in the form of joint ventures so that local firms can build their own technological capabilities (Amsden, 1989). For Serbia, this would mean approving new mining operations by the mining group only within the joint venture Zijin Copper instead of in the wholly privately owned Zijin Mining. The state could explicitly require the transfer of technology and knowledge to local R&D institutions such as the Institute for Mining and Metallurgy or the Mining Faculty in Bor, which could subsequently apply those gains to other mining operations and even to other sectors.

Furthermore, industrial policy accompanying GPN integration could aim to generate economic spillovers for domestic processing capital. The data collected in my research suggest that Zijin is rather poorly embedded locally, sourcing key areas from maintenance and construction works to parts from Chinese companies and mainland China. If Serbia already provides grants for the purchase of equipment, it could tie these to the acquisition of domestically produced industrial goods (EU in Serbia, 2023). Hungary, for example, has used FDI inflows for reindustrialization by integrating domestic capital into the supply chains of global EV players through state-mediated infrastructure deals and hybrid ownership holdings (Gagyi & Gerőcs, 2025).

To foster upgrading in the value chain, many state-in-the-GPN and developmental-state scholars agree that protection of emerging industries is a central measure (Amsden, 1989; P. B. Evans, 1995; Horner & Alford, 2019; Oqubay & Ōno, 2019; Sparke et al., 2023). Protection can aim at prices, imports or exports. In Indonesia, a processing industry for nickel was built within a few years, increasing revenues from $1.1 billion to $33 billion in 2022 due to domestic processing. This was achieved largely with Chinese capital, which, among other things, financed and ran joint ventures that provided technology transfer, training, and infrastructure development. That shift required active pressure from the Indonesian government, which introduced an export ban in 2019, effectively presenting China with one choice: either invest in local industrial upgrading or lose access to Indonesian nickel, which accounts for 52% of global reserves (Rosada et al., 2023).

Finally, as a rather minimal measure to increase domestic value capture, taxation on the profits of foreign mining companies can be raised. Chile, for example, introduced a new Mining Royalty Law in 2024. The reform targets operators whose annual revenue is more than 50%

derived from copper and who produce over 50,000 metric tons of fine copper per year. These operators are taxed both with a fixed rate of 1% on annual copper sales, and a progressive additional tax. For very large producers, this tax can amount up to 46.5% annually (U.S. Department of Commerce, 2025).

A remaining – and critical – question is whether capital would still invest in Serbia, should the country condition those investments to upgrading and prohibit cost shifting to workers and the population. As Coe and Yeung (2015) argue, the capitalist logic of profit is a central driver for lead firms; GPNs emerge precisely because firms seek to locate production where it is cheapest for them. Historically, raw-material extraction has very rarely led to broad industrialization and upgrading along value chains. Still, cases such as the Indonesian one indicate that semi-peripheral countries have at least some room for maneuver to leverage core countries' current intense demand for raw materials into more favorable outcomes for their own economies. Export bans, local content requirements, supplier-development programs, measures to promote industrial learning and technological spillovers, and infrastructure investments are examples of policies on which states can condition FDI.

Higher wages, improved working conditions, and robust environmental safeguards should be core criteria for conditioning FDI. Industrialization and economic growth do not automatically translate into better living conditions for the population, as the Indonesian and Hungarian examples illustrate. Both countries utilized demand for low-carbon products and technologies to drive industrialization, yet these gains delivered limited benefits to the broader population. In Hungary, subcontracting arrangements tied to foreign investors have primarily been of use to government-linked construction firms, while the labor share of GDP has fallen and inequality risen since 2010 (Barbakadze & Deakin, 2026; Gagyi & Gerőcs, 2025). In Indonesia, the government has granted concessions to foreign investors in the form of weak environmental protections and low wages (Rosada et al., 2023). As Vojnić (1982/2016, p. 75) puts it, one "of the important criteria for analyzing and assessing the results of an investment policy is the (…) social profitability of investment".

7 Conclusion

The geopolitical and -economic realignments in the era of global decarbonization and the "race for critical minerals" (Kalantzakos, 2020, p. 1) also affect Europe's semi-periphery. New industries and extraction sites are emerging; Hungary is establishing itself as a battery hub, while the Balkan region is becoming a mineral and mining hotspot. A key question is whether

these states can leverage this development for their own advantage, generating industrial upgrading and broader prosperity for their populations, or whether the dominant outcomes will instead be labor exploitation, community displacement, and environmental pollution.

To shed a light on this question, I conducted a case study of the GPN integration of the Bor copper complex in eastern Serbia, examining how the Serbian state engages with the multinational firm Zijin amid the country's recent mining boom, and assessing the consequences for workers, local communities, the environment, and regional as well as national economic development. Using Global Production Network (GPN) analysis alongside materialist state theory, the study addresses the central research question: **What role(s) does the Serbian state play within the global production network surrounding the Bor complex, and why?**

I approached this question with a qualitative research design, conducting fifteen semi-structured, five group and four walking interviews in Bor over a period of three and a half years. I complemented this fieldwork with analysis of bilateral agreements, policy papers, trade, health and pollution statistics, and media statements to trace the Serbian state's actions within the GPN.

My empirical analysis indicates that the state plays a strongly facilitative role in the GPN. Value and profits are distributed predominantly toward the lead firm Zijin, modestly to workers, and only minimally to local and national economic spillovers, while costs – environmental pollution, health hazards, and displacement – are shifted largely to the local population. This pattern is driven chiefly by processes of deregulation and systematically weak law enforcement. The evidence suggests that weak enforcement is a key motivation for lead firms such as Zijin to locate in Serbia to exploit these regulatory gaps.

> A country's specific political environment might thus not merely be a backdrop but a decisive factor for an MNC's decision to invest in the country. Regional political-economic configurations and GPNs interact reciprocally: lead firms may select a location based on its institutional or political environment and adapt to it, while production networks themselves influence the political economy of the host region. (Coe & Yeung, 2015, p. 14)

In the context of both the EU's nearshoring of 'critical raw materials' and China's Belt and Road Initiative, multinational corporations seek to integrate Balkan regions into their global production networks. This creates a constellation in which corrupt, authoritarian, and clientelist governments and MNCs – seeking to expand profits at the expense of workers, local populations, and the environment – mutually reinforce one another. As the case of Bor has once more underlined, governments in the semi-periphery are not merely victims of the surge in

‘green extractivism’, they actively promote it in order for local elites to pursue their own interests: filling state budgets and reinforcing their hegemonic project, a narrative of “general progress” (Danas, 2026) combined with an FDI-driven accumulation regime in low value-added manufacturing and mining.

Western governments and the EU should also be aware of this dynamic: their corporations, like Chinese firms, are digging for resources in the Balkans. Canadian Dundee, Swiss Arcore AG, and Australian Rio Tinto – whose lithium project in western Serbia is set to become Europe’s largest lithium mine – are active in the region. The EU even supports such projects through strategic agreements. This is not a new development: EU countries, above all Germany, have long invested in Serbia’s low value-added manufacturing sectors characterized by low wages and weak labor standards. But in light of the EU’s growing “deep concerns” (Röpke & Dimitriades, 2025) about the ruling party SNS of President Aleksandar Vučić, which is facing the largest protests since coming to power in 2012, Western actors should consider whose hegemonic project they are strengthening when pursuing future resource investments and extractive GPN integration in the country.

However, movements in Serbia challenging the regime should also be aware of the entanglement of geoeconomics and foreign policy on which the SNS has built a relatively stable hegemonic project over the past fourteen years. Any potential future government in a semi-peripheral country like Serbia will face pressure from core economies whose current primary aim is to decarbonize their large energy consumption without threatening profits, let alone the capitalist mode of production.

Bibliography

Advokatska komora Srbije [Bar Association of Serbia]. (2025, February 2). *Odluka Skupštine AKS o obustavi rada advokata* [Decision].

Aglietta, M. (1979). *A theory of capitalist regulation. The US experience.* Verso.

Alford, M., & Phillips, N. (2018). The political economy of state governance in global production networks: Change, crisis and contestation in the South African fruit sector. *Review of International Political Economy*, *25*(1), 98–121. https://doi.org/10.1080/09692290.2017.1423367

Alnasseri, S. (2018). Staatsform, periphere Staatlichkeit und Regulation. In U. Brand & C. Görg (Eds.), *Zur Aktualität der Staatsform: Die materialistische Staatstheorie von Joachim Hirsch* (1st ed.). Nomos Verlagsgesellschaft mbH & Co. KG.

Althusser, L. (2010). *Ideologie und ideologische Staatsapparate* (Vol. 5). VSA-Verlag. (Original work published 1970)

Amnesty International. (2024). *"A Digital Prison". Surveillance and the Suppression of Civil Society in Serbia*. Amnesty International Ltd.

Amsden, A. (1989). *Asia's Next Giant: South Korea and Late Industrialization.* Oxford University Press.

Archer, M. S. (1995). *Realist Social Theory: The Morphogenetic Approach* (1st ed.). Cambridge University Press. https://doi.org/10.1017/CBO9780511557675

Aspinall, E., & Berenschot, W. (2019). *Democracy for sale: Elections, clientelism, and the state in Indonesia*. Cornell University Press.

Atzmüller, R. (2014). *Aktivierung der Arbeit im Workfare-Staat. Arbeitsmarktpolitik und Ausbildung nach dem Fordismus*. Westfälisches Dampfboot.

B92. (2026, December 24). *"Neću da učestvujem u neoluditičkom pokretu" ["I don't want to participate in the neo-Luddite movement"]*. https://www.b92.net/biz/vesti/srbija/vucic-

necu-da-ucestvujem-u-neoludistickom-pokretu-u-boru-su-hteli-da-sade-kikiriki-2078298

Balkan Green Energy News. (2021, September 23). Study: Industrially contaminated sites throughout Serbia threaten human health. *Balkan Green Energy News*. https://balkangreenenergynews.com/study-industrially-contaminated-sites-throughout-serbia-threaten-human-health/

Barbakadze, I., & Deakin, S. (2026). What do populists do once in office? The impact of populist governments on labour and corporate laws. *Socio-Economic Review*, *24*(2), 717–741. https://doi.org/10.1093/ser/mwaf080

BDO. (2015). *RTB Bor—Grupa Rudarskotopioničarski Basen Bor DOO, Bor: Finansijski izveštaji za 2014. Godinu i izveštaj nezavisnog revizora [RTB Bor: Financial statements for 2014 and independent auditor's report]*. BDO.

Becker, J. (2006). Metamorphosen der regionalen Integration. *Journal Für Entwicklungspolitik*, *22*(2), 11–44. https://doi.org/10.20446/JEP-2414-3197-22-2-11

Becker, J. (2008). Der kapitalistische Staat in der Peripherie: Polit-ökonomische Perspektiven. *Journal Für Entwicklungspolitik*, *24*(2), 10–32. https://doi.org/10.20446/JEP-2414-3197-24-2-10

Beširević, V. (2014). "Governing without judges": The politics of the Constitutional Court in Serbia. *International Journal of Constitutional Law*, *12*(4), 954–979. https://doi.org/10.1093/icon/mou065

Beta. (2022a, May 16). RERI: Ziđinu milion dinara kazne zbog zagađenja reke Mali Pek teškim metalima [RERI: Ziđin fined one million dinars for polluting the Mali Pek River with heavy metals]. *Nova.Rs*. https://nova.rs/vesti/drustvo/reri-zidjinu-milion-dinara-kazne-zbog-zagadjenja-reke-mali-pek-teskim-metalima/

Beta. (2022b, September 22). Mihajlović: Otišla sam u Majdanpek da se vidi da li da se veruje Jovanoviću ili struci i činjenicama [Mihajlović: I went to Majdanpek to see whether to

believe Jovanović or the experts and the facts]. *Tanjug*. https://www.danas.rs/vesti/politika/mihajlovic-otisla-sam-u-majdanpek-da-se-vidi-da-li-da-se-veruje-jovanovicu-ili-struci-i-cinjenicama/

Beta. (2025a, June 16). RERI i stanovnici Velikog Krivelja podneli prijavu za privredni prestup protiv Ziđin kopera [RERI and residents of Great Krivelj filed a complaint for an administrative offense against Zijin Copper]. *N1*. https://n1info.rs/vesti/reri-i-stanovnici-velikog-krivelja-podneli-prijavu-za-privredni-prestup-protiv-zidjin-kopera/

Beta. (2025b, November 3). Prosečna neto zarada u kompaniji Ziđin Koper oko 166.000 dinara [Average net salary at Ziđin Koper is around 166,000 dinars.]. *Danas*. https://www.danas.rs/vesti/ekonomija/prosecna-neto-zarada-u-kompaniji-zidjin-koper-oko-166-000-dinara/#:~:text=Kompanija%20Srbija%20Zi%C4%91in%20Koper%20saop%C5%A1tila,dostigla%20iznos%20oko%20166.000%20dinara.

Bhaskar, R. (2000). *The possibility of naturalism: A philosophical critique of the contemporary human sciences* (3. ed., reprinted). Routledge. (Original work published 1979)

Bhaskar, R. (2008). *A realist theory of science*. Routledge. (Original work published 1975)

Bhaskar, R., Danermark, B., & Price, L. (2017). *Interdisciplinarity and wellbeing: A critical realist general theory of interdisciplinarity*. Routledge. https://doi.org/10.4324/9781315177298

Bieber, F. (2003). The Serbian Opposition and Civil Society: Roots of the Delayed Transition in Serbia. *International Journal of Politics, Culture, and Society*, *17*(1), 73–90. https://doi.org/10.1023/A:1025388926816

Bieber, F. (2018). Patterns of competitive authoritarianism in the Western Balkans. *East European Politics*, *34*(3), 337–354. https://doi.org/10.1080/21599165.2018.1490272

BIRN. (n.d.). *China in the Balkans* [Dataset]. Retrieved April 24, 2026, from https://china.balkaninsight.com/

BIRN. (2022, June 14). BIRN: Ko su glavni igrači u biznisu istraživanja ruda u Srbiji [BIRN: Who are the main players in the mineral exploration business in Serbia?]. *Danas*. https://www.danas.rs/vesti/drustvo/ko-su-glavni-igraci-u-biznisu-istrazivanja-ruda-u-srbiji/

BIZLife. (2021, November 10). Mayor of Bor: Chinese „FILLED“ town budget. *BIZLife*. https://bizlife.rs/mayor-of-bor-chinese-filled-town-budget/

BizSrbija. (2026, February 8). *U Žiđin Koper radnici dogovorili 15% veće plate, prosek ide na 1.600€ [Zijin Copper workers agree to 15% higher wages, average salary to reach €1,600]*. https://www.bizsrbija.rs/vesti/u-ziin-koper-radnici-dogovorili-15-vece-plate-prosek-ide-na-1600

Bliznakovski, J., Stanojevic, D., Petrović, J., Piacentini, A., Drishti, E., Kopliku, B., Bojadjiev, M., Stefanovska, M., Mileva, I., Pesic, J., Milošević, M., Cvetanoska, L., Hogic, N., Markovic, M., Muk, M., Beqiri, D., & Luli, E. (2021). *Political Clientelism in the Western Balkans. Collection of Papers*. Institute for Sociological, Political and Judicial Research, Ss. Cyril and Methodius University in Skopje (ISPJR-UKIM).

Bor030. (2024, February 16). *Nesreća u oknu kod bivšeg borskog aerodroma [Accident in the pit near the former Bor airport]*. https://www.bor030.net/nesreca-u-oknu-kod-bivseg-borskog-aerodroma

Brand, U., & Dietz, K. (2014). (Neo-)Extraktivismus als Entwicklungsoption? Zu den aktuellen Dynamiken und Widersprüchen rohstoffbasierter Entwicklung in Lateinamerika. *Politische Vierteljahresschrift*, *Special Issue 48*, 88–125.

Brand, U., & Görg, C. (2018). Historisch-materialistische Staatstheorie und die Form des Staates: Zur Einleitung. In U. Brand & C. Görg (Eds.), *Zur Aktualität der Staatsform* (pp. 9–18). Nomos Verlagsgesellschaft mbH & Co. KG. https://doi.org/10.5771/9783845291741-9

Bridge, G. (2008). Global production networks and the extractive sector: Governing resource-based development. *Journal of Economic Geography*, *8*(3), 389–419. https://doi.org/10.1093/jeg/lbn009

Bridge, G. (2013). Territory, now in 3D! *Political Geography*, *34*, 55–57. https://doi.org/10.1016/j.polgeo.2013.01.005

Bridge, G. (2018). The map is not the territory: A sympathetic critique of energy research's spatial turn. *Energy Research & Social Science*, *36*, 11–20. https://doi.org/10.1016/j.erss.2017.09.033

Buckel, S. (2007). *Subjektivierung und Kohäsion. Zur Rekonstruktion einer materialistischen Theorie des Rechts*. Velbrück Wissenschaft.

Burchardt, H.-J., Dietz, K., & Öhlschläger, R. (2013). *Umwelt und Entwicklung im 21. Jahrhundert. Impulse und Analysen aus Lateinamerika.* Nomos.

Calic, M.-J. (2018). *A history of Yugoslavia* (1st ed.). Purdue University Press.

Ćalović Marković, V., & Milovac, D. (2020). *Put bez Kraja: Četvrti izvještaj o izgradnji autoputa Bar–Boljare [The Endless Road: Fourth Report on the Construction of the Bar-Boljare Highway]*. MANS. https://mans.co.me/wp-content/uploads/2020/10/Cetvrti-izjvjestaj-o-izgradnji-autoputa-PUT-BEZ-KRAJA.pdf

Cardoso, F. H., & Faletto, E. (1979). *Dependency and Development in Latin America*. University of California Press.

Carrasco, S., & Madariaga, A. (2026). The middle-income trap, state capacity, and institutional business power: Understanding the failed upgrading of the lithium industry in Chile. *Business and Politics*, *28*(1), 127–151. https://doi.org/10.1017/bap.2025.10012

Cattaneo, O., Gereffi, G., & Staritz, C. (Eds.). (2010). *Global value chains in a postcrisis world: A development perspective*. World Bank.

Čečen, B., Cvijić, S., Đorđević, D., Jahić, D., Jeremić, I., Kostić, V., Milivojević, A., Minić, Z., Nenadić, N., Šarić, M., & Stojanović, M. (2018). *When law doesn't rule: State capture of the judiciary, prosecution, police in Serbia.* Transparency Serbia, Center for Investigative Journalism of Serbia.

CEE Bankwatch Network. (n.d.). *Upper Horizons hydropower scheme, Bosnia and Herzegovina*. Retrieved March 24, 2026, from https://bankwatch.org/project/upper-horizons-hydropower-scheme-bosnia-and-herzegovina

Ćemalović, U., Ćurčić, S., & Igrutinović, M. (2025). Environmental contradictions in the EU accession process: Lessons from a lithium mining project in Serbia. *Journal of Energy & Natural Resources Law*, 1–18. https://doi.org/10.1080/02646811.2025.2592206

Chen, H.-L. (2022). *China's rising influence on Western Balkan countries under the Belt and Road Initiative* [Master's Thesis, Universität Wien]. https://ubdata.univie.ac.at/AC16557554

Coe, N. M., Dicken, P., & Hess, M. (2008). Global production networks: Realizing the potential. *Journal of Economic Geography*, *8*(3), 271–295. https://doi.org/10.1093/jeg/lbn002

Coe, N. M., & Yeung, H. W. (2015). *Global Production Networks: Theorizing Economic Development in an Interconnected World*. Oxford University Press. https://doi.org/10.1093/acprof:oso/9780198703907.001.0001

Coe, N. M., & Yeung, H. W. (2019). Global production networks: Mapping recent conceptual developments. *Journal of Economic Geography*, *19*(4), 775–801. https://doi.org/10.1093/jeg/lbz018

Cropley, A. (2022). *Qualitative Research Methods: A Practice-Oriented Introduction*. Editura Intaglio.

Curic, A., & Tsaava, M. (2026, January 30). Follow the Money: Why the EU, Not China, Matters Most to Serbia and Georgia. *BIRN*.

https://balkaninsight.com/2026/01/30/follow-the-money-why-the-eu-not-china-matters-most-to-serbia-and-georgia/bi/

Danas. (2026, May 10). *Da li je Eurobarometar dobro uhvatio osećaj građana Srbije? [Did the Eurobarometer accurately capture the sentiment of the citizens of Serbia?]*. https://www.danas.rs/vesti/politika/eurobarometar/

Demirović, A., Adolphs, S., & Karakayali, S. (Eds.). (2010). Einleitung. In *Das Staatsverständnis von Nicos Poulantzas: Der Staat als gesellschaftliches Verhältnis*. Nomos.

Dimitrijević, M. (2019, May 15). 20 godina od bombardovanja Bora [20 years since the bombing of Bor]. *Radiotelevizija Bor*. https://rtvbor.rs/20-godina-od-bombardovanja-bora/

Djokić, D. (2023). *A Concise History of Serbia* (1st ed.). Cambridge University Press. https://doi.org/10.1017/9781139236140

Djukanović, N. (2025). Between Peripheries and Solidarities: Resisting Green Extractivism in Serbia. *East European Politics and Societies*, *39*(4), 939–959. https://doi.org/10.1177/08883254251403412

Djukanović, N. (2026). *Resisting green extractivism: The case of lithium mining in Serbia* [PhD thesis, University of Oxford.]. https://ora.ox.ac.uk/objects/uuid:17a764d8-acb6-4836-a727-b885bad3b2a1

Đorđević, D. (2020, October 2). Prvostepena presuda protiv Ziđina – kompanija kriva za zagađenje u Boru [Initial ruling against Ziđin – company found guilty of pollution in Bor]. *CINS*. https://www.cins.rs/prvostepena-presuda-protiv-zidjina-kompanija-kriva-za-zagadjenje-u-boru/

Đorđević, D. (2021, December 10). Eksproprijacija za Čukaru Peki: Kako Ziđin pokušava da plati manje za zemlju [Expropriation for Čukaru Peki: How Zijin is trying to pay less

for the land]. *CINS*. https://www.cins.rs/eksproprijacija-za-cukaru-peki-kako-zidjin-pokusava-da-plati-manje-za-zemlju/

Đorđević, D. (2024, September 18). Nove odluke: Besplatan vrtić i veće naknade porodicama u Boru [New decisions: Free daycare and higher benefits for families in Bor]. *RTV Bor*. https://rtvbor.rs/nove-odluke-besplatan-vrtic-i-vece-naknade-porodicama-u-boru/

Dorn, F. M., & Dietz, K. (2024). Legitimising lithium mining: Global energy transition and green developmentalism in Jujuy, Argentina. *European Review of Latin American and Caribbean Studies*, *118*, 43–66. https://doi.org/10.32992/erlacs.11121

Dorn, F. M., & Hafner, R. (2023). Territorio, territorialidad y territorialización en las redes de producción globales. *Población & Sociedad*, *30*(1), 1–22. https://doi.org/10.19137/pys-2023-300102

Dorn, F. M., & Huber, C. (2020). Global production networks and natural resource extraction: Adding a political ecology perspective. *Geographica Helvetica*, *75*(2), 183–193. https://doi.org/10.5194/gh-75-183-2020

Dragojlo, S. (2021, January 26). 'Like Prisoners': Chinese Workers in Serbia Complain of Exploitation. *Balkan Insight*. https://balkaninsight.com/2021/01/26/like-prisoners-chinese-workers-in-serbia-complain-of-exploitation/bi/

Dragojlo, S. (2025, February 19). Kako je Vučić preko saradnika i BIA nezakonito ubrzavao infrastrukturne projekte [How Vučić illegally fast-tracked infrastructure projects through associates and the BIA]. *BIRN*. https://birn.rs/natasa-vuksic-bia-infrastrukturni-projekti/

Dragojlo, S., Laffert, B., Naegeli, L., Oertli, B., & Steinwender, L. (2024, December 13). Im Lithium-rausch. *Republik*. https://www.republik.ch/2024/12/13/im-lithiumrausch

eExpand. (2026). *Foreign direct investment (FDI) in Serbia*. Lloyd. https://www.lloydsbanktrade.com/en/market-potential/serbia/investment

Eisenstadt, S. N., & Lemarchand, R. (1981). *Political clientelism , patronage and development*. SAGE publications.

Enache, C. (2026, January 13). Corporate Income Tax Rates in Europe, 2026. *Tax Foundation Europe*. https://taxfoundation.org/data/all/eu/corporate-income-tax-rates-europe/

Estrin, S., & Uvalić, M. (2016). Foreign Direct Investment in the Western Balkans: What Role Has it Played During Transition? *Comparative Economic Studies*, *58*(3), 455–483. https://doi.org/10.1057/ces.2016.10

EU in Serbia. (2023, June 21). *Equipment for success*. https://europa.rs/oprema-za-uspeh/?lang=en#:~:text=It%20makes%20business%20stronger%2C%20more,development%20of%20companies%20in%20Serbia.

European Anti-Poverty Network – Serbia. (2024). *Poverty Watch Serbia 2024. Toward a Systemtic Approach to Social Protection* (Poverty Watch Serbia No. 6). https://www.eapn.eu/wp-content/uploads/2024/10/eapn-Poverty-Watch-Serbia-2024-6016.pdf

Evans, J., & Jones, P. (2011). The walking interview: Methodology, mobility and place. *Applied Geography*, *31*(2), 849–858. https://doi.org/10.1016/j.apgeog.2010.09.005

Evans, P. B. (1995). *Embedded autonomy: States and industrial transformation*. Princeton University Press.

Evers, T. (1977). *Bürgerliche Herrschaft in der Dritten Welt: Zur Theorie des Staates in okonomisch unterentwickelten Gesellschafstformationen*. Europäische Verlagsanstalt.

Filipović, D. (2015). Rudna Glava in the Foreground of Recent Overviews of the Beginnings of Copper Mining in Europe and of the Development of Archaeometallurgy. *BALCANICA*, *46*, 341–348.

Fletcher, A. J. (2017). Applying critical realism in qualitative research: Methodology meets method. *International Journal of Social Research Methodology*, *20*(2), 181–194. https://doi.org/10.1080/13645579.2016.1144401

Flick, U. (2022). *An introduction to qualitative research* (7th ed.). SAGE Publications. (Original work published 1998)

Flick, U., Kardorff, E. von, & Steinke, I. (Eds.). (2008). Triangulierung in der qualitativen Forschung. In *Qualitative Forschung. Ein Handbuch* (pp. 309–318). Rowohlt.

FoNet. (2022, August 10). Ziđin: Eksproprijacija po zakonu [Zijin: Expropriation by law]. *Danas*. https://www.danas.rs/vesti/ekonomija/zidjin-eksproprijacija-po-zakonu/

Frank, A. G. (2009). *Capitalism and underdevelopment in Latin America: Historical studies of Chile and Brazil*. Monthly Review Press.

Gagyi, A., & Gerőcs, T. (2025). Polyalignment as geoeconomic bridging: Hungary's reindustrialisation amid global protectionism. *Third World Quarterly*, 1–20. https://doi.org/10.1080/01436597.2025.2525233

Gereffi, G. (1994). The Organization of Buyer-Driven Global Commodity Chains: How US Retailers Shape Overseas Production Networks. In *Commodity chains and global capitalism*. Prager.

Gereffi, G., & Korzeniewicz, M. (1994). *Commodity chains and global capitalism*. Prager.

Gibbon, P., & Ponte, S. (2005). *Trading down: Africa, value chains, and the global economy*. Temple University Press.

Global Affairs Canada, Trade Commissioner Service. (n.d.). *Mining market in Serbia*. Government of Canada. Retrieved https://www.tradecommissioner.gc.ca/en/market-industry-info/search-country-region/country/canada-serbia-export/mining-market.html

Gramsci, A. (1971). *Selections from the prison notebooks of Antonio Gramsci* (Repr.). Lawrence & Wishart.

Gramsci, A. (1991). *Gefängnishefte. Kritische Gesamtausgabe* (Vols. 1–10). Argument.

Gruebler, J. (2021). China connecting Europe? *Asia Europe Journal*, *19*(S1), 77–101. https://doi.org/10.1007/s10308-021-00616-4

Guba, E. G., & Lincoln, Y. S. (1994). Competing paradigms in qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of Qualitative Research* (pp. 105–117). SAGE Publications.

Günay, C., & Dzihic, V. (2016). Decoding the authoritarian code: Exercising 'legitimate' power politics through the ruling parties in Turkey, Macedonia and Serbia. *Southeast European and Black Sea Studies*, *16*(4), 529–549. https://doi.org/10.1080/14683857.2016.1242872

Hall, P., & Soskice, D. (2001). *Varieties of capitalism: The institutional foundations of comparative advantage*. Oxford University Press.

Heindlmaier, A., & Assmus, J. (2026). Hierarchised labour mobilities beyond the EU: Intra-EU posting of third-country nationals and power resources in semi-peripheral EU countries. *Journal of Ethnic and Migration Studies*, 1–21. https://doi.org/10.1080/1369183X.2026.2628219

Henderson, J., Dicken, P., Hess, M., Coe, N., & Yeung, H. W.-C. (2002). Global production networks and the analysis of economic development. *Review of International Political Economy*, *9*(3), 436–464. https://doi.org/10.1080/09692290210150842

Hernández Westpfahl, R., Lehmann, R., & De Anda Márquez, R. (2026). Nationalizing lithium, negotiating power: A historical-materialist policy analysis of Mexico's lithium reform. *The Extractive Industries and Society*, *26*, 101860. https://doi.org/10.1016/j.exis.2026.101860

Hess, M. (2008). Governance, value chains and networks: An afterword. *Economy and Society*, *37*(3), 452–459. https://doi.org/10.1080/03085140802172722

Hess, M. (2017). Global Production Networks. In D. Richardson, N. Castree, M. F. Goodchild, A. Kobayashi, W. Liu, & R. A. Marston (Eds.), *International Encyclopedia of Geography* (1st ed., pp. 1–11). Wiley. https://doi.org/10.1002/9781118786352.wbieg0675

Hilferding, R. (1910). *Das Finanzkapital. Eine Studie über die jüngste Entwicklung des Kapitalismus*. Wiener Volksbuchhandlung.

Hillman, J. (2018). *Game of Loans. How China Bought Hambantota* [CSIS Briefs]. Center for Strategic and International Studies.

Hirsch, J. (2005). *Materialistische Staatstheorie: Transformationsprozesse des kapitalistischen Staatensystems*. VSA-Verl.

Hirsch, J., Kannankulam, J., & Wissel, J. (2015). Die Staatstheorie des "westlichen Marxismus". Gramsci, Althusser, Poulantzas und die so genannte Staatsableitung. In J. Hirsch, J. Kannankulam, & J. Wissel (Eds.), *Der Staat der Bürgerlichen Gesellschaft* (pp. 93–119). Nomos. https://doi.org/10.5771/9783845252025-93

Hopkins, T. K., & Wallerstein, I. (1977). Patterns of Development of the Modern World-System. *Review (Ferdinand Braudel Center)*, *1*(2), 111–145.

Horner, R. (2017). Beyond facilitator? State roles in global value chains and global production networks. *Geography Compass*, *11*(2), 1–13. https://doi.org/10.1111/gec3.12307

Horner, R., & Alford, M. (2019). *The roles of the state in global value chains: An update and emerging agenda*. The University of Manchester Global Development Institute.

Horner, R., & Nadvi, K. (2018). Global value chains and the rise of the Global South: Unpacking twenty-first century polycentric trade. *Global Networks*, *18*(2), 207–237. https://doi.org/10.1111/glob.12180

Institut za rudarstvo i metalurgiju Bor [Institute for Mining and Metallurgy Bor]. (n.d.). *History*. Institute for Mining and Metallurgy Bor.

Institut za rudarstvo i metalurgiju Bor [Institute for Mining and Metallurgy Bor]. (2024). *Mesečni izveštaj za Jul 24: Izveštaj o ispitivanju br. 3497/24 [Monthly Report for July 24: Examination Report No. 3497/24]*. https://bor.rs/wp-content/uploads/2024/08/3497-24-GU-Bor-vode-Mesecni-izvestaj-za-JUL-2024.pdf

International Energy Agency. (2023, July 11). Critical minerals market sees unprecedented growth as clean energy demand drives strong increase in investment. *IEA*. https://www.iea.org/news/critical-minerals-market-sees-unprecedented-growth-as-clean-energy-demand-drives-strong-increase-in-investment

International Monetary Fund. (n.d.). *Primary Commodity Price System (PCPS)* [Dataset]. Retrieved May 2, 2026, from https://data.imf.org/en/Data-Explorer?datasetUrn=IMF.RES:PCPS(9.0.0)

Istinomer. (2015). *Blagoje Spaskovski*. https://www.istinomer.rs/akter/blagoje-spaskovski/

Jäger, J., & Springler, E. (2012). *Ökonomie der internationalen Entwicklung: Eine kritische Einführung in die Volkswirtschaftslehre* (1st ed.). Mandelbaum-Verlag. https://ubdata.univie.ac.at/AC08942993

Janjetović, Z. (2017). Regimenting Unfree Labor in Serbia 1941–1944. *Working Papers of the Independent Commission of Historians Investigating the History of the Reich Ministry of Labour (Reichsarbeitsministerium) in the National Socialist Period*, *Working Paper Series A*(3).

Jessop, B. (1983). Accumulation Strategies, State Forms and Hegemonic Projects. *Kapitalistate*, *10*, 89–111.

Jessop, B. (1990). *State theory: Putting the capitalist state in its place* (1st ed.). The Pennsylvania State Univ. Press.

Jessop, B. (1999). The Strategic Selectivity of the State: Reflections on a Theme of Poulantzas. *Journal of the Hellenic Diaspora*, *25*(1–2), 41–77.

Jessop, B. (2007). *State power: A strategic-relational approach*. Polity.

Jessop, B. (2015). Political Capitalism, Economic and Political Crises, and Authoritarian Statism. *Spectrum: Journal of Global Studies*, *7*(1), 1–18.

Jessop, B. (2019a). Authoritarian Neoliberalism: Periodization and Critique. *South Atlantic Quarterly*, *118*(2), 343–361. https://doi.org/10.1215/00382876-7381182

Jessop, B. (2019b). Critical theory of the state. In E. Christodoulidis, R. Dukes, & M. Goldoni (Eds.), *Research Handbook on Critical Legal Theory*. Edward Elgar Publishing. https://doi.org/10.4337/9781786438898.00014

Jessop, B., & Morgan, J. (2022). The strategic-relational approach, realism and the state: From regulation theory to neoliberalism via Marx and Poulantzas, an interview with Bob Jessop. *Journal of Critical Realism*, *21*(1), 83–118. https://doi.org/10.1080/14767430.2021.1995685

Jovanović, B. (2025). *What's driving Chinese FDI in the Western Balkans – and what should be done about it?* The Vienna Institute for International Economic Studies. https://wiiw.ac.at/what-s-driving-chinese-fdi-in-the-western-balkans--and-what-should-be-done-about-it-n-685.html#:~:text=Chinese%20FDI%20in%20the%20Western%20Balkans%20is%20almost%20entirely%20concentrated,exports%20to%20the%20Chinese%20market.

Jovanović, D. (2025). *Staging the promises: Everyday future-making in an industrial town in Serbia*. Cornell University Press.

Kalantzakos, S. (2020). The Race for Critical Minerals in an Era of Geopolitical Realignments. *The International Spectator*, *55*(3), 1–16. https://doi.org/10.1080/03932729.2020.1786926

Kannankulam, J. (2010). Autoritärer Etatismus. Elemente eines staats- und krisentheoretischen Konzepts von Nicos Poulantzas. In S. Adolphs, A. Demirovic, & S. Karakayali (Eds.), *Das Staatsverständnis von Nicos Poulantzas* (pp. 223–240). Nomos Verlagsgesellschaft mbH & Co KG. https://doi.org/10.5771/9783845221038-223

Karaulić, J. (2025, May 27). When academia stands up: Serbia's higher education under siege. *Foundation for European Progressive Studies*. https://feps-europe.eu/when-academia-stands-up-serbias-higher-education-under-siege/

Kitschelt, H., & Wilkinson, S. I. (Eds.). (2007). *Patrons, Clients and Policies: Patterns of Democratic Accountability and Political Competition* (1st ed.). Cambridge University Press. https://doi.org/10.1017/CBO9780511585869

Kljajić, S. (2025, March 13). *Serbia's protesting students, teachers remain defiant*. https://www.dw.com/en/serbias-protesting-students-teachers-remain-defiant/video-71914973

Knežević, J., Jović, B., Marić Tanasković, L., & Dimić, B. (2018). *Kvalitet Vazduha u Republici Srbije 2017. Godine: Godišnji Izveštaj o Stanju Kvaliteta Vazduha u Republici Srbiji 2017. Godine [Air Quality in the Republic of Serbia in 2017: Annual report on the state of air quality in the Republic of Serbia, 2017]*. Serbian Environmental Protection Agency (SEPA). https://sepa.gov.rs/wp-content/uploads/2024/10/Vazduh2017.pdf

Knežević, J., Jović, B., Marić Tanasković, L., Mitrović Josipović, M., Ljubičić, A., Stamenković, D., Veljković, N., & Dimić, B. (2022). *Kvalitet Vazduha u Republici Srbiji 2021. Godine: Godišnji Izveštaj o Stanju Kvaliteta Vazduha u Republici Srbiji 2021. Godine [Air quality in the Republic of Serbia, 2021: Annual report on the state of air quality in the Republic of Serbia, 2021]*. Serbian Environmental Protection Agency (SEPA). https://sepa.gov.rs/wp-content/uploads/2024/10/Vazduh2021.pdf

Knežević, J., Jović, B., Marić Tanasković, L., Mitrović Josipović, M., Ljubičić, A., Zbiljić, T., Veljković, N., & Letković, M. (2025). *Kvalitet Vazduha u Republici Srbiji 2024. Godine: Godišnji Izveštaj o Stanju Kvaliteta Vazduha u Republici Srbiji 2024. Godine [Air quality in the Republic of Serbia, 2024: Annual report on the state of air quality in the Republic of Serbia, 2024]*. Serbian Environmental Protection Agency (SEPA). https://sepa.gov.rs/wp-content/uploads/2026/01/Vazduh2024.pdf

Kraske, M. (2024, January 16). Südosteuropa: Der große Raubzug. *Heinrich Böll Stiftung*. https://www.boell.de/de/2024/01/16/suedosteuropa-der-grosse-raubzug

Kukolj, S., Marjanović, T., Vojvodić, H., Paunović, E., Božanić, D., Macanović, D., Veljović, M., Pantić, O., Jovčić, L., Pajović, M., & Dizdarević, D. (2024). *Analiza Godišnjeg izveštaja o stanju kvaliteta vazduha u Republici Srbiji za 2022. Godinu [Analysis of the Annual Report on the State of Air Quality in the Republic of Serbia for 2022]*. Renewables and Environmental Regulatory Institute (RERI). https://reri.org.rs/wp-content/uploads/2024/06/Analiza-godisnjeg-izvestaja-o-stanju-kvaliteta-vazduha-u-Republici-Srbiji-za-2022.-godinu.pdf

Kurt, R., & Herbrik, R. (2022). Sozialwissenschaftliche Hermeneutik und hermeneutische Wissenssoziologie. In N. Baur & J. Blasius (Eds.), *Handbuch Methoden der empirischen Sozialforschung* (pp. 607–626). Springer Fachmedien Wiesbaden. https://doi.org/10.1007/978-3-658-37985-8_38 (Original work published 2014)

Laclau, E. (1983). The Impossibility of Society. *Canadian Journal of Political and Social Theory*, *7*(1–2), 21–24.

Lađevac, I. (2025). *Serbia monthly briefing: Securing energy security under geopolitical pressure: Serbia's 2025 efforts to obtain a fifth US sanctions waiver for NIS* (Monthly Briefing). China-CEE Institute.

Laffert, B. (2025, October 30). Sie wollen das ganze Land zu Fall bringen! *WOZ - Die Wochenzeitung*. https://www.woz.ch/2544/ein-jahr-proteste-in-serbien/sie-wollen-das-ganze-land-zu-fall-bringen/!F1F29822YJ5G

Laffert, B., & Steinwender, L. (2024, December 17). Chinas "Neue Seidenstraße" auf dem Balkan (I) [Broadcast]. In *Dimensionen*. https://oe1.orf.at/programm/20241217/779253/Chinas-Neue-Seidenstrasse-auf-dem-Balkan-I

Laffert, B., & Steinwender, L. (2025, January 24). Neue Seidenstraße auf dem Balkan—Wie China und die EU um Einfluss streiten [Broadcast]. In *SWR Das Wissen*.

https://www.swr.de/swrkultur/wissen/neue-seidenstrasse-auf-dem-balkan-wie-china-und-die-eu-um-einfluss-streiten-das-wissen-2025-01-24-104.html

Laštro, C., & Bieber, F. (2023). Democratic patterns and party systems in the Western Balkans. *Zeitschrift Für Vergleichende Politikwissenschaft*, *17*(1), 59–75. https://doi.org/10.1007/s12286-023-00564-w

Law on Corporate Income Tax, Official Gazette of RS No. 25/01, 80/02 (2025). https://www.purs.gov.rs/en/Legal-entities/review-of-regulations/Law/4608434/law-on-corporate-income-tax.html

Lazić, M. (2015). The Making of a New Economic Elite in Serbia. *Comparative Southeast European Studies*, *63*(4), 531–548. https://doi.org/10.1515/soeu-2015-630402

Lenin, V. I. (1948). *Imperialism, the Highest Stage of Capitalism*. Lawrence and Wishart.

Lenin, W. I. (1930). Eine Wendung in der Weltpolitik. In *Sämtliche Werke* (Vol. 19, pp. 481–491). Verlag für Literatur und Politik. (Original work published 1917)

Lenner, K. (2008). Abhängige Staatlichkeit als umkämpftes Terrain—Politische Ökonomie und Repräsentationsformen in Jordanien seit 1989. *Journal Für Entwicklungspolitik*, *24*(2), 63–91. https://doi.org/10.20446/JEP-2414-3197-24-2-63

Levitsky, S., & Way, L. A. (2002). Elections Without Democracy: The Rise of Competitive Authoritarianism. *Journal of Democracy*, *13*(2), 51–65. https://doi.org/10.1353/jod.2002.0026

Levitsky, S., & Way, L. A. (2010). *Competitive Authoritarianism: Hybrid Regimes after the Cold War* (1st ed.). Cambridge University Press. https://doi.org/10.1017/CBO9780511781353

Lim, K. F. (2018a). Strategic coupling, state capitalism, and the shifting dynamics of global production networks. *Geography Compass*, *12*(11), e12406. https://doi.org/10.1111/gec3.12406

Lim, K. F. (2018b). Strategic coupling, state capitalism, and the shifting dynamics of global production networks. *Geography Compass*, *12*(11), e12406. https://doi.org/10.1111/gec3.12406

Lipietz, A. (1985). Akkumulation, Krisen und Auswege aus der Krise: Einige methodische Überlegungen zum Begriff ‚Regulation'. *PROKLA*, *85*, 109–136.

Lipietz, A. (1987). *Mirages and miracles: The crisis in global Fordism*. Verso.

Mader, D., Lindner, U., & Pühretmayer, H. (2017). Einleitung: Critical Realism als Philosophie der Sozialwissenschaften. In U. Lindner & D. Mader (Eds.), *Sozialtheorie* (1st ed., pp. 7–74). transcript Verlag. https://doi.org/10.14361/9783839427255-001

Marx, K., & Engels, F. (1962). *MEW* (Vol. 23). Karl Dietz. (Original work published 1867)

Mathews, J. A., & Cho, D.-S. (2000). *Tiger technology: The creation of a semiconductor industry in East Asia*. Cambridge University Press. https://doi.org/10.1017/CBO9780511552229

Matić, B., Lekić, D., Paunović, E., Marjanović, T., Đurđević, V., Martić, M., & Kukolj, S. (2025). *Analiza stanja kvaliteta vazduha u Republici Srbiji za 2024. Godinu [Analysis of the State of Air Quality in the Republic of Serbia for 2024]*. Renewables and Environmental Regulatory Institute (RERI). https://reri.org.rs/wp-content/uploads/2025/06/Analiza-stanja-kvaliteta-vazduha-u-Republici-Srbiji-za-2024.-godinu.pdf

Matić Savićević, B., Jovanović, D., Živković Perišić, S., Miljuš, D., Tasić, V., Vidojević, D., Đuričković, I., Jovanović, L., & Ćorac, A. (2020). *Unapređenje Upravljanja Kontaminiranim Lokalitetima u Srbiji [Improving the Management of Contaminated Sites in Serbia]*. Institute of Public Health of Serbia Dr. Milan Jovanović Batut". http://vukosavic.etf.rs/desant/Batut_studija_kontaminirani_lokaliteti.pdf

Mayer, F. W., Phillips, N., & Posthuma, A. C. (2017). The political economy of governance in a 'global value chain world.' *New Political Economy*, *22*(2), 129–133. https://doi.org/10.1080/13563467.2016.1273343

Mayring, P. (2002). *Einführung in die Qualitative Sozialforschung*. Beltz.

Mayring, P., & Fenzl, T. (2022). Qualitative Inhaltsanalyse. In N. Baur & J. Blasius (Eds.), *Handbuch Methoden der empirischen Sozialforschung* (3rd ed., pp. 691–706). Springer Fachmedien Wiesbaden. https://doi.org/10.1007/978-3-658-37985-8_43 (Original work published 2014)

Mezzadri, A. (2017). *The sweatshop regime: Labouring bodies, exploitation, and garments made in India*. Cambridge University Press.

Milovanović, G., Radisavljević, G., & Đukić, G. (2018). Dependence of Serbian economic development on foreign direct investment flows. *Ekonomika*, *64*(2), 33–42. https://doi.org/10.5937/ekonomika1802033M

Ministarstvo Finansija Republike Srbije [Ministry of Finance of the Republic of Serbia]. (2025). *Public Finance Bulletin 7/2025* (No. 251). https://www.mfin.gov.rs/upload/media/l8g024_68df6dbd2a174.pdf

Ministarstvo Odbrane Republike Srbije [Ministry of Defence of the Republic of Serbia]. (2022, September 29). *President Vučić: The Friendship of Steel between Serbia and China*. https://www.mod.gov.rs/eng/19289/predsednik-vucic-celicno-prijateljstvo-srbije-i-kine-19289

Ministarstvo Privrede Republike Srbije [Ministry of Economy of the Republic of Serbia]. (2026, December 18). *Potpisan zapisnik—Kinezi preuzeli upravljanje RTB-om Bor [Potpisan zapisnik—Kinezi preuzeli upravljanje RTB-om Bor]*. https://privreda.gov.rs/aktuelno/vesti-i-saopstenja/potpisan-zapisnik-kinezi-preuzeli-upravljanje-rtb-om-bor

Ministarstvo Rudarstva i Energetike [Ministry of Mining and Energy of the Republic of Serbia]. (2018, July 7). *Antić: Očekujem nekoliko ozbiljnih kompanija na javnom pozivu za RTB Bor [Antić: I expect several serious companies to respond to the public call for RTB Bor]*. https://arhiva.mre.gov.rs/latinica/arhiva-aktuelno-jul-2018.php

Mitić, A., Lađevac, I., Filipović, S., Stekić, N., & Nedić, P. (2025). *Attitudes on Serbia's Foreign Policy – 2024* [The Compass Survey]. Institute of International Politics and Economics. https://serbiacompass.com/wp-content/uploads/2025/02/CompassAnketa_250205.pdf

Morgan, D. (1997). *Focus Groups as Qualitative Research*. SAGE Publications. https://doi.org/10.4135/9781412984287

Musić, G. (2022). *Making and Breaking the Yugoslav Working Class: The Story of Two Self-Managed Factories*. Central European University Press. https://www.degruyter.com/isbn/9789633863404

Mutlokwa, H., & Okoloise, C. (2025). Socio-legal Reflections on Zimbabwe's Lithium Industry: The Role of Public Participation in Resource Governance and Environmental Justice. *Potchefstroom Electronic Law Journal*, *28*. https://doi.org/10.17159/1727-3781/2025/v28i0a18234

N1 Belgrade. (2026, February 21). *Serbian judiciary employees protest against changes in laws they claim threaten their independence*. https://n1info.rs/english/news/serbian-judiciary-employees-protest-against-changes-in-laws-they-claim-threaten-their-independence/

National Employment Service. (2025). *Unemployment and employment in the Republic of Serbia* (Monthly Statistical Bulletin No. 276).

Nikolić, R., Vusović, N., Svrkota, I., & Fedajev, A. (2011). Business Economy of RTB Bor in Transition Period. *Rudarski Radovi*, *4*, 139–145.

Nili, A., Tate, M., Barros, A., & Johnstone, D. (2020). An approach for selecting and using a method of inter-coder reliability in information management research. *International*

Journal of Information Management, *54*, 102154. https://doi.org/10.1016/j.ijinfomgt.2020.102154

Noever Castelos, C. (2023). Mining out of the crisis? The role of the state in the expansion of the lithium frontier in Extremadura, Spain. *The Extractive Industries and Society*, *15*, 101329. https://doi.org/10.1016/j.exis.2023.101329

Nordman, M., Altman, D., Angiolillo, F., Fernandes, T., Good God, A., & Lindberg, S. I. (2025). *Democracy Report 2025: 25 Years of Autocratization – Democracy Trumped?* University of Gothenburg: V-Dem Institute. https://www.v-dem.net/documents/60/V-dem-dr__2025_lowres.pdf

Novy, A. (2001). *Brasilien: Die Unordnung der Peripherie. Von der Sklavenhaltergesellschaft zur Diktatur des Geldes.* Promedia.

Odluka o Budžetu Grada Bora Za 2025. Godinu [Decision on the Budget of the City of Bor for 2025] (2024). https://bor.rs/wp-content/uploads/2024/12/Odluka-o-budzetu-grada-Bora-za-2025.-godinu.pdf

Odluka o Završnom Računu Budžeta Grada Bora Za 2024. Godinu [Decision on the Final Account of the Budget of the City of Bor for 2024] (2025). https://bor.rs/wp-content/uploads/2025/06/Odluka-o-zavrsnom-racunu-budzeta-grada-Bora-za-2024-godinu.pdf

OECD. (1962). *Yugoslavia* [Economic Surveys by the OECD]. https://www.oecd.org/content/dam/oecd/en/publications/reports/1962/05/oecd-economic-surveys-yugoslavia-1962_g1g16d25/eco_surveys-yucs-1962-en.pdf

OECD (Ed.). (2024). *Western Balkans Competitiveness Outlook 2024: Serbia*. OECD Publishing. https://doi.org/10.1787/3699c0d5-en

Office of the United Nations High Commissioner for Human Rights. (2025). *Mandates of the Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous substances and wastes and the Special*

Rapporteur on minority issues (Communication AL OTH 95/2025). UN Human Rights Special Procedures. https://spcommreports.ohchr.org/TMResultsBase/DownLoadPublicCommunicationFile?gId=30208

O'Mahoney, S. V. J. (2018). Critical Realism and Qualitative Research: An Introductory Overview. In C. Cassell, A. Cunliffe, & G. Grandy, *The SAGE Handbook of Qualitative Business and Management Research Methods: History and Traditions* (pp. 201–216). SAGE Publications. https://doi.org/10.4135/9781526430212.n13

Opratko, B. (2012). *Hegemonie. Politische Theorie nach Antonio Gramsci*. Westfälisches Dampfboot.

Oqubay, A., & Ōno, K. (2019). *How nations learn: Technological learning, industrial policy, and catch-up* (New product edition.). Oxford University Press,.

OSCE. (2016). *Republic of Serbia. Early Parliamentary Elections 24 April 2016* [Limited Election Observation Mission Final Report]. OSCE.

Pachoud, C., Koop, K., & George, E. (2022). Societal transformation through the prism of the concept of territoire: A French contribution. *Environmental Innovation and Societal Transitions*, *45*, 101–113. https://doi.org/10.1016/j.eist.2022.10.001

Pajić, T. (1989). *Prinudni rad i otpor u logorima Borskog rudnika 1941-1944 [Forced Labor and Resistance in the Bors Mine Camps, 1941-1944]*. ISI.

Palestini, S., & Madariaga, A. (2021). Introduction: Dependency as a Research Program: From Situations to Mechanisms of Dependency. In A. Madariaga & S. Palestini (Eds.), *Dependent Capitalisms in Contemporary Latin America and Europe* (pp. 1–25). Springer International Publishing. https://doi.org/10.1007/978-3-030-71315-7_1

Palma, G. (1978). Dependency: A Formal Theory of Underdevelopment or a Methodology for the Analysis of Concrete Situations of Underdevelopment? *World Development*, *6*(7–8), 881–924.

Paragraf Lex. (n.d.). *Minimalna Zarada [Minimum Wage]* [Dataset]. Retrieved April 20, 2026, from http://demo.paragraf.rs/demo/documents/editorial/statistika/02_stat_arh.htm

Pavlínek, P. (2015). Foreign direct investment and the developmentof the automotive industry in central andeastern Europe. In B. Galgóczi, J. Drahokoupil, M. Bernaciak, & European Trade Union Institute (Eds.), *Foreign investment in eastern and southern Europe after 2008: Still a lever of growth?* European Trade Union Institute (ETUI).

Pavlović, D. (2020). The political economy behind the gradual demise of democratic institutions in Serbia. *Southeast European and Black Sea Studies*, *20*(1), 19–39. https://doi.org/10.1080/14683857.2019.1672929

Perreault, T., Bridge, G., & McCarthy, J. (Eds.). (2015). *The Routledge Handbook of Political Ecology* (0 ed.). Routledge. https://doi.org/10.4324/9781315759289

Pešić, V. (Ed.). (2007). *State capture and widespread corruption in Serbia*. CEPS.

Petrović, P. (2020). State Capture in Serbia – A Conceptual and Contextual Introduction. In J. Pejić Nikić & P. Petrović (Eds.), *Security Sector Capture in Serbia: An Early Study* (pp. 11–19). Belgrade Centre for Security Policy.

Petrović, P. (2024). Failed Intelligence Reform, State Capture, and Authoritarian Turn in Serbia. *International Journal of Intelligence and CounterIntelligence*, *37*(1), 204–231. https://doi.org/10.1080/08850607.2023.2189037

Pimmer, S. (2017). Relative Autonomie in Zentrum und Peripherie. Staatstheoretische Überlegungen im Anschluss an Nicos Poulantzas, René Zavaleta und Luis Tapia. In T. Boos, H. Lichtenberger, & A. Puller (Eds.), *Mit Poulantzas arbeiten. ... um aktuelle Macht- und Herrschaftsverhältnisse zu verstehen* (pp. 207–231). VSA-Verlag.

Plank, L., & Staritz, C. (2009). Global commodity chains and production networks—Understanding uneven development in the global economy. *Journal Für Entwicklungspolitik*, *XXV*(2), 4–19.

Ponte, S., & Ewert, J. (2009). Which Way is "Up" in Upgrading? Trajectories of Change in the Value Chain for South African Wine. *World Development*, *37*(10), 1637–1650. https://doi.org/10.1016/j.worlddev.2009.03.008

Poulantzas, N. (2002). *Staatstheorie: Politischer Überbau, Ideologie, autoritärer Etatismus* (New edition). VSA-Verlag. (Original work published 1978)

Privatization Agency of the Republic of Serbia. (2009). *Public Invitation for Selection of a Strategic Partner for RTB Bor Group*. https://privatizacija.privreda.gov.rs/upload/document/e-tender_387_jp_2009-02.pdf

Privredna Komora Srbije [Chamber of Commerce and Industry of Serbia]. (n.d.). *Pregled spoljnotrgovinskih kretanja [Overview of foreign trade trends]*. Retrieved April 21, 2026, from https://pks.rs/pregled-spoljnotrgovinskih-kretanja

Radić, N. (2019). *Strane direktne investicije kao katalizator ekonomskog rasta: Slučaj automobilske industrije zemalja centralne i Istočne Evrope [Foreign direct investments as a catalyst for economic growth: The case of the automotive industry in the countries of Central and Eastern Europe]* [Doctoral thesis, Univerzitet Edukons]. https://educons.edu.rs/wp-content/uploads/2019/12/Nikola-Radi%C4%87_disertacija.pdf

Radio Slobodna Evropa. (2025, June 27). *Poginuo kineski radnik u rudniku Jama u Boru [A Chinese worker died in the open-pit mine in Bor]*. https://www.slobodnaevropa.org/a/stradao-radnik-rudnik-bor/33456729.html

Radulović, M. (2010). *Zlatne godine Rudarsko-topioničarskog basena Bor [The Golden Years of the Bor Mining and Smelting Basin]*. RTB Bor.

Razvojna agencija Srbije [Development Agency Serbia]. (2025). *Why Invest in Serbia*. https://ras.gov.rs/uploads/2025/10/rasbrochure2025-lite.pdf

Regier, S. (2023). *Den Staat aus der Gesellschaft denken: Ein kritischer Ansatz der Politischen Bildung*. transcript Verlag. https://doi.org/10.14361/9783839464373

Relocation Serbia. (2026, April). *Serbia Government Business Incentives for Foreign Investors in 2026*. https://www.relocationserbia.com/serbia-business-incentives-foreign-investors

Republic of Serbia. (2017, December 5). *Letter of Intent, Memorandum of Economic and Financial Policies, and Technical Memorandum of Understanding* [Letter]. https://www.imf.org/external/np/loi/2017/srb/120517.pdf

Reuter, J. (1983). Ursachen und Folgen der Krise in Jugoslawien. *Aus Politik Und Zeitgeschichte*, *50*. https://www.bpb.de/shop/zeitschriften/apuz/archiv/532892/ursachen-und-folgen-der-krise-in-jugoslawien/

Reuters. (2025, March 21). *Serbia teen becomes 16th victim of train station roof collapse, hospital says*. https://www.reuters.com/world/europe/serbia-teen-becomes-16th-victim-train-station-roof-collapse-hospital-says-2025-03-21/

Reyes-Tagle, G., Taquiri, J., Cubillos González, J., & Karl Estupiñán, C. R. (2025). *Ideas for Improving Mineral Taxation in Latin America and the Caribbean: Opportunities for Sustainable Developmen*. Inter-American Development Bank. https://doi.org/10.18235/0013766

Rio Tinto. (2026). *Annual Report 2025*. https://www.riotinto.com/en/invest/reports/annual-report

Rolf, S. (2019). National development through global production networks? The case of Dongguan, China. *Political Geography*, *73*, 48–59. https://doi.org/10.1016/j.polgeo.2019.05.006

Romelić, Ž. (2017). *O rudarskoj kulturi u Boru: Tradicija kao podstrek [The Mining Culture in Bor: Tradition as a stimulus]*. Narodna Biblioteka Bor. http://digitalnizavicaj.org.rs/index.php?query=ispisTextaIzKolekcije&idTexta=413#ad-image-0

Röpke, O., & Dimitriades, D. (2025). *Statement on Serbia*. European Economic and Social Committee. https://www.eesc.europa.eu/en/news-media/presentations/statement-serbia

Rosada, F., Wibisana, R. A. A., & Paksi, A. K. (2023). The Impact of Indonesia-China Nickel Cooperations on Indonesia's Economy and Environment. *Nation State: Journal of International Studies*, *6*(2), 96–116. https://doi.org/10.24076/nsjis.v6i2.1270

RTV. (2018, August 20). Ministarstvo: Tri prijave investitora za RTB Bor [Ministry: Three investor applications for RTB Bor]. *RTV*. https://www.rtv.rs/sr_lat/ekonomija/aktuelno/ministarstvo-tri-prijave-investitora-za-rtb-bor_943515.html

Rutar, S. (2005). Work and survival in Serbia: The copper mine bor during World War II. *Geschichte Und Gesellschaft*, *31*, 134.

Sasso, A. (2020). *The Political Dimension of Ante Marković's Reform Project. "We must develop democracy and a Third Yugoslavia."* https://doi.org/10.25364/02.7:2020.1.3

Sayer, R. A. (2010). *Method in social science: A realist approach* (Revised 2nd ed.). Routledge. (Original work published 1992)

Schultz, U. (2014). Über Daten nachdenken. Grounded Theory Studien in entwicklungsbezogener Forschung. In P. Dannecker & B. Englert (Eds.), *Qualitative Methoden in der Entwicklungsforschung* (1st ed., pp. 75–93). Mandelbaum-Verlag.

Selwyn, B. (2012). Beyond firm-centrism: Re-integrating labour and capitalism into global commodity chain analysis. *Journal of Economic Geography*, *12*(1), 205–226. https://doi.org/10.1093/jeg/lbr016

Selwyn, B. (2016). Global value chains and human development: A class-relational framework. *Third World Quarterly*, *37*(10), 1768–1786. https://doi.org/10.1080/01436597.2016.1156484

Serbia Business. (2026, April 20). *From London to Zug to Belgrade: The capital architecture powering Europe's industrial reset*. https://serbia-business.eu/from-london-to-zug-to-belgrade-the-capital-architecture-powering-europes-industrial-reset/

Serbia Energy. (2023, October 31). *Serbia: Revenues from mining rents reached 134 million euros*. https://serbia-energy.eu/serbia-revenues-from-mining-rents-reached-134-million-euros/

Serbia Zijin Copper DOO Bor. (2023). *Bilans Uspeha [Income Statement]*. Serbian Business Registers Agency.

Serbia Zijin Copper DOO Bor. (2024). *Bilans Uspeha [Income Statement]*. Serbian Business Registrations Agency.

Serbia Zijin Copper DOO Bor. (2025). *Bilans Uspeha [Income Statement]*. Serbian Business Registrations Agency.

Serbia Zijin Copper DOO Bor. (2026). *Bilans Uspeha [Income Statement]*. Serbian Business Registrations Agency.

Serbia Zijin Mining. (n.d.). *Serbia Zijin Mining Sustainability Report 2023*. Retrieved https://www.zijinmining.rs/uploads/20240704/98ccfe52d3f2fcc6780d8ed334edc64a.pdf

Serbia Zijin Mining DOO Bor. (2023). *Bilans Uspeha [Income Statement]*. Serbian Business Registrations Agency.

Serbia Zijin Mining DOO Bor. (2024). *Bilans Uspeha [Income Statement]*. Serbian Business Registrations Agency.

Serbia Zijin Mining DOO Bor. (2025). *Bilans Uspeha [Income Statement]*. Serbian Business Registrations Agency.

Serbia Zijin Mining DOO Bor. (2026). *Bilans Uspeha [Income Statement]*. Serbian Business Registrations Agency.

Serbian Business Registers Agency. (2025). *STO NAJ... Privrednih društava u 2024. Godini [The 100 Top ... Business companies in 2024]*. https://www.apr.gov.rs/upload/TOP__100.pdf.pdf

Shaanxi Wolong Nanyang Explosion-Proof Motor Co., Ltd. (2025). History. *Motor Wolong*. https://www.motorwolong.com/history/

Shefter, M. (1977). Party and Patronage: Germany, England, and Italy. *Politics & Society*, *7*(4), 403–451. https://doi.org/10.1177/003232927700700402

Shefter, M. (1994). *Political Parties and the State*. Princeton University Press. http://www.jstor.org/stable/j.ctt7rr7x

Simović, V., & Gajić, D. (2024). Partocracy and clientilism in Bosnia and Herzegovina. *Politea*, *14*(28), 43–61. https://doi.org/10.5937/politeia0-54192

Slobodni Mediji. (2020, January 17). Vučić: Baš me briga za zagađen vazduh [Vučić: I don't care about the polluted air] [Broadcast]. In *YouTube*. https://www.youtube.com/watch?v=qfoVMUJjuD8

Smith, A. (2015). The state, institutional frameworks and the dynamics of capital in global production networks. *Progress in Human Geography*, *39*(3), 290–315. https://doi.org/10.1177/0309132513518292

Sparke, M., Malmberg, E., & Malpass, T. (2023). Bio-pharma hub development in global production networks: Contrasting state policies and conjunctural value strategies. *Area Development and Policy*, *8*(3), 235–262. https://doi.org/10.1080/23792949.2023.2216258

Spasojević, D. (2020). Rising Expectations and Centralizing Power: Party Leaders in Serbia. In S. Gherghina (Ed.), *Party Leaders in Eastern Europe* (pp. 219–240). Springer International Publishing. https://doi.org/10.1007/978-3-030-32025-6_10

Stallings, B. (2021). A Dependency Perspective on the United States, China, and Latin America. In A. Madariaga & S. Palestini (Eds.), *Dependent Capitalisms in Contemporary Latin America and Europe* (pp. 29–53). Springer International Publishing. https://doi.org/10.1007/978-3-030-71315-7_2

Stanicek, B., & Tarpova, S. (2022, June). *China's strategic interests in the Western Balkans* [Briefing]. European Parliament.

Stanojević, N. (2024). Improving Serbia's copper exports: Key challenges and solutions. *Industrija*, *52*(3–4), 21–35. https://doi.org/10.5937/industrija52-50834

Statista. (2025). *Gini coefficient for equivalized disposable income in the European Union in 2024, by member state* [Dataset]. https://www.statista.com/statistics/874070/gini-index-score-of-eu-countries/?srsltid=AfmBOopkVhcqe5a5qLcelBKe6hYLRpsigK7BSH6xRupyMUdqYP9W438k

Statistical Office of the Republic of Serbia. (2024). *Number of Population* [Dataset]. https://data.stat.gov.rs/Home/Result/31010101?languageCode=en-US

Statistical Office of the Republic of Serbia. (2025). *Gini coefficient* [Dataset]. https://data.stat.gov.rs/Home/Result/01020511?languageCode=en-US

Statistical Office of the Republic of Serbia. (2026a). *Average salaries and wages per employee, December 2025* [Statistical Release]. https://www.stat.gov.rs/en-us/vesti/statisticalrelease/?p=17787&a=24&s=2403?s=2403

Statistical Office of the Republic of Serbia. (2026b). *Base industrial production indices, by activity* [Dataset]. https://data.stat.gov.rs/Home/Result/060201010101?languageCode=en-US

Statistisches Bundesamt (Ed.). (1990). *Länderbericht Jugoslawien 1990*. Metzler-Poeschel. https://www.statistischebibliothek.de/mir/servlets/MCRFileNodeServlet/DEHeft_derivate_00036036/LB-Jugoslawien-1990.pdf

Steinwender, L. (2025, January 9). Wie ein Lauffeuer. *WOZ - Die Wochenzeitung*. https://www.woz.ch/2502/widerstand-in-serbien/wie-ein-lauffeuer/!2PEGTPFJF4D0

Steinwender, L., & Laffert, B. (2025, May 5). Das schmutzige Geschäft des Lithiumabbaus [Broadcast]. In *Zeitfragen. Feature*. https://www.deutschlandfunkkultur.de/schmutziges-geschaeft-lithiumabbau-auf-dem-balkan-100.html

Stekić, N., & Nikolić, J. (2025). Conflicting visions of connectivity: EU's and China's infrastructural agendas for the western Balkans. *Nacionalni Interes*, *50*(1), 133–155. https://doi.org/10.5937/nint50-54932

Stojsavljević, V. (2026, May 13). Javne investicije za kompanije bliske vlasti: Koje građevinske firme su ostvarile najveće prihode u 2025. Godini? [Public investments for companies close to the government: Which construction firms have generated the highest revenues in 2025?]. *Danas*. https://www.danas.rs/vesti/ekonomija/investicije-gradjevinske-kompanije-gradnja-projekti-prihodi-profit/

Stokes, S. C. (2013). Political Clientelism. In R. Goodin (Ed.), *The Oxford Handbook of Political Science* (1st ed., pp. 648–672). Oxford University Press. https://doi.org/10.1093/oxfordhb/9780199604456.013.0031

Stošić, I. (2014). Privatization and Company Restructurings Impact on Serbia. *Economic Analysis*, *47*(1–2), 127–136.

Surčulija-Milojević, J. (2018). Defamation as a "Weapon" in Europe and in Serbia: Legal and Self-regulatory Frameworks. *Journal of International Media & Entertainment Law*, *8*(1).

Svampa, M. (2019). *Neo-extractivism in Latin America: Socio-environmental Conflicts, the Territorial Turn, and New Political Narratives* (1st ed.). Cambridge University Press. https://doi.org/10.1017/9781108752589

Tamindžija, B., & Simović, V. (2024). *The Position of Workers in the Serbian Automotive Industry*. Pekograf. https://cpe.org.rs/wp-content/uploads/2024/06/Position-of-Workers-in-Automotive-Industry-in-Serbia-CPE-WEB-2024.pdf

Tanjug. (2016, January 20). Vučić: Srbija ekonomski tigar jugoistočne Evrope [Vučić: Serbia is the economic tiger of Southeast Europe]. *RTS*. https://www.rts.rs/lat/vesti/politika/2181399/vucic-srbija-ekonomski-tigar-jugoistocne-evrope.html

Tanjug. (2018, December 18). 350 mil. USD na računu: Kinezi ušli u RTB Bor, kompanija menja ime [USD 350 Million in the Bank: Chinese Take Over RTB Bor, Company Changes Name]. *B92*. https://www.b92.net/biz/vesti/srbija/350-mil-usd-na-racunu-kinezi-usli-u-rtb-bor-kompanija-menja-ime-1483556

Tanjug. (2024, July 3). *Vučić: Nećemo dozvoliti da Srbija izvozi litijum, već litijumske baterije [Vučić: Wir werden nicht zulassen, dass Serbien Lithium exportiert, sondern Lithiumbatterien]*. https://www.euronews.rs/biznis/biznis-vesti/128754/vucic-necemo-dozvoliti-da-srbija-izvozi-litijum-vec-litijumske-baterije/vest

Tanjug. (2025a, September 4). *Vucic meets with major Chinese companies interested in investing in Serbia*. https://www.tanjug.rs/english/economy/189605/vucic-meets-with-major-chinese-companies-interested-in-investing-in-serbia/vest

Tanjug. (2025b, September 4). Vučić with Xi: Serbia and China are iron friends, inviting Chinese companies to invest. *NIN*. https://www.nin.rs/english/news/88101/vucic-with-xi-serbia-and-china-are-iron-friends-calling-on-chinese-companies-to-invest

Tanjug/Beta. (2018, January 3). RTB Bor earns USD 73 million in 2017 – 43,000 tons of cathode copper, 700 kilograms of gold and 5 tons of silver produced. *eKapija*. https://me.ekapija.com/en/news/1989161/rtb-bor-earns-usd-73-million-in-2017-43000-tons-of-cathode

Tapia Mealla, L. (2009). *La coyuntura de la autonomía relativa del estado [The context of the state's relative autonomy]*. Muela del Diablo Editores; CLACSO.

The Export-Import Bank of China. (2022). *Belgrade-Stara Pazova Section of the Belgrade-Budapest Railway in Serbia Financed by China Eximbank Put into Operation*. http://english.eximbank.gov.cn/News/NewsR/202206/t20220629_40867.html

The Federal Government of Germany. (2024). *Lithium agreement: Boosting prosperity and peace in the Western Balkans* [Transcript of press conference]. https://www.bundesregierung.de/breg-en/service/archive/serbia-press-conference-2300230

The Observatory of Economic Complexity. (n.d.). *Serbia. OEC*. Retrieved March 17, 2026, from https://oec.world/en/profile/country/srb

The President of the Republic of Serbia. (2021, June 2). *Meeting with representatives of Zijin and the Ambassador of the People's Republic of China* [Press Release]. https://www.predsednik.rs/en/press-center/press-releases/meeting-with-representatives-of-zijin-and-the-ambassador-of-the-peoples-republic-of-china

Thelen, K. (2014). *Varieties of Liberalization and the New Politics of Social Solidarity* (1st ed.). Cambridge University Press. https://doi.org/10.1017/CBO9781107282001

Tiedemann, N. (2024). Post-Yugoslav municipalism: Dis/obedient democratic initiatives in Zagreb and Belgrade. *SEER*, *27*(1), 99–116. https://doi.org/10.5771/1435-2869-2024-1-99

Todorova, M. (1997). *Imagining the Balkans.* Oxford University Press.

Todorović, I. (2024, July 11). Ustavni sud Srbije doneo odluku u korist Rio Tinta [The Constitutional Court of Serbia has ruled in favor of Rio Tinto]. *Balkan Green Energy News*. https://balkangreenenergynews.com/rs/ustavni-sud-srbije-doneo-odluku-u-korist-rio-tinta/

Tournois, L. (2021). The Ideological Recomposition of Political Elites in Serbia since 2012. *Politics in Central Europe*, *17*(3), 589–618. https://doi.org/10.2478/pce-2021-0025

Trading Economics. (n.d.). *Serbia Current Account to GDP*. Retrieved May 7, 2026, from https://tradingeconomics.com/serbia/current-account-to-gdp

Trading Economics. (2026). *Serbia Imports from China*. https://tradingeconomics.com/serbia/imports/china

United Nations Economic Commission for Europe. (n.d.). *Indicator 9.b.1. Proportion of medium and high-tech industry value added in total value added, %*. Retrieved March 17, 2026, from https://w3.unece.org/SDG/en/Indicator?id=125&utm

Urošević, S., Vuković, M., Pejčić, B., & Štrbac, N. (2018). Mining-Metallurgical Sources of Pollution in Eastern Serbia and Environmental Consciousness. *Revista Internacional de Contaminación Ambiental*, *34*(1), 103–115. https://doi.org/10.20937/RICA.2018.34.01.09

U.S. Department of Commerce. (2025). Chile Country Commercial Guide. *International Trade Administration*.

U.S. Department of State. (2025). *2025 Serbia Investment Climate Statement*.

Uvalić, M. (2010). *Transition in Southeast Europe: Understanding economic development and institutional change*. WIDER.

Uvalić, M. (2012). Serbia's transition to market economy: Why has the model not delivered? *Montenegrin Journal of Economics*, *8*(2), 87–98.

Vasilić, G. T. (2025, February 6). Proizvedeno 163,7 hiljada tona katodnog bakra [163,700 metric tons of cathode copper produced]. *Kolektiv*, (2373), 3.

Vlada Republike Srbije [Government of the Republic of Serbia]. (2023, October 17). *Free Trade Agreement with People's Republic of China signed*. https://www.srbija.gov.rs/vest/en/214278/free-trade-agreement-with-peoples-republic-of-china-signed.php

Vladisavljević, N. (2020). Media Discourse and the Quality of Democracy in Serbia after Milošević. *Europe-Asia Studies*, *72*(1), 8–32. https://doi.org/10.1080/09668136.2019.1669534

Vojnić, D. (2016). Investment Policy. In R. Stojanović, *The Functioning of the Yugoslav Economy*. Taylor and Francis. (Original work published 1982)

Vučković, A. (2003, February 7). Štrajk gladnih [Hunger Strike]. *NIN*. https://www.nin.rs/2003-02/06/27276.html

Vuković, D., & Spaić, B. (2022). Parallel normative reality: The informal order of corruption and clientelism in Serbia. *Sociologija*, *64*(4), 519–542. https://doi.org/10.2298/SOC2204519V

Vulović, M. (2023). Economic relations between the Western Balkans and Non-EU countries: How the EU can respond to challenges concerning direct investment, trade and energy security. In *SWP Comment 36/2023* (Version 1). Stiftung Wissenschaft und Politik, German Institute for International and Security Affairs. https://doi.org/10.18449/2023C36

Wallerstein, I. (1974). *The Modern World-System: Capitalist Agriculture and the Origins of the European World-Economy in the Sixteenth Century*. Academic Press.

Weber, I. (2021). *How China escaped shock therapy: The market reform debate*. Routledge, Taylor & Francis Group. https://doi.org/10.4324/9780429490125

Weber, M. (2018). *Wissenschaft als Beruf*. Matthes & Seitz. (Original work published 1919)

Weissenbacher, R. (2018). Peripheral integration and disintegration in Europe: The 'European dependency school' revisited. *Journal of Contemporary European Studies*, *26*(1), 81-98.

Werner, M. (2021). Geographies of production II: Thinking through the state. *Progress in Human Geography*, *45*(1), 178–189. https://doi.org/10.1177/0309132520911996

WITS World Bank. (n.d.). *Copper cathodes and sections of cathodes unwrou exports by country in 2024* [Dataset]. Retrieved May 16, 2026, from https://wits.worldbank.org/trade/comtrade/en/country/SER/year/2024/tradeflow/Exports/partner/ALL/product/740311

Woodward, S. L. (1995). *Balkan tragedy: Chaos and dissolution after the Cold War*. Brookings Institution.

World Bank. (n.d.). *GDP per capita, PPP (current international $)* [Dataset]. World Bank Group. Retrieved March 18, 2026, from https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD?end=2024&start=2015

World Bank. (1991). *Yugoslavia. Industrial Restructuring Study. Overview, Issues and Strategy for Restructuring.* World Bank. https://documents1.worldbank.org/curated/en/839571468304234506/pdf/97540ESW0Yugos085314B00PUBLIC0green.pdf

World Bank. (2015). *Implementation Completion and Results Report (IBRD-74640 IDA-43260)* (No. ICR00003613). World Bank. https://documents1.worldbank.org/curated/en/467701467987894209/pdf/ICR3613-P092999-Box393266B-PUBLIC-disclosed-12-14-15.pdf

World Bank. (2025). *Towards Better Jobs* (Western Balkans Regular Economic Report No. 28). https://documents1.worldbank.org/curated/en/099100625100539134/pdf/P512916-fe1dc2c8-b236-4cfe-ad18-88303a06122e.pdf?utm_source=chatgpt.com

Yang, C., & Umar, I. A. (2026). Strategic coupling in global production networks under geopolitical risk: Chinese lithium investment in Nigeria. *The Extractive Industries and Society*, *26*, 101849. https://doi.org/10.1016/j.exis.2025.101849

Zakon o Budžetu Republike Srbije Za 2018. Godinu [Law on the Budget of the Republik of Serbia for 2018], 113/2017 Sl. Glasnik RS (2018).

https://www.paragraf.rs/propisi_download/zakon-o-budzetu-republike-srbije-za-2018-godinu.pdf

Zakon o Izmenama i Dopunama Zakona o Rudarstvu i Geološkim Istraživanjima [Law on Amendments to the Law on Mining and Geological Exploration], 40/2021 Sl. Glasnik RS (2021). https://www.parlament.gov.rs/upload/archive/files/lat/pdf/zakoni/2021/520-21%20lat..pdf?utm_source=openai

Zakon o Potvrđivanju Sporazuma o Socijalnoj Sigurnosti Između Vlade Republike Srbije i Vlade Narodne Republike Kine [Law on the Confirmation of the Agreement on Social Security between the Government of the Republic of Serbia and the Government of the People's Republic of China], 12/2018 Sl. Glasnik RS (2018). https://www.parlament.gov.rs/upload/archive/files/lat/pdf/zakoni/2018/2828-18-lat.pdf

Zakon o Ulaganjima [Law on Investments], 89/2015 and 95/2018 Sl. Glasnik RS (2015). https://www.parlament.gov.rs/upload/archive/files/lat/pdf/zakoni/2015/2402-15%20lat.pdf

Zavaleta Mercado, René. (2009). *La autodeterminación de las masas* (L. Tapia Mealla, Ed.; 1a. ed). Siglo del Hombre Editores ; CLACSO.

Zijin Mining Group Co., Ltd. (n.d.). *Providing the Materials that Improve Standards of Living in a Low Carbon Future: Annual Report 2024*.

Zijin Mining Group Co., Ltd. (2018, September 17). *Discloseable Transaction. Announcement in relation to Investment in RTB Bor Group in Serbia by way of Capital Increase*. https://www.zijinmining.com/upload/file/2018/09/17/63d728fecd35418f892f34ae7b66b72d.pdf

Zijin Mining Group Co., Ltd. (2022a). Bor Copper Complex. *Zijin Mining*. https://www.zijinmining.com/global/program-detail-71737.htm

Zijin Mining Group Co., Ltd. (2022b). Zijin Overseas. *Zijin Mining*. https://www.zijinmining.com/global/Zijin-Overseas.htm

Zijin Mining Group Co., Ltd. (2025a, December 4). 2,500 Days of Transformation: Zijin Revives Serbian Mining Town, Bringing Talent Home. *Zijin Mining*. https://www.zijinmining.com/sustainable/esg-message-detail-122457.htm

Zijin Mining Group Co., Ltd. (2025b, December 18). 2,500 Days of Transformation: Zijin Advances Green Mining in Serbia with 30-Year Roadmap. *Zijin Mining*. https://www.zijinmining.com/news/news-detail-122477.htm

Appendix

Exemplary semi-structured interview guide

1. **Introduction and personal background**
    a. Please introduce yourself: since when have you been working at the mine, what is your exact position, when did you join the union and what is your role there?
    b. What has changed at your workplace since the Zijin Mining Group took over RTB?
    c. Was new technology or machinery introduced? Does this technology make your job easier? Has the work pace changed?
    d. Have you received new or additional training?
    e. Have you received new colleagues, supervisors or managers?
    f. Have you noticed differences between RTB's and Zijin's management styles? Do these differences lead more often to conflicts among workers or between workers and management?
    g. Is there a clear division between Chinese and Serbian workers in terms of skills, pay, etc.?
    h. Have you noticed any changes in workplace safety since Zijin took over? Are there now more or fewer accidents than under RTB?
2. **Bargaining power, unionizing and labour relations**
    a. Which subcontractors of Zijin are you aware of? Are there differences in pay and working conditions between Zijin Copper, Zijin Mining and other subcontractors? If so, are these differences linked to state co-ownership? From workers' perspective, what are the main problems related to working through subcontractors?
    b. Did you perceive changes in union work after the Zijin takeover? Have new obstacles or rather new opportunities emerged for union activity?
    c. How has your wage changed under Zijin? How does this affect wages and wage negotiations? Compared to the period of state ownership, would you say the union's bargaining power has increased or decreased?

d. What role does the state play in negotiations? Do state representatives support wage increases more or less compared to Zijin representatives? Do they influence Zijin?

e. Do you feel state representatives represent the interests of the union? Can you give concrete examples of how they support you – or, conversely, how they support the company management's interests? Does the state monitor labor rights and respond to violations?

3. Local economic effects and regional development

a. Would you say the investment has led to significant creation of new jobs? Are these positions mainly filled by local residents?

b. What types of jobs have been created? Are they rahter skilled and well paid, or rather low-skilled positions?

c. Do you know of links with local firms that already existed and now provide services, production, supply etc. to Zijin?

d. Do you think Zijin came because of local mining expertise – workers and engineers as well as the research institute? Do they benefit from this expertise?

4. Position in global production networks

a. RTB previously produced for Yugoslavia's domestic industry; today the Bor copper complex produces for international markets. Do you have any thoughts on this? Does it make a difference to you as a worker who the end customers are?

b. Who do you think benefits most from the value created locally?

5. Privatization and the role of the state

a. Why do you think the Government of Serbia decided to privatize RTB Bor?

b. Was there any form of consent, consultation or resistance among local workers? Do you have the impression most workers supported the privatization at the time?

c. Why, in your view, did RTB perform so poorly in the years before privatization?

d. Overall, do you consider privatization to have had a positive or negative effect for the region and for workers?

6. Round-up

a. Is there anything else you would like to add that we did not cover?

b. May I contact you again if I need clarification?