

Croatia Inequality Report

Eric Kuznar
October 2019

Executive Summary

Data

Two datasets on wealth and income distribution were analyzed for Croatia's country report: the 2017 World Bank quintile and decile estimates of income and data collected by Croatia's government that provides the mean monthly income and number of employees for specific occupations.

Results

Croatia's Arrow-Pratt score is one of the lowest scores in this study, ranking it 151 of 158. Its low Arrow-Pratt score indicates that Croatia's population is highly risk acceptant. This risk acceptance is constant across both datasets, with those who earn the highest incomes scoring as the most risk acceptant.

Implications for US Interests

Croatia is strategically valuable to the US and other Western countries due to the role it plays in the Balkans. Its acceptance into the European Union during 2013 gave the US and its allies in NATO and the EU an important ally that can be used to confront Russian encroachment into the region and help other former Yugoslavian states democratize and potentially join the EU. Croatia's highly risk acceptant population poses a risk to the US and its Western allies in the EU that rely upon its political stability to lead other Balkan nations away from Russia and toward a more democratic state.

Implications for China's Interests

China has been increasing its bilateral trade with Croatia in order to curry favor and further its Belt and Road Initiative (BRI), which Beijing has designed to flow through the Balkans and continue further into Europe. However, Croatia's membership in the EU creates roadblocks for pursuing deeper economic or political interests in Croatia. The Croatian population's risk acceptance provides Beijing the potential to influence Croatia through its BRI, if China can demonstrate how its increased influence will translate to socioeconomic opportunities for a population seemingly eager to take risks on new partners and opportunities.

Implications for Russia's Interests

Croatia stands as a roadblock to Russia's influence in the region. As a result, Russia only has minor economic investments in Croatia. It is plausible that Croatia is a larger threat to Russia's aspirations in the Balkans more than ever before as Croatia has achieved both EU membership and has pledged to bring other Balkan states into the EU. Croatia and Russia's somewhat confrontational relationship gives Russia little opportunity to increase its influence in the country even with Croatia's risk acceptant nature. However, the ability to disseminate Russian propaganda and political influence is still possible for Moscow as in recent years Croatia has narrowly dodged political crisis after a 2016 vote of no confidence in its Prime Minister (Skrpec, 2017).

Table of Contents

Executive Summary	1
Introduction.....	3
Why Croatia?.....	3
Great Power Interests in Croatia.....	3
Literature Review on Inequality in Croatia.....	4
Country-Level Measures of Inequality in Croatia.....	5
Prognosis for Change to 2029	6
Empirical Data on Inequality in Croatia	7
<i>Dataset 1: 2016 Croatia World Bank Quintile Data</i>	<i>7</i>
<i>Dataset 2: Croatian Government Mean Monthly Income by Occupation 2013.....</i>	<i>8</i>
Findings on Inequality in Croatia	8
References.....	11

Introduction

This is a summary report on inequality in Croatia compiled as part of the Aggrieved Populations project conducted in support of the 2019 Strategic Multilayer Assessment (SMA) Future of Great Power Competition and Conflict project conducted for the JS-J39.

This report provides background on why the country was chosen, relevant historical background, literature review concerning inequality in the country, synopses of empirical data sources and analyses, and a concluding section that summarizes the findings. It is not intended to provide a comprehensive analysis of inequality and grievance in the country, but to place the empirical analyses conducted on this country in their social and political context and to highlight interesting cases of inequality pertinent to risk acceptance and great power competition. The analyses focus on the measurement of population risk sensitivity as a function of measured inequality using the Arrow-Pratt measure of risk aversion, whose positive values indicate risk aversion and negative values indicate risk acceptance. Studies have shown that risk acceptance is associated with social unrest, terrorism, and other forms of social disruption (Kuznar 2007; 2019). The full explanation of the underlying method and theory is presented in the summary report, *Inequality, Risk Sensitivity and Grievance in Context: Summary of Aggrieved Populations Country Reports*, submitted as part of this SMA project. This report is intended to be supporting material to that report and presumes familiarity with it.

In order to create an inclusive and more representative set of countries, an effort was made to analyze countries from each major region of the world (Africa, Central Asia, East Asia, Europe, Latin America, the Middle East, North America, South Asia).

Why Croatia?

Croatia was chosen because: 1) It is a representative nation Eastern Europe, and 2) its role as an adversary to Serbia during the dissolution of Yugoslavia in the 1990s makes it problematic for Russian interests in the region and an ally to the US and EU.

Great Power Interests in Croatia

The United States has a high level of strategic interest in Croatia given its European Union membership and the role it plays in the geopolitical structure of the Balkans. Croatia's evolution from an authoritarian country in the 1990s to a fully functioning democracy with a strong central government aided it in achieving full EU membership in 2013 (BBC, 2018). The US's main interests in Croatia are not primarily economic as in 2017, the US accounted for slightly more than five percent of Croatia's exports and less than three percent of Croatia's imports (OEC, 2017). Given the weak economic relations between the two countries, the US's main interests in Croatia are related to both regional politics and security.

Croatia possesses a geographically strategic position in the Balkans for controlling the flow of human migration into Europe (Geddes, 2016) and acting as a buffer against Russia's encroaching influence into the Balkans (Skrpec, 2017). The flow of people through the Balkans and into Europe has been cause for security concerns among some of the US's allies in the EU, adding importance to their relationship with Croatia (Geddes, 2016). However, Croatia seemingly has had little to no effect on human migration through the Balkan's as people emigrating to Western Europe in search of a higher quality of life and social stability has continued to rise. The important role that Croatia plays in Eastern European politics

caused the EU worry when it seemed Croatia was following its Balkan neighbors in waning political stability (Skrpec, 2017). This worry was short lived however as Croatia's government was able to avoid a complete shut down and narrowly avoided a political crisis in 2016 when Prime Minister Tihomir Oreskovic was ousted from power by a no-confidence vote.

Despite fighting and ethnically motivated conflict with Serbia—which is Russia's strongest ally in the region—Zagreb has since softened its hostile relations with Serbia in the recent years and vowed to assist Serbia in its attainment of an EU membership (Ilic, 2019). This step could be potentially devastating to Russian influence in the Balkans as Moscow would lose its closest political ally in the region to its opponents in the EU and NATO.

Russia views the Balkans as an area that is under its sovereign protection and part of its near abroad because of cultural similarities between Russia and Balkan states as a primarily Slavic and Christian orthodox countries (Morelli & Garding, 2018). Croatia's long-time partnership and eventual membership into the EU and NATO has placed Croatia and Russia on opposing sides of a political confrontation over influence and ideology in South-Eastern Europe (Stronski, & Himes, 2019). This may be a potential reason for the lack of economic activity between the two countries as Russia accounts for less than one percent of Croatia's overall trade (OEC, 2017). However, Russia has been attempting to foster both economic and political ties with Croatia (in addition to other Balkan countries) in order to generate a pro-Russian sentiment throughout the region; these attempts include purchasing equity in several Croatian energy companies. The Kremlin's reason for such engagement is to slow down the Balkan's integration into Western European institutions such as the EU and NATO.

China has narrow economic interests in Croatia due to the small amount of trade that occurs between the two countries with China accounting for less than two percent of Croatian exports, and less than five percent of Croatia's imports in 2017 (OEC, 2017). However, China and Croatia have both voiced optimism in discussions of future of economic growth between the two countries. This prospective economic relationship has created concern in the US and Western Europe. Since 2015, China and Croatia have enacted 15 different bilateral trade deals ranging from agriculture to energy (MVEP, 2019). This marks a sharp increase in political and economic activity between Croatia and Beijing where from 2006 to 2014, China and Croatia had only enacted 10 bilateral trade deals. While China is attempting to grow its political and economic relations with Croatia, Croatia's membership in the EU has been an obstacle for China's BRI ambitions (Zhou & Emler, 2019).

Literature Review on Inequality in Croatia

One of Croatia's best tools for decreasing ethnic and socioeconomic inequality is its newfound standing as a democratic member state of the European Union. This has not always been the case however, and shortly after the breakup of socialist Yugoslavia in the early 1990's, Croatia and the rest of the Balkans were thrown into violent ethnic conflict (Oberschall, 2000). After the breakup occurred social, religious, and ethnic fissures began to emerge and be pushed to the forefront. Croatia gradually became more polarized in both religious affiliations and ethnic loyalties as most Croatians intensified their Roman Catholic identity and ethnic minorities suffered heightened abuse. Following several years of ethnic conflict, Croatia underwent extensive structural and social changes in order to gain membership into the European Union. As one of its stipulations for joining the EU in 2013, Croatia was forced to prove to the EU that it could protect its minority populations as well as maintain a functioning central government that can carry out basic institutional tasks (Dempsey, 2013).

While Croatia’s ethnic and religious inequality is decreasing, partly due to the homogenous ethnic and religious makeup of the country (Croatia.eu, 2019), both the income and wealth gap have increased (Stjepanovic, 2018). The increasing income gap can be seen in spending patterns throughout Croatia that show slightly diminished purchasing power, where citizens have been spending the same amount and receiving less. This also has resulted in an overall slight decrease in quality of living standards of Croatian citizens.

Country-Level Measures of Inequality in Croatia

Croatia was initially assessed with a collection of country-level metrics. These metrics provide measures of the country’s inequality compared to other nations, inequality within the country, social conditions that may be consequences of that inequality, and the prognosis for stability in the future (**Error! Reference source not found.**).

Croatia has a high inequality-adjusted human development score; however, it does have a slowly widening income gap (Stjepanovic, 2018). Its GDP per capita is not low but it is not a wealthy country either, and it has small informal employment where it is only 13% of total employment. Croatia also does not score particularly high or low when it comes to its stability. It has undergone an extensive transformation into a democratic flagship for the EU in the Balkans, while at the same time suffering occasional political and economic crises (Dempsey, 2013; The New York Times, 2016). Because of the growth in its governmental capacity, it is not listed as a fragile state. Croatia also has a low impact from terrorism related incidents and a low probability of mass killings.

Table 1. Croatia: Basic Statistics on Inequality

Measure	Value	Rank	Source
Inequality Compared to Other Nations			
Per Capita GDP 2018	\$13,271	58 of 187	WB
Country Measures of Inequality			
Inequality-adjusted Human Development Index (IHDI) 2018	0.756	35 of 151	UN
Gini Coefficient 2015	31.1%	149 of 184	WB
Informal Employment as % of Total Employment 2012	13%	94 of 112	ILO
Measures of State Instability			
Fragile States Index 2018	48.7	135 of 175	FFP
Terrorism Index 2018	0.014	134 of 160	IEP
Probability of Mass Killing 2018	0.003	120 of 161	EWP
Risk Sensitivity			
Average Arrow-Pratt Measure 2017	-5.91	151 of 158	This Study
<p>*EWP – Early Warning Project, FFP – Fund for Peace, IEP – Institute for Economics and Peace, ILO – International Labor Organization, UN – United Nations, WB – World Bank</p> <p>-The Inequality-adjusted Human Development Index (IHDI) is a UN measure of well-being and is a scale based on per capita GDP, life expectancy and education levels of the population.</p> <p>- The Fragile States Index is based on twelve conflict risk that include security apparatus, factionalized elites, group grievance, economy, economic inequality, human flight and brain drain, public services, state legitimacy, human rights and rule of law, demographic pressure, refugees and IDPs, and external interventions. The potential range of the index is zero (no fragility to 120 total fragility).</p>			

- The Terrorism Index scores each country on a scale from 0 to 10; where 0 represents no impact from terrorism and 10 represents the highest measurable impact of terrorism.

Prognosis for Change to 2029

Croatia has gone through an extensive transformation since it erupted in ethnic violence following the breakup of the Socialist Federal Republic of Yugoslavia (Oberschall, 2000). The European Union assisted Croatia throughout this process in order to aid Zagreb in achieving EU membership standards (Dempsey, 2013). After reaching the threshold for appropriate governmental control and proving it could protect its minority populations, Croatia was granted EU membership in 2013. It has in recent years been threatened with both political and economic catastrophes that would undermine the gains made in recent years (The New York Times, 2016). This has sparked concern from the US and its NATO and EU allies over the potential for the growth of Russian influence if there was a breakdown in Croatia's economic or political systems (Ilic, 2018).

The trend of slowly widening income inequality will likely continue as it has since 2001 (Stjepanovic, 2018). However, there is the potential for China to change the economic makeup of the Balkans through its involvement with Croatia and other states in the Balkans (Zhou & Emler, 2019). This is through the BRI that is designed to extend toward Northern Europe. China has also increased its bilateral trade with Croatia significantly since 2006. However, the ability for China to influence the future of Croatia's economic structure is greatly limited by Croatia's membership in the EU (Zhou & Emler, 2019).

Empirical Data on Inequality in Croatia

Dataset 1: 2016 Croatia World Bank Quintile Data

The World Bank provides data on lowest and highest decile, and quintiles of percentage of income or consumption.¹ This data is used to calculate their Gini coefficients. While not exactly measuring the actual income, the percentage of overall income provides an approximation. The Croatian datasets were gathered in 2016. **Error! Reference source not found.** presents the original data and the fitted distribution curve from which the Arrow-Pratt risk sensitivity measures will be derived, as well as the Arrow-Pratt measures of risk sensitivity.

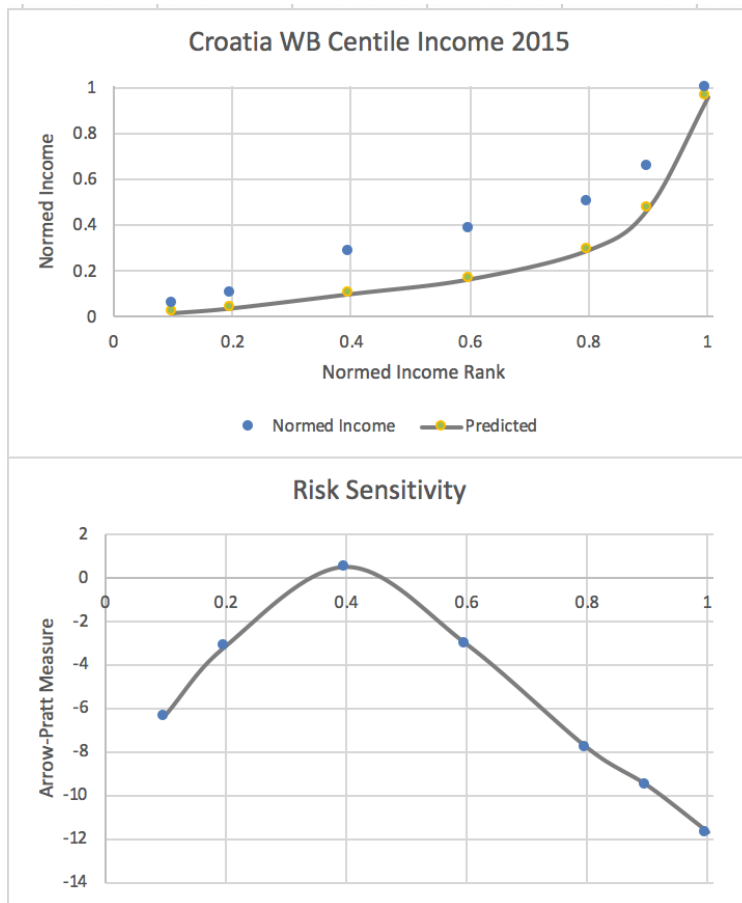


Figure 1: Distribution of Income, World Bank Quintiles Croatia 2016 and associated Risk Sensitivity.

Summary Dataset 1: 2016 Croatia World Bank Quintile Data

According to the World Bank's income data, the mean Arrow-Pratt score for Croatia is -5.91. This places it among the most risk acceptant populations world-wide. This is due to the lack of a well-defined middle class according to the World Bank income data. The data also shows that most of the population is risk acceptant with only the fourth quintile income bracket registering as risk averse. While the lowest income

¹ Data drawn from <http://wdi.worldbank.org/table/1.3>

earners are risk acceptant, the highest income earners who are the most acceptant of risk have an Arrow-Pratt score of less than -11.

Dataset 2: Croatian Government Mean Monthly Income by Occupation 2013

Data taken from the Croatian government provides data on how many people are employed in Croatia's main industries and their average wage. The occupations and their incomes were then taken and placed into the model showing the risk sensitivity of the Croatian population based on its occupational makeup.

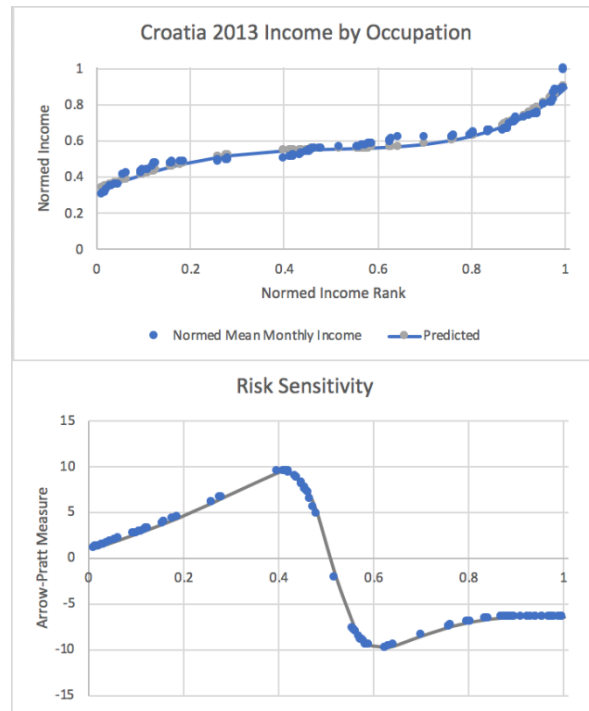


Figure 2. Croatia Income by Occupation 2013 and associated Risk Sensitivity

Summary Dataset 2: Croatia Income by Occupation 2013 and associated Risk Sensitivity

According to data taken from Croatian government's database, the average Arrow-Pratt score is -1.35. The data shows that Croatians working in lower average income occupations are risk averse. These occupations include manufacturing, print media, real estate, agriculture, visual media production, and secretarial staff, which can be seen at the 35th percentiles of data. Those in the most risk acceptant occupations are located between the 55th and 65th percentile, and include arts and entertainment, wholesale and retail trade, and transportation. The average score of -1.35 is a decrease in risk acceptance compared to data from 2008. The mean Arrow-Pratt score in 2008 was -2.44 when the most risk acceptant occupations were education, legal services, social work, and most risk averse occupations were manufacturing, mining, and agriculture.

Findings on Inequality in Croatia

Croatia has transformed into a democratic country since it was embroiled in ethnic warfare brought about by idealistic militias and their leaders (Oberschall, 2000). After the violence ended in Croatia, Zagreb went to great lengths (aided by the European Union) to increase its central government's ability to govern its

population and control commodities within its sovereign borders (Dempsey, 2013). A pivotal step toward gaining EU membership in 2013 was its ability to demonstrate it can protect its minorities and guarantee equal rights for its citizens. Croatia is very ethnically and religiously homogenous with more than 90% of its citizens being ethnic Croats (Croatia.eu., 2019)

Since ethnic and religious inequality have decreased, the main source of social cleavage in Croatia is economic. A slow widening of the income gap has altered spending patterns and lowered the overall quality of life and purchasing power (Stjepanovic, 2018). The economic inequality that Croatia experiences has yet to cause the violence that the ethnic and religious tensions caused in the 1990s.

Relevance to Instability and Social Cleavages

Croatia has increased its stability since the Balkans were wrecked by war in the 1990s. The ethnic and religious violence that plagued Croatia also occurred throughout the rest of the Balkans, which saw its population become more isolated from each other as regions became dominated by ethnic majorities and polarized religious beliefs (Oberschall, 2000). For Croatia to become a member State of the European Union in 2013, its central government had to demonstrate both the ability to govern the country from the political center and protect its citizens (Dempsey, 2013). Since becoming an EU member, near political and economic crises have aggravated residual social fissures laying beneath the surface for Croatia's population (The New York Times, 2016). The United States and its allies in the EU/NATO grew alarmed in 2016 at the prospect of Russia's manipulating Croatian structural instability to reverse the progress that has been made since the Balkans was engulfed in war.

Opportunities and Pitfalls for the US and Adversaries

The United States sees a major opportunity for Croatia to aid in the democratization of other Balkan States. Croatia's membership in the European Union makes it the US's closest ally in the region. Its 2018 promise to aid Serbia to reach EU member status by meeting the EU's governmental and equality standards would not only aid the EU but further hinder Russia's and China's interests in South Eastern Europe (Ilic, 2018). More important than China's economic interests in its Belt and Road Initiative would be the conversion of Russia's closest regional ally, Serbia, to a democratic style of government. However, Croatia's risk acceptant population could play spoiler to the political stability that the US and its Western allies need to see their interests fulfilled. This fear of instability was nearly realized in 2016 when a near political crisis threatened to erode much of the progress Croatia has made (Skrpec, 2017). Risk acceptance has the potential to activate political unrest, or make the population vulnerable to economic opportunities offered by a large nation like China.

China

China's economic interests lie in its ability to curry favor with Croatia in order to advance the Belt and Road Initiative through the Balkans and to other parts of Europe (MVEP, 2019). This has caused China to drastically increase bilateral trade deals with Croatia since the mid-2000s. However, Croatia's European Union membership has caused massive roadblocks for China to expand its economic influence throughout the country (Zhou & Emler, 2019). The risk acceptant nature of Croatia's population gives Beijing the potential to increase its political and economic engagement in the future by offering opportunities, even if risky, to Croatians.

Russia

Due to Croatia's European Union membership Russia has very few interests within Croatia. It has in recent years softened its relationship slightly buying commercial energy companies throughout the country (Stronski & Himes, 2019). However, trade between the two countries remains small and Croatia's membership in the EU represents a direct affront to Russia's claim as the Balkan's sovereign protector (Morelli & Garding, 2018). Furthermore, if Croatia can help Serbia transform into a democratic EU member state, it would take Russia's largest political ally in the region from the Kremlin (Ilic, 2018). Despite this, Croatia's risk acceptant population gives Russia the potential to assert its influence through propaganda, which could exacerbate the effect of economic inequalities, and energy incentives, which could offer opportunities, similarly to how it has throughout the rest of the Balkans.

References

- Andrew Geddes & Andrew Taylor (2016) In the shadow of fortress Europe? Impacts of European migration governance on Slovenia, Croatia and Macedonia, *Journal of Ethnic and Migration Studies*, 42:4, 587-605, DOI: 10.1080/1369183X.2015.1102041
- BBC. 2018. Croatia Country Profile. BBC News. From: <https://www.bbc.com/news/world-europe-17212572>
- Croatia.eu. 2019. Distribution and composition of the population. Croatia.eu. From: <https://croatia.eu/article.php?lang=2&id=15>
- Ilic, Igor. 2018. Croatia, Serbia try to improve ties after decades of tension. Reuters. From: <https://www.reuters.com/article/us-croatia-serbia/croatia-serbia-try-to-improve-ties-after-decades-of-tension-idUSKBN1FW1N1?il=0>
- Kuznar, L. A. (2007). Rationality Wars and the War on Terror: Explaining Terrorism and Social Unrest. *American Anthropologist*, 109(2), 318-329.
- Kuznar, L. A. (2019). Metrics of Social Disruption and the Role of Risk Sensitivity in Greed and Grievance. In G. Ligon, R. Jones, & M. Yager (Eds.), *The Age of Disruption: How Power Shifts Create More Conflict*. Arlington, Virginia: Strategic Multilayer Assessment (SMA) Periodic Publication, OSD/ASD (R&E)/RSD/RRTO.
- Morelli, V., & Garding, S., 2018. Serbia: Background and US Relations. Congressional Research Service. From: <https://fas.org/sgp/crs/row/R44955.pdf>
- MVEP. 2019. Overview of Bilateral Treaties of the Republic of Croatia by Country. Ministry of Foreign and European Affairs. From: <http://www.mvep.hr/en/foreign-politics/bilateral-relations/overview-by-country/china,66.html>
- Oberschall, Anthony. 2000. The manipulation of ethnicity: from ethnic cooperation to violence and war in Yugoslavia. *Ethnic and Racial Studies* Volume 23 Number 6 November 2000 pp. 982–1001. Routledge Journals, Taylor & Francis Ltd. From: <http://faculty.washington.edu/matsueda/courses/587/readings/Oberschall.pdf>
- OECD. 2018. Croatia. Imports and Exports. From: <https://atlas.media.mit.edu/en/profile/country/hrv/#Destinations>
- Skrpec, Dagmar. 2017. Croatia, Russia, and the Balkan Great Game. *Foreign Affairs*. From: <https://www.foreignaffairs.com/articles/croatia/2017-07-25/croatia-russia-and-balkan-great-game>
- Stronski, P., & Himes, A, 2019. Russia's Game in the Balkans. Carnegie Endowment for International Peace. From: <https://carnegieendowment.org/2019/02/06/russia-s-game-in-balkans-pub-78235>

Zhou, L., & Elmer, K., 2019. How China hit a roadblock on its way to Central. South China Morning Post.
From: <https://www.scmp.com/news/china/diplomacy/article/3002038/how-china-hit-roadblock-its-way-central-and-eastern-europe>