# Will ISIS be able to Persist in its Current Form?

## A Case Study on the Socioeconomics of Terrorism

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Abstract

After ISIS committed a series of high profile attacks, policymakers have intensified their efforts to combat the organization. Given that the predecessor of ISIS, the 'Islamic state of Iraq', managed to revitalize itself after being on the brink of destruction, highlights the need for an in -depth exploration. In light of this, the paper examines whether the organization can persist in its current form through the analysis of a number of aspects. The paper discusses how ISIS competes with other terrorist organizations, the dynamics of its organizational structure, and how the organization mitigates dependency and risk in its resourcing. The preceding aspects show that ISIS may not persist in its current form in the long-run, given that efforts against the organization are enduring. However, this examination also reveals that the dangers posed by ISIS are not tied to its current form. As such, the paper warns for myopia that allows 'al-Qaeda' to gain dominance, and that ISIS may persist in the form of an insurgency that feeds on Shia retaliation towards the Sunnis. Counterterrorism efforts can be bolstered through the exploitation of agency problems at ISIS, and by implementing alternative forms of good governance which undermine the legitimacy of the organization as a provider.

*Keywords*: Islamic State, ISIS, ISIL, Daesh, Terrorism, Socioeconomics

# Will ISIS be able to Persist in its Current Form?

## A Case Study on the Socio-Economics of Terrorism

After the declaration of its Caliphate in June 2014, the 'Islamic State of Iraq and Syria' (ISIS) controlled territory which held a (pre-conflict) population between 4 and 8 million, and in terms of landmass was larger than Jordan, the 112th largest state (Pollard et al., 2015; Hansen-Lewis & Shapiro, 2015). Furthermore, it has demonstrated its wide spanning reach through high-impact attacks in Ankara, Paris, Brussels, and with the bombing of a Russian passenger plane (Sanchez et al., 2016). Thereby, it has motivated and inspired attacks, such as the 2016 Orlando nightclub shooting, whereby 53 were injured and another 50 were killed (Alvarez & Pérez-Peña, 2016). Similar inspired actions have occurred in 21 countries, which have resulted in the loss of life for over 1,400 persons and injured another 2,000 (Sanchez et al., 2016). Such incidents have sparked the intensification in the campaigns by the international community, such as the U.S.-led coalition and the Russian state, in order to counter ISIS (Schmitt & Schmitt, 2016; Wintour, 2016). Given that the predecessor of ISIS, the 'Islamic State of Iraq' (ISI) was on the brink of destruction, due to the 'Anbar awakening' and the 'surge' in U.S. troops, yet managed to reemerge after the withdrawal of the U.S. in Iraq, highlights the need to closely examine ISIS (Shatz & Johnson, 2015; Hosken, 2015; Pollard et al., 2015).

Examining terrorism has been done for decades, however, after the terror attacks of 9/11, research on terrorism has received renewed interest from a variety of academic fields. Scholars from economics, political science, psychology, sociology, and other fields have applied their insights on this phenomenon (Llussá & Tavares, 2008). As such this is done by highlighting the the consequences of terrorism (Frey et al., 2007; Drakos & Kallandranis, 2015; Blomberg et al.,

2011b), the survivability of terrorist and insurgent groups (Blomberg et al., 2009; Cronin, 2006; Blomberg et al., 2011a; Acosta, 2014; Young & Dugan, 2014), the organization of terrorist and insurgent networks and the determination of their location (Shapiro, 2005; McColl, 1969; Asal & Rethemeyer, 2008), by investigating the determinants of terrorism (Gassebner & Luechinger, 2011; Testas, 2004; Crenshaw, 1981; Berman et al., 2011), and by providing explanations on the strategic logic of terrorism (Pape, 2003; Jain & Mukand, 2004; Sandler & Enders, 2004).

This paper builds on the efforts done by Johnston et al. (2016), who gained new insights through the analysis of over 140 documents dating between 2005-2010 on the predecessors of ISIS: 'AL-Qaeda in Iraq' (AQI) and the 'Islamic State of Iraq' (ISI). They focus on a number of aspects, such as the organization and its management structure, its territorial aspirations, the human capital within ISI and the accompanying compensation schemes, and the sources of financing (Johnston et al., 2016). This paper will incorporate aspects of these findings in order to contrast ISIS with its predecessors. Thereby, other research on ISIS is primarily narrow in scope, for example on financing (Hansen-Lewis & Shapiro, 2015), or on the flow of foreign fighters (Benmelech & Klor, 2016), without taking a holistic approach on these phenomena.

As such, this paper tries to answer the following main question: "Will ISIS be able to persist in its current form?" This process of formulating an answer to this question calls for multiple subquestions. These questions are: "How does ISIS compete with other terrorist organizations?", "How is ISIS structured, and what are the dynamics of this structure?", and "How does ISIS obtain its resources, and how does it mitigate dependency and risk?".

In light of these research questions, the paper will first provide context through a brief explanation of the history of ISIS. Second, the paper will examine the goals and strategic logic of

ISIS as it competes with other terrorist organizations. Third, the organizational structure of ISI and ISIS are examined in light of organizational economics. Fourth, resource dependency theory will form a framework wherein we discuss how ISIS generates its resources. Finally, the paper ends with a summarization of these findings, provides an answer to the main research question, and contributes recommendations in terms of policy regarding combating ISIS, and where future research can focus on to aid this objective.

## A Brief History of ISIS

Abu Musab al-Zarqawi started his career with the founding of a Jihadist group in Jordan at the dawn of the 1990's. He soon began to apply his expertise in new countries. As in 2002, al-Zarqawi founded the 'Jama'at al-Tawhid wal-Jihad' in Iraq in anticipation of the impending United States-led invasion of Iraq (Shatz & Johnson, 2015). After the invasion in 2003, the situation in Iraq further deteriorated as coalition forces failed to maintain order in the country (Byman, 2016). As such, al-Zarqawi's group aligned with 'al-Qaeda' (AQ) in 2004, and became 'al-Qaeda in Iraq' (AQI) in order to secure further funding and gain new recruits (Barrett, 2014a). Through this alliance, he vowed to repel the Americans and their coalition, and to exterminate Shia Muslims; who composed the majority of the Iraqi population (Johnston, et al., 2016). After receiving seed capital from 'al-Qaeda', 'al-Qaeda in Iraq' became self-sufficient and managed to grow of its own accord (Bergen et al., 2008; Bahney et al., 2010). In order to fuel further growth, 'al-Qaeda in Iraq' merged again in January 2006 with five smaller Jihadist groups to become the 'Mujahidin Shura Council' (MSC) (Hosken, 2015). However, al-Zarqawi was not be able to enjoy the fruits of his labor for long, as he perished due to a U.S. airstrike

mid-2006 (Barrett, 2014a). His replacements, Abu ‘Umar al-Baghdadi and Abu Ayyub al-Masri, continued his work, and the organization’s expansion and consolidation of territory led to the organization's creation of the ‘Islamic State of Iraq’ (ISI) in October of the same year (Shatz & Johnson, 2015).

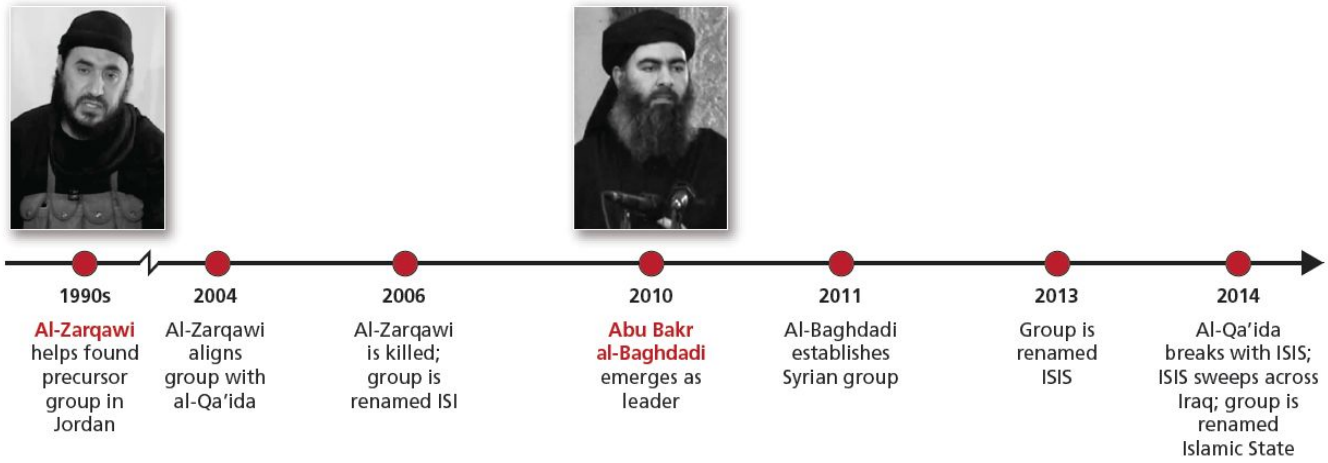
By September 2006, excessive violence against the civilian population caused numerous Sunni tribes to unite in the ‘awakening’ in order to disperse ISI from various strongholds in the Anbar province (Johnston et al., 2016). This development was followed with the launch of a new and intensified counterinsurgency policy by the United States in 2007 (Shatz & Johnson, 2015). The ISI faced significant financial duress after these events, but managed to endure as U.S. troops started to withdraw from 2009 onwards until 2011. Furthermore, the organization managed to capitalize upon sectarian resentment caused by Prime Minister Nuri al-Maliki’s authoritarian policies. The implemented policies marginalized Sunni communities and entrenched the Shia population (Pollard et al., 2015). Endurance was once again managed in spite of additional hardships, as senior ranking members of ISI were targeted, and led to the eventual deaths of Abu Omar al-Baghdadi and Abu Ayyub al-Masri in 2010 (Byman, 2016).

After these deaths, it became the responsibility of Abu Bakr al-Baghdadi to revitalize the organization (Byman, 2016). The Syrian civil war in the following year allowed for new opportunities to be utilized. As such, al-Baghdadi established a small contingent, the ‘al-Nusrah Front’ (aNF) led by Muhammad al Jawlani, in order to participate in the conflict. The aNF masked its affiliation with ‘al-Qaeda’ and the ‘Islamic State in Iraq’, and attempted to win the “hearts and minds” of the Syrian population through administering various humanitarian programs and other services in its territory (Hosken, 2015; Humud et al., 2015). In March, 2013,

the aNF successfully captured and occupied the Syrian city of Raqqa (Hosken, 2015). Following this development, al-Baghdadi attempted to consolidate the ISI and the aNF under the banner of the 'Islamic State of Iraq and Syria'. Yet, the leadership of both the aNF and 'al-Qaeda' resisted these attempts (Humud et al., 2015). Mediators appointed by 'al-Qaeda' could not diffuse this situation, and the ISI took direct action to rout the aNF from Raqqa, and transferred control to ISIS (Johnston et al., 2016). In light of these transgressions, 'al-Qaeda' distanced itself from ISIS (Lister, 2014).

In the backdrop of these events, anti-government tensions in Iraq's Anbar province ran high, and the ensuing crackdowns fueled further unrest. The newly-formed ISIS made use of the incited grievances, and quickly overran Fallujah and other cities. As ISIS had driven-out the Iraqi army from Mosul by June, 2014, the organization took this as an opportunity to declare a caliphate with Abu Bakr al-Baghdadi as the caliph of all Muslims (Johnston et al., 2016).

Figure 1. Timeline of the evolution of ISIS.




(Retrieved from Shatz & Johnson, 2015).

## The Strategic Logic of ISIS

*How competition between terrorist groups drives behavior*

Terrorist groups such as 'al-Qaeda', ISIS and other factions need to manage their relations with constituents and competitors, while simultaneously having to balance their survivability and attaining their reason d'être (Appendix 1). In order to attain a stated goal, organizations have to overcome the relative advantage of resources that their nation-state adversaries enjoy, manage to diminish these resources through attrition, and gain success through elimination, outlasting, or by appealing to concessions (Acosta, 2014). We can couple to this process to the "outbidding hypothesis". According to the outbidding hypothesis, outside parties face uncertainty on who to support or to join, and thus that the overall efficacy of terrorist organizations relies largely on how the public perceives them. In order to enlist support, these groups therefore attempt to signal characteristics through which can be inferred that they are the dominant party and are willing to commit to the cause without compromise. As such, competition may drive militant groups to engage in an escalating application of violence to gain credibility in their ability to change the status quo (Kydd & Walter, 2006; Conrad & Greene, 2014; Young & Dugan, 2014; Nemeth, 2014).

We can also argue that these organizations attempt to outbid each other in other strategic dimensions. Terrorist groups over the past years have proliferated, and through their proliferation they adhere differing ideologies, objectives, and scope of said objectives (Selth, 1987). Objectives can be on three differing levels; the tactical, strategic and organizational level, and it is through the differences of objectives that organizations are in conflict with each other (Philips, 2015). Furthermore, objectives may reflect the capabilities of a terrorist groups, as the

attainability of an objective has to be balanced with the survivability of the organization (Acosta, 2014). As can be observed in appendix 2, over the past 25 years numerous Jihadist groups have declared their own Islamic states in order to gain influence over competitors. However, the formation of such a state is a very scalable concept, and can be applicable from a specific neighbourhood to a large proto-state. Typically, the actual scope of held territory is usually limited, and the survival rate of these proto-states is low (Lia, 2015). The declaration of an Islamic state by AQI was met with heavy resistance by tribal leadership and other Sunni insurgent groups. In their opinion AQI unjustly claimed political leadership through the creation of the 'Islamic State in Iraq' (Fishman, 2009). Therefore, we can posit that a proto-Islamic state needs to fulfill certain characteristics in order for it to outbid other Jihadist organizations.

For a Jihadist proto-state to gain legitimacy, it needs to be able control its territory, and has to be able to project sovereignty in the territory that it holds. The ability to maintain territory is shown as an indication of success, and may act as a deterrent for other factions to attack the organization (Asal & Rethemeyer, 2008; Byman, 2008; Lia, 2015). The amount of members of a terrorist organization, and the ability to generate public support is associated with a group's survival, and therefore an organization needs to be effective in its recruitment efforts. Being able to recruit more members may be a signal that the organization has better odds in achieving its long-term goals (Conrad & Greene, 2014). Thereby, in the face of adversity, the organization cannot accept compromise and non-ideological solutions. As this has the consequence that key constituents will renege their support, and will lead to a loss of legitimacy (Lia, 2015).

*Exemplifying the process at ISIS*

The opportunity at which a caliphate was declared reflects a schism in the ideologies between 'al-Qaeda' and ISIS. Whereas 'al-Qaeda' maintained the doctrine that opposing regimes in the Middle East should be defeated, that it was the support of Western governments that made this objective unattainable. Therefore, the aim of the organization is to eliminate, or at least reduce, the support given by Western governments in order to destabilize their "near enemy" of "corrupted" Islamic governments. The loss of support, and the ensuing disorder would allow the group to establish a caliphate. In contrast, the approach of 'ISIS' is to degrade their "near enemies", which allows the establishment of a caliphate in order to combat the Western "far enemy" (Mishal & Rosenthal, 2005; Katagirir, 2015; Azoulay, 2015). In this regard, ISIS differentiated itself from 'al-Qaeda' in their ideological justification. Whereas 'al-Qaeda' premeditated its strategy on the basis of Jihad being an act of self-defense, ISIS would appeal on its strength and capabilities as a justification for Jihad (Stein & Berger, 2015).

Through the creation of a caliphate, al-Baghdadi attempted to appeal to an audience outside of Syria and Iraq, without forgoing the short term objectives of 'ISIS'. As such, the declaration of the state was a challenge to 'al-Qaeda' as the two organizations attempt to gain leadership of the global Jihad movement (Barrett, 2014a). The declaration imposes that Islamic countries are integrated into one independent entity, with a shared economic system, and currency. This implies that the borders created by the Sykes-Picot agreement of 1916 should be absolved (Mortada, 2014; Barrett, 2014a). The caliph, Abu Bakr al-Baghdadi, is required to implement the Islamic law (*Sharia*) in the territories that he controls. In accordance to these laws, all Muslims are required to migrate to the territories wherein the caliph reigns (Wood,

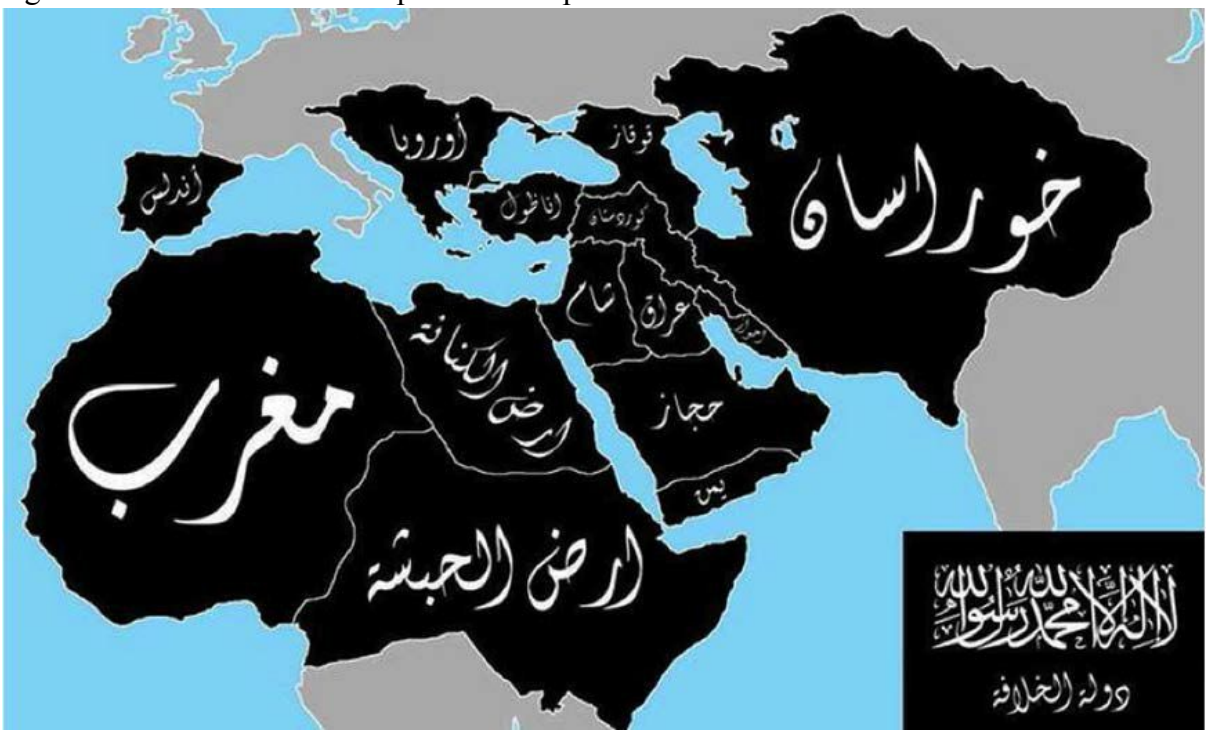
2015). In fact, ISIS appeals to this narrative. One month after the declaration of the caliphate, al-Baghdadi called upon those with a special skillset to immigrate to the caliphate. In particular, he requested that those who gained experience through their profession as judges, managers, service employees, doctors, engineers, and soldiers to join the newly-created state (Fromson & Simon, 2015).

Again, it is interesting to note the schisms between 'al-Qaeda' and 'ISIS' in this regard. In the past 'al-Qaeda' ostensibly minimized its exposure in order to elude counter-terrorism forces. In contrast, ISIS seeks to dominate media exposure in order to display its progress in achieving its vision (Gartenstein-Ross et al., 2015). Similarly, joining the movement created by 'al-Qaeda' was akin to becoming a member of a secret society. Prospective members have to overcome significant barriers to entry. As is evidenced with the difficulty of finding the organization, to the rigorous religious drilling that occurred before being able to participate in activities. In contrast, ISIS had clearly demarcated where it could be reached, and openly extended an invitation to join its state (Barrett, 2014a; Stern & Berger, 2015; Cronin, 2006).

A declaration of a caliphate also serves as a vehicle to underline the commitment of 'ISIS' to reach its goals without compromise. Grounded in the doctrine of the Islamic state is that the caliph is prohibited in making permanent peace deals, or to accept borders as being permanent. Furthermore, it is emphasized that perpetual conflicts are required to guarantee that the caliph does not fall into a state of sin (Wood, 2015). This commitment is further reflected by the statements made by ISIS spokesman Abu Muhammad al-Adnani; who expressed that the end of the caliphate should coincide with the collapse of the organization (Fromson & Simon, 2015). As such, the eventual intended geographic range of the caliphate may be unclear, yet it is clear

that ISIS has based its doctrine on "remaining and expanding" (al-'Ubaydi et al., 2014; Fromson & Simon, 2015).

Figure 2. Possible intended scope of the caliphate.




(Retrieved from al-'Ubaydi et al., 2014)

Again, we can contrast this to the posture that other Jihadist groups have maintained in the past. For instance, when the Taliban engaged controlled Afghanistan, it engaged in diplomacy by exchanging ambassadors with Saudi Arabia, Pakistan, and the United Arab Emirates. Other cases exist where terror groups sent ambassadors to the United Nations in order to represent their cause in global diplomacy. However, the doctrine that ISIS maintains prohibits this option (Wood, 2015).

The doctrine also has implications for other Jihadist groups, as dissent itself, in terms of splitting the Muslim community (*umma)* is to be punished according to the ideology maintained by ISIS (Wood, 2015). As such, with the declaration of an Islamic State, ISIS effectively

declared that the legitimacy of other Jihadist groups is null and void. Therefore, other groups should pledge loyalty or be absorbed by ISIS, in order to repair divisions and hasten the accomplishment of their goals (Mortada, 2014). Given the behavior of its predecessors, we can infer that this is a credible signal by ISIS. 'Al-Qaeda in Iraq', and the 'Islamic State in Iraq', made extensive use of maxims based on the 'management of savagery'. The 'management of savagery' is a Jihadist handbook released in 2004, and prescribes how resistance needs to be met with excessive violence in order to cull the will to fight back (Hosken, 2015; Stern & Berger, 2015; Fromson & Simon, 2015). Based on the preceding, ISIS effectively has a carte blanche justifying its excessive violence against foreigners, Shia Muslims (who are deemed rejectionists), and even fellow Sunni Muslims; if they are considered to be collaborators with the enemy (al-'Ubaydi et al., 2014). Whereas the application of such excessive violence eventually backfired in Iraq, and fueled the 'Anbar awakening', the organization now enjoys more success (Fishman, 2009).

In contrast to the situation that preceded the 'Anbar awakening', the doctrine now has resulted in a bandwagon effect, whereby many smaller groups have preemptively avoided being marginalized or having to face confrontation by pledging allegiance (*bayah*) to ISIS. In order to incentivize such pledges, the organization even accepts allegiance by those whom it has it has previously clashed with (Fromson & Simon, 2015). The focus of these actions is to acquire former 'al-Qaeda' affiliates, and to signal to others that 'al-Qaeda' is becoming increasingly irrelevant. Whereas 'al-Qaeda' tried to obscure its network ties, and rather expanded its theater of operations through the creation of front organizations, ISIS publicly touts its affiliate network to maximize publicity in support of its commitment to be "remaining and expanding" (Appendix

3; Gartenstein-Ross et al., 2015; Fromson & Simon, 2015). As a result, affiliates hope to gain from the image that ISIS creates, and that this translates into benefits in the form of increasing recruitment and fundraising (Van Veen, 2015).

In this section, we have observed that the selection and implementation of goals by ISIS was a methodical process, in which deliberations were made in order to differentiate the organization from its main competitor, 'al-Qaeda'. Furthermore, the doctrine maintained by ISIS is backed by comprehensive signals that highlight its commitment to the cause. As such, ISIS has successfully managed to outbid its rivals, and due to its prominence became the focus of attention on a global scale. At a certain point in time, it controlled territory which held a (pre-conflict) population between 4 and 8 million, and in terms of landmass was larger than Jordan, the 112th largest state (Pollard et al., 2015; Hansen-Lewis & Shapiro, 2015). The group manages to attract unprecedented amounts of foreign fighters, and this highlights of success of outbidding 'al-Qaeda' and becoming the undisputed "market leader" of Jihad (Lia, 2015).

However, maintaining the ambitions set by the group calls for the coordination between large sets of actors. The next section will detail what the challenges are in structuring such an organization.

## The Structure of ISIS

### *Challenges in terrorist governance*

Organizations such as ISIS aim to achieve their goals through the application of violence, which entails the appropriation of resources, and subsequent monitoring to reduce misallocation of violence and resources (Johnston et al., 2016). In order to coordinate and execute such actions,

requires information to be collected, coded, and communicated in order to make optimal use of personnel and their expertise. These processes are solidified in the forms of command and control (C2) networks through which the leadership can enact and adapt their strategic plans (Vittori, 2008). C2 networks are arrangements when a properly designated commander engages in planning, directing and coordinating combat forces through the use of communications and procedures in order to accomplish a mission (Nordin et al., 1999).

Terrorist groups can organize themselves along a continuum ranging between network organizations, and hierarchical organizations. According to the former, sets of actors will organize by themselves in cells, and social and informal linking-pins connect cells to each other. In the case of the latter, authority is delegated from the top-down, and actions are based on standard operating procedures (Johnston et al., 2016).

The situational environment influences the need for operational security and the risk of being compromised, and this determines organizational form. A hierarchical organization aligns operational activities, and facilitates the execution of more complicated operations. Whereas the delegation through the creation of networks increases resilience, as the compromise of an individual cell is unlikely to mean the downfall of the entire network (Johnston et al., 2016). However, the degree of decentralization is also paired with the creation of internal vulnerabilities. As this increases the distance to senior leadership, local leaders can more effectively elude monitoring and pursue their own interests, rather than act in the interests of the cause (Bahney et al., 2010).

At the risk of reducing operational security by leaving a “paper trail”, terror groups implement a bureaucracy in order to deal with agency problems. Whereby a “paper trail” refers

to the communication in written form or documents which can be intercepted and analyzed, in order to identify members and the location of these individuals, which may lead to eventual capture or death by counterterrorism forces (Felter & Fishman, 2007). Thus, while maintaining a bureaucracy is relatively costly and inefficient due to the covert nature of activities, this is necessary in order to gain size (Shapiro & Siegel, 2012). In addition to increasing monitoring, new enforcement and punishment mechanisms need to be implemented. Again, with the clandestine nature of terrorist organizations, there is the implication that properly administering punishments is complicated to devise, and costly in its implementation and consequences (Helfstein, 2009). For example, successfully committing attacks is dependent on numerous external factors, including luck. Therefore, failure in completing attacks can either be attributed to shirking by actors, incompetence, or to factors out of the control of actors. Thus, the monitoring of actions is inherently coupled with some degree of ambiguity (Shapiro & Siegel, 2012). As such, we can posit that small- or medium-sized groups may fare better, as coordinating large networks or setting-up intricate bureaucracies are challenging and resource-demanding (Asal & Rethemeyer, 2008). The preceding suggests that this may be due to complex agency problems in covert organizations. This raises the question on how ISIS is structured, and how it deals with these problems.

*The evolution in the governance of terrorism at ISIS*

This paper does not have the intention of examining AQI's structure in depth. Yet, AQI's structure is a clear example of being part of a network organization. The staff of 'al-Qaeda' was responsible for recruiting new personnel, the strategic coordination between cells, and to some extent to the financing of cells (Helfstein, 2009). For instance, 'al-Qaeda' provides new cells

with seed capital in order to become self-sufficient (Bergen et al., 2008; Bahney et al., 2010). As can be observed in figure 3, 'al-Qaeda' was responsible for strategic planning, whereas AQI's leaders (*emirs*) were responsible for the operational implementation of the formulated strategy.

Figure 3. The division of tasks between 'al-Qaeda' and 'al-Qaeda in Iraq'.

| Core Al-Qa'ida | Governorate-Level AQI | District-Level AQI |
|---|---|---|
| Emir | Emir | Emir |
| Secretary | Sector emirs | Military emir |
| Deputy | Committees | Security emir |
| Advisory council | Military | Administrative emir |
| Committees | Administrative | Legal (sharia) emir |
| Military | Security | Media (propaganda) emir |
| Political | Legal (sharia) | Medical emir |
| Administration and finance | Media | |
| Security | | |
| Intelligence | | |
| Media | | |

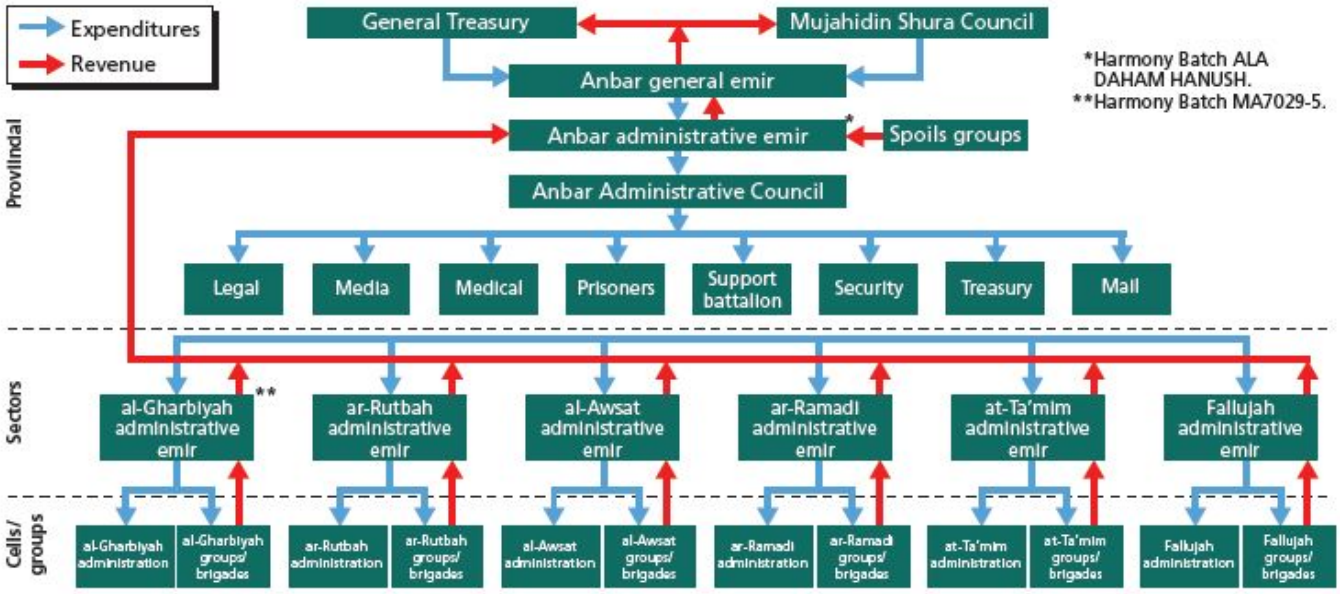
(Retrieved from Johnston et al., 2016)

As 'al-Qaeda in Iraq' transitioned to become the 'Islamic State of Iraq' in 2006, it also started implementing a bureaucratic hierarchy from 2005 onwards (Lister, 2014). This was required as the organization required additional management capabilities to generate revenues, and to manage resources, local personnel and implement governance in controlled territories (Johnston et al., 2016). Further bureaucratization also created feedback mechanisms from which ISI could draw upon after the setbacks faced by the 'Anbar awakening' and the 'surge' (Pollard et al., 2015).

The 'Islamic State of Iraq' had a multidivisional form of hierarchy implemented in different levels: a core leadership, a provincial structure, a sector level, and finally the individual cells. Typically, the organization was based on five divisions, which were implemented across

the different levels: security, Sharia law, military, administration, and media (Shatz & Johnson, 2015). However, given that delegation across levels entailed substantial autonomy (Johnston et al., 2016), we can notice some additional divisions in the structure of the Anbar province (Figure 4). In addition to the previous five divisions, the organogram of the Anbar province shows the implementation of other specific entities such as the "movement and maintenance", "medical", "mail courier", and "war spoils/loot" sections (Bahney, et al., 2010). It is interesting to note that there is a 'general treasury' indicated in the organizational structure.

Figure 4. Organogram and financial flows in Anbar province circa 2006.




(Retrieved from Bahney et al., 2010)

The 'Islamic State of Iraq' implemented a "one-fifth" rule, by which provincial ISI branches would collect revenues from their 'spoils' unit, and their subservient sectors, and then reallocate one-fifth of these revenues to the senior leadership (Bahney, et al., 2010). Subsequently, these funds could then be redistributed among provincial branches as the situation

dictated. For instance, as fighting intensified during the 'Anbar awakening', ISI's leadership consolidated funds in the Anbar province to bolster efforts (Johnston et al., 2016).

As ISIS rapidly expanded across Iraq and Syria, so did the reach of its administration. After ISIS captured Mosul in 2014, it had effectively spanned control across the borders of both countries. As such, this made the declaration of a caliphate sensical from an administrative standpoint (al-Tamimi, 2015). The core leadership of ISIS is formed by al-Baghdadi, a 'Shura council', and a cabinet of seven to eight advisors. The cabinet members provide support by providing policy recommendations in their area of expertise (Barrett, 2014a; Ligon et al., 2014). Furthermore, al-Baghdadi is supported by a personal advisor, and has a deputy responsible for Iraq and Syria respectively (Appendix 4; Lister, 2014; Ligon et al., 2014; Barrett, 2014a). We can posit that this has been expanded with additional governors who are responsible for the efforts in maintaining the provinces in Libya and Yemen (Zelin, 2016; al-Tamimi, 2016b). The leadership team of Baghdadi rotates the assignments of its senior members in order for them to gain expertise and experience in multiple fields. This allows the organization to become increasingly resilient through enlarging the pool of replacements in the event that counterterrorism forces and competitors are able to successfully target senior-ranking leaders (Ligon et al., 2014).

Based on the modus operandi of the governors of Iraq and Syria, the governors have day-to-day contacts with leaders of eight different councils regarding; financial counseling, leadership counseling, military and defense counseling, legal counseling, operatives/fighter assistance counseling, security counseling, intelligence counseling, and media relations counseling (Appendix 5; Ligon et al., 2014; Thompson & Shubert, 2015). The governors and

respective councilors have substantial autonomy in order to formulate tactics in order execute their mission. This is based on the widely differing operational environments in Syria and Iraq, and this approach prevents decision-makers being restricted by standard operating procedures (Ligon et al., 2014).

The state maintained by ISIS is divided by at least eighteen provinces, and governance is similar to the structure that we observed at ISI in Anbar province. Institutional inertia may explain this choice. After all, the organization has a decade of experience in terms of implementing this structure, and the same structure allowed it to spur back after the various setbacks it faced (Johnston et al., 2016). Thus, each subdivision of the state maintains the same structure by replicating the governance structure of the level above it. For instance, a governor of a province is supported by multiple commanders, such as a Sharia commander, a military commander, and a security commander. Again, as each of the provinces are divided into sectors, the same governance structure is also implemented in the cities and towns. Indeed, this also indicates that each subsequent subdivision becomes increasingly autonomous (Barrett, 2014a).

As we have just observed, AQI, ISI, and ISIS were built according to a rigid structure, yet these structures allow for autonomy in order for local leaders to adapt to their situation. However, as we will see in the next section, this autonomy can be abused and pursued for other personal interests.

*Exemplifying the divergence of interests at ISI*

Divergence of interests occurs when members of terrorist groups are not equally motivated in a cause, not equally willing to contribute resources to the cause, or disagree on how the goals which constitute the reason d'être should be attained (Shapiro & Siegel, 2012).

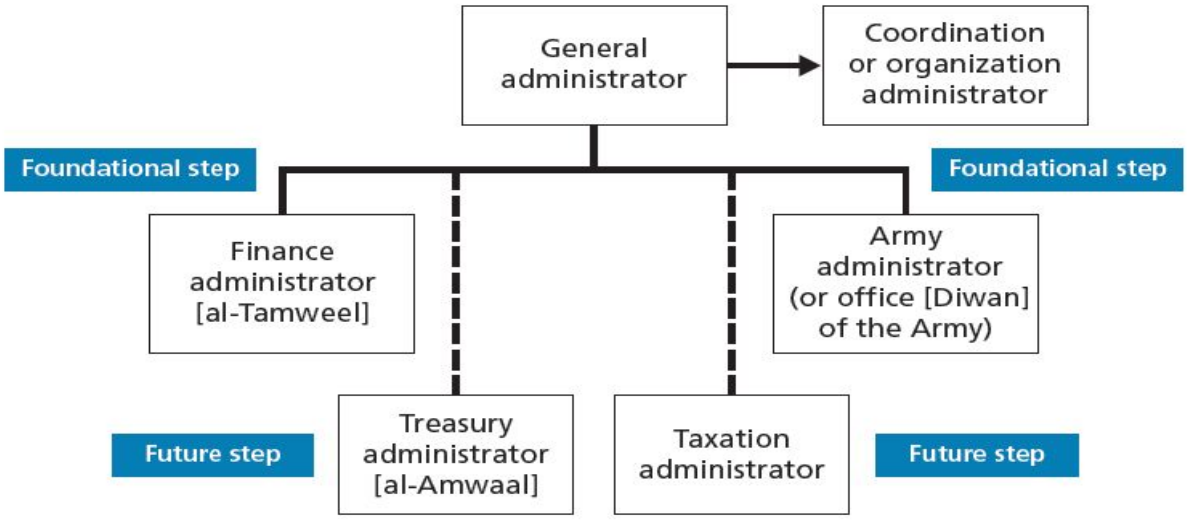
Furthermore, as terrorist organizations often have long-term goals, this will coincide with the need to make (long-term) investments. For instance, salaries need to be paid, safe-houses need to be sought and acquired, certain parties need to be bribed to gain loyalty, and other various operational expenses need to be made. Thus, the direct costs associated with committing an attack may be low, it is the long-term investments made beforehand that makes financing of importance (Vittori, 2008). As such, terrorist organizations will have to overcome so-called "collective action problems".

We can conceptualize this problem as the culmination of intra- and intergroup competition. While organizations are in competition with another, it is the individuals that make-up this organization that have to expend time, effort or other resources. Within the organization actors compete to gain resources reallocated to themselves. Yet, simultaneously, these actors are incentivized to free-ride on the efforts of the collective organization. Thus, while the actions by a larger collective may benefit all, individuals are reluctant to contribute, as by expending resourcing immediately impacts the welfare of themselves. Thus, actors within an organization face a "prisoner's dilemma"-style conundrum (Gunnthorsdottir & Rapoport, 2006; Posner, 2010). In the case of terrorist organizations, senior leadership may entrust an agent with organizing local operations and attacks, yet the agent may withhold resources and invest these differently (Shapiro & Siegel, 2007).

While the “one-fifth” system could have been implemented to mitigate aspects of the collective action problem, there were still problems. Recall that in the previous section we discussed how funds would be transferred across processes and sectors to the eventual cells. Hereby, the amount of funding transferred would either be based on reimbursing expenses made by local leaders on behalf of the organization, or by providing grants to local leadership when requested upon (Johnston et al., 2016). Within ISI, local leaders could abuse this system by “cooking the books” in order to gain additional funding from higher levels. Namely, compensation for fighters and personnel was tied to the amount of dependents that a person had. In the case of death, the family of the deceased fighter would be compensated. Therefore, in order to gain additional funding with the intention to cover payroll expenses, cell leaders could overreport the amount of fighters that they commanded. Another approach, as the administrator of Mosul discovered, was that they could add additional dependents to the records of deceased fighters (Jung et al., 2014; Johnston et al., 2016).

Such discoveries led to the eventual discussions within the organization in order to implement additional checks and balances. Internal communiqués suggested, and possibly led to the implementation, that the organization would need to separate revenue collection and financing activities in differing departments (Jung et al., 2014; Figure 5).

Figure 5. Suggested separation of revenue collection and financing of activities.




(Retrieved from Johnston et al., 2016)

However, shirking is not purely done in terms of withholding financial means. Inherent to having management responsibilities in terrorist organizations, means receiving increased attention from counter-terrorism forces and competitors, and thus having to implement additional countermeasures to elude being captured or killed (Shapiro & Siegel, 2012). The fact that the ISI had to cope with intense efforts aimed with frequently disrupting its upper- and middle-ranks (Johnston et al., 2016), means that agents within these ranks could opt to help themselves by directly mobilizing resources at their command (Asal & Rethemeyer, 2008).

For instance, this would mean that administrators would favor providing additional funding to the sectors and units that he controlled, rather than relinquishing it to the general treasury. In a less nefarious manner, funds could simply be allocated to units without being based on a proper analysis (Johnston et al., 2016; Fishman, 2009). The misappropriation of human

capital also seems to be a recurring theme within the organization. Rather than shifting (high-skilled) personnel to different provinces, sectors or units as needed, leaders would rather keep these persons in reserve. Thus, by keeping these persons under their own jurisdiction, they would let the skills of personnel go to waste. Furthermore, fighters tried to encapsulate their own position by exploiting the bureaucracy to gain responsibility for asinine tasks. As ISI increased their territory in Iraq, this also meant that its experienced leadership became thinly spread among the ranks. Thus the problem became exacerbated as less-qualified persons rose through the ranks when administrators were captured or killed. Likewise, administrators and local leaders could have the preference to spare their own troops by not as actively partaking into combat as senior command dictated (Fishman, 2009).

Under a nuanced view, the difficulty in communication may also have been attributed in some cases to various misunderstandings regarding the strategies of the senior leadership. Terrorist organizations have to carefully select their method for conveying information carefully, given that electronic communications are observed by counterterrorism forces (Fishman, 2009). The ISI was therefore reliant on a system of mail couriers who physically transported information through handwritten notes and electronic documents stored on USB flash drives (Appendix 6; Jung et el., 2014; Felter & Fishman, 2007; Bahney et al., 2010). However, couriers may be interdicted by counterterrorism forces or competing groups, and this will disrupt

communications networks (Krause, 1996). For instance, in the event of battle, they will have to face the choice between taking dangerous and hasty routes, or more time-consuming routes to guarantee their safety. Finally, the information that they transport may become a bargaining chip that allows for defection (Felter & Fishman, 2007). Therefore, being forced to rely on a courier-system may also entail to having to deal with various inefficiencies.

The particularities of this system can be exemplified with the feud that ISI had with the 'Islamic Army of Iraq' (IAI); a competing jihadist group. When the relationship between the two parties deteriorated, local commanders faced the choice between amending the relationship, or to actively engage in combat with the IAI. However, local commanders were reliant on the slow flow of information that traveled down the hierarchical ranks to make a decision. Thus, while waiting for information to arrive to them, local commanders did not know what would be the best option to further the cause of the ISI (Fishman, 2009).

*How has ISIS evolved to deal with agency problems?*

Given that ISIS has a contingent territory spanning through Iraq and Syria, means that it can operate relatively more overtly and draw upon additional resources (al-Tamimi, 2015; Johnston et al., 2016). As such, this changes the dynamics of principal-agent problems. When terrorist groups obtain a secure location, the costs of producing a paper trail in order to monitor agents drop (Shapiro & Siegel, 2012). As we observed that ISI had problems regarding

communications within its organization, and as the chain of command expands due to the increasing geographical scope by ISIS, we can expect that these issues are compounded upon.

When hierarchies expand, there are additional delays created in the execution of orders, which increases chances of loss of information during transmission, and a higher possibility that organizational cohesion may be diminished. Therefore, the cost of agency problems may rise (Posner, 2010), and the complexity of performing additional operational activities increases the burden imposed on the resource base that an organization has (Vittori, 2008).

In response, ISIS has adapted its modus operandi in communication, as leaders and councils are encouraged to communicate between and within levels of the organization. For instance, when there is an overlap in tasks or required expertise between two units, the senior leadership will assign responsibilities and incentivizes the communication between units. Thus, while the execution of the mission is still decentralized, as to adapt to the situation, there may be an increased amount of collaboration between units (Ligon et al., 2014). This seems to be aimed to mitigate the collective action problems that the organization faced during its time as ISI. As members actively collaborate and communicate with each other, they will recognize the mutual interests that they have. Therefore, members will also realize how shirking their duties, or even free-riding, may impose considerable costs on their team members. Thus, the principal benefits in solving agency problems by delegating cooperation between units (Itoh, 1992).

Also, in response to their changing environment, ISIS has set-up an elaborate internal intelligence system to monitor its members (Appendix 7). Thus, next to its traditional governance structure, it has a structure that runs parallel to it. There is a loyal cadre of elite

troops in addition to the regular fighting force, and authority is delegated to custodians who can transfer, demote, or even eliminate provincial and town leaders (Reuter, 2015). In addition to this formal structure, there is also a network of internal informants, even children, that monitor the activities of locals (Fromson & Simon, 2015). This has caused aggravated unrest in the form of "witch hunts" to detect and eliminate informers (Abdul-Zahra & Mroue, 2016). Interviews with defectors from ISIS suggest that this system may also be abused in accordance to further one's personal interest. For instance, fighters could state false accusations and order the person into court, or even apply extrajudicial punishment (Speckhard & Yayla, 2015).

The structure may have been erected in anticipation of a rapid expansion, as the ability of ISIS to control territory is not evenly distributed. While the organization manages to fully dictate the implementation of its administration in strongholds such as Mosul and Raqqa, it also allows locals to govern parts of it territories (al-'Ubaydi et al., 2014). This can be attributed that the organization may lack sufficient human capital in order to directly govern the entirety of its territories, a problem that ISI also faced (Appendix 8; Johnston et al., 2016).

In addition, the autonomy delegated to local leaders to maintain flexibility imposes another danger. Hereby, commanders may rather be vying in local power struggles, rather than keeping the greater cause in mind. As such, units spread across distinct areas, e.g. countries or provinces, may factionalize the overarching organization into competing for local causes (McColl, 1969). As we saw, top-leadership rotation is implemented to allow leaders to gain expertise in multiple fields (Ligon et al., 2014), and apparently the system is also implemented further down the ranks. However, from an agency perspective, we can note that this might be

done to prevent mid-level leaders to gain independent constituencies and to withhold them for gaining influence to pursue their own interests (Barret, 2014; Fromson & Simon, 2015).

Despite these best efforts, the geographically distributed nature of the organization still allows for dissent to form. In June, 2016, another cache of letters found in the Anbar province of Iraq highlights this persistent problem. The letters make a reference to a system which sounds similar to the "one-fifth system" of allocating funds. In reference to this process, the following is stated in the letters ("Newsletters found in Anbar", 2016): "We will not forgive those who do not deal with us honestly, not on earth and not in heaven. This is a betrayal of the state. It is cheating the state."

However, this dissent may also occur on a larger scale. Around mid-December 2015, ISIS officials and fighters in Yemen declared their discontent about the governor of the Yemeni province. While these dissenters maintained their allegiance to Baghdadi, the Shura Council intervened and implored that unity within the ranks should be maintained. The dissenting faction persisted in their resistance against their governor, and eventually the dissenters were exiled from the organization (al-Tamimi, 2016b).

We have observed that ISIS is indeed an organization that has successfully implemented continuous learning from previous mistakes. As such, in light of the pervasive agency problems at ISI due to slow communication, and even a lack of communication, ISIS has facilitated communication within the ranks. Thereby, additional measures are undertaken in order to prohibit local leaders to vie for their own interests in lieu of the overall objectives, and an extensive monitoring system has been set-up. However, as the organization expands in

geographical scope, the deterring characteristics of its system may diminish. This, in combination with the setbacks it currently faces, may fuel paranoia and cause unrest as the organization tries to expunge informers from its ranks.

Agency problems at ISIS provides opportunities which can be exploited by counterterrorism forces. Courier networks may be targeted, not only to gain new information regarding the organization, but also to disrupt the flow of information between the various elements within ISIS. Commanders and administrators will have to face increased uncertainty regarding their situation, and this can lead to a counterproductive execution of the formulated strategy. This in combination with the extensive targeting of middle-managers at ISIS may lead to these actors to encapsulate their own position and adopting a risk averse posture.

**How does the availability of resources affect the structure of a terrorist organization?**

Terrorist organizations require resources in order to mobilize actors to partake in violent attacks to further the cause. Yet, groups do not want to sustain their capabilities, but rather expand on them. This requires access to financial resources that allow for the regeneration of shelter, personnel, human capital, and various tangible assets required for logistical support or to perpetuate attacks (Cronin, 2006; Vittori, 2008; Asal & Rethemeyer, 2008; Young & Dugan, 2014; Aronson et al., 2014). According to "resource dependency theory" (RDT), it is the external environment to the organization that drives to adoption of their structure. As the concentration of resources has the consequence that actors are in connection with each other, and that

interdependencies may arise from these connections. Hereby, certain actions and reactions are undertaken in order to securing critical resources that ensure the continuity of the organization's existence (Casciaro & Piskorski, 2005; Nienhüser, 2008). As the organization faces uncertainty whether it is able to guarantee itself access to these resources, it seeks to find ways in order to mitigate its dependency on these resources. This is done either by acquiring alternative resources, or reducing/acquiring dominance of those that control vital resources (Nienhüser, 2008). In another manner, organizations may exert influence that allows it to operate in an environment that is better suited to its interests (Hillman et al., 2009).

For example, this can be done through the exploitation of grievances. Grievances towards a government for failing to provide services can be triggered on three conditions. First, services have deteriorated in quantity, and have not been restored to its former level. Second, the amount of services provided are perceived to be intentionally differentiated along a discriminatory policy. As such, there are noticeable differences across distinct geographic areas, and ethnic or religious groups. Finally, grievances can be caused when costs have risen in comparison to an unchanged amount of service provision (Brinkerhoff et al., 2012).

Thus in order to gain influence to shape a favorable environment, actors can apply different kinds of force. Actors can appeal to cooptation through the exertion of "soft power". Hereby, the target is subjected to subtle and non-violent mechanisms in order to shape their preferences. For instance, through extensive contacts that allows culture to be transferred and assimilated, or by maintaining a seemingly attractive ideology that the target wants to adhere. In contrast to "soft power" is the use of "hard power". Hereby coercion is achieved through the

threat and application of violence, and eventually subjecting the target to its command (Nye, 1990).

We can apply this framework and posit that the external environment and the subsequent access to resources is what drives terrorist groups to adapt a certain structure, and ultimately derives their capabilities (Appendix 9). For instance, a number of states sought to utilize terrorist organizations as instruments in their foreign and domestic policy (Takeyh & Gvosdev, 2002). For terrorist organizations this meant that they would be able to secure an easy way of funding their operations, yet made them reliant on their state sponsors. This meant that restrictions would be imposed as it has to act in the interests of its state sponsor, limiting their operational freedom and ability to fulfill their cause. Furthermore, when their services were no longer required, state sponsors could easily disband groups by withholding their funding (Vittori, 2008; Byman, 2008).

Otherwise, in order to overcome such dependencies, terrorist organizations exert influence in strategically-chosen areas that allows them to acquire autonomy. Often, failed states are the target for such application for a number of reasons. In the case of state failure, grievances intensify and often coincides with violent uprisings. The ensuing atmosphere dominated by fear and further violence can be exploited to further the organization's agenda. Furthermore, the anticipation of a conflict, and compounded by the eventual conflict, causes persons to flee en masse to safety. This displacement of human capital creates a void whereby those who remain behind are increasingly vulnerable. As security forces try to quell the uprising, other factions capitalize upon the presented opportunity in order to further their own causes (Pollard et al., 2015). Moreover, due to failing states maintaining an outwards appearance of sovereignty, an additional barrier has to be overcome before other states can militarily intervene. These

conditions allows terrorist organizations to create safe havens for themselves, rather than rely on states to shelter them (Takeyh & Gvosdev, 2002; Piazza, 2008; Aronson et al., 2014).

However, failing states are not necessarily required before terrorist organizations can create a suitable area for themselves. In this regard, areas which are ungoverned due to their remote and inhospitable characteristics (Kittner, 2007), conflicts, pockets of diminished governmental legitimacy (Korteweg, 2008), or a combination of these factors can be just as sufficient. In this regard, rugged terrain allows members to elude pursuit and hinders the ability of counterterrorist organizations to conduct operations. Likewise, the terrain may conceal the location of a base, and porous borders of a state can easily be penetrated to facilitate the movement of goods and illicit activities (Kittner, 2007).

As terrorist organizations acquire territory, they can enlarge their scale through the operation of training facilities, weapons storage facilities, and establishing operational command (Takeyh & Gvosdev, 2002; Kittner, 2007). Furthermore, the existing infrastructure can be utilized to gain additional resources, through the use of small factories, schools, hospitals, and other facilities. The ability to maintain such an infrastructure signals the capabilities of the organization, while diminishing the legitimacy of the government, and can be used to draw upon additional recruits (McColl, 1969; Cronin, 2006).

Therefore, we must examine how ISIS reacts to the environment, and exerts influence to create a favorable environment for it to conduct its operations.

## How ISIS presents itself as a viable Alternative

AQI and the ISI made use of the policies enacted by the U.S.-led coalition after the invasion of Iraq in 2003. Citizens in Iraq historically joined the Ba'ath party as this accrued several benefits. Membership entailed gaining an additional monthly stipend of $250, and receiving higher wages than non-Ba'athists. This was exemplified in the public sector, whereby there could be a fiftyfold discrepancy in wages between a Ba'ath party member and a non-Ba'athist. Furthermore, membership was a prerequisite for gaining employment in the Iraqi security forces and military during Saddam Hussein's reign. As a result, Saddam Hussein disproportionately empowered his fellow Sunni Muslims, as they consisted a sectarian minority of the population of Iraq (Hosken, 2015). To put this into perspective, at the time of the invasion in 2003, the Ba'ath party had filled its ranks with more than 600,000 members (Hosken, 2015).

The end of Saddam Hussein's rule, and the subsequent implementation of a democratic system, had caused that the Sunni-population to lose its dominant position within the Iraqi society (Johnston et al., 2016). Paired with this process was the dissolution of the Ba'ath party, and expunging influences which could perpetuate its ideals. This meant that the former Iraqi armed forces were to be disbanded, and that public servants with ties to the party were immediately fired and also barred from gaining future employment in their sector. This process caused 385,000, and 300,000 military and internal security personnel respectively to be unemployed (Hosken, 2015). Next to this development, the Kurdish minority also gained an increased prominent role in the political process in the country (Johnston et al., 2016).

Thus, the implementation of de-Ba'athification caused the disenfranchisement of the Sunni-population, and immediately impacted their welfare by stripping the benefits that they

gained through membership. Furthermore, this gave precedence for a sectarian conflict to be ignited through the actions of terrorist organizations (Hosken, 2015). ISI attacked Shia targets in order to incite a cycle of tit-for-tat responses between Shia and Sunni militant groups. As a result of escalating violence between these sectarian groups, the government of Iraq was unable to provide proper services to the population in certain provinces. For instance, the Sunni population of the Anbar province was distrustful of counterterrorism forces, as the ranks were filled with Shia members. There was apparently no effective provincial governance in place, and the ability of a central government to supply basic services was therefore lacking. These conditions were similar to the Diyala and Salah al-Din provinces whereby the combination of a Shia-dominated governance system and security forces were deemed illegitimate by the population, and basic service provision was insufficient or non-existent (Appendix 10). Therefore, groups like ISI could exert influence by providing security and stability against sectarian violence, and by actually providing some semblance of basic service provision (Johnston et el., 2016).

The ISI may have faced drawbacks after the 'Anbar awakening', but managed to endure as U.S. troops had withdrawn by 2011. Once again, the organization had the opportunity to capitalize upon sectarian resentment caused by Prime Minister al-Maliki's authoritarian policies targeting the Sunni communities (Pollard et al., 2015).

In Syria, the Sunnis form the majority with 75% of the population, yet the ruling class is formed by the Alawites. The Alawites, which constitute 12% of the population, practice a faith which is based on the Shia Islam. As such, President Assad has used his influence to diminish the influence of the Sunnis through restrictions on the creation of political parties, and by prohibiting Sunnis gaining employment as government officials (Jasser, 2014). However,

citizens generally found this arrangement to acceptable, as long as service provision and security were guaranteed by the state (Abdulaziz Hallaj, 2015).

A decade before the civil war erupted, social and economic market reforms were implemented. Through which agriculture was abandoned as the staple of the Syrian economy, yet no alternative industries could absorb the redundant labor that ensured from this process. Widespread corruption gained ground after these reforms, as well having enlarged the disparity between the rich and the poor. The civil war exacerbated these conditions through an inflation of the Syrian Pound by 300%, and an national unemployment rate exceeding 50% (Khalaf, 2015; Abdulaziz Hallaj, 2015).

In the past the Syrian government has used co-opted various Sunni tribes in (north-)eastern Syria to provide a counterbalance for factions as the Muslim Brotherhood and Kurdish separatists. However, as time has passed, the government has largely rescinded its commitment to supporting these tribes. As such, the provision of services to these tribal communities became negligible, and lead to the perception that these communities are being exploited (Dukhan & Hawat, 2014). Thus, ISIS provides a sense of belonging to the disenchanted Sunni community by characterizing itself as an organization that can challenge the status quo in their favor (Humud et al., 2015). This can be exemplified with the depiction of circumstances in the Syrian province of Al-Raqqa, where ISIS has enjoyed success by establishing its capital of Raqqa. Before the civil war, the province was characterized as being the home of various local tribes, and a melting-pot of Syrian migrants flocking to the city. Traditionally citizens, with in particular Sunni tribal members, found employment in the public

or agricultural sector. Yet, conditions were poor, as judged by its first place in the ranking in terms of illiteracy and poverty of Syrian provinces (Khalaf, 2015).

Through its initial actions in Syria, ISIS gained the reputation of being a more viable service provider in comparison to the government and the 'al-Nusra Front'. Thereby, the institutions created by the organization can be perceived to provide a sense of order amid a raging conflict and a failing state. In Raqqa, ISIS has focused on providing shelter and food for the poor, and attempts to revitalize its economy. For instance, shops are stocking foods as dates and honey, which were unavailable during the rule of the central government (Khalaf, 2014). As such, creating and maintaining a reputation to improve the livelihood for those under its rule may be vital in order to coerce support as it seeks to expand.

There are multiple stages in how ISIS organizes its expansion. In the initial stages, the organization seeks to gain information about a particular area. This is achieved through establishing sleeper cells and making attempts to infiltrate other (insurgent) organizations. Through these activities it aims to identify highly-influential figures, and to gain cooperation of other factions. If necessary, local tribes and competing insurgent organizations are bribed to gain cooperation (Zelin, 2016). Otherwise, it attempts to incite infighting between, and within opposing tribes to allow ISIS-friendly leaders gain a dominant position (Khalaf, 2014).

These efforts are backed with a military campaign consisting of terrorist attacks and conventional military actions in order to degrade the morale and capabilities of the defending forces (Barrett, 2014a). For instances, ISIS aims to destabilize an opposing fighting force through the elimination of their top commander, in the hopes that the replacement will be less experienced (Speckhard & Yayla, 2015). Furthermore, we can imagine that once the population

is subjected to periods of intense violence, that this primes them to accept measures that ensure stability through physical security.

ISIS capitalizes upon this sentiment through their projection of "soft power" towards the local population. Once it gains a foothold within a territory, it holds so-called *dawa* forums whereby discussions are held about the interpretation of Islam. Furthermore, literature, pamphlets, and video materials that elaborate upon the cause of ISIS are distributed within this territory. Various activities are undertaken to further win the "hearts and minds" of the population, while incrementally implementing rules and order according to its vision. This is done through the creation of multiple police forces, segregated by gender, that enforce civil and Islamic laws (*Sharia*) (Lister, 2014). Moreover, the organization operates a court system and provides arbitration processes, which were not often not available or accessible beforehand (Ligon et al., 2014).

Meanwhile, it urges repentance by those who were previously in power, and competing insurgent groups are implored to hand-in their weaponry (Zelin, 2016). Finally, the forces of ISIS take action upon those it cannot coerce in the preceding attempts. Hereby, ISIS launches assaults and administers heavy punishment on the remaining pockets of resistance in order to consolidate its hold. After which ISIS can start implementing its administration (Barrett, 2014a).

The implementation of this administration is paired with a sense of urgency, as was shown in Mosul in June 2014. After the city had fallen to ISIS, the organization immediately sent speakers across the city to convince public workers to resume their tasks (al-'Ubaydi et al., 2014). Those it cannot coerce in friendly means, are compelled by the looming threat of having their homes confiscated (al-Tamimi, 2015). Indeed, more extreme measures have also been used

by ISIS in order to coerce inhabitants into joining the organization. The organization selectively denies jobs or food to those who are unwilling to join. As such, these citizens are more or less forced to join (Speckhard & Yayla, 2015).

While forcing these citizens to work will lead to dissatisfaction in the short-run, the aim of this Machiavellianism is perhaps that an improvement of living conditions will lead to eventual satisfaction in the long-run.

ISIS co-opts this labor for instance to repair critical infrastructure which sustained damage from the beforehand battles. This entails from necessary aspects, such as fixing-up roads and converting gravel roads to an asphalt-coating, providing loans for the construction of new shops and mosques, and to the placement and repair of power and phone lines. Furthermore, the organization seizes control of a number of services and facilities in order to provide an equitable treatment of citizens based on its vision. For example, bread becomes subsidized, soup kitchens are created to service the poor, and a price ceiling is implemented on housing rental. Yet, less vital aspects, such as landscaping on municipal property are also part of this public relations campaign (Zelin, 2016; Pollard et al., 2015; Lister, 2014). These initial projects are set in motion to display the organizational capabilities of ISIS, and are part of a long-term restructuring process that ISIS implements in its territory. This means coopting or taking control of public service departments with regards to electricity, water, gas, and other aspects, in order to service the needs of its citizens Lister, 2015; al-Tamimi, 2015).

Figure 6. Overview of the various governmental departments of ISIS.

| Government Department | Function |
|---|---|
| Diwan al-Ta'lim | Education |
| Diwan al-Khidamat | Public Services (e.g. electricity, water, street cleaning). Management of public facilities (e.g. parks) |
| Diwan al-Rikaz | Precious resources (two known divisions: fossil fuels and antiquities) |
| Diwan al-Da'wah wa al-Masajid (wa al-Awqaf) | Da'wah activity and control of the mosques |
| Diwan al-Sihha | Health |
| Diwan al-Asha'ir | Tribal outreach |
| Diwan al-Amn (al-Aam) | Public security |
| Diwan Bayt al-Mal | Finances and currency system |
| Diwan al-Hisbah | Enforcement of public morality: Islamic police |
| Diwan al-Qada wa al-Mazalim | Islamic court, judicial matters, marriages |
| Diwan al-Alaqat al-Amma | Public relations |
| Diwan al-Zira'a | Agriculture, environment |
| Diwan al-Ifta' wa al-Buhuth | Fatwas, textbooks for training camp recruits etc. |
| Diwan al-Jund | Military and defence |

(Retrieved from al-Tamimi, 2015).

However, it is outside of the scope of this paper to discuss the intricacies of these departments and the effectiveness of the administration employed by ISIS. For now, we can state a number of remarks. As we have observed before in this paper, while the strategy is determined by senior leadership, the lower levels of administration have autonomy in fulfilling their objectives. Indeed, as ISIS is a fighting force, and thus administrators may opt to give primacy to fund their warfighting capabilities. The managers at ISIS may also deem that extensive governance is only required in territory which can be maintained in the long-run. Furthermore, we can expect its governance to be strategically-chosen to be extensive in urban areas, as from these areas it can gain the most in terms of resources and propaganda-material. These intuitions posit why contradicting evidence is found on the scale of activities by ISIS in this realm (Revkin

& McCants, 2015; Caris & Reynolds, 2014; al-Tamimi, 2016a; Neumann, 2015). In all, ISIS maintained a projected budget of $2bn dollars for 2015 to maintain its fighting force and manage its state-building (Humud et al., 2015).

Thus, in the next section we will discuss on how ISIS gains its resources, and what the difficulties are associated with this process.

## How ISIS obtains its resources

The 'Islamic State of Iraq' managed to generate circa $1 million per month according to the financial ledgers in Mosul (Humud et al., 2015). At the end of 2014, ISIS managed to accrue an annual income of circa $2.9bn (Pollard et al., 2015; Center for the Analysis of Terrorism, 2016). For the same year, its tangible assets, comprised of cash reserves and looted military equipment, ranges from $1.3-2bn (Levitt, 2014; Crane, 2015). However, when we consider the theoretical value of the oil and gas fields that it controls, we gain an inflated total value of $2-2.2tn (Center for the Analysis of Terrorism, 2016; Pollard et al., 2015). Nevertheless, even after facing actions by the international community, the organization retains its position as the best-funded terrorist organization in existence. Over 2015, ISIS has still managed to generate an income comprised of approximately $2.4bn (Center for the Analysis of Terrorism, 2016). If ISIS indeed maintained a budget of $2bn, this would indicate that it managed to obtain a surplus of $400m over that year (Humud et al., 2015). However, will the organization be able to sustain this level of income?

*Taxation and extortion in held territory*

By obtaining the monopoly of force in captured territory, ISIS has the ability to extort those under its control. The organization utilizes its position to impose taxes on logistical networks situated in its territory, and at the border crossings that it controls.

This is exemplified through the implementation of the system on the main highway between Jordan and Baghdad. Hereby, the organization has dislodged the government's import tax by levying a reduced rate for those wanting to enter the capital of Iraq (Pollard et al., 2015). Similarly, those entering from the Syrian borders are also subjected to a customs tax, and a toll is operated on the roads in Northern Iraq (FATF, 2015). At the ISIS-controlled city of Mosul, operators of transport trucks and small commercial vehicles are typically charged with $400 and $50-100 fees respectively, before granted entrance to the city (Barrett, 2014a). Additionally, the amounts charged through these fees may deviate dependent on the contents being transported. Transporting food and other consumables would be rated at $300, whereas electronic consumer goods would be subjected to a 400$ tax. Yet, these distinguishing characteristics may also be forgone in the form of an $800 flat rate tax (Lister, 2014).

Regardless of the amounts charged, the additional benefits accrued by paying these taxes makes this system sophisticated. ISIS can use its control over these vital checkpoints in order to manage its relations with fellow Sunni tribes. These tribes are a dominant force in the trucking business in Western Iraq, and ISIS can improve its standing by charging reduced fees (Pollard et al., 2015). Furthermore, truckers operating in areas held by ISIS are protected from highwaymen, and this sense, these taxes are a guarantee for their safety (Lister, 2014). Finally, vehicle operators gain receipts of payment, which allows expedited passage at other checkpoints. In fact,

these receipts are counterfeited Iraqi governmental tax receipts, which allows passage at government checkpoints without additional payments (Lister, 2014; Humud et al., 2015).

The practice of extortion is also extended to within the city limits, as citizens are subjected to various fees. ISIS justifies these practices through as a collection of *zakat*; a tax paid as one of the five main pillars in Islam (al-'Ubaydi et al., 2014). Thus, individuals who want to conduct business in the territory of ISIS are required to relinquish part of their revenues (Humud et al., 2015). This is similar to methods the group maintained as ISI. During which, the organization required 20 percent of a business contract's value to be paid. Often, ISI in Mosul exploited governmental contracts awarded to business within or in the vicinity of its city to fulfill its needs. Otherwise, payments were demanded in order to deter the group from destroying property required for the operations of one's business. For instance, ISI threatened to destroy cell towers, and thus disrupting the business of a telecom-company in Mosul. On a monthly basis, these threats added $200,000 from just a single telecom-provider (Shatz & Johnson, 2015).

As ISIS has obtained control of facilities capable of producing public utilities, it obtains revenues through the provision of services. In the case of its capital, Raqqa, business owners are required to pay to $20 on a bimonthly basis in exchange for water, electricity, and security (Humud et al., 2015). Whereas households are taxed $1.25, and $2.5 respectively for the former two services on a monthly basis. In addition, being of possession of telephone landline means being subjected to an additional $1.25 per month (Center for the Analysis of Terrorism, 2016). Furthermore, in Mosul, ISIS has kept trash-collection and sanitation services in place as a means of leveraging taxes. On a monthly basis, trash collection services could provide revenues between $160,000-$400,000 on a monthly basis (Pollard et al., 2015). Apparently, monthly taxes

are also leveraged on those attending educational institutions. Hereby, it is claimed that that elementary school students are taxed 22$, those enrolled in secondary education $43, and university students $65 (Humud et al., 2015).

Although they reside in ISIS-occupied territory, the Syrian and Iraqi governments paid salaries to its employees throughout the majority of 2015 (Center for the Analysis of Terrorism, 2016). These employees had to travel outside ISIS-held territory to withdraw their salaries in cash, and upon return were taxed rates ranging from 10% to 50%. In all, these salaries totaled $1bn, and through this method of extortion ISIS managed to raise over $300M in 2015 (FATF, 2015; Center for the Analysis of Terrorism, 2016). The fact these payments were made could be motivated to deter a humanitarian crisis, or to bolster the governments' claim to legitimacy vis-à-vis ISIS.

In 2015, extortion accounted for 33% of the organization's finances, and thus became the largest source of revenue for ISIS. Through extortion in its various forms, such as fees, taxes, and confiscations, the organization managed to gather $800m in that year. In comparison, in the preceding year, extortion only accounted for 12% of revenues with $360m (Center for the Analysis of Terrorism, 2016; Pollard et al., 2015). Thus, we have observed that ISIS has grown increasingly reliant on the extortion of the population that it controls.

Yet, we can note that a large portion, 40%, of these revenues is composited through the taxation of governmental employees. However, given the scale of these revenues, the Iraqi government, and the Syrian government as well in a number of cases, are now withholding these payments (Center for the Analysis of Terrorism, 2016; al-Mahmoud, 2015). This will diminish the revenues of ISIS to a large degree, yet this posits a conundrum. As the finances of ISIS are

being degraded, it will hurt civilians the most. ISIS has counteracted decreasing revenues by rationing and decreasing public services to its population (Center for the Analysis of Terrorism, 2016). When we take into consideration how ISIS and its predecessor organizations have exploited grievances, attention should be paid whether ISIS will not create a narrative that shifts blame to the counter-ISIS coalitions. In conclusion, the only way to effectively eliminate this source of funding is to dislodge ISIS from its strongholds.

*Revenues generated through the control of gas, oil, and other mineral reserves*

Another major pillar of the strategy of ISIS is the capturing, holding, and extracting of oil, gas, and other mineral reserves. Given that the infrastructure involved in in this process is complex to use and maintain, the organization aims to alleviate this through the cooptation of the facilities' personnel and their expertise. However, the eventual operation of these plants is impacted through various inefficiencies, and this withholds the organization from exploiting these resources to their full potential (FATF, 2015). The Syrian government's grip on maintaining its energy security has been weakened during the conflict. Approximately, it has control of 55% of the gas fields in Syria, and this has resulted in a 40% decrease in natural gas production. The reductions can be attributed to a number of operators suspending their activities and the destruction caused by the raging conflict (Center for the Analysis of Terrorism, 2016; Almohamad & Dittmann, 2016). These developments has given ISIS the opportunity to complete various "Faustian bargains" with the regime and the firms operating these facilities. While these parties may be in conflict with each other, they may be willing to reconcile these differences in certain strategic aspects through an alignment of interests through interdependence (Becker, 2015).

Upon receiving qualified personnel, equipment, and funds to operate the facilities, ISIS collaborates to allocate gas to generate electricity in regime-held areas (Center for the Analysis of Terrorism, 2016; Almohamad & Dittmann, 2016). Such arrangements of interdependence have allegedly been made with respect to the Euphrates dam near Raqqa, the HESCO-plant at Tabqa, and the appropriated Conoco-plant near Deir ez-Zor (Almohamad & Dittmann, 2016).

In all for 2014, the activities related to the exploitation of gas reserves had netted ISIS $489m in revenues (Pollard et al., 2015; Center for the Analysis of Terrorism, 2016). However, airstrikes performed by the international coalition, and several ground offenses leading to the turnover of several fields, has degraded the organization's capabilities. Therefore, it is estimated that the revenues from these activities has been diminished by 30%, leading to revenues of $350m (Center for the Analysis of Terrorism, 2016).

ISIS has seized control of the Akashat phosphate mine in Iraq's Anbar province, and for a period of time controlled the Khnaifess mines in Syria. As with gas and oil, the extraction of phosphate requires advanced facilities and equipment in order to provide valuable resources. This is alleviated in Anbar, where ISIS also controls the al-Qaim manufacturing plant which is operated by the 'Iraq State Company for Phosphate Manufacture' (FATF, 2015; Center for the Analysis of Terrorism, 2015). As such, even when selling these resources at a steep discount, it provides to be a lucrative venture. In 2014, the revenues from activities related to the extraction and processing of phosphate totaled $300m, whereas in 2015 this declined to $250m (Pollard et al., 2015; Center for the Analysis of Terrorism, 2016).

As the extraction, handling and transporting of gas and phosphate has more intricacies in comparison to the process involved with oil, we can expect different dynamics in this regard

(Center for the Analysis of Terrorism, 2016; Almohamad & Dittmann, 2016; Humud et al., 2015). Up until August 2014, the organization had managed to seize control of 350 oil wells in Iraq, and 60% of the oil fields in Syria (Levitt, 2014). As such, by that time, it was estimated the organization's operation comprised of extracting and selling 70,000-80,000 barrels of oil on a daily basis (Lister, 2014; Levitt, 2014). Outlets for these activities are formed by civilians who are dependent on fuel to proceed with their daily lives, and external parties who hope to gain through arbitrage opportunities (Hansen-Lewis & Shapiro, 2015; Levitt, 2014). As such, the black market price for a barrel of heavy oil can range anywhere between $26-$35, and $60 for a barrel of light crude (Lister, 2014). For instance, diesel extracted by ISIS is priced at $0.50 to $0.70 per liter, whereas diesel in Turkey costs $2.70 per liter. This allows smugglers to profit from pricing discrepancies in neighboring countries with weak border controls, such as Turkey, Kurdistan, Jordan, and regime-held areas, and potentially reap enormous benefits (Almohamad & Dittmann, 2016).

However, August 2014 also marked the commencement of the international coalition's airstrike campaign against ISIS (Levitt, 2014). Hereby, oil refineries, loading stations, tanker trucks, and other logistical infrastructure are targeted by these efforts. Furthermore, psychological operations in the form of air-dropped leaflets are aimed at disincentivizing truck operators from continuing their operations (Crane, 2015). It is interesting to note that these strikes preserve oil wells, as this is to aid the Syrian and Iraqi recovery efforts after the conflicts have subsided. Therefore, the facilities that generate electricity from natural gas have suffered less extensive damage in comparison to the oil sector (Humud et al., 2015). In response, there are three ways in how ISIS mitigates their reduced capacity.

ISIS and (local) entrepreneurs have started using mobile refineries that can can process 500–1000 barrels of oil per day (Almohamad & Dittmann, 2016; Crane, 2015). Despite that these refineries have also been targeted, they can be rebuild in ten days for approximately $230,000 (Humud et al., 2015; FATF, 2015). As such, this has allowed the practice to proliferate in the territory of ISIS and other rebel groups, whereby it is estimated that 3500 of these contraptions are being operated (Almohamad & Dittmann, 2016). In another primitive method, crude oil is extracted from the oil wells, and transferred to dirt pits. In these pits water and gas separates from the oil, and the remaining oil is transferred to another reservoir. It is within these reservoirs that the crude oil is heated, and that diesel, gas, and gasoline is captured from this process (Almohamad & Dittmann, 2016). However, both methods yield fuels which are low in quality, and thus may be destined for the vehicles used by ISIS and the local market (Crane, 2015). Lastly, arbitrage opportunities remain present, and countermeasures will not completely withhold smugglers from seizing opportunities by smuggling crude oil. As ISIS gains compensation at a fraction of its value by relinquishing crude oil, the smugglers move to Turkey, Jordan, and other neighboring countries in order to sell the crude oil for processing at conventional facilities (Center for the Analysis of Terrorism, 2016).

The amount of revenues that ISIS can generate from these activities are dependent of a number of factors. As a first, it depends on how much it can produce and refine through the facilities that it operates. While in the summer of 2015 that organization controlled oil fields in Syria that had a combined capacity to extract 61,700 barrels per day (Appendix 12), this capacity may have degraded by half in the spring of 2016 (Almohamad & Dittmann, 2016). Second, the organization is reliant on intermediaries to process and sell its product. Therefore, as conditions

deteriorate, it may become increasingly reliant on these intermediaries. This may lead to intermediaries to gain a better bargaining position, and that ISIS will generate a smaller profit from the sale of its fuels. In practical terms, as it concedes territory, it will also concede size of its internal market (al-'Ubaydi et al., 2014; Hansen-Lewis & Shapiro, 2015). Third, not only does ISIS require fuel in order to generate revenues, it is also vital in order to maintain vehicles and tanks operational. It is estimated that 45% of the fuels refined by ISIS are expended in this regard (Almohamad & Dittmann, 2016).

In all, ISIS is heavily reliant on revenues generated by these activities. In 2014 it is believed that it had generated $1.095bn from oil sales, whereas in 2015 it is estimated that these activities represented revenues of $600m (Pollard et al., 2015; Center for the Analysis of Terrorism, 2016).

Given that we have seen another sharp decline in extraction and refining capabilities in the spring of 2016, it seems likely that these revenues may be halved once again. Thus, while currently decreasing oil prices may lessen the incentive for smugglers to exploit arbitrage-possibilities, it is ultimately a double-edged sword. In another perspective, while ISIS may not be able to exploit resources to their full potential, the fact that it controls these resources deprives other parties from benefitting. Historically, Iraq and Syria have been reliant on the exportation of oil in order to support their economies. Currently, Iraq's utilized production capacity is circa one-third of its nominal projections. And the ensuing chaos has dampened investments in the sector. As a result, the country is facing severe economic problems, and reforms are required (Pollack, 2016). Likewise, Syria faces enormous troubles. The Syrian pound is rapidly devaluating, and over 83 percent of the population now lives below the poverty line.

The Syrian government therefore is heavily reliant on providing subsidies to manage rising costs of consumption, yet its financial reserves are nearly depleted. As such, budget deficits are expected to increase (Lund, 2016).

These developments indicate that enduring financial assistance may be required in order for these countries to invest in increasing their counterterrorism capabilities, while simultaneously preventing further economic deterioration that allow insurgent organizations to fester. Of course, whether these governments are supported, in lieu of other stakeholders, is dependent on geopolitical considerations not explicitly addressed in this paper.

*Revenues generated through agricultural activities*

According to the United Nations Food and Agriculture Organisation, seizing and maintaining control of Ninewa, Saladin and Anbar provinces in Iraq has the consequence that ISIS maintains control of 40% of the annual wheat production and 53.3% of the annual barley production in that country (FATF, 2015). In Syria, the organization has control or is contesting the provinces of Raqqa, Al Hasakah, Deir ez-Zor, and Aleppo, which contain 74% of Syria's wheat crop. Furthermore, a large number of flour mills are situated in the north of Aleppo, and are controlled by ISIS or other competing organizations (Humud et al., 2015).

Thereby, it has positioned itself along various points in the value chain. Hereby it seizes the machinery of farmers in order to lease these back to the original owners, but also levies taxes on the use of fields, irrigation, and seizes parts of the eventual harvests. The tight control of wheat and barley also allows ISIS to strategically deny Christian and Yezidi minorities in its territory (FATF, 2015; Center for the Analysis of Terrorism, 2016; Humud et al., 2015). In order

to mask the origin of crops sold by ISIS, the organization mixes these with harvests from other locations before proceeding with the sale (FATF, 2015).

In 2014, it is estimated that agricultural activities contributed $200m to the treasury of ISIS, and that this has declined to $140m in the following year. From this $140m, an estimated $20m was seized through extortion along the value chain (Pollard et al., 2015; Center for the Analysis of Terrorism, 2016). In order to sustain these yields, the organization is is reliant on acquiring sufficient fertilizer and seeds, and on favorable weather conditions (Center for the Analysis of Terrorism, 2016). Traditionally, before the outbreak of these conflicts, inputs such as pesticides, fertilizer and seeds were distributed to farmers by the Iraqi and Syrian governments (Humud et al., 2015).

We have observed how bargains have been brokered between ISIS and the governmental parties with regards to electricity under the pretenses of interdependencies. Given that ISIS has a dominant position with respect to food production, yet lacks specialized inputs such as fertilizer, seeds, and pesticides, we can imagine that similar arrangements have been made or are at least considered. Shortages of food will cause discontent to rise within governmental-held areas, which will give ISIS and other factions an opportunity to increase their influence. Otherwise, to counter this, these governments are reliant on foreign aid and importing additional food to cover deficits.

*Looting, and the excavation of cultural artifacts*

ISIS partakes in looting and confiscations as it acquires new territory. Looting committed by ISIS is not purely done for monetary value. Through vanquishing, or forcing enemies to flee, ISIS has been able to acquire advanced weapon systems from the Iraqi security forces and the

Syrian army. As such, it has managed to acquire handheld (anti-tank and anti-aircraft) weaponry, armored vehicles, and even tanks from these forces. As such, looting has enabled ISIS to gain materiel that is usually reserved for standing armies of nation states. However, maintenance and operation of these tools requires significant resources (Fromson & Simon, 2015). The ability of ISIS to acquire new material while controlling costs is of great importance to the organization. Weapons and equipment which are purchased have extra expenses tied them, as these need to bought through the use of covert networks and transported to the area of operations (Vittori, 2008). For example, the black market for weapons in Jordan could be used to this end (Mazzetti & Younes, 2016). These costs can add-up, given that documents have shown that in one sector, weapons-related expenses and equipment could amount up to 40 percent of the budget (al-'Ubaydi et al., 2014). As such, embattled ground forces should minimize the amount of equipment that they leave behind, perhaps even taking measures to destroy or disable in order to prevent use by ISIS.

Otherwise, ISIS acquires homes and goods of those who have fled, or from non-Sunni religious minorities under its control. These goods are sold locally, whereby members of the organization receive a preferential price. On the other hand, confiscated houses are given to fighters in order to appease them (Center for the Analysis of Terrorism, 2016; Johnston et al., 2016). On a larger scale, ISIS also loots bank-branches and other financial institutions in Iraq and Syria in order to gain cash. The organization uses private banks as a mechanism to tax customers as they make withdrawals, whereas state-owned banks are picked apart to fund other operations (FATF, 2015). Consequently, these banks are isolated by countermeasures in order to prevent wire transfers made to these branches, and to prevent the sale of hard currencies (Humud

et al., 2015). At one point in time, ISIS had between 20-35 banks in its territory in Syria, and circa 90-115 were in located in its Iraqi territory (FATF, 2015; Humud et al., 2015; Center for the Analysis of Terrorism, 2016). In a wide reported case, ISIS allegedly made off with over $400m from the Mosul central bank and in total over a $1-1.2bn when taken other banks into consideration as well. Yet, these accounts may have been grossly overstated (Crane, 2015; Pollard et al., 2015; FATF, 2015; Bouzis, 2015).

The excavation of archeological sites, the looting of museums, and subsequent trafficking of these antiquities may yield a high theoretical value, in reality it is unlikely to materialize in a source of substantial value. This has led to a wide array of estimation conducted by analysts. While some analysts have proclaimed that this may become the second largest source of revenue (Humud et al., 2015), or that ISIS can manage to earn up to $100m on an annual basis (Crane, 2015). Others have stated that these activities may lead to a mere $30m on an annual basis (Center for the Analysis of Terrorism, 2016).

According to documents recovered in a U.S. raid on senior-ranking ISIS leader Fathi ben Awn ben Jildi Murad al-Tunisi, also known by the nom de guerre ‘Abu Sayyaf’, the organization performs several activities in this realm. Separate subdivisions in its antiquities division are responsible for the research of known sites, exploration of new sites, and the marketing of antiquities. Hereby, ISIS grants licenses to individuals and organizations that allows them to commence excavation. Furthermore, the organization maintains a tax of twenty percent on the proceeds made by the excavation teams (Keller, 2015). These teams make only a fraction of the eventual market price as the item goes along the value chain (Humud et al., 2015). Thereby, while looting of artifacts has become systematic from 2013 onwards, international authorities

have taken countermeasures in response to these activities (Abdulaziz Hallaj, 2015). This has the implication that items have to be stored in a neighboring country, such as Jordan and Turkey, for a considerable time; even up to years, in order to reduce attention of international authorities (Center for the Analysis of Terrorism, 2016).

The "laundering" of antiquities requires a substantial network with connections between the illicit and legal world. As such, intermediary transactions have to be obscured in order to hide the origins of these antiquities. Furthermore, this requires an elaborate network of brokers, whereby the majority of the value is gained upon the end of the value chain (Tijhuis, 2006).

Thus, even if ISIS has managed to erect an entirely integrated value chain that allows illicit antiquities to be "laundered" and sold on the legal market, it will take a considerable time to acquire funding. Therefore, we can assume that ISIS wants to keep its part in the value chain as short as possible, and rely on intermediaries in order to quickly and consistently gain funding. As such, an assessment regarding that ISIS made a mere $30m in 2015, or 1% of its total financing, seems to be more likely.

Looting is only a sustainable form of funding if an organization can manage to continuously expand its territory. Given that ISIS currently faces territorial setbacks it seems unlikely that the organization can rely on looting to cover any deficits that may arise.

*Revenues generated through kidnapping and ransoming, and human trafficking*

Kidnapping has become a widespread activity for ISIS. Ever since its existence, ISIS has kidnapped hundreds of individuals. It has especially targeted ethnic and religious minorities within its reach, businessmen, politicians, religious dignitaries, and foreigners. Either, these

kidnappings are done for financial reasons, as ransoms can be demanded, or to serve as a message through an eventual killing (FATF, 2015).

What's interesting to note is that ISIS aims to make use of its high-profile brand, as it purchases foreign hostages held by other organizations (Center for the Analysis of Terrorism, 2016; FATF, 2015). These hostages are reputedly purchased as the organization assumes that it can demand and extract a higher price due to its fearsome reputation (Abdulaziz Hallaj, 2015).

In response to curb the use of foreign kidnapping as a funding mechanism for ISIS, several United Nations Security Council Resolutions (UNSCRs) have been adopted that prohibits providing funds to ISIS. As such, facilitating the payment of ransoms through either direct, or indirect means through intermediaries is sanctioned (FATF, 2015). Conversely these resolutions do not have a provision which contains a punishment mechanism when member states make payments in spite of these ageements (Schindler, 2015).

While the governments of the United States and the United Kingdom maintain a strict policy of "no negotiations with terrorists", rather seeking to free these hostages through the use of raids conducted by special forces commandos (Schindler, 2015). However, organizations within these countries, and other countries may not maintain such a stance. Given that there are legal and/or political ramifications, these parties have to work through proxies, such as the under the guise of development aid, in order to mask the origins of ransom payments (Humud et al., 2015). Furthermore, these payments are often made in cash, which makes it difficult for financial intelligence services to identify these transactions (FATF, 2015). These difficulties are highlighted with the allegations made towards the government of France, which, supposedly has paid $18m for the release of four journalists (Humud et al., 2015).

Kidnapping is also closely related to the human trafficking that ISIS undertakes. A Kurdish ethnic minority, the Yezidis, has been a widely targeted group. The amount of women belonging to this community that have been kidnapped ranges between 2,500-4,000. Hereby, those who are kidnapped may be released in certain cases, in exchange for payments amounting up to $3,000-$4,000 (Lister, 2014; FATF, 2015; Center for the Analysis of Terrorism, 2016). Otherwise, women of this minority were bought and sold through the slave auctions held within the organization. Whereby these women are treated and priced as commodities, with prices going as low as $10, or at least $40-$160 (Lister, 2014; Center for the Analysis of Terrorism, 2016; Speckhard & Yayla, 2015). This suggests that the use of human trafficking is perpetuated as a means to serve the needs of the fighters employed by ISIS, rather than a fundraising mechanism (Lister, 2014; FATF, 2015).

Given these factors, there is great uncertainty concerning the actual magnitude of these activities. As such estimates for the amount of funding received through ransom payments in 2014, range between $20m (Bouzis, 2015), $35-$40m (Karmon, 2015), and $120m (Pollard et al., 2015; Center for the Analysis of Terrorism, 2016). Similar, in the following year, the total amount of ransom fees may have amounted up to $100m, or circa 4% (Center for the Analysis of Terrorism, 2016).

We can expect that this income will decline in some from 2016 onwards, as Westerners are avoiding the area, or as NGOs exhibit more caution with the deployment of their personnel (Fromson & Simon, 2015; Center for the Analysis, 2016). However, in order to compensate for this, the organization may rely on mass-kidnapping of ethno-sectarian minorities within its reach for ransoming, or for use as labor.

While in the grand scheme of funding for ISIS, kidnapping and ransoming is not a major source of income for the organization. However, we must exhibit caution that other organizations will not attempt to utilize these tactics a mechanism to gain funding if governments and other organizations signal their commitment to pay for the release of hostages. For instance, ´al-Qaeda in the Arabian Peninsula' (AQAP), which operates in Yemen, is almost entirely reliant on kidnapping and ransoming to fund its operations (Schindler, 2015).

As such, by conducting payments, terrorist organizations gain an incentive to commit themselves towards the kidnapping and ransoming of foreigners. This problem is exacerbated upon if the lack of an effective punishment mechanism will not be solved. Lastly, we can deem that payments have the implication that organization's, such as ISIS, actually are recognized as a legitimate actor. Rather than paying for ransoms, governments should be willing to expand upon the capabilities of their commando forces to free these hostages if possible. Thus, by signalling that a terrorist organization will incur additional costs through a successful intervention by specialized military forces, rather than acquiring financial benefits, should at least dampen the (financial) incentive of terrorist organizations to commit these acts.

*Generate funding through donations*

Jihadist terror organizations, including 'al-Qaeda' and ISIS, have called upon on the duty of sympathizers through the waging of a "financial Jihad", or a "Jihad by proxy" (*Tajheez Al-Ghazi*) by donating funds in support of the cause (The Camstoll Group, 2016; Ranstorp, 2016). In this regard, these donations can widely vary in scale and origin. For instance, wealthy donors, particularly located within the Gulf States, may donate several millions to further the cause of ISIS. For instance, on September 24, 2014, an official of ISIS received a $2m donation

originating from that region. However, the United States Department of the Treasury got wind of this transaction, and placed the individual on a blacklist (FATF, 2015). Such actions are an example of a broader strategy maintained by the United States, as it seeks to increase cooperation with the governments of Kuwait, Qatar, Saudi Arabia, and the United Arab Emirate to prevent wealthy individuals from making donations (Humud et al., 2015).

However, while assets may be frozen or stripped of terrorist financiers and fundraisers, this does not necessarily withhold the, from continuing their efforts through social media. As such, there have been a number of cases whereby individuals have continued to utilize their influence and reach on platforms, such as Twitter and Facebook, after being targeted by counterterrorism efforts (The Camstoll Group, 2016). Yet, the sophisticated use of social media is not purely meant for spreading influence, it may rather also be used as crowdfunding mechanism. by these terrorist organizations. These efforts even took the form of a macabre form of crowdfunding. Hereby, persons could donate along various tiers, ranging from the purchase of a single weapon and ammunition, to complete packages whereby volunteers could be compensated for their travel, training, and equipment. Upon making such a contribution, donors often received visual feedback on how their donations were utilized (FATF, 2015).

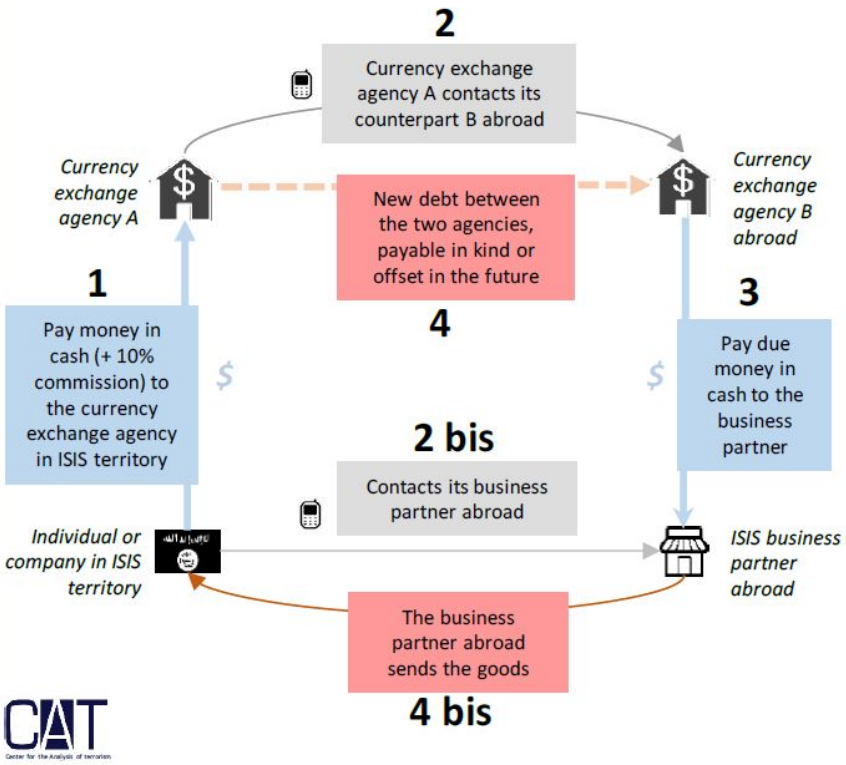
Next to its sympathizers, ISIS also makes use of donations from actual volunteers through “foreign fighter fundraising”. Hereby, foreign fighters raise funds to contribute to ISIS when they arrive, or to simply cover their own expenses that they will incur through travel. For example, they may engage in various illegal activities, such as petty theft and organized crime, to (social security) fraud, and withdrawing cash from financial institutions through overdrafting bank accounts and taking out loans (FATF, 2015; Humud et al., 2015; Ranstorp, 2016).

In all, these funds need to be laundered and introduced into the economy of ISIS, through which the organization is reliant on several intermediaries. First off, the organization makes use of the 'hawala system' in order to transfer funds to, and within its territory. The hawala brokers, or *hawaladars*, operate a system through which funds are not transferred physically, but rather through the backing of an honor system (Figure 7). The system works according to the following. A customer approaches a hawaladar, and relinquishes a certain amount of funds, that are to be transferred to another party. The broker accepts these funds, and informs another broker near the recipient about the amounts to be transferred after a certain password is presented or other instructions are followed. Meanwhile, the customer informs the recipient with said password or instructions, and where to find the respective broker. After this broker has been presented the password, and received an additional commission, the recipient receives the agreed upon funds. Through process, this creates a network of financial institutions which make the tracking of transactions difficult. However, this system is not unique to ISIS, and is widely entrenched through the Middle East, South Asia, Africa, and even in some communities within Europe (Bouzis, 2015; Center for the Analysis of Terrorism, 2016; Ranstorp, 2016).

Otherwise, the organization relies on a network of couriers that physically transfer cash, to ISIS, but also from the organization to trusted networks in Turkey that procure weapons and equipment on the black market (FATF, 2015; Ranstorp, 2016). Similarly, funds are transferred through remittance and currency exchange providers close to the border, and then collected by volunteers and facilitators who transfer these funds by crossing the border into ISIS-held territory. These transactions are split-up in small chunks in order to avoid detection either by these providers, or by financial intelligence services (Ranstorp, 2016). Finally, sympathizers may

resort to elaborate front organizations, such as charities, that will raise and move funds, and in some cases even transport goods, to ISIS (FATF, 2015; The Camstoll Group, 2016; Speckhard & Yayla, 2015).

Figure 7. A showcase of the hawala system's role in acquiring goods for ISIS.




(Retrieved from The Center for the Analysis of Terrorism, 2016).

In all, ISIS is not dependent on external donations to fund its operations. In fact it actively seeks to mitigate such dependencies. When the 'Islamic State of Iraq' faced financial difficulties during 2007 and 2008, one of the organization's strategists actively campaigned against seeking funding from foreign state sponsors. Furthermore, the strategist also saw a lack of self-sufficiency as a result of poor financial management (Shatz & Johnson, 2015). Over 2014 and 2015, the organization managed to consistently garner $50m from donations in various

forms, or circa 2% of total funding (Pollard et al., 2015; Center for the Analysis of Terrorism, 2016).

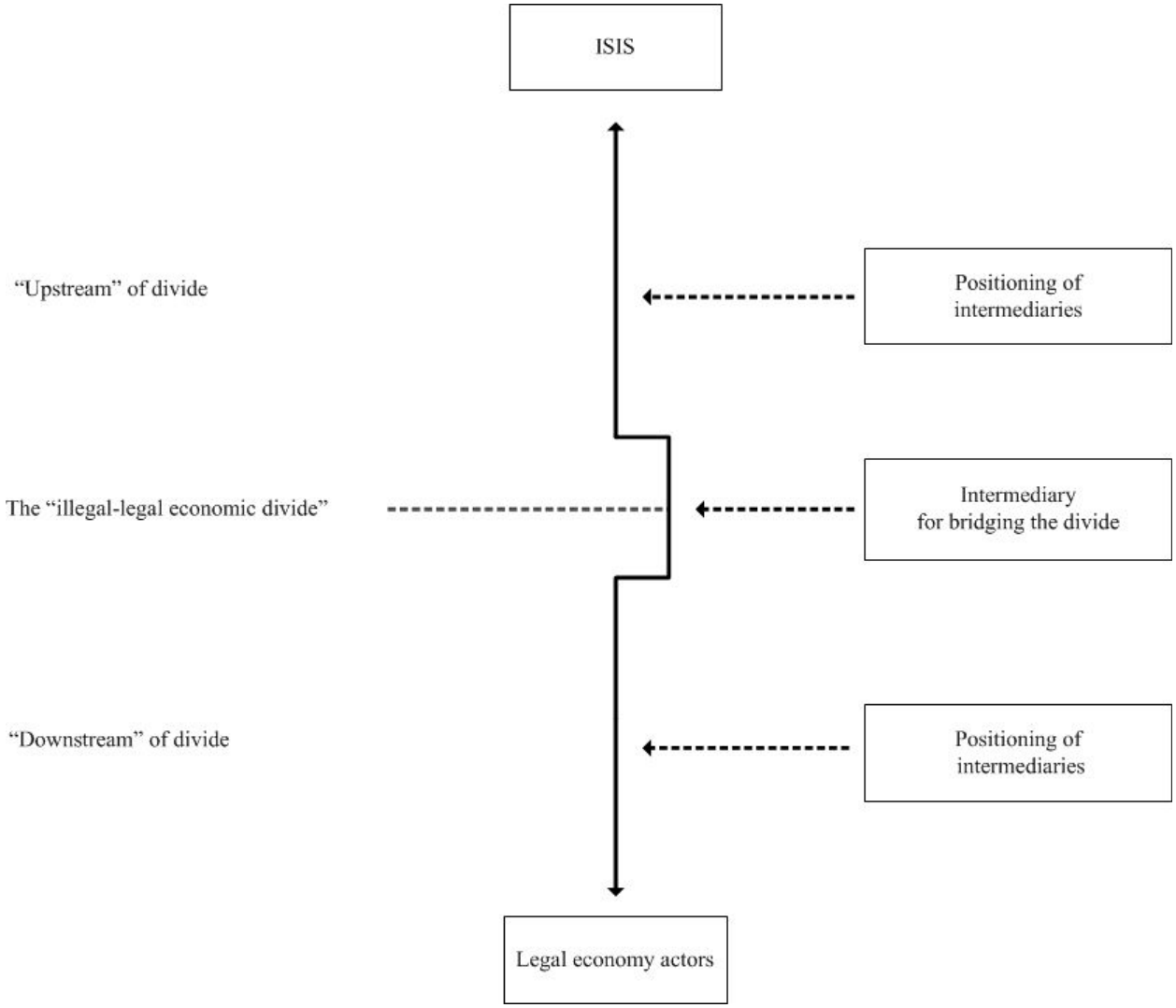
As in other forms of financing we have discussed beforehand, ISIS is reliant on intermediaries to bridge the gap between funds generated in the legal economy, and having it introduced within its own economy. The same principle applies vice versa. Hereby, the organization makes use of these intermediaries in order to reduce its risk of exposure to counterterrorism efforts, a pattern we have discerned previously. Overall, given the philosophy of the predecessor of ISIS, we can consider it to be unlikely that ISIS will actively seek further financial aid from powerful foreign donors. Rather, it will aim to find new sources of funding which can be exploited.

*Noticeable patterns in the funding of ISIS*

Given the preceding observations on how ISIS generates funding, we can notice a number of patterns which allow us to posit a number of aspects. At first, we notice that ISIS maintains a diversified portfolio of revenue-generating activities either to maintain independency of the will of external parties, or reducing its reliance on an activity to bolster resilience towards counterterrorism activities. As such, diversification is also required in order to enlarge scale of operations, as this will increase the magnitude of funding. Second, the value chain of terrorist funding requires the ability to interface between the illegal and legal economy, and vice versa. As such, terrorist organizations may require intermediaries in order to acquire this ability. We can dub this process as bridging the "illegal-legal economic divide" (Figure 8). Third, use of these intermediaries may reduce the exposure to risks imposed by counterterrorism activities, as the burden of risk is shifted for the remainder of the value chain. Fourth, the involvement of the

organization vis-à-vis the risks that the organization faces will determine the degree of involvement within the value chain. As such, given that ISIS faces a high degree of attention, it will seek to limit its involvement within the value chain. Therefore, ISIS will seek to further diversify its resources, extort other parties, grant licenses to other parties to perform activities, or simply leverage a tax upon the activities performed by others, in order to quickly and consistently generate funding at the expense of decreased magnitude.

Figure 8. Conceptualizing the value chain of ISIS.



As such, we should draw our conclusion with caution. Although the total magnitude of funding of ISIS has been degraded, the organization still can generate a sizeable amount. This provides us with an indication that the organization will be able to protract its demise. As the organization currently faces pressure from multiple factions, this may allow the organization to explore strategic opportunities in other unstable countries in the Middle East and North Africa (MENA). Furthermore, this raises questions if ISIS may want to transform its affiliate network into a more integrated relationship. By funneling funds and expertise to these affiliates, it may feign defeat in Iraq and Syria, yet continue its desire of being a state in other territories.

## Discussion and Conclusion

The predecessor of ISIS, the 'Islamic State of Iraq' (ISI) was on the brink of destruction, yet managed to reemerge as ISIS. The organization and its affiliate has made a number of high profile attacks, and motivated and inspired numerous attacks by others. This highlighted the need to closely examine ISIS on multiple levels.

For instance, numerous attempts have been made by other organizations in the past 25 years to declare an Islamic state. Yet, these organizations have predominantly been unsuccessful in maintaining their state. This is in sharp contrast to ISIS, which has used its declaration as a strategic move in order to differentiate the organization from its competitors, with in particular 'al-Qaeda'. The two terrorist organizations differ primarily in the sequencing of their strategy to create an Islamic state, the profile that they maintain, and their willingness to display pragmatism. Furthermore, ISIS makes use of its declaration, and its ideological fundamentals, in

order to signal its commitment in achieving its goal. For now, ISIS has successfully outbid 'al-Qaeda' in becoming the global leader of Jihad.

The bureaucratic structure of ISIS can be traced back to its predecessor, the 'Islamic State of Iraq'. Throughout its lifetime, the organization has maintained a multidivisional structure, which allow for significant autonomy within each division. However, this autonomy, in combination with information asymmetry and the covert nature of terrorist organizations, have given rise to enduring agency and collective action problems within the organization. While it currently operates in a relatively more permissive environment, which have allowed it to erect elaborate monitoring systems and restructure communication channels, these problems seem to persist at ISIS.

The structure of terrorist organization seems to be dependable on the amount of resources that they can acquire, whereby acquiring resources is dependent on the physical and political environment. As such, these organizations may exert influence in order to shape an environment which is more favorable to operate in. The 'Islamic State of Iraq' and ISIS have expertly made use of sectarian tensions ensuing from a perceived intentional neglect by governments. The organization exacerbates these tensions by inciting tit-for-tat sectarian violence between the Sunni and Shia communities, and due to this violence a government is often unable to provide services to the population that it controls. This allows ISIS to present itself as a viable alternative by restoring service provision, albeit forcing civilians to live under its harsh rules.

These actions has allowed ISIS to gain an unprecedented amount of funding through a diversified portfolio driven mainly by extortion and oil and natural gas extraction. This diversification allows ISIS to maintain independency, and reduces reliance to bolster resilience

towards counterterrorism efforts. Furthermore, diversification allows the organization to order to enlarge scale of operations, due to an increased magnitude of funding. However, generating funding requires the ability to interface between the illegal and legal economy, and vice versa. As such, terrorist organizations may require intermediaries in order to acquire this ability. The use of these intermediaries may reduce the exposure to risks imposed by counterterrorism activities, as the burden of risk is shifted for the remainder of the value chain. This posits that given the attention by counterterrorism forces, ISIS will minimize involvement in the value chain, and rather favor consistency and speed of over the potential magnitude of funding. Therefore, it will seek to further diversify its resources, extort other parties, grant

licenses to other parties to perform activities, or simply leverage a tax upon the activities performed by others, in order to quickly generate funding. This shift allows the organization to protract its decline, and explore other strategic opportunities in the meantime.

Limitations of this research may be caused on two levels; either on a personal level due to the author's understanding, or due to the covert nature of terrorist organizations. Therefore, information used in this research may not always be fully reliable or in some cases even invalidated. Information trickles down through various outlets, and thus may be subjected to bias, disinformation practices and propaganda maintained by ISIS, or false reporting due to the chaotic nature of these conflicts. However, the fact that ISIS, and its predecessor; ISI, make use of a highly bureaucratic structure, allows research to be performed based on obtained documents. This paper has made use of various sources that have done so, yet this also contains various caveats. First, the validity of these documents must be vouched for, which is not always fully possible. Thereby, these documents contain a localized "snapshot" of the situation at the

organization, and thus may not reflect practices maintained by the whole organization. This is backed by the notion that local units have a high degree of autonomy, which can cause deviations to occur. We must be aware of such limitations when answering the main research question.

Given all considerations in this paper, we propose that ISIS will not be able to persist in the long-term in its current form. This is unless ISIS can materialize its affiliate network into something more substantive, through the exporting of funds and expertise, manpower in order to gain a significant foothold in other destabilized countries in the MENA region. This conclusion is conditional on the assumption that the measures undertaken towards the organization are enduring. This is of importance, as the organization maintains a bureaucratic system, and a diversified pool of resources, which allows it sustain itself under a weakened containment policy.

However, the danger does not necessarily lie in its current form, but rather that its legacy may persist. The fact that ISIS has been able to persevere to this point may allow the ideals of building of a state to continue as an intangible concept. As the organization has to make do with dwindling resources, it will seek to further offset this decrease by increasingly relying on the extortion of its civilian population. This may allow ISIS to create a narrative that shifts blame to those who are combating the organization. Furthermore, the created narrative can also be used by the organization to inspire independent actors to execute attacks without explicit coordination by ISIS in countries outside of Syria and Iraq.

Thereby, there are numerous stakeholders willing to seize the gap left by ISIS, and given that these stakeholders are often divided along sectarian lines, there exists a real danger that the replacing parties will retaliate towards the Sunni communities left behind. As long as ISIS is

perceived to be able to provide a modicum of an improvement in comparison to other alternatives, life under the harsh rule of ISIS may be preferred. As such, communities may rally under the banner of ISIS, which will allow the organization to preserve some momentum. In this regard, the organization may eventually revert to an insurgency once again, just as it did during its existence as the 'Islamic State of Iraq' and continue its fight.

The legacy of ISIS may also give rise to a far greater danger, as we must be aware of the myopia that the organization may be an "enemy of convenience". For now, we presume that ISIS and 'al-Qaeda' will not reconcile, as the organizations differ too greatly from each other in their ideology. Moreover, we have observed that the high-profile nature of ISIS is in stark contrast towards the low-profile posture maintained by 'al-Qaeda'. As such, 'al-Qaeda', and other terrorist organizations, may exploit counterterrorism efforts towards ISIS to acquire resources and expand upon capabilities. For instance, 'al-Qaeda' through its 'al-Nusra Front' maintains a more pragmatic approach than ISIS, as it does not necessarily rejecting cooperation with other rebel factions. Thus, 'al-Qaeda' and others may simply wait until ISIS is contained, or unable to outbid others to maintain a dominant position, before making their attempts to reacquire leadership of (global) Jihadism. This has implications for the affiliate network that is maintained by ISIS. If ISIS diminishes, this network may successfully be co-opted again by a new party to expand upon appeal and reach.

We provide a number of policy recommendations that may be used in auxiliary with current countermeasures. For one, the rigid and bureaucratic structure of ISIS suggests that the organization is resilient to so-called "leadership decapitation" strikes; a doctrine whereby the aim is to destroy a terrorist organization through the elimination of its senior leadership. We can posit

that this policy may be effective when terrorist organizations rely on tacit knowledge of its leadership, rather than on procedures established through a bureaucracy. Furthermore, given the prominent position of Abu Bakr al-Baghdadi as the caliph of the organization, his death may render him as a martyr, and can be used as a recruitment drive. In addition, when we take the outbidding hypothesis into account, a successor may strongly be urged to signal to competitors that the organization maintains relevancy and dominance despite this loss. As such, we can expect this to occur through an increased amount of (high-profile) retaliatory strikes.

Rather, military strategies should be developed that will exploit agency and collective action problems within ISIS. We have noticed that the predecessor of ISIS, the 'Islamic State of Iraq', suffered from these problems due to information asymmetries. As such, the targeting of mid-level commanders and administrators may have a better effect. While indeed, there is a lower barrier to entry to a mid-level position, the policy may afflict attrition to the level of human capital within the organization. This may eventually lead that those who are less capable obtain these management responsibilities. As we have observed at ISI, the organization eventually was unable to fill the required positions for management duties. Furthermore, we can assume that these mid-level managers are less able to maintain operational security in comparison to the senior leadership, given that they actively have to manage on a day-to-day basis. This approach should be augmented with a focus on targeting courier networks within the organization. Again, we have observed that a disruption in these communications networks creates uncertainty in the execution of the strategy set by senior leadership. In this regard, leadership may have to substitute to another method of communication which is less secure and can be exploited by the intelligence community to gather information. To this end, the ensuing

uncertainties may lead to inefficiencies as middle-level managers assume a risk averse posture to encapsulate their own position.

These efforts should be bolstered through the legitimization of alternative forms of good governance, through which the hegemony of ISIS to act as a provider will be undermined. We have noticed that the Sunni communities may deem Shia-dominated governance to be illegitimate, and vice versa. As such, these concerns need to be reconciled in some form. Instinctively, this would imply a federalized structure based on ethno-sectarian group divisions. However, this "Balkanization" of Iraq and Syria may not be feasible, nor wanted due to geopolitical considerations. As such, the precise implementation of this alternative governance is up for debate.

Future research can aid us in providing an answer to this suggestion. Other considerations for research may be an in-depth case study on the 'al-Nusra Front' in comparison to ISIS, as this will determine whether policy in degrading ISIS will have a similar effect. The research on ISIS can be expanded upon as soon as as new documents are recovered through capture by counterterrorism forces, or as defectors relinquish documents. Until then, research on ISIS can focus by taking a comparative study on the human capital and motivations of those joining ISI and ISIS to improve anti-radicalization policies. The following papers can provide a starting point on this subject (Bahney et al., 2013; Bahney et al., 2010; Jung et al., 2014; Barrett, 2014b; Benmelech & Klor, 2016; Coolsaet, 2016; Gassebner & Luechinger, 2011; Mironova et al., 2014; Dodwell et al., 2016; Berman et al., 2011).

Additionally, the author at first wanted to explore the social dynamics between local fighters & personnel, and foreigners at ISI and ISIS. Apparently, foreigners are more heavily

radicalized than local fighters, as not having local ties lowers inhibitions to apply extreme violence, and these foreign fighters have preferential treatment over locals. Furthermore, personnel is divided into communities based on linguistic barriers. These factors need to be researched in order to determine whether ISIS will factionalize along these lines, and if so, whether this can be used in counterterrorism efforts. The ensuing recommendations can possibly be used to develop strategies which have a similar aim as the 'Anbar awakening'. This research can be partially based on (Speckhard & Yayla, 2015; Saltman & Smith, 2016; Rich & Conduit, 2015; Coolsaet, 2016; Jung et al., 2014; Mironova et al., 2014; Aubrey et al., 2016; The Soufan Group, 2015; Hegghammer, 2013; Jordahl, 2007; Bakke, 2014).

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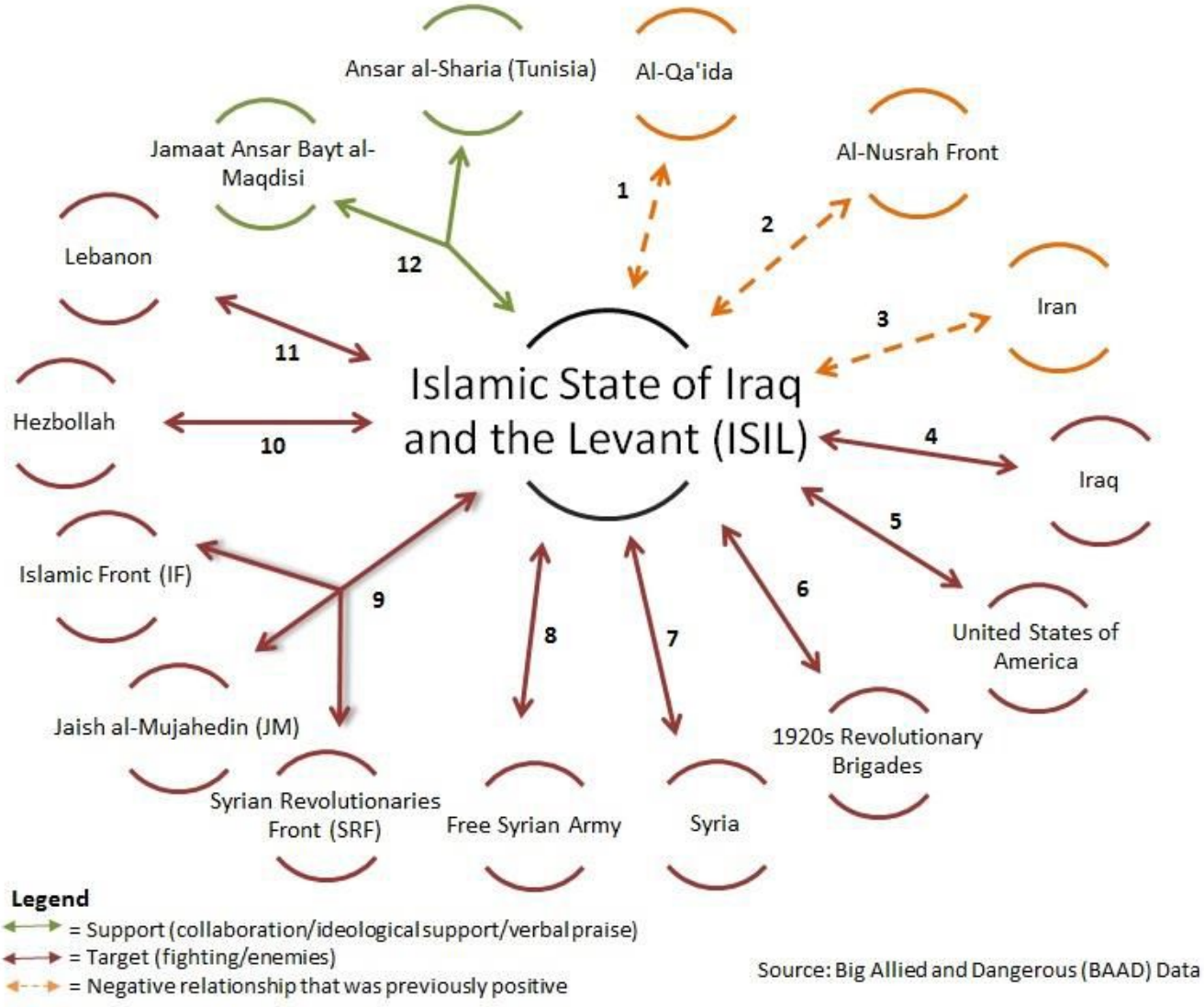
## Appendix

Appendix 1. The Evolution of the Islamic State of Iraq and the Levant (ISIL): Relationships 2004-2014.




(Retrieved from Simonelli, 2014).

Appendix 2. Overview of Jihadi Proto-states (Real and attempted), 1989-2015.

| Name | Country / district / town, village | Time frame | Territorial control | Civilian institutions | Foreign fighters |
|---|---|---|---|---|---|
| Jama'at al Da'wa (Jamil al-Rahman) - The Islamic Emirate of Kunar | Afghanistan / Kunar Province | 1989-1991 | Limited | No? | Yes |
| Al-Gama'a Al-Islamiya – "The Islamic Republic of Imbaba" | Egypt / Cairo / Imbaba | a 1989-1992 (late 1992) | Limited to local neighbourhoods in Imbaba | Yes | No |
| Groupe Islamique Armée | Algeria / Mitidja, parts of Greater Algiers, the cities of Lakhdaria, Medea, etc | c.1993-1995 | Yes, not complete | Yes | Very few |
| Taliban – The Islamic Emirate of Afghanistan | (Most of) Afghanistan between 1996 and 2001. | c.1994 - | Yes, 90 % of Afghanistan by 2000. Significant pockets of territorial control since 2002. | Yes | Yes, very high number (esp. from Pakistan) |
| Jund al-Islam / Ansar al-Islam | Northern Iraq / Villages in the Howraman region (Biyara, Tawila, etc) | September 2001 – March 2003 | Yes | Yes | Yes, small number |

(Retrieved from Lia, 2015)

Continuation of Appendix 2.

| Name | Country / district / town, village | Time frame | Territorial control | Civilian institutions | Foreign fighters |
|---|---|---|---|---|---|
| Jama‘at al-Tawhid wa’lJihad / AQI / Islamic State of Iraq (ISI) | Iraq / parts of the Sunni Triangle (Fallujah, Ramadi, etc) | 2004-2008 | Not permanent | Yes | Yes, high number |
| Al-Qaida, Islamic Movement of Uzbekistan, Tehrik-eTaliban | Pockets in FATA, NWFP, Waziristan | c.2006 ? – | Not permanent | No | Yes, high number |
| Al-Qaida, Islamic Movement of Uzbekistan, Tehrik-eTaliban | Pockets in FATA, NWFP, Waziristan | c.2006 ? – | Not permanent | No | Yes, high number |
| Al-Shabaab/ “The Islamic Emirate of Somalia” | Most of southern and central Somalia | 2009- | Yes | Yes | Yes, high number, (esp. Somali diaspora) |
| Caucasus Emirate | Northern Caucasus | October 2007 | Not permanent | Yes | Yes, small number |
| Fatah al-Islam | Lebanon / Nahr ElBared refugee camp | May-June 2007 | No, limited control of the refugee camp | Uncertain | Yes |
| Jund Ansar Allah | Rafah, Gaza Strip | August 2009 | No, only the Ibn Taymiya Mosque in Rafah | No | No (?) |

(Retrieved from Lia, 2015).

Continuation of Appendix 2.

| Name | Country / district / town, village | Time frame | Territorial control | Civilian institutions | Foreign fighters |
|---|---|---|---|---|---|
| AQAP – Ansar alShari‘ah | Southern Yemen / Abyan Province (Zinjibar, Ja ‘ar, Shuqrah, etc) | 2011-2012 | Yes | Yes | Yes, small (?) number |
| AQIM – Ansar alDine, MUJAO (The Islamic Emirate of Azawad | Northern Mali / Timbuktu, Kidal, Gao, etc | March 2012-2013 | Yes | Yes | Yes, small (?) number |
| Jabhat al-Nusra | Syria, areas mostly in North-Western (Idlib) and South-Western Syria | 2012 – | Yes | Yes | Yes, but far fewer than ISIS/IS |
| Islamic State of Iraq and Sham / The Islamic State | Large parts of northern Syria and western Iraq | 2013 – | Yes | Yes | Yes, unprecedented (20,000?) |
| Majlis Shura Shabab al-Islam (MSSI) – Ansar al-Shari‘ah Libya – Islamic State’s Provinces of Barqah, Tripoli, and Fezzan | Libya / Derna, Benghazi, Sirte, etc | 2014 – | Yes, (not permanent | Yes | Yes |
| Bayt Ansar al-Maqdis– Islamic State’s Sinai Province | Egypt / Sinai | 2011 – | No | Uncertain | Yes, small number |

(Retrieved from Lia, 2015)

Continuation of Appendix 2.

| Name | Country / district / town, village | Time frame | Territorial control | Civilian institutions | Foreign fighters |
|---|---|---|---|---|---|
| Boko Haram | (Large territories in) Northern Nigeria / towns and villages in Adamawa, Borno, etc | 2014 – | Yes | Yes | Yes, but mostly from Niger, Cameroon, Chad, etc |
| AQAP – Ansar alShari‘ah | South-Eastern Yemen / Mukallah | 2015 – | Yes | Yes | Yes |

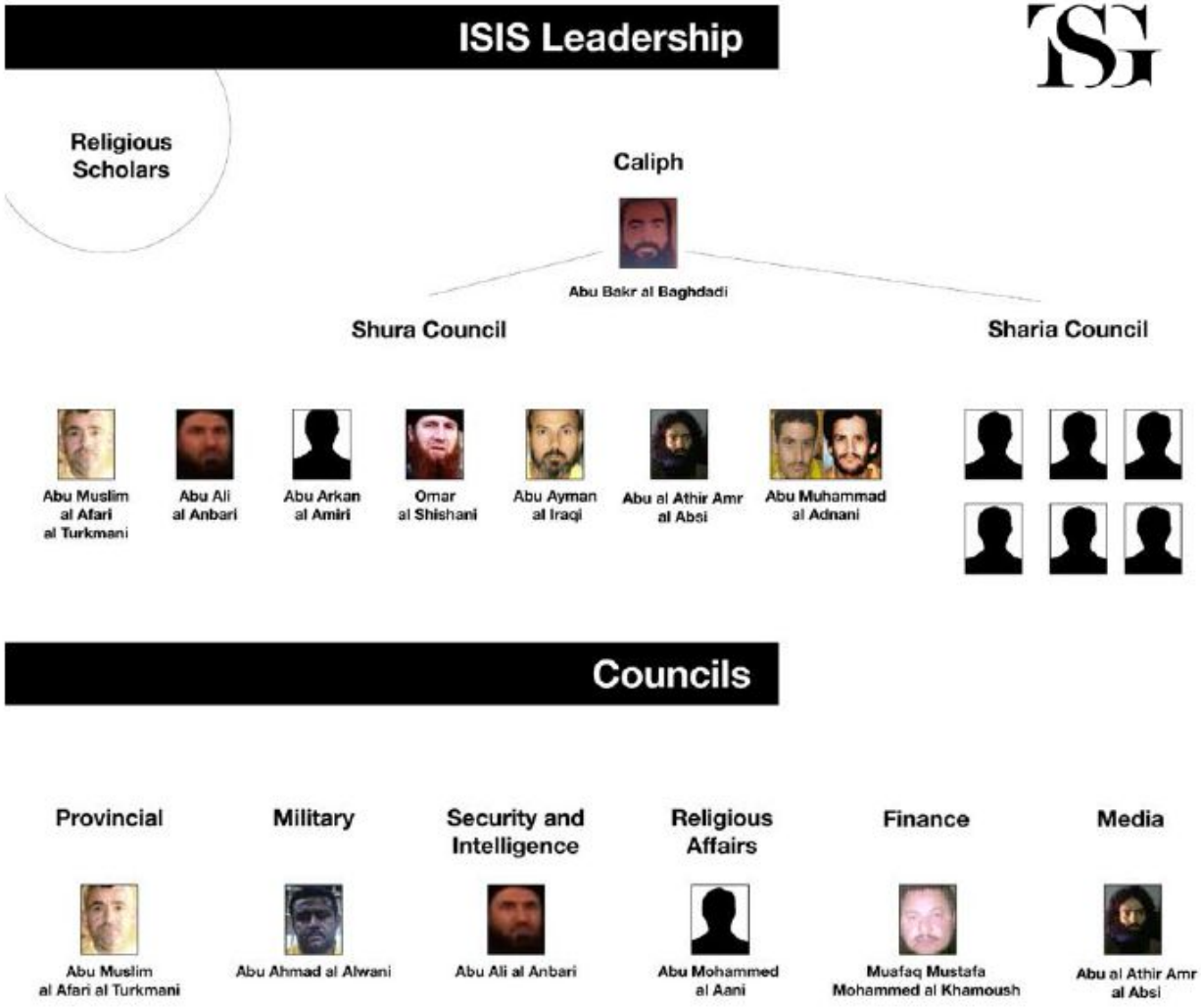
(Retrieved from Lia, 2015)

Appendix 3. Official ISIS provinces and locations of pledges made outside of Syria and Iraq.

| Province (Wilayat)/Group made pledge | Date of announcement |
|---|---|
| Wilayat al-Jazair (Algeria) | November 13, 2014 |
| Wilayat Sinai (Sinai Peninsula) | November 13, 2014 |
| Wilayat al-Barqa (Eastern Libya) | November 13, 2014 |
| Wilayat al-Tarabulus (Northwestern Libya) | November 13, 2014 |
| Wilayat al-Fezzan (Southern Libya) | November 13, 2014 |
| Wilayat al-Haramayn (Saudi Arabia) | November 13, 2014 |
| Wilayat al-Yaman (Yemen) | November 13, 2014 |
| Wilayat Khorasan (Afghanistan and Pakistan) | January 26, 2015 |
| Wilayat Gharb Afriqiyah (West Africa) | March 12, 2015 |
| Wilayat Qawqaz (Caucasus) | June 21, 2015 |
| Ansar al-Khilafah (Philippines) | August 12, 2014 |
| Jund al-Khilafah (Tunisia) | December 8, 2014, reaffirmed on March 29, 2015 |
| Islamic Movement of Uzbekistan (Afghanistan and Pakistan) | August 6, 2015 |
| Boko Haram (Chad, Niger and northern Cameroon) | Pledge made on March 7, 2015, and accepted by ISIS on March 12, 2015 |

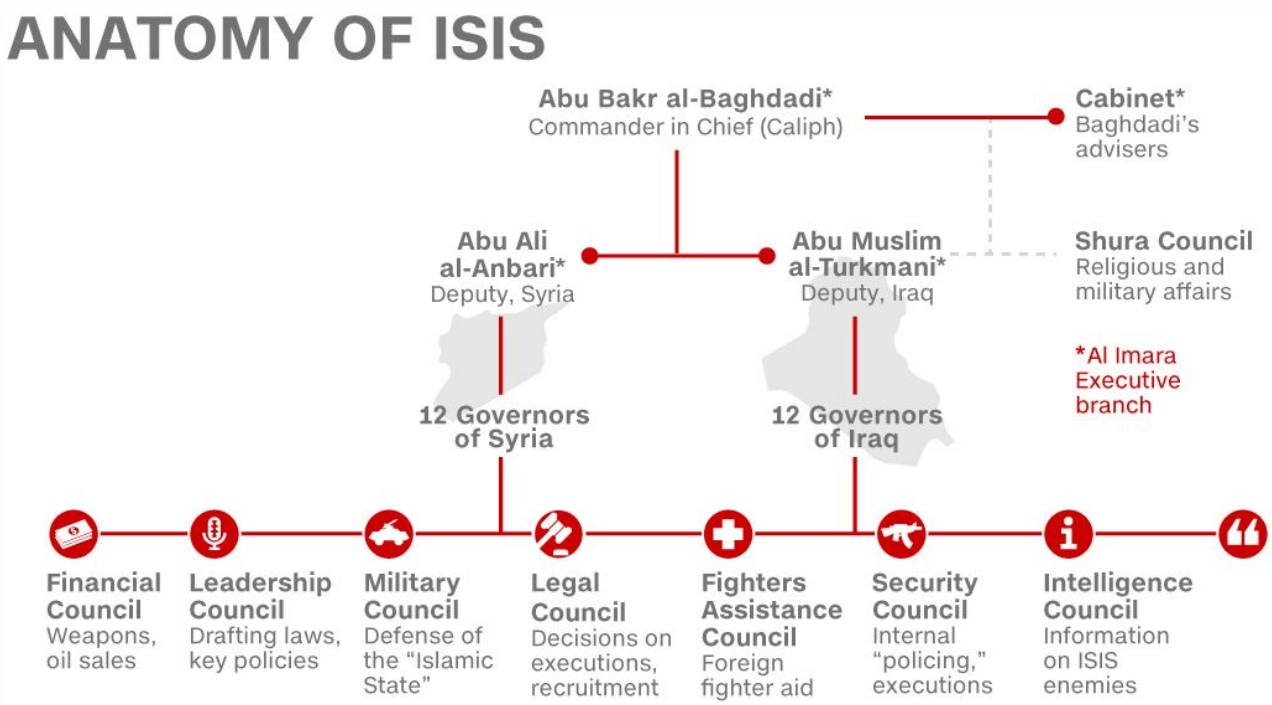
(Combined from Gartenstein-Ross et al., 2015; Karmon, 2015)

Appendix 4. Senior leadership structure at ISIS.



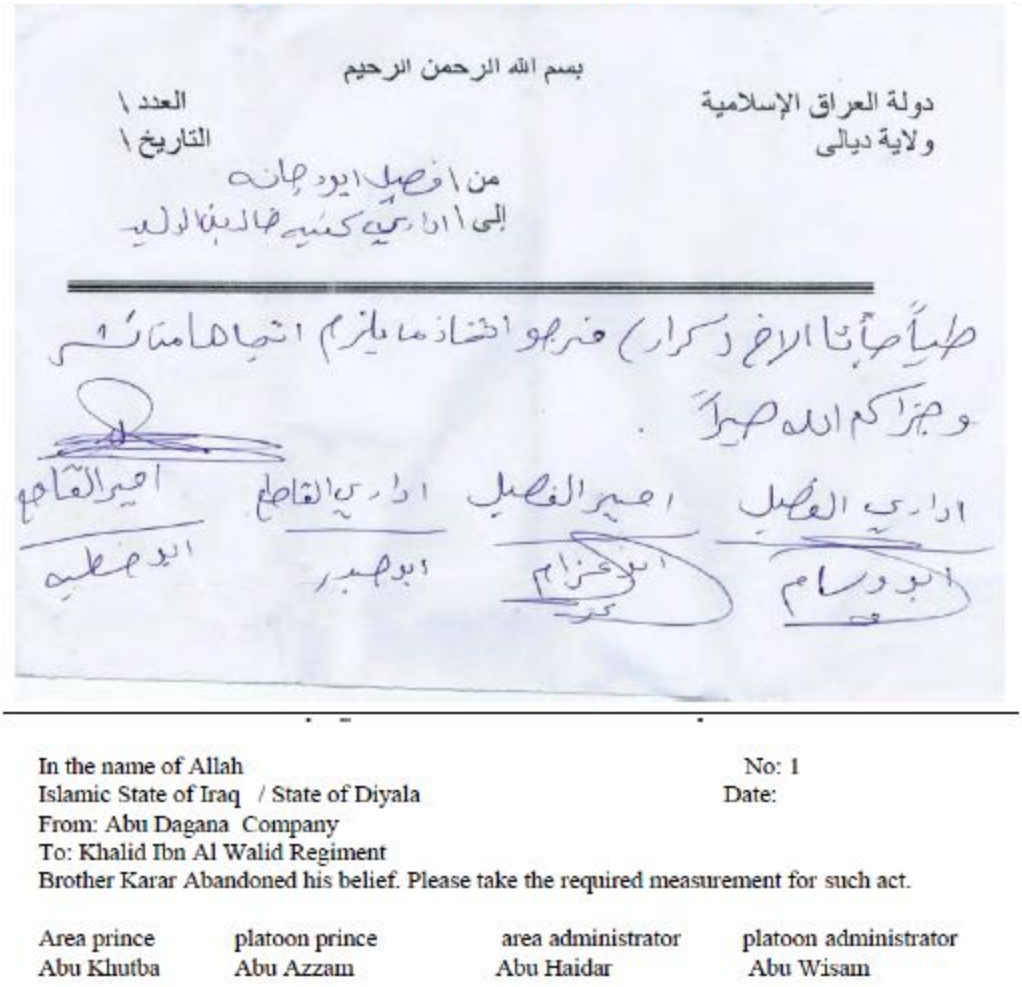

(Retrieved from Barrett, 2014a).

Appendix 5. The basic governance structure of ISIS.




(Note that the editors of this figure have not added a description of the media council. Retrieved from Thompson & Shubert, 2015)

Appendix 6. Illustrating the use of a courier system.



بسم الله الرحمن الرحيم

دولة العراق الإسلامية
ولاية ديالى

العدد \
التاريخ \

من \ فصيل ابو دجانه
إلى \ اداري كتيبه خالد بن الوليد

طيباً صرنا الاخ (كرار) فرجو اتخاذ ما يلزم اتجاهه امنياً
وجزاكم الله خيراً

امير القاطع — اداري القاطع — امير الفصيل — اداري الفصيل
ابو حيدر — ابو عزام — ابو وسام

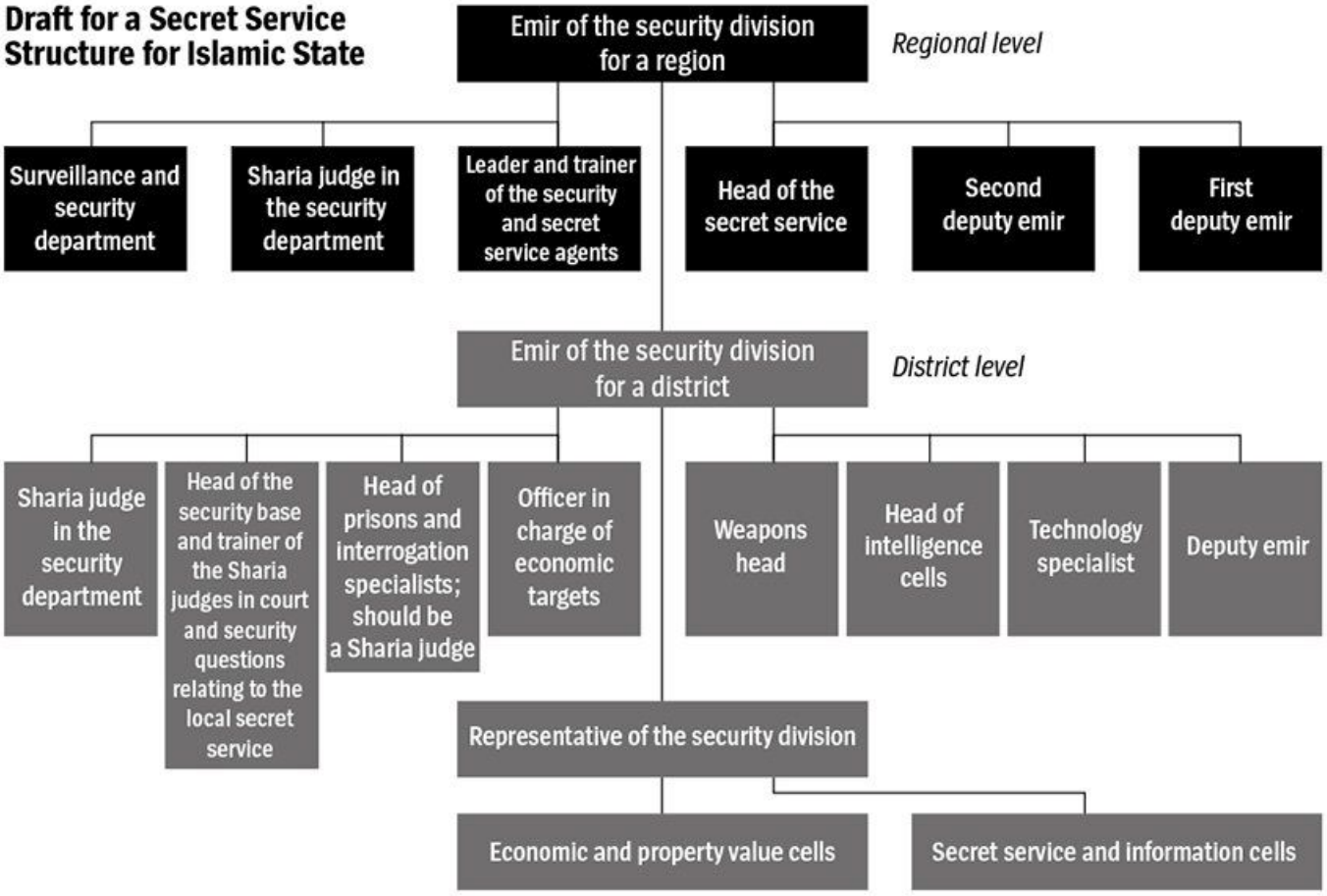
In the name of Allah
Islamic State of Iraq / State of Diyala
From: Abu Dagana Company
To: Khalid Ibn Al Walid Regiment
Brother Karar Abandoned his belief. Please take the required measurement for such act.

No: 1
Date:

| Area prince | platoon prince | area administrator | platoon administrator |
|---|---|---|---|
| Abu Khutba | Abu Azzam | Abu Haidar | Abu Wisam |

(Retrieved from Jung et al., 2014).

Appendix 7. An organogram of the intelligence network within ISIS.




(Retrieved from Reuter, 2015)

Appendix 8. Table indicating insufficient human capital to fill leadership and administrative positions at ISI.

**ISI's Filled Sector Leadership and Administrative Positions, as of 2008**

| Type | Number Filled | Share Filled (%) |
|---|---|---|
| Sector emir | 18 | 60 |
| Sharia emir | 11 | 37 |
| Military emir | 17 | 56 |
| Media emir | 0 | 0 |
| All | 46 | 38 |

(Retrieved from Johnston et al., 2016)

Appendix 9. A selection of typologies based on environment and resources.

| Typology | Structure | Environment | Access to resources | Capabilities |
|---|---|---|---|---|
| Lone wolf | Individuals or small groups bonded by grievances or particular ideology. | High operational security through independent structure allows operations to be based virtually anywhere. | Low-Medium. Self-resourcing, through illegal and legal activities. Utilizing over-the-counter assets and easy to acquire weapons. | Generally low. Capabilities lead to being constrained in near-immediate region. |
| State proxies | Independent, but serve purpose of nation states as instruments in (foreign) policy. | Sheltered by willing nation states. | Potentially high. Government provides funding and/or assets. | Low-High. Support depends on intended role; local conflicts to transnational reach. |
| Transnational franchised organization | Parent organization funds/acquires subsidiaries to fulfill tasks in new theater of operations. | Parent organizations exploits countries with poor financial controls.<br><br>Location of franchisees depends on parent organization strategy and exploitation of environment. | Parent: High. Legitimate fronts, and exploiting financial systems provide substantial funding.<br><br>Franchisees: Mixture. Self-resourcing through illicit activities and capital from parent organization. | Medium-High. Significant resources required to internationalize. Reach dependent on resources available and environments to be exploited.<br><br>Capabilities determined by culmination of franchisees and parent organization. |
| Shell states | Organization acquires monopoly of violence and gains control of civilian population. | Exploits ungoverned or chaotic environments to create safe havens. | High. Controlled civilian population can be extorted or coopted into providing resources and support. Existing infrastructure can be utilized. | Medium-High. Large reach ultimately dependent on resources available to be exploited in safe haven. |

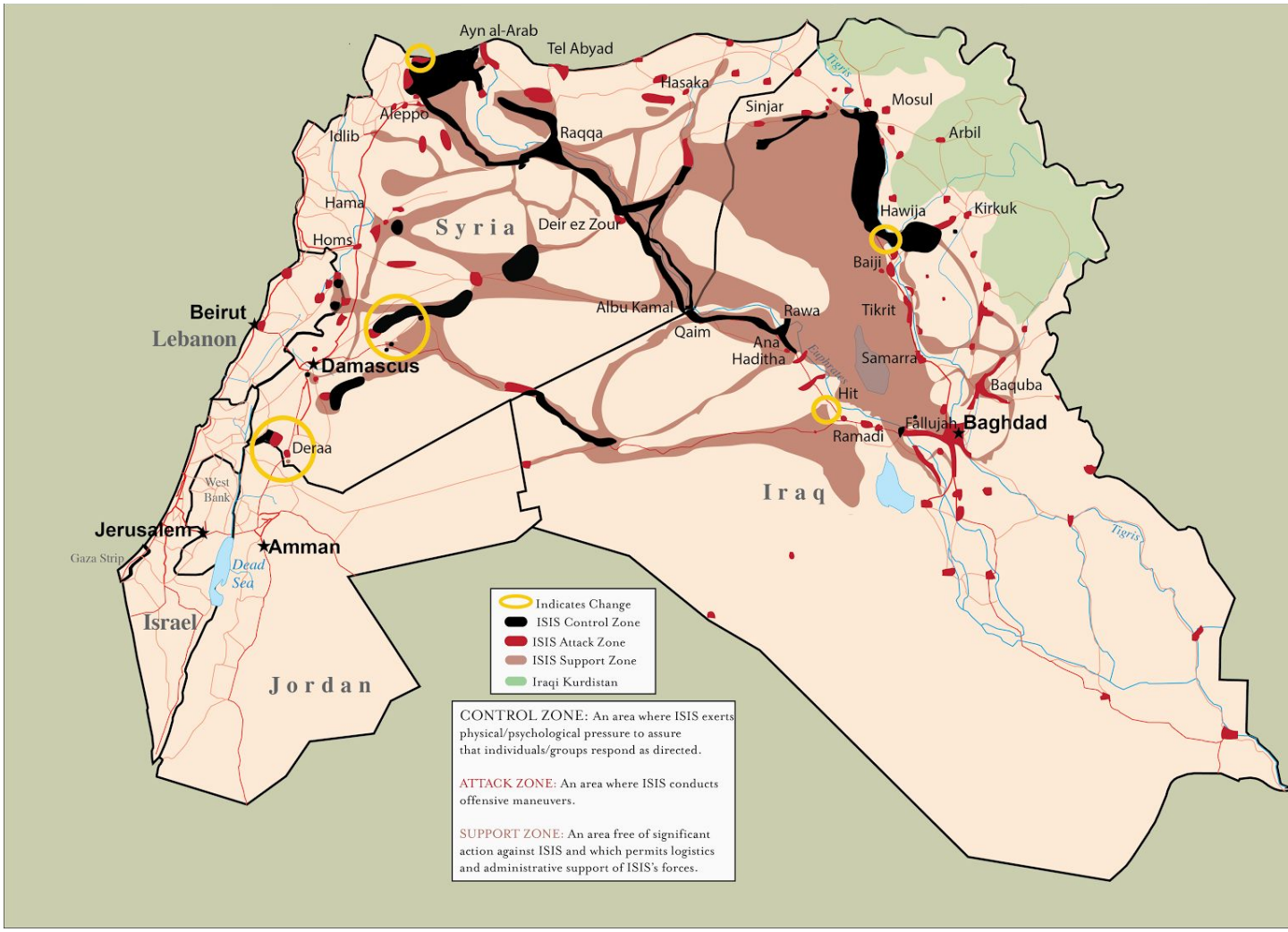
(Based on Vittori, 2008)

Appendix 10. Characteristics of Local ISI operating environments, 2005-2010.

| Location | Geographic and Demographic Conditions | Legitimacy and Capacity of Iraqi Government and ISF | ISI Capability and Popular Support | Economic Situation and ISI Financing |
|---|---|---|---|---|
| Anbar | • Predominately Sunni Arab (approximately 90 percent)<br>• Robust tribal structure, history of "resistance"<br>• Euphrates River Valley serves as foreign-fighter hub | • Weak provincial government<br>• National government illegitimate<br>• Shia Iraqi Army not legitimate; Iraqi Police intimidated | • Original ISI base<br>• ISI consolidates control, despite tribal opposition (2004–2005)<br>• SOI severely degrades ISI (2006–2007) | • Historical smuggling economy<br>• AQI finance operations severely weakened post-SOI |
| Diyala | • Mixed population (60 percent Sunni, 20 percent Shia, 20 percent Kurd)<br>• Ethnosectarian tensions<br>• Complex terrain facilitates safe haven | • Minority Shia control; ineffective provincial government<br>• Sectarian ISF exacerbate tension | • Diverse mix of militant actors<br>• ISI consolidates control (2006–2007)<br>• Rise of SOI undercuts ISI | • Major agricultural center<br>• ISI has limited financing capacity in region |
| Salah al-Din | • Mostly Sunni (approximately 70 percent), some Shia (approximately 15 percent)<br>• Legitimate tribal system<br>• Transit hub for both coalition forces and ISI | • Limited provincial governance capacity<br>• Most ISF underresourced and intimidated | • Significant popular support for Sunni resistance<br>• ISI maintains strong influence until SOI forms (late 2007) | • Primarily agricultural economy<br>• ISI fails to collect significant revenue from Salah al-Din, operates at a loss |
| Ninewa | • Arab-Kurd fault line (60 percent Sunni Arab, 30 percent Kurd)<br>• Heavy population of former regime leaders<br>• Strategic hub for smuggling fighters, weapons, money | • Minority Kurds control provincial government<br>• Kurdish and Shia ISF seen as illegitimate<br>• Sunni Arab Iraqi Police heavily intimidated | • ISI maintains significant support throughout<br>• ISI enjoys de facto control (2007–2008)<br>• Coalition forces heavily target ISI (late 2008) | • Major national trade hub<br>• Primary financing center for ISI, especially by early 2007<br>• Extensive racketeering and protection scams |

(Retrieved from Johnson et al., 2016)

Appendix 11. ISIS Sanctuary Map: April 22, 2016.



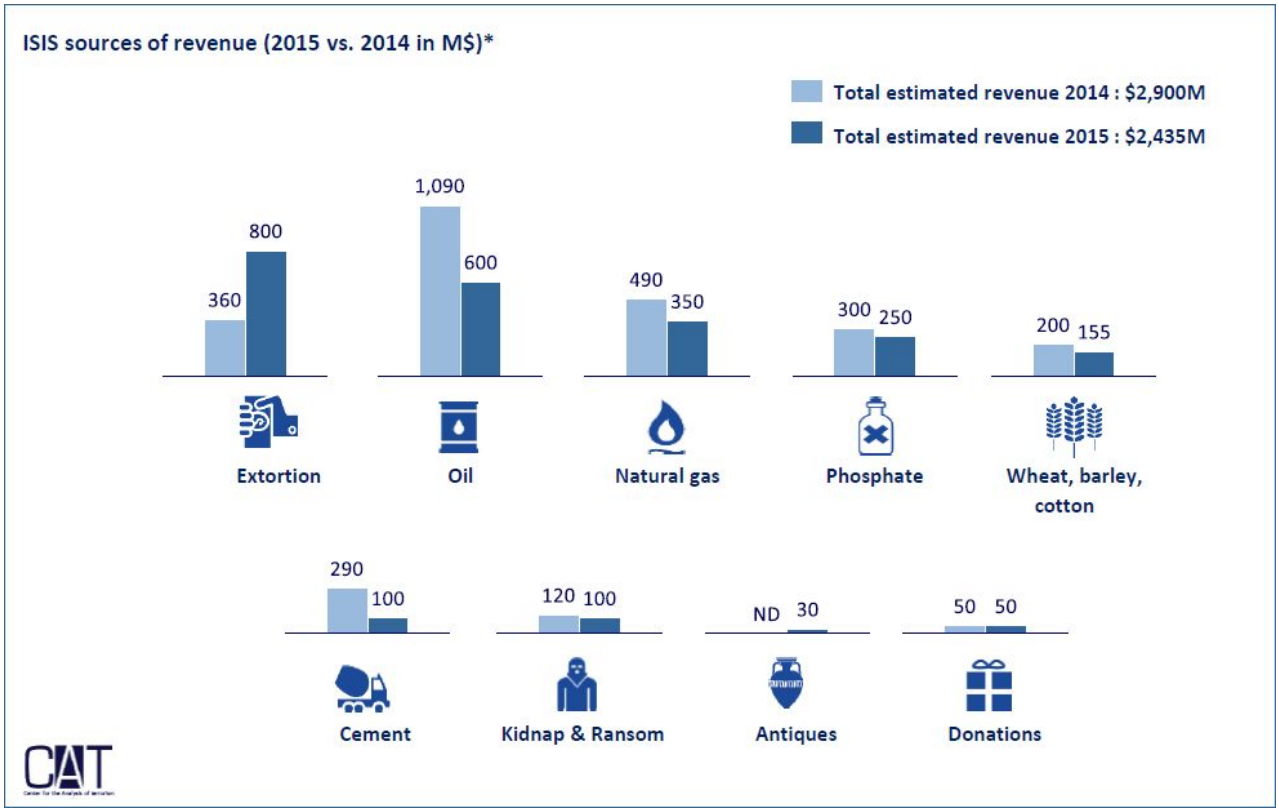

(Retrieved from Gambhir, 2016)

Appendix 12. Oil production (barrels per day) in fields of Syria under control of ISIS in the summer of 2015.

| Province | Field | Production (b/d) |
|---|---|---|
| Deir ez Zor | Omar | 15,000 |
| | Tank | 7000 |
| | Jafra | 3000 |
| | Al Kharrata | 1000 |
| | Derro | 500 |
| | Ward, Ahmer, Akash, and Ratka | 7000 |
| | Atallah | 500 |
| | Tayyani, Maleh, Sijan, and Azraq | 12,000 |
| | Thayyem | 700 |
| | Other fields | 1000 |
| Hasaka | Margada | 3000 |
| | Al Jubaissah | 3500 |
| | Gouna | 1000 |
| | Tishreen | 2000 |
| Raqq | Wahab, Habbari, Deilla, and Fadeh | 2000 |
| Homs | Jazal–Heil | 2500 |
| | | 61,700 |

(Retrieved from Almohamad & Dittmann, 2016)

Appendix 13. Summarization of revenue streams of ISIS in 2014-2015.




(Retrieved from Center for the Analysis of Terrorism, 2016).