

What Explains Taxation by Resource-Rich Rebels?

Evidence from the Islamic State in Syria

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Greed-based theories of civil war predict that rebel groups will only engage in taxation and other state-building activities in areas where they lack exploitable resources. However, this prediction is contradicted by the Islamic State's pattern of taxation across time and space. A new data set mapping seven types of revenue-extracting policies imposed by the Islamic State, a jihadist rebel group, in the 19 Syrian districts that it governed between 2013 and 2017 indicates that these policies were just as prevalent in resource-rich as in resource-poor districts. I propose a new theory that better explains this pattern—a rebel group's pattern of taxation is codetermined by (1) ideology and (2) the costs of warfare—and establish the plausibility of this theory through a case study of al-Mayadin, the most oil-rich district governed by the Islamic State and therefore an ideal site in which to investigate the puzzle of taxation by resource-rich rebels.

Greed-based theories of the political economy of rebellion predict that armed groups will only engage in taxation and other state-building activities in areas where they lack exploitable resources such as oil. According to these theories, greed drives armed groups to engage in short-term, opportunistic looting rather than invest in building the complex bureaucracies that are necessary for taxation and long-term governance of civilians (Collier and Hoeffler 2004). A related argument is that resource-rich rebel groups tend to attract “opportunists” rather than “true believers” and are therefore prone to indiscipline and abuse of civilians (Weinstein 2006). Such characteristics are not conducive to the establishment of policies and institutions that regulate relations between the rebel group and civilians, including taxation.¹ This article presents a puzzle that contradicts the predictions of greed-based theories of rebel behavior with an original data set that maps the spatial and temporal pattern of tax policies implemented by the Islamic State (IS), a jihadist rebel group

that controlled and governed substantial territory in Syria (19 of the country's 65 districts) between 2013 and 2017.

Contrary to a key observable implication of greed-based theories of rebel behavior—that armed groups with access to resources will not establish complex systems of taxation—IS imposed several different types of taxes and other revenue-extracting policies in resource-rich areas of Syria. Furthermore, an original quantitative data set mapping the implementation of seven different types of revenue-extracting policies by IS in the 19 Syrian districts that the group governed between 2013 and 2017 indicates that these policies were just as prevalent in resource-rich as in resource-poor districts on average across time and space. This data set is based on 1,052 primary-source texts drawn from local Arabic-language newspapers, social media data, and official IS texts. These texts were corroborated by interviews with 138 Syrians who were selected for their personal experience with IS governance in one or more of the 19 districts in the sample.² In addition to

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1. Following scholars of state taxation, I define “rebel taxation” broadly as “any imposition of costs on individuals” (Thuronyi 2016, 45) by a rebel group that is administered according to publicly known rules and procedures. See app. sec. 1 for a discussion of the distinction between “rebel taxation” and looting or theft.

2. Research for this article was conducted under Yale Institutional Review Board protocol 1506016040 over the course of five research trips to Turkey between July 2015 and February 2017. I personally conducted all interviews in Arabic. Because of the confidentiality procedures that were implemented to protect human subjects, interviewees are cited by pseudonyms. Appendix sec. 3.3 discusses the interview methodology and data in greater detail.

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being inconsistent with previous studies of the political economy of rebellion, IS's behavior is also surprising because the imposition of taxes is associated with significant economic and political costs. First, effective taxation requires the creation of a bureaucracy that is capable of identifying and collecting taxable assets (North 1981; Tilly 1975). Second, taxes are generally unpopular and are therefore a source of friction between state and society (Levi 1988; Scott 1977). One interviewee from Deir Ezzor was puzzled by IS's decision to tax so heavily in an area where "they are already rich from oil. It makes no sense."³ Given that greed-based theories fail to explain the case of IS, what alternative explanations might better account for the puzzle of taxation by resource-rich rebels? I theorize that a rebel group's pattern of taxation is codetermined by (1) its ideology and (2) the costs of warfare. I then establish the plausibility of this theory through a case study of al-Mayadin, which is the location of the largest oil field in Syria and therefore an ideal site in which to explore the puzzle of taxation by resource-rich rebels.

This multimethod research makes several empirical and theoretical contributions. First, I constructed a granular district-month-level data set that describes the complex taxation system of a rebel group (IS) that is of great interest to both scholars and policy makers in a region (the Middle East) that is geostrategically important but often inaccessible to researchers because of conditions of conflict and authoritarianism. Although interest in the phenomenon of "rebel governance" is growing, the vast majority of past research is based on cases in Latin America, Africa, and Asia and cross-national data (Arjona, Kasfir, and Mampilly 2015; Mampilly 2012; Stewart 2018). In addition to this empirical contribution, the article makes theoretical contributions to previous research in several ways. First, I identify previously unexplored limitations of greed-based theories of rebel behavior by demonstrating their inconsistency with the case of IS. Second, I link two different research agendas that are not often in dialogue with one another: (1) previous work on the ideological foundations of rebel behavior and institutions (Gutiérrez Sanín and Wood 2014; Hoover Green 2017) and (2) bellicist theories of state formation that identify conflict as a driver of bureaucratic centralization and economic development (Tilly 1975). Bridging these two literatures, I theorize that patterns of policy implementation by ideologically motivated rebel groups are codetermined by (1) their belief systems and (2) their existential need to defend and retaliate against counterinsurgent violence.

3. Interview with Bassel (truck driver from Deir Ezzor) in Gaziantep, November 2015.

THEORY

In contrast to those who purport greed-based explanations, I theorize that patterns of rebel taxation are driven by two mechanisms, (1) ideology and (2) the costs of warfare, that codetermine rebel policies. First, a rebel group's tax policies may be driven by its ideological commitments. Although "ideology" refers to "systematic ideas" held by members of rebel groups, these ideas and beliefs frequently become observable in the behavior of individual group members, in the policies and practices of the rebel group (Wood 2018), and in the institutions created by the group to govern civilians (Arjona 2016; Mampilly 2012).⁴ Ideologically motivated rebel groups tend to persist in their belief-driven policies, practices, and institutions even when they are costly or irrational. Second, rebel groups impose taxes to finance the costs of warfare, including the group's need to protect its infrastructure and population from air strikes. Consistent with bellicist theories of state formation (Dincecco 2011; Tilly 1975), rebel groups may tax civilians in resource-rich areas if the costs of their military operations and governance activities exceed the revenue that can be raised through the exploitation of resources alone. Furthermore, certain taxes and other revenue-extracting policies may be designed to mitigate the destructive effects of violence on rebel institutions and to disincentivize out-migration by civilians who are valuable to rebel groups not only because they can be recruited as fighters but also because they provide information, food, and other services (Kalyvas 2006; Lyall, Shiraito, and Imai 2015). Even though ideologically motivated rebel groups tend to impose policies that are consistent with their belief systems, they are also strategic actors operating in wartime environments where some policy decisions are driven by the military needs of the insurgency. Therefore, ideology and the costs of warfare interact to codetermine a rebel group's pattern of taxation. I do not claim that this theory explains all patterns of taxation by all rebel groups, only that I expect it to be more consistent with IS's pattern of taxation than greed-based theories. Despite the limitation of this study to a single case (IS) in a single country (Syria), I expect that the findings will generalize to other Islamist rebel groups and potentially to other ideologically motivated rebel groups.

METHODOLOGY AND DATA

This article tests a key prediction of greed-based theories of rebel behavior—that armed groups will impose taxes only

4. Following Gutiérrez Sanín and Wood (2014, 214), I define "ideology" as "a set of more or less systematic ideas that identify a constituency, the objectives pursued on behalf of that group, and a . . . program of action."

in areas where they lack resources—with new data on the case of IS, which presented a rare opportunity to document a process of rebel state formation as it began and eventually collapsed between 2013 and 2017. First, I demonstrate through analysis of an original quantitative data set that greed-based theories of rebel behavior fail to explain IS's pattern of tax policy implementation in Syria. Second, I engage in process tracing of qualitative evidence drawn from a case study of one of the 19 districts in the sample, al-Mayadin, which I intentionally selected for analysis because it is the location of the largest oil field in Syria (al-Omar) and therefore an ideal site in which to compare the observable implications of my theory against those of greed-based explanations. Process tracing is a method that is commonly used to investigate complex mechanisms and causal processes that cannot be revealed by statistical analysis alone (Bennett and Checkel 2014), particularly in wartime settings where quantitative data may be difficult or impossible to collect (Wood 2007), and is therefore the most appropriate analytical tool to evaluate the available evidence on IS's pattern of taxation in Syria.

If greed-based theories were correct, then we should find that IS was less likely to impose taxes and other revenue-extracting policies in resource-rich areas than in resource-poor areas because these theories predict that rebel groups with access to exploitable resources will engage in short-term, opportunistic looting rather than invest in building the complex bureaucracies that are necessary for taxation and long-term governance of civilians (Collier and Hoeffler 2004; Weinstein 2006). In Syria, the relevant resources are oil, natural gas, hydroelectric dams, and phosphate mines. To test this prediction, I collected data on seven different types of taxes and other revenue-extracting policies from the 19 Syrian districts that were governed by IS for a period of at least three months between 2013 and 2017: (1) income taxes, (2) border taxes, (3) excise taxes, (4) fines,⁵ (5) licensing fees, (6) property taxes, and (7) services fees.⁶ The resulting Islamic State Tax-Policy Implementation (ISTPI) data set maps the incidence of these policies across time and space from July 2013, when IS first began to govern territory in

Syria, until May 2018, by which time IS had lost control of all but a few pockets of land.

For all 19 districts, I coded the presence of each type of policy as a binary variable for every month that IS controlled and governed that district. For every district-month (the unit of analysis), I determined whether a particular tax policy was being implemented by triangulating between local Arabic-language newspapers, social media data (Twitter and Facebook posts written by internet users in or near IS-controlled areas), and official IS texts. During four months of fieldwork in southern Turkey, I consulted 138 interviewees from the 19 districts in the sample to corroborate the primary-source texts on which the data set is based. Each observation is supported by at least one text (the data set includes a total of 1,052 texts, of which the vast majority are in Arabic) and validated by an interviewee from the relevant district.⁷ Appendix table 3 illustrates the structure of the ISTPI data set. Some of these 1,052 primary sources are cited in text as "ISTPI #," and appendix sec. 7 contains detailed references with translations of relevant passages for every text cited in the article. Importantly, the ISTPI data set does not record the amount of revenue generated by taxation because of the impossibility of conducting fieldwork inside Syria during the period of study and the fact that only a small fraction of IS's internal financial records have been recovered. Nonetheless, it is a significant first step toward mapping the operations of a complex system of rebel taxation across time and space. Given the importance of the case of IS, "mere description" through the collection of original observational data (Gerring 2012) is valuable in and of itself and is also a necessary foundation for causal inference in future research (Kocher and Monteiro 2016).

RESULTS

Contrary to the expectations of greed-based theories, a difference-in-means analysis of the ISTPI data set indicates that IS was no more likely to impose taxes and other revenue-extracting policies in resource-poor districts than in resource-rich districts.⁸ My analysis compared the prevalence of seven types of taxes and other revenue-extracting policies across districts with and without the natural resources of oil, natural gas, hydroelectric dams, and phosphate mines. Of these resources, oil and hydroelectric dams are by far the most prevalent, occurring in seven and eight districts respectively, whereas natural

5. Given their punitive purpose, fines are more accurately characterized as judicial instruments than as taxes, but they are nonetheless revenue-extracting policies and therefore fall within the scope of my theory.

6. See app. sec. 1 for definitions and descriptions of the seven types of policies and app. fig. 1 for a map of the 19 districts in the sample. The data set differentiates between these seven different policies in recognition of their varying functions and consequences for governance. For example, fines are punitive and therefore have implications for social control and discipline. See app. sec. 3.3 for a discussion of the relationship between taxation, social control, and ideology.

7. PDFs of the 1,052 texts used to construct this data set are available in the supplementary appendix data on the JOP Dataverse.

8. Because of the impossibility of collecting accurate data on standard control variables in war-torn Syrian districts where economic and demographic conditions were changing dramatically during the period of study (2013–17), regression analysis would not have yielded reliable results.

gas and phosphate mines are present in only two districts. Resources are defined at the province level since revenues generated at the district level were aggregated by a province-level treasury known as the *bayt al-māl* (literally, “house of money”), and all evidence indicates that IS’s different provinces were economically self-sufficient and did not share revenues with one another.⁹ Although the data set unit of analysis is the district-month, the statistical analysis collapses the monthly data into a less granular unit—the district-quarter—to reflect the persistence of IS tax policies over time.¹⁰ In total, the sample includes 185 district-quarter observations. In table 1, I compare the prevalence of the seven revenue-extracting policies across district-quarters with and without oil resources and find no evidence that the presence of oil diminished the likelihood of taxation. If anything, IS was more likely to impose certain taxes and other revenue-extracting policies in oil-rich areas (excise taxes, border taxes, service fees, and licensing fees) as evidenced by positive and statistically significant differences in means. For example, border taxes were imposed in 24.7% of oil-rich districts but only 2.1% of districts without oil. As a robustness check, appendix table 7 presents the same analysis after collapsing the data to the even more granular district level (where a type of policy is coded as having been implemented in a district if IS ever implemented that policy while in control of the district). The results are qualitatively similar.

Appendix table 8 compares the prevalence of tax policies across districts with and without hydroelectric dams. Again, a difference-in-means analysis suggests that the presence of hydroelectric dams did not diminish the likelihood of taxation, contradicting the expectations of greed-based theories of rebel behavior. Repeating the same analysis at the district level yields a similar result (app. table 9). Appendix tables 10 and 11 conduct the same comparisons across districts with and without phosphate mines and natural gas. Although I do find a negative relationship between the presence of those resources and the prevalence of taxation—findings that are not inconsistent with greed-based theories—natural gas and phosphate mines are found in only two of the 19 districts, and they are colocated in the same two districts. The relative rarity of these resources and resulting lack of variation caution against drawing any conclusions from the phosphate and natural gas results. Overall, the data for the two most common resources—oil and hydro-

Table 1. Prevalence of Taxation in Districts with and without Oil (District-Quarters)

	Mean		Difference in Means
	Oil = 0	Oil = 1	
Income taxes	.344 (.477)	.494 (.503)	.151 (.128)
Excise taxes	.042 (.201)	.281 (.452)	.239 (.086)**
Border taxes	.021 (.144)	.247 (.434)	.226 (.050)***
Service fees	.167 (.375)	.629 (.486)	.463 (.184)**
Fines	.292 (.457)	.607 (.491)	.315 (.186)
Licensing fees	.031 (.175)	.191 (.395)	.160 (.051)**
Property taxes	.010 (.102)	.225 (.420)	.214 (.202)
N	96	89	185

Note. Standard errors in parentheses.

** $p < .05$.

*** $p < .01$.

electric dams—are inconsistent with the pattern of taxation predicted by greed-based theories of rebel behavior.

QUALITATIVE EVIDENCE

Having demonstrated quantitatively that greed-based theories of rebel behavior fail to explain IS’s pattern of taxation in Syria, I now present qualitative evidence drawn from a case study of the most oil-rich district in the sample, al-Mayadin, to establish the plausibility of my theory that patterns of rebel taxation are codetermined by (1) ideology and (2) the costs of warfare. If greed-based theories were applicable to the case of IS, then we would expect to find low levels of taxation in al-Mayadin because resource-rich groups supposedly prefer to engage in short-term, opportunistic looting rather than invest in building the complex bureaucracies that are necessary for taxation and long-term governance of civilians (Collier and Hoeffler 2004) and because resource-rich groups tend to attract “opportunists” rather than “true believers” and are therefore prone to indiscipline and abuse of civilians (Weinstein 2006)—characteristics that are not conducive to the establishment of policies and institutions that regulate relations between the rebel group and civilians, including taxation. Another reason to expect low levels of taxation in al-Mayadin is that IS repeatedly faced both violent and peaceful opposition from the

9. This interpretation is supported by a diagram of IS’s bureaucracy issued by the group itself (Islamic State 2016). See app. sec. 3.1 for further discussion of the economic independence of IS’s different provinces.

10. For example, if IS was collecting service fees for household electricity consumption in October 2014, I treat this policy as having been in effect for the entire quarter of October–December 2014.

civilian population. There were at least 10 armed attacks against IS personnel or buildings, including one in which assailants set fire to IS police cars near a sheep market (ISTPI 1166) and another in which the district's senior IS official responsible for the collection of *zakāt* was assassinated as he was leaving a wedding (ISTPI 1188).¹¹ Peaceful resistance was much less common given IS's harsh treatment of dissidents, but there were at least two such instances including one in which a group of women gathered outside of the IS court in al-Mayadin to demand the release of their imprisoned sons (ISTPI 496, 539). Since taxation may fuel unrest (Levi 1988; Scott 1977), a rational sovereign would be unlikely to risk further provoking a population that was already on the verge of rebellion. Yet, this expectation is contradicted by the case of al-Mayadin. Not only did IS collect revenue from civilians during 29 out of the 38 months that it controlled the district, but the group imposed seven different types of taxes and other revenue-extracting policies during that period. In the following sections, I establish the plausibility of my theory through process-tracing analysis of qualitative evidence from al-Mayadin.

Ideology as a determinant of taxation

The case of IS provides considerable support for my argument that patterns of rebel taxation are partially determined by the group's ideology. IS's ideology, like that of other Salafi-jihadist groups, promotes the re-creation of the earliest Islamic society through a literal interpretation of the Qur'an and other texts that have transcribed the practices (*sunna*) and sayings (*hadith*) of the Prophet Muhammad. Many of IS's taxes and other revenue-extracting policies were drawn directly from the Qur'an and other texts on which the group's belief system are based. Two obvious examples are *zakāt* and *jizyah*, a kind of excise tax historically imposed by Islamic states on Christians and Jews in exchange for their protection as religious minorities (app. sec. 2.3).¹² Other revenue-extracting policies were not explicitly justified on the basis of such texts but nonetheless reflected and reinforced the group's ideology indirectly by (1) incentivizing conformity with its interpretation of Islam and (2) financing public goods provision, which was necessary to realize IS's ideological objective of governing people and territory through the establishment of a modern-

day "caliphate" based on the model of Islamic statecraft first laid out by the Prophet Muhammad in the seventh century (Revkin 2016).

Taxes that incentivized compliance with IS's interpretation of Islam. Many of the revenue-extracting policies imposed by IS in al-Mayadin appeared to be intended to incentivize civilian compliance with the group's ideology. For example, IS imposed fines on civilians who failed to comply with its strict dress code, which was based on the group's interpretation of Islam, including men caught wearing pants that fall below their ankles (ISTPI 856), in contravention of a saying of the Prophet (Sahih al-Bukhari, bk. 77, *hadith* 5). Female farmers were fined for wearing insufficiently modest clothing, including colorful shoes, while working in their fields (ISTPI 925, 1087). Other fines were imposed to punish behaviors that violated IS's interpretation of Islam, including fines on merchants who failed to close their shops during mandatory prayer times (ISTPI 1162) and men who failed to trim their mustaches (ISTPI 862) as advised by the Prophet (Sahih al-Bukhari, bk. 77, *hadith* 109). In other districts (Manbij and Raqqa), IS collected service fees to finance the construction of new mosques, providing additional evidence for a link between ideology and taxation (ISTPI 939, 1099). In another example of an ideologically motivated tax imposed in al-Mayadin, IS announced that it would begin to collect a *jizya* tax from Christians in exchange for guaranteeing their protection. At the time, a local newspaper reported that there was only one Christian family left in the district of al-Mayadin, and IS presented them with three options: (1) convert to Islam, (2) pay the *jizya* tax, or (3) leave IS territory (ISTPI 1145). Not only was the *jizya* explicitly grounded in IS's ideology, but it also served to incentivize the population's adoption of that ideology by imposing costs on nonbelievers.

The links between ideology, taxation, and public goods provision. Not all rebel groups provide public goods and services to civilians living in areas under their control (Stewart 2018). However, IS's ideology revolves around the objective of controlling territory and governing civilians through the establishment of a "caliphate." Since effective governance of civilians requires public goods and service provision, tax policies that are justified as necessary to raise revenue for public goods and service provision can be linked to IS's ideology. Numerous official IS texts suggest that the leader of the caliphate is bound by a religious obligation to ensure the provision of public goods and services to the civilian population. For example, an official IS treatise enumerating "the duties of the caliph" includes "strengthening the economy and providing employment and livelihoods to the people from agriculture, trade, industry, and

11. *Zakāt* (الزكاة), the third of the Five Pillars of Islam, refers to a mandatory charitable contribution that is functionally equivalent to an income tax (app. sec. 2.1). See also ISTPI 499, 514, 515, 518, 540, 541, 542, and 1165 for other examples of violent resistance.

12. IS generally collected *zakāt* at a rate of 2.5%, as specified in several of the *hadith*. See, e.g., Ibn Abi Shaybah, al-Musannad, Irwa al-Ghalil, 3/291, stating: "For 20 dinars, half a dinar is due; for 40 dinars, one dinar is due."

other sectors” and “providing material assistance to the poor and others in need of help.” According to the same text, the caliph is also obligated to “appoint governors, ministers, and employees who are trustworthy and technically skilled . . . to ensure the welfare of the people” (Islamic State 2017, 23–25). Additionally, IS’s constitution-like “Charter of the city,” a 14-article document that describes reciprocal obligations between the caliphate and its subjects, states: “Funds will be spent in the *maslaha* [public interest] of the Muslims” (Islamic State 2015c). As these texts make clear, effective governance of civilians—which requires public goods and service provision—is a core component of IS’s ideology. Since two of the seven revenue-extracting policies that IS imposed—(1) service fees and (2) *zakāt*—were explicitly justified as necessary to raise revenue for public goods and service provision, I argue that these policies were indirectly driven by IS’s ideology.

Evidence from the case study of al-Mayadin supports this argument. For example, a Syrian newspaper reported: “[IS’s] department of public services is collecting new fees from shops in al-Mayadin that are justified as necessary for sanitation and roadwork” (ISTPI 868). An official IS video justifying the collection of *zakāt* taxes cited the Qur’an in identifying eight areas of public spending for which *zakāt* revenue can be allocated: (1) “The poor who live in absolute poverty,” (2) “the poor who . . . can’t meet their basic needs,” (3) “those working to collect [*zakāt*],” (4) “to win the hearts of new Muslims,” (5) “to set free Muslim slaves or liberate Muslim prisoners,” (6) “those overburdened by debts,” (7) “the mujahidin and jihad,” and (8) “travelers in need” (Islamic State 2015a).¹³ Of these eight areas, four pertain to public goods and service provision: 1, 2, 6, and 8. IS also cited its ideology when justifying punishment for nonpayment of taxes levied to finance public goods and service provision. According to the official IS video on *zakāt*, failure to comply with the religious obligation to pay *zakāt* is an act of apostasy (Islamic State 2015a). Since apostasy is a capital crime under IS’s legal system, civilians could in theory be executed for refusing to pay *zakāt* (Revkin 2016, 17). Throughout its territory, IS put up billboards publicizing the Islamic justification for *zakāt* and corresponding punishment for nonpayment (app. fig. 3). After opening a new office for the collection of *zakāt* in al-Mayadin, the local IS mosque announced that civilians would be required to pay *zakāt* as required by the

13. “Jihad” is an Arabic word meaning “struggle” and may take several forms, both peaceful and violent. “Inner jihad” refers to a person’s individual struggle to live according to Islamic principles, while “outer jihad” refers to the defense of the Muslim community against its enemies. IS argues that outer jihad should be waged both defensively and offensively (Revkin 2016, 38).

Qur’an and warned that it would be collected “by force” if not given voluntarily (ISTPI 1157). The fact that this command was issued by a mosque rather than by a police department suggests that IS relied not only on its ability to wield violence but also on its ideology to promote civilian compliance with tax policies.

Costs of warfare as a determinant of taxation

Consistent with my theory, evidence from al-Mayadin indicates that IS’s need to wage warfare (both offensive and defensive) was an important determinant of its pattern of taxation, in addition to ideology. For example, in response to damage caused by air strikes, IS imposed service fees on merchants to finance the construction of protective roofing over open-air markets (ISTPI 826). Similar service fees were levied in Raqqa to pay for the placement of protective sand bags and barriers outside of shops and houses (ISTPI 845, 881) and to cover the city’s streets in order to shield IS fighters from surveillance by drones (ISTPI 1214). Additional evidence of the relationship between counterinsurgent violence and taxation can be found in the imposition of border taxes, which enabled IS to simultaneously disincentivize and profit from the flight of civilians from its territory. For example, IS imposed a tax of approximately \$100 on every resident traveling out of Manbij, a district adjacent to al-Mayadin (ISTPI 363). An interviewee from al-Mayadin reported that similar “exit taxes” were levied there, saying, “They [IS] are making money off of the fighting and airstrikes by demanding taxes from those who are trying to escape.”¹⁴

In several districts, IS imposed fines that incentivized military service and punished deserters. For example, in al-Bukamal (adjacent to al-Mayadin), IS imposed fines on parents of child soldiers who deserted training camps (ISTPI 431), and in Raqqa, civilians who declined appeals to enlist as fighters were asked to pay a “tax in lieu of jihad” (ISTPI 977, 984). In another example of the link between warfare and revenue, IS began to collect fees from merchants in al-Mayadin for the stated purpose of financing “preparations for victory” against the Syrian Army (ISTPI 1185). Similar tax policies were implemented in other districts including Manbij, where IS authorities told shopkeepers that they were introducing a new monthly tax “in order to buy weapons that our soldiers need for battle” (ISTPI 1072). This bellicist justification for taxation can also be found in the previously cited IS video on *zakāt* (Islamic State 2015a).

14. Interview with Omar (clothing store owner from al-Mayadin), Şanlıurfa, February 2017.

Ideology and the costs of warfare interacted to codetermine IS's pattern of taxation

Finally, I find qualitative evidence to support my theory that IS's ideology and costs of warfare interacted to codetermine its pattern of taxation. In some cases, IS imposed taxes to advance military objectives (such as service fees levied to build protective barriers around civilian houses and businesses) that were not explicitly justified on ideological grounds. However, since jihad against enemies of the caliphate is an important component of IS's belief system (see n. 13), other taxes associated with warfare can be traced back to the group's ideology. For example, of the eight religiously permissible areas of public spending for which *zakāt* revenues may be allocated, two (5 and 7) pertain to military objectives (Islamic State 2015a). In another example of a tax policy that appears to have been influenced both by ideological and military considerations, IS imposed fines in al-Mayadin for the possession of satellite dishes (ISTPI 907, 1139). Previously, IS had issued a video warning that foreign intelligence agencies could use satellite signals to identify air strike targets (Palazzo 2016), and the group had also issued numerous statements condemning the spread of un-Islamic ideas through television, including one that identified satellite dishes as "among the clearest reasons for the spreading of immorality in our times" (Islamic State 2015b). As these examples suggest, ideology and the costs of warfare were both important determinants of IS's pattern of taxation, and in some cases, these two factors were mutually reinforcing.

CONCLUSION

This article has challenged the validity of greed-based theories of the political economy of rebellion by demonstrating their inconsistency with IS's pattern of taxation in Syria. Furthermore, since IS was arguably a *de facto* state, my central finding—that IS was just as likely to impose taxes in resource-rich as in resource-poor districts—may also have implications for related literatures on the role of the "resource curse" (Ross 2004) and "revenue bargaining" (Boucoyannis 2015; Levi 1988) in state formation, both of which predict that complex systems of taxation are most likely to be found in resource-poor states where governments have no alternative but to extract revenue from their populations. While calling into question the generalizability of these theories to the case of IS, I generate and establish the plausibility of a novel theory that links previous research on the role of ideology in rebel group behavior with bellicist theories of state formation by arguing that two mechanisms, (1) ideology and (2) the costs of warfare, interact to codetermine a rebel group's pattern of taxation.

While scholars of state taxation have long recognized that governments impose taxes for ideological, social, and political reasons in addition to their need for revenue (Heer 1937; Smith 1776), scholars of protostates and armed groups have tended to characterize taxation as a purely instrumental transaction in which civilians exchange payment for protection (Olson 1993), with the exception of a few recent studies that explore the noneconomic functions of rebel economic policies (Mampilly 2019; Rodríguez-Franco 2015). The evidence presented in this article suggests that rebel groups impose taxes not only to raise revenue but also to incentivize particular beliefs and behaviors in the populations they govern. Future research should further explore both the intent and logic motivating taxes and other economic policies implemented by rebel groups as well as the short- and long-term consequences of these policies for civilian behavior both during and after conflict.

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